



भारतीय रेल सम्मेलन

INDIAN RAILWAY CONFERENCE ASSOCIATION

लाल टैरिफ संख्या 20

(रेलवे के लाल टैरिफ नियम 1960 को समाविष्ट करते हुए)

RED TARIFF No.20

(Incorporating Railway Red Tariff Rules, 1960)

1989 का रेल अधिनियम (1989 का 24) की धारा 67 और 87 के द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए केन्द्र सरकार द्वारा दिनांक 15 जुलाई 2000 को अधिसूचना संख्या 2000/टी.सी./307/3, सा. का. नि. 266 दिनांक 15 जुलाई 2000 (अनुवर्ती राजपत्रित अधिसूचनाओं के द्वारा संशोधन) के अंतर्गत मुद्रित द्वारा अधिसूचित विस्फोटकों तथा अन्य वस्तुओं को रेल द्वारा सवारी के लिए और 1989 का रेल अधिनियम 24 की धारा 30 एवं 31 के द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए केन्द्र सरकार द्वारा निर्धारित वस्तुओं और भार की शर्तों का वर्गीकरण

16 अगस्त 2000 से लागू

For conveyance by Rail of Explosives and other Dangerous Goods notified by the Central Government in Notification No.2000/TC-I/307/3 dated 15th July 2000 published under GSR No.266, dated 15th July 2000 (and its amendment through subsequent gazette notifications) in exercise of powers conferred by Section 67 and 87 of the Railways Act, 24 of 1989 and also classification of goods and weight conditions prescribed by the Central Government in exercise of powers conferred by Section 30 and 31 of Indian Railways Act, 24 of 1989

In force from 16th August 2000

(इस पुस्तक में लाल टैरिफ संख्या 20 के जारी शुद्धि पत्र सं.1 से 4 तक सम्मिलित हैं)

(This book includes Correction Slips Nos.1 to 4 issued to Red Tariff No.20)

भारत की सरकारी रेलों पर स्थानीय बुकिंग में तथा सम्मेलन की सभी पार्टी रेलों पर सीधी बुकिंग में लागू।

Applicable in local booking over Indian Government Railways and in through booking over all Railways party to the Association

मूल्य/Price (ई-बुक/E-Book)

विषय सूची

CONTENTS

	पृष्ठ/ Pages
शुद्धि-पत्र के रजिस्टर Register of Correction Slip	(ii)
वस्तुओं की अनुक्रमिका Index to Commodities	(iv)
नियमों की अनुक्रमिका Index to Rules	(xviii)
प्राक्खण Preface	(xxvi)
रेल अधिनियम 1989 से उद्धरण Extract of Section 67, 164 & 165 of Railways Act 1989	(xxvii)
रेलवे लाल टैरिफ नियम, 2000 Railway Red Tariff Rules, 2000	(xxviii)
अध्याय I- विस्फोटक Chapter I- Explosives	(1)
अध्याय II- दबाव के अधीन संपीडित, द्रवित या विलयित गैसें Chapter II- Gases, Compressed, Liquefied or Dissolved under Pressure	(48)
अध्याय III- पेट्रोलियम तथा अन्य ज्वलनशील द्रव Chapter III- Petroleum and other Inflammable Liquids	(83)
अध्याय IV- ज्वलनशील ठोस Chapter IV- Inflammable Solids	(143)
अध्याय V- आक्सीकारक पदार्थ Chapter V- Oxidizing Substances	(169)
अध्याय VI- विषैले (टॉक्सिक) पदार्थ Chapter VI- Poisonous (Toxic) Substance	(187)
अध्याय VII- रेडियोएक्टिव सामग्री Chapter VII- Radioactive Materials	(221)
अध्याय VIII- तेजाब तथा अन्या संक्षारक Chapter VIII- Acids and other Corrosives	(277)
उपाबंद क-अग्रेशन नोट Annexure A- Forwarding Note, form for	(312)
उपाबंद ख-परिपत्रकों के पहुँचने की सूचना Annexure B- Notice of Arrival, form for	(314)

(ii)

शुद्धि-पत्रों का रजिस्टर

REGISTER OF CORRECTION SLIPS

[illegible]

(iii)

शुद्धि-पत्रों का रजिस्टर

REGISTER OF CORRECTION SLIPS

शुद्धि-पत्र संख्याE Correction slip No.	तारीख Date	नियम Rule	पृष्ठ Pages	प्रथमाक्षर Initials

Index to Commodities

Commodity	CHAPTE R	Page No.
Absolute alcohol	III	106
Acetic Anhydride	VIII	293
Acetic Ether (see Ethyl Acetate)	III	103
Aceto Arsenite of Copper	VI	200
Acetone	III	106
Acetyl Chloride	VIII	292
Acetylene (Compressed into porous substances)	II	70
Acid, Acetic (including Glacial acetic acid)	VIII	292
Acid, Carbolic (phenol- crystals or liquefied)	VI	199
Acid, Chlorosulphonic	VIII	293
Acid, Chromic`	VIII	294
Acid, Cresylic	VI	199
Acid, Formic	VIII	296
Acid, Hydrobromic	VIII	296
Acid, Hydrochloric (Muriatic acid or Spirit of Salts)	VIII	297
Acid, Hydrofluoric (Fluoric Acid)	VIII	298
Acid Nitric (Aquafortis)	VIII	298
Acid, Oxalic	VI	200
Acid Perchloric, dilute (Specific gravity not exceeding 1.12)	VIII	299
Acid, Phosphoric	VIII	300
Acid, Propoinic	VIII	300
Acid, Sludge	VIII	303
Acid, Sulfamic	VI	199
Acid, Sulphuric (Oil of vitriol)	VIII	300
Acid, Sulphuric, diluted, containing not less 60% by volume of water.	VIII	303
Acid, Sulphurous (Solution) ...	VIII	303
Aeromex oil	III	126
Agrosan G.N.	VI	211
Air compressed	II	70
Alpha Naphthyl Thiourea	VI	200
Aluminium/Magnesium Alloy Powder (Magnesium/Aluminium Alloy Powder.	IV	158
Aluminium Powder	IV	158
Ammonal	I	24
Ammonia (Anhydrous)	II	71
Ammonia Solutions	VI	201
(i) Specific gravity 0.880 to 0.891		201
(ii) Specific gravity 0.892 to 0.958		202
(iii) Specific gravity 0.959 and over		202
Ammonium Bi-fluoride, Solid	VIII	303
Ammonium Fluoride, Liquid	VIII	303
Ammonium Sulphocyanide	VIII	303
Amorces (Paper caps for toy pistols)	I	35

Amyl Acetate	III	121
Amyl Alcohol	III	103
Aniline Hydrochloride (See Aniline Salt)	VI	203
Aniline oil	VI	203
Aniline Salt (Aniline Hydrochloride)	VI	203
Anti-gas Fabric	IV	158
Antimony-124 (Sb 124)	VII	238
Antimony Fluoride Mordant (Antimony Salts)	VI	203
Antimony Salts (See Antimony Flouride Mordant)	VI	203
Aquafortis (see Acid Nitric)	VIII	298
Aretan	VI	210
Argon	II	70
Arsenic-76 (As 76)	VII	238
Arsenic Bisulphide	VI	203
Arsenic Disulphide	VI	203
Arsenic (Metal)	VI	203
Arsenic Monosulphide	VI	203
Arsenic Pentasulphide	VI	204
Arsenic Sulphide (Rubi)	VI	203
Arsenic Tersulphide	VI	204
Arsenic Trioxide	VI	204
Arsenic Trisulphide	VI	204
Aviation Spirit	III	102
Aviation Turbine Fuel	III	116
Axle lubricating Oil	III	117
Azadirachtin	III	117
Barium 133 (Ba 133)	VII	238
Barium 140 (Ba 140)	VII	238
Barium Carbonate	VI	204
Barium Chloride	VI	204
Barium Dioxide (see Barium Peroxide)	V	181
Barium Hydrate (Barium Hydroxide)	VI	204
Barium Hydroxide (Barium Hydrate)	VI	204
Barium Peroxide (Barium Binoxide, Barium Dioxide, Barium Superoxide)	V	181
Barium Superoxide (See Barium Peroxide)	V	181
Basic lead Sulphate	VI	211
Batching oil	III	126
Battery Charging Solution (Acid)	VIII	303
Battery Charging Solution (Alkali) (Potash and Lithia solution).	VIII	304
Bengal lights (see coloured Matches)	IV	165
Benzyne	III	102
Benzene Dihydrochloride	VI	204
Benzoline	III	102
Benzidine Dihydrochloride	VI	204
Benzoyl Peroxide	IV	158
Benzoyl Peroxide Paste	IV	158

Bi-Chloride of Mercury (see Perchloride of Mercury)	VI	216
Bi-Sulphate of Lime Solution (see Calcium Bi-Sulphide Solution).	VIII	305
Bituminous Solution (Paint)	III	119
Black Powder (see Gunpowder)	I	22
Blasting Powder (see Gunpowder)	I	22
Bleaching Powder (Chloride of Lime)	V	181
Boot Polishes having flashing point below 23° C and higher	III	106
Bromine	VIII	304
Butyl Acetate	III	121
Butyl Alcohol	III	106
Cadmium-115m (Cd 115m)	VII	238
Caesium-134 (Cs 134)	VII	238
Caesium-137m (Cs 137)	VII	238
Calcium-45 (Cs 45)	VII	238
Calcium Arsenate (Solid)	VI	205
Calcium Bi-Sulphate Solution (Bi-Sulphate of Lime Solution) Saturated with Sulphur dioxide gas	VIII	305
Calcium Cyanamide	IV	160
Calcium Hypochloride	V	182
Calcium Nitrate	V	181
Calcium Phosphide	IV	160
Calcium Silicide (Silicide of Calcium)	IV	161
Caoutchoucine and Pyridine	VI	205
Capsules Lachrymatory	VI	205
Carbide of Calcium	IV	159
Carbon 14 (C 14)	VII	238
Carbon Disulphide (see Carbon Bi-Sulphide)..	III	103
Carbon Black Feed Stock (CBSF 72)...	III	117
Carbon Black Feed Stock (CBSF 500)	III	117
Carbon Black	IV	161
Carbonic Acid Gas (see Carbon Dioxide)	II	72
Carbonic Dioxide (Carbonic Acid Gas)	II	72
Carbonic Disulphide (Carbon Bisulphide)	III	103
Cartridges for small arms other than Safety Cartridges-Class 6 Dn.2.	I	29
Cartridges for small arms which are not Safety Cartridges-Class 6 Dn.3	I	31
Caustic Potash Liquor	VIII	305
Caustic Soda Liquor	VIII	305
Cellulose unmanufactured (Nitro based apparently translucent) includes blocks, rods, sheets and tubes.	IV	163
Celluloid Ware, N. O. C. (Nitro based apparently translucent).	IV	163
Cellulose acetate Dope	III	112
Cements, compositions, paints, polishes and other articles partly composed of inflammable liquid, having flash point below 23° C.	III	113
Cements, compositions, paints, polishes and other articles partly compressed of inflammable liquid.	III	120
Cerium 141 (Ce 141)	VII	238
Charges and Refills for chemical fire extinguishers	VIII	305

Chinese Crackers	I	36
Chlorate Mixture	I	27
Chlorate of Barium	V	182
Chlorate of Potash	V	182
Chlorate of Soda	V	183
Chloride of Lime (see Bleaching Powder)	V	181
Chlorides of Sulphur (see Sulphur Chlorides)	VIII	310
Chlorine 36 (Cl. 36)	VII	239
Chlorine	II	71
Chloromethane (see Methyl Chloride)	II	73
Christmas or- Bon-bon Crackers	I	36
Chromium 51 (Cr 51)	VII	239
Cinematograph Films, Inflammable (Nitro Cellulose).	IV	162
Cleaning Oil	III	116
Cleaning and Washing Fluids, Acid	VIII	296
Cleaning and Washing Fluids, Alkaline	VIII	296
Cleaning and Washing Fluids, Flammable	III	121
Coal dust consisting of fine particles of less than 100 microns i.e.1/10 millimetre.	IV	162
Coal Gas	II	70
Cobalt 57 (Co 57)	VII	239
Cobalt 58 (Co 58)	VII	239
Cobalt 60 (Co 60)	VII	239
Cold Starters	IV	162
Collodion (Pyroxylin) Solution	III	103
Coloured Matches (Bengal Lights)	IV	165
Colza (Mineral Oil)	III	116
Commercial Butane (See Liquefied Petroleum Gas)	II	72
Commercial Propane (see Liquefied Petroleum Gas)	II	72
Composition for preventing incrustation in boilers Liquid (not containing Arsenic).	VIII	306
Concentrated Ethyl Liquid (Tetraethyl lead liquid).	VI	207
Copper 64 (Cu 64)	VII	239
Cordeau Bickford	I	28
Cordtex	I	28
Country Powder (see Gun Powder)	I	22
Crackers (Other than Chinese Crackers)	I	37
Crude Oil	III	102
Cyanide of Copper, Solid	VI	208
Cyanide of Copper and Zinc (brass salts) solid	VI	208
Cyanide of Lime or Cyanogas	VI	208
Cyanide of Potassium solid	VI	208
Cyanide of Sodium solid	VI	208
Cyanide of Zinc solid	VI	208
Cyanogas (see Cyanide of Lime)	VI	208
Cyclopropane Gas	II	72
Delay Detonators	I	34

Denatured Mowha Spirit (See Industrial Alcohol).	III	108
Denatured Spirit, ordinary (see Industrial Alcohol).	III	108
Denatured Spirit, Special (see Industrial Alcohol)	III	108
Deoxylyte	VIII	307
Detonating Fuze	I	29
Detonating Relays	I	34
Detonators	I	31
Diacetone Alcohol	III	107
Diazinon 20%	VI	211
Diazinon 40%	VI	211
Dibasic Lead Phthalate	VI	212
Dibasic Lead Phosphate	VI	212
Di-basic lead Stearate	VI	212
Diesel Oil	III	116
Diethylamine	III	103
Diethyl Ether (see Ether)	III	104
Diethyl Hexanol or 2 Ethyl Hexanol or Octanol	III	127
Diethyl Sulphate	VI	199
Dimethylaniline	VI	199
Di-Nitro-Chloro Benzene	VI	208
Di-Nitro-Phenol	I	24
Dinitro Toluene	VI	208
Distress Signal Rockets	I	37
Di-Vinyl Ether (see Vinyl Ether)	III	105
Electric Cells of all Types containing acid or Alkaline liquids or Jelly.	VIII	307
Electric Detonators	I	34
Electric Fuzes	I	27
Electric Lighters for Ignitor Cord	I	27
Enamels and enamel paints, as paints having flashing point below 65° C but not below 35° C Division-A.	III	120
Enamels and Enamel paints having flash point above 65° C but below 93° C.	III	127
Enamels Nitro-Cellulose	III	112
Esso Asphalt Solvent	III	125
Esso Cut Back 80/100	III	125
Esso Liquid Asphalt No. 2	III	125
Esso Primer	III	125
Esso RC3	III	125
Ether (Ether Sulphuric, Diethyl Ether, Ether Anaesthetic).	III	104
Ether Anaesthetic (see Ether)	III	104
Ether, Butyric (Ethyl Butyric).	III	103
Ether formic (Ethyl formate)	III	103
Ether, Sulphuric (see Ether)	III	104
Etheoxy Ethyl Mercury Chloride	VI	209
Ethyl Acetate (Acetic Ether)	III	103
Ethyl Aviation Spirit	III	102
Ethyl Butyrate (see Ether Butyric)	III	103

Ethyl Chloride	II	72
Ethylene	II	72
Ethyl formate (see Ether, formic)	III	103
Ethyl Mercury Chloride	VI	209
Ethyl Mercury Phosphate	VI	209
Europium-152m (Eu 152m)	VII	239
Ferric Chloride, Solid (Perchloride of Iron, Solid)	VIII	297
Ferric Chloride, Solution (Perchloride of Iron Solution, Liquid).	VIII	297
Ferro Silicon	VI	209
(i) Less than 15%		
(ii) 15% to 30%		
(iii) 65% and over		
Ferro Silicon between 30% and 65%	VI	210
Ferro Silicon 80% and over in fine powder	VI	210
Flower pots or Fountains	I	37
Fluoric Acid (see Acid, Hydrobromic)	VIII	298
Folidol dust (1.2%)	VI	210
Folidol liquid	VI	210
French Polish	III	108
Freon Arcton or Genetron	II	72
Friction tubes	I	31
Fulminate	I	27
Furnace Oil	III	116
Furfural	III	119
Furfural dehyde	III	119
Fuse Oil	III	103
Fuze Ignitors	I	29
Fuze Heads	I	29
Gadolinium 153 (Gd 153)	VII	239
Gas Oil	III	116
Gelatine	I	23
Genetron	II	72
Glacial Acetic Acid (see Acid, Acetic)	VIII	292
Gold 198 (Au 198)	VII	239
Granodine	VIII	307
Granodraw	VIII	307
Guanidine Nitrate	V	184
Guncotton (So wetted with water as to be Absolutely un inflammable).	I	24
Gunpowder (Black Powder, Country Powder, Blasting Powder propellent)	I	22
Hafnium 181 (HF 181)	VII	239
Heavy Diesel Oil	III	116
Hexane	III	102
High Flash low Sulphur Oil (HFLS)	III	116
High Speed Diesel Oil	III	116
Holmian 166 (Ho166)	VII	239
Hydraulic Brake Fluid	III	120

Hydrozine Hydrate	VIII	308
Hydrocyanic Acid	II	72
Hydrogen	II	70
Hydrogen 3(H3)	VII	239
Hydrogen Peroxide Solution exceeding 40 volumes strength but not exceeding 132volumes (35% by weight).	V	184
Hydrosulphite of Soda (see Sodium Hydro Sulphite).	IV	168
Ignitor Cord Connectors	I	27
Indium 113m (In113m)	VII	239
Industrial Alcohol, Denatured Mowha Spirit, Denatured Spirit, Ordinary Denatured Spirit, Special Methylated Spirit)	III	108
Insecticides (fluid), flammable Class A	III	112
Insecticides (fluid), flammable Class B	III	122
Insecticides (other than Fluid) containing Organo- mercurial Salts.	VI	211
Iodine 125(I 125)	VII	239
Iodine 131 (I 131)	VII	239
Iomex	III	116
Iridium 192 (Ir192)	VII	239
Iron 55 (Fe 55)	VII	239
Iron 59 (Fe 59)	VII	239
Isoamyl Acetate	III	121
Isopropyl Alcohol	III	108
Isopropyl Nitrate	III	110
Jet Turbine Fuel	III	116
Jet Petroleum Fuel 4	III	102
Jet Petroleum Fuel 5	III	102
Kerosene or Paraffin Oil	III	118
Lacquers Nitro Cellulose	III	112
Lamp Black	IV	161
Lances	I	37
Lanthanum 140 (La 140)	VII	240
Lauroyl Peroxide	V	184
Lead 210 (Pb 210)	VII	240
Leaded Aviation Spirit	III	102
Lead Oxide	VI	211

Lead Stabilizer for Polyvinyl Chloride	VI	211
Lead Stearate	VI	212
Light Diesel Oil	III	116
Light Oil	III	102
Lighter Fluid	III	102
Linear Alkyl Benzene	III	118
Liquefied Petroleum Gas (Commercial Butane or Propane)	II	72
Liquid Air	II	73
Liquid Fuel	III	116
Liquid Helium	II	73
Liquid Nitrogen	II	73
Liquid Oxygen	II	73
Low Sulphur Heavy Stock	III	116
Lutetium 177 (Lu 177)	VII	240
Manganese 54 (Mn 54)	VII	240
Manganese 56 (Mn 56)	VII	240
Magnesium/Aluminium Alloy Powder (See Aluminium Magnesium Alloy Powder)	IV	158
Magnesium Powder	IV	158
Malathion Dusting Powder	VI	213
Malathion Dispensable Powder	VI	213
Malathion Emulsifiable Concentrate	VI	213
Marine Diesel Oil	III	116
Marrooms	I	38
Matches Non-Safety	IV	165
Matches safety	IV	163
Medical Mixtures (Oxygen & Carbondioxide Mixtures or Oxygen & Helium Mixtures)	II	73
M. E. K. Peroxide...	V	184
Mercury 197 (Hg 197)	VII	240
Mercury 203 (Hg 203)	VII	240
Metal Fuel (Solid Aldehydic Fuel in Solid form)	IV	163
Meta Stain S-Liquid	III	109
Methane	II	70
Methanol (Methyl Alcohol or Wood Alcohol)	III	111
Methyl Acetone (see Ethyl Methyl Ketone)	III	111
Methyl Alcohol (see Methanol)	III	111
Methyl Bromide	II	72
Methyl Chloride (Chloromethane)	II	73
Methyl Ester of Benzene Sulphonic Acid	VI	213
Methyl Ethyl Ketone (see Methyl Acetone)	III	111
Methylated Spirit (see Industrial Alcohol)	III	108
Mineral Turpentine	III	117
Mineral Turpentine Substitute	III	117
Miner's Portifires	I	37
Mixed Raw Naptha	III	102
Mono Chloro Benzene	III	120

Mono Nitro Toluene	VI	214
Motor Spirit	III	102
Muriatic Acid (see Acid Hydrochloric)	VIII	287
Muriate of Zinc Solid (see Zinc Chloride)	VIII	310
Muriate of Zinc, Solution Acid Neutral (See Zinc Chloride)	VIII	310
Naptha Mineral	III	115
Naptha Solvent Class 'B'	III	116
Neon	II	70
Neptunium 237 (Np 237)	VII	240
Nickel 63 (Ni 63)	VII	240
Nitrate of Ammonia	V	184
Nitrate of Barium	V	184
Nitrate of Iron	V	184
Nitrate of Lead	V	184
Nitrate of Mixtures	I	22
Nitrate of Potash (see Saltpetre refined)	V	185
Nitrate of Soda	V	185
Nitrate of Strontium	V	185
Nitro (see Saltpetre refined)	V	185
Nitro Benzene (see Nitro Benzol)	VI	213
Nitro Benzol (Nitro Benzene or Oil of Mirbane)	VI	213
Nitro cellulose Dope	III	112
Nitro Cotton containing not more than 12.3% Nitrogen and wetted with not less than 1/3 of its weight of Methylated Spirit/Butanol (Butyl Alcohol)	IV	166
Nitro guandine	I	25
Nitrogen	II	70
Nitro Napthalene	VI	214
Nitrous Oxide	II	73
N. L. Gas (73 Octone)	III	102
Nobel Safety Electric Fuses	I	27
Oil of Mirbane (see Nitro Benzol)	VI	213
Oil of Vitriol (see Acid Sulphuric)	VIII	300
Oily Bagging	IV	166
Oily Canvas	IV	166
Oily Covers	IV	166
Oily Dressed Fabrics	IV	166
Oily Paper	IV	166
Oily Rags	IV	166
Oil Waste N. O. C.	IV	166
Orpiment	VI	204
Ortho Dichloro Benzene	VI	214
Orthoxylene	III	118
Ortho Nitro Toluene	VI	214
Osmium 191 (Os 191)	VII	240
Oxalate of Potash	VI	200
Oxygen	II	70

Oxygen and Carbondioxide Mixtures (see Medical Mixtures)	II	72
Oxygen and Helium Mixtures (see Medical Mixtures)	II	72
Palladium 103 (Pd 103)	VII	240
Paint and Varnish removers	III	113
Paint and Varnish removers (Corrosive non-inflammable)	VIII	309
Paints, Nitro-Cellulose	III	112
Paint Thinners Class 'A'	III	113
Paint Thinners Class 'B'	III	122
Paper Caps for Toy Pistols (see Amorce)	I	35
Parathion	VI	215
Pentachlorophenol dissolved in selected Petroleum Oils	III	123
Penta-Erythritol-Tetra Nitrate (P. E. T. N.)	I	25
Perchlorate of Ammonia	V	185
Perchlorate of Calcium	V	185
Perchlorate of Potash	V	185
Perchlorate of Strontium	V	185
Perchlorate of Iron, Solid (see Ferric Chloride Solution)	VIII	307
Perchloride of Mercury, Bi-Chloride of Mercury (Corrosive sublimate)	VI	216
Percussion primers	I	31
P.E.T.N.-TNT Boosters	I	26
Petrol	III	102
Petroleum and other Hydro Carbon oils N.O.C.	III	118
Petroleum Ether	III	102
Pharaoh's Serpents or Cobra Eggs	I	37
Phenol-Crystals or liquefied (see Acid Carboic)	VI	199
Phenol Extract	III	117
Phenyl Mercury Acetate	VI	209
Phenyl Mercury Chloride	VI	209
Phenyl Mercury Urea	VI	209
Phenylene and Toluylene Diamines	VI	203
Phosphorus 32 (P 32)	VII	240
Phosphorus Penta Chloride	VIII	309
Phosphorus Red (Amorphous)	IV	166
Phosphorus, Sulphide (see Sesqui Sulphide)	IV	166
Phosphorus Trichloride	VIII	309
Phosphorus, (yellow in water)	IV	167
Phosphorus Oxychloride	VIII	309
Picric acid	I	25
Picric Powder	I	25
Pinfire Cartridges for Pistols	I	28
Pine oil	III	128
Plastic igniter cord	I	29
Plastic igniter wick	I	29
Plasticised nitro cellulose chips	IV	167
Plastic wood composition	III	114
Pliobond	III	111
Polishes, dressings, stains and cleaning compounds partly composed of	III	120

inflammable liquids		
Polishes Nitrol Cellulose	III	112
Polonium 210 (Po 210)	VII	240
Potassium 42 (K 42)	VII	203
Potassium	IV	167
Power alcohol	III	111
Power alcohol mixture	III	111
Powerine	III	117
Praseodimium 142 (Pr 142)	VII	240
Promethium 147 (Pm 147)	VII	240
Propellent (see Gunpowder)	I	22
Pyridine bases	VI	206
Pyroxylin solution (see Collodion solution)	III	103
Quick match	I	29
Radium 226 (Ra 226)	VII	240
Railway fog signals for safety use	I	27
RDX (Cyclo trimethylene trinitramine)	I	26
RDX (TNT)	I	26
Realgar	VI	203
Rectified spirit (50% overproof and above)	III	111
Red Arsenic	VI	203
Red Arsenic Glass	VI	203
Red Arsenic Sulphide	VI	203
Reformer Naptha (Naptha Special cut)	III	102
Refined Pine tar	III	123
Refrigerator burning oil	III	116
Residual fuel oil	III	116
Resin	IV	168
Rhodium 186 (Rh 186)	VII	241
Rhodium 105 (Rh 105)	VII	241
Rhodium 106 (Rh 106)	VII	241
Road surface dressings, composed mainly of creosote, Petroleum residue, pitch or tar oils	III	125
Rockets	I	37
Roman candles	I	37
Rosin oils	III	128
Rosin spirit	III	122
Rubber solution having flashing point below 23° C	III	115
Rubber solution having flashing point below 23° C	III	115
Rubidium 85 (Rb 86)	VII	241
Safety fuze	I	27
Saltpetre, Crude	V	185
Saltpetre, refined (Nitro or Nitrate of Potash)	V	185
Samarium 153 (Sm 153)	VII	241
Scandium 46 (Sc 46)	VII	241
Seismic Electrical Detonators	I	34
Selenium 75 (Se 75)	VII	241

Sesqui Sulphide (See Phosporus Sulphide)	IV	166
Shaped Charge	I	29
Shellmac B. S.	III	125
Shellmac R. C. 3	III	125
Shells	I	37
Shelspra B. S.(Shellmac B. S.)	III	125
Silicide calcium (See Calcium Silicate)	IV	161
Silver 110m (Ag 110m)	VII	241
Socket distress Signals	I	37
Socket light signals	I	37
Socket sound signals	I	37
Sodium	IV	167
Sodium 22 (Na 22)	VII	241
Sodium Hydrosulphite (Hydrosulphite of soda)	IV	168
Sodium Peroxide	V	185
Sodium Xanthate	VIII	309
Soldering fluids	VIII	309
Solid aldehydic fuel in solid form (see Meta fuel)	IV	163
Solvent oil	III	102
Snowsol stabilizing solution	III	122
Spent fuel	VII	242
Spent oxide of Iron from gas purifiers	IV	168
Spirit of salts (see Acid, Hydrochloric)	VIII	297
Spirit Varnish	III	111
Spirit Potable, imported	III	112
Spirit Potable, indigenous	III	112
Sporting powder Class-III	I	23
Squibs	I	37
Stain, nitro cellulose	III	112
Standard brake fluid	III	120
Stannic Chloride (Tin tetra chloride)	VIII	299
Star matches	IV	165
Straight Run Naptha	III	102
Still Bottom oil (Sludge)	III	116
Strontium 85 (Sr 85)	VII	241
Strontium 89 (Sr 89)	VII	241
Strontium 90 (Sr 90)	VII	241
Sulphur 35 (S 35)	VII	241
Sulphurous Acid Gas (see Sulphur Oxide)	II	73
Sulphuric Chlorides (Chlorides of Sulphur)	VIII	310
Sulphuric Dioxide (Sulphurous Acid Gas)	II	73
Sulphur Hexa Fluoride	II	70
Superior Kerosene	III	118
Syntan NB	VIII	300
Syntan NC	VIII	300
Syntan PC	VIII	300
Tantalum 182 (Ta 182)	VII	242

Tartar Emetic	VI	216
Tea drier oil	III	116
Terbium 160 (Tb 160)	VII	242
Tetra-ethyl lead liquid (see Concentrated Ethyl fluid)	VI	207
Tetra-ethyl pyro phosphate	VI	215
Tetra-nitro Methylaminitine (CE)	I	26
Thallium 204 (Tl 204)	VII	242
Thulium-170 (Tm-170)	VII	242
Thiodan	III	122
Thorium	VII	242
Tin 113 (Sn 113)	VII	242
Tin Tetra Chloride (see Stannic Chloride)	VIII	309
Titanium Potassium Oxalate	VI	200
Toluene Nitration Grade	III	111
Toluol	III	111
Tritiated Heavy Water	VII	242
Tribasic Lead Sulphate	VI	211
Tri-Nitro Resorcinol (Styphnic Acid)	I	26
Tri-Nitro Toluene (TNT)	I	26
Tubes for firing explosives	I	29
Tubes for firing explosives (Other than Detonators)	I	31
Tungsten-185 (W185)	VII	242
Turpene	III	123
Turpentine substitutes (White Spirit)	III	122
Turpentine Oil or Spirits of Turpentine Substitutes	III	122
Uranium Compounds	VII	242
Vapourising Oil	III	116
Varnish having flashing point below 65° C but not below 23° C.	III	120
Varnish N. O. C.	III	128
Varnish Paints (as paints having flashing point below 65° C but below 93° C).	III	128
Varnishes, Nitro-Cellulose	III	112
Vegetable Black	IV	162
Vary Signal Cartridges	I	37
Vinesthene (see Vinyl Ether)	III	105
Vinyl Ether (Di-Vinyl Ether Vinesthene)	III	105
Vulcanizing Cement (see Vulcanizing Solution Inflammable).	III	115
Vulcanizing Solution, inflammable (Vulcanizing Cement).	III	115
Weed Killer (Liquid Arsenical)	VI	216
Weed Killer (Non-arsenical and not containing Chlorate or Di-Nitro-Ortho-Cresol or its Salts).	VI	200
Weed Killer, Liquid (Non-Poisonous)	III	125
Weed killer (Non-Arsenical and not containing Chlorate) Containing:- (a) Di-Nitro-Ortho-Cresol or its Ammonium or Amine Salt. (b) Di-Nitro-Ortho-Cresol, Sodium Salt and at least 25% of Water.	VI	216
Weed Killer (Powder), Non-Arsenical and not containing Chlorate or	VI	217

Dinitro-Ortho-Cresol or its salts.		
Weed killer (Powder) Non-arsenical containing Chlorate with not less than 40% of Chlorides or borax).	V	184
Wheels	I	37
White Arsenic (Arsenious Acid Solid)	VI	204
White Spirit (See Turpentine substitutes.)	III	122
Wood Alcohol (see Methenol)	III	111
Wood Naphtha	III	111
Wood Spirit	III	111
Xylene	III	111
Xylol	III	111
Yellow Arsenic	VI	204
Ytterbium 169 (Yb 169)	VII	242
Zinc 65 (Zn 65)	VII	242
Zinc Chloride or Muricate of Zinc (Solid)	VIII	310
Zinc Chloride or Muricate of Zinc (Solution) Acid Neutral	VIII	310
Zinc Dust or Tutty Powder	IV	158
Zinc Phosphide	VI	217
Zirconium 65 (Zr 65)	VII	242
Zirconium 95 (Zr 95)	VII	242

INDEX TO RULES

Rule	Chapter I		Chapter II		Chapter III		Chapter IV		Chapter V		Chapter VI		Chapter VII		Chapter VIII	
	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page
Acceptance only under rules laid down	103.1	01	202.1	49	302.1	84	402.1	144	502.1	170	602.1	188	702.1	222	802.1	278
Acceptance by authorised railway servants and specified place and time.	109	07	206	50	306	86	406	146	506	171	606	189	710	226	806	280
Acceptance of Wagon Loads on all days.	136.3	20	231.3	67	329.3	101	428.3	155	527.3	179	627.3	197	708.1	225	829.3	290
Acceptance of smalls on notified days and charged on actual weight.	136.1	20	231.1	67	329.1	101	428.1	155	527.1	179	627.1	197	-		829.1	290
Acceptance of smalls on all days of the week.	136.2	20	231.2	67	329.2	101	428.2	155	527.2	179	627.2	197	-		829.2	290
Advance notice.	134.1	19	-		-		-		-		-		705.4	224	-	
Ammonia (Anhydrous) and Chlorine – Special precautions in dealing with	-	76	212.5	58	-		-		-		-		-		-	
Arrival of consignment – Notice to consignee.	134.2	19	229.1	67	326.1	100	426.1	155	525.1	178	625.1	197	721.1	235	827.1	289
Booking by dearer route prohibited	108.2	06	-		-		-		-		-		707.2	224	-	
Boots and Shoes – Prohibition.	117.10	13	-		-		-		-		-		-		-	
Booking and carriage of Radioactive materials as luggage prohibited.	-		-		-		-		-		-		707.1(b)	224	-	
Brake van-Separation from in special cases.	-		-		325.3	99	-		-		-		-		-	
Carboys containing acids and other corrosives packing of	-		-		-		-		-		-		-		807.3	280
Carbide of calcium – Special precautions to be observed in dealing with	-		-		-		413.6	149	-		-		-		-	
Carriage of explosives with ordinary goods permitted by goods trains	123	15	-		-		-		-		-		-		-	
Carriage of certain explosives with ordinary goods permitted by goods trains.	124	15	-		-		-		-		-		-		-	
Carriage of dangerous goods with ordinary goods in wagons	-		217	58	319	94	418	150	518	175	617	194	-		818	285
Carriage in brake van of passenger, mixed or parcel trains	125	15	218	59	320	94	419	150	519	175	618	194	-		819	286
Carriage of safety cartridges in passenger compartments	126	15	-		-		-		-		-		-		-	
Carriage of acids and poisonous (toxic) substances with foodstuffs prohibited	-		-		-		-		-		620	194	-		822	286
Carriage of dangerous goods inter se prohibited.	128	15	220	59	321	95	421	151	520	175	619	194	-		821	286
Certificate, Forwarding Note, etc. to be obtained by railway staff.	107.1	05	204	5	304	85	404	145	504	175	604	189	705.1	224	804	279

[illegible]

Rule	Chapter I		Chapter II		Chapter III		Chapter IV		Chapter V		Chapter VI		Chapter VII		Chapter VIII	
	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page
Delivery	135.1	19	230.1	67	327.1	100	427.1	155	526.1	178	626.1	197	-		828.1	290
Delivery or sale of explosives-Restriction on	135.3	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Demurrage and wharfage-Railway's right to recover not affected by non-issue of arrival notice.	134.3	19	229.2	67	326.2	100	426.2	155	525.2	178	625.2	197	721.2	235	827.2	290
Different kinds of acids and other corrosives to be kept separate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	823.2	286
Disposal if delivery not effected expeditiously	135.2	19	230.2	67	327.2	100	427.2	155	526.2	178	626.2	197	-		828.2	290
Documents required	107.1	05	204.1	50	304.1	85	404	145	504		604	179	705	224	804	279
Dunnage-Use of	-	-	-	-	322.1	95	-		-		-		-		-	
Distance to be maintained while handling of Radioactive materials	-	-	-	-	-		-		-		-		714.2(b)	232	-	
Emergency instructions	-	-	-	-	-		-		-		-		711.3(e)	230	-	
Empty containers-Marking and labelling of	-	-	208.1	51	308.4	90	-		-		-		-		-	
Empty containers tube securely closed	-	-	-	-	307.4	87	-		-		-		-		-	
End falling or hoper Type wagons not permitted for welding explosives	121.3	14	-	-	-		-		-		-		-		-	
E. P. locking and rivetting not allowed	130.4	17	222.4	61	323.4	98	423.4	154	522.4	177	-		-		-	
Ethyl fluid concentrated (Lead Tetraethyl) special precautions in dealing with	-	-	-	-	-		-		-		613.7	193	-		-	
Examination and through cleaning of place, carriage and wagon where dangerous goods are dealt with.	117.3	12	-	-	313.5	92	413.5	149	513.5	174	613.6	193	-		813.6	284
Exemption from production of Form 16	105.2	03	-	-	-		-		-		-		-		-	
Exemptions from safe distance to be maintained from explosives	116.1	11	-	-												
	117.2	11	-	-	-		-		-		-		-		-	
	117.9	12		-												
Explosives not be kept at places of loading for long periods	118	13	-	-	-		-		-		-		-		-	
Exposed iron and steel not permitted in the construction of packages containing explosives.	110.3	07	-	-	-		-		-		-		-		-	

	Chapter I		Chapter II		Chapter III		Chapter IV		Chapter V		Chapter VI		Chapter VII		Chapter VIII	
	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page
Gas cylinders or containers packed in crates	-	-	207.3	51	-	-	-	-	-	-	-	-	-	-	-	-
Gas cylinders or containers not be project beyond sides and ends of vehicles	-	-	221.2	59	-	-	-	-	-	-	-	-	-	-	-	-
Gas cylinders or containers protection of valves during transit	-	-	207.2	51	-	-	-	-	-	-	-	-	-	-	-	-
Gas cylinder or containers (of gross weight) or over/conveyance of	-	-	228.1	66	-	-	-	-	-	-	-	-	-	-	-	-
General description of packing for Radioactive materials	-	-	-	-	-	-	-	-	-	-	-	-	App.VII/5	259	-	-
Guard or dummy wagons-charges for	138	20	223	61	331	101	430	156	529	179	-	-	708.3	225	-	-
Guard or dummy wagons-Marshalling	132.4	18	227.3	66	325.6	100	425.3	155	524.3	178	624.3	196	-	-	826.3	289
Handling to be done by consignors and consignee	115.1	11	210	56	311	90	411	148	511	173	611	192	-	-	811	283
Handling to Radioactive material packages to be done by Railway staff	-	-	-	-	-	-	-	-	-	-	-	-	714.1	231	-	-
Handling operation of explosives and Radioactive materials to be done diligently without unnecessary stoppage.	117.5	12	-	-	-	-	-	-	-	-	-	-	714.1	231	-	-
Handling of opacities, cylinders, containers	117.6	12	212.2	57	313.2	91	413.2	149	513.2	174	613.2	192	-	-	813.2	284
Inner and outer packages for explosives	110.2	07	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interior of every packages of explosives to be free from grit and clean	110.4	07	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Information on the label for Radioactive material-consignment	-	-	-	-	-	-	-	-	-	-	-	-	711.3	230	-	-
Intoxicated persons and children-prohibition of	117.11	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Label – Pictorial	111.4	09	208.3	52	308.2	87	408.2	146	508.2	172	608.2	191	711.1	226	808.2	281
Label – Indication	-	-	-	-	308.3	90	408.3	146	508.3	172	608.2	191	711.1	226	808.2	281
Label- Information	-	-	-	-	-	-	-	-	-	-	-	-	711.3	230	-	-
Label – Tag label and particulars to be given thereon	-	-	208.2	51	-	-	-	-	-	-	-	-	-	-	-	-
Labelling and marking by consignor	111	08	208	51	308	87	408	146	508	172	608	190	711	226	808	281
Labelling of empty containers	-	-	-	-	308.4	90	-	-	-	-	-	-	-	-	-	-
Labelling of wagons for Radioactive material	-	-	-	-	-	-	-	-	-	-	-	-	719	234	-	-
Labelling, sealing and locking of wagons	130	16	222	59	323	95	423	151	522	176	622	195	-	-	824	287
Labels to be affixed to side	-	-	-	-	-	-	-	-	-	-	-	-	711.2	226	-	-
Lead seals to be used	130.3	17	222.3	60	323.3	98	423.3	154	522.3	177	-	-	-	-	-	-
Marking and labelling by consignors	111	08	208	51	308	87	408	146	508	172	608	191	711	226	808	281

Rule	Chapter I		Chapter II		Chapter III		Chapter IV		Chapter V		Chapter VI		Chapter VII		Chapter VIII	
	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page
Marking by Railways	114	11	209	56	309	90	409	148	509	173	609	191	712	230	809	282
Marking of outer package containing more than one explosive	111.2	09	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marking of explosives having their own means of ignition	111.3	09	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marking, packing, realization of rules for explosives	113	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marking – white paint or a piece of cloth or gunny to be provided by consignors on gas cylinders and containers for Railway marks	-	-	208.6	56	-	-	-	-	-	-	-	-	-	-	-	-
Marshalling – precautions to be observed	132.1	17	227.1	66	325.1	98	425.1	154	524.1	177	624.1	196	724	236	826.1	289
Marshalling – exemption on certain sections	132.2	18	227.2	66	325.2	99	425.2	155	524	177	624.2	196	-	-	826	289
Marshalling – restorations on conveyance by same train	132.3	18	Table II	70	325.5	100	-	-	-	-	-	-	-	-	-	-
Marshalling – separation from brake van in certain special cases	-	-	-	-	325.3	99	-	-	-	-	-	-	-	-	-	-
Marshalling – position of tank wagon on mixed train	-	-	-	-	325.4	99	-	-	-	-	-	-	-	-	-	-
Matches, fuzes, knives etc. – prohibition to possess.	117.8	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maximum quantity allowed in a wagon	122.1	14	216.1	58	318	94	417	150	517	175	616	193	-	-	-	-
Maximum number of wagons to be dealt with	122.3	15	216.2	58	318	94	417	150	517	175	616	193	-	-	-	-
Maximum weight of package containing explosives	110.6	07	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maximum weight of package of Radioactive materials to be booked as parcel	-	-	-	-	-	-	-	-	-	-	-	-	707.4	225	-	-
Mixed consignments prohibited	108.1	06	205.1	50	305.1	86	405	45	505	171	605	189	707.1(a)	224	805.1	279
Motor vehicles – transport of	-	-	-	-	328	100	-	-	-	-	-	-	-	-	-	-
Notice of despatch by sender/consignor	106.1	04	203.1	49	303.1	85	403	144	503.2	170	603.1	188	704.1(a)	223	803.1	278
Notice particulars to be given in	106.2	05	203.2	49	302.2	85	403.2	145	503.2	170	603.2	189	704.2	223	803.2	279
Notice – advance	134.1	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Notice to consignee on arrival of consignment	-	-	-	-	-	-	-	-	-	-	-	-	721.1	235	-	-
Non-receipt of consignment at destination, transit delay, theft of or loss of package.	-	-	-	-	-	-	-	-	-	-	-	-	720	235	-	-
Outer and inner package – for explosives	110.2	07	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Packages to be completely loaded in wagons	-	-	-	-	322.1	95	422.1	151	521.1	175	621.1	194	-	-	823.1	286
Packages—handling of	117.6	12	212.2	57	313.2	91	413.2	149	513.2	174	613	192	714.2	232	813.2	284
Packing – additional packing permitted under certain conditions.	117.6	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Packages – inside not to contain solid matter or hard substance	-	-	-	-	307.3	87	407.3	146	507.3	175	607.3	190	-	-	807.4	281

Rule	Chapter I		Chapter II		Chapter III		Chapter IV		Chapter V		Chapter VI		Chapter VII		Chapter VIII	
	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page
Packages – responsibility of Railway staff	112	10	-	-	310	90	410	148	510	173	610	192	-	-	810	283
Packing – Dangerous goods to be transported only when packed in prescribed manner	110.1	07	207.1	50	307.1	86	407.1	146	507.1	171	607.1	190	709.2	225	807.1	280
Packing of Radioactive material	-	-	-	-	-	-	-	-	-	-	-	-	709.1	225	-	-
Pad locking of wagons	130.5	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pass required for the transport of explosives – Form 16	105	03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Powers of Railway Administration – to prevent entry and to inspect	104.1	2-3	-	-	-	-	-	-	-	-	-	-	703	222	-	-
Powers of Railway Administration – to return to consignor	104.2	03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Powers of Railway Administration – to destroy	104.3	03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Powers of inspection, search, seizure, detention & removal	142	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Precautions to be taken for transporting Radioactive material in brake vans.	-	-	-	-	-	-	-	-	-	-	-	-	716	233	-	-
Precautions to be observed in handling and storing	117	11	212	57	313	91	413	149	513	174	613	192	-	-	813	284
Precautions to be observed during marshalling	132.1	17-18	227.1	66	325.1	98	425.1	154	524.1	177	624.1	196	724	236	826.1	289
Precautions to be observed during shunting	131	17	226	65	324	98	424	154	523	177	623	196	723	235	825	288
Prepayment of freight	137	20	232	67	330	101	429	156	528	179	628	197	725	236	830	290
Prevention of escape	-	-	-	-	313.6	92	-	-	-	-	-	-	-	-	-	-
Private labels	130.2	17	222.2	60	323.2	98	423.2	154	522.2	177	622.2	196	-	-	824.2	288
Prohibited – Booking of explosives and Radioactive materials by dearer route.	108.2	06	-	-	-	-	--	-	--	-	-	-	707.2	224	-	-
Prohibition – of boots and shoes	117.10	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prohibition – of carriage of dangerous goods inter-se	128	15	220	59	321	95	421	151	520	175	619	194	-	-	821	286
Prohibition of carriage with food stuffs	-	-	-	-	-	-	-	-	Table V	181	620	194	-	-	822	286
Prohibition of children and intoxicated persons	117.11	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prohibition of mixed consignments	108.1	06	205.1	50	305.1	86	405	145	505	171	605	189	707.1(a)	224	805.1	279
Prohibition to possess matches, fuzes, knives etc.	117.8	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prohibition to smoking, fires, lights and dangerous substances	117.9	12	212.3	57	313.1	91	413.3	149	513.3	174	-	-	-	-	-	-
Prohibition of storage and handling of dangerous goods hints.	-	-	212.3 ss(2)	58	313.3 (2)	91	413.2 (2)	149	513.3 (2)	174	613.3	193	-	-	813.3	284

Rule	Chapter I		Chapter II		Chapter III		Chapter IV		Chapter V		Chapter VI		Chapter VII		Chapter VIII	
	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page	No.	Page
Prohibition of unauthorized persons	117.7	12	-	-	-	-	-	-	-	-	-	-	714.2(e)	232	-	-
Protection from sun, rain or snow	117.12	13	-	-	-	-	-	-	-	-	-	-	714.2(f)	232	-	-
Quantity maximum allowed in wagon	122.1	14	216.1	58	318	94	417	150	517	175	616	193	-	-	817	285
Quantities to be loaded or handled	122	14	216	58	318	94	417	150	517	175	616	193	-	-	817	285
Radioactive materials to be booked from and to nominated stations only	-	-	-	-	-	-	-	-	-	-	-	-	702.2	222	-	-
Radioactive materials to be transported only by authorised persons/institution.	-	-	-	-	-	-	-	-	-	-	-	-	702.3	222	-	-
Railways right to refuse to convey.	103.2	01	202.2	49	302.2	84	402.2	144	502.2	170	602.2	188	702.4	222	802.2	278
Receptacles for petroleum and other inflammable liquids	-	-	-	-	307.2	86	-	-	-	-	-	-	-	-	-	-
Reckoning of weight of consignments of explosives	122.2	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Remarks on invoice or way	107.2	05	204.2	50	304.2	85	-	-	-	-	Table VI	199	706	224	-	-
Repairs to carriages	140	20	234	68	332	101	431	156	530	179	629	197	-	-	831	290
Report of accidents	141	20	235.2	68	333	101	432	156	531	179	630	197	-	-	832	290
Report of accidents and enquires—Management of	-	-	-	-	-	-	-	-	-	-	-	-	726	236	-	-
Responsibility of Railway Staff.	-	-	-	-	-	-	-	-	-	-	-	-	713	231	-	-
Restrictions on conveyance by same train.	132.3	18	Table II	70	325.5	100	-	-	-	-	-	-	-	-	-	-
Restrictions on delivery or sale of explosives	135.3	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Restrictions on Railways	103.3	01	202.3	49	302.3	84	402.3	144	502.3	170	602.3	188	-	-	802.3	278
Rivetting and E. P. locking not allowed	130.4	17	222.4	61	323.4	98	423.4	154	522.4	177	-	-	-	-	-	-
Rolling or shifting of gas cylinder or containers in transit—Prevention of	-	-	221.1	59	-	-	-	-	-	-	-	-	-	-	-	-
Sale of delivery of explosives – Restriction on	135.3	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Safe distance to be maintained while storing or handling explosives and Radioactive materials.	116.1	11	-	-	-	-	-	-	-	-	-	-	714.2(b)	232	-	-
	117.2	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	117.9	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Saving	143	21	236	68	334	101	433	156	532	179	631	198	727	236	833	291
Split explosives to be destroyed.	139	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Storage	116	11	211	56	312	91	412	148	512	173	612	192	714.2	232	812	283
Storage – Type of accommodation to be used.	116.2	11	211	56	312	91	412	148	512	173	612	192	-	-	812	283
28 Storing in wagons (Drums)	-	-	-	-	322.2	95	422.2	151	521.2	176	621.2	194	-	-	823.3	286
Storing in wagons – Empty containers	-	-	-	-	322.4	95	-	-	-	-	621.4	194	-	-	823.5	287

[illegible]

PREFACE

RAILWAYS OVER WHICH THE RULES APPLY

1. The Rules of Explosives and other dangerous goods contained in this Tariff are in force on the under mentioned Railways: -

RAILWAY	CODE INITIALS
Central Railway	C.R.
Eastern Railway	E.R.
East Central Railway	E.C.R.
East Coast Railway	E.Co.R.
Northern Railway	N.R.
North Central Railway	N.C.R.
North Eastern Railway	N.E.R.
Northeast Frontier Railway	N.F.R.
North Western Railway	N.W.R.
Southern Railway	S.R.
South Central Railway	S.C.R.
South Eastern Railway	S.E.R.
South East Central Railway	S.E.C.R.
South Western Railway	S.W.R.
Western Railway	W.R.
West Central Railway	W.C.R.
Konkan Railway Corporation Ltd.	K.R.
Chennai Port Trust	C.P.T.
Kolkata Port Trust	K.P.T.
Mumbai Port Trust	M.P.T.
Kutch Railway Company Ltd.	K.R.C.L.
Pipavav Railway Corporation Ltd.	P.R.C.L.
Central Inland Water Transport Corporation Ltd ¹ .	C.I.W.T.C.

MUMBAI PORT TRUST RAILWAY

2. The Mumbai Port Trust Railway, while accepting the Rules contained in the Tariff, collect in Mumbai and additional charge on through tariff, as laid down in their Goods Tariff.

KOLKATA PORT TRUST RAILWAY

3. The Eastern Railway works the station in the Port Trust Railway between Howrah Bridge and Cossipore and the exceptions and variations in force over the Eastern Railway are applicable to these stations. As regards Docks and Jetties, the Port Trust are the Terminal agents of Eastern and the South Eastern Railway entering the port and the rules in force over these railways apply.

CHENNAI PORT TRUST RAILWAY

4. The rules, rates and conditions for all goods entering or leaving the Chennai harbour by rail are the same as from or to Royapuram for goods from or to and via the Southern Railway plus the local charges as laid down in Part III of the Chennai Port Trust Scale of Rates.

¹ Not a party to the Indian Railway Conference Association.

EXTRACT OF SECTION 67, 164 AND 165 FROM RAILWAYS ACT, 1989

CARRIAGE OF DANGEROUS OR OFFENSIVE GOODS

67 (1) No person shall take with him on a railway, or request a railway administration to carry such dangerous or offensive goods, as may be prescribed, except in accordance with the provisions of this section.

(2) No person shall take with him on a railway the goods referred to in sub-section (1) unless he gives a notice in writing of their dangerous or offensive nature to the railway servant authorised in this behalf.

(3) No person shall entrust the goods referred to in sub-section (1) to a railway servant authorised in this behalf for carriage unless he distinctly marks on the outside of the package containing such goods their dangerous or offensive nature and gives a notice in writing of their dangerous or offensive nature to such railway servant.

(4) If any railway servant has reason to believe that goods contained in a package are dangerous or offensive and notice as required under sub-section (2) or sub-section (3), as the case may be, in respect of such goods is not given, he may cause such package to be opened for the purpose of ascertaining its contents.

(5) Notwithstanding anything contained in this section, any railway servant may refuse to accept any dangerous or offensive goods for carriage or stop, in transit, such goods or cause the same to be removed, as the case may be, if he has reasons to believe that the provisions of this section for such carriage are not complied with.

(6) Nothing in this section shall be construed to derogate from the provisions of the Indian Explosives Act, 1884 or any rule or order made under that Act, and nothing in sub-sections (4) and (5) shall be construed to apply to any goods entrusted for carriage by order or on behalf of the Government or to any goods which a soldier, sailor, airman or any other officer of the armed forces of the Union or a police officer or a member of the Territorial Army or of the National Cadet Corps may take with him on a railway in the course of his employment or duty as such.

UNLAWFULLY BRINGING DANGEROUS GOODS ON A RAILWAY

164. If any person, in contravention of section 67, takes with him any dangerous goods or entrusts such goods for carriage to the railway administration, he shall be punishable with imprisonment for a term which may extend to three years, or with fine which may extend to one thousand rupees or with both and shall also be liable for any loss, injury or damage which may be caused by reason for bringing such goods on the railway.

UNLAWFULLY BRINGING OFFENSIVE GOODS ON A RAILWAY

165. If any person, in contravention of section 67, takes with him any offensive goods or entrusts such goods for carriage to the railway administration, he shall be punishable with fine which may extend to five hundred rupees and shall also be liable for any loss, injury or damage which may be caused by reason of bringing such goods on the railway.

RAILWAY RED TARIFF RULES

[As notified by the Central Government in 2000/TC-I/307/3 dated 15th July 2000 published under GSR No.266, dated 15th July 2000 (and its amendment through subsequent gazette notifications)]

In exercise of the powers conferred by Section 67 and Section 87 of the Railways Act, 1989 (No.24 of 1989) and in supersession of the Railways Red Tariff rules, 1960 except as respect things done or omitted to be done before such supersession, the Central Government hereby makes the following rules for the conveyance by rail of dangerous goods, namely: —

PRELIMINARY

1. Short title, commencement and application :-

- (1) These rules may be called the Railway Red Tariff Rules, 1997.
- (2) They shall come into force on date of their publication in the official gazette.
- (3) They shall apply to the carriage by rail including carriage in containers of the dangerous goods specified in these rules but not to the carriage of explosives and certain other dangerous goods for the Defence Services of the Government of India, in respect of which separate rules have been provided in the Military Tariff.

2. Definition :- In these rules, unless the context otherwise requires :-

- (a) “Authorised railway servant” means any person employed by a railway administration in connection with the service of a railway and for the time be authorised to transact the concerned business of the railway;
- (b) “B.G.” means Broad Gauge;
- (c) “Carriage” means a four/eight-wheeled carriage used for transport and includes a goods wagon;
- (d) “C. C.” means carrying capacity and indicates that the weight for charge is the carrying capacity of the wagon used;
- (e) “Goods train” means a train (other than a ballast train) intended solely or mainly for the carriage of animals or goods;
- (f) “Gross weight” means the weight of the article including the weight of the packing;
- (g) I.R.C.A. means Indian Railway Conference Association
- (h) “M.G.” means Metre Gauge;
- (i) “Mixed Train” means train intended for the carriage of passengers and goods or of passengers, animals and goods.
- (j) “Naked Light” means the common Type of electric torch, hand lanterns and ordinary portable electric appliances other than those complying with the Indian Standard Specification No.IS.2206-1984 and IS: 2148-1984.
- (k) “N. G.” means Narrow Gauge;
- (l) “N. O. C.” means not otherwise classified;
- (m) “Parcels Train” means a train intended solely or mainly for the carriage of coaching traffic other than passenger traffic;
- (n) “Passenger Train” means a train intended solely or mainly for the carriage of passengers and other coaching traffic;
- (o) “Railways Act” means The Railway Act 1989 (No.24 of 1989);

- (p) “Sectional Van” means any carriage, including a parcel van, used for the collection and distribution of consignments of goods insufficient weight to form an authorised minimum wagon load for a particular station;
- (q) “Station” means any place on a line of railway at which traffic is dealt with or at which an authority to proceed is given under the system of working.
- (r) “Tranship or Road Van Train” means a train which collects and distributes consignments of goods insufficient in weight to form an authorised minimum wagon load for a particular station.
- (s) “W” means the minimum weight in quintals per 4-wheeled wagon, to which the rate applies;
- (t) “Wagon” means goods stock, whether attached to goods, passenger, mixed or parcels trains.

3. Arrangement of Chapters. –

- (1) Dangerous goods shall, having regard to the Hazard involved in their carriage by rail, be classified into the following eight classes, namely. –
 - (i) Explosives
 - (ii) Gases, compressed, liquefied or dissolved under pressure;
 - (iii) Petroleum and other flammable liquids;
 - (iv) Flammable solids;
 - (v) Oxidizing substances;
 - (vi) Poisonous (Toxic) substances;
 - (vii) Radio-active substances; and;
 - (viii) Acids and other corrosives.
- (2) Chapters I to VIII respectively deal with the classes of dangerous goods specified in clauses (i) to (viii) of sub-rule (1) and contain: —
 - (a) General rules governing acceptance, handling, carriage, storage, delivery and the like of the commodities included in that class;
 - (b) A Table indicating the names of commodities, their packing conditions, marking and labelling, storage and carriage of the commodities aforesaid and is numbered after the chapter to which it relates. General classification and “W” or “CC” weight condition under which wagonload rates apply are available in **I.R.C.A. Goods Tariff, Part I (Vol.II) in** force from time to time.
 - (c) Appendices which are numbered after the Chapter to which they relate.
- (3) The forms of the forwarding note and the notice of arrival of consignments which are common to all classes of dangerous goods are set out in Annexures ‘A’ and ‘B’ to these rules.
- (4) **Numbering of rules.** – Every rule is given a three digits number in which the 100th digit indicates the number of the chapter and the other two digits the number of the rule. The main parts of a rule are indicated with decimal point and further sub-divisions are indicated with numeric or letters placed in brackets.
- (5) **Labels and Colours.** –

1. The pictorial labels prescribed for use on packages, wagons or carriages are those specified in the Indian Standard Code of Symbols for Labelling of Dangerous Goods (IS : 1260-1958) issued by the Indian Standards Institution;
2. The identification colours prescribed for gas cylinders or containers conform to the Indian Standards Specifications as contained in IS: 4379 and IS: 3933.
3. Cylinders used for new gases and gas mixtures for which identification colours are not provided in sub-rule (i) shall be painted with the colours indicated in the following table, namely : –

Name of the gas contained in the cylinder	Colour of the cylinder shell	Colour of band at neck and of Cylinder
Non flammable and non-toxic	White	—
Non-flammable but toxic	-do-	Yellow (IS Standard colour No.356)
Flammable but non-toxic (other than the LPG)	-do-	Red (IS Standard Colour Nos.537)
Flammable and toxic	-do-	Red and Yellow (IS standard colour No.537 and 356 respectively).

(6) Other goods of Hazardous nature:

1. Carriage of goods of a Hazardous nature other than those specified in these rules shall not be accepted for transport by rail unless specially authorised by the railway administration.
2. Every application for transportation under sub-rule (1) shall be made by the Consignor to the railway administration on which the traffic originates with full details of commodity, the nature of the Hazards involved and the manner or packing.

(7) Minimum weight for acceptance and minimum weight for charge: –

- (1) Minimum weight to be despatched by goods, passenger or mixed train is 10 kgs., but packages of less weight may be despatched by goods, passenger or mixed train is 10 kgs., but packages of less weight may be despatched when forming part of a consignment of 10 kgs. Or more, the Railway reserving the right to refuse any article under 10 kgs., which may be considered unsuitable to be carried by goods, passenger or mixed train.
- (2) Except where otherwise provided, the minimum weight for charge per consignment when booked to be carried by goods train shall be 100 kgs. and by passenger, parcel or mixed train shall be 10 kgs.

(8) Saving. – Unless otherwise provided in these rules, the rates and conditions of transport by rail contained in the goods and coaching tariffs issued by the Indian Railway Conference Association shall also apply to explosives and other dangerous goods specified in these rules.

(9) Penalty. – Any person committing a breach of these rules shall be punished with fine which may extend to ₹150/- .

CHAPTER-I EXPLOSIVES

Dangerous goods under the Indian Railways Act, 1989 (24 of 1989)

101. (1) Substances which possess risk of explosion or fire or both that is to say Explosives shall be dangerous goods under the Railways Act.

(2) Authorised explosives listed in Table I shall be permitted to be carried by rail subject to fulfillment of conditions and observance of rules contained in this Chapter.

Classification of Explosives

102. For the purpose of these rules, explosives shall be classified in the manner specified in Table I.

General Restrictions on Conveyance of Explosives

103.1. Explosives to be accepted only under the rules laid down.—A Railway administration shall accept the explosives specified in Table I for conveyance by rail subject to the rules and in accordance with the conditions set forth in this chapter.

Railway's right to refuse to convey

103.2. Notwithstanding anything contained in these rules, a Railway Administration may notify that it shall not convey by rail for the public any particular explosive specified in Table I, and after the issue of such notification, no such explosive shall be accepted for conveyance by the said Administration on section or sections in respect of which the said notification has been issued.

Restrictions on Railways and Central Inland water Transport Corporation Ltd.

103.3. (1) Central Railway: N.G. Section. — Explosives required to be moved in specially constructed powder vans shall not be carried. Other explosives may be carried.

(2) Eastern Railway :

- | | | |
|---|---|--------------------------------|
| <p>(i) Krishnagar City— Nabadwip Ghat
Shantipur— Nabadwip Ghat
B.K. (NG) Section
Ahmadpur— Katwa Section
Bankura— Damodar River
Phatuha— Islampura Light
Dehri Rohtas Light</p> | } | No explosives shall be carried |
|---|---|--------------------------------|

East Central Railway:

- | | | |
|---------------------------------|---|--|
| <p>(ii) Arah— Sasaram Light</p> | } | |
|---------------------------------|---|--|

Explosives required to be carried in specially constructed powder vans shall not be carried, but other explosives may be carried under special arrangement. (N.G. Section closed as conversion work to B.G. is in progress).

(3) South Eastern Railway :

- | | | |
|--|---|---|
| <ul style="list-style-type: none"> (i) Dhamtari Branch Line (i) East Coast Railway:
Naupada— Gunnupur Section (ii) Rupsa— Talband Section | } | <p>Explosives required to be carried in specially constructed powder vans shall not be carried, but other explosives may be carried.</p> <p>Explosives required to be carried in specially constructed powder vans shall not be carried, but other explosives may be carried only under special arrangements.</p> |
|--|---|---|

(4) Western Railway :

- | | | |
|---|---|--|
| <ul style="list-style-type: none"> (i) Bhavanagar— Mahuva
Joravarnagar— Sayla
Morbi— Amran Road
Morbi— Ghantila
Morbi— Tankara (ii) N.G. Section. | } | <p>No explosives shall be carried</p> <p>Explosives required to be carried in specially constructed powder vans shall not be carried, but other explosives may be carried.</p> |
|---|---|--|

(5) S.C. Railway : M. G. Section

Explosives required to be carried in specially constructed powder vans shall not be carried, but other explosives may be carried.

(6) Mumbai Port Trust Railway.—Explosives in wagon loads shall be dealt with on Mumbai Port Trust Railway only under special arrangements.

(7) Central Inland Water Transport Corporation Ltd.—

(a) Only the following explosives shall be carried, namely:-

- (i) Cartridges for small arms, such as rifles, shotguns and pistols
- (ii) Ammunition under escort;
- (iii) Crackers and fireworks such as Christmas or Bon-Bon Crackers, and
- (iv) Amorces (Papers caps for toy pistols),

(b) Explosives shall be accepted at owner's risk only.

Powers of Railway Administration to prevent entry etc.

104.1. Powers to prevent entry and to inspect. – Where a Railway Administration suspects that an explosive or carriage or package containing an explosive, does not comply with any of these rules, that Administration may —

- (1) prevent the entry of such explosive, carriage or package upon their premises, or refuse to receive or transport them; or

- (2) at any time open or require such carriage to or package to be opened to ascertain the facts.

104.2. Powers to return explosives, etc. – If any explosive or any carriage or package containing explosives is found not to comply with any of these rules, the Railway Administration may return such explosive, carriage or package to the consignor at his risk and expense.

104.3. Powers to destroy. – Where any explosive or any carriage or package containing explosives not complying with these rules cannot in the opinion of the Railway Administration be returned to the consignor without undue risk, the Administration may, in consultation with the Chief Controller of Explosives and in such manner as he may specify, destroy the explosives concerned or the contents of the carriage or package at the consignor's risk and expense.

104.4 Explosives not to be carried across Railway Bridges. – No explosive shall be carried otherwise than by rail across a Railway bridge for which reasonable facilities for the transport thereof by rail are afforded by the Railway Administration.

Provided that nothing in this rule shall apply to—

- (a) Safety fuses for blasting in any quantity, or
- (b) Gunpowder or nitro-compound not exceeding 5 kgs. or any quantity of ammunition, class 6, Divisions 2 & 3.

Pass required for Transport of Explosives

105.1. Pass required to accompany consignments.— (1) Every consignment of explosives tendered for despatch shall be accompanied by a pass (in duplicate) issued by the consignor in Form 16 as required under the Explosives Rules, 1983. (see Appendix I/1)

(2) One copy of such pass shall be attached to the way bill or invoice, as the case may be, and the other pasted at the back of the record foil of the way-bill or invoice for record at the forwarding station.

(3) The through Invoice or way-bill, as the case may be, shall be despatched to destination by post.

(4) If the explosives are booked to “self” the consignor's declaration giving full name and address of the intended consignee, referred to in rule 107.1 (4) shall also be sent with the through invoice or the way-bill.

105.2 Exemptions from production of Form 16. - The pass in form 16 shall not be required for the transport of-

- (a) any explosive imported under a licence in Form 27 of the Explosives Rules, 1983 from the port of import to the place of destination specified in the licence;
- (b) any explosive falling within the purview of rule 29 of the Explosives Rules, 1983;
- (c) any explosive for the possession of which no licence is necessary, vide rule 114 of the Explosives Rules 1983;
- (d) any explosive covered by a licence in Form 23 of the Explosives Rules, 1983 in such quantity as the holder of the licence may require for his private use;

- (e) Safety fuse and fireworks provided the same are not transported with any corrosive or flammable material.

105.3. Certificate for exemption. – Consignors claiming exemption under rule 105.2 must give a certificate (in duplicate) in the following form:-

I hereby certify that the consignment oftendered by me for despatch from.....to.....

*(1) is imported under a licence in form 27 and the transport required is in accordance with the licence;

*(2) is required to be transported in accordance with rule 29 of the Explosives Rules, 1983.

*(3) does not require licence for transport; vide Rule 114 of Explosives Rule 1983.

*(4) is covered by a licence in form 23 held by me and is required for my private use;

*(5) consists of Christmas or Bon-Bon Crackers, and does not contain any fireworks; and can therefore, be transported without a pass in Form 16.

Signature of consignor

Station

Date

*Strike out the items not applicable

- Note.-
- (1) Forms 23 and 27 and rules 29 and 114 of the Explosives Rules, 1983, referred to in this rule, are not re-produced in this Tariff.
 - (2) One copy of the certificate for exemption shall be attached to the way-bill or invoice, as the case may be, and the other pasted at the back of the record foil of the way-bill or invoice for record at the forwarding station.

Notice of despatch to be given by sender

106.1. Notice of despatch compulsory.– Subject to any exceptions notified by the Railway Administration from time to time, no consignment of explosives shall be forwarded to the Railway for despatch or accepted for conveyance by rail, unless previous notice of the intention to send such consignment has been given as prescribed by rule 106.2 and unless the Officer-in-charge of the station from which it is proposed to despatch the consignment has intimated in writing that the consignment can be received.

106.2. Particulars to be given in the notice.— The notice required rule 106.1 shall be addressed to the Officer-in-charge of the station from which the goods are proposed to be despatched and it shall be sent at least 48 hours before the consignment is brought to the station, unless shorter period is prescribed by the Railway Administration concerned.

The notice must contain a statement of the following particulars, namely:-

- (a) the true name, description and quantity of the explosives in the consignment;
- (b) the name and address of the consignor;
- (c) the name and address of the consignee;
- (d) a declaration that the explosives have been “packed and marked in accordance with the rules laid down in the Red Tariff”, i. e. rules 110 and 111’
- (e) a declaration that the consignor has received a confirmation from the consignee regarding his readiness to receive the explosive consignment.

Note. —(1) The Forwarding Note, complete in all respects, tendered 48 hours in advance of the date of offering of consignment for booking, shall be deemed to be a proper notice under this rule.

(2) When the Officer-in-charge of the railway station or shed is in a position to accept the goods, he shall notify the same on the notice board and such notice shall be deemed as proper intimation to the consignor under this rule.

Certificates, Forwarding Note, etc. to be obtained by Railway Staff

107.1. Documents required. — It shall be incumbent on the railway staff in the case of every consignment of explosives, mentioned in Table I, to obtain from the consignor.-

- (a) Forwarding Note, complete in all respects, in the prescribed form. (for Form see Annexure “A”);
- (b) in the case of explosives of the 3rd (Nitro-compound) class, a certificate in Form 1 (see Appendix I/2) granted by the Controller of Explosives, or by the Testing Officer, if the certificate is granted at the time when the explosive is imported, or where the original is produced for verification, a copy of such certificate certified by the consignor to be a true copy;
- (c) in the case of Amorges (Paper Caps for toy pistols), an explosive of Class 7, Division 2, a certificate of safety, in original, in the form given below, granted by the Controller of Explosives concerned.

Certificate of Safety for Amorce
(Paper Caps for toy pistols)

Certified thatcase of Amorce (paper caps for toy pistols) tendered by Shri/Sarvashri.....is/are of the authorised Type and that its/their packing is/are considered satisfactory.

Station.....

Inspector of Explosives

Date.....

.....Circle

(d) a pass (in triplicate) in Form 16 (for Form see Appendix I/1); or a certificate (in triplicate) indicating the authority for exemption wherever a pass in Form 16 is not required to be submitted, vide Rule 105.3;

(e) in the case of consignment booked to self, an additional declaration in the prescribed Form (for Form, see Appendix 1/6) from the holder of the transport licence, referred to in pass in Form 16 indicating that the consignment shown therein is intended for the consignee declared in this declaration;

(f) a confirmation in writing from the consignor that the consignee is in readiness to receive the explosive consignment. (Rule 37 (3) of E.R. 1983)

107.2. Remarks on invoice or way-bill. – Invoices or way-bills issued for consignments of explosives must have an endorsement to the effect that the documents mentioned in rule 107.1 have been obtained from the sender.

Prohibitions in acceptance

108.1. Mixed consignments prohibited.– Explosives shall not be accepted as forming a part of a consignment with other goods, but shall be tendered under a separate Forwarding Note and be booked as a separate consignment, explosives which cannot be loaded together shall also be tendered under separate Forwarding Notes and booked as separate consignments.

108.2. Booking by dearer route prohibited. – Explosives shall not be accepted for carriage by dearer route, except where

- (a) The dearer route is selected to avoid break of gauge transshipment;
- (b) The normal route for carriage is interrupted;

108.3. Maximum weight of package containing explosives.— No package containing explosives tendered to the Railway for **despatch** shall weigh more than 50 kgs.

Explosives to be accepted by authorized Railway servant and at specified place and time

109. Consignments of explosives intended to be transported by rail shall be received only.–

- (a) by a duly authorized railway servant: and
- (b) at such time between sunrise and sunset and at such places within railway premises as the Railway Administration may specify in this behalf.

Packing

110.1 Explosives to be transported only when packed in prescribed manner. – No explosives shall be tendered for transport or be transported unless it is packed in the manner laid down in column 2 of Table I, with such exceptions as are contained in columns 5 and 6 thereof.

110.2. Outer package and Inner package.– The expression “Outer package” used in Table I means a box, barrel, case or cylinder of wood, metal or other solid material, of such strength, construction and character as not to be liable to be broken or accidentally opened, or to become defective or insecure or to allow an explosive to escape.

The expression “Inner package” means a substantial case, bag, canister or other receptacle, made and closed so as to prevent any explosive from escaping.

110.3. Use of exposed iron or steel not permitted in the construction of package.– Except as otherwise provided in column 2 of Table I, no iron or steel shall be used in the construction of any package unless the same is covered with suitable material so as to effectively prevent the exposure of such iron or steel.

110.4. Interior of every package to be free from grit and clean. – The interior of every package shall be free from grit and otherwise clean.

110.5. Additional packing permitted under certain conditions. – Nothing in these rules shall be deemed to prohibit the use of additional package, whether inner or outer, of a character not expressly prohibited in writing by the Chief Controller of Explosives, provided the package requirements laid down in columns 2, 5 and 6 of Table I are complied with.

110.6. Maximum weight of package containing explosives. – No package containing explosives other than safety fuses when tendered for transport by the Railway shall weigh more than 50 Kgs.

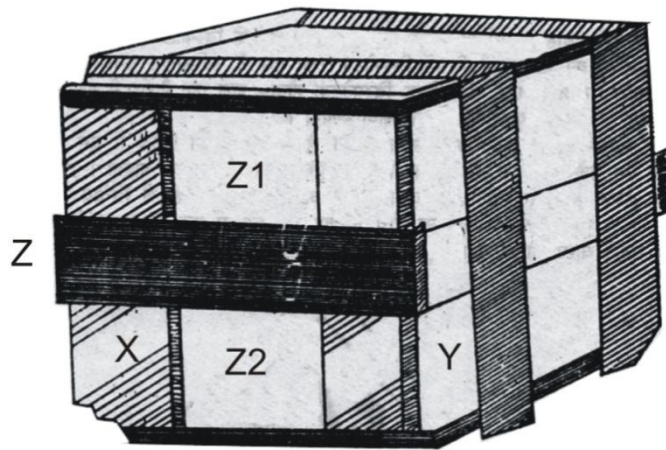
110.7. Use of metal bonds etc. – Use of metal bonds/wires on packages is prohibited unless specifically authorised by the Chief Controller of Explosives in relation to packing of any explosives.

110.8. Material on packages. – Material of which the packages and their closures (lids, stoppers etc.) are made shall not be attacked by the contents and form harmful or dangerous compounds therewith.

110.9 Packages to be rigid and strong. – Packages shall be sufficiently rigid and in all their part to prevent any loosening during transport and to meet normal requirements of such transport. Solid substances shall be firmly secured in their packages, and inner packages shall be firmly secured in outer packages. Unless otherwise specified, inner packages may be enclosed in outer packages, either singly or in groups.

110.10. Cushioning material, if used, shall be suited to the nature of the contents of the packages.

110.11. All packages weighing over 35Kgs. shall be provided on the sides with strong slings, handles or other suitable supports so as to enable their being lifted by a team of 2 or more persons. A suitable support in the form of cross battens on two opposite sides of an outer package as shown in the picture below-



Note.- The vertical battens, marked X and Y, on the facing sides have a thickness of about 1.9 cm. whereby the cross batten, marked Z provides a convenient hold at the space, marked Z1 and Z2

Marking and Labelling of packages by consignors

111.1. (1) The outer package shall be marked in conspicuous indelible character, by means of a stamping, embossing or painting with:-

- (a) the word “**Explosive**”;
- (b) the name of the authorised explosive;
- (c) the number of the class and the division to which it belongs;
- (d) the safety distance category of explosive;
- (e) the name of the manufacturer;
- (f) the name of the consignor and consignee; and

- (g) the net weight of explosive.

Provided that in case of safety fuse or fireworks, the word Explosive and the number of the Class and Division may be omitted.

(2) In the case of explosives used for charging for blasting viz., explosives of Class 2 or such other explosives of Class 3 Division I or such other explosives of Class 4 which contain liquid nitro compound explosive, the date of manufacture and batch number shall be added.

(3) In the case of explosives of Class 2 and Class 3, each of the cartridges containing explosives shall be printed or embossed legibly on it with:-

- (a) the word “**Explosive**”
- (b) the name of Explosives;
- (c) weight of Explosive;
- (d) diameter of cartridges;
- (e) name of manufacturer; and
- (f) in case of permitted explosive, the letter “**P**”

(4) In the case of fireworks, a caution or warning indicating the method of firing and precautions to be taken shall be printed on each piece of fireworks and where adequate space is not available on the fireworks such caution or warning may be printed on a separate label and inserted in a smallest packet in carton.

Note.- (1) The weight of explosive when referred to in these rules shall not include the weight of the packing case or box in which the explosives are packed.

(2) In the case of explosives of the 6th (Ammunition) class or 7th (Fireworks) class, however, the weight shall be deemed to be the weight of the completed article inclusive of the case or contrivance in which the explosive is contained.

111.2 More than one explosive in the same outer package. – Where an outer package contains more than one explosive, it shall be marked separately in respect of each explosive so contained.

111.3 Explosive having their own means of ignition. – Where a package contains explosives with their own means of ignition, a remark to this effect shall be made distinctly on the package.

111.4 Pictorial Label.– In addition to the marking specified above, and except where otherwise provided in column 3 of Table I, every package containing explosives shall bear the pictorial label shown as below, indicating the hazard involved on account of the contents of the package.—



Note.- (1) Background.....white.....symbol
and lettering.....black.

(2) Minimum dimensions 10cm. x10cm. Bigger labels may be used depending on the size of the packages.

(3) The label should be affixed at an angle of 45° “explosives” (diamond shaped) as indicated above.

(4) The label should be divided into 2 equal triangles, the upper being used for the symbol and lower for the text, as indicated above.

Responsibility of the Railway Staff

112. The Railway staff while accepting consignment of explosives for transport by rail must ensure that.—

(a) the declared weight of explosives in any our package, as ascertained from the markings thereon, does not exceed the maximum laid down 4 of Table I:

(b) the outermost package is in accordance with these rules: and

(c) no package containing explosives tendered to the Railway for **despatch** weighs more than 50kgs.

113. Relaxation of packing and marking rules.— If the Chief Controller of Explosives is satisfied that in any special case any of the requirements of rules 110 and 111 may be safely relaxed, he may, by an order in writing, authorize such relaxation under such conditions as he may deem fit. In such cases, the Chief Controller of Explosives shall intimate in writing, to the Indian Railway Conference Association the full details of relaxation permitted by him.

114. Marking by Railway.— Every package containing explosives shall be properly marked with Railway marks indicating the code initials of the forwarding and destination stations, the invoice or way-bill number and the number of packages in the consignment.

115.1. Handling to be done by consignors and consignees. – Unless otherwise notified by the Railway Administration, consignors and consignees shall do the loading and unloading of explosives in wagon loads.

115.2. When the traffic is booked in smalls and in all case of handing enroute, the Railway Administration concerned shall do the loading and unloading.

Storage

116.1. Explosives to be stored away from station buildings.— It shall be the duty of every Officer-in-charge of a station to cause every package of explosives which is proposed to be **despatched** by rail or which has been received at any station for transshipment or delivery to the consignee, to be stored as far away as possible from station buildings.

Note: This sub-rule will not apply to such explosives as are permitted *vide* rule 124 and 125 to be carried with other goods by goods or other trains, provided that the quantity stored at a time does not exceed the limit upto which such explosives are allowed to be so carried, and the other prescribed conditions of carriage are observed.

116.2. Type of Storage accommodation to be used. – Explosives should be stored in an enclosed shed. If, however, such storage accommodation is not available, they may be stored in a carriage or covered wagon. Failing that, they may be stored in a shed having an over head cover, protected, if necessary, with tarpaulins or other suitable material.

If this is also not possible, they may be kept in an open space, completely covered by tarpaulins or other suitable material. The place of storage shall be as far as possible at least 45 metres away from station buildings, dwelling houses, public places etc.,

Note: - Explosives required to be carried in a powder van should only be stored in a powder van or a wooden-floored wagon, but P.E.T.N. shall not be stored in any wagon other than a powder van.

116.3. Precautions to be observed during thunderstorm. – Whenever a thunderstorm is imminent in the vicinity of the storage of explosives, every person engaged in or near such storage place shall be withdrawn to a safe distance till the thunderstorm passes.

Precautions to be observed in Handling and Storing Explosives

117.1. Competent person to be in charge of operations.— whenever explosives in wagon loads are loaded, unloaded or handled, the consignor or the consignee, as the case may be, shall depute a competent person experienced in the handling of explosives to be present and supervise the loading and unloading at the forwarding and destination stations. At transshipments or repacking points the handling of wagon loads shall be supervised by responsible railway officials deputed for the purpose. In respect of smalls, the handling explosives at forwarding, receiving, transshipments and repacking stations shall be supervised by responsible railway officials, such as the Station Master or the Assistant Station Master on duty or the Head/Chief Transshipments Supervisor or any other person specially deputed for the purpose.

117.2. Safe distance to be maintained while handling explosives.— Explosives shall be loaded and unloaded as far away as possible from station buildings, dwelling houses, factories, public buildings or other buildings, or places where persons assemble.

- Note.- This sub-rule will not apply to such explosives as are permitted vide Rules 124 and 125 to be carried with other goods by goods or other trains provided that the quantity stored at a time does not exceed the limit up to which such explosives are allowed to be so carried and the other conditions of carriage.

117.3. Examinations of place, carriage or wagon in which any explosives is laid or handled.— The floor or any place or carriage or wagon on which any explosive is laid and the ground and other place over which the explosive is to be conveyed during loading or unloading shall be-

- carefully examined to ensure that there is nothing there-on in contravention of these rules,
- thoroughly cleaned and swept before and after use, and
- checked to see that there is no leak on the floor of the wagon just above the axle box.

117.4. Time of loading and unloading.— No person shall handle or cause to be handled any explosives between the hours of sunset and sunrise; Provided that nothing in this rule shall apply to handling of explosives during the dark hours, if proper illumination is provided in the area and the place is guarded; Provided further that consignments in brake-vans of passenger, mixed or parcel trains and by transshipment or road van trains may be handled at any hour all due precautions being taken by proper illumination and to prevent accidents.

117.5. Handling operation to be done diligently without unnecessary stoppage.— After the handling of explosives has commenced, the operations shall proceed with due diligence and without unnecessary stoppage.

117.6. Handling of packages. – (1) The packages containing explosives shall not be thrown, dropped down, rolled or dragged along the ground or floor, and care shall be exercised to avoid striking them against any hard object.

(2) Heavy packages shall be handled by a team of two persons or more, each holding the package from a secure place, sling or support provided on the package.

(3) Trolleys or hand-barrows shall not be used for the conveyance of packages containing explosives.

117.7. Prohibition of unauthorized persons. – No unauthorized person shall be allowed access to any place where explosives are stored or handled or to carriages or wagons in which they are carried.

117.8. Prohibition to possess matches, fuzes, knives, etc.— No person on, in or near any place where explosives are handled or stored, shall have in his possession any matches, fuzes, or other appliances for producing ignition or explosion or any knives or other articles made of iron or steel.

117.9. Prohibition of smoking, fires, lights and dangerous substances.— No person shall smoke, and no fires, lights or articles or substances of a flammable nature or liable to spontaneous ignition, or to cause or communicate fire or explosion such as acids, petroleum, carbide of calcium, compressed gases or such other hazardous substances shall be allowed;

- at any time within 15 metres from a place where an explosive is stored; or

(b) at any place where an explosive is handled, during transport one hour before and during such handling.

Note.- The stipulation regarding the distance limit of 15 metres contained in sub-clause (a) above, will not apply to such explosives as are permitted, vide rules 124 and 125 to be carried with other goods or other trains provided that the quantity stored or handled at a time does not exceed the limit up to which such explosives are allowed to be so carried, the other prescribed conditions of carriage being observed, and provided further that no person shall smoke or take or have any fire or naked light or any agency which produces heat or sparks near any place where explosives are stored or handled.

117.10 Prohibition of boots and shoes.— No person at, or near any place where explosives are handled or stored shall wear boots or other foot wear with iron nails or shed or strengthened with iron, unless such boots or shoes are covered with leather, rubber felt or other material in the form of overshoes or otherwise. Where foot wear of the required Type are not available, the persons concerned shall work bare-footed.

117.11 Prohibition of children and intoxicated persons.— No person who is under 18 years of age, or who is in state of intoxication or who is of unsound mind shall be employed on the loading and unloading or transport of explosives, or be employed or allowed to enter the area where the operations are in progress.

117.12 Protection from sun, rain and snow. – Packages containing explosives shall not be exposed to sun, rain or snow, nor kept on damp ground, and they shall be protected with tarpaulins or other suitable material whenever required.

Explosives not to be kept at place of loading and unloading for long periods.

118.1 explosives shall not be brought to any place of loading until the wagon or carriage, in which they are to be loaded, is ready.

118.2 On arrival at transshipment, repacking or destination station, and pending their onward despatch or delivery as the case may be, explosives shall not be allowed to remain at any place of unloading for any unduly long period.

118.3 When any undue delay on loading, forwarding or delivery of explosives is anticipated, they shall be stored in a safe place in accordance with the provisions of rule 116.

Explosives to be normally transported by goods train

119. Except as provided in rules 120, 125 and 126, explosives shall not be transported by any train other than a goods train.

120.1. Prohibition on passenger or mixed trains. – No explosive shall be transported by any passenger or mixed trains.

120.2. Despatch of explosive vans by mixed trains. – Notwithstanding anything contained in rule 120.1, any explosives may be transported by a mixed train in vans specially approved on any line or section on which goods trains are not running, subject to the following conditions, namely- :

- (i) not more than 3 such vans containing explosives shall be hauled at any one time;
- (ii) there shall be not less than 3 carriages between the vans containing explosives and the engine and between such vans and the passenger carriages;

- (iii) the vans containing explosives shall be close-coupled to the adjoining carriages and to each other;
- (iv) immediately on entering any section upon which goods trains are running, the vans containing explosives shall be detached from the mixed train.

120.3. Conveyance of explosives by passenger or mixed trains. – Notwithstanding anything contained in the foregoing rules, the following explosives may be transported by passenger or mixed train, namely- :

- (i) Safety fuses for blasting ;(ii) Explosives of the 3rd (Nitro-Compound) class, other than propellants, in the form of cartridges not exceeding in the aggregate 2.5kgs. in weight provided no detonators are carried in the same compartment;
- (iii) Detonators to the number of 200 if, the amount of explosive in the packages containing detonators does not exceed in the aggregate 225 gms. Provided: —
 - (a) a certificate to this effect is tendered by the consignor ; and
 - (b) no other explosive is carried in the same compartment;
- (iv) Sporting powders and propellants packed in double packages prescribed in Table I provided.
 - (a) the explosive is contained in tin canisters containing not more than 5kg. each packed in a stout wooden case a completely spark-proof outer cover of tin or in a metal case or cylinder of a pattern approved by the Chief Controller;
 - (b) no other case contains more than 12.5 Kgs. of explosives; and
 - (c) the total consignment by one train does not exceed in the aggregate 37.5 Kgs.

Type of wagons to be used for loading explosives

121.1. Powder vans to be used. – Except as otherwise provided in column 5 of Table I, all explosives shall be carried in powder vans specially constructed for the carriage of explosives and of a Type approved by the Chief Controller of Explosives.

121.2 wooden- floored covered wagons may be used with prior permission. – If powder vans are not available, wooden floored covered iron wagons may be used after obtaining prior permission from the Chief Controller of Explosives.

Note: Over the North-East Frontier Railway, loading in wooden floored covered wagons has been permitted by the Chief Controller of explosives.

121.3. Open wagons and end-opening carriages or wagons not permitted. – Open wagons and end-opening carriages or wagons shall not be used for the conveyance of explosives of any Type.

Quantities of explosives to be loaded or handled

122.1. Maximum quantity allowed in a wagon. – Except as otherwise provided in column 5 of Table I, the quantity of explosives transported shall not exceed 10 tonnes or half the carrying capacity of wagon, whichever is less in any one railway wagon.

122.2. Reckoning of weight of explosives consignments. – (1) For the purpose of calculating the quantity of explosive contained in a consignment or carriage, the weight shall be determined in accordance with note to rule 111.1

(2) For the purpose of calculating the railway freight, the weight for charge shall be weight of the complete article inclusive of the packing case.

122.3 Maximum quantity of explosives to be transported by Railway. – Not more than 5 carriages containing explosives shall at any one time be loaded or unloaded at on any railway station or wharf and not more than 10 carriages containing explosives shall be attached to or transported by any one train.

Provided that this restriction shall not apply to ammunition specials booked under Military Tariff Rules, in which case Military Tariff Rules shall apply.

Carriage of explosives with ordinary goods not normally permitted

123. Except as provided in rule 124, 125 and 126 explosives shall not be carried in the carriage along with ordinary goods.

124. Subject to the provisions of rules 127 and 128, the explosives mentioned in Table I may be transported with ordinary goods by goods train in a carriage not containing any articles or substances of combustible nature, in such quantities and under such conditions as have been laid down in column 5 of that Table-I. Provided that the explosives shall be well separated in the carriage from other goods.

**Carriage of certain explosives permitted in brake-vans of passenger,
mixed or parcel trains**

125. Subject to the provisions of rules 127 and 128 being observed, the explosives as mentioned in Table I may be transported in the brake-vans of passenger, mixed or parcels trains in such quantities and under such conditions as have been laid down in column 6 of that Table.

Provided that when such explosives are carried with other goods, they shall well-separated in the brake-vans from the other goods.

Carriage of safety cartridges in passenger compartments.

126. Safety cartridges may be carried in a compartment or carriage in which passengers are transported, as part of personal luggage.

Explosives which must be kept separate

127. An explosive of the 6th (Ammunition) class containing its own means of ignition, or an explosive of the 7th (Fireworks) class, shall not be transported in the same carriage and shall not be conveyed or handled or stored with any explosive not of the class and division to which it belongs.

Carriage of explosives with other dangerous goods prohibited

128. Explosives shall not be conveyed in the same carriage with any matches or fuses or appliance of producing ignition or any other dangerous goods or empties which have contained petroleum and other inflammable liquids.

Stowing in wagons

129. All packages containing explosives shall be stowed in one layer only and shall be secured in such a layer as to prevent movement when the wagon is in motion:

Provided that if packages are rectangular in form and are properly secured so as to prevent movement during transit, they may be stowed in more than one layer but not exceeding five layers.

Labelling, sealing and locking of wagons

130.1. Explosives label to be affixed on wagons. –An “Explosives” label as shown below shall be affixed to both sides of every wagon or carriage in which explosives are stored for despatch or delivery or while in transit.



Note.- (1) Back ground..... white symbol and lettering black.

(2) Dimensions..... 0.3m radius

(3) The label should be divided 2 equal half circles, the upper being used for the lettering “NOT TO BE LOOSE SHUNTED” and the symbol and the lower for the rest of the text, as indicated above.

Note. - The class, division and the weight of explosives (in the case of detonators their number instead of weight) contained in the wagon or carriage must invariably be shown on the wagon label.

This information must also be endorsed on the seal cards and pocket labels.

Except on road vans or transshipment on road van trains on which labels may be pasted on the sides of the wagon or carriage these labels shall be so pasted on the doors that when they are opened, the labels are automatically destroyed. These labels shall be affixed even when explosives are transported along with ordinary goods irrespective of quantity of explosives loaded in the wagon or carriage.

Provided that it shall not be necessary to use such labels when explosives are conveyed by passenger, mixed or parcels trains in brake-vans.

130.2. Private labels.— In addition to the railway labels, there shall be no objection to a consignor pasting a label indicating the contents and hazard involved, such labels being pasted on the doors of a wagon.

130.3. Lead seals to be used.— Lead seals only shall be used for sealing of wagons containing explosives.

130.4. Riveting or E. P. locking prohibited.— Riveting or E. P. locking of wagons containing explosives is prohibited.

130.5. Padlocking of wagons.— Wagons carrying explosives shall be securely padlocked with padlocks of galvanized iron, Type 2.65 mm. nominal size provided by the consignor. One key of the padlock shall be sent to the destination through the Station Master of the forwarding station concerned. The receipt of the key shall be acknowledged by the Station Master by means of an entry in a register to be opened for the purpose and the shall after handing over the key to the Guard of the train by which the wagons are cleared, obtain the signature of the Guard in the same register in token thereof. A label containing the name of the firm, wagon number, destination shall be affixed to the key which shall accompany the wagon through to the destination. The Station Master of the destination station shall deliver the pad-lock and keys to the consignee.

Shunting

131. Precautions to be observed during shunting operations.— Shunting of carriages containing explosives shall not be carried out except under the superintendence of a duly authorised officer who shall ensure that during shunting operations-

- (a) carriages containing explosives are separated from the locomotive by not less than three carriages not containing explosives or other dangerous goods or articles of inflammable nature, provided that when an electric (Traction) or diesel (Electric) locomotive is used, only one such carriage need intervene between the carriages containing explosives and the locomotive;
- (b) the speed of all movements does not exceed 8 kms. an hour; and
- (c) no rough, hump, fly or loose shunting takes place.

Marshalling

132.1 Precautions to be observed during marshalling.—

- (1) The maximum number of carriages containing explosives which may at any one time be attached to or hauled by a train shall be-
 - (a) ten by a goods train; and
 - (b) three by a mixed or parcel train on any line or section on which goods trains are not running;

Provided that the above provisions shall not apply to military ammunitions specials in which case Military Tariff Rules shall apply.

- (2) Carriages or wagons containing explosives shall be placed as far away as practicable from the train locomotive grouping together these carriages and wagons which are permitted to be so grouped.
- (3) Carriages containing explosives shall be separated by not less than three carriages not containing explosives or other dangerous goods or articles of inflammable nature from:-
 - (a) the train locomotive, provided that when diesel (electric) locomotive is used, only one such carriage need intervene between the carriages containing explosives and the locomotive.
 - (b) the passenger carriages or the brake-vans;
 - (c) any other carriages containing other dangerous goods or articles of inflammable nature.
- (4) Carriages containing explosives shall be close-coupled to the adjoining carriages and to each other.

132.2. Position of railway carriage.— Every railway carriage containing explosive shall be placed as far away as practicable from the engine and shall be close-coupled to the adjoining carriage not loaded with explosives or other articles or substances of flammable or hazardous nature;

Provided that—

- (a) On the Darjeeling- Himalayan Railway carriages containing explosives need not be close-coupled;
- (b) On the electrified section of Railways, when trains are hauled by electric locomotive, no carriages need intervene between the engine and the carriage containing explosives.

132.3. Restrictions on conveyance of explosives by train carrying liquid air or liquid oxygen. — Explosives exceeding 907.18 kg. shall not be conveyed by the by same train by which consignments of liquid air or liquid oxygen are being conveyed.

132.4. Guard or dummy wagons. — Whenever the requisite number of carriages not containing explosives or other dangerous goods or articles of inflammable nature are not available, empty wagons shall be used as guard or dummy wagons for separating, as required, the carriages containing explosives from the train locomotive, the passenger carriages or the brake-vans or any other carriages containing other dangerous goods or articles of inflammable nature.

Non-receipt of consignments at destination due to delay in transit

133. In every case when a consignment of explosives fails to reach the destination within a reasonable time from the date of booking, as shown on the invoice or the way-bill, the Station Master of the station to which such explosives is booked must report the facts by wire to the Station Master of the booking station, junctions concerned, and Divisional Railway Manager and Superintendent of Railways Police in whose jurisdiction the booking, transshipping and destination station are situated.

Notice of arrival

134.1. Advance notice. – (1) The Station Master of the despatching station shall, on the booking and despatch of a consignment of explosives, forward by post to the Station of the destination station a copy of the pass in Form 16 and the consignor's "Declaration", where obtained, under cover of a forwarding letter (for form see Appendix I/4).

(2) On receipt of the advice, the Station Master of the destination station shall at once advise, (Appendix I/5), the consignee or the intended consignee, as the case may be, to be prepared to take delivery immediately on arrival of the consignment.

(3) Where there is break-of gauge, the Station Master of the transshipping station shall also be advised.

134.2. Further notice to consignee on arrival of consignment. – The station master of the destination station shall also ensure that notice of arrival of consignment of explosives is issued to the consignee or the intended consignee, as the case may be, in the prescribed form (for form see Annexure B) for all consignments received at his station and not removed on the date of unloading, the pass in Form 16 or the consignor's declaration shall be referred to, wherever necessary for the name and address of the consignee or the intended consignee, as the case may be.

134.3. Railway's right to recover wharfage and demurrage not affected by non-issue of notice. – Non-receipt or late receipt of the advance notice or notice of arrival shall not entitle the consignee to exemption from wharfage and demurrage charges if the goods are not taken delivery of within the free time allowed.

Delivery or disposal otherwise

135.1. Delivery. – Packages containing explosives shall be removed by the consignee from the station or depot of the railway to which they have been transported as soon as they are made available for delivery.

135.2. Disposal if delivery not effected expeditiously. – (1) If consignments of explosives are still on hand after the expiry of the free time allowed for their removal, a notice, as prescribed in clause (b) of sub-section 2 of section 84 of the Railways Act, 1989 (24 of 1989) shall immediately be served on the consignee, in case of consignment booked to "self" in addition to the booking station being addressed to serve a similar notice on the consignor, a notice shall be served on the intended consignee indicated in the consignor's declaration referred to in rules 105.1 (2) and 107.1 (4).

(2) The notice shall be in the prescribed Form (Appendix I/7).

(3) After the expiry of the period specified in the notice, packages still unclaimed shall be sold by public auction in accordance with the provisions of sections 83 and 84 of the Railways Act, 1989 (24 of 1989).

135.3. Restriction on delivery or sale of explosives. – Packages containing explosives shall only be delivered or sold to a person who holds a licence to possess the explosive or is the authorised agent of the holder of such a licence, or is otherwise entitled to possess the explosives without a licence.

Weight for charge and days of acceptance

136. Traffic in wagon loads to be accepted in all days.– Traffic in wagon loads shall be accepted on all days subject to a minimum weight for charge of sixty quintals for B.G., forty five quintals for M.G. and thirty five quintals for N.G. per four/eight wheeled wagon.

Pre-payment of freight

137. Pre-payment is compulsory on all consignment of explosives.

Charges for guard or dummy wagons

138. Whenever it is necessary to attach empty wagons as guard or dummy wagons for the safety of a train carrying explosive, such wagons shall be charged in accordance with rules and at the rate notified in the Goods Tariff from time to time.

Split explosives to be destroyed

139. If any explosive escapes from the package in which it is contained, or is split, such explosive shall immediately be carefully collected and secured and the Controller of Explosives contacted forthwith who shall arrange for its destruction.

Repairs to carriages

140. Before any repairs or alterations are commenced in any part of a carriage in which explosives are being or have been transported, all due precautions shall be taken to remove all such explosives or any remnants thereof from the carriage; the space in such carriage in which explosives have been carried shall be thoroughly washed to ensure that no remnants of explosives remain therein.

Reports of accidents

141. (1) Whenever there occurs any accident connected with any consignment of explosives, attended with loss of life, serious injuries to persons or serious damage to property, or of a description usually attended with such loss, injuries or damage, the person for the time being in charge of the consignment shall forthwith inform-

- (a) The Chief Controller of Explosives, Nagpur, giving particular of occurrence by available means of communication such as: Telephone /Fax/E-mail etc.

Add:- A-Block, 5th Floor, CGO Complex, Seminary Hills, Nagarpur-440006 (MAHARASHTRA) Tel. No. 071-22510248, E-mail:- explosives@ explosives.gov.in

- (b) The Officer-in-charge of the nearest police station by the quickest means of communication;
- (c) The departmental officers concerned.
- (d) National Disaster Response Force (NDRF)

(2) Pending the visit of the Chief Controller of Explosives or his representative, or until instructions are received from him or his representative that he does not wish any further investigation or inquiry to be made, all wreckage and debris shall be left untouched except in so far as its removal may be necessary for the rescue of persons injured and recovery of the bodies of the bodies of any persons killed by the accident or for the restoration of through communication.

Power of inspection, search, seizure, detention and removal

142. Any officer specified in the first column of the Table below may, within the areas specified in the corresponding entry in that Table:-

(a) enter, inspect and examine any place or carriage in which an explosive is being possessed or transported, or in which he has reason to believe that an explosive has been or is being possessed or transported in contravention of the Indian Explosives Act, 1884 (4 of 1884) or the Explosives Rules, 1983;

(b) search for explosives or ingredients thereof therein;

(c) take samples of any explosives or found therein free of charge; and

(d) seize, detain or remove any explosive or ingredients thereof found therein in respect of which he has reasons to believe that any of the provisions of the Indian Explosives Act, 1884 (4 of 1884) or the Explosives Rules, 1983 have been contravened.

TABLE

Officers			Areas
(i)	The Chief Controller of Explosives, Nagpur and Controller of Explosives.	... ..	All parts of India
(ii)	All District Magistrates	... ..	Their respective Jurisdiction.
(iii)	All Executive Magistrates	... ..	Their respective Jurisdiction.
(iv)	All Commissioners of Police and all police officers of rank not below that of S.I. of police.		The areas over which their authority extends.
(v)	The Directors General Mines Safety and Officers Subordinate to him.		The respective areas over which their authority extend (Authority Rules No.179 of the Explosives Rules, 1983).

Saving

143. Nothing in this Chapter shall be deemed to detract from the operation of –

(a) Explosives Act, 1884 (4 of 1884)

(b) Explosives Rules, 1983

(c) The Indian Arms Act, 1959 (54 of 1959) or

(d) The Indian Arms Rules, 1962

Wherever applicable

Explosives (See Rule 101)

Table—I

Class and name of Explosive	Packing (see also Rule 110)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 111, 114 and 130.1)	Quantity that be put in an		Exceptional or Additional Rules regarding carriage by goods Train (See also Rules 119, 120, 121, 122 and 124)	Exceptional or Additional Rules regarding carriage in brake-van of Passen143ger Mixed or Parcel Train (See also Rule 125)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 127, 128, 129, 131 and 132)
			Outer Package	Inner Package			
(1)	(2)	(3)	(4)		(5)	(6)	(7)
Class 1 Gunpowder (Black powder, Country powder Blasting powder, Propellent)	When the quantity in any one consignment does not exceed 2.5 kg., a single outer package. When the quantity exceeds 2.5 kg., a double package, i. e. the inner & outer packages. Inner packages, if made of metal shall be secured b cushioning material. (Authority: Schedule II of E.R., 1983).		50 kg. | 2.5 kg. Provided that where propellant is packed with other kinds of gun powder, the quantity shall not exceed- 25 kgs. | 2.5 kgs. (Authority: Sch. II of ER: 1983.		In specification cases, gunpowder may be permitted for carriage with ordinary goods provided- (1) It is packed in approved metallic cases or cylinders ; (2) The quantity does not exceed 25 kg. in any one package and by any one train.	37.5 kg. in the aggregate by any one train in the rear brake-van provided. (1) No outer case or cylinder contains more than 12.5 kg.; and (2)The gunpowder is contained in tin canisters each containing not more than 2.50 kgs. These tin canisters should be packed in a stout wooden case with a completely spark-proof outer cover of tin or zinc or in a metal case or cylinder complying in all respects with the general specifications given in Appendix I/3. (Authority : Rule 69 of ER, 1983	...
Class 2 Nitrate Mixture	The material shall be suitable cartridged in wrappings made of suitable plastic material or papers so as to make it impermeable and protect from damp.	....	25 kgs. | 2.5 kgs		...	...	

	Further packing as for Class I					
--	--------------------------------	--	--	--	--	--

Class and name of Explosive	Packing (see also Rule 110)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 111, 114 and 130.1)	Quantity that be put in an		Exceptional or Additional Rules regarding carriage by goods Train (See also Rules 119, 120, 121, 122 and 124)	Exceptional or Additional Rules regarding carriage in brake-van of Passenger Mixed or Parcel Train (See also Rule 125)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 127, 128, 129, 131 and 132)
			Outer Package	Inner Package			
(1)	(2)	(3)	(4)		(5)	(6)	(7)
Class 3 Nitro-Compounds DIVISION-1 (Explosives consisting wholly or partly of nitroglycerines or some other liquid nitro compound).							...
Sporting Powder Propellents Gelatine	1) The material shall be cartridged in wrappings made of paper or polythene that has been made impermeable. The wrapping should also protect the material from damp. 2) Further packing as for class I, provided that either the outer or inner package shall be thoroughly waterproof and no metal shall be used, in the construction of the packages, except that (i) nail made of brass, zinc or other soft metal or coated with the same may be used for securing the outer package, and (ii) wire stitching may be used for securing the inner package if the wire is effectively prevented from coming into contact with the explosives by means of a sheet of stout cardboard or otherwise.	The date of manufacture or issue from the factory, or such sign indicating such date as may be approved by the Chief Controller of Explosives, should be marked on the outer package.	For other than propellents 25 kgs | 2.5 kgs. For propellents 25 kgs. | 25 kgs.		In specific cases, Nitro compounds may be permitted for carriage with ordinary goods, provided – (1) They are packed in approved metallic cases or cylinders; (2) The quantity 25 kgs. does not exceed in the case of sporting powders or propellents and 25 kgs. in the case of other than sporting powders or propellents, in any one packaged and by any one train	(a) Sporting powders or propellents in column (1) 37.5 kgs. in the aggregate by any one train in the rear brake-van provided- (i) No outer case or cylinder contains more than 12.5 kgs. of powder of propellents; and (ii) The powder or propellant is contained tin canisters each containing not more than 2.5 kgs. Each 2.5 kgs. tin canisters should be packed in a stout wooden case with a completely spark-proof outer cover of tin or zinc or in a metal case or cylinder complying in all respects with the general specifications given in Appendix I/3. (b) Other than Sporting powder or propellents 2.5	

					kg. in the aggregate	
--	--	--	--	--	----------------------	--

Class and name of Explosive	Packing (see also Rule 110)	Exceptional of Additional Rules regarding Marking and Labelling (See also Rules 111, 114 and 130.1)	Quantity that be put in an		Exceptional or Additional Rules regarding carriage by goods Train (See also Rules 119, 120, 121, 122 and 124)	Exceptional or Additional Rules regarding carriage in brake-van of Passenger Mixed or Parcel Train (See also Rule 125)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 127, 128, 129, 131 and 132)
			Outer Package	Inner Package			
(1)	(2)	(3)	(4)		(5)	(6)	(7)
Class 3- Contd. Nitro-Compounds Contd... DIVISION 1- Concl'd.						by any one train in the year brake van provided- (i) The explosive is in the form of cartridges (ii) No detonators are carried in the same carriage.	
DIVISION 2. (Nitro compound explosives other than Division 1) Ammonal Di-Nitro-Phenol	As for Class 1	As in Division 1 above	25 Kgs.	25 Kgs.	In specification cases, Nitro-compounds may be permitted for carriage with ordinary goods, provided- (1) They are packed in approved metallic cases or cylinders; and (2) The quantity does not exceed 25 kg. in any one package and by any one train.	As in Division 1	....
Guncotton (so wetted with water as to be absolutely unflammable).	As for Class I, provided that the inner or outer package or both of them, shall be of such nature and so closed as to prevent any material loss of moisture.	-DO-	Unlimited	Unlimited Subject to the gross weight of the package and contents not exceeding 55 kgs.	-DO-	2.5 kgs. in the aggregate by any one train in the rear brake-van provided no detonators are carried in the same carriage	....

Class and name of Explosive	Packing (see also Rule 110)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 111, 114 and 130.1)	Quantity that be put in an		Exceptional or Additional Rules regarding carriage by goods Train (See also Rules 119, 120, 121, 122 and 124)	Exceptional or Additional Rules regarding carriage in brake-van of Passenger Mixed or Parcel Train (See also Rule 125)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 127, 128, 129, 131 and 132)
			Outer Package	Inner Package			
(1)	(2)	(3)	(4)		(5)	(6)	(7)
Class 3- Contd. Nitro-Compounds-Contd. DIVISION 2-contd. Nitro guanidine, Picric Acid (Picric acid containing 33-1/3 per cent of water, calculated on the wet material is non-explosive).Picric powder	As for Class I	As in Division 1 above	25 kgs.	25 kgs. As for Gun cotton	....	2.5 kgs. in the aggregate by any one train in the rear brake-van provided no detonators are carried in the same carriage	....
Penta Erthyritol-Tetranitrate (P.E.T.N.) containing 25 per cent of moisture	Must be transported wet with not less than 25 per cent water calculated on the wet weight (or 50 per cent on dry weight of P.E.T.N.) In double package, the inner package shall be a polythene bag closed at the top with twine thread and placed in a bright tin container. Both the bag and the tin container shall be so closed as to prevent any material loss of moisture. The outer package shall be as defined in Rule 110.2 and so closed as to prevent any material loss of moisture.	-DO-	22.5 kgs.	11.25 kgs. (dry basis) (dry basis)	(1) The maximum quantity which may be transported in any one railway wagon is 600 kgs. (2) Transported in powder vans only	-DO-	...

Class and name of Explosive	Packing (see also Rule 110)	Exceptional of Additional Rules regarding Marking and Labelling (See also Rules 111, 114 and 130.1)	Quantity that be put in an		Exceptional or Additional Rules regarding carriage by goods Train (See also Rules 119, 120, 121, 122 and 124)	Exceptional or Additional Rules regarding carriage in brake-van of Passenger Mixed or Parcel Train (See also Rule 125)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 127, 128, 129, 131 and 132)
			Outer Package	Inner Package			
(1)	(2)	(3)	(4)		(5)	(6)	(7)
Class 3- contd. Nitro-Compounds-Contd. DIVISION 2-Cond.							
PETN- TNT boosters	As for Class I	As in Division 1 above	25 kgs. 25 kgs.		....	....	....
RDX (Cyclotrimethylene trinitramine)	As for PETN	Do.	22.5 kgs. 11.25 kgs (dry basis) (dry basis)		....	....	....
RDX-TNT	As for Class I	Do.	25 kgs. 25 kgs.		....	....	....
Tetranitromethylaminitine (CE)	Do.	Do.	25 kgs. 25 kgs.		....	....	....
Tri-Nitro Resorcinol (Styphnic Acid)	As for Class I, provided that Tri-nitro Resorcinol (Styphnic Acid) shall be wetted with not less than 20 per cent of water calculated on the wet explosives and that the inner package shall be a substantial bag, case or canister so made and closed as to prevent any loss of moisture or escape of explosives.	Do.	25 kgs. of wet explosive	25 kgs.of wet explosive	....	....	....
Trinitrotoluene (TNT) Sporting powder	As for Class 1		25 kgs. 25 kgs.		....	....	....

Class and name of Explosive	Packing (see also Rule 110)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 111, 114 and 130.1)	Quantity that be put in an		Exceptional or Additional Rules regarding carriage by goods Train (See also Rules 119, 120, 121, 122 and 124)	Exceptional or Additional Rules regarding carriage in brake-van of Passenger Mixed or Parcel Train (See also Rule 125)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 127, 128, 129, 131 and 132)
			Outer Package	Inner Package			
(1)	(2)	(3)	(4)		(5)	(6)	(7)
Class 4							
Chlorate Mixture DIVISION-1 (Not authorised for transport) DIVISION- 2 (Not authorised for transport)							
Class 5 Fulminate DIVISION 1 (Not authorised for transport) DIVISION 2 Not authorised for transport)							
Class 6 Ammunition DIVISION 1 Other than pin-fire Cartridges for pistols. Electric lighters for ignitor cord Ignitor cord connectors Nobles safety – electric fuses Railway fog signals Safety fuse.	(1) A Single outer package, provided that bulletted cartridges of a calibre exceeding 1.27 cm. shall be packed in such a manner that the point of any bullet cannot come in contact with the cap of another cartridge. (2) Sub – rule 3 of Rule 110 does not apply.	Sub – rules (1), (3), (4) and 4 of Rule 111 do not apply to safety fuse.	Unlimited ....subject to the gross weight of package other than safety fuses not exceeding 55 kg.		No restriction on (1) Loading in covered iron wagons; and (2) Maximum quantity carried in any vehicle.	May be carried by rear or front brake – van without any restriction on quantity.	(1) Rule 131.1 (1) and 132.1 (1), (2) and (3) do not apply. (2) Regarding safety cartridges see also Rule 126.

--	--	--	--	--	--	--

Class and name of Explosive	Packing (see also Rule 110)	Exceptional of Additional Rules regarding Marking and Labelling (See also Rules 111, 114 and 130.1)	Quantity that be put in an		Exceptional or Additional Rules regarding carriage by goods Train (See also Rules 119, 120, 121, 122 and 124)	Exceptional or Additional Rules regarding carriage in brake-van of Passenger Mixed or Parcel Train (See also Rule 125)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 127, 128, 129, 131 and 132)
			Outer Package	Inner Package			
(1)	(2)	(3)	(4)		(5)	(6)	(7)
Class 6-contd. DIVISION 1 conclud. Pin –fire Cartridges for pistols	1) Not exceeding 50 in number in any one consignment so packed in a single package that the bases lie alternately in opposite directions. The bases and pins shall be so fitted into perforations in mill board or other suitable material as to prevent the firing of any one of the said cartridges by any explosion in any other of the said cartridges.	....	50 in number ....		....	....	....
	2) Exceeding 50 in number – In an inner and outer package, the cartridges being packed in inner packages with mill board as above required.	....	2500 in number	50 in number	....	....	....

Class and name of Explosive	Packing (see also Rule 110)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 111, 114 and 130.1)	Quantity that be put in an		Exceptional or Additional Rules regarding carriage by goods Train (See also Rules 119, 120, 121, 122 and 124)	Exceptional or Additional Rules regarding carriage in brake-van of Passenger Mixed or Parcel Train (See also Rule 125)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 127, 128, 129, 131 and 132)
			Outer Package	Inner Package			
(1)	(2)	(3)	(4)		(5)	(6)	(7)
Class 6 –Contd. Ammunition- Concl. DIVISION 2							
*Cartridges for small arms other than safety cartridges.Cordeau Bickford,Cordtex, Detonating fuse, Fuse Heads, Fuse Ignitors Shaped charge, Plastic ignitor cord, Plastic ignitor wick Quick match Tubes for firing explosives	(a) Explosives made up into cartridges or charges for cannon shells, torpedoes, mines blasting or other like purposes. Shall be packed in such manner and in such quantity as is required for the same explosive when not so made up, provided that where a double packing is required, the enclosing case of such cartridges or charges may, if it satisfies the conditions required for an inner package, be deemed to be such inner package. (b) other ammunition of this division. A single outer package.	....	(a) Maximum amount allowed for the same explosive when not so made up. (b) 50 kgs. (Authority Sch. II of E. R. 1983	Detonating fuse may be permitted for carriage with ordinary goods, provided- (1) they are packed in approved metallic cases or cylinders; and (2) the quantity does not exceed 22.5 kgs. in any one package and by any one train.	May be permitted for carriage in the rear brake-van of passenger, mixed or parcel train subject to the following conditions :- (a) one reel containing 305 meters of Detonating fuse or 500 meters of Detonating fuse (I-Cord) is packed in a wooden case lined with corrugated paper board; (b) not more than one package of detonating fuse (I-Cord) packed as above is carried by any one train; and (c) no detonators are carried in the same carriage.	....	

*These commodities also fall within the purview of Indian Arms Act. For Addl. Rules applicable, see Rule 154 of the IRCA Goods Tariff Pt.I, (Vol.I) and Chapter XIV of IRCA Coaching Tariff Pt. I (Vol.II).

Class and name of Explosive	Packing (see also Rule 110)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 111, 114 and 130.1)	Quantity that be put in an		Exceptional or Additional Rules regarding carriage by goods Train (See also Rules 119, 120, 121, 122 and 124)	Exceptional or Additional Rules regarding carriage in brake-van of Passenger Mixed or Parcel Train (See also Rule 125)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 127, 128, 129, 131 and 132)
			Outer Package	Inner Package			
(1)	(2)	(3)	(4)		(5)	(6)	(7)
Class -6 (Contd.) Ammunition- Contd. DIVISION 3							
Cartridges for small arms which are not safety cartridges. Friction tubes Percussion primers Tubes for firing explosives (other than Detonators).	(1) As for Class 1 (2) Bulleted cartridges of calibre exceeding 1.27 cm. shall be packed in such a manner that the point of any bullet cannot come in contact with the cap of another cartridge.	....	25 kgs.	1 Kg. or 10in Number Which-Ever is greater (Authority Sch.II of ER, 1983).	....	....	No explosives of this division may be carried in the same train with any other explosive of any other class or division unless it is separated there from by at least 3 carriages not containing other dangerous goods or articles or substances of combustible nature, so as to prevent any fire or explosion which may take place in one such explosive being communicate to the other.
Detonators	(a) Not exceeding 1,000 in any one package : (i) As for class 1. (ii) the detonators and the spaces between the side of the inner package and	Instead of weight to be shown, vide Sub-rule I (4) of Rule 111, the number of detonators in each case should be shown thereon. When, however, detonators are required to be carried in the brake-van, the weight of explosives must also be marked thereon.	(a)1000 in Number	100 in Number	When loaded with ordinary goods traffic in the same vehicles, 20,000 in number in the aggregate by any one train, provided (1) Packed in metallic cylinders complying in all respects with the general specifications given in Appendix-I/3; and	200in number in the aggregate by any one train in the rear brake van, provided (1) The amount of the explosives in package or packages does not exceed in the aggregate 226.79kg. (2) A declaration is furnished by the consignor on the forwarding note indicating clearly the weight of explosive in each package and :	-Do-

Class and name of Explosive	Packing (see also Rule 110)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 111, 114 and 130.1)	Quantity that be put in an		Exceptional or Additional Rules regarding carriage by goods Train (See also Rules 119, 120, 121, 122 and 124)	Exceptional or Additional Rules regarding carriage in brake-van of Passenger Mixed or Parcel Train (See also Rule 125)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 127, 128, 129, 131 and 132)
			Outer Package	Inner Package			
(1)	(2)	(3)	(4)		(5)	(6)	(7)
Class-6 (Contd.) Ammunition- (Contd.) DIVISION 3							
Detonators – contd.	the said detonators shall be filled with fine saw-dust or other similar material. A layer of felt, cotton, wool or other soft yielding material shall be placed between both ends of all the detonators and the interior of the inner package in which the same are placed in such manner, and so secured, that both the ends of the detonators will rest upon the said felt or cotton, wool or other material. Every inner package if of metal, to be lined throughout with paper or other soft material. (b)Exceeding 1,000 detonators in any one package. (1) The detonators shall be packed in inner packages, with saw-dust and cotton, wool or other similar material, as described in item (a) (ii) above.		(b) 10,000 | 1,000 in in Number Number		(2) No metallic case or cylinder shall contain more than 10,000 of number 6 commercial detonators.	(3) No other explosive is carried in the same carriage.	

Class and name of Explosive	Packing (see also Rule 110)	Exceptional of Additional Rules regarding Marking and Labelling (See also Rules 111, 114 and 130.1)	Quantity that be put in an		Exceptional or Additional Rules regarding carriage by goods Train (See also Rules 119, 120, 121, 122 and 124)	Exceptional or Additional Rules regarding carriage in brake-van of Passenger Mixed or Parcel Train (See also Rule 125)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 127, 128, 129, 131 and 132)
			Outer Package	Inner Package			
(1)	(2)	(3)	(4)		(5)	(6)	(7)
Class-6 (Contd.) Ammunition- Contd. DIVISION 3 Contd.							
Detonators- Contd.	Such inner package shall be placed inside a substantial case of wood or metal, made and closed so as to prevent any of the inner packages escaping therefrom. Such case shall be placed inside an outer package in such manner and so secured as to leave a clear space of not less than 7.5 cm. between the case and every part of the interior of the said outer package, notwithstanding that such clear space may, if preferred, be filled with saw-dust, straw or other similar material or may contain a light framework or battens of wood to keep the case aforesaid in position in the outer package.						

Class and name of Explosive	Packing (see also Rule 110)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 111, 114 and 130.1)	Quantity that be put in an		Exceptional or Additional Rules regarding carriage by goods Train (See also Rules 119, 120, 121, 122 and 124)	Exceptional or Additional Rules regarding carriage in brake-van of Passenger Mixed or Parcel Train (See also Rule 125)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 127, 128, 129, 131 and 132)
			Outer Package	Inner Package			
(1)	(2)	(3)	(4)		(5)	(6)	(7)
Class 6-Concl. Ammunition-Concl. DIVISION 3-Concl.							
Detonators-Concl.	(2) Where the number of detonators exceeds 5,000 the outer most package shall be provided with handles or other contrivance by means of which it can be safely and conveniently carried.		5000 in Number	100 in Number			
Electric Detonators	(1)As for Class 1 (2) Where the number in any outer package exceeds 3,000 such outer package shall be provided with handles or other contrivance by means of which, it can be safely and conveniently carried.	Instead of weight to be shown, vide Sub-rule I (4) of Rule 111, the number of detonators in each case should be shown thereon. When, however, detonators are required to be carried in the brake-van, the weight of explosives must also be marked thereon.			When loaded with ordinary goods traffic in the same vehicles, 20,000 in number in the aggregate by any one train, provided- (1) Packed in metallic cases or cylinders complying in all respects with the general specifications given in Appendix I/3; and (2) No metallic case or cylinder shall contain more than 10,000 of number 6 commercial detonators.	200 in number in the aggregate by any one train in the rear brake-van, provided.— (1) the amount of explosives in the package or packages does not exceed in the aggregate 226.79 kg. (2) a declaration is furnished by the consignor on the Forwarding Note, indicating clearly the weight of explosive in each package, and . (3) no other explosive is carried in the same carriage.	No explosive of this division may by carried in the same train with any other explosive of any other class or division unless it is separated there from by at least 3 carriages not containing other dangerous goods or articles or substances of combustible nature, so as to prevent any fire or explosion which may take place in one such explosive being communicated to the other.
Seismic Electric Detonators							
Delay Detonators							
Detonating Relays							

Class and name of Explosive	Packing (see also Rule 110)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 111, 114 and 130.1)	Quantity that be put in an		Exceptional or Additional Rules regarding carriage by goods Train (See also Rules 119, 120, 121, 122 and 124)	Exceptional or Additional Rules regarding carriage in brake-van of Passenger Mixed or Parcel Train (See also Rule 125)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 127, 128, 129, 131 and 132)
			Outer Package	Inner Package			
(1)	(2)	(3)	(4)		(5)	(6)	(7)
Class 7 FIREWORKS DIVISION 1 (Not authorised for transport) DIVISION 2							
Amorces (Paper caps for toy pistols)	(1) Amorces shall be packed in approved closed boxes of cardboard of not less than 0.35 mm. thickness. The boxes shall be of round shape and not less than 2.5 cm. in diameter and 2 cm. in height and shall contain not more than 50 amorces in each. A round corrugated cardboard sheet shall be placed in each box before amorces are packed in a cardboard box, a round corrugated cardboard sheet is not required to be placed in such box and the height of the box may be reduced to 1 cm. (i)Each tape of amorces shall not contain more than 100 dots.	....	As indicated in item (1) In column 3.		(1) No restriction on loading in covered wagon including iron floored wagons. (2) When loaded with ordinary goods traffic in the same vehicle, one case in the aggregate by any one train, which must be packed as prescribed in item (1) of column 3 and the gross weight of which shall not exceed 30 kgs.	0.45 kg. in the aggregate by any one train in the rear or front brake-van, provided packed in double ocean kraft paper with substantial wooden cases . The ocean kraft paper should be so lined that the top folds overlap each other and where seams meet they should be secured by adhesive tapes.	No explosive of this division may be carried in the same train with any other explosive of any other class or division unless it is separated there from by at least 3 carriages not containing other dangerous goods or articles or substances of combustible nature, so as to prevent any fire or explosion which may take place in one such explosive being communicated to the other.

Class and name of Explosive	Packing (see also Rule 110)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 111, 114 and 130.1)	Quantity that be put in an		Exceptional or Additional Rules regarding carriage by goods Train (See also Rules 119, 120, 121, 122 and 124)	Exceptional or Additional Rules regarding carriage in brake-van of Passenger Mixed or Parcel Train (See also Rule 125)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 127, 128, 129, 131 and 132)
			Outer Package	Inner Package			
(1)	(2)	(3)	(4)		(5)	(6)	(7)
Class 7-Contd. FIREWORKS-Contd. DIVISION 2- Concl'd.							
Amorces paper caps for toy pistols)-concl'd	(ii) Six amorces tapes will be packed in the cylindrical plastic container and two such; containers kept together shall be wrapped by paper as one roll. Such twelve rolls shall be packed in a thick card board box. Fifty such card board boxes shall then be packed in an outer wooden box lined inside with double ocean kraft paper. (2) Amorces must not be packed with any other fireworks. (3) Sub-rule 3 of Rule 110 does not apply.						
Chinese Crackers Christmas or Bon-Bon Crackers. (other than Chinese Crackers).	(1) Single outer package. (2) Sub-rule 3 of Rule 110 does not apply.	50 kgs. ....	....		(1) No restriction on loading in covered iron wagons or maximum quantity carried in any vehicle.	10 kgs. in the aggregate by any one train in the rear or front brake-van, provided packed in tin, zinc or aluminium cases, hermetically sealed, or	No explosive of this division may by carried in the same train with any other explosive of any other class or division unless it

Class and name of Explosive	Packing (see also Rule 110)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 111, 114 and 130.1)	Quantity that be put in an		Exceptional or Additional Rules regarding carriage by goods Train (See also Rules 119, 120, 121, 122 and 124)	Exceptional or Additional Rules regarding carriage in brake-van of Passenger Mixed or Parcel Train (See also Rule 125)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 127, 128, 129, 131 and 132)
			Outer Package	Inner Package			
(1)	(2)	(3)	(4)		(5)	(6)	(7)
Class 7-Concl. FIREWORKS-Concl. DIVISION 2- Concl.							
Distress Signal Rockets Flower Pots or Fountains Lances Marooms Miner’s Portfires Pharaoh’s Serpents or Cobra Eggs. Rockets of size not exceeding 76 mm. in length and 25.4 mm. in diameter provided these are not in metal cases Roman Candles Shells Socket distress signals Socket light signals Socket sound signals Squibs Vary signal cartridges Wheels				(2) When loaded with ordinary goods traffic in the same vehicles 1 Qtl. on the aggregate by any one train, provided packed in tin zinc or aluminium cases hermetically sealed or with lining effectively soldered in substantial outer wooden cases, and provided no outer case shall contain more than 45 kg. of fireworks.	With lining effectively soldered, in substantial outer wooden cases.	is separated there from by at least 3 wagons not containing other dangerous goods or articles or substances of combustible nature, so as to prevent any fire or explosion which may take place in one such explosive being communicated to the other.	

APPENDIX I/1

FORM 16

Form of Pass **(see Rule 32 (2) of the Explosives Rules, 1983)**

Pass granted by the holder of Transport Licence (Explosives) for transport of a consignment of explosives.

1. No.
2. This Pass covers..... packages containing following explosives:

Name and description	Class	Division, if any	Quantity	No. of packages	Batch number and date
(i)					
(ii)					
(iii)					
(iv)					
(v)					
(vi)					

While in transit from to.....

3. The explosives are being transported by rail/road Van No. having licence No..... till/Lorry No. other non-mechanically propelled vehicle.
4. Name and address of consignee
5. No. and Form of Consignee's Licence No.
6. Consignee's order No. and date and quantity of each explosive ordered.
7. Consignee's letter No. and date intimating readiness to receive explosives.
8. Date of despatch of consignment.
9. Approximate date on which consignment should reach its destination.

Signature Holder of Transport
Licence No.

Appendix- I/2
See Rule 107 (b)

APPENDIX I/2

FORM 1

TEST CERTIFICATE FOR EXPLOSIVES

(As prescribed vide Rules 28 and 34 of the Explosives Rules, 1983)

Certified that samples of the explosives of the description given below have been tested and have passed the tests set forth in Schedule III as applicable to such explosive and in the case of explosive of the 1st Division of 3rd (Nitro-compound) or 4th (Chlorate Mixture) classes, that there are no signs of liquefaction or of excluded nitro-glycerine or liquid nitro-compound.

Name and address of <u>Importer*</u> Consignor	Description of explosives	Number of packages	Date of manufacture and batch number referred to in rule 9(2)	Actual time taken in Heat Test for tint to appear	Remarks
---	------------------------------	-----------------------	--	---	---------

This certificate is valid for twelve months only that is to say it expires on the..... day of.....20..... provided that in case of nitro-glycerine compounds which are not used as propellants, it shall expire on the 31st day of July following.

Date:
Place:

{ Signature of Testing Officer
and Designation with Seal
of Issuing office.....

*Name of importer in case of import, and consignor in case of transport

Appendix I/3**FORM 1****General Specifications of Approved Metallic Cases or Cylinders for the conveyance of Explosives****SPECIFICATION 3*****Specification of metal cases for conveyance of explosives as contained in Explosives Rules, 1983*****General:**

The body to be of wrought iron, mild steel, hard rolled brass, Muntz metal, or zinc, rivetted or welded, fitted at both ends with a substantial flange of same materials or of gunmetal for the attachment of lid and bottom; if of iron or steel to be thoroughly galvanised after making up or to be effectively painted. Thickness not less than 1.257 mm. (18 BG-.0495 inches) or, if of zinc, not less than 9.5 mm.

The bottom to be of same materials as body or of gunmetal; if of iron or steel, to be thoroughly galvanised, securely rivetted to flange of body or forming part of such flange. Thickness not less than 3.2 mm. or of zinc, not less than 9.5 mm.

Alternatively the bottom may be made of mild steel of 4.8 mm. thick, thoroughly galvanised and dished so that it fits tightly over the body made of mild steel as above but without a bottom flange. The body to project at least 25.4 mm. into the dished bottom and the edges of the dished end and of the body to be welded continuously to the body and to the bottom of the dished end respectively.

The lid to be of same materials as body or of gunmetal; if of iron or steel to be thoroughly galvanised. Thickness not less than 1.6 mm. at centre, and not less than 3.2 mm. at rim or if of zinc, not less than 9.5 mm. throughout.

The lid to be secured by not less than four good screws, bolts or swing bolts, with or without a substantial hinge, which may take the place of one of the four screws, bolts or swing bolts.

A washer of leather, Indian rubber or other suitable material to be between the lid and the flange, unless the lid is fitted with a projecting ring into a depression in the flange.

All rivet heads to be well finished, and the inside of the package to be free from rough edges or burrs.

The whole case and cylinder to be of good material and workmanship and to be maintained in the efficient condition.

SPECIFICATION 4

Specification of metal cases for conveyance of explosive as contained in Explosives Rules, 1983

Duralumin Containers:

Dimensions of container inside to be 902mm. deep by 308mm. wide by 267mm. broad.

The body of container to be of 1.626 mm. (No. 16 S.W.G.) sheet in one piece rivetted with 3.00 mm. (5/6ths inch) diameter rivets 25.4 mm. pitch at seam 50.8 mm. pitch at other three corners, having 31.8 mm. by 31.8 mm. 4.8 mm. angle rivetted on top and round bottom with 8 mm. diameter rivets 25.4 pitch.

Bottom of containers to be of 3.25 mm. (No. 10 S.W.G.) sheet fitted with 31.8 mm. by 31.8 mm. by 4.8 mm. angle all round and rivetted with 8 mm. diameter rivets. Corner pieces 2.642 mm. (No. 12 S.W.G.) sheet to be riveted to angle and to bottom plate with 8 mm. diameter rivets to angle and cover plate with 8.00mm diameter rivets. .

Cover of container to be of 2.032 mm. (No.14 S.W.G.) sheet fitted with 37.6 mm. by 25.4 mm. by 4.8 mm. angle all round and riveted with 8.00 mm. diameter rivets. Corner pieces 2.042 mm. (No. 12 S.W.G.) sheet to be rivetted to angle and cover plate with 8.00 mm. diameter rivets.

Cover to be fastened to container by four 12.7 mm. whitworth Set Pins with washers.

Rubber joint 31.8 mm. by 3.2 mm. thick to be riveted to underside of cover plate by twelve 6.3 mm. diameter rivets, 15.9 mm. diameter holes to be bored in cover and joint to suit 12.7mm. set pins.

Two Duralumin drop down handles to be rivetted to body of container.

SPECIFICATION 5

Specifications of metal cases for conveyance of explosives as contained in Explosives Rules, 1983.

The body to be of wrought iron or mild steel, thoroughly galvanised, thickness not less than 18 B.G. (.0495 inch) fitted at the top with a flange 12.7 mm. thick made of the Aluminium Alloy (12.5 per cent to 14.5 per cent zinc : 2.5 per cent to 3 per cent copper : remainder Aluminium).

The bottom to be of the Aluminium Alloy, not less than 12.7 mm. thick at the rim, and not less than 4.8 mm. thick at the centre, and provided with a protection 25.4 mm. high and at least 6.3 mm. thick, so made as to be a close fit inside the body to which it shall be rivetted with rivets 6.3 mm. diameter.

The lid to be of the Aluminium Alloy, not less than 12.7 mm. thick at the rim, and not less than 6.3 mm thick at the centre, and secured by eight screwed studs to the flange.

A washer of leather, Indian rubber, or other suitable material to be between the lid and the flange, unless the lid is fitted with a projecting ring fitting into a depression in the flange.

All rivet heads to be well finished, and the inside of the package to be free from rough edges or burrs.

APPENDIX I/4
(See Rule 134.1)

APPENDIX I/4

S. No :.....
 Station :.....
 Division :.....
 Railway :.....
 Date :.....

COMMERCIAL DEPARTMENT
Notice of Despatch of Consignments of Explosives

To

.....

*
 consigned under RR/PWB No. dated.....
 by to booked to
 station via have
 been despatched from here on..... in wagon No.
 sealed toby
 train No.

The through invoice/way-bill pertaining to this consignment (together with consignor's declaration giving name and full address of the intended consignee), is enclosed.

2. Please advise consignee/intended consignee † to be ready to take delivery immediately on arrival of the consignment.
3. Invoiced freight To Pay/Paid †₹.....

.....
 Goods Clerk/Station Master
Station.

*Here state description of goods

†Strike out what does not apply.

Note.— The portion appearing in brackets to be retained only when the consignment is booked to self.

Appendix I/5
(See Rule 134.1)

APPENDIX I/5
POST CARD

S.No:
Station:
Division:
Railway:
Date:

COMMERCIAL DEPARTMENT
Advance Notice of Arrival of Consignments of Explosives

To,

.....

Dear Sir/Madam

*
have been
 consigned to you from Station
 by under Railway
 Receipt No.dated

2. Will you please arrange to take immediate delivery on arrival of the consignment on production of the Railway Receipt.

3. Invoiced freight to Pay/Paid † ₹

Your faithfully,

.....
 Goods Clerk/Station Master
 Station.

*Here state description of goods

† Strike out what does not apply.

APPENDIX I/6
(See Rule 107.1 (5))

APPENDIX I/6

Declaration to be given by the consignor in case of explosives booked to “Self”

I/We declare that *..... tendered by me/us
 for despatch from Station to station is/are intended to be taken
 delivery of by Messers/Shri †.....

 who is/are entitled to receive the consignment
 under the Explosives Rules.

Station.....

Signature of Consignor

Date

Address

(To be entered by booking station)

The declaration relates to consignment booked under invoice/PWB No. dated
 20....

.....
 Signature of Booking Clerk

Date

Note. – The declaration should be sent by post with the through invoice/way-bill by the booking station to the destination station.

* Here give description of goods.

† Here give name and full address.

APPENDIX I/7
(See Rule 135.2)

APPENDIX I/7

Notice to be served on the Consignor/Consignee/Intended Consignee

S. No :.....
 Station :.....
 Division :
 Railway :
 Date :

To,

.....

Dear Sir/Madam,

Sub: Inv. /PWB No..... dated.....
 from..... to.....

I hereby give you notice that the above consignment/parcel of which you are the consignee/consignor is lying undelivered at destination. Please note that if, delivery is not effected within seven days from the receipt of this letter on payment of all charges due as per details given below, arrangements will be made to dispose of it under Section 84 of the Indian Railways Act 24 of 1989 without any further reference being made to you.

In the event of sale, if the amount due to the Railway on account of freight, demurrage, wharfage etc. is not covered by the sale proceeds, I shall look to you to make good the balance.

Details of charges due:

(1) Freight ₹.....

(2) Demurrage ₹.....

(3) Unloading charges ₹.....

(4) Wharfage at the rate of ₹.....

Per 50Kg. per day from.....

until removal of the consignment.

Yours faithfully,

CHAPTER-II

CHAPTER-II

GASES, COMPRESSED, LIQUEFIED OR DISSOLVED UNDER PRESSURE

Dangerous Goods under Railway Act 1989 (24 of 1989)

201. Gases, compressed, liquefied or dissolved under pressure, specified in Table-II, shall be deemed to be dangerous goods.

General Restriction on Conveyance of Compressed, Liquefied or Dissolved Gases

202.1. Compressed, liquefied or dissolved gases to be accepted only under the rules laid down.— A Railway Administration shall accept only the compressed, liquefied or dissolved gases specified in Table-II for conveyance by rail subject to the rules and in accordance with the conditions set forth in this chapter.

202.2. Railway's right to refuse to convey.— Notwithstanding anything contained in these rules, a Railway Administration may notify that it shall not convey by rail for the public any particular compressed, liquefied or dissolved gas specified in Table-II; and

After the issue of such a notice, no such compressed, liquefied or dissolved gas shall be accepted for conveyance by the said Administration on section or sections in respect of which such notification has been issued.

202.3. Restrictions on Railways. —

(1) Mumbai Port Trust Railway. — Compressed liquefied or dissolved gases in full wagon loads shall be dealt with on Mumbai Port Trust Railway only under special arrangement.

(2) Central Inland Water Transport Corporation Ltd. — Compressed liquefied or dissolved gases shall be accepted at 'Owner's risk' only.

Notice of Despatch to be given by sender

203.1. Notice of despatch compulsory. — Subject to any exceptions notified by the Railway Administration from time-to-time, no consignment of compressed, liquefied or dissolved gasses shall be forwarded to the Railway for despatch or accepted for conveyance by rail, unless previous notice of the intention to send such consignment has been given as prescribed in rule 203.2 and unless the Officer-in-charge of the station from which the consignment is proposed to be despatched has intimated in writing that the consignment can be received.

203.2. Particulars to be given in the Notice. — The Notice required under Rule 203.1 shall be addressed to the Officer-in-charge of the station from which the goods are proposed to be despatched and it shall be sent at least 48 hours before the consignment is brought to the station, unless a shorter period is prescribed by the Railway Administration concerned; the Notice shall contain a statement of the following particulars; namely —

- (1) the true name and description of the gas and the number and weight of cylinders or containers in the consignment;
- (2) the name and address of the consignor;
- (3) the name and address of the consignee;

(4) a declaration that the gases have been 'packed and marked' in accordance with the rules laid down in the 'Red Tariff', i.e. Rules 207 and 208.

Note. – (1) The Forwarding Note, complete in all respects, tendered 48 hours in advance of the date of offering of the consignment for booking shall be deemed to be a proper notice under this Rule.

(2) When the Officer-in-charge of the Railway station or shed is in a position to accept the goods, he shall notify the same on the notice board and such notice shall be deemed as proper intimation to the consignor under this Rule.

Certificates, Forwarding Note etc. to be obtained by Railway Staff

204.1. Documents required. – (1) It shall be incumbent on the Railway Staff in the case of every consignment of compressed, liquefied or dissolved gases, mentioned in Table II, to obtain from the consignor a Forwarding Note, complete in all respects, in the form specially prescribed (for form see Annexure-A).

(2) The rotation number of each cylinder or container constituting the consignment, which is stamped on the neck end of the cylinder or on the container, shall be entered by the sender on the Forwarding Note.

204.2. Remarks on invoice or Way-Bill. – Invoice or way-bills issued for consignments of compressed, liquefied or dissolved gases must have endorsed thereon the rotation numbers of the cylinders or containers as given in the Forwarding Note:

Provided that the rotation number of gas cylinders need not be mentioned in the Forwarding Note when the cylinders are offered as wagon-load.

Prohibition in Acceptance

205.1. Mixed consignments prohibited. – (1) Compressed, liquefied or dissolved gases shall not be accepted as forming part of a consignment with other goods, but shall be tendered under a separate Forwarding Note and be booked as a separate consignment.

(2) Gases which cannot be loaded together shall be tendered under separate Forwarding Notes and be booked as separate consignments.

205.2. Gases in tank wagons involving break-of-gauge transshipment not normally accepted. – Gases when carried in tank wagons shall not be accepted for conveyance by rail between any two stations involving break-of-gauge transshipments, except under special arrangements.

Gases to be accepted by Authorised Railway Servant and at specified place and time

206. Consignments of compressed, liquefied or dissolved gases intended to be transported by rail shall be received only. –

(a) by a duly authorised Railway servant; and

(b) at such time between sunrise and sunset and at such place or places within Railway premises as the Railway Administration may specify in this behalf.

Packing

207.1. Gases to be transported only when packed in prescribed manner. – (1) No gas compressed, liquefied or dissolved shall be tendered for transport or be transported unless it is packed in the manner laid down, as may be applicable in –

- (a) the Gas Cylinder Rules, 1981; or
- (b) Notification No.GSR-625(E) dated 7th August 1993 issued by the Ministry of Industry, (Department of Industrial Development), Government of India; or
- (c) the special conditions for containers other than gas cylinders conforming to the specifications prescribed in the Gas Cylinder Rules, 1981, as approved by the Chief Controller of Explosives.

(2) Liquid air/Liquid Oxygen and Liquid Nitrogen shall only be transported when packed in the manner laid down in column 4 of Table II.

207.2. Protection of valves during transport. – (1) Every cylinder containing compressed gas shall, when transported have its valve protected against damage in the manner provided in clauses (2) and (3) unless it is securely packed in a box or crate.

(2) where the design of the cylinder does not provide for the valve lying wholly below the level of the body of the cylinder, a stout metal cap, metal cover or protective metal ring or grill of a design approved by the Chief Controller of Explosives shall be provided, the design being such that the cap or cover or ring or grill is nowhere in close proximity to any part of the valve body.

(3) where metal caps or metal cover are provided, to protect valves fitted to cylinders other than those containing highly toxic gases like Hydrogen Cyanide, Phosgene, Cyanogen, Cyanogen Chloride, it shall be provided with a vent of such size so as to prevent any gas pressure inside the cap or covers.

(4) Cylinders containing highly toxic gases like Hydrogen Cyanide, Phosgene, Cyanogen, Cyanogens Chloride gases, shall have their valves protected with gas-tight metal caps or covers.

(5) Nothing in clauses (1), (2) and (3) shall apply to cylinders containing oxygen or nitrous oxide for medical purposes having water capacity not exceeding 5 litres.

(Replaced by Rule 37 of GCR, 1981 — Authority Rule 37 of Gas Cylinder Rules, 1981)

207.3. Cylinders or containers in crates. – Cylinders or containers may be packed in a strong crate or box : provided that if more than one cylinder or container are packed in the crate or box, they shall be packed closely in crate or box and the gross weight of the crate or box and contents thereof shall not exceed 127 Kgs.

Marking and labelling of Cylinders or containers by consignors

208.1. Identification colours of cylinders or containers. – Gas Cylinders or containers shall be painted with the appropriate Identification colours specified in Appendix II/1.

208.2. Tag-label and particulars to be given thereon. – Every cylinder or container shall be properly labelled with a strong eyeletted tag-label which must be affixed by wire and on which the following particulars shall be given in bold letters, namely:-

- (1) name and address of the consignor;
- (2) name and address of the consignee;
- (3) true name of the gas; and
- (4) a warning in the following terms: – **“WARNING”**
 - (a) Do not change the colour of this cylinder (or container);

- (b) This cylinder (or container) may not be filled with any gas other than the one it now contains.
- (c) This cylinder (or container) should be kept cool. It should not be placed near a stove or other source of heat, nor be exposed to the sun.
- (d) No inflammable material be stored in the immediate vicinity of this cylinder (or container) or in the same room in which it is kept.
- (e) No oil or similar lubricant be used on the valves or other fittings of this cylinder (or container).
- (f) The next date of test should be carefully examined which is marked on a metal ring inserted between the valve and the neck of the cylinder, and if this date is over, the cylinder shall not be accepted.

208.3. Marking on permanent and liquefiable gas cylinders. – (a) Every cylinder shall be marked with the following marking, namely:-

- (i) manufacturer's, owner's and inspector's marking and rotation number (these markings shall be registered with the Chief Controller of Explosives);
- (ii) specification to which the cylinder has been made;
- (iii) a symbol to indicate the nature of heat treatment given to the cylinder during manufacture or after repairs;
- (iv) the date of the last hydrostatic test or hydrostatic stretch test, as the case may be, with the code mark of recognised testing station where the test was carried out. The code mark shall be registered with the Chief Controller of Explosives. In the case of liquefied petroleum gas cylinders, the quarter and the year of test shall be given as an additional marking in a neck ring or on a shoulder plate;
- (v) working pressure and test pressure;
- (vi) tare weight;

Explanation: – In the case of liquefiable gas cylinders, tare weight shall include the weight of the valve fitted to the cylinder; the weight of the valve shall be indicated separately.

(a) Water capacity.

(b) All the markings, except the manufacturer's markings, which may be on the base, shall be stamped on the neck end of the cylinder.

208.4. Pictorial label .– In addition to the labelling specified in Rules 208.2 and 208.3 every cylinder or container shall bear the appropriate pictorial label as indicated in column 3 of Table II out of pictorial labels shown below indicating the main characteristics of the gas :-

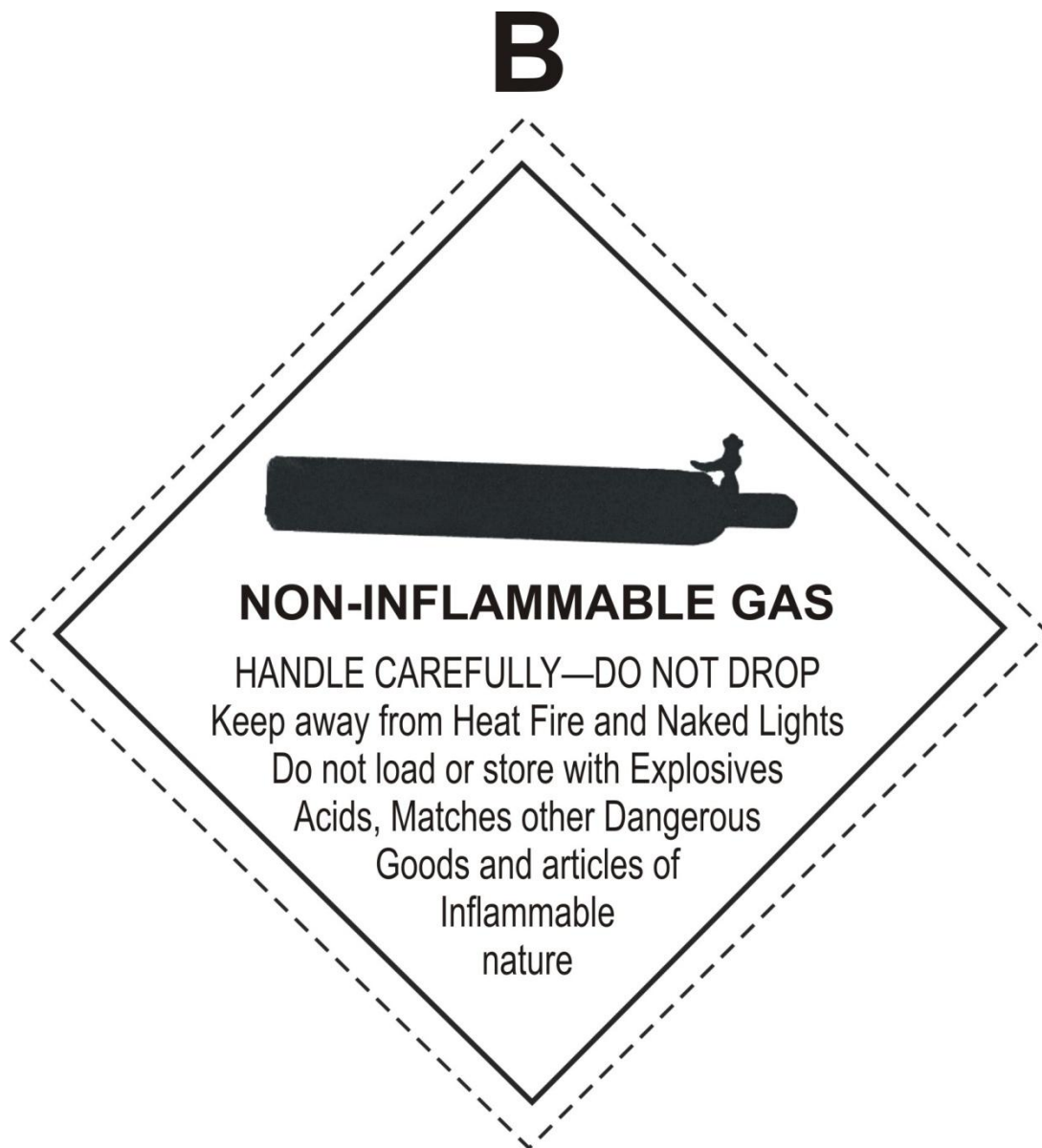
A



- Note: - (1) Back ground White Symbol and Lettering..... Black
(2) Minimum dimension 10 cm. X 10 cm.
Bigger labels may be used depending on the size of the packages
(3) The label should be affixed at an angle of 45° (diamond-shaped), as indicated above.
(4) The label should be divided into two equal triangles, the upper being used for the symbol and the lower for the text ,
as indicated above.

**Gases, Compressed, Liquefied
or Dissolved under pressure**

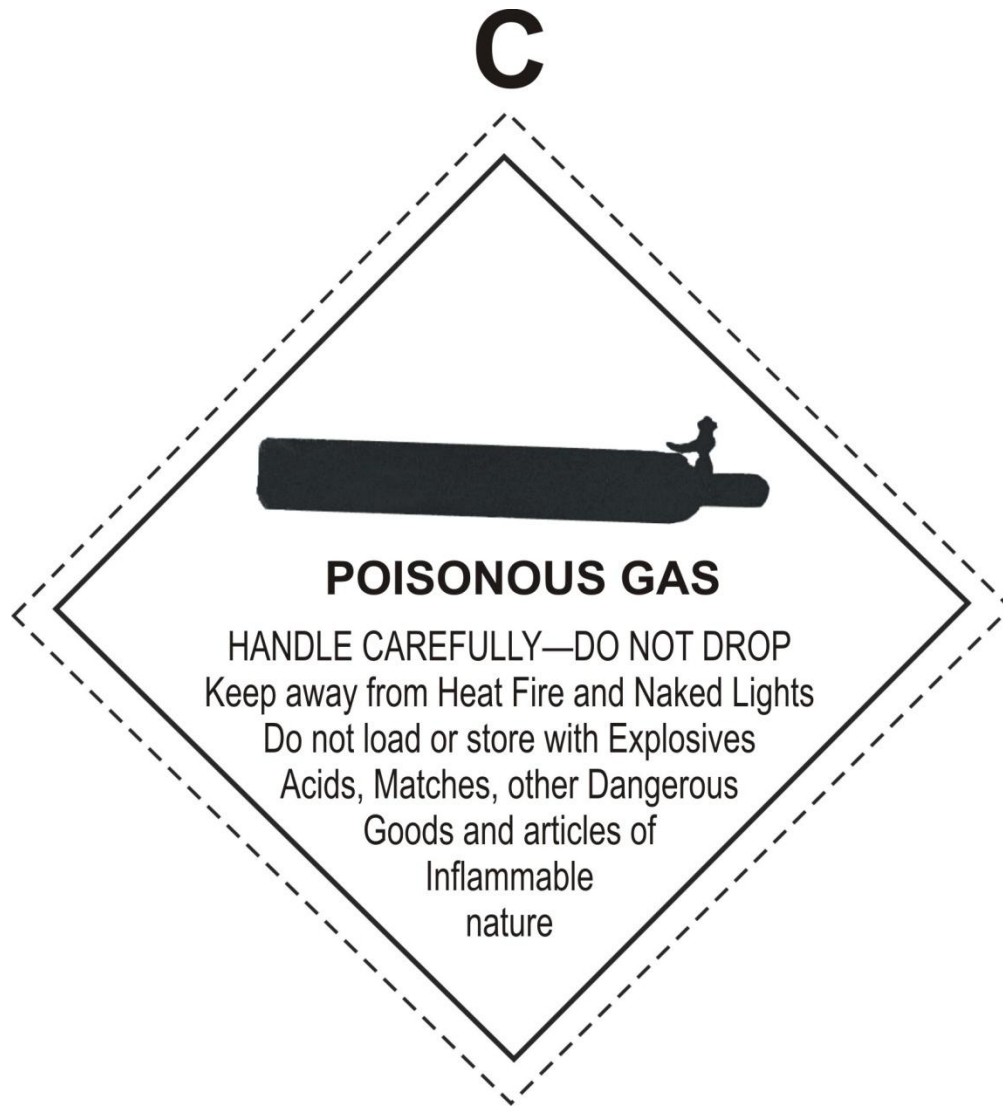
208



- Note: - (1) Back ground White Symbol and Lettering..... Black
(2) Minimum dimension 10 cm. X 10 cm.
Bigger labels may be used depending on the size of the packages
(3) The label should be affixed at an angle of 45° (diamond-shaped), as indicated above.
(4) The label should be divided into two equal triangles, the upper being used for the symbol and the lower for the text, as indicated above.

**Gases, Compressed, Liquefied
or Dissolved under pressure**

208



- Note:- (1) Back ground White Symbol and Lettering..... Black
- (2) Minimum dimension 10 cm. X 10 cm.
Bigger labels may be used depending on the size of the packages.
- (3) The label should be affixed at an angle of 45° (diamond-shaped), as indicated above.
- (4) The label should be divided into two equal triangles, the upper being used for the symbol and the lower for the text, as indicated above.

208.5. Empty cylinders or containers. – When a gas cylinder or container is handed over to the Railway Administration for despatch as an empty cylinder or container, it shall be so declared on the Forwarding Note and also labelled ' EMPTY '.

208.6. A space measuring about 15 cms. x 10 cms. in the centre of the cylinder or container shall be painted white by the consignor to enable the Railway marks being legibly put thereon ; or consignors shall provide a piece of cloth or gunny firmly sewn around the cylinder or container for this purpose.

Marking by Railway

209.1. Every cylinder or container containing compressed, liquefied or dissolved gas shall be properly marked with Railway marks, indicating the code initials of the forwarding and destination stations, the invoice or way-bill number and the number of packages in the consignment on the space/piece of cloth provided in terms of Rule 208.6.

209.2. When a consignment of gases, compressed, liquefied or dissolved, is tendered for despatch as a wagon load consignment for a destination not involving break-of-gauge transshipment, only 10 per cent of the cylinders or containers constituting the consignment need be marked with Railway marks.

Handling to be done by consignors and consignees

210.1. Unless, otherwise notified by the Railway Administration, consignors and consignees shall do the loading and unloading of gas cylinders or containers in wagon loads.

210.2. When the traffic is booked in 'smalls' and in all cases of handling en-route, the Railway Administration concerned shall do the loading and unloading:

Provided that the transshipment of traffic in tank wagons shall be done by consignors and consignees.

Storage

211. (a) It shall be the duty of Officer-in-charge of a station to cause every cylinder or container of compressed, liquefied or dissolved gas which is proposed to be despatched by rail or which has been received at any station for transshipment or delivery to the consignee, to be stored in a well ventilated and dry enclosed shed or an open shed, namely, shed roofed over for weather protection, but not having enclosing walls.

(b) Where such storage accommodation is not available, the cylinders or containers may be stored in a covered iron wagon and if this is also not possible, they may be kept in an open space completely covered with tarpaulins or other suitable material.

(c) Gas cylinders, when kept in open space (Platforms) shall be stacked at right angles to the edge of the platform to prevent their rolling down directly on to the track.

(d) The cylinders shall be stored in a cool, dry, well-ventilated place under cover away from boilers, open flames, steam pipes or any potential sources of heat and such place of storage shall be easily accessible.

(e) The storage room or shed shall be of the fire resistant construction.

- (f) Thin wall cylinders such as liquefied petroleum gas cylinders and dissolved gas cylinders shall not be stacked in a horizontal position.
- (g) Cylinders containing flammable gases and toxic gases shall be kept separated from each other and from cylinders containing other Types of gases by an adequate distance or by a suitable partition wall.
- (h) Cylinders shall not be stored under conditions which may cause them to corrode.
- (i) Cylinders shall not be stored along with any combustible material.
- (j) Empty cylinders shall be segregated from the filled-ones and care shall be taken that all the valves are tightly shut.
- (k) While storing gas cylinders or containers, all precautions laid down in Rule 212 shall be observed.

Precautions to be observed in handling and storing gas cylinders or containers

212.1. No person shall handle or cause to be handled any Gas Cylinders or containers between the hours of sunset and sunrise unless adequate and proper lighting is provided and the place is well guarded:

Provided that consignments sent in brake-vans of passenger, mixed or parcel trains and by transshipment or road van trains may be handled at any hour, all due precautions being taken by proper illumination and to prevent accidents.

212.2. Handling of gas cylinders or containers.—(1) Gas cylinders or containers must not be thrown, dropped down or dragged along the ground or floor and care shall be exercised to avoid striking them against any hard object.

(2) When loading and unloading heavy cylinders or containers, cushions of a suitable Type, thick coir matting, felt, bags filled with saw-dust or similar protection shall be used.

(3) Whenever practicable, gas cylinders or containers shall be carried or conveyed on trolleys or hand barrows of adequate strength.

(4) Adequate precautions shall be taken to prevent the cylinders or containers falling off the vehicle and being subjected-to rough usage, excessive shocks or local stress.

(5) No lifting magnet shall be used in loading or unloading cylinders or containers. When any lifting operation is carried on by means of a crane, a properly designed cradle with chain slings shall be used.

(6) The cylinders shall be handled carefully and not be allowed to fall upon one another or otherwise subjected to any undue shock.

(7) Sliding, dropping or playing with cylinders is prohibited.

(8) Liquefied petroleum gas cylinders and cylinders containing liquefiable gases shall always be kept in an upright position and shall be so placed that they cannot be knocked over.

(9) Cylinders used in horizontal position shall be so secured that they cannot roll.

212.3. Prohibition of smoking, fires, lights and dangerous substances.—(1) No person shall smoke or take or have any fire, naked light matches or other articles of inflammable nature or

empties which have contained petroleum or other inflammable liquids or any agency which produces heat or sparks, near any vehicle containing flammable gases, compressed or liquefied or dissolved or near any place where such goods are stored or being loaded, unloaded or handled.

(2) Gases compressed, liquefied or dissolved, shall not be stored or handled with or near explosive and other dangerous goods.

212.4. Protection from sun, rain and snow.— Gas cylinders or containers shall not be exposed to sun, rain or snow, shall not be kept on damp ground ; and they shall be protected with tarpaulins or other suitable material whenever required.

212.5. Special precautions in-dealing with ammonia (Anhydrous), Chlorine and Phosgene. – Special precautions as given in Appendix II/2 shall be taken in the event of leakage of ammonia (Anhydrous), Chlorine and Phosgene.

212.6. Leaky cylinders. – (1) No person shall tender to the Railway for transport nor shall the Railway transport any leaky cylinder.

(2) Any cylinder containing a flammable or toxic gas, which develops a leak during transport, shall promptly be removed to an isolated open place away from any source of ignition and the staff concerned shall immediately contact the filler or the consignor as the case may be, for necessary advice.

Gas Cylinders or containers to be normally transported by Goods trains

213. Except as provided in Rules 214 and 218, gas cylinders or containers shall not be transported by any train other than a goods train.

Gas Cylinders or containers in wagons permitted to be transported by mixed or parcels trains when goods trains are not running

214. Gas cylinders or containers may be transported in wagons by a mixed or parcels train, on any line or section on which goods trains are not running, subject to the condition that immediately on entering any section on which goods trains are running, the wagons containing gas cylinders or containers shall be detached from the mixed or parcels train.

Type of wagons to be used for loading gas cylinders or containers

215. Except as otherwise provided in column 6 of Table II, gas, cylinders or containers shall be carried in covered iron wagons.

Note.—End opening carriages or wagons shall not be used.

Quantities to be loaded or handled

216.1. Maximum quantity allowed in wagons. – Except as otherwise provided in Rule 217 and column 6 of Table II, there shall be no restriction as to the number of gas cylinders or containers which may be loaded in a wagon.

216.2. Maximum number of wagons to be dealt with. – There shall be no restriction on the number of wagons containing gas cylinders or containers which may be loaded or unloaded at any one time at a Railway station.

Carriage of gas cylinders or containers with ordinary goods in wagons

217. Subject to the loading restrictions contained in Rules 219 and 220 being observed, gas cylinders or containers may be carried with ordinary goods in the same wagon, provided that—

- (a) the wagon does not contain any articles or substances of combustible nature;
- (b) not more than 15 cylinders or containers are carried in any one wagon at any one time; and
- (c) the cylinders or containers are well separated from the other goods in wagon.

Carriage of the gas cylinders or containers in Brake-Van of Passengers, Mixed or Parcels trains

218. Subject to the loading restrictions contained in Rules 219 and 220 being observed, and except as otherwise provided in column 7 of Table II, gas cylinders or containers may be carried in the rear brake-van of a passenger, mixed or parcels train, provided that—

- (a) not more than 15 cylinders or containers are carried in the brake-van at any one time;
- (b) the cylinders or containers are well separated from the other goods in the brake-van; and
- (c) (highly) toxic and poisonous gases like Chlorine, Ammonia, Sulphur Dioxide, Phosgene, etc. shall not be permitted to be carried in brake-van of passenger trains.

Gases which must be kept separate

219. Gases which must not be transported together in the same carriage are specifically indicated in column 8 of Table II. Such gases must not also be stored or handled together.

Carriage of gases with explosives and other Dangerous goods prohibited

220. Except as otherwise provided in column 8 of Table II, gas cylinders or containers shall not be conveyed in the same carriage with any matches or fuses or appliances for producing ignition, or any explosives or other dangerous goods or empties which have contained petroleum and other inflammable liquids.

Stowing in wagons

221.1. Prevention from rolling or shifting in transit. – (1) In loading gas cylinders or containers, it shall be ensured that the cylinders or containers do not roll or shift about.

(2) Suitable wooden carrier brackets, lathing or similar supports, if required, shall be supplied by the consignor so as to prevent gas cylinders or containers from rolling or shifting in transit.

221.2. Projection beyond sides or ends of vehicles prohibited. – Gas cylinders or containers shall be so loaded as not to project beyond the sides or the ends of the vehicle during transport.

Labelling, sealing and locking of wagons

222.1. ‘Dangerous’ label to be affixed on wagon.— A ‘Dangerous’ label as shown below shall be affixed on both sides of every wagon in which gas cylinders or containers are stored for despatch or delivery or while in transit.



- Note: - (1) Back ground White Symbol and Lettering..... Black
(2) Minimum Dimension 0.3 m. radius.
(3) The label should be divided into two equal half circles, the upper being used for lettering “NOT TO BE LOOSE SHUNTED” and the symbol and the lower for the text, as indicated above.

Except on road vans or tranship or road van trains on which labels may be pasted on the sides of the wagon or carriage, these labels shall be so pasted on the doors that when they are opened, the labels are automatically destroyed.

These labels should be affixed even when gas cylinders or containers are transported along with ordinary goods, irrespective of the numbers of gas cylinders, or containers loaded in such wagons. Such labels need not, however, be used when gas cylinders or containers are conveyed by passenger, mixed or parcels trains in brake-vans.

222.2. Private Labels.—In addition to the Railway labels, there shall be no objection to a consignor pasting a label indicating the contents and hazard involved and such labels shall be pasted on the doors of a wagon.

222.3. Lead seals to be used. – Lead seals only shall be used for sealing of wagons containing gas cylinders or containers.

222.4. Riveting or E. P. locking not allowed. – Riveting or E. P. locking of wagons containing gas cylinders or containers is prohibited.

Rules for carriage in tank wagons

223.1. Design and Marking.– (1) The design of the pressure vessel constituting the tank wagons and its fittings shall conform to the requirements laid down in Static and Mobile Pressure Vessels (Unfired) Rules, 1981;

(2) The pressure vessel constituting the tank wagons shall have a metal plate permanently fixed to it showing the following particulars which shall be visible from the ground level, namely:—

- (i) Manufacturer's name and identification marks;
- (ii) The standard or code to which the vessel is fabricated;
- (iii) Official stamp of the Inspector;
- (iv) Design pressure in Kg. /cm²;
- (v) Hydrostatic test pressure in Kg. /cm²;
- (vi) Date of initial hydro test and the subsequent dates;
- (vii) Water capacity in m³;
- (viii) Gas capacity in tonne, if filled with liquefiable gas;
- (ix) Name or chemical symbol of the gas.

223.2. Loading. – (1) Before offering any wagon for loading, the Train Examiner (TXR.) shall examine the wagons to make sure that only the wagons that are fit are offered for loading.

(2) Before loading, the wagon shall be visually examined by the representative of the loading company to ensure that—

- (a) POH/ROH of under frame and/or barrel and yearly examination of gasket and rings are not overdue;
- (b) there is no physical damage to the barrel and that there is no sign of leakage from dome fittings;
- (c) the surface of the barrel is free from rust and deep pitting and the paint on the barrel is in good condition and has not lost its reflecting characteristics.

(3) The tank wagon to be loaded shall not be located under or near any electrical wire and the wagon shall be suitably earthed before commencement of loading by the loading company.

(4) The tank to be loaded shall be placed in position, preferably under shade and secured properly against any move, the hand brakes shall be put on and the hand brake lever secured in 'ON' position.

(5) The points leading to the track/line on which the tank is to be loaded shall be set and padlocked so as to isolate it from other track/lines.

(6) If loading is to be done at the end of a long siding, the site shall be protected properly by a scotch block etc. to prevent any wagon dashing against the tank wagon; and

Provided that shunting shall not be permitted on that line when loading is being done.

(7) Caution signs shall be exhibited at a suitable distance away from tanks on the approach end or at both ends, as the case may be.

(8) The tank shall be loaded under the supervision of a responsible person of the consignor and all precautions shall be taken by him to ensure that the persons engaged in filling are

properly protected against LPG/Liquefied Ammonia/Chlorine contaminated atmosphere, as the case may be. A list of precautionary measures required to be taken by the staff shall be exhibited at a conspicuous place near the loading point. Further, the tank shall be continuously attended by the operators throughout the entire period of operations.

(9) Before starting the loading operation, an authorised representative of the consignor shall issue a certificate to the Terminal Authority after necessary check-up in respect of the following, namely ;

(a) the requirements under Rule 223.2 (2) above have been complied with;

(b) the hoses, liquid and vapour education valves, safety valves, sampling valve and magnetic gauging device are complete in fitting and are in perfect working order and that there is no evidence of leakage.

(c) there is no physical damage to the safety valve and thermometer well.

(10) Loading connections shall be securely attached to the pipelines before education valves are opened.

(11) The loading of the tank shall be done through the liquid education valves which have pipes leading to the bottom of the tank the vapour education valve connected to the storage system of the gas in question and good operating condition of the valves shall be ensured before commencement of loading operation.

(12) Loading shall be done preferably by using both the liquid education valves.

(13) Before opening the education valves for loading, it shall be ensured that the connections to the pipe-lines are securely attached.

(14) If for any reason it is necessary to discontinue the loading operations, all the loading connections and all the valves shall be tightly closed.

(15) For checking the leakage through manhole fittings and their joints, the wagons shall be loaded with compressed gas initially upto 2 kg/cm² of pressure, and further loading shall be continued only if there is no leakage.

(16) At the time of sealing the dome cover, it shall be finally ensured that there is no sign of any leakage and the outlet plugs of the valves are screwed in position.

(17) The caution signs shall be then removed and pad-locks on the points opened to enable the tank wagons to be taken out for attaching to the train.

(18) The Terminal Authority or the Oil Company or Fertiliser Plants or Company shall issue necessary certificate to the Railways (TXR) before offering the loaded wagons for movement in respect of the following :—

(a) That the requirement laid down in sub-rule 223.2(2) has been met with.

(b) That there is no evidence of leakage at any location.

- (c) That the eduction and sampler valves are fully closed and outlet plugged; and that the covers of magnetic gauging device and thermometer well are properly screwed and the safety valves are in fully operable condition.

223.3. Unloading.— (1) The procedure enumerated in clause (2) to (8) of Rule 223.2 shall be followed for unloading also.

(2) Before opening the lid of the dome, it shall be ensured that the seals and locks are intact and then the outlet plugs shall be unscrewed for making connections.

(3) The unloading of LPG and Liquefied Ammonia shall be done through the liquid eduction valves, preferably by using both the liquid eduction valves, after the vapour eduction valve has been connected to the storage system of the LPG Plant/Ammonia Plant.

(4) Before opening the valves, it shall be ensured that connection, to the pipe-line is securely attached.

(5) If for any reason it is necessary to discontinue the unloading operations, all the unloading connections and all the valves shall be closed.

(6) During unloading the pressure inside the tank shall be maintained steady so as to avoid sudden evaporation of gas, compressed, liquefied or dissolved under pressure.

(7) After unloading has been completed, the connections shall be disconnected and all the valves tightly closed and the outlet plugs of the eduction valves shall be screwed in position and the dome cover closed properly and sealed.

(8) Caution sign may then be removed and pad-locks on the points opened.

(9) After unloading operation, the terminal authorities shall certify that—

- (a) Valves and fittings are complete in all respects and that they are properly secured and there is no leakage from them.
- (b) The tanks received leaky or found leaking later on have been pressure relieved and particulars with date and place of the defect have been stencilled on the barrel and also intimated to the terminal authority where the wagon was loaded.

Special provisions for loading and unloading of liquid Chlorine Tank Wagons

223.4 (1) The tank shall be filled by connections to the liquid valves which have dip pipes to the bottom of the tank and the other gas valve shall be connected to the absorption system of the Chlorine Plant.

(2) The unloading of Chlorine Tank Wagon shall be carried out by using a gas compressor, i.e. the compressor shall be connected to the gas valve on the tank and the liquid valve on the tank shall be connected to the storage tank. By ensuring that the pressure in the tank barrel is about 0.7 kg per sq. cm (gauge) above that in the storage tank, the Chlorine shall discharge itself.

(3) While discharging, the pressure inside the tank barrel shall be maintained steady.

(4) When all the liquid Chlorine has been transferred, the liquid valve on the tank shall be closed.

(5) All tools and implements used in connection with transfer operations shall be kept free from oil, grease, dirt and grit.

(6) Seals and other substances shall not be thrown into the tank and spilling of the contents over the tank shall be avoided.

223.5. Precautions during loading and unloading. – (1) The loading or unloading shall be done in a well protected place away from any source of spark, naked light, etc.

(2) No person shall smoke or take a naked light, matches or other articles of inflammable/explosive in nature near empty or loaded tank wagons.

(3) These tank wagons shall not be used for loading any other liquefied gas or commodity.

(4) Care shall be taken to avoid the spilling of LPG/Ammonia over the tank.

(5) The tank wagon shall not be loaded beyond its Permissible Carrying Capacity (PCC) and the filling valves shall be closed as soon as the magnetic liquid valve gauge shows the requisite level or Weigh Bridge shows the limiting load.

(6) If the valves are hard to operate, undue force shall not be employed to open them.

(7) The tank barrel shall not be heated under any circumstances.

Leaky Tanks

224.1. The following steps in addition to the precautions mentioned in Appendix II/2 shall be taken, if leakage is detected in a tank wagon containing gases, compressed, liquefied or dissolved under pressure; namely :—

(1) The leaky tank wagon shall be removed as quickly as possible to an open area where the escaping gas may be less hazardous.

(2) Information regarding a leaky tank wagon shall be immediately given to the nearest Railway authorities who shall immediately relay the same to the Head Train Examiner, the Divisional Mechanical Engineer concerned, and the establishment owning the tank wagon for necessary action.

(3) In case of leakage in the dome fittings, the following procedure shall be followed, namely:—

(a) If there is leakage around the valve holding down bolts, the bolts shall be tightened without using undue force until the leakage stops and if leakage persists, the wagon shall be isolated.

(b) If there is leakage from the outlet valve, the valve handle shall be turned with hands, and if in no case, it does not stop, wrench shall be used.

(c) If there is leakage around the safety valve, the tank wagon if considered necessary shall be isolated.

(4) A leaky tank wagon which has been emptied shall not be sent to the loading station and shall be stencilled as such.

Action specific to tank wagons containing certain gases

224.2. L.P.G. Tank wagons. – If there is a leakage, the wagon tank barrel—

(a) All naked lights or fires in the vicinity shall be extinguished or removed as far away as possible and no electric switch in the vicinity shall be operated even for switching off.

- (b) Lanterns or signal lamps shall be kept on the side from which wind is blowing and as high as possible, the locomotive shall be moved away from the site and ash pit fires shall be extinguished with water.
- (c) Personnel shall keep to the wind-ward side of the leakage and shall wear suitable breathing apparatus, if necessary.
- (d) All spectators shall be kept away and instructed not to smoke.
- (e) Earth shall be spread over the surface where LPG has leaked.
- (f) If there is any leakage from the thermometer well, top nut shall be tightened so as to stop flow of liquid.

224.3. The following additional precautions shall be taken, namely: -

- (a) The workers shall be careful not to let the L. P. G. touch their skin.
- (b) All valves, pipe lines, etc. shall be free from Oil, Grease, Dirt and Grit.
- (c) Undue force shall not be employed to open the valves.
- (d) Tank barrel shall not be heated and shall not be allowed to stand over an ash pit.
- (e) Education valve outlet plug shall be screwed in position when not in use.

224.4. Liquid Chlorine Tank Wagons.— (1) If there is a leakage, all present in the vicinity shall be warned to keep up wind from the leak and if possible in locations higher than the leak.

(2) Cloths contaminated with liquid Chlorine shall be removed immediately and the affected skin washed with large quantity of water.

(3) Water shall not be sprayed on a Chlorine gas leak.

DOs and DON'Ts

225. The list of DOs and Don'ts for carriage of Ammonia tank wagons is given in Appendix II/4, for L. P. G. tank wagons in Appendix II/5 and for Chlorine in Appendix II/6.

Shunting

226. Precautions to be observed during shunting operations.— Shunting of wagons containing gases, compressed, liquefied or dissolved, shall not be carried out except under the superintendence of a duly authorised officer who shall ensure that during shunting operation—

- (a) wagons containing gases, compressed, liquefied or dissolved, are separated from the locomotive by not less than two carriages not containing explosives or other dangerous goods or articles of inflammable nature, irrespective of the Type of locomotive used ;
 - (b) the speed of all movements does not exceed 8 kms. an hour;
 - (c) no rough, hump, fly or loose shunting takes place;
 - (d) tank wagons when left in sidings shall be placed clear of the fouling marks to avoid side collisions and shall have their hand brakes on.
- .

Marshalling

227.1. Precautions to be observed during Marshalling. – (1) Except as otherwise provided in column 8 of Table II, there is no restriction on the number of wagons containing gases, compressed, liquefied or dissolved. Which may at any one time be attached to or be transported by any one train.

(2) Wagons containing gases, compressed, liquefied or dissolved, permitted to be grouped together shall be placed as far away as practicable from the train locomotive.

(3) Wagons containing gases, compressed, liquefied or dissolved, shall be separated by not less than two guard or dummy wagons or carriages not containing explosives or other dangerous goods or articles of inflammable nature from—

- (a) the train locomotive, irrespective of the Type of locomotive used;
- (b) the passenger carrying carriages or the brake-van;
- (c) any other carriages containing dangerous goods or articles of inflammable nature, the number of such intervening carriages shall not be less than three when these other carriages contain explosives or petroleum and other inflammable liquids, Class 'A'.

(4) Wagons containing gases, compressed, liquefied or dissolved, shall be close-coupled to the adjoining carriages and to each other.

227.2. On the Darjeeling—Himalayan section of the Northeast Frontier Railway wagons containing gases, compressed, liquefied or dissolved, need not be close-coupled.

227.3. Guard or dummy wagons.—(1) Guard or dummy carriages may be empty or loaded.

(2) Loaded wagons containing explosives or other dangerous goods or articles of flammable nature shall not be used as guard or dummy wagons.

Conveyance of Gas Cylinder or containers of Gross Weight of 750 Kgs. or Over

228.1. Carriage in the same wagon through to destination.— Any cylinder or container of which the gross weight is 750 Kgs. or over shall be carried through to destination in the same wagon:

Provided that consignments of such cylinders or containers shall not be accepted for carriages to destination involving break-of-gauge transshipment.

228.2. Type of wagons to be used.— Wagons used for conveying gas cylinders or containers of which the gross weight is 750 Kgs. or over shall be such that the unloading can be performed without lifting the cylinders or containers a greater height than 1.82 metres from the rail-level.

228.3. Stowing in wagons. – The wagons shall not contain any heavy articles likely to damage the cylinders or containers.

228.4. Handling to be done in the open. – As far as possible, gas cylinders or containers of which the gross weight is 750 Kgs. or over shall be dealt with in the open.

228.5. Labels.— Wagons used for conveying cylinders or containers of which the gross weight is 750 Kgs. or over shall have affixed on each side a label to be provided by the consignor,

indicating the nature of the contents of the cylinders or containers and the necessity for exercising care in dealing with the wagon and its contents.

Note. – The label to be affixed by the consignor on both sides of the wagons shall be in addition to the label to be pasted by the Railway, vide Rule 222.1.

228.6. Use of crane.– Whenever it is necessary to use cranes for loading, unloading or handling of gas cylinders or containers, only such cranes and hook chains as have been certified to have lifting power of at least 500 Kgs. more than the gross weight of the cylinders or containers must be used. As far as possible, a properly designed cradle with chain slings should be used.

Notice of Arrival

229.1 Notice to consignee on arrival of consignment.– The Station Master of the destination station shall ensure that notice of arrival of consignments of gases, compressed, liquefied or dissolved, is issued to the consignee in the prescribed form (for form see Annexure B) for all consignments received at his station and not removed on the date of unloading.

229.2 Railway's right to recover wharfage and demurrage not affected by non-issue of arrival Notice.–Non-receipt or later receipt of the notice of arrival shall not entitle the consignee to exemption from wharfage and demurrage charges, if the goods are not taken delivery of within the free time allowed.

Delivery or Disposal otherwise

230.1 Delivery. – Consignments of gases, compressed, liquefied or dissolved, shall be removed by the consignee from the station or depot of the Railway to which they have been transported as soon as they are made available for delivery.

230.2 Disposal, if delivery not effected expeditiously.–(1) If the consignments are still on hand after the expiry of the free time allowed for their removal a notice as prescribed in section 84 of the Railways Act 1989 (24 of 1989) shall immediately be served on the consignee.

(2) The notice shall be in the form prescribed and given in Appendix II/3.

(3) After the expiry of the period specified in the notice, referred to above, consignments still unclaimed shall be sold in accordance with the provisions of sections 83 and 84 of the Railways Act, 1989 (24 of 1989).

Weight for charge and days of acceptance

231. Traffic in wagon loads to be accepted on all days. – Traffic in wagon loads shall be accepted on all days subject to a minimum weight for charge as prescribed in the Indian Railway Conference Association Goods Tariff.

Pre-payment of Freight

232. The freight on all consignments of gases, compressed, liquefied or dissolved shall be pre-paid.

Charge for Guard or Dummy Wagons

233. Whenever it is necessary to attach empty wagons as guard or dummy wagons for the safety of a train carrying gases, compressed, liquefied or dissolved, such wagons shall be charged in accordance with the provisions of the Indian Railway Conference Association Goods Tariff.

Repairs to Carriages

234. Before any repairs or alterations are commenced in any part of carriage in which gas cylinders or containers are being transported, all due precautions shall be taken to remove all such gas cylinders or containers.

Prevention and Report of Accidents

235.1. Special precautions against accidents—

(1) No person shall commit or attempt to commit any act which may tend to cause a fire or explosion or in about any place where gas under pressure in a cylinder is stored, handled or transported.

(2) Every person in charge of or engaged in storage, handling and transport, of compressed gas cylinders shall at all times—

(a) comply with provisions of these rules and the conditions of any licence relating thereto;

(b) observe all precautions for the prevention of accident by fire or explosion; and

(c) prevent any person from committing any act referred to in Rule 235.1(1).

235.2. Report of accidents.—(1) Whenever there occurs any accident connected with any consignments of gases, packed in cylinders and attended with loss of life, or serious injuries to persons or serious damage to property or of a description usually attended with such loss, injuries or damage, the person for the time-being in charge of the consignment shall forthwith inform :—

(a) The Chief Controller of Explosives, Nagpur giving particulars of the occurrence by available means of communication such as: Telephone/Fax/E-mail etc. as per Contact details below:

Add:- A- Block , 5th Floor, CGO complex , Seminary Hills, Nagpur-440006 (Maharashtra),
Tel.No.:- 071-22510248, **E-mail:-** explosives@explosives .gov.in

(b) the Officer-in-charge of the nearest police station by the quickest route;

(c) the Departmental Officers concerned.

(d) National Disaster Response Force (NDRF)

(2) Pending the visit of the Chief Controller of Explosives or his representative, or until instructions are received from him that he does not wish any further investigations or enquiry to be made, all wreckage and debris shall be left untouched except in so far as its removal may be necessary for the rescue of persons injured and recovery of the bodies of any persons killed by the accident or for the restoration of through communication.

Saving

236. Nothing in this Chapter shall be deemed to detract from the operation of.—

(a) The Gas Cylinder Rules, 1981,

(b) Notification No. GSR-625(E), dated 7th August 1983 issued by the Min. of Industry, Dept. of Industrial Development

- (c) Static & Mobile Pressure Vessels (Unfired) Rules, 1981
- (d) The Arms Act, 1959;
- (e) The Arms Rules, 1962;
- (f) The Poisons Act, 1919 (12 of 1919) or the rules framed there under, wherever applicable:
- (g) The Explosives Act 1884 (4 of 1884).

Table II

Table II

Name of Gas	Characteristic property of the Gas	Pictorial label to be used (See Rule 208.4)	Exceptional or Additional packing Rules (See also Rule 207)	Exceptional or Additional Rules regarding Marking and labeling (See also Rules 208, 209, 222.1 and 228.5)	Exceptional or Additional Rules regarding carriage by Goods. Train (See also Rules 213, 214, 215, 216, 217 and 228.2)	Exceptional or Additional Rules regarding carriage in brake-van of passenger, Mixed or Parcel Train (See also Rule 218)	Exceptional or Additional Stowage and Carriage Rules 219, 220, 221, 226, 227, 228)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dissolved Gas Acetylene (Compressed into Porous substances)	Flammable	A	Shall not be packed with Chlorine	...	...	...	Must not be loaded with chlorine
Compressed Gasses Air compressed	Non Flammable	B	...	...	...	...	...
Argon	Non Flammable	B	...	...	...	...	...
Coal Gas	Flammable	A	...	...	...	...	...
Hydrogen	Flammable	A	...	...	...	...	...
Methane	Flammable	A	...	...	...	...	...
Neon	Non Flammable	B	...	...	...	...	...
Nitrogen	Non Flammable	B	...	...	...	...	...
Oxygen	Non Flammable (Strong supporter of combustion)	B	Rule 207.2 does not apply to cylinders containing this gas for medical purposes, provided the external diameter of the cylinders does not exceed 10 cm.	...	...	...	...
Sulphur Hexafluoride	Non Flammable	B	Transported in cylinders approved by Chief Controller of Explosives. Ventilation shall be adequate and effective.	...	...	...	...

Name of Gas	Characteristic property of the Gas	Pictorial label to be used (See Rule 208.4)	Exceptional or Additional packing Rules (See also Rule 207)	Exceptional or Additional Rules regarding Marking and labeling (See also Rules 208, 209, 221 and 228.5)	Exceptional or Additional Rules regarding carriage by Goods. Train (See also Rules 213, 214, 215, 216, 217 and 228.2)	Exceptional or Additional Rules regarding carriage in brake-van of passenger, Mixed or Parcel Train (See also Rule 218)	Exceptional or Additional Stowage and Carriage Rules 219, 220, 221, 226, 227, 228)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Liquid Gases- Contd. Ammonia (Anhydrous) For precautions to be absorbed in the event of leakage, See Appendix II/2	Toxic	C	(1) Shall not be packed with Chlorine. (2) May also be accepted in containers approved by the Chief Controller of Explosives. These containers may be accepted naked, provided the valves are properly converted with the protecting caps or domes.	...	(1) When packed as laid down in item (2) in column 4, may be loaded in open wagons, provided the containers are protected by tarpaulins. (2) May be carried in approved tank wagons.	Not more than one cylinder may be carried in the rear brake van.	(1) Must not be loaded with Chlorine. (2) Containers, referred to in item (2) in column 4 shall be laid in rows of three with their major axis in the line of travel of the wagon and suitably secured.
Chlorine for precautions to be observed in the event of leakage, see Appendix II/2	Toxic	C	(1) Shall not be packed with Acetylene (Compressed into porous substances) or Ammonia (anhydrous) or Liquefied Petroleum Gas (commercial butane or propane.) (2) May also be accepted in containers approved by the Chief Controller of Explosives.	...	(1) When packed as laid down in item (2) in column 4, may be loaded in open wagons, provided the containers are protected by tarpaulins. (2) May be carried in approved tank wagons.	Must not be carried in the brake van.	(1) Shall not be loaded with Acetylene (compressed into porous substances) or Ammonia (anhydrous) or Liquefied Petroleum Gas (Commercial butane or propane).

Name of Gas	Characteristic property of the Gas	Pictorial label to be used (See Rule 208.4)	Exceptional or Additional packing Rules (See also Rule 207)	Exceptional or Additional Rules regarding Marking and labeling (See also Rules 208, 209, 221 and 228.5)	Exceptional or Additional Rules regarding carriage by Goods. Train (See also Rules 213, 214, 215, 216, 217 and 228.2)	Exceptional or Additional Rules regarding carriage in brake-van of passenger, Mixed or Parcel Train (See also Rule 218)	Exceptional or Additional Stowage and Carriage Rules 219, 220, 221, 226, 227, 228)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Liquid Gases- Contd. Liquefied Petroleum Gas (Compressed Butane or Propane)	Flammable	A	(1) Shall not be packed with Chlorine. (2) May also be accepted in containers approved by the Chief Controller of Explosives. The containers may be accepted naked, provided the valves are properly covered with the protecting caps or domes.	...	(1) When packed as laid down in item (2) in column 4, may be loaded in open wagons, provided the containers are protected by tarpaulins. (2) May be carried in approved tank wagons.	Must not be carried in the brake vans.	(1) Shall not be loaded with Chlorine. (2) Containers, referred to in item (2) in column 4, shall be laid in rows of three with their major axis in the line of travel of the wagon and suitably secured.
Carbon Dioxide (Carbonic Acid Gas).	Non Flammable	B	...	...	...	...	...
Cyclopropane gas	Flammable	A	...	...	...	...	...
Ethylene	Flammable	A	...	...	...	...	...
Ethyl Chloride	Non Flammable	B	...	...	...	...	...
Freon, Arcton or Genetron	Non Flammable	B	...	...	...	...	...
Hydro-cyanic Acid	Toxic	C	The cap or cover of the cylinder containing this gas must not be provided with a vent.	...	...	Must not be carried in the brake van.	...
Medical Mixtures (Oxygen and Carbon Dioxide Mixtures, or Oxygen and Helium Mixtures).	Non Flammable	B	...	...	...	...	...
Methyl Bromide Toxic		C	...	...	...	...	...

Name of Gas	Characteristic property of the Gas	Pictorial label to be used (See Rule 208.4)	Exceptional or Additional packing Rules (See also Rule 207)	Exceptional or Additional Rules regarding Marking and labeling (See also Rules 208, 209, 222.1 and 228.5)	Exceptional or Additional Rules regarding carriage by Goods. Train (See also Rules 213, 214, 215, 216, 217 and 228.2)	Exceptional or Additional Rules regarding carriage in brake-van of passenger, Mixed or Parcel Train (See also Rule 218)	Exceptional or Additional Stowage and Carriage Rules 219, 220, 221, 226, 227, 228)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Liquid Gases- Contd. Methyl Chloride (Chloromethane)	Flammable	A	...	...	...	...	...
Nitrous Oxide	Non Flammable	B	Rule 202.2 does not apply to cylinders containing this gas and having a water capacity not exceeding 4.33 Kgs.	...	...	...	...
Sulphur Dioxide Toxic (Sulphurous Acid Gas)	Toxic	C	...	...	...	...	...
Liquid Air or Liquid Oxygen or Liquid Nitrogen or Liquid Helium	Non Flammable	B	(a) Containers of not more than 30 kgs. capacity. In double- walled vacuum vessels of steel, copper, or copper alloys, not exceeding 30 Kgs. in capacity not to be more than four fifths full. Each vessel to be contained in a stout cylindrical wicker basket with vertical sides and conical top, or in a well made strong wooden box or metal case; not more than 7.62 cm. of the neck of the vessel to project through the top of the basket or lid of the box or case. The projecting portion of the neck to be enclosed in a metal or wicker cage standing not less than 2.5 cm. clear of the open end. The vessel to be packed in the basket or box or case with slag wool	(a) Each basket or box or case to be labelled on the top part in 2.5 cm. letters- "LIQUID AIR OR LIQUID OXYGEN OR LIQUID NITROGEN OR LIQUID HELIUM." CAUTION (red letters). KEEP UPRIGHT KEEP COOL HANDLE WITH CARE".	...	(a) May be carried in rear brake-van in any quantity.	(a) Rules 220, 228.1 (1) and 229.1 (2) and 229.1 (3) do not apply to liquid nitrogen.

Name of Gas	Characteristic property of the Gas	Pictorial label to be used (See Rule 208.4)	Exceptional or Additional packing Rules (See also Rule 207)	Exceptional or Additional Rules regarding Marking and labeling (See also Rules 208, 209, 222.1 and 228.5)	Exceptional or Additional Rules regarding carriage by Goods. Train (See also Rules 213, 214, 215, 216, 217 and 228.2)	Exceptional or Additional Rules regarding carriage in brake-van of passenger, Mixed or Parcel Train (See also Rule 218)	Exceptional or Additional Stowage and Carriage Rules (219, 220, 221, 226, 227, 228)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Liquid Gases- Contd. Liquid Air or Liquid Oxygen or Liquid Nitrogen or Liquid Helium			(b) Containers of more than 30 Kg. capacity. These to be metallic containers of a design approved by the Chief Inspector of Explosives.	(b) A board not less than 45 cm x 22 cm. bearing the following inscription shall be displayed on each side of the wagon containing liquid oxygen or liquid air. – “LIQUID OXYGEN (LIQUID AIR) CAUTION (red letters) KEEP AWAY FROM NAKED LIGHTS NOT TO BE HANDLED BY RAILWAY STAFF EXCEPT BY SPECIAL ARRANGEMENTS”.	(b) (1) Only open iron or steel floored wagon shall be used to carry the containers. The base of each container shall be designed so as to be capable of being fixed to the floor of the wagon by means of bolts, Iron dogs, or otherwise to prevent displacement whilst in transit. In addition to the above, each container shall be provided with three lashing chains for holding it down to the under frame of the wagon. (2) Not more than two containers may be carried in any one wagon.		(b) (1) Not more than one wagon containing liquid oxygen or liquid air may be carried on any one train. (2) Liquid oxygen or liquid air shall not be conveyed by the same train by which explosives exceeding 900 kgs. and tank wagons containing petroleum and other inflammable liquids are conveyed. (3) All valves and fittings on the containers shall be so locked and protected as to prevent unauthorized interference with them, (4) Rules 220, 228.1 (1) and 229.1 (2) and 229.1 (3) do not apply to liquid nitrogen.

Appendix II/1
(See Rule 208.1)

APPENDIX II/1

Indian Standard Identification Colours for Gas Cylinders or Containers as per IS-4379 and IS – 3933

Name of gas	For Medical purposes		For other than Medical purposes	
	Body	Valve end	Ground	Bands
Dissolved Gas	...	...	...	...
Acetylene (Compressed into porous Substances.)	...	...	Maroon	...
Compressed Gases				
Air Compressed	Grey	White and Black	Grey	...
Argon	...	...	Blue	...
Coal Gas	...	...	Red	...
Hydrogen	...	...	Red	...
Methane	...	...	Red	...
Neon	...	...	Brown	Black
Nitrogen	Grey	Black	Grey	Black
Oxygen	Black	White	Black	...
Liquefied Gases				
Ammonia (Anhydrous)	...	...	Black	Red and Yellow
Chlorine	...	...	Yellow	...
Carbon Dioxide (Carbonic Acid Gas)	{ Grey Grey	Grey for temperate use. Grey for tropical and marine use.	Black Black	White or Aluminium paint ...
Ethylene	Violet	Violet	Mauve	Red
Ethyl Chloride				
Inflammable	...	...	Grey	Red
Non—Inflammable	...	...	Grey	
Freon, Arcton or Genetron	...	...	Particoloured: Bottom end: Grey Neck end: Mauve	Grey
Hydro – cyanic Acid	...	...	Blue	Yellow
Liquefied Petroleum Gas				
Commercial Butane or Propane	...	...	Aluminium or White	Red, Red & Blue
Medical Mixtures -				
Oxygen and Carbon Dioxide Mixtures Or	Black	White and Grey	...	...
Oxygen and Helium Mixtures	Black	White and Brown	...	...
Methyl Chloride (Chloromethane)				
Inflammable	...	...	Green	Red
Non – Inflammable	...	...	Green	...
Nitrous Oxide	Blue	Blue	...	...
Sulphur Dioxide (Sulphurous Acid Gas)	...	...	Green	Yellow
Liquid Air	Grey	White and Black	Grey	...
Liquid Oxygen	Black	White	Black	...
Liquid Nitrogen	Grey	Black	Grey	Black

Appendix II/2
(Rule 212.5)

APPENDIX II/2

Precautions to be taken in the event of Leakage of Ammonia (Anhydrous) Chlorine and Phosgene

AMMONIA

1. Ammonia is a toxic gas which is contained in cylinders and other containers in a liquefied state under pressure. It has a characteristic pungent odour, which gives warning of the presence of the gas in the atmosphere before dangerous concentrations are attained. Maximum allowable concentrations in air are about 100 ppm.
2. Ammonia is irritating to the eyes and the mucous membrane of the respiratory tract. As such, when a leak occurs all persons in the vicinity should be warned to keep on the upwind from the leak.
3. Ammonia gas is lighter than air and is readily soluble in water. When a leak is detected, keep wide open the doors of the wagon or shed where the leak has occurred and direct a fine jet of water continuously on the leaking cylinder or container and on the floor where the leak has occurred. Water will absorb the ammonia and bring down the concentration of the gas.
4. If a leak occurs in a tank wagon containing liquefied ammonia or in a wagon containing ammonia cylinders or containers, the wagon should be moved as quickly as possible to an open area where the escaping gas will be less hazardous.
5. If it is necessary to dispose of Ammonia from a leaking container, the liquid Ammonia may be discharged into a vessel containing sufficient water (10 parts of water to one part of Ammonia) to absorb it. The Ammonia should be injected as near the bottom of the vessel as possible.

CHLORINE

6. Chlorine is a highly toxic gas which is contained in cylinders or other containers in a liquefied state under pressure. It has a characteristic and penetrating odour. This characteristic odour gives warning of the presence of chlorine in the atmosphere before dangerous concentrations are attained. The greenish yellow colour of chlorine gas makes it visible when high concentrations are present. Maximum allowable concentration in air is 3 ppm.
7. When a sufficient concentration of chlorine is present in the atmosphere, it will irritate the mucous membrane, the respiratory system and the skin. As such, when a chlorine leak occurs all persons in the vicinity should be warned to keep upwind from the leak, and if possible in locations higher than the leak, as chlorine, being about 2.5 times heavier than air, traverses downward.
8. Leakage of chlorine can be handled only by authorised trained personnel with suitable gas mask. As such, in case of detection of leakage, the nearest manufacturer should be intimated for deputing trained personnel to detect and contain the leakage. Leakage can very often be stopped by such personnel by using emergency kits and the chlorine can be disposed of by absorbing in solution of caustic soda or soda ash or agitated hydrated lime slurry by passing through plastic or rubber pipe.

PRECAUTIONARY MEASURES

9. (a) If a leak occurs in a tank wagon containing chlorine or in a wagon containing chlorine cylinders or containers, the wagon should be moved as quickly as possible to an open area where escaping gas can get dispersed readily.

(b) If the leaky cylinder or container is kept inside the Railway premises, it should be removed to an open space, if possible, by remote operation from upwind direction. Otherwise all persons in the vicinity should be removed to a safe distance.

(c) In case of containers known as tonne containers containing about 900 kgs. of chlorine, there are two outlets on diametrically opposite directions. If the leakage is at the lower half, the container should be rolled so that the leakage point comes to the top which is vapour space. This would reduce the rate of escape of gas to the minimum.

(d) If liquid comes out, it may be allowed to accumulate in an enclosure formed by earth/sand and water may be sprayed to facilitate formulation of solid chlorine hydrate which would reduce the rate of evaporation.

(e) Chlorine vapour clouds coming out from the leakage point can be dispersed by a fine spray of water. But water or other wet material must not come in contact with the cylinders or containers as this would cause corrosion of the material increasing the leakage.

(f) Such handling of leaky cylinders/containers without protective gas mask by untrained persons is very risky and should be attempted only from a distance in the upward direction after covering the eyes with protective glass and face, with wet cloth.

Should liquid chlorine come in contact with the skin or clothing, it may cause burn and irritation. Contaminated clothing should be removed immediately and the affected part of the skin should be washed with plenty of water.

10. Phosgene is a non-inflammable, colourless gas, more than three times as heavy as air. Phosgene under pressure is readily liquefied and gives colourlessness to light yellow liquid. It has odour of sour green corn or moldy hay, often suffocating the strong, depending upon concentration. Phosgene is designated as poison of extremely dangerous nature which produces lethal effect.

11. It is soluble in organic solvent e.g., Carbon tetrachloride, Chloroform, Benzene, Toluene, Xylene, Chlorobenzene, etc., and slightly soluble in water. It is hydrolyzed by water to form corrosive hydrochloric acid and carbon dioxide. At higher temperatures, it dissociates into Carbon monoxide and Chlorine.

12. Suspected leaks of Phosgene should be detected only by personnel who are wearing suitable gas masks using ammonia vapour devices as Phosgene produces white fumes in the presence of Ammonia.

13. The following are warning symptoms of Phosgene poisoning: -

- (i) Watering of eyes.
- (ii) Coughing which may result in a thin, frothy expectoration.
- (iii) Increased difficulty in breathing and lung irritation.
- (iv) Headache, dizziness, nausea and vomiting;
- (v) General weakness and collapse leading to unconsciousness and cessation of breathing.

At first sign of these symptoms, a person shall immediately leave the dangerous atmosphere. A warning notice shall be displayed and detection test be carried out before anyone is allowed to enter, unless he is wearing an approved breathing apparatus and the entry is permitted by a responsible person.

14. WHEN PHOSGENE LEAK IS DETECTED, SLAKED LIME ALKALI OR ALKALI SOLUTIONS SHOULD BE LIBERALLY THROWN OVER THE LEAKING CYLINDER AND ON THE FLOOR OF THE WAGON OR SHED WHERE LEAK HAS OCCURRED.

“WATER SHOULD NOT BE SPRAYED ON PHOSGENE GAS AS IT GIVES OUT CORROSIVE HYDROCHLORIC ACID AND CARBON DIOXIDE.”

Appendix II/3
(Rule 230.2)

Appendix II/3

Sl. No. _____

Station _____

Division/ District _____

Railway _____

Date _____

Notice to be served on the consignee

To

Dear Sir/ Madam,

Sub: - Invoice/PWB No. _____ dated _____

From _____ to _____

I hereby give you notice that the above consignment/parcel of which you are the consignee is lying undelivered at destination. Please note that if delivery is not effected within seven days from the date of receipt of this letter on payment of all charges due as per details given below, arrangements will be made to dispose of it under Sections 83 and 84 of the Indian Railways Act, 1989 (24 of 1989) without any further reference being made to you.

In the event of sale, if the amount due to the Railway on account of freight, demurrage, wharfage, etc. is not covered by the sale proceeds, I shall look to you to make good the balance.

Details of charges due: -

1. Freight ₹

2. Demurrage ₹.....

3. Unloading Charges ₹.....

4. Wharfage at the rate of ₹.....

per 50 kgs. per day from

Until removal of the consignment.

Yours faithfully

APPENDIX II/4
(Rule 225)

APPENDIX II/4

Do's and Don'ts (New Rules)

1. Name of Commodity—Anhydrous liquid ammonia.

2. Characteristics.

2.1 General Information: Ammonia at atmosphere temperature and pressure is gas. It can however, be cooled down and compressed to liquid form. It is colour less both in liquid and gaseous form. It has pungent odour and is irritating to eyes and skin. Ammonia gas is lighter than air and liquid ammonia is lighter than water.

3. Health Hazard

3.1 The presence of ammonia may result in irritation to skin, blindness to eyes and choking of mucous membrane, nose, throat and lungs.

3.2 Severe ice burn to persons coming in contact with leaky spots.

4. Do's and Don'ts to be followed in case of accidental leakage/spillage.

Do's :

1. Do load the safety kit in the engine room/brake van before moving the train.

2. Do mark the leaky tank sick and shift to a remote place with no habitation.

3. Immediately inform nearest DRM office, Station Master, TXR and fire station with the help of portable telephone about leakage/spillage. Also inform police station and nearby industries for help.

4. Use public announcing systems to keep the local people away from the site of leakage/spillage.

5. Cordon off the affected area in case of heavy leakage/spillage.

6. Take immediate steps to plug off the source of leakage.

7. Run away in up wind direction in the event of heavy leakage.

8. Locate source of sufficient quantity of water.

9. Spray water in abundance to dissolve ammonia.

10. Irrigate eyes, skin with sufficient quantity of water as a first aid measure.

11. Use breathing apparatus, PVC suits, rubber gloves, rubber goggles and gum boots etc. while doing rescue operation. Use at least wet towel for breathing if proper breathing apparatus is not readily available.

12. Use artificial respiration for unconscious victims.

13. Inspect casualty and give first aid.

Don'ts:

1. Don't allow any source of ignition near tank wagon.

2. Don't come in contact with leaky ammonia lest you get ice burns.

3. Don't inhale ammonia as it affects mucous membrane.

4. Don't pour water on liquid ammonia pool directly.

5. Don't attempt to carry out repair of any sort by welding.

Appendix II/5
(Rule 225)**Appendix 11/5**

1. Name of Commodity: Liquefied Petroleum Gas (LPG)

2. Characteristics:

2.1 General Information:

— It is a mixture of Butane and Propane in different proportion liquefied under pressure and stored in LPG storage vessel and cylinder.

— In case of leakage to atmosphere, the LPG vapourises rapidly. This is potentially a dangerous situation as the spilling LPG vapour can get ignited from any source of ignition. Liquid LPG vapourises into large volume over 250 times.

- Vapourising LPG picks up heat from surroundings and thus moisture present in atmosphere condenses around the leak.

- LPG gas is heavier than air and liquid LPG is lighter than water.

— LPG is colourless in the liquid or vapour forms.

- It is practically odourless. For easy detection ethylmercaptan an odorant is added.

- It is slightly toxic.

— Small quantity of LPG vapour in air can form a flammable and explosive mixture.

3. Health Hazard

- LPG is non-poisonous but if any person is exposed for a longer duration it can cause asphyxiation.

- LPG should not be handled with naked hands and without protective clothing. If LPG falls on skin it can cause frost bite.

- Shock wave due to rapid cloud formation.

4. Potential danger involved

- In case of leakage to atmosphere, LPG vapourises rapidly which is a dangerous situation as the spilling LPG vapour can get ignited from any source of ignition.

— Evaporating LPG picks up heat from surroundings and hence leakage may result in cold burn due to ice formation.

- Rupture of barrel or tank fittings may result in confined vapour cloud explosion (PUVCE) While BLEVE (Boiling liquid expanding vapour explosion) hazard may take place when a prescribed tank is exposed to fire

Do's

5. Do's and Don'ts to be followed in case of accidental leakage/spillage.

- Go around and ensure that there is no ignition, sources nearby wagons. Have ' Dangerous ' and 'Not to be loose shunted' Labels affixed on both sides of such wagons.

- Check for hot axles and sparking due to rubbing of loose brake shoes.

- Check that the spark arrestor on engine exhaust is in position.

- Check all wagons for leakages by smell or hissing sounds.

— In case of leakages through valves, check that valves are securely closed.

— (a) In case of heavy leakage which cannot be stopped by closing of valves, evaluate leaks, determine repair materials and techniques to be used, contact nearest Railway Station or oil installation. Ensure that there are no ignition sources nearby and passersby do not smoke or carry open flames. Isolate the heavily leaky wagons and keep as far away from the train as possible. During isolation, take care to avoid any hammering or sparking. Keep the wagon cool by spraying water.

— (b) The Station Master shall send telephonic/Fax/E-mail advice to

(i) C.F.T.M.

(ii) Nearest Train Examiner.

- (c) HALON Gas Fire extinguisher should be used in case of fire.

Appendix II/5
(Rule 225)

Appendix II/5

Don'ts:

- Do not smoke.
- Do not keep any fuel oil, lubricant oil and debris accumulated in engine rooms.
- Do not carry lighted cigarettes, matches, open flames, kerosene hand signal lamps or hurricane lanterns to the vicinity of the wagons.
- Do not use steel hammers or such other tools for checking/tapping. If required use only rubber/teflon or brass hammer.
- Except in emergency all operations connected with handling of LPG wagons must be performed during day light only and not after dark as it shall necessitate the use of lamp.

During Shunting and Assembling

Do's

- Ensure buffer wagons are placed between engine and cargo.
- Ensure no ignition sources like burning cinders are nearby.
- Ensure there are no wooden sleepers in the areas as these can catch fire due to sparks or burning cinders.
- In case a leaky wagon has to be moved in the yard, it must be separated from the shunting engine/pilot by at least ten wagons not containing goods or an inflammable, dangerous or explosive nature.
- The affected tanks should be separated to the maximum extent.

Don'ts

- Do not use steam engine.
- Do not loose shunt the wagons.
- These wagons should not be passed over ash-pit.

During Transit

- In case of heavy leakage or fire noticed on the train stop the train.
- Inspect the wagon; approach the wagon from the direction of wind to avoid exposure to vapour flames.
- in case leaky wagon has to be detached, the wagon must be placed in a siding as far away as possible, from the running line so as to avoid the risk of sparks from the engine or moving trains coming into contact with such wagons.
- In case of heavy leakage which cannot be stopped by closing of valves, evaluate leaks; determine repair materials and techniques to be used. Contact nearest Railway Station, oil installation.
- Ensure that there are no ignition sources nearby.
- Do not smoke or carry open flames. Isolate the heavily leaky wagons and keep as far away from the train as possible. During isolation, take care to avoid any hammering/sparking. Keep the wagon cool by spraying water.
- Ensure that the leaky wagon is kept under watch by an authorized person round the clock and unauthorized persons are not allowed to approach within 30 metres of the wagon.
- The Station Master shall send telephonic/fax/E-mail advice to:

(i) C.F.T.M. (Tanks)

(ii) Nearest Train Examiner.

In case of an accident the Station Master shall advise, in addition to those specified in the accident Rules (i) the Officer-in-charge of the nearest police station (ii) the nearest Controller of Explosives wherever possible.

Appendix II/6
(Rule 225)

Appendix II/6

1. Name of Commodity: Liquid Chlorine

2. Characteristics:

2.1 General: Chlorine is a gas at the atmospheric pressure and temperature but it can be liquefied under pressure. It is greenish yellow in colour and has pungent suffocating odour. It is slightly soluble in water and corrosive in nature.

3. Health Hazard

Chlorine is very obnoxious gas with greenish yellow colour. It is extremely irritating to the mucous membrane of eyes and respiratory tract and is very toxic. Concentration of 50 m. is dangerous even for a brief exposure. Chlorine is corrosive and may react with human body causing severe burn/ wound.

4. Potential danger involved.

4.1 Reaction with hydro-carbons, turpentine oil and ammonia may result in fire and explosion.

4.2 Excessive pressure inside due to rise of temperature may result in bursting of weak bullets.

4.3 Hydrogen and ammonia, if present at site may form explosive mixture.

5. Do's and Don'ts to be followed in case of accidental leakage/ spillage:-

Do's:

-Do load the safety kit in the engine room/brake van before moving the train.

- Do mark the leaky tank sick and shift to a remote place with no habitation.

- Immediately inform nearest DRM office, Station Master, TXR and fire station with the help of portable telephone about leakage/spillage. Also inform police station and nearby industries for help.

- Use public announcing systems to keep the local people away from the site of leakage/spillage.

- Take immediate steps to plug off the source of leakage.

- Run away in up-wind direction in the event of heavy leakage.

- Take immediate action to detect the leak with the help of ammonia torch (Dilute ammonia solution and stick with a cloth bulb at one end) and try to control the leak.

- Locate the gas mask and emergency kits at strategic points easily accessible in the event of emergency.

Do establish and maintain appropriate facility for chlorine absorption through caustic soda/lime/soda ash solution to be of use in the event of major leakage.

Don'ts:

- Do not make any effort to repair the affected portion of tank barrel.

- Do not heat the bullet under any circumstances.

- Do not use water directly on the barrel/valve for controlling leakage.

- Do not inhale chlorine as it affects the mucous membrane.

CHAPTER III

CHAPTER III
PETROLEUM AND OTHER INFLAMMABLE LIQUIDS
Dangerous Goods under Indian Railways Act, 1989 (24 of 1989)

301. Petroleum and other inflammable liquids, that is to say, mixture of liquids or liquids containing solids in solution or suspension which give off inflammable vapour which in suitable concentration in air is capable of ignition when exposed momentarily to a source of ignition, deemed to be dangerous goods under the Railways Act, 1989 (24 of 1989) and are specified in Table III.

General Restrictions on Conveyance of Petroleum and other inflammable liquids

302.1. Petroleum and other inflammable liquids to be accepted only under the rules laid down.— A Railway Administration shall accept only the petroleum and other inflammable liquids specified in Table III for conveyance by rail, subject to the rules and in accordance with the conditions set forth in this Chapter.

302.2. Railway's right to refuse to convey.—Notwithstanding anything contained in these rules, a Railway Administration may notify that it shall not convey by rail for the public any particular petroleum or other inflammable liquid specified in Table III and after the issue of such a notice, no such petroleum or other inflammable liquid shall be accepted for conveyance by the said Administration on section or sections in respect of which such notification has been issued.

302.3. Restrictions on Railways. — (1) On the Rupsa-Talbandh section of South Eastern Railway, Petroleum and other inflammable liquids, except petroleum and other hydrocarbon oils, class B, motor spirit, petrol (benzene) and turpentine may be carried only under special arrangements.

(1) **Mumbai Port Trust Railway.** — (a) Petroleum products shall normally be dealt with at the petroleum oil company sidings as under:—

Oil Depot.— Aviation spirit, Motor spirit, High Speed Diesel oil, Powerine oil, Solvent oil, Mineral Turpentine oil, and Kerosene oil.

Stores Depot.—Liquid fuel oil, Light Diesel oil, Solvent oil.

(b) The petroleum and other inflammable liquids may occasionally be dealt with at any convenient station on Mumbai Port Trust Railway only under special arrangements.

(3) **Central Inland Water Transport Corporation Ltd.**—(a) Petroleum and other inflammable liquids shall be accepted at owner's risk only.

(b) (i) Aviation spirit shall not be carried in any quantity and under any conditions;

(ii) petrol shall be carried upto a maximum of 200 litres by any one despatch steamer;

(iii) Methylated spirit when packed in bottles suitably cased may be carried without any limitation on quantity.

(iv) Methylated spirit in 50 litres drums may be carried by passenger carrying steamers and by all steamers leaving from Kolkata Steamer Ghats upto a limit of 200 litres by any one steamer.

(v) methylated spirit in 200 litres and in 50 litres drums shall be carried by the flat service, provided that not more than 6 drums of 200 litres or 24 drums of 50 litres are carried by any one flat.

(4) **Northeast Frontier Railway.**—Except by special arrangement with the Chief Commercial Manager, Maligaon, Guwahati, Mineral Oils (except diesel oil and furnace oil) in tank wagons shall not be accepted for despatch to stations on this Railway unless consigned to firms or individuals possessing storage arrangements for dealing with the traffic in bulk.

(5) Petroleum and other inflammable liquids shall not be carried over the N.G. sections of Eastern Railway including light Railways.

Notice of Despatch to be given by sender

303.1. Notice of despatch compulsory.—Subject to any exceptions notified by the Railway Administration from time to time, consignment of petroleum and other inflammable liquids shall be forwarded to the Railway for despatch or accepted for conveyance by rail, unless previous notice of the intention to send such consignment has been given as prescribed in Rule 303.2 and unless the Officer-in-charge of the station from which the consignment is proposed to be despatched has intimated in writing that the consignment can be received.

303.2. Particulars to be given in the Notice. — The Notice required under Rule 303.1 shall be addressed to the Officer-in-charge of the station from which the goods are proposed to be despatched and it shall be sent at least 48 hours before the consignment is brought to the station, unless a shorter period is prescribed by the Railway Administration concerned, and the notice shall contain a statement of the following particulars' namely :—

(1) The true name and description and quantity of the petroleum and other inflammable liquids in the consignment indicating whether the flashing point is below 23°C or at or above 23°C but below 65°C or at or above 65°C but below 93°C;

(2) the name and address of the consignor;

(3) the name and address of the consignee;

(4) A declaration that the petroleum and other inflammable liquids have been packed and marked in accordance with the rules laid down in the 'Red Tariff' i.e. Rules 307 and 308.

Note:- (1) The Forwarding Note, complete in all respects, tendered 48 hours in advance of the date of offering of the consignment for booking shall be deemed to be a proper notice under this Rule.

(2) When the Officer-in-charge of the Railway Station or shed is in a position to accept the goods, he shall notify the same on the notice board and such notice shall be deemed as proper intimation to the consignor under this Rule.

Certificates, Forwarding Note, Etc. to be obtained by Railway Staff

304.1. Documents required.— (1) It shall be incumbent on the Railway Staff in the case of every consignment of petroleum and other inflammable liquids, mentioned in Table III, to obtain from the consignor a Forwarding Note, complete in all respects, in the form specially prescribed (for form see Annexure–A).

(2) Consignors of empty cans, drums or other containers shall declare on the forwarding note that the cans, drums, or other containers have been securely closed.

304.2. Remarks on invoice or Way-Bill.— Invoice or way-bills issued for consignments of petroleum and other inflammable liquids shall have an endorsement, indicating whether the flashing point is below 23° C or at, above 23 ° C but below 65 ° C, above 65 ° C but below 93°C.

Prohibition in Acceptance

305.1. Mixed consignments prohibited .— Petroleum and other inflammable liquids shall not be accepted as forming part of a consignment with other goods, but shall be tendered under a separate Forwarding Note and be booked as a separate consignment.

305.2. Consignment in bulk involving break-of-gauge transshipment not normally accepted. — Petroleum and other inflammable liquids in bulk shall not be accepted for conveyance by rail between any two stations involving break-of-gauge transshipments, except under special arrangements.

Petroleum and other inflammable liquids to be accepted by Authorized Railway Servant and at Specified place and time

306. Consignments of petroleum and other inflammable liquids intended to be transported by rail shall be received only: -

- (i) by a duly authorised Railway servant;
- (ii) at such place or places within railway premises; and
- (iii) except where approved electric lights as specified in Chapter IV of the Petroleum Rules, 2002 are exclusively used, at such time between sunrise and sunset, the railway administration may specify in this behalf.

Packing

307.1. Petroleum and other inflammable liquids to be transported only when packed in prescribed manner.— No petroleum or other inflammable liquids shall be tendered for transport or be transported unless it is packed in the manner laid down in column 2 of Table III, with such exceptions as contained in column 5 thereof.

307.2. Receptacles for petroleum and other inflammable liquids.— (1) Except as otherwise provided in column 2 of Table III, petroleum and other inflammable liquids, Class ‘A’ when not packed in bulk containers, i.e., containers of capacity exceeding 1000 litres, shall be contained in gas-tight tinned, galvanized or otherwise externally rust roofed sheet iron or steel receptacles which shall be fitted with well-made filling apertures and well-fitting screw plugs or with screw caps or other caps with metal air-tight under caps.

Provided that the receptacles shall comply with the specifications laid down in Appendix III/1 and shall be kept in proper repair – Provided further that an air space of not less than 5 per cent of the capacity shall be left in all containers, unless otherwise provided in column 2 of Table III.

(2) All containers used for containing petroleum and other inflammable liquids shall be well-made and sufficiently strong to withstand the wear and tear of rail transit, and shall be securely closed to prevent leakage of contents of vapour.

(3) Except as otherwise provided in column 2 of the Table III, casks, cases and crates shall be of wood, drums of iron or steel and jars of stoneware or earthenware.

(4) Cases shall be tightly jointed and casks well-stoppered.

(5) Jars shall be securely bunged or stoppered and luted.

(6) Stoppered bottles shall be luted and tied over.

(7) Sufficient air space shall be left in each container to provide for the expansion of the liquid under variations of temperature.

307.3. Inside- packing – The inside packing of cases or crates shall not contain any solid matter or hard substance.

307.4. Empty containers – All empty containers shall be kept securely closed, unless they have been thoroughly cleaned and free from inflammable vapour.

Marking and labelling of packages by consignors

308.1 Marking – (1) Every package containing petroleum and other inflammable liquids shall be marked in conspicuous characters by means of either branding, stamping, embossing or by affixing a securely attached label with: -

the name of the liquids;

- (a) The word ‘**Highly Inflammable**’ and ‘**Inflammable**’ in respect of liquids falling under classes ‘A’ and ‘B’ respectively.
- (b) Capacity in litres; and
- (c) The name and address of the consignor and the consignee.

(2) Every tank vehicle used for the transportation of petroleum shall, whether loaded or empty, be conspicuously marked on each side, and rear thereof in letters at least 7 cms. high on a background of sharply contrasting colour the word ‘FLAMMABLE’ and the common name of the flammable liquid being transported, e.g. ‘MOTOR SPIRIT’, ‘KEROSENE’ etc.

Petroleum and other

308.2. Pictorial label.—In addition to the marking specified in Rule 308.1. every package containing petroleum and other inflammable liquids shall bear the appropriate pictorial label shown below, indicating the hazard involved on account of the contents of the package:-

(For class 'A' Liquids)



Note: - (1) Back ground White Symbol and Lettering Black

(2) Minimum dimension10 cm X 10 cm.

Bigger labels may be used depending on the size of the packages.

(3) The label should be affixed at an angle of 45° (diamond shape), as indicated above.

(4) The label should be divided into two equal triangles, the upper being used for the symbol and the lower for the text, as indicated above.

**Petroleum and other
Inflammable Liquids**
308

(For class 'B' Liquids)



Note: - (1) Back ground ----- White Symbol and Lettering ----- Black

(2) Minimum dimension ----- 10 cm x 10 cm.

Bigger labels may be used depending on the size of the packages.

(3) The label should be affixed at an angle of 45° (diamond shape), as indicated above.

(4) The label should be divided into two equal triangles, the upper being used for the symbol and the lower for the text, as indicated above.

308.3. Indication label. – Unless the top of the inner package is clearly visible from above or the outer packing is such as to indicate clearly the top, **e.g.** when the outer package has a conical top, every package containing petroleum and other inflammable liquids shall have affixed on its top of the following, namely. –

“This Side Up”

308.4. Empty containers. – No containers, having previously contained petroleum or other inflammable liquid, shall be handed over to the Railway Administration for despatch as an empty container, unless it has been thoroughly cleaned and rendered free from inflammable vapour and so declared on the forwarding Note and also labeled – “EMPTY”.

Marking by Railway

309.1. Every package containing petroleum and other inflammable liquids shall be properly marked with Railway marks, indicating the code initials of the forwarding and destination stations, the invoice or way bill number and the number of packages in the consignment.

309.2. When a consignment of petroleum and other inflammable liquids is tendered for despatch as a wagon load consignment for a destination not involving break-of-gauge transshipment, only 10 per cent of the packages constituting the consignment need be marked with Railway marks.

Responsibility of the Railway Staff

310. The Railway Staff while accepting consignment of petroleum and other inflammable liquids for transport by rail, shall ensure that –

- (a) the declared quantity of petroleum and other inflammable liquids in any one package, as ascertained from the markings thereon or the weight of the package, does not exceed the maximum laid down in columns 2 and 5 of Table III, and;
- (b) the outermost package is in accordance with these rules.

Handling to be done by consignors and consignees

311.1. Unless otherwise notified by the Railway Administration, consignors and consignees shall do the loading and unloading of consignments of petroleum and other inflammable liquids in wagon loads.

311.2. When the traffic is booked in ‘smalls’ and in all cases of handling **en-route**, the Railway Administration concerned shall do the loading and unloading.

311.3. Transshipment of traffic in tank wagons shall be done by consignors and consignees.

311.4. Over the Eastern Railway and (Allahabad, Lucknow and Moradabad Divisions) of the North Central and Northern Railways, Benzene (Petrol) and Kerosene or Paraffin oil shall be loaded by consignors and unloaded by consignees when booked :—

- (i) in bulk;
- (ii) in tins or otherwise packed when in minimum consignments of 45 quintals and over;

Provided that the handling will be done by the Railway:—

- (a) when small consignments are carried in Road vans;

- (b) when consignments weighing 45 quintals or over are despatched in a through Road-van at the convenience of the Railway along with other goods;
- (c) when a special station-to-station rate is quoted without the condition that owners must load and unload.

Storage

312. (a) It shall be the duty of every Officer-in-charge of a station to cause every cylinder of container of compressed, Liquefied or dissolved gas which is proposed to be despatched by rail or which has been received at any station for transshipment or delivery to the consignee, to be stored in a shed complying with the requirements of the Petroleum Rules, 1976 or an open shed, namely, shed roofed over for weather protection, but not having enclosing walls.

(b) Where such storage accommodation is not available, the packages containing petroleum and other inflammable liquids may be kept in an open space completely covered with tarpaulins or other suitable material.

(c) While storing petroleum and other inflammable liquids, all precautions laid down in Rule 313 shall be observed.

Precautions to be observed in handling and storing Petroleum and other inflammable liquids

313.1. Time of Loading and unloading. – Except where approved electric lights as specified in Chapter IV of the Petroleum Rule, 2002 are exclusively used and adequate fire fighting facilities with such number of personnel as determined by Chief Controller of Explosives have been kept ready at the place of loading or unloading for immediate use in the event of any out-break of fire or any accident, all operations connected with the loading, unloading and handling of petroleum and other inflammable liquids shall be conducted between sunrise and sunset.

Provided that all consignments to be sent in brake-vans of passenger, mixed or parcels train and by transship or road van trains may be handled at any hour, after due precautions have been taken to prevent accidents.

Storage

313.2. Handling of packages.—(1) Packages containing petroleum and other inflammable liquids shall not be thrown, dropped down or dragged along the ground or floor, and care shall be exercised to avoid striking them, against any hard object.

(2) When loading and unloading heavy drums or casks, cushions of a suitable Type, thick coir matting, felt, and bags filled with saw-dust, or similar protection, shall be used.

(3) Whenever practicable, packages containing petroleum and other inflammable liquids shall be carried or conveyed on trolleys or hand barrows.

313.3. Prohibition of smoking, fires, lights, and dangerous substances. – (1) No person shall smoke or take or have any fire, naked light matches or other articles of inflammable nature or any agency which produces heat or sparks, near any vehicle containing petroleum and other inflammable liquids or near any place where such goods are stored or being loaded, unloaded or handled.

(2) Petroleum and other inflammable liquids shall not be stored or handled with or near explosives and other dangerous goods.

313.4. Protection from sun, rain and snow. — Packages containing petroleum and other inflammable liquids shall not be exposed to sun, rain or snow, shall not be kept on damp ground, and they shall be protected with tarpaulins or other suitable material whenever required.

313.5. Thorough cleaning of place, carriage or wagon in which any petroleum or other inflammable liquid is laid or handled. — The floor of any place or wagon on which petroleum and other inflammable liquids have been stored or the wagon or trolleys or hand-barrow in which they have been carried shall be swept and thoroughly cleaned after removal of the goods therefrom.

313.6. Prevention of escape. — All due precautions shall be taken at all times to prevent any escape of petroleum and other inflammable liquids.

313.7. Interval between opening of wagon doors and entry of labour for unloading. — In unloading wagon loads after the wagon doors are opened and before the unloading personnel enter the wagon, there shall be minimum interval of ten minutes: Provided that in respect of smalls, the precaution may be complied with wherever practicable.

Petroleum and other inflammable liquids Class 'A' to be normally transported by goods trains and Class 'B' by all trains except passenger trains

314. Subject to the provisions of rules 315 and 320:—

- (a) Petroleum and other inflammable liquids, Class 'A', shall be transported by goods train only;
- (b) Petroleum and other inflammable liquids, Class 'B' and 'C' may be transported in wagons by all trains, except passenger trains.

Petroleum and other inflammable liquids Class 'A' permitted to be transported by mixed or parcels trains when goods trains are not running

315. Petroleum and other inflammable liquids, Class 'A', may be transported in wagons by a mixed or parcels trains on any line or section on which goods trains are not running, subject to the condition that immediately on entering any section on which goods trains are running, the wagons containing petroleum and other inflammable liquids, Class 'A', shall be detached from the mixed or parcels train.

Type of wagons to be used for loading petroleum and other inflammable liquids

316. (1) Petroleum and other inflammable liquids shall be carried in tank wagons and in covered iron wagons.

(2) Petroleum and other inflammable liquids which may be carried in tank wagons are specifically indicated in column 4 of Table III.

Note. — (1) End opening carriages or wagons shall not be used.

(2) Petroleum products having flash point not below 65⁰ C are permitted to be carried in open wagons.

(This limit of 65°C includes light-diesel oil, fuel oil, furnace oil, etc. but excludes more dangerous products like Kerosene oil).

Conveyance in tank wagons

317.1. Tank wagons to be of approved design. —Tank wagons used for the conveyance of petroleum and other inflammable liquids shall be of a design approved by the Chief Controller of Explosives.

317.2. Special precautions to be observed while loading and unloading tank wagons.—(1) Tank wagons used for conveyance of petroleum and other inflammable liquids shall be in good condition and free from leakage.

(2) In filling tank wagons, an air-space of not less than 5 per cent of the capacity of the tank wagon shall be left: Provided that the prescribed air space may be reduced to —

(i) 2.5 per cent in the case of—

- (a) High Speed Diesel Oil,
- (b) Light Diesel Oil,
- (c) Batching Oil,
- (d) Furnace Oil,
- (e) Kerosene Oil,
- (f) Vapourising Oil,
- (g) Aeromex Oil,
- (h) Iomex,
- (i) Mineral Turpentine, .
- (j) Xylene,
- (k) Superior Kerosene Oil,
- (l) M. T. (SUBS)
- (m)M. T. LAWS,
- (n) Aviation Turbine Fuel,
- (o) F.O. /TDO,
- (p) Axle/Labs,
- (q) Jute Batching Oil,
- (r) Low Sulphur Heavy Oil,
- (s) Carbon Blackfeed Stock.

(ii) 4 per cent in the case of—

- (a) Aviation Spirit,
- (b) Petrol,
- (c) Solvent Oil,
- (d) Power Alcohol,
- (e) Rectified Spirit,
- (f) Naptha,
- (g) Motor Spirit,

- (h) J. P. 4 & J. P. 5,
- (i) Hexane,
- (j) Benzene,
- (k) Toluene,
- (l) Andi Oil.

(3) All inlets and outlets shall be securely closed.

(4) Petroleum and other inflammable liquids, Class 'A', shall not be filled in or discharged from tank wagons:

- (a) with in a distance of 30 meters from any fire, furnace or artificial light capable of igniting inflammable vapour: Provided that the distance may be reduced to 9 meters when the liquid is filled or discharged under seal and closed vapour return pipe lines are provided, and;
- (b) at any place where the tank wagon is exposed to sparks.

317.3. Empty tank wagons. —All empty tank wagons which have contained petroleum and other inflammable liquids shall, except when they are opened for the purpose of cleaning them and rendering them free from vapour, be kept securely closed unless they have already been thoroughly cleaned and rendered free from vapour.

317.4. Stations where facilities for dealing with tank wagons are provided. — Stations provided with bulk oil installations and those not provided with bulk oil installations but to which booking of petroleum and other inflammable liquids, Class 'B' and Class 'C' in tank wagons is permissible are listed in Appendix III/2.

Quantities to be loaded or handled

318. There shall be no restriction on the number of wagons containing such liquids which may be loaded or unloaded at any one time at a Railway station.

Carriage of Petroleum and other Inflammable Liquids with ordinary Goods in Wagons

319. Subject to the loading restrictions containing in Rule 321 being observed, Petroleum and other inflammable liquids may be carried with ordinary Goods in the same wagon :—

Provided that —

- (a) the wagon does not contain any articles or substances of combustible nature or other Goods of a valuable nature likely to be damaged, in the event of leakage, e. g., Textile Fabrics, Paper Goods, Fire Board cases, and;
- (b) the packages containing petroleum and other inflammable liquids are well separated from the other Goods in the wagon.

Carriage of Petroleum and other Inflammable Liquids in brake-van of passenger, mixed or parcel trains

320. (1) Except as otherwise provided in column 5 of Table III, petroleum and other inflammable liquids shall not be carried in the brake-van of passenger, mixed or parcel train.

(2) Wherever petroleum and other inflammable liquid are permitted to be carried in the brake-van:-

- (a) the total quantity of all petroleum and other inflammable liquids in the brake-van of any one train at any one time shall not exceed 50 litres;

- (b) the loading restrictions contained in Rule 321 shall be observed;
- (c) packages containing petroleum and other inflammable liquids shall be carried only in the rear brake-van which shall be well ventilated; and
- (d) packages containing petroleum and other inflammable liquids shall be placed as far as possible from other packages in the brake-van and from the tail light of the train.

Carriage of Petroleum and other inflammable Liquids with explosives and other dangerous goods prohibited

321. Petroleum and other inflammable liquids shall not be conveyed in the same carriage with any matches or fuses or appliances for producing ignition, or any explosives or other dangerous goods.

Stowing in wagons

322.1. Use of dunnage to prevent damage and leakage. – (1) Packages containing Petroleum and other inflammable liquids shall be compactly loaded to avoid shift during transit.

(2) Grass, hay, coir, rope, hogla, sand bags, matting or other suitable material may be placed on the floor and between the layers of cans, drums and other receptacles and also used to fill empty spaces between the walls of the wagons and its contents.

(3) In the event of transshipment of contents, the dunnage material shall also be transshipped and properly utilized.

(4) Special care shall be taken to ensure that the dunnage used does not protrude through any doors of openings in the wagons.

(5) The dunnage material shall be provided by the consignor.

322.2. Drums. – Drums containing petroleum and other inflammable liquids, shall as far as possible be loaded on end.

322.3. Bottles, Jars and Carboys. – Bottles, Jars and Carboys shall not be loaded on top of other goods and the other goods shall not be loaded on the top of the bottles, jars and carboys.

322.4. Empty containers. – Empty containers which have contained petroleum and other inflammable liquids shall be loaded with bungs in such a position that the escape of any remnants of liquid is not possible.

Labelling, sealing and lashing of wagons

323.1. ‘Dangerous’ label to be affixed on wagons. – A ‘Dangerous’ label as shown below shall be affixed to both sides of every wagon in which petroleum and other inflammable liquids are stored for despatch or while in transit: -

(For Class 'A' Liquids)



- Note: - (1) Back ground..... White Symbol and Lettering Black
- (2) Minimum dimension 0.3 m. radius.
Bigger labels may be used depending on the size of the packages.
- (3) The label should be divided into two equal half circles, the upper being used for lettering “NOT TO BE LOOSE SHUNTED” and the lower for rest of the text, as indicated above.

(For Class 'B' Liquids)



- Note: - (1) Back ground..... White Symbol and Lettering Black
- (2) Minimum dimension 0.3 m. radius.
Bigger labels may be used depending on the size of the packages.
- (3) The label should be divided into two equal half circles, the upper being used for lettering “NOT TO BE LOOSE SHUNTED” and the symbol and the lower for rest of the text, as indicated above.

Except on road vans or tranship or road vans trains on which labels may be pasted on the sides of the wagon or carriages, these labels shall be so pasted on the doors that the labels are automatically destroyed when the doors are opened.

These labels shall be affixed even when petroleum and other inflammable liquids are transported along with ordinary goods, irrespective of the quantity of petroleum and other inflammable liquids loaded in such wagons.

Provided that the labels may not be used when petroleum and other inflammable liquids are conveyed by passenger, mixed or parcels trains in brake-vans.

323.2. Private labels. – In addition to the Railway labels, there shall be no objection to a consignor pasting a label indicating the contents and hazard involved and such labels shall be pasted on the doors of a wagon.

323.3. Lead seals to be used. – Lead seals only shall be used for sealing of wagons containing petroleum and other inflammable liquids.

323.4. Riveting or E. P. locking not allowed. – Riveting or E. P. locking of wagons containing petroleum and other inflammable liquids is prohibited.

Shunting

324. Precautions to be observed during shunting operations. – Shunting of wagons containing petroleum and other inflammable liquids shall not be carried out except under the superintendence of a duly Authorized Officer who shall ensure that during shunting operations—

(a) wagons containing petroleum and other inflammable liquids Class ‘A’, are separated from the locomotive by not less than three carriages not containing explosives or other dangerous goods or articles of flammable nature;

Provided that when an electric (traction) or diesel (electric) locomotive is used, one such carriage may intervene between the wagons containing petroleum and other inflammable liquids and the locomotive;

(b) wagons containing petroleum and other inflammable liquids, Class ‘B’ are separated from the locomotive not less than one carriage not containing explosives or other dangerous goods or articles of inflammable nature ;

(c) the speed of all movement does not exceed 8 Kms. an hour and ;

(d) no rough, hump, fly or loose shunting takes place.

Marshalling

325.1. Precautions to be observed during Marshalling.—(1) There shall be no restriction on the number of Wagons containing petroleum and other inflammable liquids which may at any one time be attached to or be transported by any one train.

(2) Wagons containing petroleum and other inflammable liquids, which may be grouped together shall be placed as far away as practicable from the train locomotive.

(3) Wagons containing petroleum and other inflammable liquids, Class ‘A’, shall be separated by not less than three carriages not containing explosives or other dangerous goods or articles of inflammable nature from :

(a) the train locomotive;

Provided that when an electric (traction) or diesel (electric) locomotive is used, one such carriage is needed to be attached between the wagons containing petroleum and other inflammable liquids, Class ‘A’ and the locomotive;

(b) the passenger carriage;

Provided that when an electric (traction) or diesel (electric) locomotive is used, only one carriage not containing explosives or other dangerous goods or articles of inflammable nature, is needed to be attached between the wagons, containing petroleum and other inflammable liquids, Class 'A' and the passenger carriage;

(c) the brake-van;

Provided that when an electric (traction) or diesel (electric) locomotive is used, only one carriage not containing explosive or other dangerous goods or articles of inflammable nature is needed to be attached between the wagons containing petroleum and other inflammable liquids Class 'A' and the brake van;

Provided further that no such carriage is required to be attached between the last tank wagon (8-wheeler) containing petroleum and other inflammable liquids, Class 'A' and the brake-van, if an 8-wheeler brake-van is used;

(d) any other carriages containing explosives or other dangerous goods or articles of inflammable nature;

(4) Wagons containing petroleum and other inflammable liquids, Class 'B' shall be separated by one carriage not containing explosives or other dangerous goods or articles of inflammable nature from the train locomotive of the passenger carriage or the brake-van or any other carriage containing dangerous goods or articles of inflammable;

Provided that no such carriage is required to be attached between the last tank wagon (8-wheeler), containing petroleum and other inflammable liquids, class 'B' and the brake-van, if an 8-wheeler brake-van is used.

(5) (a) Wagons containing petroleum and other inflammable liquids shall be close-couple to the adjoining carriages and to each other.

(b) The provisions relating to precautions to be observed during Marshalling shall also apply to empty tank wagons.

325.2. Exemption on certain sections. – On the Darjeeling – Himalayan section of the Northeast Frontier Railway, wagons containing petroleum and other inflammable liquids may not be close coupled.

325.3. Separation from the brake-van in certain special cases. – (a) In the case of a generator fitted where the electrical equipment including the generator is totally enclosed and suitable glands to close the small openings left for cable entry are fitted, tank wagons containing petroleum and other hydrocarbon oils need be separated there from by only one wagon, if intervening wagon and the brake-van do not contain explosives or other dangerous goods or articles of inflammable nature;

(b) The equipment and fittings in the brake-van shall be thoroughly examined at the commencement of each journey to ensure that they are in proper order.

(2) A power Plant bogie carrying not more than 100 litres of petrol and attached in the rear of the rear brake-van of vacuum braked trains may have no carriage not containing explosives, other dangerous goods or articles of inflammable nature intervening between it and the brake-van.

325.4. Position of tank wagons on mixed trains. – Tank wagons containing petroleum and other inflammable liquids, Class 'A' or fuel or kerosene oil, or empty tank wagons which have

contained these liquids, when transported by mixed trains, shall be attached in the rear of the passenger carrying vehicles.

325.5. Tank wagons containing petroleum and other inflammable liquids and liquid air and liquid oxygen not to be carried together. Petroleum and other inflammable liquids in tank wagons shall not be conveyed by train by which liquid air or liquid oxygen is carried.

325.6. Guard or dummy wagons. – Whenever the requisite number of wagons not containing explosives or other dangerous goods or articles of inflammable nature are not available, empty wagons shall be used as guard or dummy wagons for separating, as required, the wagons containing petroleum and other inflammable liquids from the train locomotive, the passenger carriages or the brake-van or any other carriages containing explosives, other dangerous goods or articles of inflammable nature.

Notice of Arrival

326.1. Notice to consignee on arrival of consignment. – The Station Master of the destination station shall ensure that notice of arrival of consignments of petroleum and other inflammable liquids is issued to the consignee in the prescribed form (for form See Annexure 'B') for all consignments received at his station and not removed on the date of unloading.

326.2. Railway's right to recover wharfage and demurrage not affected by non-issue of arrival Notice – Non-receipt or later receipt of the notice of arrival shall not entitle the consignee to exemption from wharfage and demurrage charges, if the goods are not taken delivery of within the free time allowed.

Delivery or Disposal otherwise

327.1. Delivery. – Consignments of petroleum and other inflammable liquids shall be removed by the consignee, from the station or depot of the Railway to which they have been transported as soon as they are made available for delivery.

327.2. Disposal, if delivery not effected expeditiously. – (1) If the consignments are still on hand after the expiry of the free time allowed for their removal a notice as prescribed in section 84 of the Railways Act, 1989 (24 of 1989) shall immediately be served on the consignee.

(2) The notice shall be in the form prescribed and given in Appendix III/3.

(3) After the expiry of the period specified in the notice, referred to above, consignments still unclaimed shall be sold in accordance with the provisions of Sections 83 and 84 of the Railways Act, 1989 (24 of 1989).

Transport of Motor Vehicles

328.1. When motor vehicles are tendered to the Railway for despatch, the quantity of petrol in the tank shall not exceed 10 litres;

Provided that the quantity of petrol shall not exceed 2.5 litres in the case of motor cycles and scooters.

328.2. The consignor shall declare on the Forwarding Note that the quantity of the petrol left in the tank does not exceed the specified limit.

328.3 No fire, naked light or smoking shall be allowed in or near the motor vans or wagons containing motor vehicles.

Weight for charge and days of acceptance

329. Traffic in wagon loads to be accepted on all days. – Traffic in wagon loads shall be accepted on all days subject to a minimum weight for charge as prescribed in the Indian Railways Conference Association Goods Tariff.

Pre-payment of Freight

330. The freight on all consignments of petroleum and other inflammable liquid shall be pre-paid except in case of commodities where the Goods Tariff provides for an option to be given to the consignors to book on “TO-PAY” basis on payment of prescribed surcharge on freight.

Charge for Guard or Dummy Wagons

331. Whenever it is necessary to attach empty wagons as guard or dummy wagons for the safety of a train carrying petroleum and other inflammable liquids, such wagons shall be charged in accordance with the provisions of the Indian Railway Conference Association Goods Tariff.

Provided that the charges for the dummy wagons shall not be recovered from the consignors or consignees if dummy wagons are attached to POL bulk loads (trains).

Repairs to carriages

332. Before any repairs or alterations are commenced in any part of a carriage in which petroleum and other inflammable liquids are being transported, due precautions shall be taken to remove such petroleum and other inflammable liquids.

Reports of Accidents

333. (1) Whenever there occurs any accident connected with any consignments of petroleum and other inflammable liquids and attended with loss of life or serious injuries to persons or serious damage to property or of a description usually attended with such loss, injuries or damage, the person for the time being in charge of the consignment shall forthwith advise: -

- (a) The Chief Controller of Explosives, Nagpur giving particulars of occurrence by available means of Communication such as: Telephone/Fax/E-mail etc. as per contact details below:-

Add: - A-Block, 5th Floor, CGO Complex, Seminary Hills, Nagpur-440006 (Maharashtra)

Tel.No:- 071-22510248 E-mail:- explosives@explosives.gov.in

- (b) Controller of Explosives in whose jurisdiction the accident has taken place; and the Officer-in-charge of the nearest Police Station by the quickest means of communication; and
- (c) The Departmental Officers concerned.
- (d) National Disaster Response Force (NDRF)

(2) pending the visit of the Chief Controller or his representative or until instructions are received from the Chief Controller of Explosives that he does not wish any further investigation or enquiry to be made, all wreckage and debris shall be left untouched except in so far as its removal may be necessary for the rescue of persons injured and recovery of the bodies of any persons killed by the accident or for the restoration of through communication.

Saving

334. Nothing in this Chapter shall be deemed to detract from the operation of Petroleum Act, 1934 (30 of 1934) or the Petroleum Rules, 1976 wherever applicable.

Petroleum and Other Inflammable Liquids

Table III

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Petroleum and other Hydro carbon Oils, Dangerous. † Aviation Sprit.... *Benzene.... Benzoline.... Crude Oil.... †Ethyl Aviation Spirit Jet Petroleum fuel – 4 Jet Petroleum fuel – 5 Hexane.... † Leaded Aviation Spirit Light Oil.... Lighter fluid.... Mixed Raw Naptha N.L.Gas.... (73 Octane) Motor Spirit.... Petrol.... Petroleum ether.... Reformer Naptha (Naptha Special cut) Solvent Oil.... Straight Run naptha Alkylate Reformat.	(1) In stoneware, jars or glass-stoppered bottles, standing upright in wooden cases filled with chaff or saw-dust mixed with coal dust, wood ashes, chalk or sand. Quantity limited to one jar or bottle per case, or 30 litres per case, when packed in bottle not exceeding 1 litre each. (2) In strong metal cans or drums. Quantity limited to 10 litres in each can, 25 litres in each Jerican, and 300 litres in each drum.	....	(1) May be carried in tank wagons. (2) On the Northeast Frontier Railway liquids marked (*) in column 1 may be carried in wagons by mixed or parcels trains even when goods trains are running.	May be carried in the rear brake-van.	Liquids marked (†) and (*) in column 1 shall not be loaded with food-stuffs or food-stuff empties.

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Other inflammable Liquids Amyl Alcohol.... Carbon Disulphide (Carbon bisulphide).... Collodion (Pyroxylin) Solution. Ether Butyric (Ethyl Butyrate).... Ether, formic (Ethyl formate).... Ethyl acetate (Acetic ether).... Fuse Oil.... Diethylamine....	(1) In stoneware, jars or glass- stoppered bottles, standing upright in wooden cases filled with chaff or saw-dust mixed with coal dust, wood ashes, chalk or sand. Quantity limited to one jar or bottle per case, or 30 litres per cases, when packed in bottle not exceeding 1 litre each. (2) In strong metal cans or drums provided with screw stoppers, Quantity limited to 10 litres per can, and 350 litres per drum. (3) An air space of not less than 10 per cent shall be left in all containers, containing Carbon Disulphide (Carbon bisulphide). In hermetically sealed metal drums, Quantity limited to 200 litres per drums.	....	....	....	....

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Other Inflammable Liquids—contd. Ether (Ether Sulphuric, Diethyl ether, Ether Anaesthetic).	(1) In stoneware, jars or glass-stoppered bottles, standing upright in wooden cases filled with chaff or saw-dust mixed with coal dust, wood ashes, chalk or sand. Quantity limited to one jar or bottle per case, or 30 litres per cases, when packed in bottle not exceeding 1 litre each. (2) In strong metal cans or drums, provided with screw stoppers and Jars soldered on. Quantity limited to 10 litres per can, and 350 litres per drum. (3) When required for bonafide medical purposes, may also be carried in 1 litre copper lined tins hermetically sealed in original packing i.e. 1 litre tins packed in a carton, each case containing 50 such tins. (4) An air space of not less than 10 per cent shall be left in all containers.	...	...	(1) The Deputy Assistant Director General (Medical Stores), Kolkata, Chennai and Mumbai, may despatch in the rear brake van "Ether" upto a limit of 15 kgs. nett weight of the contents provided it is packed in phials, each not exceeding 110 gms. Capacity, and each embedded in whiting, sand or saw-dust in separate wooden partitions in wooden cases. (2) Ether required for bonafide medical purpose may also be carried in the rear brake-van upto a limit of 15 kgs. nett weight of the contents in 1 litre copper lined tins, hermetically sealed, provided that each 1 litre in tin embedded in sand or saw-dust in separate partitions in wooden cases.	...

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Other Inflammable Liquids—contd. Vinyl Ether (Di-vinyl Ether, Vinesthene).	(1) In stoneware, jars or glass-stoppered bottles, standing upright in wooden cases filled with chaff or saw-dust mixed with coal dust, wood ashes, chalk or sand. Quantity limited to one jar or bottle per case, or 30 litres per case, when packed in bottle not exceeding 1 litre each. (2) In strong metal cans or drums, provided with screw stoppers and caps soldered on. Quantity limited to 10 litres per can, and 350 litres per drum. (3) In glass ampoules packed in card board boxes, lined and interleaved with corrugated paper. These cardboard boxes shall be wrapped in cellophane paper and packed in strong wooden boxes with straw or saw-dust and bound by 1.27 cm. hoop iron. (4) In air space of not less than 10 per cent shall be left in all containers.	...	...	May be carried in rear brake-van upto a limit of 15 kg. net weight of the contents, when packed as laid down in item (3) in column 2.	...

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Other Inflammable Liquids—contd. Absolute alcohol..... Acetone..... Butyl alcohol.....	(1) In stoneware jars or glass- stoppered bottles, standing upright in wooden cases, filled with chaff or saw-dust mixed with coal dust, wood ashes, chalk or sand. Amount limited to one jar or bottle per case, or 30 literes per case when packed in bottles not exceeding 1 litre each. (2) In strong metal cans or drums. Amount limited to 10 litres in each can and 300 litres in each drum..	...	May be carried in tank wagons	...	...
Boot polishes containing flammable liquid having flash point below 23°C.	Tins or bottles packed in cases or casks.	...	...	...	...

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Other Inflammable Liquids—contd. Diacetone alcohol	(a) Main or inner packing shall be in tins having all joints double seamed and soldered (Maximum quantity of substance in inner receptacles-5 litres) with protective outer packing of :- (i) saw-dust or other suitable cushioning material in approved fibre-board cases (Maximum quantity of substance in complete Package-30 litres). (ii) approved partitioned fibre board cases (Maximum quantity of substance in a complete Package-30 litres), (iii) woodwool or other suitable cushioning material in hampers or crates (maximum quantity of substance in a complete package-40 litres), (iv) saw-dust or other suitable cushioning material in cases (maximum quantity-30 litres). (b) Main or inner packing in cans (maximum quantity of substance in inner receptacle-60 litres). (c) Main or inner packing in drums (maximum quantity of substance in an inner receptacle-450 litre).	...	...	...	...

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Other Inflammable Liquids—contd. French Polish	(1) In stoneware jars or glass- stoppered bottles, standing upright in wooden cases, filled with chaff or saw-dust mixed with coal dust, wood ashes, chalk or sand. Quantity limited to one jar or bottle per case, or 30 litres per cases, when packed in bottle not exceeding 1 litre. (2) In strong metal cans or drums, Quantity limited to 10 litres in each can and 300 litres in each drum.				
Industrial Alcohol	-do-	...	May be carried in tank wagons.	...	...
Denatured Mowha sprit.	-do-	...	...	...	...
Denatured Sprit, ordinary.	-do-	...	...	May be carried in the rear brake-van.	...
Denatured Spirit special	-do-	...	...	-do-	...
Methylated Spirit	-do-	...	May be carried in tank wagons	-do-	...
Isopropyl Alcohol	-do-	...	-do-	...	...

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)									
(1)	(2)	(3)	(4)	(5)	(6)									
Other Inflammable Liquids—contd.														
Meta Stain- S Liquid	In strong metal container with wall fitting and secure air-tight screw plugs, screw caps or other caps should be used. The capacity should not exceed 300 litres with at least 5 per cent air space. The minimum shell thickness of containers may be as 0.63 mm. (24 B.G.), 0.80 MM. (22 B.G.), 1.25 mm. (19 B.G.) and 1.59 mm. (16 B.G.) for containers upto 25 litres, 50 litres, 200 litres and 300 litres respectively.	...	...	...	...									
...	Steel barrels, drums or kegs-steel barrels or drums or kegs shall be water tight, free from rust, marks of corrosion of decay, leaks and dents and also shall be hermetically sealed. They shall be made of mild steel sheets according to the following specifications: -- <table><tr><td>Minimum thickness of sheet (gauge)</td><td>Minimum depth of chime</td><td>Other qualifications</td></tr><tr><td>Broad Body</td><td>End</td><td>...</td></tr><tr><td>Upto 26 25 litres</td><td>26 12.5 mm.</td><td></td></tr></table>	Minimum thickness of sheet (gauge)	Minimum depth of chime	Other qualifications	Broad Body	End	...	Upto 26 25 litres	26 12.5 mm.		...	...	...	...
Minimum thickness of sheet (gauge)	Minimum depth of chime	Other qualifications												
Broad Body	End	...												
Upto 26 25 litres	26 12.5 mm.													
		...	May be carried in tank wagon	...	...									

Name of Liquid	Packing (See also Rule 307)				Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)				(3)	(4)	(5)	(6)
Other Inflammable Liquids—contd. Isopropyl Nitrate— conclud.	Minimum thickness of sheet (gauge) Exceeding 25 litres but not exceeding 60 Litres Exceeding 60 litres but not exceeding 120 Litres Exceeding 120 litres but not exceeding 205 Litres	Broad Body 24 24 24	Minimum depth of chime End 24 24 22**	Other qualifications 12.5 mm. 10.0mm. -do-	....	....	....	....
				*Body must feature 3 Iron flats of size 1-1.2 (3.8cm.) for each barrel or keg or 1 section hoops depending on the size of the drums.				

*This packing is applicable only to small consignments and to wagon load consignments involving break of gauge transhipment.

**Bitumen of straight run grade is allowed to be packed in drums of 24 gauge for ends.

Each opening or aperture as well as air vent of barrel drum or keg shall be sealed with leak proof metal closure and adequate ullage (empty space) shall be left with in each container to protect it from internal pressure. The capacity of any receptacle of this description shall not exceed 200 litres.

Cushioning material of 75 mm. thickness shall be provided on the floor as well as sides of the wagons containing consignments barrel/drums.

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Other Inflammable Liquids—Contd. Methanol (Methyl alcohol wood alcohol) Methyl Ethyl Ketone (Methyl acetone) Naphtha, mineral	(1) In stoneware jars or glass- stoppered bottles, standing upright in wooden cases filled with chaff or saw-dust mixed with coal dust, wood ashes, chalk or sand. Amount limited to one jar or bottle per case, or 30 litres per case. When packed in bottles not exceeding 1 litre. (2) In strong metal cans or drums. Amount limited to 10 litres in each can and 300 litres in each drum.	...	May be carried in tank wagons	...	...
Pliobond		...	...	...	...
Power alcohol		...	May be carried in tank wagons	...	...
Power alcohol mixture		...	-do-	...	...
Rectified spirit (50° overproof and above)		...	-do-	...	...
Spirit varnish		...	...	...	...
Toluol		...	May be carried in tank wagons.	...	...
Toluene Nitrate grade		...	-do-	...	...
Wood Naptha or Wood spirit		...	...	...	...
Xylene		...	-do-	...	...
Xylol		...	-do-	May be carried in rear brake-van	...

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Other Inflammable Liquids—Contd. Spirits, Potable imported Spirits, Potable imported Spirits, Potable indigenous..	(1) In securely closed bottles or tins, packed in strong wooden cases. Quantity limited to 30 litres per case. The case shall be bound lengthwise and breadth wise or at both ends with steel strapping or steel wire fastened under tension, securely clipped to the planks and sealed. (2) In strong metal cans or drums. Quantity limited to 10 litres in each can and 300 litres in each drum.	...	...	May be carried in rear brake-van.	...
Cellulose acetate Dope Enamels, Nitro-cellulose Lacquers, nitro-cellulose Nitro-cellulose Dope. Paints, nitro-cellulose Polishes, nitro-cellulose Stains, nitro-cellulose Varnishes, nitrocellulose.	(1) In cans upto 70 litres capacity, or drums and barrels upto 450 litres capacity, securely closed so as to prevent leakage. (2) In luted and tied over stoppered bottles or heremetically sealed tins, not exceeding 5 litres in capacity, securely packed in saw-dust or straw or rice husk in cases. (3) In 5 litres taperneck cans, securely closed in saw-dust or rice husk in cases. A maximum of 8 cans may be packed in any one case, provided the cans are segregated in the case by wooden partitions. (4) In stoneware jars or bottles, not exceeding 5 litres in capacity, securely closed with well-fitting wired-down corks, and wicker covered to the neck and over the cork. (5) In tins, containing not more than 5 litres of liquid each, securely closed, packed in saw-dust or rice husk in cases. A maximum of 8 tins may be packed in any one case, provided the tins are segregated in the case by wooden partitions.	...	...	...	...

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Other Inflammable Liquids—Contd. Cements, compositions, paints, polishes, and other articles partly composed of highly flammable liquids having flash point below 23° C. Paint thinners Insecticides (fluids) flammable Paint and varnish removers.	(1) In drums not exceeding 250 litres in capacity, and securely closed so as to prevent leakage. (2) In hermetically sealed tins or bottles, packed on saw-dust or rice husk in cases. (3) in securely closed tins, containing not more than 2 litres of liquid each, packed in saw-dust or rice husk in cases. -do- 1) In iron or steel drums 2) In strong tins, securely closed and packed in wooden cases. 3) In glass bottles, securely closed in cardboard boxes, packed with wood wool in wooden cases. 1) In cans or drums, not exceeding 250 litres in capacity, securely closed so as to prevent leakage. 2) In hermetically sealed tins or bottles of not more than 5 litres capacity, packed in saw-dust or rice husk in cases. 3) In securely closed tins, containing not more than 2 litres of liquid each, packed in saw-dust or rice husk in cases. A maximum of 16 tins may be packed in any one case, provided the tins are segregated in the case by wooden partitions.	... ...	... ...	... ...	... ...

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Other Inflammable Liquids—Contd. Plastic wood composition having flash point below 23° C.	1) In securely closed iron or steel drums. 2) In securely closed tins, in wooden cases. 3) In air-tight collapsible tubes packed in saw-dust or rice husk in stout card-board boxes or cartons as an inner package, each such inner package to contain not more than 0.5 Kg. of composition, and to be packed in an outer package made of wood, with sides not less then 1.59 cm. thick and ends 1.9 cm. thick strongly bound with hoop iron or crescent wire, and containing a total of not more than 5 kg. of composition. 4) In air-tight collapsible tubes, each containing not more than 30 gms. of composition packed in saw-dust or rice husk in stout cardboard boxes or cartons as an inner package, each such inner package to contain no more than 0.5 kg. of composition, and to be packed in an outer package made of wood, with sides not less than 1.59 cm thick and ends 1.9 cm. thick,. strongly bound with hoop iron or crescent wire, and containing a total of not more than 15 kg. of composition.	...	...	...	...

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Other Inflammable Liquids—Concl'd. Rubber solution having flash point below 23° C Vulcanizing solution flammable (Vulcanizing cement).	(1) In iron or steel drums or cans, strongly made and securely closed so as to prevent leakage. (2) In air-tight tins, packed in saw-dust or rice husk in a wooden box as an inner package, or in air-tight collapsible tubes packed in saw-dust or rice husk in stout cardboard boxes or cartons as an inner package, each such inner package to contain no more than 0.5 kg. of solution, and to be further packed in an outer package made of wood with sides not less than 1.59 cm. thick, and ends 1.9 cm. thick, strongly bound with hoop iron or crescent wire, and containing a total of not more than 5 kg. of solution. (3) In air-tight collapsible tubes, each containing not more than 30 gms. of solution, packed in saw-dust or rice husk in stout card-board boxes or cartons as an inner package, each such inner package to contain no more than 0.5 kg. of solution, and to be further packed in an outer package made of wood with sides not less than 1.59 cm. thick, and ends 1.9 cm. thick strongly bound with hoop iron or crescent wire, and to contain a total of not more than 15 kg. or solution.	...	...	...	...

	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Petroleum and other Hydrocarbon Oils, N.O.C. Aviation Turbine Fuel Cleaning Oil Colza (mineral) Oil Diesel Oil Furnace Oil Gas Oil Heavy Diesel Oil Low Sulphur High Flash, High Speed Diesel Oil Iomex Jet † turbine Fuel Light Diesel Oil Liquid Fuel Low Sulphur Heavy Stock Marine Diesel Oil Naptha Solvent Refrigerator burning Oil Residual Fuel Oil Still bottom Oil (sludge) Tea drier Oil Vapourising Oil	Class 'B' - Liquids the Vapour of which has flash point above 23° C but below 65° C. (1) In air – tight tins, packed in wooden cases. (2) In drums of steel or iron or in other strong and well made receptacles. (3) In bottles, corked and sealed, packed in straw or saw-dust or rice husk and secured in wooden cases.				
		...	May be carried in tank wagons.	May be carried in the rear brake-van.	...

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Petroleum and other Hydrocarbon Oils, N.O.C.(Contd.)					
Azadirachitin	In air-tight HDPE Drums.	...	...	...	...
Axle Lubricating Oil	(1) In air-tight tins, packed in wooden cases. (2) When tendered in wagon loads in air-tight tins with suitable dunnage, as indicated in Rule 322.1. (3) In drums of steel or iron or in other strong and well made receptacles. (4) In bottles, corked and sealed, packed in straw or saw-dust or rice husk and secured in wooden cases.	...	May be carried in tank wagons.	May be carried in the rear brake-van.	...
Mineral Turpentine	-do-		-do-	-do-	...
Mineral Turpentine – substitute	-do-		-do-	-do-	...
Powerine	-do-		-do-	-do-	...
Phenol extract includes Carbon Black Feed Stock (CBSF – 72)	(1) In air-tight tins, packed in wooden cases.		-do-	-do-	When air-tight tins are not packed in outer wooden cases and the consignment is tendered as a wagon load, suitable dunnage as indicated in Rule 322.1 must be used.
Carbon Black Feed Stock (CBSF – 500)	(2) Only when tendered in wagon loads in air-tight tins with suitable dunnage as indicated in Rule 322.1.				

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Petroleum and other Hydrocarbon Oils, N.O.C. (Concl.) Superior Kerosene, kerosene or Paraffin Oil.	(1) In air-tight tins, packed in wooden cases. (2) When tendered in wagon loads in air-tight tins with suitable dunnage as indicated in Rule 322.1. (3) In drums of steel or iron or in other strong and well made receptacles. (4) In bottles, corked and sealed, packed in straw or saw-dust rice, husk and secured in wooden cases.	---	May be carried in tank wagons.	May be carried in the rear brake-van.	...
Linear Alkyl Benzene	(1) In Tanks of 12KL/14KL (2) In barrel of 175 Kgs.	...	...	...	...
Ortho-Xylene	(1) In air-tight tins, packed in wooded cases. (2) When tendered in wagon loads in air-tight tins with suitable dunnage as indicated in Rule 322.1 (3) In drums of steel or iron or in other strong and well made receptacles. (4) In bottles, corked and sealed, packed in straw or saw-dust or, rice husk and secured in wooden cases.	...	May be carried in tank wagons	May be carried in the rear brake-van.	

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Other Inflammable Liquids Bituminous solution (paint) Furfural Furfural dehyde.	(1) In casks, iron or steel drums or cans strongly made and securely closed so as to prevent leakage. (2) In hermetically sealed tins or bottles packed in saw-dust or rice husk in cases. (3) In securely closed tins, containing not more than 2.27 litres of liquid each, packed in saw-dust or rice husk in cases. (4) Paints and varnishes may be accepted in fiberite packing cases, provided the inner containers are tins. (5) Hydraulic brake fluid imported from abroad may be accepted in tins packed in cardboard cartons, each carton containing a maximum of 12 tins.	...	....	May be carried in the rear brake-van.	...

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Other Inflammable Liquids-(Contd.) Cements, composition, paints, polishes and other articles partly composed of flammable liquids. Enamels and enamel paints having a flash point below 65°C but not below 23°C. Hydraulic brake fluid Polishes, dressings, stains and cleaning compounds, partly composed inflammable liquids. Varnish paints having a flash point below 65°C but not below 23°C. Standard brake fluid	(1) In casks, iron or steel drums or cans strongly made and securely closed so as to prevent leakage. (2) In hermetically sealed tins or bottles packed in saw-dust or rice husk in cases. (3) In securely closed tins, containing not more than 2 liters of liquid each, packed in saw-dust or rice husk in cases. (4) Paints and varnishes may be accepted in fiberite packing cases, provided the inner containers are tins. (5) Hydraulic brake fluid imported from abroad may be accepted in tins packed in cardboard cartons, each carton containing a maximum of 12 tins.	...	...	May be carried in the rear brake-van.	...
Monochlorobenzene	(1) In casks, iron or steel drums or cans strongly made and securely closed so as to prevent leakage. (2) In hermetically sealed tins or bottles packed in saw-dust or rice husk in cases. (3) In securely closed tins, containing not more than 2 litres of liquid each, packed in saw-dust or rice husk in cases.	...	May be carried in tank wagons.	May be carried in the rear brake-van.	...

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Other Inflammable Liquids-(Contd.) Amyl acetate. Butyl acetate. Isoamyl acetate.	(1) In casks, iron or steel drums or cans. (2) In luted and tied over stoppered bottles, not exceeding 2 litres in capacity, well embedded in straw and packed in hampers. (3) In carboys not exceeding 50 litres in capacity. Carboys shall be packed securely in iron, wooden or wickerwork crates. There shall be a minimum thickness of 2.5 cm. of straw packing between the carboy and the crate. The straw packing in the carboy crate, when handed over to the Railway Administration, must be sufficiently damp to prevent fire. Carboys shall be closed liquid-tight and provided with a well-fitting stopper which must be well-luted. The necks of the carboys shall be exposed.	...	...	May be carried in rear brake - van when packed as laid down in item (1) and (2) in column 2.	...
Cleansing and washing fluids, flammable.	(1) In tins, securely closed, packed in cases. (2) In tins, securely closed, packed in cardboard cartons in fibre-board cases. (3) In iron or steel drums.	...	...	May be carried in rear brake-van.	...

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Other Inflammable Liquids- (Contd.) Insecticides (fluids, flammable) Thiodan. } Paint thinners Rosin spirit Turpentine oil or spirits of Turpentine substitutes. (White spirit) Varnish having flash point below 65°C but not below 23°C. Alpha Pinene	(1) In air-tight tins, packed in wooden cases. (2) In drums of steel or iron or in other receptacles not easily broken. (3) In bottles, corked and sealed. When in bottles, they shall be packed in straw or saw-dust or rice husk and secured in wooden cases. (4) In wooden casks, provided the flash point of the liquid is at or above 65°C. (1) In iron or steel drums, or in tins packed in wooden cases. (2) In corked and capsule bottles, securely packed in wooden cases. Should be packed in galvanized Iron Drums or epoxy coated M.S.Drums of appropriate gauge specified in Appendix III/1 to Rule 307.2 leaving adequate air space in the drums or ISO containers with maximum weight per package 175 kgs. loaded in 20 feet (6.096 mt.) ISO containers with maximum permitted weight of 18-20 tonnes each (approx.). The minimum weight condition for two containers per flat wagons shall be thirty six tonnes.	 Avoid and keep away from flame during storage and transportation, keep in closed container, store in a cool place.	... ... ...	May be carried in the rear brake-van.	Shall not be loaded with foodstuffs or foodstuff empties.
Snowsol Stabilizing solution	In 5 litres metal tins (and 6 of such tins packed in wooden cases).	...	...	May be carried in the rear brake-van.	...

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Other Inflammable Liquids-(Contd.)					
Varnish N.O.C.	(1) In iron or steel drums, or in tins packed in wooded cases.	...	...	May be carried in the rear brake-van.	...
	(2) In corked and capsuled bottles, securely packed in wooden cases.	...	...		...
Pentachlorophenol dissolved in selected petroleum oil.	(1) In air-tight tins, packed in wooden cases.	...	...	May be carried in the rear brake-van.	...
	(2) In drums of steel or iron or in other strong and well made receptacles.	...	...		...
	(3) In bottles, corked and sealed, packed in straw or saw-dust or rice husk and secured in wooden cases.	....		May be carried in the rear brake-van.	
Refined pine tar	-do-	....	....	May be carried in the rear brake-van.	
Turpene	-do-	....	....		
Boot polishes containing flammable liquid having flash point above 23° C	Tins or bottles in case; or casks or tins in cardboard cartons packed in fibre- board cases, or tins packed in saw-dust or other suitable material in fibre-board cases.	....	....	May be carried in the rear brake-van.	

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rule 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Other flammable Liquids- (Contd.) Rubber solution having flash point above 23 ⁰ C.	(1) In casks, iron or steel drums or cans, securely closed so as to prevent leakage. (2) In air – tight tins, packed in saw – dust or rice husk in wooden box as an inner package, or in air-tight collapsible tubes packed in saw – dust or rice husk in stout cardboard boxes or cartons as an inner package, each such inner package to contain not more than 0.5 kg. of rubber solution, and to be further packed in an outer package made of wood with sides not less than 1.59 cm. thick, and ends 1.9 cm. thick, strongly bound with hoop iron or crescent wire, and containing a total of not more than 5 kgs. of rubber solution. (3) In air – tight collapsible tubes, each containing not more than 28.34 gms. of rubber solution, packed in saw-dust or rice husk in stout cardboard boxes or cartons as an inner package, each such inner package to contain not more than 0.5 kg. of rubber solution, and to be further packed in an outer package made of wood with sides not less than 1.59 cm . thick, and ends 1.9 cm. thick, strongly bound with hoop iron or crescent wire, and to contain a total of not more than 15 kgs. of rubber solution.	...	...	May be carried in the rear brake-van.	...

Other flammable Liquids- (Contd.) Road surface dressing composed mainly of creosote, petroleum residue, pitch or tar oil. Esso Asphalt Solvent Esso liquid Asphalt No. 2 Esso cut – back 80/100 Esso –primer . Esso –Rc-3 Shellmac-B.S Shellmac-R.c 3 Shellmac-B.S	In drums.	...	...	May be carried in the rear brake-van.	...
Weed killer, liquid (Non – poisonous).	(1) In casks. (2) In drums or cans. (3) In tins, packed in cases.	..	...	May be carried in the rear brake-van.	...

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
<u>Class 'C' Liquids the vapour of which having flash point at 65⁰ and above</u>					
Aeromex oil	(1) In air-tight tins, packed in wooden cases. (2) In drums of steel or iron or in other strong and well made receptacles. (3) In bottles, corked and sealed, packed in straw or saw – dust or rice husk and secured in wooden cases. (4) Liquid fuel may also be packed in wooden casks, provided the flash point is at or above 65 ⁰ C.	...	May be carried in the tank wagons	May be carried in the rear brake-van.	...
Batching oil or Jute Batching oil	(1) In air-tight tins, packed in wooden cases. (2) Only when tendered in wagon loads in air-tight tins with suitable dunnage as indicated in Rule 322.1. (3) In drums of steel or iron or in other strong and well made receptacles. (4) In bottles, corked and sealed, packed in straw or saw – dust or rice husk and secured in wooden cases. (5) Liquid fuel may also be packed in wooden casks, provided the flashing point is at or above 65 °C	...	May be carried in tank wagons	May be carried in the rear brake-van.	...

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake- van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Di-Ethyl Hexanol or 2-Ethyl Hexanol or Octanol.	(1) In casks, iron or steel drums or cans strongly made and securely closed so as to prevent leakage. (2) In hermetically sealed tins or bottles packed in saw- dust or rice husk in cases. (3) In securely closed tins, containing not more than 2 litres of liquid each, packed in saw – dust or rice husk in cases.	...	...	...	...
Enamel & Enamel Paints having flash point above 65° C but below 93° C.	(1) In casks, iron or steel drums or cans strongly made and securely closed so as to prevent leakage. (2) In hermetically sealed tins or bottles packed in saw- dust or rice husk in cases. (3) In securely closed tins, containing not more than 2 litres of liquid each, packed in saw – dust or rice husk in cases. (4) Paints and varnishes may be accepted in fiberite packing cases, provided the inner containers are tins.	...	...	May be carried in the rear brake-van.	...

Name of Liquid	Packing (See also Rule 307)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 308, 309 and 323.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 314, 315, 316, 317, 318 and 319)	Exceptional Rules regarding carriage in brake- van of Passenger, Mixed or Parcels Train (See also Rule 320)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 321, 322, 324 and 325)
(1)	(2)	(3)	(4)	(5)	(6)
Varnish Paints having flash point above 65 ⁰ C but below 93 ⁰ C.	(1) In casks, iron or steel drums or cans strongly made and securely closed so as to prevent leakage. (2) In hermetically sealed tins or bottles packed in saw- dust or rice husk in cases. (3) In securely closed tins, containing not more than 2 litres of liquid each, packed in saw – dust or rice husk in cases. (4) Paints and varnishes may be accepted in fiberite packing cases, provided the inner containers are tins.	...	...	May be carried in the rear brake-van.	....
Varnish having flash point above 65 ⁰ C but below 93 ⁰ C	(1) In iron or steel drums, or in tins packed in wooden cases. (2) In corked and capsuled bottles, securely packed in wooden cases.	...	...	May be carried in the rear brake-van.	...
Varnish N.O.C.	(1) In air-tight tins, packed in wooden cases. (2) In drums of steel or iron or in other strong and well made receptacles. (3) In bottles, corked and sealed, packed in straw or saw-dust or rice husk and secured in wooden cases. (4) Rosin oil may also be packed in wooden casks, provided the flash point is at or above 65 ⁰ C.	...	...	...	...
Pine oil	-do-	...	...	-do-	....
Rosin oil	-do-	...	...	-do-	....

Appendix III/1
(See Rule 307.2)

APPENDIX III/1

Specifications for Receptacles for Petroleum and other Inflammable Liquids, Class ‘A’.

1. No receptacles shall be of more than 300 litres capacity, excluding the air space prescribed in rule 307.2.
2. The receptacles shall have the following thickness of metal: -

Capacity exclusive of the prescribed air-space			Not less than	
Not exceeding 10 litres	..	..	0.443 mm.	(27 Birmin Gauge)
Exceeding 10 litres but not exceeding 25 litres	..	..	0.63 mm.	(24 Birmin Gauge)
Exceeding 25 litres but not exceeding 50 litres	..	..	0.80 mm.	(22 Birmin Gauge)
Exceeding 50 litres but not exceeding 200 litres	..	..	1.25 mm.	(18 Birmin Gauge)
Exceeding 200 litres but not exceeding 300 litres	..	..	1.59 mm.	(16 Birmin Gauge)

Provided that the Chief Controller of Explosives may, by a written order, permit the use, in any particular case, of receptacles having thickness of metal less than that specified above.

3. The receptacles shall be so constructed and recured as not to be liable to become defective, leaky or insecure in transit.

4. The receptacles shall bear a branded, stamped, embossed on printed warning, exhibiting in conspicuous characters the words ‘**Petrol**’ or ‘**Motor Spirit**’ or an appropriate equivalent warning indicating the nature of the contents.

Appendix III/2
(See Rule 317.4)

APPENDIX III/2

List of Stations Provided with Bulk Oil Installations

The commodities for which bulk oil installation have been provided, are shown in abbreviations only, against the stations concerned as under: -

Central Railway

a – aviation spirit

b – batching oil

B – black oil

c – crude oil

d – diesel oil

hsd – high speed diesel

k – kerosene oil

l – liquid fuel

ldo – light diesel oil

m – mineral turpentine oil

ms – motor spirit

p-petrol

po – Powerine oil

s-solvent oil

sko-superior kerosene oil

atf-aviation turbine fuel

lpg-liquified petroleum gas

lshs-low sulphur heavy stock

n-naphtha

f-furnace oil

pe-phenol extract

Rlys.	Stations	Commodities (show by abbreviations) for which buld oil installations are provided.
CR	Akola	d,k,p.
CR	Ahmednagar	Petroleum Products (Petroleum products are being received only for Defence Deptt.)
CR	Bhadli	hsd, sko and ms.
CR	Badnera	Ms, sko, hsd.
CR	Balharshah	Ms, sko, hsd.
CR	Bhusawal	hsd, B (for Bhusawal Power House)
CR	Chandrapur	Ms, hsd, k, B and lshs
CR	Dhule	d,k,p.
CR	Daund	hsd (for loco).
CR	Dehu Road	B, lshs.
CR	Gulbarga	ms, sko, hsd.
CR	Ghora-Dongri	B, lshs.
CR	Ghorpuri	hsd (for loco).
CR	Kalyan	hsd (for loco).
CR	Lokmanya Tilak Terminal	hsd (for loco).
CR	Khapri	ms, sko, hsd, atf and B.
CR	Khandwa	ms, sko, hsd.

CR	Manmad	d,k,p, hsd.
CR	Madanmahal	d,k,m,p.
CR	Nasik Road	B (for Nasik Power house).
CR	Nishatpura	ms, sko, hsd, atf.
CR	Neral	hsd (for loco).
CR	Paricha	B.
CR	Panvel	hsd (for loco).
CR	Satna	ms, sko, hsd.
CR	Solapur	ms, sko, hsd.
CR	Bhilavadi	lpg.
CR	Shri Chhatrapati Shahu Maharaj (T)	ms, hsd, sko.
CR	Miraj	ms, hsd, sko, f, ldo.
ER	Budge Budge	ms, a, sko, hsd, ldo, atf, s, f.
ER	Bhagalpur	m, hsd, sko.
ECoR	Angul/ Smelter Sdg. (NALCO)	f.
ECoR	Brahmapur	ms, hsd, sko.
ECoR	Cuttack	ms, hsd, sko, f.
ECoR	Sambalpur/ Hirakud Industrial Works Sgd.	f.
ECoR	Sambalpur	ms, sko, d, f.
ECoR	Talcher/ Fertiliser Corporation of India Sdg.	f.
ECR	Barauni (Refinery)	sko, hsd, ldo, ms, pe, lshs.
ECR	Dhanbad	ms, hsd, sko.
ECR	Raxaul	d,k,p.
ECR	Barauni Oil Refinery	ms. sko, hsd, ldo.
NCR	Agra	hsd
NCR	Idgah Agra	hsd, k,p.
NCR	Gwalior	d,k,p, atf.
NCR	Harduaganj	f.
NCR	Jhansi	k, p. hsd.
NCR	Panki	ms, hsd, sko, ldo, atf, n, lpg, f.
NCR	Unchahar	f.
NCR	Mathura Oil Refinery Siding Bhainsa	hsd, n, ldo, f.
NER	Basti	hsd, ms, sko, ldo.
NER	Gorakhpur Cantt.	atf.
NER	Gorakhpur Jn.	hsd, ms, sko, ldo.
NER	Kathgodam	k, p, hsd.
NFR	Bongaigaon Refinery and Petrochemical Complex Ltd. (BRPL) (B.G. & M.G.)	n, atf, ms, sko, hsd, ldo, f.
NFR	Barsoi Jn. (M.G.)	ldo.

NFR	Chabua	atf.
NFR	Cinnamara	ms, sko, hsd.
NFR	Dalgaon	ms, sko, hsd, ldo, f.
NFR	Dharmanagar	atf, ms, sko, hsd.
NFR	Digboi	n, ms, sko, hsd, ldo, f.
NFR	Forbesganj	ms, sko, hsd, ldo.
NFR	Guwahati	for loco fuelling (under construction).
NFR	Hasimara	atf, sko, hsd, ldo, f.
NFR	Jorhat	atf, ms, sko, hsd.
NFR	Katihar (M.G.)	ms, sko, hsd.
NFR	Khotkhoti	ms, sko, hsd.
NFR	Lumding Jn.	hsd (at loco diesel shed).
NFR	Malda Court (B.G.)	ms, sko, hsd.
NFR	Missamari	atf, ms, sko, hsd.
NFR	New Bongaigaon	hsd (for loco fuelling).
NFR	New Guwahati	for loco fuelling.
NFR	New Guwahati (B.G.)	for loco fuelling.
NFR	New Jalpaiguri Jn. (BG & MG)	n, ms, atf, Aviation Gasoline, sko, hsd, f, ldo.
NFR	North Lakhimpur	atf, ms, sko, hsd.
NFR	Narangi (Noonmati)	n, atf, ms, sko, hsd, ldo, f.
NFR	Ramnagar Siding	atf, ms, sko, hsd, ldo, f, ms.
NFR	Rowriah	atf.
NFR	Silchar	atf, ms, sko, hsd.
NFR	Tinsukia Jn.	n, ms, sko, hsd, ldo, f.
NFR	Panbari	f.
NFR	Salakati	f.
NFR	Badarpur	hsd.
NFR	Rangapura North	hsd.
NFR	Siliguri Jn.	hsd.
NFR	Vishwanath Charali Jn.	f.
NFR	Dinapur	Not yet commissioned.
NR	Ambala Cantt.	ms, sko, hsd, ldo, atf, f.
NR	Bareilly	d, hsd, k, p, atf.
NR	Bhagtanwala	ms, sko, hsd.
NR	Bharoli	ms, sko, hsd.
NR	Bhatinda	f, lshs, ldo.
NR	Pathankot Cantt.	ms, sko, hsd, atf.
NR	Diwana	f, B, lshs.
NR	Ghaziabad	f, pe, ldo.

NR	Ghevra	lpg.
NR	Haridwar	f, ldo.
NR	Indraprastha Powerhouse	f, n.
NR	Jammu Tawi	ms, sko, hsd, ldo, atf, f.
NR	Jagdishpur	f.
NR	Kot Kapura	ms, sko, hsd.
NR	Khurd Pur	atf
NR	Lalru	lpg
NR	Moradabad	d, hsd, k, p.
NR	Mullanpur	atf.
NR	Meerut City Mandi	ms, hsd, sko.
NR	Nangaldam (Pathankot Cantt.)	f, lshs, n.
NR	Patiala	ms, sko, hsd, ldo.
NR	Pathankot	ms, sko, hsd.
NR	Phulpur	n, lshs, f.
NR	Panipat Thermal Power House	f, B, lshs.
NR	Ropar	f, lshs.
NR	Subedarganj	f, sko, hsd, a, p.
NR	Suchipind	ms, hsd, sko, atf, lpg, f, ldo.
NR	Saharanpur	ms, sko, hsd, ldo.
NR	Shakurbasti	All commodities.
NR	Tanda	f.
NR	Tughalakabad	f, B, hsd.
NWR	Bhagat-ki-kothi	ms, hsd, sko, atf.
NWR	Hissar	d, hsd, k, ms, p, atf, ldo.
NWR	Hanumangarh	d, hsd, k, p, atf.
NWR	Lalgarh	d, hsd, k, p, atf, ms.
NWR	Raika Bagh Palace	ms, hsd, sko, atf.
NWR	Abu Road	hsd.
NWR	Bais Godam	ms, sko, ldo, hsd, atf.
NWR	Bandikui	hsd (for loco).
NWR	Daurai	p, hsd, k.
NWR	Phulera	hsd (for loco).
NWR	Ranapratap Nagar	hsd, k,p.
NWR	Udaipur City	p, hsd, k.
SCR	Belagavi	ms, hsd, sko, f, ldo.
SCR	Aurangabad	ms, hsd, sko.
SCR	Charlapalli	lpg.
SCR	Cuddappah	ms, hsd, sko, f.
SCR	Chiksugur	f.

SCR	Guntakal	ms, hsd, sko, f, ldo.
SCR	Krishna Canal	ms, hsd, sko.
SCR	Nidadavolu	ms, hsd, sko
SCR	Nizamabad	ms, hsd, sko
SCR	Raichur	ms, hsd, sko, ldo.
SCR	Rajahmundry	hsd.
SCR	Renigunta	ms, hsd.
SCR	Sanatnagar	ms, hsd, sko, f, ldo, atf.
SCR	Warangal	ms, hsd, sko.
SER	Bokaro Steel Plant	hsd, f, lshs.
SER	Bondamunda Diesel Shed	d.
SER	Bondamunda/ Hindustan Steel Plant Siding	f, lshs, d, b.
SER	Dumerta/ Fertiliser Plant Sdg.	n.
SER	Haldia/ Indian Oil Corporation Sdg.	hsd, sko, atf, p, f, n.
SER	Namkom	hsd, ms, sko.
SER	Rourkela	ms, sko, d.
SER	Rourkela Steel Plant	f, lshs.
SER	Tatanagar	ms, sko, d, b.
SER	Tatanagar/ Diesel Shed	d.
SER	Tatanagar/ TISCO Sdg.	ms, d, f, lshs, b.
SER	Tatanagar/ Indian Cable Co. Sdg.	f.
SER	Ranchi	ms, d, sko.
SER	Balasore	ms, hsd, sko.
SECR	Bhilai	ms, hsd, sko.
SECR	Bhilai Steel Plant	f, ldo, lshs.
SECR	Bilaspur	ms, hsd, sko.
SECR	Belpahar Refractories	f.
SECR	Bishrampur	hsd, ms, sko.
SECR	Bhandara Road	f.
SECR	Gondia	hsd, k, ms.
SECR	Raipur	hsd, ms, sko.
SECR	Motibagh Nagpur	hsd.
SR	Kannur	ms, sko, hsd.
SR	Cochin Refineries – Irumpanam	ms, sko, hsd, ldo, f, lshs, lpg.
SR	Coimbatore Jn.	ms, sko, hsd, f.
SR	Coimbatore North	ms, sko, hsd, ldo, f.
SR	Elattur	ms, sko, hsd.
SR	Erode Jn.	ms, sko, hsd, f.
SR	Karuppur	lpg.

SR	Kochuveli	ms, sko, hsd, f.
SR	Mettur Dam	fo, lshs.
SR	Pelamedu	ms, sko, hsd, f, lpg.
SR	Salem Market	ms, sko, hsd, f.
SR	Salem Jn. (Salem Steel Plant Siding)	lpg.
SR	Tiruchchirappalli Goods (BG)	ms, sko, hsd, ldo, f.
SR	Tiruchchirappalli Goods (NG)	sko, hsd.
SR	Tirunelveli Jn.	ms, sko, hsd.
SR	Tondiarpet.— IOC Siding BPC Siding HPC Siding	ms, sko, hsd, atf, ldo, f, Lub. oil. m, Lub, oil. s, aeromax, Lub, oil.
SR	Korukkupet	c.
SR	Nagappattinam	c.
SWR	Baiyyappanahalli	ms, sko, hsd, atf, ldo, f, m, s.
SWR	Vijayapura	ms, hsd, sko.
SWR	Ghatprabha	ms, hsd, sko.
SWR	Hubballi	ms, hsd, sko, ldo, f.
SWR	Belagavi	Ms, hsd, sko, f, ldo.
WCR	Bhitoni	lpg.
WCR	Itarsi	ms, sko, hsd.
WCR	New Katni	hsd (for loco).
WCR	Dadhdevi (SFC Siding)	f, n.
WCR	Gangapur City	hsd (for loco).
WCR	Gurla (RSEB Siding)	f.
WCR	Kota	hsd, f, k, p, lshs.
WR	Asarva (BG)	m.
WR	Bhavnagar Docks	lubricating oil in bulk, hsd.
WR	Bakanian/ Bhauni	lpg.
WR	Gujarat Refinery	white oil, ms, sko, atf, hsd, f, lshs, n.
WR	Indore (BG)	p, hsd, k.
WR	Khari Rohar Road	hsd, k,p.
WR	Naptha Siding – GIM	n.
WR	Rajkot (BG)	hsd, k, ms, ldo.
WR	Ratlam (BG)	p, hsd, k.
WR	Surat	hsd, p, k.
WR	Sabarmati (BG)	ldo.
WR	Sabarmati (MG)	ms, hsd, k, atf, sko.
WR	Ukai Songadh	f.

Appendix III/2 – (contd.)
(Rule 317.4)

APPENDIX III/2

LIST 'B'

List of stations not provided with bulk oil installations but to which booking of petroleum and other flammable liquids Class 'B' & 'C' in tank wagons is permissible:-

Rlys.	Station
CR	Dehu Road
CR	Daund
CR	Khadki
CR	Kopargaon
CR	Solapur
CR	Thane
ECR	Daltonganj
ECR	Dhanbad
ECR	Jhajha
ECR	Patna Jn.
ECR	Patratu
ECR	Barwadih
ECR	Chopan
ECR	Mughalsarai
ECR	Sonpur
ECR	Barauni Jn.
ECR	Narkatiaganj
ECR	Samastipur Jn.
ER	Bhagalpur Jn.
ER	Andal
ER	Bardhaman Jn.
ER	Malda Town
ER	Ranaghat
ER	Howrah
ECR	N S C BOSE Gomoh Jn.
NCR	Yamuna Bridge
NCR	Fatehpur Sikri
NCR	Idgah (Agra Jn.) (MG)
NE	Kasganj Jn.
Rlys.	Station
NE	Mailani Jn.
NE	Aishbagh Jn.
NE	Chhapra Kachehri
NE	Ballia
NE	Gonda Jn.
NF	Alipurduar
NF	Dibrugarh Town

NF	Kampur
NF	Salmari
NF	Bengduhi Project Siding
NR	Ambala
NR	Bhathinda
NR	Varanasi
NR	Jalandhar City
NR	Kalka
NR	Lucknow
NR	New Delhi
NR	Pathankot
NR	Roza Jn.
NR	Saharanpur
NR	Shakurbasti
NR	Pratapgarh Jn.
NR	Sultanpur
NR	Jammu Tawi
NR	Barabanki Jn.
NR	Delhi Cantt. Defence
NR	Ludhiana
NR	Tughalakabad
SC	Bhadrachallam Road
SC	Kazipet
SC	Kondapalli
SC	Krishna
SC	Maula Ali
SC	Pakala
SC	Parli Vaijnath
SC	Purna
SC	Ramagundam
SC	Vikarabad
SE	Balasore
SE	Ghatsila/ ICC Siding
SE	Hijli
SE	Kalaikunda
SE	Mecheda
SECR	Amlai
SECR	Brajarajnagar

SECR	Gondia
SECR	Korba
SECR	Rajnandgaon
SECR	Nagpur (Moti Bagh)
SR	Bhadravati
SR	Magnasite Jn. (Burn & Co. Siding)
SR	Dindigul Jn.
SR	Ernakulam Jn.
SR	Ernakulam Goods
SR	Ponmalai (Golden Rock)
SR	Jolarpettai Jn.
SR	Korukkupet (MG)
SR	Mangalore Jn.
SR	Madurai Jn.
SR	Manamadurai
SR	Nagappattinam
SR	Neyveli
SR	Pamban
SR	Palakkad Jn.
SR	Palakkad Town
SR	Perambur Loco Works
SR	Kollam Jn.
SR	Salem Jn.
SR	Sankari Durg
SR	Thiruvananthapuram Central
SR	Villupuram Jn.
SR	Vilangudi
SR	Virudunagar Jn.
SR	West Hill
SR	Chengalpattu Jn.
SWR	Arsikere
SWR	Ashokapuram Work Shop
SWR	Bhadravati
SWR	Castle Rock
SWR	K S R Bengaluru Jn.
SWR	Krishnarajapuram
SWR	Mysuru Jn.
SWR	Shivamogga Bidare

SWR	Yesvantpur
SWR	Yelahanka Jn.
SWR	Bagalkot
WCR	Bhitoni
WCR	Antah
WCR	Atru
WCR	Bhawani Mandi
WCR	Bayana Jn.
WCR	Bharatpur Jn.
WCR	Chau-Mahla
WCR	Chhabra Gugor
WCR	Fateh-Singhpura
WCR	Garot
WCR	Gurla
WCR	Keshorai Patan
WCR	Kapren
WCR	Mehidpur Road
WCR	Narainpur Tatwar
WCR	Suwasra
WR	Amreli
WR	Amainer
WR	Ahmedabad Electric Co. SBI
WR	Bavla
WR	Bandra Marshalling Yard (purely Railway Traffic)
WR	Bhavnagar Concrete Jetty
WR	Bhavnagar Dock
WR	Bhavnagar Terminus
WR	Bhavnagar Bunder Timber Depot.
WR	Bhayavadar
WR	Botad Jn.
WR	Bhaunra
WR	Bharuch
WR	Dhola Jn.
WR	Dholka
WR	Dhoraji (Factory Siding)
WR	Gondal
WR	GOP (JAM)
WR	Hinduan City

WR	Jetalsar Road
WR	Jam Jodhpur Jn.
WR	Jamnagar
WR	Junagadh Jn.
WR	Jhalawar Road
WR	Keshod
WR	Kodinar
WR	Laban
WR	Lakheri
WR	Mahuva Jn.
WR	Nandurbar (Purely Railway Traffic)
WR	Navapur
WR	Paneli Moti
WR	Porbandar
WR	Prachi Road
WR	Ranavav
WR	Rajula City
WR	Sakhpur
WR	Upleta
WR	Vasai Road
WR	Veraval

Appendix III/3
(Rule 327.2)

Appendix III/3

S.No. _____
Station _____
Division/ District _____
Railway _____
Date _____

Notice to be served on the consignee

To

Dear Sir/ Madam,

Sub: - Invoice/ PWB No. _____ dated _____
From _____ to _____

I hereby give you notice that the above consignment/ parcel of which you are the consignee is lying undelivered at destination. Please note that if delivery is not effected within seven days from the date of receipt of this letter on payment of all charges due as per details give below, arrangements will be made to dispose of it under Section 83 and 84 of the Railways Act 1989 (24 of 1989) without any further reference being made to you.

In the event of sale, if the amount due to the Railway on account of freight, demurrage, wharfage etc. is not covered by the sale proceeds, I shall look to you to make good the balance.

Details of charges due –

1. Freight ₹ _____
2. Demurrage ₹ _____
3. Unloading Charges ₹ _____
4. Wharfage at the rate of ₹ _____ Quintal or part of a Quintal per day from _____ until removal of the consignment.

Yours faithfully,

CHAPTER IV

CHAPTER IV
INFLAMMABLE SOLIDS
Dangerous goods under the Railways Act, 1989

401. Inflammable solids specified in Table IV which are deemed to be dangerous goods under the Railway Act, 1989 (24 of 1989) comprise of—

- (a) Substances other than explosives which are readily combustible or may cause or contribute to fire through friction;
- (b) Substances which are liable to spontaneous heating under normal conditions of transport or to heat up in contact with air and are then liable to catch fire;
- (c) Substances which by interaction with water are liable to become spontaneously inflammable or to give off inflammable gases in dangerous quantities.

General restrictions on conveyance of inflammable solids

402.1. Inflammable solids to be accepted only under the rules laid down.—A Railway Administration shall accept only the inflammable solids specified in Table IV for conveyance by rail, subject to the rules and in accordance with the conditions set forth in this chapter.

402.2. Railway's right to refuse to convey.—Notwithstanding anything contained in these rules, a Railway Administration may notify that it shall not convey by rail for the public any particular inflammable solid specified in Table IV, and after the issue of such a notice, no such inflammable solid shall be accepted for conveyance by the said Administration on section or sections in respect of which such notification has been issued.

402.3. Restrictions on Railways.—(1) On the following sections of South Eastern Railway, inflammable solids, except matches, safety may be carried only under special arrangements :—

- (a) Rupsa-Talbandh ; and
- (b) Bankura-Damodar River.

(2) **Mumbai Port Trust Railway.**—Inflammable solids in full wagon loads only are dealt with on MBPT Railway under special arrangements.

(3) **Central Inland Water Transport Corporation.**—(a) Inflammable Solids shall be accepted at owner's risk.

(b) Carbide of Calcium shall not be accepted for carriage except under special arrangements.

(4) Inflammable solids except matches, safety shall not be carried over the N.G. sections of Eastern Railway including the Light Railways.

Notice of despatch to be given by sender

403.1. Notice of despatch compulsory.—Subject to any exceptions notified by the Railway Administration from time to time, no consignment of inflammable solids shall be forwarded to the railway for despatch or accepted for conveyance by rail, unless—

- (a) previous notice of the intention to send such consignment has been given as prescribed in rule 403.2 ; and

- (b) the Officer-in-charge of the station from which consignment is proposed to be despatched, has intimated in writing that the consignment can be received.

403.2. Particulars to be given in the Notice.—The notice required under rule 403.1 shall be addressed to the Officer-in-charge of the station from which the goods are proposed to be despatched and it shall be sent at least 48 hours before the consignment is brought to the station unless a shorter period is prescribed by the Railway Administration concerned, and the notice shall contain a statement of the following particulars, namely:-

- (1) the true name, description and quantity of the inflammable solids in the consignment ;
- (2) the name and address of the consignor ;
- (3) the name and address of the consignee;
- (4) a declaration that the inflammable solids have been “**Packed and marked in accordance with the rules laid down in the Red Tariff**”, i. e. rules 407 and 408.

Note. – (1) The forwarding Note, complete in all respects, tendered 48 hours, in advance of the date of offering of the consignment for booking, shall be deemed to be a proper notice under this Rule.

(2) When the Officer-in-charge of the Railway station or shed is in a position to accept the goods, he shall notify the same on the notice board and such notice shall be deemed as proper intimation to the consignor under this rule.

Certificates, Forwarding Note, etc. to be obtained by Railway Staff

404. It shall be incumbent on the Railway staff in the case of every consignment of inflammable solids, mentioned in Table IV, to obtain from the consignor a Forwarding Note, complete in all respects, in the form specially prescribed, (For form see Annexure A).

Mixed consignments prohibited

405.1. Inflammable solids shall not be accepted as forming part of a consignment with other goods, but shall be tendered under a separate Forwarding Note and be booked as a separate consignment.

405.2. Inflammable solids which cannot be loaded together shall be tendered under separate Forwarding Notes and shall be booked as separate consignments

**Inflammable solids to be accepted by authorized Railway Servant
and at specified place and time**

406. Consignments of inflammable solids intended to be transported by rail shall be received only.—

- (1) by a duly authorised railway servant; and
- (2) at such time between sunrise and sunset and at such place or places within railway premises as the Railway Administration may specify in this behalf.

Packing

407.1. Inflammable solids to be transported only when packed in prescribed manner.—No inflammable solid shall be tendered for transport or be transported unless it is packed in the manner laid down in column 2 of Table with such exceptions as contained in columns 4 and 5 thereof.

407.2. Containers for inflammable solids.—(1) All containers used for containing inflammable solids shall be well made and sufficiently strong to withstand the wear and tear of rail transit, and they shall be securely closed, so as to prevent escape of contents or vapour.

(2) Except as otherwise provided in column 2 of Table IV, casks and cases shall be of wood, drums of iron or steel and jars of stoneware or earthenware.

(3) Cases shall be tightly jointed and casks well stoppered.

(4) Jars shall be securely bunged or stoppered and luted.

(5) Stoppered bottles shall be luted and tied over.

407.3. Inside packing.—The inside packing of cases shall not contain any solid matter or hard substance.

Marking and Labelling of packages by consignors

408.1. Marking.—Every package containing inflammable solids shall be marked in conspicuous characters by means of either branding, stamping, embossing or painting or by affixing a securely attached label with.—

- (a) the name of the solid;
- (b) the words “**inflammable solid**”;
- (c) the weight of the solid; and
- (d) the name and address of the consignor and the consignee.

408.2. Pictorial label — In addition to the Marking specified in rule 408.1 every package containing inflammable solids shall bear the appropriate pictorial label shown below, indicating the hazard involved on account of the contents of the package: -



- Note: - (1) Background — White
 Symbol and Lettering — Black
- (2) Minimum dimensions – 10 cm. x 10 cm.
 Bigger labels may be used depending on the size of the packages.
- (3) The label should be affixed at an angle of 45° (diamond – shaped), as indicated above.
- (4) The label should be divided into 2 equal triangles, the upper being used for the symbol and the lower for the text as indicated above.
- (5) This label is applicable to packages containing all inflammable solids, except those mentioned below –

Aluminium powder;
 Aluminium Magnesium alloy powder;
 (magnesium/ aluminium alloy powder)
 Calcium phosphite;
 Calcium silicide;
 Carbide of calcium;

Magnesium powder;
 Potassium;
 Sodium;
 Sodium hydrosulphite (hydrosulphite of soda);
 Zinc dust or tutty powder.

408.3. ‘ Indication label’ – Whenever inflammable solids are contained in liquids, and unless the top of the inner package is clearly visible from above, or the outermost package is such as to indicate clearly the top, e.g. when the outermost package has a conical top, the outermost package shall bear the following indication label, namely: -

“THIS SIDE UP”

Marking by Railway

409.1 Every package containing inflammable solids shall be properly marked with railway marks, indicating the code initials of the forwarding and destination stations, the invoice or way bill number and the number of package in the consignments.

409.2 When a consignment of inflammable Solids is tendered for dispatch as a wagon load consignment for a destination not involving break of gauge transshipment, only 10% of the package constituting the consignment need to be marked with railway marks.

Responsibility of the Railway Staff

410. The Railway Staff while accepting consignments of inflammable solid for transport by rail, shall ensure that—

(a) the declared quantity of inflammable solids in any one package, ascertained from the markings thereon, or the weight of the package, does not exceed the maximum laid down in column 2, 4 and 5 of Table IV ; and

(b) the outermost package is in accordance with these rules.

Handling to be done by consignments and consignees

411.1. Unless otherwise notified by the Railway Administration, consignors and consignees shall do the loading and unloading of inflammable solids in wagon-loads.

411.2. When the traffic is booked in smalls and in all cases of handling **en-route** the Railway Administration concerned shall do the loading and unloading.

Storage

412.1. (a) It shall be the duty of every Officer-in-charge of a station to cause every package of inflammable solids which is proposed to be despatched by rail or which has been received at any station for transshipment or delivery to the consignee, to be stored in a well-ventilated enclosed shed or an open shed, namely, a shed roofed over for weather protection but not having enclosing walls.

(b) Where such storage accommodation is not available, the packages containing inflammable solids may be stored in a covered iron wagon, and if this is also not possible, they may be kept in an open space completely covered with tarpaulins or other suitable material.

(c) While storing inflammable solids, all precautions laid down in Rule 413 shall be observed.

412.2. Calcium Carbide shall be stored separately, away from other materials, fully covered with tarpaulins.

Note.—The following inflammable solids are dangerous when they come in contact with water. They shall be completely protected with water-proof tarpaulins or other suitable material :—

Aluminium powder;

Magnesium powder;

Aluminium/ Magnesium alloy powder;	Potassium;
(Magnesium/ aluminium alloy powder);	Sodium;
Carbide of calcium;	Sodium hydrosulphite (hydrosulphite of soda);
Calcium phosphide;	Zinc dust or tutty powder.
Calcium silicide;	

Precautions to be observed in handling and storing Inflammable Solids

413.1. Time of loading and unloading.—All operations connected with the loading, unloading and handling of inflammable solids shall be conducted between sunrise and sunset:

Provided that consignments sent in brake vans of passenger, mixed or parcels trains and by tranship or road-van trains may be handled at any hour, on due precautions being taken to prevent accidents.

413.2. Handling of packages.— (1) Packages containing inflammable solids shall not be thrown, dropped down or dragged along the ground or floor and care shall be exercised to avoid striking them against any hard object.

(2) When loading and unloading heavy drums or casks, cushion of a suitable Type, thick coir matting, felt, bags filled with saw-dust, or similar protection shall be used to avoid damage to the drums or casks and to prevent escape of contents.

(3) Whenever practicable, packages containing inflammable solids shall be carried or conveyed on trolleys or hand-barrows.

413.3. Prohibition of smoking, fire, light and dangerous substances.—(1) No person shall smoke or take or have any fire, naked light matches or other articles of inflammable nature or empties which have contained petroleum or other inflammable liquids, or any agency which produces heat or sparks, near any vehicle containing inflammable solids or near any place where such goods are stored or are being loaded, unloaded or handled.

(2) Inflammable solids shall not be stored or handled with or near explosives and other dangerous goods.

413.4. Protection from sun, rain and snow.—Packages containing inflammable solids shall not be exposed to sun, rain or snow, shall not be kept on damp ground, and shall be protected with tarpaulins or with other suitable material, whenever required.

413.5. Thorough cleaning of place, carriage, or wagon in which any inflammable solid is laid or handles.—The floor of any place or wagon on which inflammable solids have been stored or the wagon or trolley or hand-barrow in which they have been carried shall be swept and thoroughly cleaned after removal of the goods therefrom.

413.6. Special precautions in dealing with carbide of calcium.—Special precautions, given in Table IV shall be observed while dealing with carbide of calcium when wet.

Inflammable solids to be normally transported by goods or parcels trains

414. Subject to the provisions of Rules 415 and 419, inflammable solids shall not be transported by any train other than goods or parcels train.

Inflammable solids permitted to be transported by mixed trains when goods trains are not running

415. Inflammable solids may be transported in wagons by a mixed train, on any line or section on which goods trains are not running, subject to the condition that immediately on entering any section on which goods trains are running, the wagons containing inflammable solids shall be detached from the mixed train.

Type of wagons to be used for loading inflammable solids

416. Except as otherwise provided in column 4 of Table IV, inflammable solids shall be carried in watertight covered iron wagons.

Note.—End opening carriages or wagons shall not be used.

Quantities to be loaded or handled

417. Except as otherwise provided in column 4 of Table IV, there shall be no restriction.—

- (a) as to the quantity of inflammable solids which may be loaded at a time; and
- (b) on the number of wagons containing such solids which may be loaded or unloaded at any one time at a railway station.

Carriage of inflammable solids with ordinary goods in wagons

418. Subject to the loading restrictions contained in rules 420 and 421 and except as otherwise provided in column 6 of Table IV, inflammable solids may be carried with ordinary goods in the same wagon:

Provided that—

- (a) the wagon does not contain any articles or substances of combustible nature; and
- (b) Packages containing inflammable solids are well separated from the other goods in the wagon.

Carriage of inflammable solids in brake-van of passenger, mixed or parcels trains

419. (1) Except as otherwise provided in column 5 of Table IV, inflammable solids shall not be carried in the brake-van of passenger, mixed or parcels trains.

(2) Where inflammable solids are permitted to be carried in the brake-van—

- (a) the loading restrictions contained in rules 420 and 421 shall be observed;
- (b) packages containing inflammable solids shall be carried only in the rear brake-van which shall be well ventilated; and
- (c) packages containing inflammable solids shall be placed as far as possible from other goods in the brake-van and from the tail light of the train.

Inflammable solids to be kept separate

420. Inflammable solids which shall not be transported together in the same carriage are specifically indicated in column 6 of Table IV, and such inflammable solids shall not be stored or handled together.

Carriage of inflammable solids with explosives and other dangerous goods prohibited

421. Inflammable solids shall not be conveyed in the same Carriage with any matches or fuzes or appliances for producing ignition or any explosives or other dangerous goods or empties which have contained petroleum and other inflammable liquids.

Stowing of wagons

422.1. Packages to be compactly loaded. – Packages containing inflammable solids shall be compactly loaded so that they do not shift during transit.

422.2. Drums. – Drums containing inflammable solids shall, as far as possible, be loaded on end.

422.3. Bottles and Jars. – Bottles and jars shall not be loaded on the top of other goods and the other goods shall not be loaded on the top of the bottles and jars.

Labelling, sealing and locking of wagons

423.1. “Dangerous” label to be affixed on wagon – A “**Dangerous**” label as shown below shall be affixed to both sides of every wagon in which inflammable solids are stored for despatch or delivery or while in transit: —

INFLAMMABLE SOLIDS

423



- Note** – (1) Background - White
 Symbol and Lettering - Black
 (2) Dimensions - 0.3 m radius

(3) The label shall be divided into 2 equal half circles, the upper half being used for the lettering “NOT TO BE LOOSE SHUNTED” and the symbol, and the lower half for the rest of the text, as indicated above.

(4) This label is applicable to wagons containing all inflammable solids, except those mentioned below, and for which separate label is given below.—

Aluminium Powder;
 Aluminium/magnesium alloy powder (magnesium/aluminium alloy powder);
 Calcium phosphide;
 Calcium Silicide;
 Carbide of calcium;
 Magnesium Powder;
 Potassium;
 Sodium;
 Sodium hydrosulphite (hydrosulphite of soda);
 Zinc dust or tutty powder.

INFLAMMABLE SOLIDS

423

**Note –**

- | | | |
|----------------------|---|--------------|
| (1) Background | - | White |
| Symbol and Lettering | - | Black |
| (2) Dimensions | - | 0.3 m radius |
- (3) The label shall be divided into 2 equal half circles, the upper half being used for the lettering “NOT TO BE LOOSE SHUNTED” and the symbol, and the lower half for the rest of the text, as indicated above.
- (4) This label is applicable to wagons containing all inflammable solids, irrespective of the fact that other inflammable solids may also be loaded in the same wagon.

Aluminium powder;
 Aluminium/Magnesium alloy powder (magnesium/aluminium alloy powder);
 Calcium phosphide;
 Calcium silicide;
 Carbide of calcium;
 Magnesium powder;
 Potassium;
 Sodium;
 Sodium hydrosulphite (hydrosulphite of soda);
 Zinc dust or tutty powder.

Except on road-vans on transship or road-van trains on which labels may be pasted on the side of the wagon or carriage, these labels shall be so pasted on the doors that when they are opened, the labels are automatically destroyed.

These labels shall be affixed even when inflammable solids are transported along with ordinary goods, irrespective of the quantity of inflammable solids loaded in such wagons.

Such labels may not be used when inflammable solids are conveyed by passenger, mixed or parcels trains in brake-vans.

423.2. Private labels. – In addition to the Railway labels, there shall be no objection to a consignor pasting a label indicating the contents and hazard involved, such labels being pasted/on the doors of a wagon.

423.3. Lead seals to be used.—Lead seals only shall be used for sealing of wagons containing inflammable solids.

423.4. Riveting or E. P. locking not allowed.— Riveting or E.P. locking of wagons containing inflammable solids is prohibited.

Shunting precautions to be observed

424. Shunting of wagons containing inflammable solids shall not be carried out, except under the superintendence of a duly authorized officer who shall ensure that during shunting operations.—

- (a) wagons containing inflammable solids are separated from the locomotive by not less than one carriage not containing explosives or other dangerous goods or articles of inflammable nature;
- (b) the speed of all movements does not exceed 3 kms. per hour; and
- (c) no rough, hump, fly or loose shunting takes place.

Marshalling

425.1. Precaution to be observed during marshalling.—(1) There shall be no restriction on the number of wagons containing inflammable solids which may at any one time be attached to or be transported by any one train.

(2) Wagons containing inflammable solids, which may be grouped together, shall be placed as far away as practicable from the train locomotive.

(3) Wagons containing inflammable solids shall be separated by not less than one carriage not containing explosives or other dangerous goods or articles of inflammable nature from—

- (a) the train locomotive;
- (b) the passenger carriage or the brake-van;
- (c) any other carriages containing dangerous goods or articles of inflammable nature ;
provided that the number of such intervening carriage shall not be less than three when these other carriages contain explosives or petroleum and other inflammable liquids, Class "A", and not less than two when they contain gases, compressed, pressed, liquefied or dissolved.

(4) Wagons containing inflammable solids shall be close-coupled to the adjoining carriages and to each other.

425.2. Exemption on Darjeeling-Himalayan Section.— On the Darjeeling-Himalayan Section of the Northeast Frontier Railway, wagons containing inflammable solids may not be close-coupled.

425.3. Guard or dummy wagons.—Whenever the requisite number of wagons not containing explosives or other dangerous goods or articles of inflammable nature are not available, empty wagons shall be used as guard or dummy wagons for separating, as required, the wagons containing inflammable solids from the train locomotive, the passenger carriages or the brake van or any other carriages containing explosives, other dangerous goods or articles of inflammable nature.

Notice of Arrival

426.1. Notice to consignee of arrival of consignment.—The station master of the destination station shall ensure that notice of arrival of consignments of inflammable solids is issued to the consignee in the prescribed form (for form see Annexure 'B') for all consignments received at his station and not removed on the date of unloading.

426.2. Railway's right to recover wharfage and demurrage not affected by non-issue of arrival notice.—Non-receipt or late receipt of notice of arrival shall not entitle the consignee to exemption from wharfage and demurrage charges, if the goods are not taken delivery of within the free time allowed.

Delivery or disposal otherwise

427.1. Delivery.—Consignments of inflammable solids shall be removed by the consignee from the station or depot of the Railway to which they have been transported as soon they are made available for delivery.

427.2. Disposal if delivery not effected expeditiously.— (1) If the consignments are still on hand after the expiry of the free time allowed for their removal, a notice as prescribed under section 84 of the Railway Act, 1989 (24 of 1989) shall immediately be served on the consignee.

(2) The notice shall be in the form prescribed and given in Appendix IV/I.

(3) After the expiry of the period specified in the notice, consignments still unclaimed shall be sold in accordance with the provisions of sections 83 and 84 of the Railways Act, 1989 (24 of 1989).

Weight for charge and days of Acceptance

428. Traffic in wagon loads to be accepted on all days. - Traffic in wagon loads shall be accepted on all days, subject to a minimum weight for charge as prescribed in the Indian Railway Conference Association Goods Tariff."

Pre-payment of Freight

429. Freight on all consignments of inflammable solids shall be pre-paid except where Goods Tariff or the Coaching Tariff provides for an option to book on “To-pay” basis on payment of prescribed surcharge.

Charges for Guard or Dummy Wagons

430. Whenever it is necessary to attach empty wagons as guard or dummy wagons for the safety of a train carrying inflammable solids, such wagons shall be charged in accordance with rules and the provisions of the IRCA Goods Tariff.

Repair to Carriages

431. Before any repair or alterations are commenced in any part of a carriage in which inflammable solids are being transported, due precautions shall be taken to remove such inflammable solids.

Reports of Accidents

432.1. Whenever there occurs any accidents connected with any consignments of inflammable solids and attended with loss of life or serious injuries to persons or serious damage to property, or descriptions usually attended with such loss, injuries or damage, the person for the time being in charge of the consignment shall forthwith advise.–

(a) the Chief Controller of Explosives, Nagpur by available means of communication i.e. telephone/Fax/E-mail etc and within 24 hours by a letter giving particulars of the occurrence at the under-mentioned address:-

मुख्य विस्फोटक नियंत्रक/Chief Controller of Explosives

A-Block, CGO Complex, 5th Floor, Seminary Hills,

Nagpur-440006(Maharashtra).

Telephone No: - 071-22510248.

E-Mail: - explosives @ explosives.gov.in

(b) Controller of Explosives in whose jurisdiction accident has taken place;

(c) the Officer-in-charge of the nearest Police Station.

(d) the departmental officer concerned

(e) nearest NDRF unit.

432.2. Pending the visit of the Chief Controller, or his representative, or until instructions are received from the Chief Controller or his representative that he does not wish any further investigation or enquiry to be made, all wreckage and debris shall be left untouched except in so far as its removal may be necessary for the rescue of persons injured and recovery of the bodies of any persons killed, by the accident, or for the restoration of through communication.

Saving

433. Nothing in this Chapter shall be deemed to detract from the operation of–

- (a) the Calcium Carbide Rules, 1987.
- (b) the Cinematograph Film Rules, 1948.
- (c) the Arms Act, 1959 (54 of 1959) or the Arms Rules, 1962.
- (d) the Poisons Act, 1919 (12 of 1919) or the Rules framed there under, wherever applicable.

Name of Solid	Packing (See also Rule 407)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rule 408, 409 and 423.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 414, 415, 416, 417 and 418)	Exceptional Rules regarding carriage in brake – van of Passenger, Mixed or Parcels Train (See also Rule 419)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 420, 421, 422, 424 and 425)
(1)	(2)	(3)	(4)	(5)	(6)
Anti gas Fabrics ...	(1) In metal drums. (2) In bags.	...	...	...	When packed in bags, must be accepted as a wagon-load consignment and despatched in a separate wagon.
Aluminium Powder	(1) In drums, securely closed air tight. (2) In hermetically sealed tins, packed in cases.	...	...	...	
Aluminium/ Magnesium Alloy Powder (Magnesium/ Aluminium Alloy Powder)	-do-	...	...	...	
Magnesium Powder	-do-	...	...	...	
Zinc dust or tutty Powder	-do-	...	...	...	
2.2 – Azobis (isobutyronitrile) Flammable	Inner -polythene liner Outer – fiber box/ plastic/ wooden box. Max. Wt. per drum – 50 kg. Size of container – 20 feet (6.096 metres).	...	...	...	...
Azodicarbonamide/ Diazene dicarboxamide/ Azobisformanide	Inner – polythene liner Outer – fiber box/ plastic/ wooden box. Max. Wt. per drum – 50 kg. Size of container – 20 feet (6.096 metres).	...	...	...	...
Benzoyl Peroxide	(1) In glass bottles when quantity is not more than 1 Kg. (2) In any container lined with a plastic coating non- reactive to the material.	...	...	...	...
Benzoyl Peroxide paste	-do-	...	...	...	...

Name of Solid	Packing (See also Rule 407)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rule 408, 409 and 423.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 414, 415, 416, 417 and 418)	Exceptional Rules regarding carriage in brake – van of Passenger, Mixed or Parcels Train (See also Rule 419)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 420, 421, 422, 424 and 425)
(1)	(2)	(3)	(4)	(5)	(6)
*Carbide of Calcium	(1) In heremetically closed strong metal receptacles having no copper in their composition. The maximum quantity in any receptacles should not exceed 100 kgs. (2) Must not be packed with other inflammable solids.	All receptacles must be stamped, embossed, painted, printed or labelled in conspicuous characters as under: - “Carbide of Calcium, Dangerous if not kept dry. The contents of this package are liable, if brought in to contact with moisture, to give off a highly inflammable gas”.	...	May be carried in the rear brake van upto 250 kgs.	(1) Vehicles used for transport must be well ventilated and rendered impervious to rain. (2) The packages must be protected by waterproof sheeting. (3) Must not be loaded with other inflammable solids.

*If Carbide of Calcium becomes wet it shall be destroyed by being submerged in deep water. If deep water is not available, the wet Carbide of Calcium shall be spread in the open in an isolated place, and all the precautions should be taken to prevent any fire or artificial light or article capable of igniting acetylene which is produced by wet Carbide of Calcium being brought near until the material has given off all its gas.

The fact of Carbide of Calcium having become wet be indicated by the outward appearance of the receptacle and probably by a disagreeable odour, indicating leakage of gas.

When destroying a leaky but otherwise unbroken package by dropping it into deep water, it is advisable to punch several holes in the container before submerging it.

The common Type of electric torch, hand lanterns and ordinary electric appliances other than those complying with British Standard Specification No. 229 all fall within the definition of articles capable of igniting acetylene produced by wet Carbide. It shall always be borne in mind that this gas is easily ignited.

Name of Solid	Packing (See also Rule 407)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rule 408, 409 and 423.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 414, 415, 416, 417 and 418)	Exceptional Rules regarding carriage in brake – van of Passenger, Mixed or Parcels Train (See also Rule 419)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 420, 421, 422, 424 and 425)
(1)	(2)	(3)	(4)	(5)	(6)
Calcium Cynamide	(1) In suitable metal drums not more than 100 Kgs per case when per case Calcium Cynamide containing more than 0.5% Calcium Carbide. (2) In Hessian sacks with a double lining of paper impregnated with tar or twill bags coated with tar internally and lined with strong crepe paper or in suitable metal drums (e.g. steel) effectively closed when Calcium Cynamide containing not more than 0.5% Calcium Carbide.	...	...	...	...
Calcium Phosphide	(1) In hermetically closed strong metal receptacles having no copper in their composition. The maximum quantity in any one receptacle should not exceed 100 Kg. (2) Must not be packed with other inflammable solids.	All receptacles must be stamped, embossed, painted, printed or labelled in conspicuous characters as under: - “Calcium Phosphide, Dangerous if not kept dry. The contents of this package are liable, if brought into contact with moisture to give off a highly inflammable gas”.	...	...	(1) Vehicles used for transport must be well ventilated and rendered impervious to rain. (2) The packages must be protected by water proof sheeting. (3) Must not be loaded with other inflammable solids.

Name of Solid	Packing (See also Rule 407)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rule 408, 409 and 423.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 414, 415, 416, 417 and 418)	Exceptional Rules regarding carriage in brake – van of Passenger, Mixed or Parcels Train (See also Rule 419)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 420, 421, 422, 424 and 425)
(1)	(2)	(3)	(4)	(5)	(6)
Calcium Silicide (Silicide of Calcium)	In casks or drum	All packages must be labelled in bold letters as under. — “Silicide of Calcium Dangerous if not kept dry. The contents of this package are liable, if brought into contact with moisture, to give off a spontaneously inflammable gas.”	...	...	...
Carbon Black	(1) In air-tight and damp proof casks or cases. (2) In bags.	...	...	...	When packed in bags, must be accepted as a wagon load consignment and despatched in a separate wagon.
Lamp Black	(1) In air-tight and damp proof casks or cases. (2) In bags.	...	...	...	When packed in bags, must be accepted as a wagon-load consignment and despatched in a separate wagon.

Name of Solid	Packing (See also Rule 407)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rule 408, 409 and 423.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 414, 415, 416, 417 and 418)	Exceptional Rules regarding carriage in brake – van of Passenger, Mixed or Parcels Train (See also Rule 419)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 420, 421, 422, 424 and 425)
(1)	(2)	(3)	(4)	(5)	(6)
Vegetable Black	(1) In air-tight and damp-proof casks or cases. (2) In bags.	...	...	...	When packed in bags, must be accepted as a wagon-load consignment and despatched in a separate wagon.
Coal dust consisting of fine particles of less than 100 microns, i.e. 1/10 millimetre.	-do-	...	...	...	-do-
Cold Starters	In tins packed in wooden cases	...	...	May be carried in the rear brake-van upto 6 kgs.	...
Cinematograph Films, inflammable (nitrocellulose base)	In approved wood lined galvanized iron boxes.	The words “Cinema Films” in 2.5 cm. block letters and “Keep in cool place” in letters of 1.59 cm. depth must be painted in distinctive colour on the lid. No other lettering should appear on the lid. The name and address of the owner may, however, be painted on the body of the box.	...	May be carried in the rear brake-van upto 10 kgs.	...

Name of Solid	Packing (See also Rule 407)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rule 408, 409 and 423.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 414, 415, 416, 417 and 418)	Exceptional Rules regarding carriage in brake – van of Passenger, Mixed or Parcels Train (See also Rule 419)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 420, 421, 422, 424 and 425)
(1)	(2)	(3)	(4)	(5)	(6)
Cellulose unmanufactured (Nitro based apparently translucent includes blocks, rods, rolls, sheets and tubes). Celluloid ware NOC (Nitro based apparently translucent).	Should be first interlined with tissue paper subsequently with oiled paper and then packed in wooden cases, or crates, the cases should again be covered with dungaree cloth before being offered for despatch.	...	...	...	...
N.N. Dinitrosopenta – methyleneteramine (DNPT)	Inner – polythene liner (Outer – fiber box/ plastic/ wooden box Max. Wt. per drum – 50 kg. Size of container – 20 feet (6.096 metres)	...	...	...	...
Diphenyloxide 4.4’ disulphonhydrazide/ 4.4’ – Oxybis (benzene sulphonyl hydrazide Inflammable)	Inner – polythene liner Outer – fiber box/plastic/ wooden box Max. Wt. per drum –50 kg. Size of container – 20 feet (6.096 metres)	...	...	...	...
Meta Fuel (Solid aldehydic fuel in solid form)	In cardboard cartons, packed in hermetically sealed metal lined strong cases made of wood not less than 1.27 cm. thick.	...	...	...	...
Matches, safety	(1) In strong dust-tight wooden cases which shall have the following thickness of wood: - (a) 1.27 cm. thick throughout if the gross weight of the case with contents does not exceed 200 kg. and (b) 2.22 cm. thick throughout if the gross weight with contents exceed 200 kgs.	...	(1) When packed as prescribed in items (1), (2) and (3) of column 2 or in the original cases in which they are imported, may be loaded with undamageable goods such as iron metalware and goods of low value such as grain and salt.	Sample parcels may be carried in the rear brake-van, provided that— (a) a sample consists of one packet, i.e. 12 boxes. (b) It is packed in a strong wooden box containing in inner cases of Zinc or tin. Which is hermetically sealed the thickness of the wood of the outer cases being not less than 6.5 mm.	(1) Must not be loaded with other inflammable solids or goods of a valuable nature, i.e. textile fabrics, paper goods, wood or fibreboard cases. (2) When packed as prescribed in item (4) of column 2, must be accepted as a wagon load consignment and despatched in a separate wagon. (3) When packed in “double ocean paper” or “Fibreboard” cases, may be loaded with matches packed otherwise, provided that.—

Nature of Solid	Packing (See also Rule 407)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rule 408, 409 and 423.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 414, 415, 416, 417 and 418)	Exceptional Rules regarding carriage in brake – van of Passenger, Mixed or Parcels Train (See also Rule 419)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 420, 421, 422, 424 and 425)
(1)	(2)	(3)	(4)	(5)	(6)
Matches, safety- Contd.	(2) In air-tight tin or Zinc boxes properly soldered, provided such tin or zinc boxes are strong enough as outer packages and do not exceed a limit in size of 70 cm x 35 cm x 35 cm. weighing approximately 20 kgs. and do not contain more than 180 packets. (3) In approved fibreboard cases. (4) In water proof 'double-ocean paper'. Each package containing not more than 10 gross boxes of matches. (5) In metal boxes made of 22 gauge galvanized iron plates, measuring not more than 90 cm. x 60 cm. x 40 cm. and provided with a properly fitted securely closed lid. Each such box shall contain not more than five 10 gross packets of matches. (6) Must not be packed with other inflammable solids.	...	(2) When packed as prescribed in item (4) of column 2 wagon with wooden floor or side must not be used. (3) When packed in strong dust tight wooden cases, and which in addition have a metal lining, all loose edges of which are soldered may be loaded with other commodities. (4) When packed in approved containers, may be loaded in open wagons provided that – (a) each container is full and the contents are so packed that they cannot become ignited by friction. (b) not more than 6 containers, in a BG wagon or 3 containers in a MG or NG wagon are loaded; and (c) the wagons are provided with packing pieces for separating the containers from one another and securing them when loaded.	(c) not more than 50 sample packets are carried; and (d) the contents are so packed in cases and other forms of packages that they cannot become ignited by friction.	(a) matches packed in wooden and metal cases are stowed underneath and not on top of matches packed in 'double ocean paper', or fibreboard cases; and (b) matches packed in fibreboard cases are stowed underneath and not on top of the matches packed in 'double ocean paper'.

Nature of Solid	Packing (See also Rule 407)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rule 408, 409 and 423.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 414, 415, 416, 417 and 418)	Exceptional Rules regarding carriage in brake – van of Passenger, Mixed or Parcels Train (See also Rule 419)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 420, 421, 422, 424 and 425)
(1)	(2)	(3)	(4)	(5)	(6)
Matches Non – Safety Coloured Matches (Bengal Light) Star Matches	(1) In strong dust-tight wooden cases which must have a metal lining, all loose edges of which must be soldered. The outer wooden case shall be of the following thickness of wood :- (a) 1.27 cm. thick throughout, if the gross weight of the case with contents does not exceed 200 kg. (b) 2.22 cm. thick throughout, if the gross weight of the case with contents exceeds 200 kg. (2) In air-tight Zinc boxes properly soldered i.e., without the wooden cases, provided that the packets shall not contain more than 10 gross boxes of matches. (3) Must not be packed with other inflammable solids, except that matches, non safety, coloured matches (Bengal Lights) and start matches may be packed together.	...	...	...	(1) When packed as prescribed in item (2) of column 2, must be accepted as a wagon load consignment and despatched in a separate wagon. (2) Must not be loaded with other inflammable solids (except that matches, non safety, coloured matches (Bengal Lights) and star matches may be loaded together.

Nature of Solid	Packing (See also Rule 407)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rule 408, 409 and 423.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 414, 415, 416, 417 and 418)	Exceptional Rules regarding carriage in brake – van of Passenger, Mixed or Parcels Train (See also Rule 419)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 420, 421, 422, 424 and 425)
(1)	(2)	(3)	(4)	(5)	(6)
Nitro Cotton containing not more than 12.3% Nitrogen and wetted with not less than 1/3 of its weight of Methylated spirit or Butanol (Butyl Alcohol)	Should be packed in hermetically sealed steel drums or barrels.	...	...	...	...
Oily Bagging Oily Canvas Oily Covers Oily Paper Oily Rags Oily waste N.O.C. Oily dressed fabrics	(1) In Metal Drums (2) In bags	...	...	...	(1) Metal drums must not be loaded with textiles, fabrics, paper goods, fibreboard cases or other goods likely to be damaged in the event of leakage. (2) When packed in bags, must be accepted as a wagonload consignment and patched in a separate wagon. Must not be loaded with other inflammable solids, except that phosphorus, red (amorphous) phosphorus, yellow (in water) and phosphorus sulphide (sesquisulphide) may be loaded together.
Phosphorus Red (Amorphous) Phosphorus Sulphide (Sesquisulphide)	(1) In stoneware jars or glass- stoppered bottles, well secured and standing upright in cases. The inside packing of the cases must be of straw, chaff or raw-dust mixed with coal wood ashes, chalk or sand, (2) In strong tins, hermetically sealed, and properly packed in saw- dust in strong wooden cases. (3) In strong iron or steel drums, hermitically sealed, (4) Must not be packed with other inflammable solids, except that phosphorus, red (amorphous) phosphorus, yellow (in water) and phosphorus sulphide (sesquisulphide) may be packed together. (5) The gross weight of any one packet must not exceed 200 kgs. on BG and MG and 100 kgs. on NG.	...	...	...	

Nature of Solid	Packing	Exceptional or Additional	Exceptional or	Exceptional Rules	Exceptional or Additional
-----------------	---------	---------------------------	----------------	-------------------	---------------------------

	(See also Rule 407)	Rules regarding Marking and Labelling (See also Rule 408, 409 and 423.1)	Additional Rules regarding carriage by Goods Train (See also Rules 414, 415, 416, 417 and 418)	regarding carriage in brake – van of Passenger, Mixed or Parcels Train (See also Rule 419)	Stowage and Carriage Rules (See also Rules 420, 421, 422, 424 and 425)
(1)	(2)	(3)	(4)	(5)	(6)
Phosphorus Yellow (in water)	(1) In water in securely closed glass or earthen ware, containers packed with suitable protective material in wooden cases. (2) In water in effectively closed strong metal containers packed with saw-dust in cases. Not more than 25 kgs. of solid shall be packed in any one container and not more than 50 kgs in any one case. (3) In water in iron or steel drums, effectively closed. Not more than 250 kgs. of solid shall be packed in any one drum. (4) Must not be packed with other inflammable solids, except that phosphorus, yellow (in water) Phosphorus sulphide (Sesquisulphide) red (amorphous) and phosphorus sulphide (sesquisulphide) may be packed together.	...	...	...	-do-
Plasticised Nitrocellulose Chips	In metal drums, containing not more than 100 kgs.	Drums must be marked in bold letters not less than 2.5 cm. deep “Plasticised nitrocellulose chips” .	...	...	...
Potassium Sodium	(1) In mineral oil in securely closed glass or earthenware containers, packed with suitable protective material in cases. Not more than 0.5 kgs of solid shall be packed in any one container and not more than 5.00 kgs. in any one case. (2) In strong hermetically sealed tins or cans, packed with suitable protective material in cases. Not more than 10 kgs. of solid shall be packed in any one tin or can and not more than 50 kgs. in any one case.	...	...	...	Must not be loaded with other inflammable solids, except that Potassium and Sodium may be loaded together.

	Packing	Exceptional or Additional	Exceptional or	Exceptional Rules	Exceptional or Additional
--	---------	---------------------------	----------------	-------------------	---------------------------

Nature of Solid	(See also Rule 407)	Rules regarding Marking and Labelling (See also Rule 408, 409 and 423.1)	Additional Rules regarding carriage by Goods Train (See also Rules 414, 415, 416, 417 and 418)	regarding carriage in brake – van of Passenger, Mixed or Parcels Train (See also Rule 419)	Stowage and Carriage Rules (See also Rules 420, 421, 422, 424 and 425)
(1)	(2)	(3)	(4)	(5)	(6)
Potassium Sodium Contd.	(3) In steel drums, subject to the following conditions: - (a) Each steel drum must be made of sheet of not less than 1.63 mm. thickness. (b) It must be water-tight and closed with an air and water-tight lid. The lid should be of such construction that the neck of the drum closes on to a rubber or other suitable composite seating material carried in the lid. The lid should be securely fastened. Not more than 200 kgs. of the solid shall be packed in any one drum. (4) Must not be packed with other inflammable solids, except that potassium and sodium may be packed together.				
Resin	In sound casks, cases sealed tins or drums.	...	...	...	...
*Sodium Hydrosulphite (Hydrosulphide of Soda)	(1) In hermetically sealed iron or steel drums. (2) In hermetically sealed tins packed in strong outer cases.	...	...	...	...
P – Toluenesulfony semicarbazide (Hazardous inflammable commodity)	Inner-Polythene liner Outer – fibre box/plastic/wooden box Max. Wt. per drum –50 kg. Size of container – 20 feet (6.096 metres)	...	...	...	...
P – Toluenesulfonyl Hydrazide	Inner-Polythene liner Outer – fibre box/plastic/wooden box Max. Wt. per drum – 50 kg. Size of container – 20 feet (6.096 metres)	...	...	...	...
†Spent Oxide of Iron from gas purifiers			May be carried in open wagons.		

*Must be packed in iron drum enclosed in strong wooden cases when carried over Central Inland Water Transport Corporation.

†Consignor must declare on Forwarding Note that the Spent Oxide of Iron has been thoroughly oxidized by exposure to the air before tendering for conveyance.

Appendix IV/1
(Rule 427.2)

Appendix IV/1

S. No.: _____
Station: _____
Division/District: _____
Railway: _____
Date: _____

NOTICE TO BE SERVED ON THE CONSIGNEE

To

Dear Sir/ Madam,

Sub: - Invoice/ PWB No. _____ dated _____
from _____ to _____

I hereby give you notice that the above consignment/ parcel of which you are the consignee is lying undelivered at destination. Please note that if delivery is not effected within seven days from the date of receipt of this letter on payment of all charges due as per details given below, arrangements will be made to dispose of it under Section 83 and 84 of the Railways Act, 1989 (24 of 1989) without any further reference being made to you.

In the event of sale, if the amount due to the Railway on account of freight, demurrage, wharfage, etc. is not covered by the sale proceeds, I shall look to you to make good the balance.

Details of charges due –

1. Freight ₹ _____
2. Demurrage ₹ _____
3. Unloading Charges ₹ _____
4. Wharfage at the rate of ₹ _____
per 50 kgs. per day from _____ until removal of the consignment.

Yours faithfully,

CHAPTER V

CHAPTER V

OXIDIZING SUBSTANCES

Dangerous Goods under the Railways Act, 1989

501. Oxidizing substances, that is to say, substances which while in themselves not combustible but readily trigger off reactions with others may liberate oxygen and other to stimulate the combustion and violence in other materials, specified in Table V, shall be deemed to be dangerous Goods under the Railways Act, 1989 (No. 24 of 1989).

General restriction on conveyance of oxidizing substances

502.1. Oxidizing substances to be accepted only under the rules laid down.—A Railway Administration shall accept only the Oxidizing substances specified in Table V for conveyance by rail, subject to the rules in accordance with the conditions set forth in this Chapter.

502.2. Railway's right to refuse to convey.—Notwithstanding anything contained in these rules, a Railway Administration may notify that it shall not convey by rail for the public any particular Oxidizing substances specified in Table V, and after the issue of such a notice, no such Oxidizing substances shall be accepted for conveyance by the said Administration on section or sections in respect of which such notification has been issued.

502.3. Restriction on Railways.—(1) On the following sections of the South Eastern Railway, Oxidizing substances may be carried only under special arrangements:-

(a) Rupsa–Talband; and

(b) Bankura–Damodar.

(2) **Mumbai Port Trust Railway**—Oxidizing substances in full wagon loads shall be dealt with on the Mumbai Port Trust Railway only under special arrangements.

(3) **Central Inland Water Transport Corporation.**—Oxidizing substances shall be accepted at owner's risk only.

(4) **Eastern Railway.**—Oxidizing substances shall not be carried over the narrow gauge sections, including Light Railways of the Eastern Railway.

503.1. Notice of despatch compulsory.—Subject to any exceptions notified by the Railway Administration from time-to-time, no consignments of Oxidizing substances shall be forwarded to the Railway for despatch or accepted for conveyance by rail, unless.

(a) previous notice of the intention to send such consignment has been given as prescribed in rule 503.2; and in writing that the consignment can be received and

(b) the Officer in-charge of the Station from which the consignment is proposed to be despatched has intimated in writing that the consignment can be received.

503.2. Particulars to be given in the notice.—The notice required under rule 503.1 shall be addressed to the Officer-in-charge of the station from which the goods are proposed to be despatched and it shall be sent at least 48 hours before the consignment is brought to the station, unless a shorter

period is prescribed by the Railway Administration concerned, and the notice shall contain a statement of the following particulars, namely:-

(1) the true name, description and quantity of the Oxidizing substances in the consignments ;

- (2) the name and address of the consignor;
- (3) the name and address of the consignee;
- (4) a declaration that the Oxidizing substances have been " Packed and marked in accordance with the Rules laid down in the Red Tariff ", i.e. Rules 507 and 508.

Note: (1) The forwarding note, complete in all respects, tendered 48 hours in advance of the date of offering of the consignment for booking, shall be deemed to be a proper notice under this rule.

(2) When the Officer-in-charge of the Railway station or shed is in a position to accept the goods, he shall notify the same on the notice board and such notice shall be deemed as proper intimation to the consignor under this rule.

Certificates, Forwarding Notes, etc. to be obtained by Railway staff

504. It shall be incumbent on the Railway staff in the case of every consignment of Oxidizing substances mentioned in Table V, to obtain from the consignor a Forwarding Note, complete in all respects, in the form specially prescribed. (For form see Annexure "A").

Mixed consignments prohibited

505. Oxidizing substances shall not be accepted as forming part of consignment with other goods, but shall be tendered under a separate Forwarding Note, and booked as separate consignment.

Oxidizing substances to be accepted by authorised railway and at specified place and time

506. Consignment of Oxidizing substances intended to be transported by rail shall be received only—

- (1) by a duly authorised railway servant ; and
- (2) at such time between sunrise and sunset and at such place or places within railway premises as the railway Administration may specify in this behalf.

Packing

507.1. Oxidizing substances to be transported only when packed in prescribed manner.—No Oxidizing substances shall be tendered for transportation or be transported unless it is packed in the manner laid down in column 2 of Table V.

507.2. Containers for Oxidizing substances.—(1) All containers used for containing Oxidizing substances shall be well made and sufficiently strong to withstand the wear and tear of rail transit, and they shall be securely closed (subject to provision of vents, where required), so as to prevent escape of contents or vapour.

(2) Except as otherwise provided in column 2 of Table V, casks, cases and crates shall be of wood, drums of iron or steel and jars of stoneware or earthenware.

(3) Cases shall be tightly jointed and casks well stoppered.

(4) Jars shall be securely bunged or stoppered and luted.

(5) Stoppered bottles shall be luted and tied over.

507.3. Inside packing.—The inside packing of cases or crates shall not contain any solid matter or hard substance.

Marking and Labelling of packages by consignors

508.1. Marking.—Every package containing Oxidizing substances shall be marked in conspicuous characters by means of either branding, stamping, embossing or painting or by affixing a securely attached label with: —

- (a) the name of substances;
- (b) the words " Oxidizing substance ";
- (c) the weight or quantity of the substances; and
- (d) the name and address of the consignor and the consignee. ;

508.2. Pictorial label.—In addition to the marking specified in rule 508.1, every package containing Oxidizing substances shall bear the pictorial label shown below, indicating the hazard involved on account of the contents of the packages.



Note.—(1) Backward ... white
Symbol and Lettering ... Black

(2) Minimum dimensions 10 cm. X 10 cm. bigger labels may be used depending on the size of the packages.

(3) The label should be affixed at an angle of 45 ° (diamond shaped) as indicated above.

(4) The label should be divided into two equal triangles, the upper being used for the symbol and the lower for the text, as indicated above.

508.3. Indication label.—Whenever Oxidizing substances are in liquid form, and unless the top of the inner package is clearly visible from above, or the outermost package is such as to indicate

clearly the top, e.g., when the outermost package has a conical top, the outermost package shall also bear the following indication label, namely:

"THIS SIDE UP"

Marking by Railway

509.1. Every package containing Oxidizing substances shall be properly marked with railway marks, indicating the code initials of the forwarding and destination stations, the invoice or way-bill number and the number of packages in the consignment.

(2) When a consignment of Oxidizing substances is tendered for despatch as wagon-load consignment for a destination not involving break-of-gauge transshipment, only 10 per cent of the packages constituting the consignment need be marked with railway marks.

Responsibility of the railway staff

510. The railway staff while accepting consignments of Oxidizing substances for transport by rail, shall ensure that—

(a) the declared quantity of Oxidizing substances in any one package, as ascertained from the markings thereon, or the weight of the package, does not exceed the maximum laid down in column 2 of Table V, and

(b) the outermost package is in accordance with these rules.

Handling to be done by consignors and consignees

511.1. Unless otherwise notified by the Railway Administration, consignors and consignees shall do the loading and unloading of Oxidizing substances in wagon loads.

511.2. When the traffic booked in smalls and in cases, the break-of-gauge transshipment and transshipment due to other cases, the Railway Administration concerned shall do the loading and unloading.

Storage

512. (a) It shall be the duty of every Officer-in-charge of station to cause every package of Oxidizing substances which is proposed to be despatched by rail or which has been received at any station for transshipment or delivery to the consignee to be stored in a well ventilated enclosed shed or an open shed, namely, a shed roofed over for weather protection but not having enclosing walls.

(b) Where such storage accommodation is not available, the package containing Oxidizing substances may be stored in a covered iron wagon, and if this is also not possible, they may be kept in an open space completely covered with tarpaulins or other suitable material.

(c) While storing oxidizing substances, all precautions laid down in rule 513 shall be observed.

Precautions to be observed in handling and storing Oxidizing substances

513.1. Time of loading and unloading.—All operations connected with the loading, unloading and handling of Oxidizing substances shall be conducted between sunrise and sunset:

Provided that consignments sent in break-vans of passenger, mixed or parcel trains and by tranship or road-van trains may be handled at any hour, on due precautions being taken to prevent accidents, including provision of adequate lighting.

513.2. Handling of packages.—(1) Packages containing Oxidizing substances shall not be thrown, dropped down or dragged along the ground or floor and care shall be exercised to avoid striking them against any hard object.

(2) When loading and unloading heavy drums or casks, cushions of a suitable Type, thick coir matting, felt, bags filled with saw-dust, or similar protection, shall be used to avoid damage to the drums or casks and to prevent escape of contents.

(3) Whenever loading practicable, packages containing Oxidizing substances shall be carried or conveyed on trolleys or hand barrows.

513.3. Prohibition of smoking, fires, lights and dangerous substances.— (1) No person shall smoke or take or have any fire, naked light, matches or other articles of inflammable nature or empties which have contained petroleum or other inflammable liquids, or any agency which produces heat or sparks, near any vehicle containing Oxidizing substances or near any place where such goods are stored or are being loaded, unloaded or handled.

(2) Oxidizing substances shall not be stored or handled with or near explosives and other dangerous goods.

513.4. Protection from sun, rain and snow.— Packages containing Oxidizing substances shall not be exposed to sun, rain or snow, shall not be kept on damp ground and shall be protected with tarpaulins or with other suitable materials, whenever required.

513.5 Thorough cleaning of place, carriage or wagon in which any Oxidizing substances is laid or handled.— The floor of any place or wagon in which Oxidizing substances have been stored or the wagon or trolley or hand-barrow in which they have been carried shall be swept and thoroughly cleaned after removal of the goods therefrom.

Oxidizing substances to be normally transported by goods or parcels trains

514. Subject to the provisions of rules 515 and 519, Oxidizing substances shall not be transported by any train other than a goods or parcel train.

Oxidizing substances permitted to be transported by mixed trains when goods trains are not running

515. Oxidizing substances may be transported in wagons by a mixed train on any line or section on which goods trains are not running subject to the condition that immediately on entering any

section on which goods trains are running, the wagons containing Oxidizing substances shall be detached from the mixed train.

Type of wagons to be used for loading Oxidizing substances

516. Oxidizing substances shall be carried in covered iron wagons.

Note. End opening carriages or wagons shall not be used.

Quantities to be loaded or handled

517. There shall be no restriction—

- (a) as to the quantity of Oxidizing substances which may be loaded at a time: and
- (b) on the number of wagons containing such substances which may be loaded or unloaded at any one time at a railway station.

Carriage of Oxidizing substances with ordinary goods in wagons

518. Subject to the loading restrictions contained in rule 520, and except as otherwise provided in column 6 of Table V, Oxidizing substances may be carried with ordinary goods in the same wagon.

Provided that—

- (a) the wagon does not contain any articles or substances of combustible nature; and
- (b) packages containing Oxidizing substances are well separated from the other goods in the wagon.

Carriage of Oxidizing substances in brake-van of passenger, mixed or parcels trains

519. (1) Except as otherwise provided in column 5 of Table V, Oxidizing substances shall not be carried in the brake-van of passenger, mixed or parcels trains.

(2) Where Oxidizing substances are permitted to be carried in the brake-Van.

- (a) the loading restrictions contained in rule 520 shall be observed;
- (b) packages containing Oxidizing substances shall be carried only in the rear brake-van which shall be well ventilated; and
- (c) packages containing Oxidizing substances must be placed as far away as possible from other goods in the brake-van and from the tail light of the train.

Carriage of Oxidizing substances with explosives and other dangerous goods prohibited

520. Oxidizing substances shall not be conveyed in the same carriage with any matches of fuzes or appliances for producing ignition, or explosives or other dangerous goods or empties which have contained petroleum and other inflammable liquids.

Stowing in wagons

521.1. Packages to be compactly loaded- Packages containing Oxidizing substances shall be compactly loaded so that they do not shift during transit.

521.2. Drums.- Drums containing Oxidizing substances shall as far as possible, be loaded on end.

521.3. Bottles, jars and carboys.-Bottles, jars and carboys shall not be loaded on top of other goods, and the other goods shall not be loaded on the top of the bottles, jars and carboys.

Labelling, Sealing and locking of wagons

522.1. “Dangerous” label to be affixed on wagon.- A “Dangerous” label as shown below shall be affixed to both sides of every wagon in which Oxidizing substances are stored for despatch or delivery or while in transit.



- | | |
|----------------------|--------------|
| (1) Background | White |
| Symbol and lettering | Black |
| (2) Dimensions | 0.3 m radius |
- (3) The label shall be divided into two equal half circles, the upper half being used for the lettering “NOT TO BE LOOSE SHUNTED” and the symbol, and the lower half for the rest of the text as indicated above.

Except on road-vans on transship or road-van trains on which labels may be pasted on the sides of the wagon or carriage, these labels shall be so pasted on the doors that when they are opened, the labels are automatically destroyed.

These labels shall be affixed even when Oxidizing substances are transported alongwith ordinary goods irrespective of the quantity of Oxidizing substances loaded in such wagons.

Such labels may not be used when Oxidizing substances are conveyed by passenger, mixed or parcels trains in brake-vans.

522.2. Private labels. – In addition to the railway labels, there shall be no objection to consignor pasting a labels indicating the contents and hazard involved. Such labels should be pasted on the doors of a wagon.

522.3. Lead seals to be used.– Lead seals only be used for sealing of wagons containing oxidizing substances.

522.4. Rivetting of EP Locking not allowed. – Rivetting or EP locking of wagons containing Oxidizing substances is prohibited.

Shunting precautions to be observed

523. Shunting of wagons containing Oxidizing substances shall not be carried out, except, under the superintendence of a duly authorised officer who shall ensure that during shunting operations.-

- (a) Wagons containing Oxidizing substances are separated from the locomotive by not less than one carriage not containing explosives or other dangerous goods or articles of inflammable nature;
- (b) The speed of all movements does not exceed 8 Km. an hour; and
- (c) No rough, hump fly or loose shunting takes place.

Marshalling

524.1. Precautions to be observed during marshalling. – (1) There shall be no restriction on the number of wagons containing Oxidizing substances which may at any one time be attached to or be transported by any one train.

(2) Wagons containing Oxidizing substances, which may be grouped together, shall be placed as far away as practicable from train locomotive.

(3) Wagons containing Oxidizing substances shall be separated by not less than one carriage not containing explosives or other dangerous goods or articles of inflammable nature from-

- (a) the train locomotive;
- (b) the passenger carriage or the brake-van;
- (c) any other carriages containing dangerous goods or articles of inflammable nature;

Provided that the number of such intervening carriages shall not be less than three when these other carriages contain explosives or petroleum and other inflammable liquids, Class A, and not less than two when they contain gases, compressed, liquefied or dissolved.

(4) Wagons containing Oxidizing substances shall be close-coupled to the adjoining carriages and to each other.

524.2. Exemption on Darjeeling-Himalayan Section. – On the Darjeeling-Himalayan Section of the Northeast Frontier Railway, wagons containing Oxidizing substances may not be close-coupled.

524.3. Guard or dummy wagons. – Whenever the requisite number of wagons not containing explosives or other dangerous goods or articles of inflammable nature are not available, empty wagons shall be used as guard or dummy wagons for separating, as required, the wagons containing Oxidizing substances from the train locomotive, the passenger carriages or the brake-van or any other carriages containing explosives, other dangerous goods or articles of inflammable nature.

Notice of arrival

525.1. Notice to consignee of arrival of consignment. – The Station Master of the destination station shall ensure that notice of arrival of consignments of Oxidizing substances is issued to the consignee in the prescribed form (for form see Annexure 'B') for all consignments received at his station and not removed on the date of unloading.

525.2. Railway's right to recover wharfage and demurrage not effected by non issue of arrival notice.–

Non-receipt or late receipt of notice of arrival shall not entitle the consignee to exemption from wharfage and demurrage charges, if the goods are not taken delivery of within the free time allowed.

Delivery or Disposal other wise

526.1. Delivery. – Consignments of Oxidizing substances shall be removed by the consignee from the station or depot of the railway to which they have been transported as soon as they are made available for delivery.

526.2. Disposal if delivery not affected expeditiously.– (1) If the consignments are still on hand after the expiry of free time allowed for their removal a notice as prescribed under Section 84 of the Railway Act, 1989 (24 of 1989) shall immediately be served on the consignee.

(2) The notice shall be in the form prescribed and given Appendix V/1.

(3) After the expiry of the period specified in the notice, consignments still unclaimed shall be sold in accordance with provisions of sections 33 and 34 of the Railway Act, 1989 (No. 24 of 1989).

Weight for Charges and days of acceptance

527. Traffic in wagon loads to be accepted on all days. – Traffic in wagon loads shall be accepted on all days, subject to a minimum weight for charge as prescribed in the Indian Railway Conference Association Goods Tariff”.

Pre-Payment of freight

528. Freight on all consignments of Oxidizing substances shall be prepaid except in the case of commodities where the Indian Railway Conference Association Goods Tariff or Coaching Tariff provides for an option to be given to the consignors to book on “**To-Pay**” basis on payment of prescribed surcharge on freight.

Charges for Guard or Dummy Wagons CS No. 15

529. Whenever it is necessary to attach empty wagons for the safety of Train carrying Oxidizing substances such wagons shall be charged in accordance with the provisions of the Indian Railway Conference Association Goods Tariff.

Repairs to carriages

530. Before any repairs or alterations are commenced in any part of a carriage in which Oxidizing substances are being transported, due precautions shall be taken to remove such Oxidizing substances.

Reports of Accidents

531. (1) Whenever there occurs any accident connected with any consignment of Oxidizing substances and attended with loss of the life or serious injuries to person or serious damage to property, or of description usually attended with such loss, injuries or damage, the person for the time being in charge of the consignment shall forthwith advise.–

(a) the Chief Controller of Explosives by available means of communication such as Telephone/Fax/E-mail followed within 24 hours, by a letter giving particulars of the occurrence; at the address given below:

**Chief Controller of Explosives A-Block, CGO Complex, 5th floor, Seminary Hills,
Nagpur -440006 (MAHARASHTRA) Telephone No. 071-22510248 E-mail
explosives@explosives.gov.in**

(b) Controller of Explosives in whose jurisdiction accident has taken place;

(c) to the Officer-in-charge of the nearest police Station; and

(d) the departmental officers concerned.

(e) Nearest National Disaster Response Force Unit. (NDRF)

(2) Pending the visit of the Chief Controller or his representative, or until instructions are received from the Chief Controller or his representative that he does not wish any further investigation or enquiry to be made, all wreckage and debris shall be left untouched except in so far as its removal may be necessary for the rescue of persons injured and recovery of the bodies of any persons killed, by the accident, or for the restoration of through communication.

Saving

532. Nothing in this chapter shall be deemed to detract from the operation of–

(a) the Arms Act, 1959 (54 of 1959) or

(b) the Arms Rules, 1962 or

(c) the Poisons Act, 1919 (12 of 1919) or the rules framed there under wherever applicable.

OXIDIZING SUBSTANCES**TABLE V**

Name of Substances	Packing (See also Rule 507)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 508, 509 and 522.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 514, 515, 516, 517 and 518)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 519)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 520, 521, 523 and 524)
(1)	(2)	(3)	(4)	(5)	(6)
Barium Peroxide (Barium Binoxide, Barium Dioxide, Barium Superoxide)	(1) In drums. (2) In approved casks each containing not more than 500 Kg. (3) In tins, each containing not more than 25 Kg. packed in strongly bound cases. A maximum of 4 tins may be packed in any one case.	...	...	...	Must not be loaded with food stuff or food stuff empties.
Bleaching Powder (Chloride of Lime)	In hermetically sealed metal drums sufficiently strong to remain in that condition despite the ordinary wear and tear of transport so that the contents cannot be affected by air or moisture. When in smalls must be packed in hermetically sealed metal tins/ drums sufficiently strong to remain in that condition despite the ordinary wear and tear of transport of or in polythene containers of sufficient strength securely closed and then packed in wooden cases. The Inside packing of cases must have some suitable protective material and the quantity shall not exceed 5 kg. net per package.	...	...	May be carried in the brake-van upto 100 Kg.	...
Calcium Nitrate	(1) In bags or casks or tins packed in cases. (2) In jars or bottles, packed in cases.	...	...	...	...

Name of Substances	Packing (See also Rule 507)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 508, 509 and 522.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 514, 515, 516, 517 and 518)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 519)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 520, 521, 523 and 524)
(1)	(2)	(3)	(4)	(5)	(6)
Calcium ... Hypochlorite	In hermetically sealed metal drums sufficiently strong to remain in that condition despite the ordinary wear and tear of transport so that the contents cannot be affected by air or moisture. When in smalls must be packed in hermetically sealed metal tins/ drums sufficiently strong to remain in that condition despite the ordinary wear and tear of transport of or in polythene containers of sufficient strength securely closed and then packed in wooden cases. The inside packing of cases must have some suitable protective material and the quantity shall not exceed 5 Kg. net per package.	...	...	May be carried in the brake van upto 100 Kg.	...
Chlorate of Barium	(1) In drums or casks or in cases lined with closely woven calico or paper of sufficient strength so as not to allow the contents to escape. (2) In glass jars or bottles packed in cases. (3) In tins, packed in cases.	...	...	...	(1) Must not be loaded with food stuff or foodstuff empties. (2) Must not be loaded with Sulphur sulphides, sugar, or combustible materials such as saw-dust, straw, paper.

Name of Substances	Packing (See also Rule 507)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 508, 509 and 522.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 514, 515, 516, 517 and 518)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 519)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 520, 521, 523 and 524)
(1)	(2)	(3)	(4)	(5)	(6)
Chlorate of Potash	(1) In drums or in casks or cases lined with closely woven calico or paper of sufficient strength so as not to allow the contents to escape. (2) In glass jars or bottles packed in cases. (3) In tins, packed in cases. (4) May also be packed in double Kraft paper bags with mouth folded which should be placed in a calico bag mouth stitched. The calico bag should be then packed in a canvas bag mouth stitched.	...	...	...	(1) Must not be loaded with sulphur sulphides, sugar or combustible materials such as saw- dust, straw, paper. (2) When packed in bags may be accepted as wagon load consignments only, provided no transshipments is involved en-route.
Chlorate of Soda	(1) In drums or in casks or cases lined with closely woven calico or paper of sufficient strength so as not to allow the contents to escape. (2) In glass jars or bottles packed in cases. (3) In tins, packed in cases.	...	...	...	Must not be loaded with sulphur sulphides, sugar, or combustible material such as saw-dust, straw, paper.
1.3. – Dibromo – 5.5 Dimethyl hydantoin and 1 bromo 3 chloro Dimethyl hydantoin (Hazardous Commodity)	Inner – Plastic liner Outer – HDPE/ HMDPE drum Max. Wt. per drum – 50 Kg. Size of container – 20 feet (6.096 metres)	...	...	...	...

Name of Substances	Packing (See also Rule 507)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 508, 509 and 522.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 514, 515, 516, 517 and 518)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 519)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 520, 521, 523 and 524)
(1)	(2)	(3)	(4)	(5)	(6)
Hydrogen Peroxide solution exceeding 40 volumes strength but not exceeding 132 volumes (35% by weight)	(1) In Carboys (with effective vent in the bung) each containing not more than 65 Kg. Carboys must be packed securely in iron, wooden or wickerwork crates. There must be a minimum thickness of 2.5 cm. of straw packing between the carboy and the crate. The straw packing in the carboy crate, when handed over to the Railway Administration, must be sufficiently damp to prevent fire. Carboys shall be closed liquid tight and provided with a well-fitting stopper which must be well luted. The necks of the carboys shall be exposed. (2) In bottles, not exceeding 1 litre capacity. (3) In jars (with an effective vent in the stopper) not exceeding 45 litres capacity. (4) In approved aluminum containers	...	...	...	...
Lauroyl Peroxide } M.E.K. Peroxide }	(1) In glass bottles when quantity is not more than 1 kg. (2) In any container lined with a plastic coating non-reactive to the material.	...	...	...	...
Guanidine Nitrate	(1) In casks or drums or in jars or bottles in cases. (2) In double asphalt moisture proof paper bags and polyethylene lined paper bags, provided such bags are further enclosed in jute bags.	...	...	May be carried in rear brake-van upto 10 quintals when contained in tin jars or bottles only.	...
Nitrate of Barium } Nitrate of Iron } Nitrate of Lead } Nitrate of Strontium }	(1) In drums or casks. (2) In jars or bottles packed in cases. (3) Must not be carried in bags.	...	...	...	...
Nitrate of Ammonia	(1) In casks or drums or in tins, jars or bottles in cases. (2) In double asphalt moisture proof paper bags and polyethylene lined paper bags, provided such bags are further enclosed in jute bags.	...	...	...	...

Name of Substances	Packing (See also Rule 507)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 508, 509 and 522.1)	Exceptional or Additional Rules regarding carriage by Goods Train (See also Rules 514, 515, 516, 517 and 518)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 519)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 520, 521, 523 and 524)
(1)	(2)	(3)	(4)	(5)	(6)
Nitrate of Soda	(1) In bags or casks or tins packed in cases. (2) In jars or bottles packed in cases.	...	...	May be carried in rear brake-van upto 10 quintals when contained in tin jars or bottles only.	...
Salpetre, refined (Nitro or Nitrate of Potash.)	(1) In bags or casks. (2) In jars or bottles packed in cases.	...	...	-do-	...
Perchlorate of Ammonia Perchlorate of Calcium Perchlorate of Potash Perchlorate of Strontium	(1) In glass jars or bottles, packed in cases. (2) In drums or in casks or cases lined with closely woven calico or paper of sufficient strength so as not to allow the contents to escape.	...	...	...	Must not be loaded with sulphur, sulphides, sugar or combustible materials such as saw-dust, straw, paper.
Saltpetre, Crude	(1) In bags or cask. (2) In jars or bottles packed in cases.	...	...	May be carried in rear brake-van upto 10 quintals when contained in tin jars or bottles only.	...
Sodium Peroxide	(1) In securely closed glass or earthenware containers, packed with suitable protective effective material in tin-lined cases. Each glass or earthenware container shall not contain more than 3 kg. of the substance and not more than 50 kg. of the substance shall be packed in any one tin lined case. (2) In hermetically sealed tins or cans packed in wooden cases. Each tin or can shall contain not more than 25 Kg. of the substance and not more than 150 Kg. of the substance shall be packed in any one case. (3) In steel drums, effectively closed.	...	...	...	...
Weed Killer (Powder) non-arsenical containing chlorate with not less than 40% of Chlorides or borax.	(1) In drums. (2) In tins, packed in cases.	...	...	...	...

Appendix V/1
(Rule 526.2)

APPENDIX V/1

S.No. : _____
 Station: _____
 Division/ District: _____
 Railway: _____
 Date: _____

NOTICE TO BE SERVED ON THE CONSIGNEE

To

Dear Sir/ Madam,

Sub: - Invoice/ PWBNo. _____ dated _____
 From _____ to _____.

I hereby give you notice that the above consignment/ parcel of which you are the consignee is lying undelivered at destination. Please note that if delivery is not effected within seven days from the date of receipt of this letter on payment of all charges due as per details given below, arrangements will be made of it under Section 83 and 84 of the Railways Act 1989 (24 of 1989) without any further reference being made to you.

In the event of sale, if the amount due to the Railway on account of freight, demurrage, wharfage etc. is not covered by the sale proceeds, I shall look to you to make good the balance.

Details of charges due –

1. Freight ₹ _____
2. Demurrage ₹ _____
3. Unloading Charge ₹ _____
4. Wharfage at the rate of ₹ _____
 50 kgs. per day from _____ until removal of the consignment.

Yours faithfully,

CHAPTER—VI

CHAPTER VI

POISONOUS (TOXIC) SUBSTANCES

Dangerous Goods under Railways Act, 1989

601. Poisonous toxic substances, that is to say, substance which give off a poisonous (toxic) gas or vapour and other substances which do not give off such gas or vapour specified in Table VI, shall be deemed to be dangerous goods under Railways Act, 1989 (24 of 1989)

General restrictions on conveyance of poisonous (toxic) substances

602.1. Poisonous (toxic) substances to be accepted only under the rules laid down.— A Railway Administration shall accept only the poisonous (toxic) substances specified in Table VI for conveyance by rail, subject to the rules and in accordance with the conditions set forth in this Chapter.

602.2. Railway's right to refuse to convey.— Notwithstanding anything contained in these rules, the Railway Administration may notify that it shall not convey by rail for the public any particular poisonous (toxic) substance specified in Table VI, and after the issue of such a notice, no such poisonous (toxic) substance shall be accepted for conveyance by the said Administration on section or sections in respect of which such notification has been issued.

602.3. Restriction on Railways.— (1) On the following sections of South Eastern Railway, Oxidizing substance may be carried only under special arrangements . —

(a) Ahmedpura–Khatwa

(b) Arra Sasaram Light

(c) Rupsa–Talband; and

(d) Bankura--Damodar River,

(2) **Mumbai Port Trust**—Poisonous (toxic) substances which do not give of poisonous (toxic) gas or vapour and are packed in solid metal containers shall be dealt with under special arrangements.

(3) **Central Inland Water Transport Corporation**—Poisonous (Toxic) substance shall be accepted at owners risk only.

(4) **Eastern Railway**—Poisonous (Toxic) substance shall not be carried over the narrow gauge section including Light Railways of Eastern Railway.

Notice of despatch to be given by sender

603.1. Notice of despatch compulsory.— Subject to any exception notified by the Railway Administration from time-to-time, no consignments of the poisonous (toxic) substances shall be forwarded to the railway for despatch or accepted for conveyance by rail, unless.

(a) previous notice of the intention to send such consignment has been given as prescribed in rule 603.2 and

(b) the Officer-in-charge of the station from which the consignment is proposed to be despatched, has intimated in writing that the consignment can be received.

603.2. Particulars to be given in the notice. – The notice required under rule 603.1 shall be addressed to the Officer-in-charge of the station from which the goods are proposed to be despatched and it shall be sent at least 48 hours before the consignment is brought to the station unless a shorter period is prescribed by the Railway Administration concerned, and the notice shall contain a statement of the following particulars, namely: –

(1) The true name, description and quantity of the Poisonous (Toxic) substance in the consignments;

(2) The name and address of the consignor;

(3) The name and address of the consignee;

(4) A declaration that the Poisonous (Toxic) substance have been "packed and marked in accordance with the rules laid down in the Red Tariff", i. e. Rules 607 and 608.

Note: (1) The forwarding Note, complete in all respects, tendered 48 hours in advance of the date of offering of the consignment for booking, shall be deemed to be proper notice under this Rule.

(2) When the Officer-in-charge of the railway station or shed is in a position to accept the goods, he shall notify the same on the notice board and such notice shall be deemed as proper intimation to the consignor under this Rule.

Certificates, Forwarding Notes, etc. to be obtained by Railway Staff

604. It shall be incumbent on the railway staff in the case of every consignment of Poisonous (Toxic) substance mentioned in Table VI, to obtain from the consignor a forwarding note, complete in all respects, in the form specially prescribed, (For form See Annexure 'A').

Mixed consignments prohibited

605. Poisonous (Toxic) substances shall not be accepted as forming a part with other goods, but shall be tendered under a separate Forwarding Note, and booked as separate consignment.

Poisonous (Toxic) substance to be accepted by authorised railway and at a specified place and time

606. Consignment of poisonous (toxic) substances intended to be transported by rail shall be received only–

(1) by a duly authorised servant; and

(2) at such time between sunrise and sunset and such place or places within railway premises as the Railway Administration may specify in this behalf.

Packing

607.1. Poisonous (toxic) substance to be transported only when packed in a prescribed manner.— No poisonous (toxic) substances shall be tendered for transport or be transported unless it is packed in the manner laid down in column 2 of Table VI.

607.2. Containers for poisonous (toxic) substances.— (1) All containers used for containing poisonous (toxic) substances shall be well made and sufficiently strong to withstand the wear and tear of rail transit, and they shall be securely closed, so as to prevent leakage of contents or vapour.

(2) Except as otherwise provided in column 2 of Table VI, casks and crates shall be of wood, drums of iron or steel and jars of stoneware or earthenware.

(3) Cases shall be tightly jointed and casks well stoppered.

(4) Jars shall be securely bunged or stoppered and luted.

(5) Stoppered bottles shall be luted and tied over.

(6) Containers, containing liquids must not be entirely filled. Sufficient air space must be left in each container to provide for the expansion of the liquid under variations of temperature.

607.3. Inside packing.— The inside packing of cases or crate shall not contain any solid matter or hard substance.

Marking and Labelling of package by consignors

608.1. Marking.— The outer package containing poisonous (toxic) substances shall be marked in conspicuous characters by means of either branding, stamping, embossing or by affixing a securely attached label with: —

(a) the name of the poisonous (toxic) substances ;

(b) the word “**Poison**” ;

(c) the quantity ; and

(d) the name and address of the consignor and the consignee.

608.2 Pictorial label.— In addition to the marking specified in rule 608.1, every package containing poisonous (toxic) substances shall bear the pictorial label shown below indicating the hazard involved on account of the contents of the packages:-



- Note: - (1) Background White
 Symbol and Lettering Black
 (2) Minimum dimensions 10cm. X10cm. Bigger labels may be issued depending on the size of the package.
 (3) The label should be affixed at an angle of 45° (diamond-shaped), as indicated above.
 (4) The label be divided in 2 equal triangles, the upper being used for the symbol and the lower for the text, as indicated above.

608.3. Indication Label. – Unless the top of the inner package is clearly visible from above, or the outer packing is such as to indicate clearly the top, e.g. when the outer package having a conical top, every package containing poisonous (toxic) substances must be affixed on its top of the following label, namely: -

“THIS SIDE UP”

Marking by Railway

609.1. Every package containing poisonous (toxic) substances shall be properly marked with railway marks, indicating the code initials of the forwarding and destination stations, the invoice or Way-Bill number of packages in the consignment.

609.2. When a consignment of poisonous (toxic) substances is tendered for despatch as a wagon load consignment for a destination not involving break-of gauge transshipment only 10 per cent of the packages constituting the consignment need be marked with Railway marks.

Responsibility of the Railway Staff

610. The Railway staff while accepting consignments of poisonous (toxic) substances for transport by rail, shall ensure that—

(a) the declared quantity of poisonous (toxic) substances in any one package, as ascertained from the marking thereon, or the weight of the package, does not exceed the maximum laid down in column 2 and 5 of Table VI; and

(b) the outermost package is in accordance with these rules.

Handling to be done by consignors and consignees

611.1. Unless otherwise notified by the Railway Administration, consignors and consignees shall do the loading and unloading of poisonous (toxic) substances in wagon loads.

611.2. When the traffic is booked in smalls and in all cases of handling en-route, the Railway Administration concerned shall do the loading and unloading.

612. (a) It shall be the duty of every Officer-in-charge of station to cause package of poisonous (toxic) substances which is proposed to be despatched by rail or which has been received at any station for transshipment or delivery to the consignee, to be stored in a well ventilated enclosed shed or an open shed, namely, a shed roofed over for weather protection but not having enclosing walls.

(b) Where such storage accommodation is not available, the package containing poisonous (toxic) substances may be stored in covered Iron wagon and if this is also not possible then they may be kept in an open space completely covered with tarpaulins or other suitable material.

(c) While storing poisonous (toxic) substances, all precautions laid down in rule 613 shall be observed.

Precautions to be observed in handling and storing poisonous (toxic) substances

613.1. Time of loading and unloading:— All operations connected with the loading, unloading and handling of poisonous (toxic) substances shall be conducted between sunrise and sunset—

Provided that consignments sent in brake-vans of passenger, mixed or parcels trains and by tranship or road-van trains may be handled at any hour, on due precautions being taken to prevent accidents including provision of adequate lighting.

613.2. Handling of packages. — (1) Packages containing poisonous (toxic) substances shall not be thrown, dropped down or damaged along the ground or floor and care shall be exercised to avoid striking them against any hard object.

(2) When loading and unloading heavy drums or casks, cushions of suitable type, thick coir matting, felt, bags filled with saw-dust, or similar protection, shall be used to avoid damage to the drums or casks and to prevent leakages.

(3) Whenever practicable, packages containing poisonous (toxic) substances shall be carried or conveyed in trolleys or hand barrows.

613.3. Prohibition of storages and handling with dangerous substances. – Poisonous (toxic) substances shall not be stored or handled with or near explosives, other dangerous goods or articles of inflammable nature or empties which have contained petroleum or other inflammable liquids.

613.4. Prohibition of storage and handling with foodstuff. – Poisonous (toxic) substances shall not be stored or handled near foodstuffs or foodstuff empties.

613.5. Protection from Sun, Rain and Snow. – Packages containing poisonous (toxic) substances shall not be exposed to sun, rain or snow, shall not be kept on damp ground, and shall be protected with tarpaulins or other suitable materials whenever required.

613.6. Thorough cleaning of place, carriage or wagon in which poisonous (toxic) substances are laid or handled.—The floor or any place or wagon on which poisonous (toxic) substances have been stored or the wagon or trolley or hand barrow in which they have been carried shall be swept and thoroughly cleaned after removal of the goods therefrom.

613.7. Special precautions in dealing with concentrated ethyl fluid (tetra-ethyl lead liquid).—Special precautions given in Appendix VI/1 shall be taken in the event of leakage of concentrated ethyl fluid (tetra-ethyl lead liquid).

Poisonous (toxic) substances transported by all trains

614. Poisonous (toxic) substances in wagons may be transported by all trains.

Type of wagons to be used loading Poisonous (toxic) substances

615. Poisonous (toxic) substances shall be carried in covered iron wagons.

Note.— End opening carriages or wagons shall not be used.

Quantities to be loaded or handled

616. There shall be no restriction. —

(a) as to the quantity of poisonous (toxic) substances which may be loaded at a time; and

(b) on the number of wagons containing such substances which may be loaded or unloaded at any one time at a railway station.

Carriage of poisonous (toxic) substances with ordinary goods in wagons

617. Subject to the restrictions contained in rules 619 and 620, poisonous (toxic) substances may be carried with ordinary goods in the same wagon.

Provided that. —

- (a) the wagon does not contain any articles or substances of a combustible nature; and
- (b) the packages containing poisonous (toxic) substances are well separated from the other goods in the wagon.

Carriage of poisonous (toxic) substances in brake-van normally prohibited

618. (1) Except as otherwise provided in column 5 of Table VI, poisonous (toxic) substances shall not be carried in the brake-van of trains.

(2) Wherever poisonous (toxic) substances are permitted to be carried in the brake-van, the loading restrictions contained in rules 619 and 620 shall be observed.

Carriage of poisonous (toxic) substances with explosives and other dangerous goods prohibited

619. Poisonous (toxic) substances shall not be conveyed in the same carriage with any explosives or other dangerous goods or empties which have contained petroleum or other inflammable liquids.

Carriage of poisonous (toxic) substances with food stuffs prohibited

620. Poisonous (toxic) substances shall not be conveyed in the same carriage with foods stuffs or foodstuff empties.

Stowing in wagons

621.1. Packages to be compactly loaded.—Packages containing poisonous (toxic) substances shall be compactly loaded so that do not shift during transit.

621.2. Drums.—Drums containing poisonous (toxic) substances shall as far as possible, be loaded on end.

621.3. Bottles, jars and Carboys.—Bottles, jars and carboys shall not be loaded on top of other goods and the other goods shall not be loaded on the top of bottles, jars and carboys.

621.4. Empty Containers. — Empty containers which have contained poisonous (toxic) substances shall be loaded with bungs in such a position that the escape of any remnants of liquid is not possible.

Labelling, Sealing and Locking of Wagons

622.1. “Dangerous” label to be affixed on wagon. – A “Dangerous” label as shown below shall be affixed to both sides of every wagon in which poisonous (toxic) substances are stored for despatch or delivery or while in transit.



- Note –
- | | | |
|-----|---|---------------|
| (1) | Background | White |
| | Symbol and Lettering | Black |
| (2) | Dimensions | 0.3 m. radius |
| (3) | The label should be divided into 2 equal half circles, the upper half being used for lettering “NOT TO BE LOOSE SHUNTED” and the symbol and the lower half for the rest of the text as indicated above. | |

Except on vans on tranship or road vans trains on which labels may be pasted on the sides of the wagon or carriage, these labels should be so pasted on the doors that when they are opened, the labels are automatically destroyed.

These labels shall be affixed even when poisonous (toxic) substances are transported along with ordinary goods, irrespective of the quantity of poisonous (toxic) substances loaded in such wagons.

Such labels may not be used when poisonous (toxic) substances are conveyed by passenger, mixed or parcels trains in brake -van.

622.2. Private labels. – In addition to the railway labels, there shall be no objection to the consignor pasting a label indicating the contents and hazard involved. Such labels should be pasted on the doors of a wagon.

Shunting Precautions to be observed

623. Shunting of wagons containing poisonous (toxic) substances shall not be carried out except under the superintendence of a duly authorised officer who shall ensure that during shunting operations.–

- (a) the speed of all movements does not exceed 8 kms. an hour; and
- (b) no rough, hump fly or loose shunting takes place.

Marshalling

624.1. Precautions to be observed during marshalling. – (1) There shall be no restriction on the number of wagons containing poisonous (toxic) substances which may at any one time be attached to or transported by any one train.

(2) Wagons containing poisonous (toxic) substances shall be separated by carriages not containing explosives, other dangerous goods or articles of inflammable nature from carriages containing.–

- (a) explosives and petroleum and other inflammable liquids Class ‘A’, by not less than three such carriages;
 - (b) gases, compressed, liquefied or dissolved, by not less than two such carriages; and
 - (c) petroleum and other inflammable liquids, Class ‘B’, inflammable solids and Oxidizing substances by not less than one such carriage.
- (3) Wagons containing poisonous (toxic) substances shall be close-coupled to the adjoining carriages and to each other.

624.2. Exemption on certain sections.– On the Darjeeling– Himalayan Section of the Northeast Frontier Railway, wagons containing poisonous (toxic) substances may not be close-coupled.

624.3. Guard or dummy wagons. – Whenever the requisite number of wagons not containing explosives or other dangerous goods or articles of inflammable nature are not available, empty wagons shall be used as guard or dummy wagons for separating, as required, the wagons containing poisonous (toxic) substances from carriages containing explosives, gases, compressed, liquefied or dissolved, petroleum and other inflammable liquids, inflammable solids and Oxidizing substances.

Notice of Arrival

625.1. Notice to consignee of arrival of consignment.— The Station Master of the destination station shall ensure that notice of arrival of consignments of poisonous (toxic) substances is issued to the consignee in the prescribed form (for form see Annexure 'B') for all consignments received at his station and not removed on the date of unloading.

625.2. Railway's right to recover wharfage and demurrage not affected by non-issue of arrival notice.— Non-receipt or late receipt of notice of arrival shall not entitle the consignee to exemption from wharfage and demurrage charges, if the goods are not taken delivery of within the free time allowed.

Delivery or disposal otherwise

626.1. Delivery. — Consignments of poisonous (toxic) substances shall be removed by the consignee from the station or depot to the railway to which they have been transported as soon as they are made available for delivery.

626.2. Disposal if delivery not effected expeditiously.— (1) If the consignments are still on hand after the expiry of free time allowed for their removal, a notice as prescribed under section 84 of the Railways Act, 1989 (24 of 1989) shall immediately be served on the consignee.

(2) The notice shall be in the form prescribed and given in Appendix VI/2.

(3) After the expiry of the period specified in the notice, consignments still unclaimed shall be sold in accordance with the provisions of sections 83 and 84 of the Railways Act, 1989 (24 of 1989).

Weight for charge and days of acceptance

627. Traffic in wagon loads to be accepted on all days.— Traffic in wagon loads shall be accepted on all days, subject to a minimum weight for charge as prescribed in the Indian Railway Conference Association Goods Tariff.

Pre-payment of Freight

628. Freight on all consignments of poisonous (toxic) substances shall be prepaid except in the case of commodities where the IRCA Goods Tariff provides for an option to be given to the consignors to book in “**To-pay**” basis on payment of prescribed surcharge on freight.

Repairs to Carriages

629. Before any repairs or alterations are commenced in any part of a carriage in which poisonous (toxic) substances are being transported, due precautions shall be taken to remove such Oxidizing substances.

Report of Accidents

630. (1) Whenever there occurs any accident connected with any consignment of poisonous (toxic) substances and attended with loss of life or serious injuries to persons or serious damage to property or of a description usually attended with such loss, injuries or damage, the person for the time being in-charge of the consignment shall forthwith advise—

(a) the Chief Controller of Explosives, Nagpur by available means of Communication such as: Telephone/Fax/E-mail etc. followed within 24 hours by a letter giving particulars of the occurrence as per contact details below :-

Tel. No. : 071-22510248

E-mail : explosives@explosives.gov.in

Address: A-Block, CGO Complex, 5th floor,
Seminary Hills, Nagpur -440006
(MAHARASHTRA).

(b) Controller of Explosives in whose jurisdiction accident has taken place;

(c) the Officer-in-charge of the nearest Police Station; and

(d) departmental officers concerned.

(2) Pending the visit of the Chief Controller or his representative or until instructions are received from Chief Controller or his representative that he does not wish any further investigation or enquiry to be made, all wreckage and debris shall be left untouched except in so far as its removal may be necessary for the rescue of persons injured and recovery of the bodies of any person killed by the accident, or for the restoration of through communication.

Saving

631. Nothing in this Chapter shall be deemed to detract from the operation of the Poisons Act, 1919 (12 of 1919) or the rules framed there under, wherever applicable.

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)
(1)	(2)	(3)	(4)	(5)	(6)
Acid Carbolic (Phenol-crystals or liquefied)	(1) In stoneware jars or glass-stoppered bottles, well secured and standing upright in cases. The inside packing of the cases shall be of straw, chaff or saw-dust mixed with coal, woodash, chalk or sand. (2) In drums or casks. (3) The gross weight of any one package must not exceed 200 kgs. over the BG and MG and 100 kgs. over the NG.	...	...	...	When loaded in the same wagon with other kinds of poisonous (toxic) substances, shall be kept as far apart from one another as may be practicable.
Acid, Cresylic	-do-	...	...	...	-do-
Acid, Sulfamic	The commodity shall be packed in 50 kg. capacity jute bags with a liner inside and tightly closed and stitched to prevent ingress of moisture and consequent caking.	...	...	...	-do-
Diethyl Sulphate	Hermetically sealed- 1) Glass bottles packed with inert cushioning material, or plastic bottles together in a: Container Package Net (Litre) Gross (Kg.) Wooden Box 15 75 Fibre-board Box 5 30 (2) Cans packed together in a Wooden Box ... 75 Fibre-board Box 20 40 (3) Metal drum ... 450	...	...	...	...

POISONOUS (TOXIC) SUBSTANCES/200

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)
(1)	(2)	(3)	(4)	(5)	(6)
Acid Oxalic	(1) In casks or drums. (2) In jars or bottles packed in cases.	...	...	...	When loaded in the same wagon with other kinds of poisonous (toxic) substances, shall be kept as far apart from one another as may be practicable.
Oxalate of Potash	-do-	...	...	...	...
Titanium Potassium Oxalate	-do-	...	...	...	...
Aceto-arsenite of Copper	(1) In tins, packed in cases. (2) In this, packed in saw-dust in approved fibre board cases, and fastened by two metal straps. (3) In tins, packed in corrugated fibre board wrapped in strong brown paper and secured with cords. The number of tins should not exceed 4 and the total weight of contents 6 kgs. in any one package. (4) In casks, drums or cans.	...	...	...	...
Alpha Napthyl Thiourea	In card-board cartons reinforced with metal rim at top and bottom or in round tin containers packed with suitable protective material in wooden cases. The capacity of such containers shall be 50 grams or 400 grams.	...	...	...	...

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)
(1)	(2)	(3)	(4)	(5)	(6)
Weed Killer (powder) arsenical	(1) In tins, packed in cases. (2) In tins, packed in saw-dust in approved fibre-board cases, and fastened by two metal straps. (3) In tins, packed in corrugated fibre-board wrapped in strong brown paper and secured with cords. The number of tins shall not exceed 4 and the total weight of contents 6 kg. in any one package. (4) In casks, drums or cans.	...	...	...	...
Ammonia Solutions (i) Specific gravity 0.880 to 0.891	(1) In effectively closed glass or earthenware containers, packed with effective absorbent material in wooden cases. Each glass or earthenware container shall not contain more than 10 litres of the substance and not more than 50 litres shall be packed in any one case. (2) In securely closed carboys or jars of not more than 70 litres capacity, packed with suitable protective material in crates or cases. (3) In steel drums or steel barrels of not more than 450 litres capacity hydraulically tested to 4.64 kg. per sq. cm. pressure at which pressure of the drums must not show any signs of rupture or leakage.	...	...	...	When loaded in the same wagon with other kinds of poisonous (toxic) substances, shall be kept as far apart from one another as may be practicable.

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Train (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)
(1)	(2)	(3)	(4)	(5)	(6)
Ammonia Solutions (ii) Specific gravity 0.892 to 0.958	(1) In effectively closed glass or earthenware containers, packed with effective absorbent material in wooden cases. Each glass or earthenware container shall not contain more than 10 litres of the substance and not more than 50 litres shall be packed in any one case. (2) In securely closed carboys or jars of not more than 70 litres capacity, packed with suitable protective material in crates or cases. (3) In steel drums or steel barrels of not more than 450 litres capacity hydraulically tested to 2.81 kg. per sq. cm. pressure at which pressure of the drums must not show any sign of rupture or leakage.	...	...	...	When loaded in the same wagon with other kinds of poisonous (toxic) substances, shall be kept as far apart from one another as may be practicable.
(iii) Specific gravity 0.959 and over	(1) In effectively closed glass or earthenware containers, packed with effective absorbent material in wooden cases. Each glass or earthenware container shall not contain more than 10 litres of the substance and not more than 50 litres shall be packed in any one case. (2) In securely closed carboys or jars of not more than 70 litres capacity, packed with suitable protective material in crates or cases.(3) In steel drums or steel barrels of not more than 450 litres capacity.	...	...	...	-do-

POISONOUS (TOXIC) SUBSTANCES/203

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Train (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)
(1)	(2)	(3)	(4)	(5)	(6)
Aniline oil	(1) In drums or cans. (2) in bottles, packed in saw-dust in cases.	...	...	...	Shall not be loaded with goods of a valuable nature likely to be damaged in the event of leakage, e.g. textile fabrics, paper goods, wood of fibre-board cases.
Aniline Salt (Aniline Hydrochloride)	(1) In drums, casks or cases. (2) In jars or bottles, packed in cases.	...	...	...	-do-
Phenylene and Toluene Diamines	(1) In drums, casks or cases. (2) In jars or bottles, packed in cases.	...	...	...	-do-
Antimony Fluoride Mordant (Antimony Salts)	(1) In tins, bottles or strong paper packages, in cases. (2) In casks.	...	...	...	-do-
Arsenic (Metal)	(1) In cases, casks or drums. (2) In jars or bottles packed in cases. (3) Must not be carried in bags.	...	...	...	...
Arsenic Disulphide (Arsenic Mono sulphide, Arsenic Sulphide, Rubi Arsenic, Red Arsenic Sulphide, Red Arsenic, Arsenic Bisulphide and Realgar).	(1) In tins, bottles and strong paper packages, packed in cases. (2) In casks, lined with strong paper. (3) In drums.	...	...	...	...

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)
(1)	(2)	(3)	(4)	(5)	(6)
Arsenic Trisulphide (Arsenious Sulphide, Arsenic Sulphide, Yellow Arsenic, Orpiment, Arsenic Tersulphide)	(1) In tins, bottles or strong paper packages, packed in cases. (2) In casks, lined with strong paper. (3) In drums.	...	...	...	...
Arsenic Pentasulphide	(1) In tins, bottles or strong paper packages, packed in cases. (2) In casks, lined with strong paper. (3) In drums.	...	...	...	...
Arsenic Trioxide	(1) In tins, bottles or strong paper packages, packed in cases. (2) In casks, lined with strong paper. (3) In drums.	...	...	...	...
White Arsenic (Arsenious acid, solid)	(1) In tins, bottles or strong paper packages, packed in cases. (2) In casks, lined with strong paper. (3) In drums.	...	...	...	...
Barium Carbonate	(1) In casks. (2) In close-texture sacks. Shall not be carried in sacks, when mixed with water.	...	...	...	...
Barium Chloride	(1) In casks, cases or drums. (2) In gunny bags in which imported.	...	...	...	When packed in gunny bags, shall be accepted as a wagonload consignment and despatched in a separate wagon.
Barium Hydrate (Barium Hydroxide)	-do-	...	...	...	-do-
Benzidine Dihydrochloride	(1) In jars, tins, polythene bags covered with close textured gunny. (2) Wooden casks and steel drums.	...	...	...	...

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)
(1)	(2)	(3)	(4)	(5)	(6)
Calcium Arsenate (Solid)	In casks.	...	...	...	...
Capsules Lachrymatory	(1) In sealed bulbs, contained in hermetically sealed lever-lid metal cylinders, packed in wooden boxes secured with screws. (2) The gross weight of any one package must not exceed 30 kgs.	...	...	May be carried in the brake-van, subject to a limit of 50 kgs. in any one brake-van at any one time. The cases shall be placed as far as possible from other packages in the brake-van.	...
Caoutchoucine and Pyridine	(1) In casks or drums. (2) In tins, in cases or hampers. (3) In jars not exceeding 30 litres capacity. (4) In carboys. (5) In hermetically sealed glass bottles of 500 ml./2.5 litres with outer protection. Carboys shall be packed securely in iron or wooden or wicker-work crates. There must be a minimum thickness of 2.5 cm. of straw packing between the carboy and the crate. The straw packing in the carboy crate, when handed over to the Railway Administration, shall be sufficiently damp to prevent fire. Carboys shall be closed liquid-tight and provided with a well - fitting stopper which shall be well luted. The necks of the carboys shall be exposed.	...	...	...	...

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)
(1)	(2)	(3)	(4)	(5)	(6)
Pyridine Bases	(1) In casks or drums. (2) In tins, in cases or hampers. (3) In jars not exceeding 30 litres capacity. (4) In carboys. (5) In hermetically sealed glass bottles of 500 ml./2.5 litres with outer protection with suitable cushioning materials. Carboys shall be packed securely in iron or wooden or wicker-work crates. There must be a minimum thickness of 2.5 cm. of straw packing between the carboy and the crate. The straw packing in the carboy crate, when handed over to the Railway Administration, shall be sufficiently damp to prevent fire. Carboys shall be closed liquid-tight and provided with a well fitting stopper which shall be well-luted. The necks of the carboys shall be exposed. (6) Pyridine may also be packed in hermetically sealed glass bottles of 500 ml./2.5 litres with outer protection with suitable cushioning materials.	...	...	...	...

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Train (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)
(1)	(2)	(3)	(4)	(5)	(6)
*Concentrated Ethyl Fluid (Tetraethyl lead liquid)	In air-tight drums of very substantial construction, fitted with double screwed bungs with air space between them and protected by two steel rails surrounding them.	All drums including empties, shall be painted in a light colour and bear the following label.— “CONCENTRATED ETHYL FLUID-POISON DO NOT DROP” Keep away from food or food products. Do not breathe fumes, touch contents or swallow. Do not let the contents of this package come in contact with your hands, body or clothes.”	...	...	(1) Shall be accepted as a wagonload consignment and despatched in a separate wagon. (2) The wagon shall not have metal lining to the floor. (3) All drums, including empties, shall be stowed in the wagon bung upwards and secured with chocks or other suitable means. They shall be placed at least one foot away from the walls of the wagon. (4) All handling and transhipment shall be supervised by a competent person deputed by the consignor or the consignee who will issue a certificate to the effect that the person so deputed has adequate technical knowledge of material. The certificate shall be produced for the inspection of Station Masters of the Stations at which the material is handled. Such competent person must be available at all points of loading, transhipment and unloading. He should be equipped with gas masks and other materials for dealing with leakage. He will also be provided with drum skids long enough and strong enough to permit of safe handling for use where necessary.

* For precautions to be observed in the event of leakage, see [Appendix VI/1](#)

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)
(1)	(2)	(3)	(4)	(5)	(6)
Cyanide of Copper solid	(1) In air and water-tight drums.	...	...	...	...
Cyanide of Lime or Cyanogas	(2) In air-tight tin or zinc boxes, packed in substantial wooden cases and iron bound.				
Cyanide of Potassium solid	Not more than 100 kgs. of the commodity shall be contained in any one case.				
Cyanide of Sodium, solid					
Cyanide of Zinc, solid	(3) In hermetically sealed jars or bottles, packed in cases.				
Cyanide of Copper and Zinc (brass Salts), solid					
Dimethylaniline	(1) In drums or cans. (2) In bottles, packed in saw-dust cases.	...	...	...	Shall not be loaded with Goods of a valuable nature likely to be damaged in the event of leakage, e.g., textile fabrics, paper Goods, wood or fibre-board cases.
Dinitro-Chloro Benzene	(1) In glass or earthenware, containers or tins or can of suitable make, packed with suitable protective material in wooden cases. (2) In effectively closed steel drums.	...	...	...	...
Dinitro-Toluene	Shall be packed in effectively closed steel drums which shall bear 'Poison' labels on them.	...	...	...	...

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Train (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)
(1)	(2)	(3)	(4)	(5)	(6)
Ethoxy Ethyl Mercury Chloride Ethyl Mercury Chloride Ethyl Mercury Phosphate Phenyl Mercury Acetate Phenyl Mercury Chloride Phenyl Mercury Urea	(1) In 25 gms. 100 gms. or 400 gms. Plastic bags which shall be packed in wooden cases. The plastic bags shall be capable of withstanding two 4 feet drops on to solid concrete without breakage of the container or any shifting of the contents. One drop shall be made on bottom of bag and the other on either large face. (2) In steel drums conforming to I.S.I. Specification No. 2552-79 lined kraft paper (kraft substance with 70 gms.). Each drum shall not contain more than 50 kgs. of the substance.	...	...	...	...
*Ferro-Silicon	(1) In casks, cases, sacks or drums.	...	Preferably to be carried in open wagons.	...	...
(i) less than 15%	(2) Drums shall be perforated with not less than four 2.5 cm. holes.	...	...	...	...
(ii) 15% to 30%	-do-	...	-do-	...	...
(iii) 65% and over, except as provided below.	-do-	...	-do-	...	...

* The consignor must declare on the Forwarding Note the grade of Ferro-Silicon. The invoice and Way - bill shall also be endorsed with remark, specifying whether the grade is below 15 per cent or at above 15 per cent.

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)
(1)	(2)	(3)	(4)	(5)	(6)
*Ferro-Silicon between 30% to 65%	(1) In casks, cases, sacks or drums. (2) Casks, Cases and drums shall be perforated with not less than four 2.5 cm. holes.	...	Preferably to be carried in open wagons.	...	...
*Ferro-Silicon 80% and over, in fine powder.	In casks or drums	...	-do-	...	...
Aretan	(1) In securely closed glass or earthenware containers or tins or cans and packed with suitable protective material wooden cases. (2) In securely closed drums.	...	...	...	...
Folidol Dust (1.2%)	Quantities upto 50 kgs. shall be packed in new bituminised hessian bags (Kraft Paper laminated jute bag with bitumin as bonding agent) securely sealed. The bag shall be lined inside with kraft paper (kraft substance with 70 gms.)	...	...	Should not be carried in any quantity in the brake-van of mixed or passenger trains.	Should not be carried with food-stuffs or food-stuff empties or any dangerous commodity in the same wagon in goods train.
Folidol Liquid	In leak proof of 100ml., 200ml., 1 litre and 5 litres capacity aluminum containers or bottles with an outage of 5% of rated capacity. The bottles should be fitted with an inner stopper which should be sealed on to the neck of the bottle suitable. The bottles shall be then securely closed by screw cap closures. The closures should be of screw thread Type or secured by a screw thread device.	...	...	...	...
Folidol Liquid	Body and head of aluminum should be at least 99% pure or an aluminum base alloy of equivalent corrosion resistance and physical properties. The aluminium containers shall be wrapped individually in transparent plastic bags (gauge 55) which should be closed by heat sealing and which should contain adequate space to collect leaking material, if any. 25 containers should be put into a moisture proof corrugated cardboard box and 4 such cartons should be packed with saw-dust in a wooden case.	...	...	...	...

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)
(1)	(2)	(3)	(4)	(5)	(6)
Insecticides (other than fluid) containing organo mercurial salts includes Agrosan G.N.	(1) In securely closed glass or earthenware containers or tins or cans and packed with suitable protective material in wooden cases. (2) In securely closed drums. (3) In securely closed barrels and cases of wood lined or coated internally with paper or other suitable material. (4) In securely closed double walled paper bags packed tightly in outer cases.	...	No restrictions as to quantity.	By mixed trains when loaded in wagons no restriction as to quantity but only carried when no goods trains are running.	...
Diazinon 20% (Emulsified concentrate)	In Mild Steel or tin plate containers suitably and properly lacquered from inside conforming to the specification prescribed by ISI under IS – 8190 (Pt. II) 1980.	...	...	...	...
Diazinon 40% (Water Dispersible Power)	In Mild Steel or tin plate containers conforming to the specification prescribed by ISI under IS-8190 (Pt.I) 1980.	...	...	...	...
Lead Oxide	(1) In casks. (2) In close texture sacks.	...	...	...	...
Lead stabilizer for Polyvinyl Chloride	(1) In glass earthenware bottles, packed with insert cushioning and absorbent material or in plastic bottles packed together in a. –	...	...	...	...
Basic lead Sulphate Tribasic Lead sulphate.	(a) wooden box 5 kgs. 90 kgs. (b) wooden barrel 5 kgs. 180 kgs. (c) metal drum 5 kgs. 225 kgs. (d) fibre-board 5 kgs. 40 kgs. (2) In metal drums 450 litres. (3) In plastic liner, in a. – (a) wooden barrel 180 kgs. (b) Plywood or fibre drum 50 kgs. (4) In plastic bags, packed together in a.– (a) wooden box 90 kgs. (b) wooden barrel 180 kgs. (c) metal drum 225 kgs. (d) Plywood or fibre drum 100 kgs. (e) fibre- board box 40 kgs.	...	...	...	...

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)
(1)	(2)	(3)	(4)	(5)	(6)
Lead stearate	Effectively closed. – (1) In glass bottles, packed with inert cushioning material, or in plastic bottles, together in a- (a) wooden box 15 lit. 75 kgs. (b) fibre- board box 5 lit. 30 kgs. (2) In cans, packed together in a – (a) wooden box 75 kgs. (b) fibre- board box 15 lit. 40 kgs. (3) In metal drum 450 lit. (1) In paper or plastic bags, packed together in a – (a) wooden box ... 5 kgs. 75 kgs. (b) fibre- board box... 5 kgs. 40 kgs. (5) In wooden barrel fibre or 200 kgs. plywood drum. (6) In waterproof multiply paper bag 50 kgs.	...	...	...	...
Dibasic lead stearate	-do-	...	...	...	...
Dibasic lead phthalate	-do-	...	...	...	...
Dibasic lead phosphite	-do-	...	...	...	...

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)
(1)	(2)	(3)	(4)	(5)	(6)
Methyl Ester of Benzene Sulphonic Acid	(1) In stoneware jars or glass-stoppered bottles well - secured and standing upright in cases. The inside packing of the cases should be of straw, chaff, or saw-dust mixed with coal, woodash, chalk or sand. (2) In drums or casks. The drums should be air-tight and of suitable construction, fitted with double screw bungs with air space between and protected by two steel rails surrounding them. (3) The gross weight of any one package should not exceed 200 kgs. over the BG and MG and 100 kgs. over the NG.	...	...	...	...
Malathion Dusting powder	In strong bituminised hessian bags.	...	...	...	...
Malathion Dispersible Powder	In strong bituminized hessian bags or M.S. Drums.	...	...	...	...
Malathion Emulsifiable concentrate	In properly closed tin containers not exceeding 5 litres packed in a wooden case with saw-dust not exceeding 25 kgs. in weight.	...	...	...	...
Nitro-Benzol (Nitrobenzene or oil of Mirbane)	(1) In securely closed glass or earthenware containers, packed with effective absorbent material in wooden cases. Each glass or earthenware containers shall not contain more than 10 litres of the substance and not more than 50 litres shall be packed in any case. (2) In effectively closed tins or cans, packed with effective absorbent material in wooden cases. Not more than 50 litres of the substance shall be packed in any one case. (3) In effectively closed steel drums of not more than 450 litres capacity.	...	...	...	Must not be loaded with goods of a valuable nature likely to be damaged in the event of leakage, e.g. textiles fabrics, paper goods, wood or fibre-board cases.

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)									
(1)	(2)	(3)	(4)	(5)	(6)									
Mono Nitro Toluene	(1) In securely closed glass or earthenware containers, packed with effective absorbent material in wooden cases. Each glass or earthenware containers shall not contain more than 10 litres of the substance and not more than 50 litres shall be packed in any case. (2) In effectively closed tins or cans, packed with effective absorbent material in wooden cases. Not more than 50 liters of the substance shall be packed in any one case. (3) In effectively closed steel drums of not more than 450 litres capacity.	...	...	...	...									
Ortho Nitro Toluene	Effectively closed. – For liquids (1) Glass bottles packed with inert cushioning material or plastic bottles together in a; <table><tr><td></td><td>Container Net (Litre)</td><td>Package Gross (Kg.)</td></tr><tr><td>Wooden Box</td><td>15</td><td>75</td></tr><tr><td>Fibre-board Box</td><td>5</td><td>30</td></tr></table> (2) Vans packed together in a – Wooden Box - 75 Fibre-board Box 20 30 (3) Metal drums - 450		Container Net (Litre)	Package Gross (Kg.)	Wooden Box	15	75	Fibre-board Box	5	30	...	...	...	...
	Container Net (Litre)	Package Gross (Kg.)												
Wooden Box	15	75												
Fibre-board Box	5	30												
Nitro – naphthalene Ortho – Dichloro Benzene.	In casks or cases. (1) In effectively closed glass or earthenware containers or tins or cans of suitable make, packed with effective absorbent material in wooden cases and shall not contain more than 45 litres in any one packing. (2) In suitable steel drums effectively closed.	...	...	...	Must not be loaded with goods of a valuable nature likely to be damaged in the event of leakage, e.g. textiles fabrics, paper goods, wood or fibre-board cases.									

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Train (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)
(1)	(2)	(3)	(4)	(5)	(6)
Parathion Tetraethyl Pyrophosphate	(a) Waterable powder (1) In water- proof airtight square tins, conforming to the proposed ISI specification No. I.S.916/1958. Each tin shall contain not more than 12.7 kg. of the substance. (2) In steel drums conforming to the draft ISI specification No. IS – 2552-79. Each drum shall contain not more than 50 kgs. (b) Liquid Emulsion. – In leak proof 100 ml., 200 ml., 1 litre and 5 litre capacity aluminium containers or bottles with an outage of 5% of rated capacity. The bottles should be fitted with an inner stopper which should be sealed on to the neck of the bottle by the use of gasket cement. The bottles should be then securely closed by screw cap closures. The closures should be of screw thread Type or secured by screw thread device. Body and head of aluminium should be at least 99% percent pure or on aluminum base alloy of equivalent corrosion resistance and physical properties. Aluminium containers should be wrapped individually in transparent plastic bags (gauge 55) which should be closed by heat sealing and which should contain adequate space to collect leaking material, if any. 25 bottles should be put into a moisture proof corrugated cardboard box and 4 such cartons should be packed with saw-dust in a wooden case.	...	...	...	...

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Train (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)
(1)	(2)	(3)	(4)	(5)	(6)
Perchloride of Mercury Bi-chloride of Mercury (Corrosive Sublimate)	(1) In casks. (2) In tins, bottles or strong paper packages, packed in cases or hampers.	...	...	...	...
Tartar Emetic	(1) In casks. (2) In tins, bottles or strong paper packages, in cases.	...	...	...	...
Weed Killer (liquid arsenical)	(1) In cans or drums of up to 10 litres capacity securely closed by means of a well fitting cork which must be covered with a soldered capsule. Cans or drums to be further packed in saw-dust in cases. (2) In drums of not less than 10 litres capacity.	...	...	...	...
Weed Killer, liquid, non arsenical and not containing chlorate or Dinitro ortho-cresol or its salts.	(1) In cans not exceeding 5 litres capacity made of tin plate or terne plate, securely closed by means of a screw plug, a "press cap" or a well fitting cork with a soldered capsule packed in saw-dust in cases or in skeleton cases or crates. (2) In cans or drums for one journey only from 5 litres to 45 litres capacity, made of tin plate or terne plate, securely closed by means of a screw plug or a well fitting cork with a soldered capsule. (3) In drums. (4) In wooden casks with metal plate over the bungs.	...	...	...	...
Weed Killer (non-arsenical and not containing chlorate containing – a) Dinitro-ortho-cresol or its Ammonium or Amine Salt. b) Dinitro – ortho-cresol. Sodium salt and at least 25 percent of water.	(1) In tins, packed in cases. (2) In tins, packed in saw-dust in approved fibre-board cases. (3) In drums.	...	...	...	...

Name of Poisonous (Toxic) substances	Packing (See also Rule 607)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 608, 609 and 622.1)	Exceptional or Additional Rules regarding carriage by all Train (See also Rules 614, 615, 616 and 617)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 618)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 619, 620, 621, 623 and 624)
(1)	(2)	(3)	(4)	(5)	(6)
Weed Killer (Powder) non-arsenical and not containing chlorate or Dinitro-ortho-cresol or its salt. Zinc Phosphide	(1) In tins, packed in cases. (2) In tins, packed in saw-dust in approved fibre-board cases. (3) In tins, packed in corrugated fibre-board, wrapped in strong brown paper and secured with cords. The number of tins should not exceed 4 and the total weight of contents 6 kgs. in any one package. (4) In casks, drums or cans. (1) In air-tight tins, packed in cases. (2) In jars or bottles, packed in cases. (3) In drums. (4) In casks.	... All packages must be labelled in bold letters as under. – “Zinc Phosphide, if not kept dry. The contents of this package are liable, if brought into contact with moisture, to give off a spontaneously inflammable gas”.	... ...	... ...	... (1) Vehicles used for transport must be well ventilated and rendered impervious to rain. (2) The packages must be protected by water proof sheeting.

APPENDIX VI/1
Rule 613.7**APPENDIX VI/1**
Rule 613.7**APPENDIX VI/1****Precautions to be taken in the event of leakage of Ethyl Fluid****(Tetra-ethyl Lead)**

Ethyl Fluid (Tetra-ethyl Lead) is an anti-knock compound for addition to gasoline. It is poisonous when it gets into the body, which it may do by absorption through the skin or by inhalation of the vapour. It is heavily coloured by means of a dye (usually yellow, red or blue) so that the leakage is usually discernible. Furthermore, Ethyl Fluid (Tetra-ethyl Lead) has a distinctive and rather sweet smell. If Ethyl Fluid (Tetra-ethyl Lead) can be smelt it is being breathed and men not assigned to deal with the leakage should move away to any place where it cannot be smelt.

2. There should be readily available for use in the event of leakage two (2) sets of protective equipment comprising the following. –

(i) Rubber gloves;

(ii) Rubber boots;

(iii) Rubber apron or oilskin suit; and

(iv) Suitable respirator, which should be either of cannister Type containing a minimum of 500 C.C. of activated charcoal or an air line respirator with an independent fresh air supply. Men assigned to deal with a leakage of Ethyl Fluid (Tetra-ethyl Lead) must wear the prescribed protective equipment.

3. If Ethyl (Tetra-ethyl Lead) comes into contact with the skin, the part affected should be washed clean at once with a solvent such as kerosene followed by soap and water.

4. Any clothing which become contaminated by Ethyl Fluid (Tetra-ethyl Lead) should be removed immediately and cleaned by repeated rinsing in petrol or other dry cleaning fluid.

5. If there is any spill of the fluid inside a wagon, the doors of the wagon must be opened wide to allow maximum ventilation.

After the necessary operations to clean the wagon have been carried out by the representative of the consignee, a certificate must be obtained from his representative that the wagon is free from contamination and fit for general use.

6. The area in which a leakage of Ethyl (Tetra-ethyl Lead) has occurred (including the outside of a drum) should be treated as follows .-

APPENDIX VI/1

Rule 613.7

(i) Flush with kerosene or some other light oil solvent, followed by water. If the surface permits, wash thoroughly with soap, working up as much lather as possible, and again flush with water.

(ii) If it is possible to obtain quickly a supply of common bleaching lime, the area should first be treated generously with a mixture of bleaching lime and water in the form of a thin slurry (NEVER use the dry powder) ; alternatively a 5 per cent solution of sulphur chloride in kerosene may be used.

(iii) If contamination of an absorbent material has taken place, such as wooden flooring, dunnage or other packing material, then such materials must, after treatment as above, be removed and burnt.

7. Shoes and leather covered articles that become contaminated by Ethyl Fluid (Tetra-ethyl Lead) should be discarded and destroyed.

Appendix VI/2**Appendix VI/2**
(Rule 626.2)

S.No.: _____
 Station: _____
 Division/ District: _____
 Railway: _____
 Date: _____

NOTICE TO BE SERVED ON THE CONSIGNEE

To

Dear Sir/ Madam,

Sub: - Invoice/ PWB No. _____ dated _____
 From _____ to _____

I hereby given you notice that the above consignment/ parcel of which you are the consignee is lying undelivered at destination. Please note that if delivery is not effected within seven days from the date of receipt of this letter on payment of all charges due as per details given below, arrangements will be made to dispose of it under Section 83 and 84 of the Railways Act, 1989 (24 of 1989) without any further reference being made to you.

In the event of sale, if the amount due to the Railway on account of freight, demurrage, wharfage etc. is not covered by the sale proceeds, I shall look to you to make good the balance.

Details of charges due –

1. Freight ₹ _____
2. Demurrage ₹ _____
3. Unloading Charges ₹ _____
4. Wharfage at the rate of ₹ _____
 Per 50 kgs. per day from _____ until removal of the consignment.

Yours faithfully,

CHAPTER-VII

CHAPTER VII

RADIOACTIVE MATERIALS

Dangerous Goods under Railways Act, 1989

701. Some materials are known to emit particles which are sometimes electrically charged accompanied by release of energy. Such emission is called radiation. Materials which emit radiation are called radioactive materials. Many Radioactive Materials occur in nature. It is also possible to produce such materials by artificial means. The need for producing such materials by artificial means arises because they find many applications in medicine, industry, agriculture and research. Such materials are defined in the Atomic Energy Act, 1962.

Note: The relevant extract from Atomic Energy Act, 1962 and relevant notification issued under the said Act is given in Appendix–VII/1

General restriction on conveyance of Radioactive materials

702.1. Those Radioactive Materials which are permitted to be transported by rail are listed in Table–VII–Such materials are treated as dangerous goods under the Railways Act, 1989 (No. 24 of 1989) and may be transported by rail only on fulfillment of the conditions and observance of rules contained in this chapter. Radioactive Materials to be booked from and to the nominated stations only.

702.2. Radioactive materials are permitted to be booked by train from and only a limited number of Railway Stations. List of such stations is contained in Appendix–VII/2.

Radioactive Materials to be transported only by authorized persons/institutions

702.3. Radioactive Materials may be transported only by persons/institutions authorized to handle Radioactive Materials. Similarly, the consignee has also to be an authorized person/agency. The authorization to handle Radioactive Materials is issued by Chairman, Atomic Energy Regulatory Board (AERB), Mumbai or Head, Division of Radiological Protection, (DRP), Bhabha Atomic Research Centre (BARC), Mumbai. All the constituent units of the Department of Atomic Energy are authorized to forward packages containing Radioactive Materials for transport by rail.

Note: The authorization is issued to users for handling Radioactive Materials. The term “**handle**” encompasses “**transport**” as defined in the Radiation Rules, 1971 issued under Atomic Energy Act, 1962. Please see Appendix VII/1

Railway's right to refuse to convey

702.4. Notwithstanding anything contained in these Rules, as Railway Administration may notify that it will not convey by rail for the public any particular Radioactive Material specified in Table VII.

Powers of Railway Administration

703. Powers to prevent entry. – Where a Railway Administration suspects that a package containing Radioactive Material being forwarded for transport by rail is not in conformity with any of these Rules, the administration shall not accept the package for transport.

Notice of despatch to be given by the consignor

704.1. (a) Notification of despatch compulsory.—Subject to any exceptions notified by the Railway Administration from time to time, no consignment of Radioactive Materials shall be forwarded to the Railway for despatch to be accepted for conveyance by rail, unless previous notice of the intention to send such consignment has been given as prescribed in Sub-rule 704.2 and unless the Officer-in-charge of the station from which it is proposed to despatch the consignment has intimated in writing that the consignment can be received.

704.1. (b) Consignor to prove he is authorized to handle Radioactive materials and the package is of approved design.—Radioactive consignments may be forwarded for transport by rail only by persons duly authorized by the Atomic Energy Regulatory Board (AERB) or by the Division of the Radiological protection (DRP), Bhabha Atomic Research Centre (BARC) to handle Radioactive Materials. The consignor is required to submit documentary proof to the effect that he is indeed authorized by AERB or DRP, BARC to handle Radioactive Materials. The proforma in which documentary proof is to be submitted is attached as Appendix–VII/3 (A) and VII/3 (B). A photocopy of the documentary proof will be submitted with the consignment to the authorized railway servant at the time of booking, who will attach the same on the back of record copy of the invoice along with the forwarding note. The original of such documentary proof may be called for by the authorized Railway Staff for verification, if necessary. In respect of Type ‘B’ packages, a copy of the certificate of approval of the package design issued by the AERB should be submitted by the consignor along with transport papers at the time of booking of the consignment.

Note: A person/institution who is authorized to handle Radioactive materials is authorized to book Radioactive materials too, since handling a Radioactive material encompasses all operations including transport of the material, as mentioned in the note under Rule 702.3.

704.2. Particulars to be given in the notice.—The notice required under Sub-rule 1 shall be addressed to the Officer-in-charge of the station from which the goods are proposed to be despatched and it shall be sent at least 48 hours before the consignment is brought to the station, unless a shorter period is prescribed by the railway administration concerned. The notice must contain a statement of the following particulars:

1. the true name, description and quantity of the Radioactive material in the consignment;
2. the name and address of the consignor;
3. the name and address of the consignee and a declaration that the consignee is duly authorized by AERB/ DRP, BARC to handle Radioactive material;
4. a declaration that the Radioactive material has been packed and marked in accordance with the Rules laid down in the Red Tariff, i.e. Rules 708 and 710;
5. a declaration by the consignor stating the necessary particulars regarding the consignment including identity of Radioactive material, its strength, radiation level outside the package and where relevant the average surface heat flux.

Note: (1) The forwarding note, complete in all respects, tendered 48 hours in advance of the date of offering of the consignment for booking, shall be deemed to be a proper notice under this rule.

(2) When the Officer-in-charge of the Railway station or shed is in a position to accept the goods, he shall notify the same on the notice board and such notice shall be deemed as proper intimation to the consignor under this rule.

Certificates, Forwarding Notes, etc., to be obtained by Railway staff

705.1. It is incumbent of the Railway staff in the case of every consignment of Radioactive materials mentioned in Table VII to obtain from the consignor a forwarding note (as prescribed in Annexure 'A' to this tariff) complete in all respects. The consignor will also furnish additional declaration as follows in the forwarding note:

"I hereby undertake that if the package is not collected within 30 days of receipt of the package at the destination Railway station, I Shall collect the package at the destination railway station on payment of all railway dues or I shall arrange for the packages to be rebooked to the original forwarding station observing all necessary formalities and undertaking to pay all Railway dues at the time of taking delivery".

705.2. The Railway staff must also obtain the certificate about the consignor being duly authorized and about the approval regarding the design of the Type B package as mentioned in rule 704.1 (b) above.

705.3. The Railway staff should obtain from the consignor the transport emergency card (TREM CARD) wherein action to be taken in the event of an emergency, is briefly listed. The TREM CARD also contains the addresses and telephone numbers of the consignor, the consignee and Head, DRP, BARC, Mumbai. A copy of the TREM CARD shall be made available to the Guard of the Goods train as also the Station Master of the destination station. A specimen of the TREM CARD is included in Appendix VII/4.

705.4. Immediately after booking a consignment of Radioactive material, an advance written intimation should be sent by the Station Master of the forwarding station to the destination station so that the destination station makes proper arrangements to receive the consignment of Radioactive material. This written intimation should also include the names and addresses of the consignor and the consignee. On receipt of such advance notice, Station Master of the destination station should try and inform the consignee requesting him to be prepared to take delivery of the consignment immediately on arrival.

706. Remarks on invoice or Way-bill – Invoices or way-bills issued for the consignments of Radioactive material should have an endorsement to the effect that the documents mentioned in Rule 705 have been obtained from the consignor.

Prohibitions in acceptance

707.1. (a) Mixed consignments prohibited .– Radioactive Materials shall not be accepted as forming part of consignment with other goods, but shall be tendered under as a separate Forwarding Note and be booked as a separate consignment.

(b) Booking and carriages as luggage prohibited. – Radioactive materials shall not be booked as a separate luggage. They are also not allowed to be carried as part personal luggage.

Booking by dearer route prohibited

707.2. Radioactive Materials shall not be accepted for carriage by dearer route, except where:

- (i) the dearer route is selected to avoid break of gauge transshipments, or
- (ii) the normal route for carriage is interrupted.

Radioactive materials are not allowed to be Transhipped or repacked

707.3. Radioactive Materials should be booked through to the destination without involving either transshipment or repacking *en-route*. This applied to booking by goods trains.

Maximum weight of package to be booked as parcel

707.4. Package containing Radioactive material will be booked as parcel only when its weight is 50 kgs. or less. Any package weighing more than 50 kgs. will not be accepted for booking as parcel. Not more than two packages each weighing 50 kgs. or less should be accepted for booking as parcels. The guard of train should keep a note of the packages containing Radioactive materials so as to ensure that the maximum number of such packages loaded van/ vans at any time does not exceed two. The parcels containing Radioactive material shall be carried only by parcel special trains and not by passenger/mixed train.

Freight charges and days of acceptance

708. Whenever, it is necessary to attach empty wagons as guard or dummy wagons for the safety of a train carrying Radioactive materials such wagons will be charged at the rate notified in the Goods Tariff.

Packing

709.1. Radioactive Materials shall be forwarded for transport duly contained in appropriate packages. The cut-away view of a typical package is shown below. The Type of packaging to be provided for each Radioactive material is indicated in Table VII. General descriptions of these packages are given in Appendix – Table VII/5. Specimen sketches of some of the commonly used packages are given in Appendix – VII/5.

Note: - The list of packages described in Table VII and in Appendix VII/5 is not exhaustive. A consignor may forward a package, a description of which is not included in the Table VII or in Appendix VII/5, provided, the package has been duly approved by Chairman, AERB, Mumbai or Head, DRP, BARC, Mumbai.



709.2. No Radioactive material shall be tendered for transport or to be transported unless it is packed in the manner laid down in Table No. VII. As mentioned in Rule 704.1 (b), it is the duty of the consignor to furnish a certificate at the time of tendering a consignment for booking by rail

that in respect of Type 'B' packages, the package design is approved by the AERB. In respect of other packages, the consignor must give a declaration that it has been packed in accordance with the packing approved by the AERB.

**Radioactive Materials to be accepted by authorized railway servant
and at specified place and time**

710. Consignments of Radioactive materials intended to be transported by rail shall be received only.

- (1) by a duly authorized railway servant; and
- (2) at such time between sunrise and sunset and at such places within railway premises as the Railway Administration may specify in this behalf.

Marking and Labelling of Packages by Consignors

711.1. Pictorial label. – The labels to be affixed on packages containing Radioactive material which have been standardized and prescribed in the safety code for transport of Radioactive materials issued by the Atomic Energy Regulatory Board will be applicable for carriage of these materials by rail. There are three categories of labels depending upon the radiation levels outside the package as indicated below: -

- (1) Category I– WHITE indicates the radiation levels outside the package are very low. The transport index of the package is zero.
- (2) Category II – YELLOW indicates that the radiation levels outside the package are slightly higher. The transport index of the package is less than or equal to 1.0.
- (3) Category III– YELLOW indicates that the radiation levels outside the package are higher than in the case of packages bearing Category II – YELLOW labels. The transport index of the package is less than or equal to 10.0.

Any package having transport index of more than 10.0 will not be accepted for booking. The labels are shown in figure 1, 2 and 3. It is the duty of the consignor to affix the proper label conforming to the standard labels given above on every package. The information required to be filled in the label has also to be filled up by the consignor. All the packages are safe for handling. The Labelling is intended for the convenience of the consignor and consignee.

711.2. Labels to be affixed to sides – The labels shall be affixed to opposite sides of the exterior of the package or on the exterior of all four sides, if Radioactive material is transported in a freight container or tank.

Figure 1
Category I – WHITE Label for package



Figure 2
Category II – YELLOW Label for package



Figure 3

Category III – YELLOW Label for package



711.3. Information on the label. – Each label shall be completed with the following information;

(a) **Contents.** –For Low Specific Activity (LSA) Materials, the legend, “LSA–I”, “LSA–II” or “LSA–III”, as appropriate, and for other Radioactive materials, the name of the radionuclide as given in Table VII using the symbols prescribed therein.

Note: Commonly transported LSA materials are materials containing natural thorium, tritiated heavy water, etc.

(b) **Activity.** –The maximum activity of the radioactive contents during transport expressed in units of bequerels (Bq) or curies (Ci) or multiples thereof; for fissile materials, the mass of the material in units of grams (g) or multiples thereof may be used in place of activity.

(c) For tanks and freight containers, the 'contents' and "activity" entries on the label shall bear the information required (a) and (b) above, respectively, totalled together for the entire contents of the tank or freight container. A placard as shown in figure 4 should be affixed on the external surface of tanks.

(d) **Transport Index .** –The consignor shall indicate the transport index in respect of each package forwarded for transport.

Note: Transport Index (T. I.) is the maximum radiation level in the mrem/h* at 1 m from the external surface of the package. The T. I. is indicated in the category II and III–Yellow labels. The T. I. of Category I–White labels should be taken as zero.

(e) **Emergency instructions.** –A label should be affixed on the external surface of each package indicating that in the event of the package having been tampered with or getting damaged during transport or storage the following actions should be taken. –

(i) Wrap the package in a plastic sheet; shift it to a segregated place and cordon nearly 3 m on all sides of the package.

(ii) Emergency instructions through available means of communication such as Telephone /Fax/E-mail

etc. inform the consignor (address given on the label) and also inform DAE Secretariat:

Anushakti Bhawan, C.S.M. Marg, Mumbai

Crises Management Group, DAE (Contact for Radiological Emergency in Public domain)

Tel.Nos. -022-22023978/22021714

E-mail: daeocr@dac.gov.in

(iii) Act as advised by Head, DRP, BARC, Mumbai.

(iv) Now Govt. has included NDRF which is formed to handle such Emergency/Accidental cases.

Note: Certain emergency actions are listed in Appendix–VII/4

Marking by Railway

712. Every package containing Radioactive material shall properly be marked on the exterior with railway marks, indicating the code initials of the forwarding and destination stations, the invoice or way bill number and the number of packages in the consignment.

Responsibility of the Railway Staff

713.1. Booking the consignment. – The railway staff, while accepting any Radioactive consignment for transport by rail, shall make sure that:-

* mrem/h: millirem per hour. Rem is a unit of radiation dose.

- (1) the package is observed to be in a good condition;
- (2) the addresses of the consignor and the consignee and also the gross weight of the package are clearly inscribed on the exterior of the package;
- (3) the consignment is accompanied by a declaration issued by the consignor to the effect that the package is prepared, marked, labelled and being forwarded for transport in accordance with the requirements prescribed by the Atomic Energy Regulatory Board ; and
- (4) the transport documents include information to the carriers wherein the consignor shall furnish a statement regarding actions, if any, that are required to be taken by the carrier. The statements shall include: –
 - (a) Supplementary operational requirements for loading, storage, transport, handling and unloading the package or a statement that no such requirements are necessary;
 - (b) restrictions on the conveyance and any necessary routing instructions; and
 - (c) emergency arrangements appropriate to the consignment.

Q2 (2`5) Q`8 Radioactive materials shall be segregated at booking station, destination and during transit;

- (6) at the destination station, consignments of Radioactive materials shall be delivered immediately on arrival.

713.2. Damaged package.–If a package containing Radioactive material is received at its destination or at a transit storage area, in a damaged condition, the railway staff at the receiving railway station shall:-

- (a) store the consignment in a scheduled part of the cargo storage area;
- (b) restrict occupancy within a distance of 3 m from the package;
- (c) display a playcard prohibiting persons from loitering in the storage room;
- (d) direct persons who might have handled the package to wash their hands thoroughly with a detergent;
- (e) inform Head, Division of Radiological Protection, BARC, Mumbai-400 085 through available means of communication Such as Telephone /Fax/E-mail etc. regarding the incident and also the names of the consignor and the consignee seeking his advice and assistance.
- (f) take such measures as recommended by Head, DRP, BARC, Mumbai; and the consignee may be allowed to take delivery of the parcel.

Handling and Storage

714.1. Package handling by Railway staff.–The packages shall be handled with due care by the Railway staff, making proper use of such handling facilities as may be incorporated in the package design.

714.2. Storage of packages. – (a) Packages containing Radioactive material pending forwarding/ transshipment/delivery shall be kept stored in the storage room in a small area earmarked for Radioactive consignments. This area shall be as far away as possible from spaces occupied by other dangerous goods and by unexposed/undeveloped photograph/X-ray

films or plates. The total number of packages which may be kept stored in a storage area should be so restricted that the sum of the transport indexes does not exceed 50.0. The segregation space between packages containing Radioactive materials and those containing photosensitive films may be filled with other cargo, provided such cargos do not include dangerous goods. Any package received in excess of the limit on transport index of 50.0 should be stored separately, six metres away from the first lot.

(b) **Safe distance to be maintained while handling Radioactive materials.**—Radioactive materials shall be loaded or unloaded as quickly as possible. Persons not connected with the operations should be kept away.

(c) **Handling operations to be done diligently without unnecessary stoppage.**—After the handling of Radioactive material has commenced, the operations shall proceed with due diligence and without unnecessary stoppage.

(d) (i) the packages containing Radioactive materials shall not be thrown/dropped down, rolled or dragged along the ground or floor and care must be exercised to avoid striking them against any hard object.

(ii) Heavy packages should be handled by a team of more than one person each holding the package from a secure place using sling or support, provided on the package.

(e) **Prohibition of Unauthorized Persons.**—No unauthorized person shall be allowed access to any place where radioactive materials are stored or handled or to carriages or wagons in which they are carried.

(f) **Protection from sun, rain or snow**—Packages containing radioactive materials shall not be exposed to sun, rain or snow, nor to be kept on damp ground.

(g) In case transshipment becomes necessary or pending delivery, as the case may be, Radioactive materials must not be allowed to remain at any place of unloading for any unduly long periods.

Delay on the part of the consignee to take delivery

715. If a package containing radioactive material is not taken delivery of by the consignee within seven days of receipt of the consignment at the destination station, the Station Master of the destination station should send a notice to the consignee as well as the consignor asking him to take immediate delivery of the consignment. If despite issue of such notice the package remains on hand and is not taken delivery of by either the consignee or the consignor within 30 days of receipt of the package at the destination station the Station Master of the destination station shall, provided that the package is in an undamaged condition, return such package to the Station Master of the Forwarding station by issuing a “**To Pay**” Railway receipt including ‘**Paid on**’ charges. In such an event, the Station Master of the destination station shall also inform the forwarding station and the consignor in writing about the fact of having returned the consignment of radioactive materials to the forwarding station for delivery to the consignor on collection of all charges and observing all formalities like surrendering RR etc. The Railway shall not be responsible for loss, destruction, damage, deterioration and non-delivery after the termination of transit.

Precaution to be taken for transporting radioactive material in brake - vans

716. As mentioned in Rule 707.4 above not more than two packages, each weighing 50 kgs. or less and containing Radioactive material are permitted to be loaded in the brake van/brake vans of a passenger train. The label of the package shows the transport index of the package being transported. Care should be taken to see that the transport index mentioned on the label is less than or equal to 10.0. In case it is more than 10.0, the package shall not be loaded in

the brake van/brake vans of a passenger train. No other parcels containing either dangerous goods or unexposed/undeveloped photographic films/plates should be loaded in a brake van in which a package containing Radioactive material has been loaded. However, other parcels which do not contain either dangerous goods or unexposed/undeveloped photographic films/plates may be freely loaded.

Type of wagon to be used for transport of radioactive material

717. General Service Wagons can be used for transport of radioactive materials. The total transport index of the contents of an individual wagon should not exceed 50.0.

Transport of radioactive materials by special trains

718. (1) Some Radioactive materials, particulars of which are included in Table VII may be moved by special trains. The consignor in the case of such consignments would be one of the constituent units of the Department of Atomic Energy, Government of India.

(2) These materials are transported in special shielded containers known as casks, each weighing a few tonnes.

(3) The cask shall be loaded on a BWL wagon of appropriate capacity.

(4) The BWL wagon shall be properly examined before it is supplied for loading and declared fit by the TXR.

(5) The load bearing bottom beams of the wagon must be flat without any rivetted joints.

(6) The loading of the cask into BWL wagon will be done by the consignors by their own crane. Similarly, unloading of the consignment will be done by the consignee with their own crane.

(7) BWL wagon should be run as a special train with the following compositions: –

(a) Engine

(b) 4 dummy wagons

(c) SLR or GS or FCS

(d) BWL wagon

(e) Brake-van.

where more than one BWL wagon is to be hauled in a single special train, the additional conditions specified by railways shall apply.

(8) The sketch of a special train is indicated in appendix VII/6.

(9) The special train must be run through to the destination station without involving any break of gauge or augmentation of load *en route*.

(10) The special train shall be escorted by the personnel of the consignor who will travel in the SLR/GS/ FCS.

(11) The escorting party will consist of technical personnel and security personnel, to be nominated by the consignor.

(12) Movement of the special train should be monitored by the Control Office.

Labelling of Wagons

719. Where a wagon is deployed for the transport of Radioactive consignments, a placard shall be displayed on the both the lateral external sides of the wagon. The placard shall conform to the model indicated in the fig. 4.

Figure 4
Vehicle placard

(Minimum external dimensions of the label: 250 mm. x 250 mm.)



Non-receipt of consignments at destination transit delay, theft of or loss of package

720. In every case when a package containing Radioactive materials fails to reach the destination within a reasonable time from the date of booking as shown on the invoice or the way bill, the Station Master of the station to which such package is booked shall report the details of consignment, the available means of communication such as Telephone/Fax/E-mail etc. to the Station Master of the booking station, junctions concerned, and Divisional Railway Manager and Superintendent of Railway Police in whose jurisdiction the booking, transshipping and destination stations are situated and also Head, Division of Radiological Protection, BARC, Mumbai. The loss or theft of a package containing radioactive material when detected should be reported to the Officer-in-charge of the nearest police station, the Departmental Officer concerned, the forwarding station and the consignor and the consignee, if their addresses are available in the connected papers and also the Head, Division of Radiological Protection, BARC, Mumbai-400 085.

Notice of Arrival

721.1. Notice to consignee on arrival of consignment.– The Station Master of the destination station shall ensure that notice of arrival of consignments of Radioactive material, is issued to the consignee in the prescribed form (Appendix VII/7) for all consignments received at his station and not removed on the date of unloading.

721.2. Railway's right to recover wharfage and demurrage not affected by non-issue of arrival notice. – Non-receipt or late receipt of notice of arrival shall not entitle the consignee to exemption from payment of wharfage and demurrage charges, if the goods are not taken delivery of within the free time allowed.

Unclaimed/Unconnected packages

722. Unclaimed/unconnected packages whether or not in a damaged condition shall not be auctioned and shall be disposed off only as recommended by Head, Division of Radiological Protection, Bhabha Atomic Research Centre, Mumbai-400 085 in order to ensure that the consignment containing Radioactive material is stored in a safe place, the Station Master shall book the consignment to Board of Radiation and Isotope Technology (M/s. BRIT) VN Purav Marg, Anushakti Nagar, Mumbai- 400 094 serving Railway Station Dadar by issuing a ‘**To Pay**’ RR and adding the ‘**Paid On**’ charges. The RR should be sent to BRIT by post. The consignment shall then be kept in the safe custody of M/s. BRIT for a period of two years, then it may be disposed off upon obtaining the necessary clearance from the Railways. BRIT shall execute a general indemnity bond with Central Railway for the purpose.

Shunting

723. Precautions to be observed during shunting operations. –Shunting of carriages containing Radioactive Material shall not be carried out except under the superintendence of a duly authorized official who shall ensure that during shunting operations:-

- (1) carriages containing Radioactive material are separated from the locomotive by not less than one carriage not containing dangerous goods or articles of flammable nature;
- (2) the speed of all movements does not exceed 8 kms. per hour;
- (3) no rough, hump, fly or loose shunting take place.

Marshalling

724. Precautions to be observed during marshalling. –(1) The maximum number of carriages containing Radioactive material which may at any time be attached to or be hauled by a train shall be two by a mixed or parcels train and there is no limit on the number of wagons hauled by a goods train.

(2) Carriages or wagons containing Radioactive material should be placed as far away as practicable from the train locomotive, grouping together those carriages/wagons which are permitted to be so grouped.

(3) Carriages containing Radioactive material shall be separated by not less than one carriage not containing Radioactive material from: –

- (a) the train locomotive;
 - (b) the passenger carriages or the brake - van;
 - (c) any other carriages containing other dangerous goods or articles of inflammable nature.
- (4) Carriages containing radioactive materials shall be close-coupled to the adjoining carriages and to each other.

Pre-Payment of freight

725. Subject to any exception notified by the Railway Administration from time-to-time, the freight on all consignment of Radioactive material shall be prepaid.

726. Management of Emergencies and Report of Accidents. – Whenever there occurs any accident affecting a consignment of radioactive material, the person for the time being in charge of the consignment must forthwith advise the departmental officer concerned, Officer-in-charge of the nearest Police Station, the consignor whose address would be inscribed on the package and the Head, Division of Radiological Protection, BARC. At the time of handling the package for clearing the rail track the railway personnel should take, as a precautionary measure, enough care to ensure that package is first wrapped in a polythene sheet and carried to a place about 3 metres from the railway track. During this operation the package should not be held close to the body and this operation should be completed as quickly as possible. The concerned staff must wash their hands with soap and detergent.

Note: – Certain emergency actions listed are in Appendix–VII/4.

727. Saving. –Nothing in this Chapter shall be deemed to detract from the operation of the Atomic Energy Act, 1962 and the rules/notification/orders issued there under, wherever applicable.

Radioactive Materials**Table VII**

Name of Radioactive Material (symbol)	Packing and maximum permitted quantity of contents*													Exceptional or Additional Rules regarding marking and Labelling	Quantity that can be put in an Outer and Inner package	Exceptional or Additional Rules regarding carriage by goods train	Exceptional or Additional Rules carriage in brake van or parcels train	Exceptional or Additional Stowage and Carriage Rules
	TP-1/ mCi	TP-2/ MBq	TP-1A/ TP2A/ mCi	TP-1B/ TP-2B/ MBq	TP-2C		TP-2D		TP-2E		RTP-5B							
					mCi	MBq	mCi	MBq	mCi	MBq	mCi	MBq						
1	2												3	4	5	6	7	
Antimony - 124 (Sb 124)	2	74	2.4	90.6	2.7	102	6	222	35	1,295	184	6,808	..	Please see column 2	Booking as smalls prohibited	Package weight 50 ≤ kg.s. Only 2 pkg./ Parcel van	..	
Arsenic-76 (As 76)	8.3	308	10.8	399	31.6	1,200	64.3	2,400	725	26,000	10 C	377 GBq	..	..	-do-	-do-	..	
Barium-133 (Ba 133)	16	617	34	1,200	305	11,000	1.6 C	60,000	..	..	..	..	..	..	-do-	-do-	..	
Barium-140 (Ba 140)	1.6	60	2.5	91	7.8	289	28.3	1,000	482	17,000	15C	572 GBq	..	..	-do-	-do-	..	
Cadmium-115m (Cd 115m)	1.5	56	1.7	64	2.4	90.2	2.8	103	16.8	623	33.4	1.2 GBq	..	..	-do-	-do-	..	
Caesium-134 (Cs 134)	2.5	92	3.1	114	4.0	148	11.4	422	77.5	2,800	825	30 GBq	..	..	-do-	-do-	..	
Caesium-137 (Cs 137)	6.2	229	7.8	288	10.6	392	34	1,200	283	10,000	2.8 C	103 GBq	..	..	-do-	-do-	..	
Calcium-45 (Ca 45)	100	3,700	..	..	..	..	..	..	..	..	..	..	..	..	-do-	-do-	..	
Carbon-14 (C 14)	1	37	..	..	..	..	..	..	..	..	..	..	..	..	-do-	-do-	..	
Cerium-141 (Ce 141)	50	1,800	220	8,100	9C	333GBq	..	..	..	..	..	..	..	..	-do-	-do-	..	

(1)	(2)												(3)	(4)	(5)	(6)	(7)
Chlorine-36 (Cl 36)	1	37	..	..	..	..	..	..	..	..	..	..	..	..	-do-	-do-	..
Chromium-51 (Cr 51)	111	4,000	355	13,100	1.3C	49.2GBq	..	..	..	..	..	..	..	..	-do-	-do-	..
Cobalt-57 (Co 57)	22	822	24.3	900	49	1,800	74.4	2,700	739	27,000	4.2 C	155GBq	..	..	-do-	-do-	..
Cobalt-58 (Co 58)	3.6	135	4	147	8	297	12.2	450	121	4,000	684	25GBq	..	..	-do-	-do-	..
Cobalt-60 \$ (Co 60)	1.5	55	1.75	64	2	74	3.54	128	19.2	710	60	2,200	..	..	-do-	-do-	..
Copper-64 (Cu 64)	18	666	24.5	900	35.5	1,300	163	12,000	1.4 C	51 GBq	..	..	..	..	-do-	-do-	..
Europium-152 m (Eu 152m)	3.4	128	38.9	1,400	..	..	..	..	..	..	..	..	..	..	-do-	-do-	..
Gadolinium-153 (Gd 153)	50	1,800	219	8,100	9 C	353GBq	..	..	..	..	..	..	..	..	-do-	-do-	..
Gold-198 (Au 198)	8.7	322	11	416	33	1,221	67	2,482	756	28,000	11C	394GBq	..	..	-do-	-do-	..
Hafnium-181 (Hf 181)	8.7	322	11	416	33	1,221	67	2,482	756	28,000	11C	394GBq	..	..	-do-	-do-	..
Holmium-166 (Ho 166)	50	1,800	219	8,100	9 C	353GBq	..	..	..	..	..	..	..	..	do	do.	..
Hydrogen-3 (H 3)	1	37	100	3,700	..	..	..	..	..	..	..	..	..	..	do.	do.	..
Indium-113m (In 113m)	25	900	50	1,800	458	17,000	2.4 C	91,000	..	..	..	..	..	..	do.	do.	..
Iodine-125 (I 125)	29	1,000	687	25,000	..	..	..	..	..	..	..	..	..	..	do.	do.	..
Iodine-131 (I 131)	9.1	333	11.8	436	16	592	59	2,300	455	16,000	8.6 C	318 GBq	..	..	do.	do.	..
Iridium-192\$ (Irs 192)	4	168	5.2	118	7	259	26	962	200	7,400	4C	1.4 TBq	..	..	do.	do.	..
Iron-55 (Fe 55)	150	5,500	164	6,000	169	6,200	174	6,400	652	24,000	703	26,000	..	..	do.	do.	..
Iron-59 (Fe 59)	3.3	122	3.8	140	4.4	162	8.2	303	44	1,600	180	6,600	..	..	do.	do.	..

RADIOACTIVE MATERIALS/240

(1)	(2)												(3)	(4)	(5)	(6)	(7)
Lanthanum-140 (La 140)	1.5	55	1.6	59	2.5	91	3.4	127	15.9	590	28.7	1,100	..	..	- do-	- do-	..
Lead-210 (Pb 210)	29	1,000	687	25,000	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..
Lutetium-177 (Lu 177)	1.8	65	893	33Gq	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..
Manganese-54 (Mn 54)	4.3	157	4.29	159	7.2	267	12.7	470	77.1	2,800	291	11,000	..	..	- do-	- do-	..
Manganese-56 (Mn 56)	2.2	81	2.5	92	2.9	107	5.2	192	28.6	1,058	110	4,070	..	..	- do-	- do-	..
Mercury-197 (Hg 197)	9	336	384	14,000	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..
Mercury-203 (Mg 203)	16	590	100	3.7	750	28GB q	..	..	..	..	..	..	..	..	- do-	- do-	..
Neptunium-237 (Np 237)	333	12,00 0	1 C	37GBq	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..
Nickel-63 (Ni 63)	5	185	..	..	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..
Osmium-191 (Os 191)	50	1,850	..	..	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..
Palladium-103 (Pd 103)	1	37	..	..	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..
Phosphorus-32\$ (P 32)	100	3,700	1	37	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..
Polonium-210 (Po 210)	10	370	..	..	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..
Potassium-42 (K 42)	13	490	15.3	562	16.7	618	28	1,036	147	5,439	480	17,760	..	..	- do-	- do-	..
Praseodimium-142 (Pr 142)	100	3,700	91	3,370	155	5,735	185	6,845	1 C	37GBq	..	..	..	..	- do-	- do-	..
Promethium-147 (Pm 147)	100	3,700	1C	37GB q	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..
Radium-226 (Ra 226)	2.4	88.8	2.7	99.9	3	111	5	185	26	962	85	3GBq	..	..	- do-	- do-	..

RADIOACTIVE MATERIALS/241

(1)	(2)												(3)	(4)	(5)	(6)	(7)
Rhenium-186 (Re 186)	400	14,000	..	..	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..
Rhodium-105 (Rh 105)	200	7GBq	893	33,000	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..
Rhodium-106 (Rh 106)	25	925	32	1,200	95	3,510	196	7,130	2C	74GBq	..	..	..	..	- do-	- do-	..
Rubidium-86 (Rb 86)	5	182	4.5	169	7.7	287	9.2	343	60	2,230	138	5,110	..	..	- do-	- do-	..
Samarium-153 (Sm 153)	200	7,400	877	32,000	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..
Scandium-46 (Sc 46)	1.8	68	1.8	67	3	111	5.3	195	30	1,100	104	3,800	..	..	- do-	- do-	..
Selenium-75 (Se 75)	10	370	9.8	361	15	555	21	776	107	4,000	233	8,000	..	..	- do-	- do-	..
Silver-110m (Ag 110m)	1.4	52	1.3	47	2.2	80	2.6	96	17	625	37	1,000	..	..	- do-	- do-	..
Sodium-22 (Na 22)	2.9	106	2.6	96	4.4	164	5.3	196	34	1,000	74	2,000	..	..	- do-	- do-	..
Strontium-85 (Sr 85)	100	3,700	500	18.5GBq	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..
Strontium-89 (Sr 89)	100	3,700	101	37,000	169	6,200	299	11,000	2C	74,000	..	..	..	..	- do-	- do-	..
Strontium-90 (Sr 90)	100	3,700	1C	37GBq	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..
Sulphur-35\$ (S 35)	100	3,700	1	37	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..

1	2												3	4	5	6	7
Tantalum-182 (Ta 182)	2.9	109	2.68	99	4.5 6	169	5.45	202	35.5	1,300	81.2	3,000	..	..	- do-	- do-	..
Terbium-160 (Tb 160)	4.5	160	5	185	7.7 6	287	9.26	343	60.4	2,200	138	5,100	..	..	- do-	- do-	..
Thallium-204 (Tl 204)	100	3,700	1C	37	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..
Thulium-170 (Tm 170)	200	7,000	637	2,30 0	13C	499GBq	..	..	..	..	..	..	..	..	- do-	- do-	..
Tin-113 (Sn 113)	200	7,000	893	33,0 00	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..
Tungsten-185 (W 185)	100	3,700	..	..	..	..	..	..	..	..	..	..	..	..	- do-	- do-	..
Ytterbium-169 (Yb 169)	25	925	112	4,10 0	5C	185GBq	..	..	..	..	..	..	..	..	- do-	- do-	..
Zinc-65 (Zn 65)	7.4	274	7.4	274	12	446	21	786	121	4,000	418	15GBq	..	..	- do-	- do-	..
Zirconium-95 (Zr 95)	4.9	180	5.3	197	11	398	16	604	162	6,000	918	34GBq	..	..	- do-	- do-	..
Thorium Compounds	Industrial packages (Steel drums)																
Uranium Compounds	Industrial packages (Steel drums)																
Tritiated Heavy Water	Industrial packages (Steel drums) – or Tank vessels																
Spent fuel	Special packages (Type B) (Please see Rule 717)																

*The activities of the radioactive materials are specified in millicuries (m Ci) as well as in megabequerels (M Bq). However, in certain instances where the permitted activities were large values are indicated as C (Curie) and as GBq (Gigabequerel) and TBQ (Terabequerel).

One Curie= 1000 millicurie.

One gigabequerel= 1000 megabequerel.

One terabequerel= 1000 gigabequerel.

Particulars of the packings listed in this Table are given in Appendix-VII/5

\$ These Radioactive materials may also be transported in packages other than as provided in the “Supplement to Table VII”

SUPPLEMENT TABLE VII
RADIOACTIVE MATERIALS

Name of Radioactive Material (Symbol)	Packing and maximum permitted quantity of contents*																Exceptional or Additional Rules regarding marking and Labelling	Quantity that can be put in an outer and Inner package	Exceptional or Additional Rules regarding carriage by goods train	Exceptional or Additional Rules carriage in brake van or parcels train	Exceptional or Additional Stowage and Carriage Rules
	RTP-5A		TP-9A		TP-9B		TP-15@		TP-16		Panbit* Container		GC- 900L*+		GC- 4000A*++						
	Ci	GBq	Ci	GBq	Ci	GBq	Ci	TBq	mCi	MBq	Ci	PBq	Ci	TBq	Ci	TBq					
(1)	(2)																(3)	(4)	(5)	(6)	(7)
Cobalt-60 (Co 60)	..	..	..	..	..	..	..	..	..	..	1,00,000	3	2000	74	6000	222	..	As in column 2	Booking as smalls prohibited	Package weight >3,000kgs not permitted to be carried in brake van.	..
Iridium-192 (Ir 192)	10	370	8	300	20	740	50	1.85	..	..	..	..	..	..	..	..	..	-do-	-do-	Package weight ≤ 50 kgs. Only 2 pkg./parcel van.	..
Phosphorus- 32 (P 32)	..	..	..	..	..	..	..	..	10	370	..	..	..	..	..	..	..	-do-	-do-	-do-	..
Sulphur-35 (S 35)	..	..	..	..	..	..	..	..	30	1110	..	..	..	..	..	..	..	-do-	-do-	-do-	..

@ This Type is a generic description of the packages which are variously described such as Tch/Ops Camera, Teletron SU 50 and Teletron SU 100.

These are B containers.

(Rule 704.1 (B) refers).

+ Gamma Chamber 900L

++ Gamma Chamber 4000A

*These are Type B containers. (Rule 704.1(B) refers).

Appendix VII/1
(Rule 701 & 702.3)

APPENDIX VII/1
(See Note to Rule 701 and 702.3)

Excerpts from Atomic Energy Act, 1962 and a subsequent Notification issued thereunder:
Definition of “Radioactive materials”.

Clause (i) of sub-section (1) of section 2 of the Atomic Energy Act, 1962 (33 of 1962):-
“Radioactive substance” of “Radioactive material” means any substance or material which spontaneously emits radiation in excess of the levels prescribed by notification by the Central Government.

Notification Ref.: Page 5825 The Gazette of India dated October 30th, 1971:-
Mumbai, the 13th September, 1971.

S.O. 4083- In pursuance of clause (i) of sub-section (1) of section 2 of the Atomic Energy Act, 1962 (33 of 1962), the Central Government hereby prescribes that any substance or material which spontaneously emits radiation at a rate corresponding to not less than 0.1 microcurie, or any substance or material in which the emission rate per gram corresponds to not less than 0.002 micro curie, shall be deemed to be a Radioactive substance or Radioactive material except where otherwise specifically provided for in any regulation, notification or order made or issued under the said Act.

[No. F. 6/2(4)/71-(P)]

Excerpts from radiation Protection Rules, 1971:

Definition of “handling” .:

Notification Ref.: Page 4466 of Gazette of India dated October 30, 1971.
Rule 2 Clause (g):

“handle” means manufacture, possess, store, use, transfer by sale or otherwise, export, import, transport for disposal of:

A list of Railway Stations where Radioactive materials are permitted to be booked and delivered

A
Abu road
Achalpur
Adoni
Agra Cantt.
Ahmadnagar
Ahmedabad
Ajmer
Akola
Akot
Alampur
Aligarh
Allahabad Jn.
Alwaye
Amalne
Ambala Cantt.
Ambur
Amethi
Amravathi
Amreli
Amritsar
Amroha
Anakapalle
Anand Jn.
Anantpur
Anjar
Ankleshwar
Anupgarh
Arakkonam
Arsikere
Asansol
Aurangabad
Azamgarh
B
Badami
Bagalkot

Bahalda Road
Bahraich
Balaghat
Ballia
Balrampur
Banda
Bangarapet
Bankura
Bantva
Barabanki
Barauni Jn.
Barddhaman
Bareilly Jn.
Bargarh
Barmer
Barsi Town
Basti
Beawar
Belagavi
Ballari Jn.
Berhampur
Bettiah
Betul
Bhadrachlam Road
Bhadravati
Bhagalpur
Bharuch
Bhatinda
Bhavangar Terminus
Bhilwara
Bhiwani
Bhopal
Bhubaneshwar
Bhuj
Bhusaval
Bidar
Bikaner
Bilaspur

Bina
Birur
Bobbili
Bodhan
Bodinayakanur
Boisar
Bolangir
Bongaigaon
Borivali
Bulandshahr
Burhanpur
Buxar
C
Chaibasa
Chalakkudy
Chalisgaon
Chamrajnagar
Chanda
Chandigarh
Chandrapur
Chengalpattu
Chennai Central
Chhindwara
Chidambaram
Chitradurg
Chittor
Cochin-Harbour Terminus
Coimbatore
Coochbehar
Cuddappah
Cuttack
D
Dadar
Dahanu Road
Dahod
Damoh
Dandeli

Darbhanga
Darjeeling
Datha Road
Datia
Daund
Dehradun
Delhi
Deoria
Dewas
Dhanbad
Dhandhuka
Dhari
Dharmavaram
Dharwad
Dhenkanal
Dholka
Dhone
Dhoraji
Dhule
Dimapur
Dindigul
Disa
Dodballapur
Dumdum Town
Durg
Durgapur
Dwarka
E
Eluru
Ennore
Ernakulam
Erode
Etah
Etawah
F
Faizabad
Faridkot
Fatehpur

Firozpur Cantt.
G
Gadwal
Gajapatinagaram
Gangakher
Gaya
Ghaziabad
Ghazipur City
Gholvad
Girdih
Godhra
Golaghat
Gonda Jn.
Gondia
Gooty
Gopalganj
Gorakhpur Jn.
Gubbi
Gudur
Gulbarga
Guna
Guntakal
Guntur
Gunupur
Gurdaspur
Gurgaon
Guwahati
Gwalior
H
Hajipur Jn.
Hamirpur Road
Handia
Hardoi
Haridwar
Harihar
Hassan
Hathras Jn.
Himmatnagar

Hindupur
Hingoli
Hisar
Hoshangabad
Hospet
Hotgi
Howrah
Hubballi Jn.
Hyderabad Deccan
I
Igatpuri
Indore
Itarsi
J
Jabalpur
Jaipur
Jaisalmer
Jalandhar City
Jalgaon
Jammu Tawi
Jamnagar
Jamner
Janakpur Road
Jangaon
Jasdan
Jaunpur Jn.
Jeur
Jeypore
Junagadh
Jhansi
Jharsuguda
Jhunjhunu
Jind Jn.
Jodhpur Jn.
Jolarpettai
Jorhat
K
K.S.R. Bengaluru City

Kakinada Town
Kalol
Kalyan
Kamareddi
Kanchipuram
Kannur
Kanpur Central
Kanyakumari
Kapurthala
Karaikal
Karjat
Karur
Kasaragod
Kashipur
Kathgodam
Katihar
Katni
Katpadi
Kavali
Kayankulam
Khamgaon
Khammam
Khandwa
Khanpur Ahir
Kharagpur
Khurja Jn.
Kirloskarvadi
Kishanganj
Kodinar
Kolar
Kollam
Kondapalli
Kopargaon
Koregaon
Kota Jn.
Kotdwara
Kottapalem
Kottayam
Kotturu

Kozhikode
Krishnanagar
Kumbakonam
Kurduwadi
Kurnool Town
Kurseong
Kurukshetra
L
Lakshmikantapur
Lalaghat
Lathi
Latur
Ledo
Lonavala
Londa
Lucknow
Ludhiana Jn.
Lunavada
M
Machilipatnam
Madgaon
Madhira
Madurai Jn.
Mahe
Mahendragarh
Mahuva
Malda Town
Maliya
Malkapur
Manamadurai Jn.
Mandasor
Mangalore
Manmad
Marmagao
Mathura Jn.
Mayar
Meerut Cantt.
Mehbubnagar

Mettur
Miraj
Mirzapur
Moradabad
Morbi
Motihari
Mughalsarai
Mumbai C.S.T.
Mumbai Central
Munger
Murshidabad
Muzaffarnagar
Mysuru Jn.
N
Nadiad
Nagapattinam
Nagda
Nagercoil
Nagina
Nagpur
Naihati Jn.
Najibabad
Nandalur
Nanded
Nandgaon
Nandurbar
Nanjangud
Narsinghpur
Narsipatnam
Nasik Road
Naugaon
Naupada
Navsari
Nawada
Nellore
New Delhi
New Jalpaiguri
Naihati Jn.
Nilambur Road

Nimbal
Nizamabad
North Lakhimpur
O
Okha
Ongole
P
Pachora Jn.
Pakaur
Palani
Palanpur
Palayankottai
Palakkad
Palitana
Pandharpur
Panipat
Panjim
Panthnagar
Paramakkudi
Parbhani Jn.
Parvatipur
Patan
Pathankot
Patiala
Patna Jn.
Perambur
Petlad
Pilibhit
Pithapuram
Pollachi Jn.
Puducherry
Porbandar
Pune
Puri
Purnia
Purulia
R

Radhanpur
Rahmatpur
Rahuri
Raibarelli
Raichur
Raiganj
Raigarh
Raipur Jn.
Rajahmundry
Rajapalaiyam
Rajevadi
Rajgarh
Rajkot
Rajnandgaon
Ramannanpet
Rameswaram
Rampur
Rangiya
Ratlam
Raurkela
Rayadurg
Renigunta
Robertsganj
Rohtak
S
Saharanpur
Saktigarh
Salem Jn.
Samastipur
Sambalpur
Sangli
Sasaram
Satara
Satna
Saugor
Sawai Madhopur
Sealdah
Secunderabad
Shahabad

Shahdol
Shahjahanpur
Shajapur
Shegaon
Shimla
Shivamogga
Shivni
Shoranur
Shri Chhatrapati Shahu Maharaj (T)
Shri Ganganagar
Sibsagar
Sikar
Silchar
Silghat Jn.
Siliguri
Sirpur Kaghaznagar
Sitapur
Siwan
Solapur
Srikakulam
Srirangam
Sultanpur
Sulur Road
Surat
Suratgarh
Surendranagar
Surpura
T
Tadpatri
Talap
Tandur
Tarikere
Tarur
Tata Nagar
Tenkasi
Thane
Tindivanam
Tinsukia Jn.

Tirupati
Tiruchchirappalli Jn.
Tirunelveli
Tiruppur
Tiruvannamalai
Titabar
Titlagarh
Thrisur
Thiruvananthapuram Central
Tuticorin
U
Udagamandalam
Udaipur City
Udgir
Ujjain Jn.
Unnao
V
Vadodara
Valsad
Vapi
Varanasi Jn.
Vellore Cantt.
Venkatagiri
Veraval
Vidisha
Vijayapura
Vijayawada
Viramgam
Virar
Virudunagar
Visakhapatnam Town
Vizianagaram
Vriddhachalam
Vyara
W
Wadagaon
Wadi
Walajah Road

Waltair
Warangal
Wardha Jn.
Y
Yadgir
Yavatmal
Yeola
Yerraguntla



GOVERNMENT OF INDIA
BHABHA ATOMIC RESEARCH CENTRE
DIVISION OF RADIOLOGICAL PROTECTION
MUMBAI-400085.

**INDUSTRIAL RADIOGRAPHY
SITE-IN-CHARGE'S CERTIFICATE**

Government of India
Bhabha Atomic Research Centre
Division of Radiological Protection
Mumbai-400085.

Industrial Radiography Site-in-Charge's Certificate

No. Date.....
Certified that

Name.....

Date of birth.....

Academic qualifications.....

Father's Name.....

Present Address.....

Permanent Address.....

Appendix-VII/3(A)
Rule 704-1 (b)

CERTIFICATE No.

Date

Passport size
photograph
to be affixed
here

Signature of the
Site-in-Charge

Employer's address

Employer's address

Employer's address

Employer's address

.....

.....

.....

.....

has satisfied the Radiation Safety requirements for undertaking Industrial Radiography operations at an approved site and has also qualified to act as a safety site-in-charge at an approved Industrial Radiography site.

This Certificate is valid

From To

Issued onsubject to
Conditions attached.

Issuing Authority

Division of Radiological Protection,
Bhabha Atomic Research Centre,
Trombay, Mumbai-40085.

This Certificate is hereby

Renewed upto

Ref : DRP/SS/

BARC, MUMBAI
(Issuing Authority)

This Certificate is hereby

Renewed upto

Ref: DRP/SS/

BARC, MUMBAI
(Issuing Authority)

REMARKS OF INSPECTING OFFICER

Date of incident	Address of site and name of employer	Sr. Nos. of camera and source pencil	Investigation Remarks	Signature with date

CONDITIONS

1. The holder to this certificate is reminded that failure to renew this certificate prior to its expiry will render the certificate invalid. The holder must cease to undertake all radiography operation until it is revalidated by issuing Authority.
2. The holder of this certificate shall produce it on demand for inspection by the issuing Authority or any authorized representative of the said authority. Failure to do so may result in his certificate being revoked.
3. The holder of this certificate shall give prompt information to the Issuing Authority of the theft/loss of his certificate. A police certificate of such theft/loss shall be submitted to the Issuing Authority.
4. The holder of this certificate shall report any change of his employer and/or change of his address to the Issuing Authority.
5. The holder of this certificate shall scrupulously follow stipulated safety precautions while undertaking radiography operations.

Note.- Any breach of these conditions may result
In this certificate being revoked.

Published by Library and Information Services
BARC, Trombay, Mumbai-400085 (INDIA).

Employer's address

Employer's address has satisfied the Radiation Safety requirements for undertaking Industrial Radiography operations at an approved site under authorized user. This Certificate is valid From To Issued on .....subject to conditions attached. Issuing Authority Head Division of Radiological Protection, Bhabha Atomic Research Centre, Trombay, Mumbai-400 085.	This Certificate is hereby Renewed upto Ref: DRP/SS/ BARC, MUMBAI (Issuing Authority) This Certificate is hereby Renewed upto Ref: DRP/SS/ BARC, MUMBAI (Issuing Authority) This Certificate is hereby Renewed upto Ref: DRP/SS/ BARC, MUMBAI (Issuing Authority)
---	--

REMARKS OF INSPECTING OFFICER

Date of incident	Address of site and name of employer	Sr. Nos. of camera and source pencil	Investigation Remarks	Signature with date

This Certificate is issued with the reference of matter published in the Gazette dated 12th July 1980, Part II, Sec. 3 (i), Para 150-509.

DUTIES & FUNCTIONS OF CERTIFIED RADIOGRAPHER AT THE SITE	CONDITIONS
1. To assist the Site-in-charge in carrying out the radiography job at the site in a safe manner. To start the work with the permission of the Site-in-charge and to carry out radiographic job under the general supervision of the Site-in-charge. 2. To always wear the film badge on the site near the chest while working in the radiation field. 3. To regularly maintain an up-to-date record of the personal dose received by him. 4. To inform the Site-in-charge/management in the event of any suspected over exposure to radiation for himself or any incident causing damage to the source/camera while handling or any other alarming situation involving the radiation source. 5. To promptly inform the Site-in-charge in the event of any accidental exposure to the film badge or any misuse of the film badge. 6. To make sure that all the materials such as radiation survey meters, manipulator rod, radiation warning sign boards etc. are available for radiation protection before starting the exposure. 7. To ensure that radiography camera/sources are duly brought back to the storage room after use and stored safely inside the storage room. 8. To make relevant entries in the log book after completion of the day's work. 9. To carry the radiographer's certificate issued by the D.R.P. on his person while handling radiography sources. 10. To maintain cordial relations with other workers of the company at the site and to follow scrupulously any specific instruction issued by the Site-in-charge of R.S.O. in respect of safe handling of radiography source at the site and not to leave the site without obtaining period permission from the Site-in-charge. 11. To promptly the D.R.P. in the event of leaving the institution.	1. The holder of this certificate is reminded that failure to renew this certificate prior to its expiry will render the certificate invalid. The holder must cease to undertake all radiography operations until it is revalidated by issuing Authority. 2. The holder of this certificate shall produce it on demand for inspection by the issuing Authority or any authorized representative of the said authority. Failure to do so may result in his certificate being revoked. 3. The holder of this certificate shall give prompt information to the Issuing Authority of the theft/loss of his certificate. A police certificate of such theft/loss shall be submitted to the Issuing Authority. 4. The holder of this certificate shall report any change of his employer and/or change of his address to the Issuing Authority. 5. The holder of this certificate shall scrupulously follow stipulated safety precautions while undertaking radiography operations. Note. - Any breach of these conditions may result in this certificate being revoked. IF FOUND PLEASE DROP IN ANY POST BOX.

Appendix-VII/4
(RULES 705.3, 710.3 & 726)

Off-normal/emergency situations

Off-normal situations arise occasionally. Certain examples may be:

- (a) Packages may get damaged during handling or storage.
- (b) Fire hazard or a building collapse in the carrier's premises may also cause the damage.
- (c) The package may reach a wrong destination.
- (d) The package may arrive in a damaged condition and/or with its labels defaced.
- (e) The package may remain un-noticed in the storage bay for a long period.
- (f) The consignee may not take delivery of the package.

Inform for help

When an off-normal situation arises, complete information must be despatched without delay to;
DAE Secretariat, Anushakti Bhawan, C.S.M. Marg, Mumbai-400001.
Crisis Management Group DAE (Contact for Radiological Emergency in public domain)
Tel.Nos:022-22023978/22021714
E-mail: daecr@dae.gov.in

or

Contact for Radiation Emergency;

Emergency Communication Centre (ECR) of
Crisis Management Group (CMG)
DAE, Anushakti Bhawan, Mumbai-400039.
Tel. No.: 022-22023978/22830441/22862595
Mob. No. 09969201364
Telefax No.: 022-22830441
E-mail.: daecr@dae.gov.in
(This centre operates 24X7),

Unclaimed/Unconnected packages

A package which has not been cleared by the consignee shall not be sold, auctioned or otherwise disposed off. The package should be kept duly stored under safe custody and the matter should be referred to Head, RPSD, BARC, Mumbai-400085 for advice on the future course of action. Please see Rule 722.

Damaged Packages

If a package is damaged, assume that radioactive contamination would have occurred. The following precautions should be observed:

- Do not panic.
- Rescue the injured and fight fire, if any.
- Do not touch the package.
- Isolate the package by cordoning off about 3 m. of surrounding area.
- Inform the consignor, consignee and Head, DRP, BARC, Mumbai.
- Instruct those, who might have handled the package, to wash their hands thoroughly before they leave the place.
- Shift the package to a place where it can be kept in safe custody pending receipt of instructions from the Head, DRP, BARC, Mumbai.

(Rule 705.3)
(Appendix-VII/4 continued)
SPECIMEN

TREMCARD

Cargo	--	--	--	--	--	--	--	--	--	Cobalt-60
										Encapsulated source
Nature of hazard	--	--	--	--	--	--	--	--	--	Radioactive material
										Potential external exposure
Emergency action	--	--	--	--	--	--	--	--	--	(1) Inspect the package visually, If it is intact, ensure onward journey in the same or another vehicle. (2) In case of fire, fight fire from a distance. (3) If the package appears to be damaged, cordon off a distance of 3 metres around the package. (4) Obtain the names and addresses of persons who might have been exposed to radiation and convey the particulars to the:- Emergency Communication Centre (ECR) of Crisis Management Group (CMG) DAE, Anushakti Bhawan, Mumbai. Tel. No.: 022-22023978/22830441/22862595 Telefax No.: 022-22830441 E-mail.: daeecr@dae.gov.in (This centre operates 24X7)
Telephone for advice and assistance										For advice and assistance contact:- (a) Consignor (Address) Tel: Fax..... E-mail: OR/AND Senior Manager, Technical Sales Operations, Board of Radiation & Isotope Technology, V.N. Purav Marg, Deonar, Mumbai-400 094. Tel: 022-2555 1976 Telex: 011 72212 BRIT IN (b) Head, Division of Radiological Protection, Bhabha Atomic Research Centre, Mumbai-400 085. Tel: 022-2551 1976 022-2551 4910 Ext. 2217 Fax: 011 71017 BARC IN (c) The Chairman, Nuclear Material Transport, Emergency Management Committee, IG (Security), DAE, Anushakti Bhavan, C.S.M. Marg, Mumbai-400 039. Tel: 022-2202 3978

Appendix-VII/4 (concl.)**DO's and DON'Ts**

The following DO's and DON'Ts summarise the safe procedure for handling and storage:

- Handle package with care.
- Use appropriate Mechanical handling facilities, if required, such as carts, trolleys, cranes and forklifts, as per special handling instructions.
- Limit stacking of packages such that the sum of the transport indexes of all the packages in a stack does not exceed 50. (The transport index of a package is written on the labels of certain packages.)
- Despatch packages without delay.
- Ensure physical security against loss or pilferage.
- Don't load or stack packages together with other dangerous goods such as explosives and inflammables and with undeveloped photo or X-ray films.
- Don't stack packages in areas routinely occupied by passengers or the public.
- Don't sit or socialize near packages.

If the sum of the transport indexes accumulated in a storage area exceeds 50.0, then the packages should be stored in more than one stack such that (a) the sum of the transport indexes in any stack does not exceed 50.0 and (b) the stacks are separated by a distance of at least 6m. from one another.

Appendix-VII/5
(Rule 709.1)

Particulars of each Type of package

- I. Radioactive materials which are listed in Table VII would be contained in a package which may belong to one of the following classifications. The limits on the contents of each Type of package are notified by the Atomic Energy Regulatory Board. The choice of the package Type would be determined by the actual contents to be transported. Subject to the provisions of Sub-Rule 707.4 any of the following types of packages may be booked as parcel for transport in a parcel train.
- II. Particulars relating to some of the packages are given below. A sketch of each of these packages is provided at the end of the appendix.

(1) Package identification	..	..	...	..	..	: TP-1.
Package Type	..	..	...	..	..	: Type A.
Outer dimensions	..	..	...	..	..	: 12 X 12 X 17 cm.
Radiation shielding provided	..	..	...	..	..	: Nil.
Weight	..	..	...	..	..	: 0.5 kg.
Materials of construction						
Inner container	..	..	..	..	..	: Cylindrical tin container housing a thermocol pipe section.
Outer container	..	..	..	..	..	: Cardboard box 2 mm. thick.
(2) Package Identification	..	..	...	..	..	: TP-1A
Package Type	..	..	...	..	..	: Type A.
Outer dimensions	..	..	...	..	..	: 12 X 12 X 17 cm.
Radiation shielding provided	..	..	...	..	..	: 4 mm. or 7 mm. lead
Weight	..	..	...	..	..	: 1 kg.
Materials of construction						
Inner container	..	..	..	..	..	: Cylindrical lead container surrounded by thermocol housed within a cylindrical tin container.
Outer container	..	..	..	..	..	: Cardboard box 2 mm. thick.
(3) Package identification	..	..	...	..	..	: TP-1B
Package Type	..	..	...	..	..	: Type A.
Outer dimensions	..	..	...	..	..	: 12 X 12 X 17 cm.
Radiation shielding provided	..	..	...	..	..	: 4 mm. or 7 mm. lead
Weight	..	..	...	..	..	: 2 kgs.
Materials of construction						
Inner container	..	..	..	..	..	Lead containers surrounded by thermocol housed in a cylindrical tin container.
Outer container	..	..	..	..	..	: Cardboard box 2mm. thick.
(4) Package identification	..	..	...	..	..	: TP-2.
Package Type	..	..	...	..	..	: Type A.
Outer dimensions	..	..	...	..	..	: 21 X 21 X 20 cm.
Radiation shielding provided	..	..	...	..	..	: Nil
Weight	..	..	...	..	..	: 1 kg.

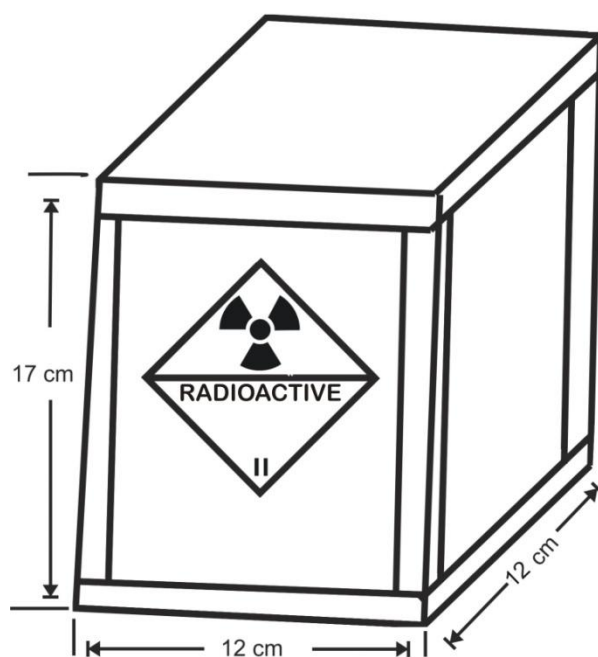
Materials of construction						
Inner container	..	..	..	..	..	: Cylindrical tin container housing the thermocol shreddings.
Outer container	..	..	..	..	..	: Deal wood box 12 mm. thick.
(5) Package identification	..	..	...	..	..	: TP-2A.
Package Type	..	..	...	..	..	: Type A.
Outer dimensions	..	..	...	..	..	: 21 X 21 X 20 cm.
Radiation shielding provided	..	..	...	..	..	: 4 mm. or 7 mm. lead.
Weight	..	..	...	..	..	: 2 kgs.
Materials of construction						
Inner container	..	..	..	..	..	: Cylindrical lead container surrounded by a thermocol pipe section housed in a cylindrical tin container.
Outer container	..	..	..	..	..	: Deal wood box 12 mm. thick.
(6) Package identification	..	..	...	..	..	: TP-2B
Package Type	..	..	...	..	..	: Type A.
Outer dimensions	..	..	...	..	..	: 21 X 21 X 20 cm.
Radiation shielding provided	..	..	...	..	..	: 4 mm. or 7 mm. lead.
Weight	..	..	...	..	..	: 3 kgs.
Materials of construction						
Inner container	..	..	..	..	..	: Cylindrical lead container surrounded by a thermocol pipe section housed in a cylindrical tin container.
Outer container	..	..	..	..	..	: Deal wood box 12 mm. thick.
(7) Package identification	..	..	...	..	..	: TP-2C.
Package Type	..	..	...	..	..	: Type A.
Outer dimensions	..	..	...	..	..	: 21 X 21 X 20 cm.
Radiation shielding provided	..	..	...	..	..	: 13 mm. lead.
Weight	..	..	...	..	..	: 4 kgs.
Materials of construction						
Inner container	..	..	..	..	..	: Cylindrical lead container surrounded by a thermocol pipe section housed in a cylindrical tin container.
Outer container	..	..	..	..	..	: Deal wood box 12mm. thick.
(8) Package identification	..	..	...	..	..	: TP-2D
Package Type	..	..	...	..	..	: Type A.
Outer dimensions	..	..	...	..	..	: 21 X 21 X 20 cm.
Radiation shielding provided	..	..	...	..	..	: 20 mm. lead.
Weight	..	..	...	..	..	: 6 kgs.
Materials of construction						
Inner container	..	..	..	..	..	: Cylindrical lead container surrounded by a thermocol pipe section housed in a cylindrical tin container.
Outer container	..	..	..	..	..	: Deal wood box 12 mm. thick.

(9) Package identification	..	..	...	..	..	: TP-2E.
Package Type	..	..	...	..	..	: Type A.
Outer dimensions	..	..	...	..	..	: 21 X 21 X 20 cm.
Radiation shielding provided	..	..	...	..	..	: 30 mm. lead.
Weight	..	..	...	..	..	: 10 kgs.
Materials of construction						
Inner container	..	..	..	..	..	: Cylindrical lead container surrounded by a thermocol pipe section housed in a cylindrical tin container.
Outer container	..	..	..	..	..	: Deal wood box 12 mm. thick.
(10) Package identification	..	..	...	..	..	: Steel drum.
Package Type	..	..	...	..	..	: Industrial Package.
Outer dimensions	..	..	...	..	..	: Nominal Range 65-225 litres.
Radiation shielding provided	..	..	...	..	..	: Nil
Weight	..	..	...	..	..	: Variable.
Materials of construction						
Inner container						: Sheets for body and heads to be low carbon, open hearth, electric or other suitable steel and to be adequate gauge in relation to the capacity of the packaging. Body seams to be welded; head and chime seams to be welded or double seamed; flanges for closing welded into place or secured by other suitable means.
	..	..	..	..	..	: Mild Steel.
Outer container	..	..	..	..	..	: Same as above.
(11) Package identification	..	..	...	..	..	: RTP 5A
Package Type	..	..	...	..	..	: Type A.
Outer dimensions	..	..	...	..	..	: 26 X 26 X 38 cm.
Radiation shielding provided	..	..	...	..	..	: 50 cm. lead.
Weight	..	..	...	..	..	: 35 kgs.
Materials of construction						
Inner container	..	..	..	..	..	: Cylindrical lead container.
Outer container	..	..	..	..	..	: Teak wood box 25 cm. thick.
(12) Package identification	..	..	...	..	..	: RTP 5B.
Package Type	..	..	...	..	..	: Type A.
Outer dimensions	..	..	...	..	..	: 33 X 33 X 36 cm.
Radiation shielding provided	..	..	...	..	..	: 50 mm. lead.
Weight	..	..	...	..	..	: 45 kgs.
Materials of construction						
Inner container	..	..	..	..	..	: Cylindrical lead container.
Outer container	..	..	..	..	..	: Deal wood box 38 cm. thick.
(13) Package identification	..	..	...	..	..	: TP-9A
Package Type	..	..	...	..	..	: Type A.
Outer dimensions	..	..	...	..	..	: 40 X 36 X 55 cm.
Radiation shielding provided	..	..	...	..	..	: 55 mm. lead + 35 mm. Al

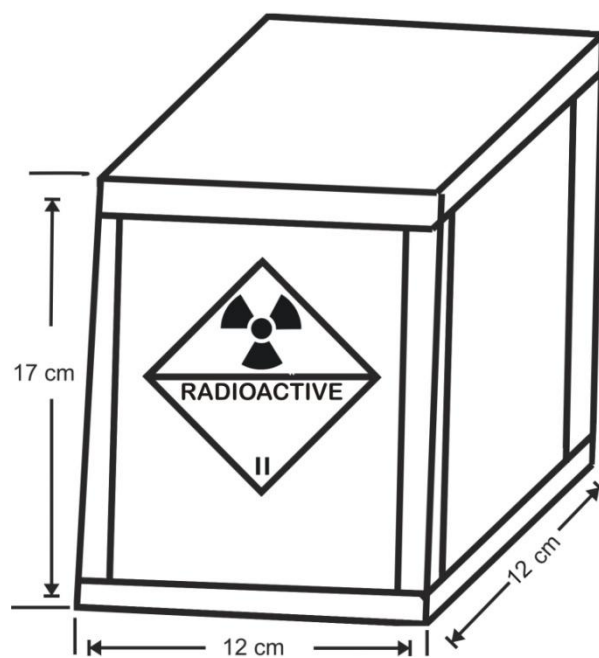
						casting.
Weight	..	..	...	..	..	: 55 kgs.
Materials of construction						
Inner container	..	..	..	..	..	: Round-shaped lead container.
Outer container	..	..	..	..	..	: Teak wood box 25 cm. thick.
(14) Package identification	..	..	...	..	..	: TP-9B.
Package Type	..	..	...	..	..	: Type A.
Outer dimensions	..	..	...	..	..	: 50 X 50 X 55 cm.
Radiation shielding provided	..	..	...	..	..	: 81 mm. lead + 6 mm. mild steel.
Weight	..	..	...	..	..	: 65 kgs.
Materials of construction						
Inner container	..	..	..	..	..	: Round-shaped lead container.
Outer container	..	..	..	..	..	: Teak wood box 25 cm. thick.
(15) Package identification	..	..	...	..	..	: TP-16.
Package Type	..	..	...	..	..	: Type A.
Outer dimensions	..	..	...	..	..	: 37 X 37 X 38 cm.
Radiation shielding provided	..	..	...	..	..	: 5 mm. lead.
Weight	..	..	...	..	..	: 9 kgs.
Materials of construction						
Inner container	..	..	..	..	..	: Cylindrical lead container surrounded by dry ice housed in tin container.
Outer container	..	..	..	..	..	: Cardboard box 2 mm. thick.
(16) Package identification	..	..	...	..	..	: Panbit-Container.
Package Type	..	..	...	..	..	: Type B.
Outer dimensions	..	..	...	..	..	: 124 X 124 X 130 cm.
Radiation shielding provided	..	..	...	..	..	: 250 cm. lead and more.
Weight	..	..	...	..	..	: 5500 kgs.
Materials of construction						
Inner container	..	..	..	..	..	: Cylindrical lead container.
Outer container	..	..	..	..	..	: Wooden crate.
(17) Package identification	..	..	...	..	..	: Gamma Chamber-900L.
Package Type	..	..	...	..	..	: Type BA.
Outer dimensions	..	..	...	..	..	: 130 X 120 X 170 cm.
Radiation shielding provided	..	..	...	..	..	: 228 mm. lead and more.
Weight	..	..	...	..	..	: 3000 kgs.
Materials of construction						
Inner container	..	..	..	..	..	: Cylindrical lead container.
Outer container	..	..	..	..	..	: Wooden crate.
(18) Package identification	..	..	...	..	..	: Gamma Chamber 4000 A.
Package Type	..	..	...	..	..	: Type B.
Outer dimensions	..	..	...	..	..	: 140 X 130 X 153 cm.
Radiation shielding provided	..	..	...	..	..	: 255 mm. lead and more.
Weight	..	..	...	..	..	: 5360 kgs.
Materials of construction						
Inner container	..	..	..	..	..	: Cylindrical lead container.
Outer container	..	..	..	..	..	: Wooden crate.
(19) Package identification	..	..	...	..	..	: Tech./Ops Camera.

Package Type	..	..	...	..	..	: Type B.
Outer dimensions	..	..	...	..	..	: Height : 24 cm.
						:Width : 12 cm.
Radiation shielding provided	..	..	...	..	..	: Depleted uranium.
Weight	..	..	...	..	..	: 20.4 kgs.
Materials of construction						
Inner container	..	..	..	..	..	: Depleted uranium.
Outer container	..	..	..	..	..	: Mild Steel.
(20) Package identification	..	..	...	..	..	: Teletron SU 100.
Package Type	..	..	...	..	..	: Type B.
Outer dimensions	..	..	...	..	..	: 150 mm. X 115 mm.
Radiation shielding provided	..	..	...	..	..	: Depleted uranium.
Weight	..	..	...	..	..	: 15 kgs.
Materials of construction						
Inner container	..	..	..	..	..	: Depleted uranium.
Outer container	..	..	..	..	..	: Stainless Steel.
(21) Package identification	..	..	...	..	..	: Teletron SU 50.
Package Type	..	..	...	..	..	: Type B.
Outer dimensions	..	..	...	..	..	: 150 mm. X 100 mm.
Radiation shielding provided	..	..	...	..	..	: Depleted uranium.
Weight	..	..	...	..	..	: 12 kgs.
Materials of construction						
Inner container	..	..	..	..	..	: Depleted uranium.
Outer container	..	..	..	..	..	: Stainless steel.

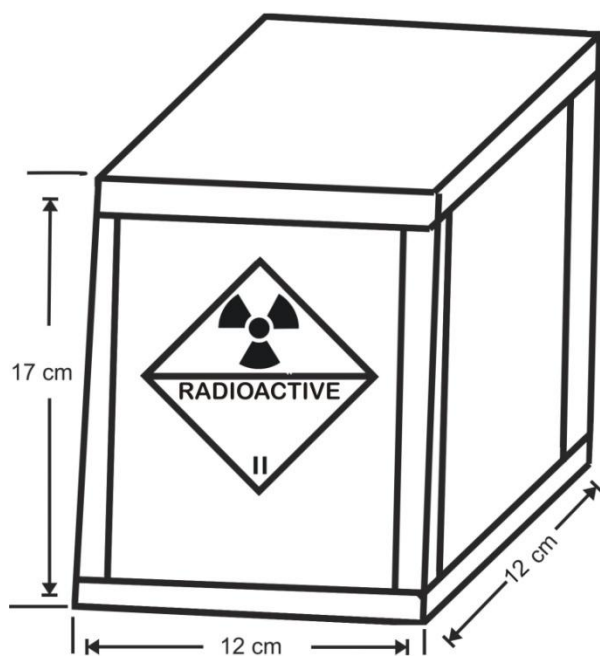
- III. Particulars of certain typical packages which are commonly used in India for transport of radioactive materials are given above. A consignor may book a package (containing radioactive material) which may be different from those described above. Such a package may be accepted by the Officer-in-charge of the Railway station provided the consignor produces a copy of the letter of permission for the transport of the consignment issued by Chairman, AERB, Mumbai or Head, DRP, BARC, Mumbai.



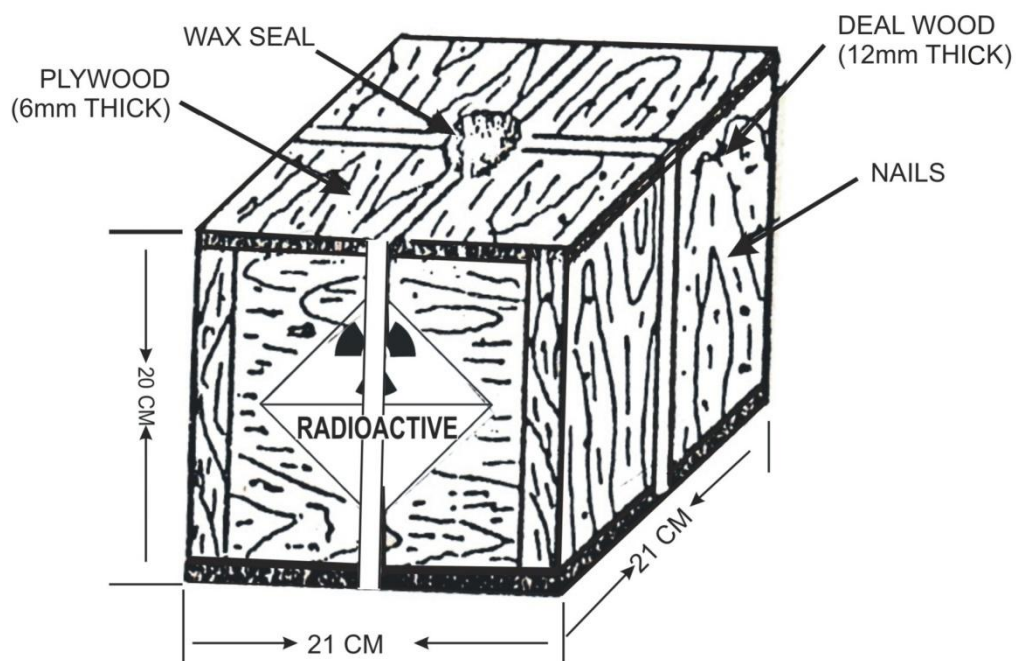
Packing Code TP-1 WEIGHT 0.5 Kgs.



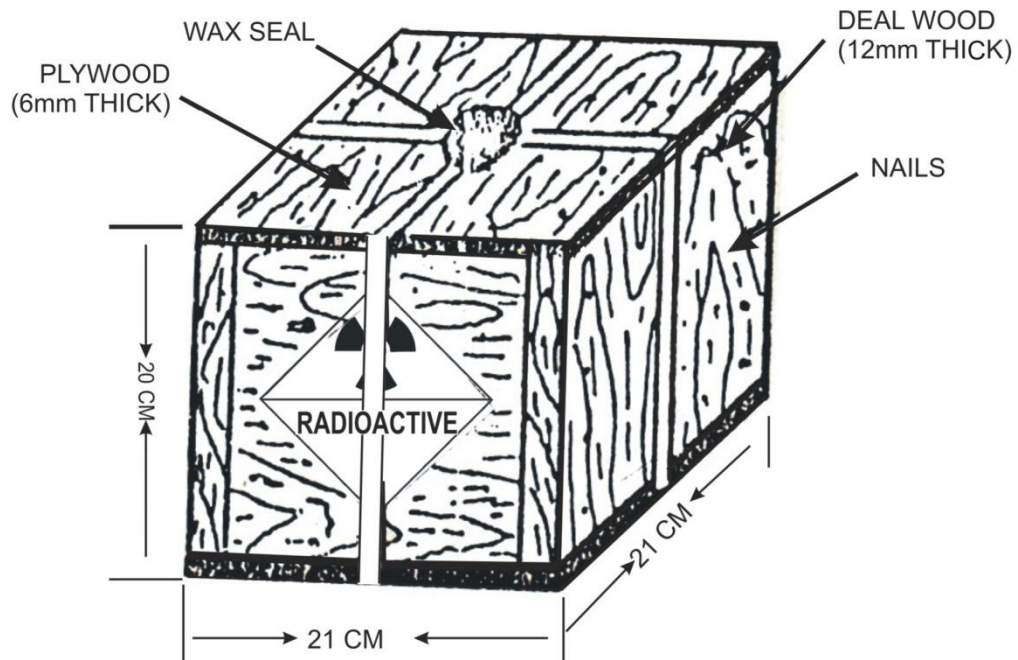
Packing Code TP-1A WEIGHT 1 Kg.



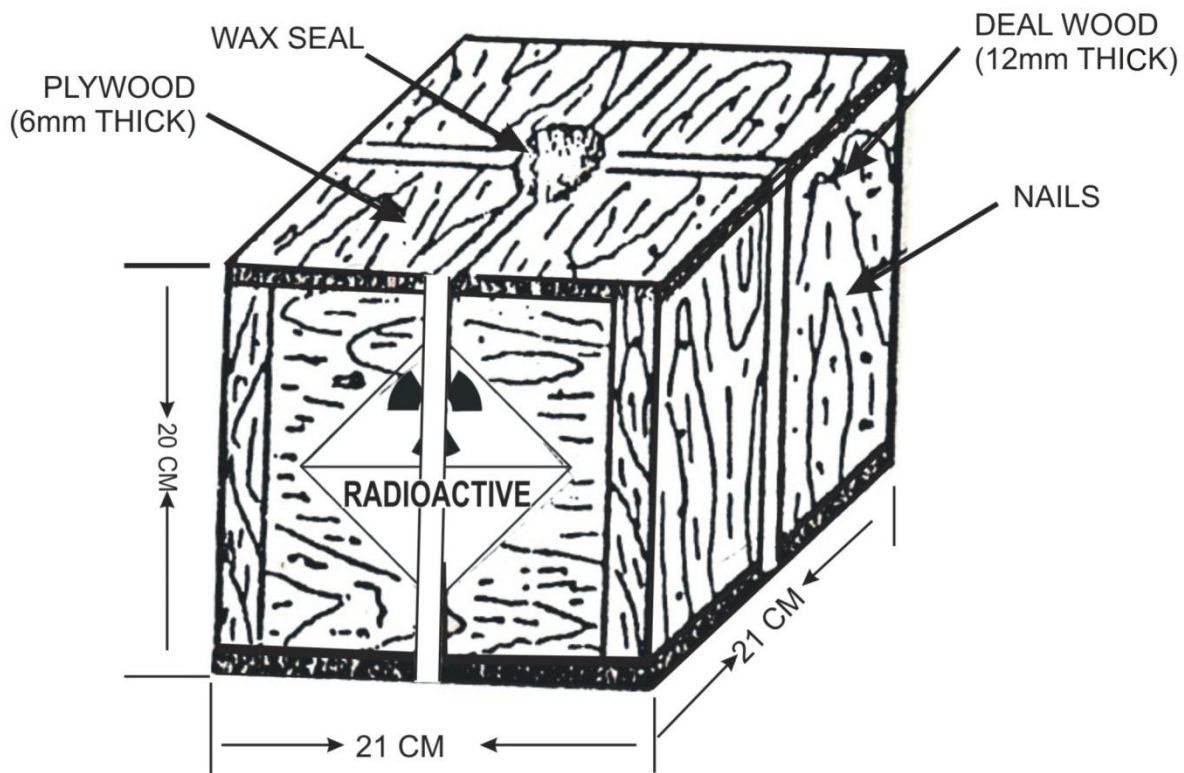
Packing Code TP-1B WEIGHT 2 Kgs.



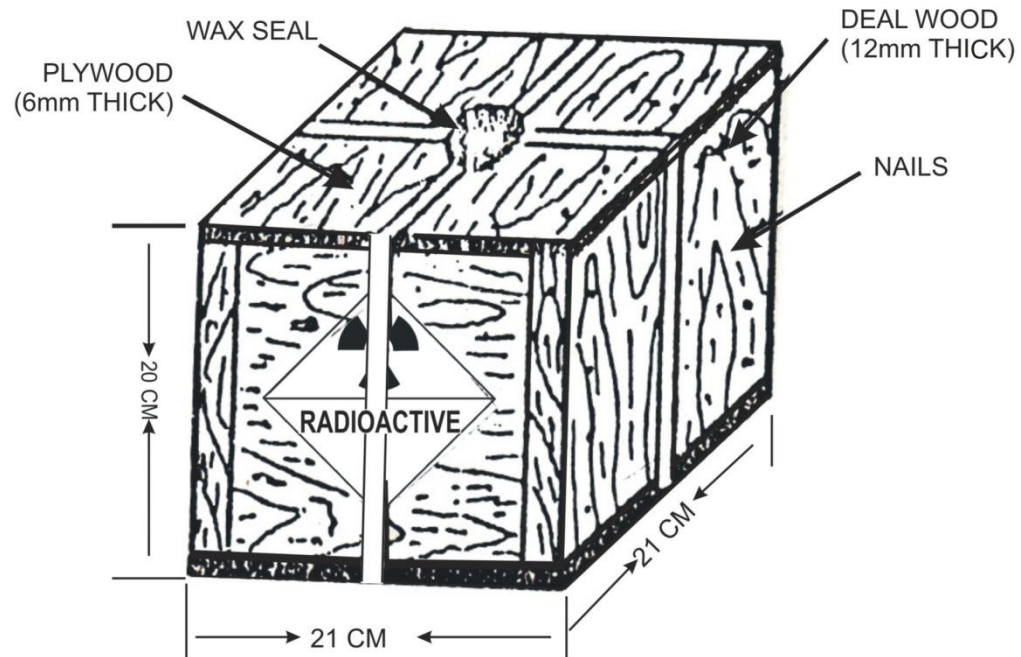
Packing Code TP-2 WEIGHT 1 Kg.



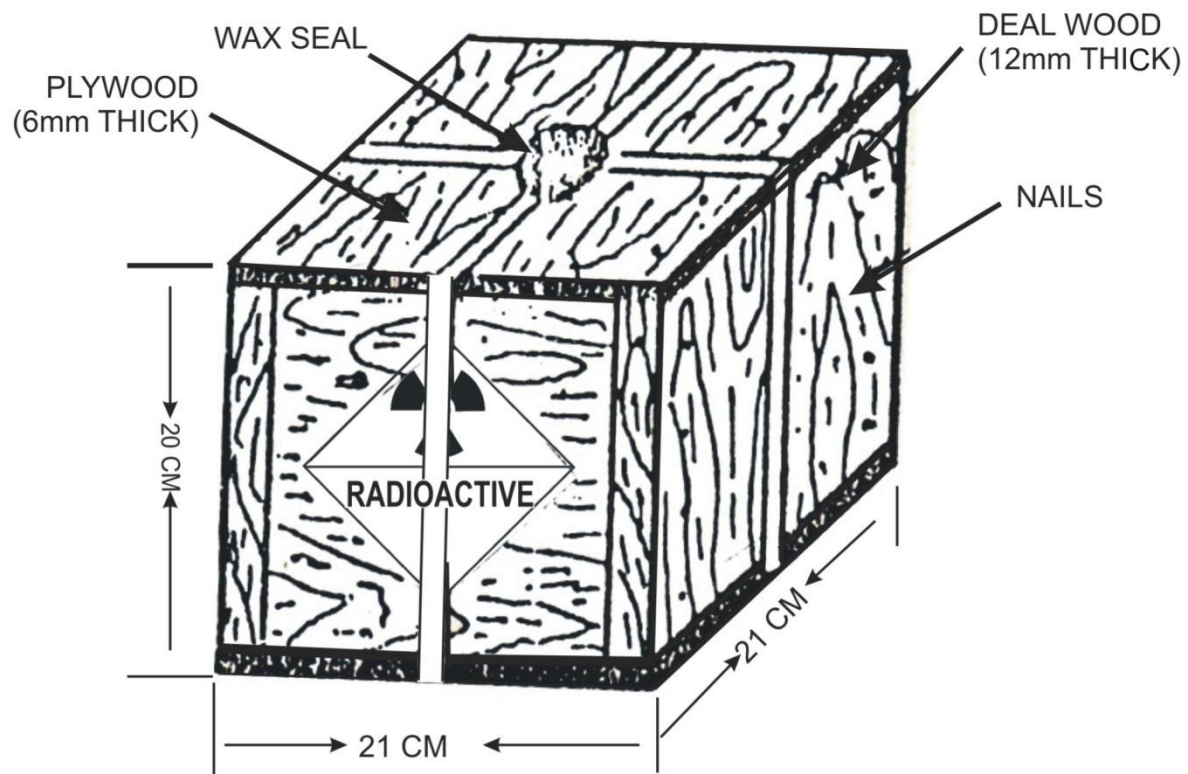
Packing Code TP-2A WEIGHT 2 Kgs.



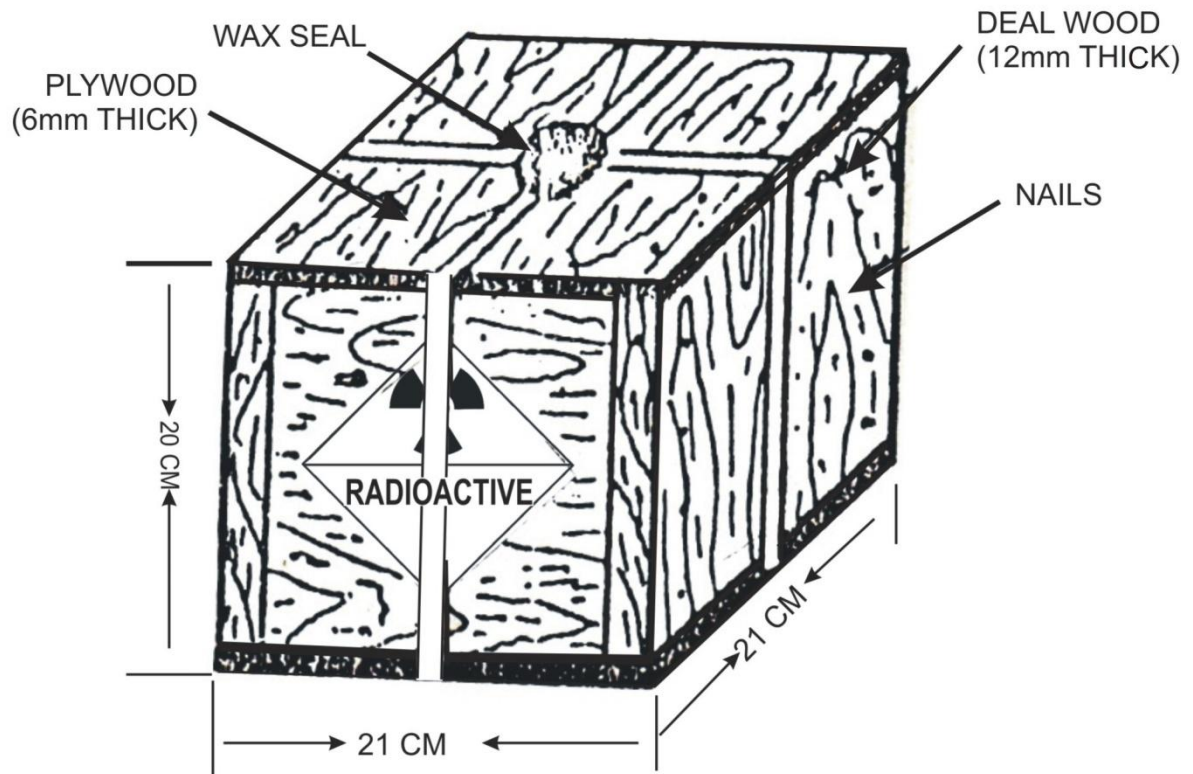
Packing Code TP-2A WEIGHT 3 Kgs.



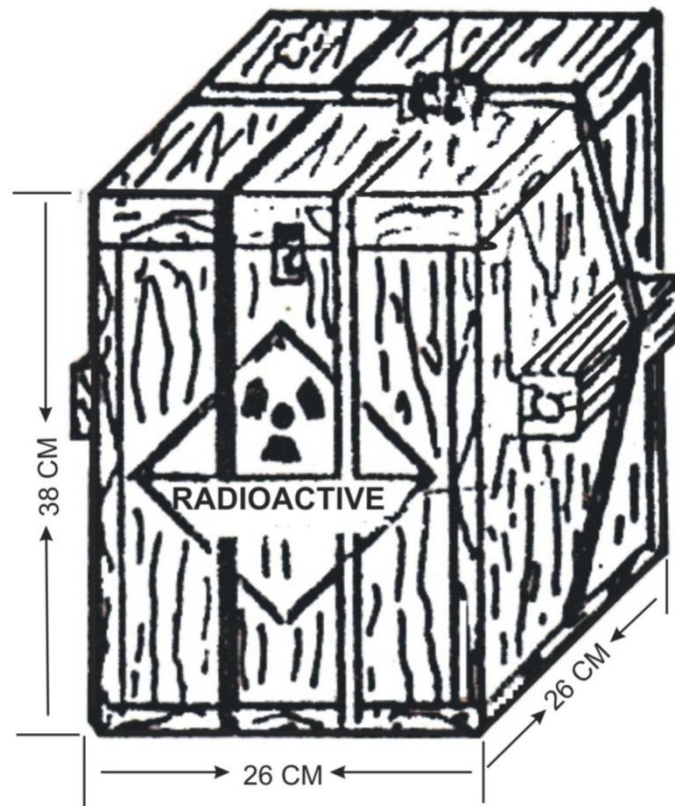
Packing Code TP-2C weight 4 Kgs.



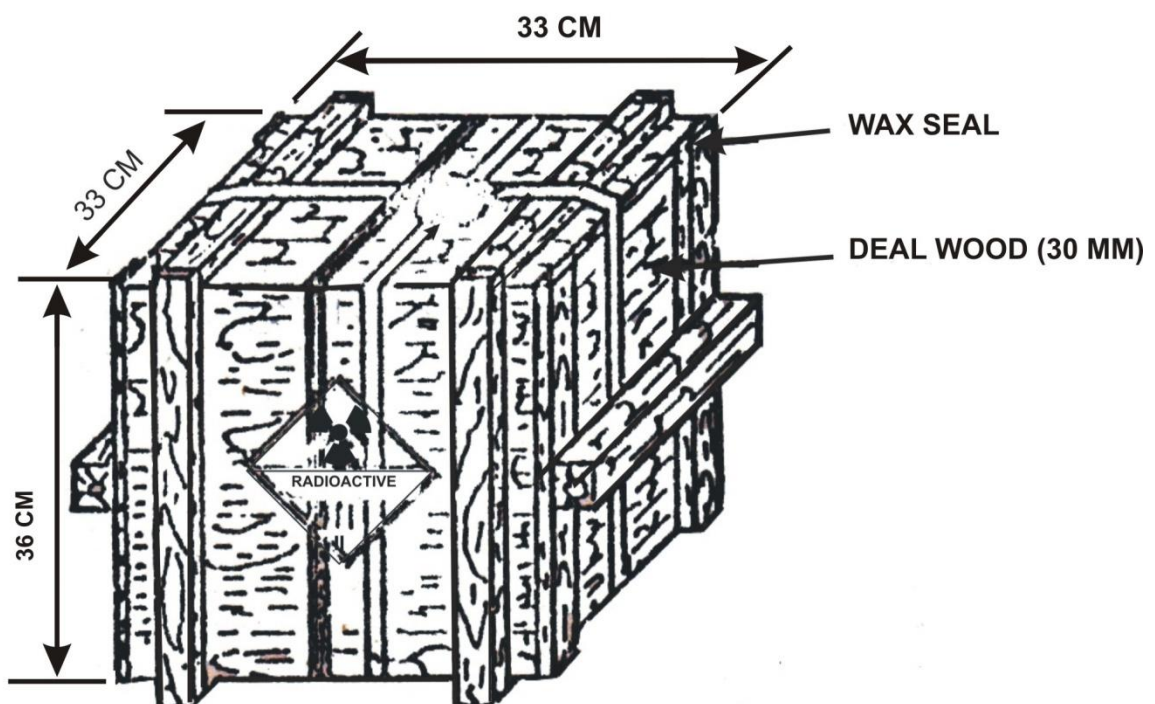
Packing Code TP-2D weight 6 Kgs.



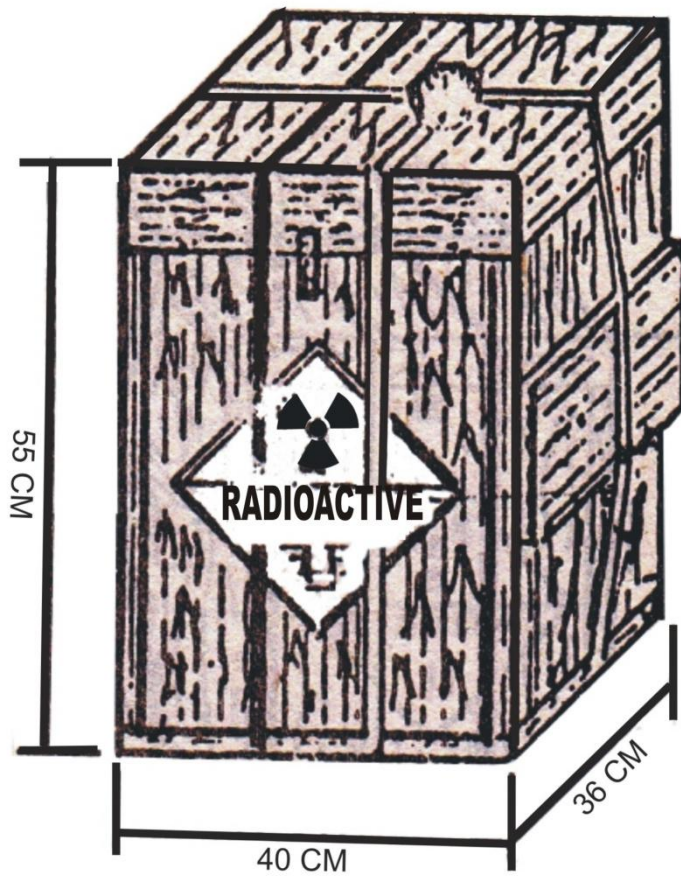
Packing Code TP-2E weight 10 kgs.



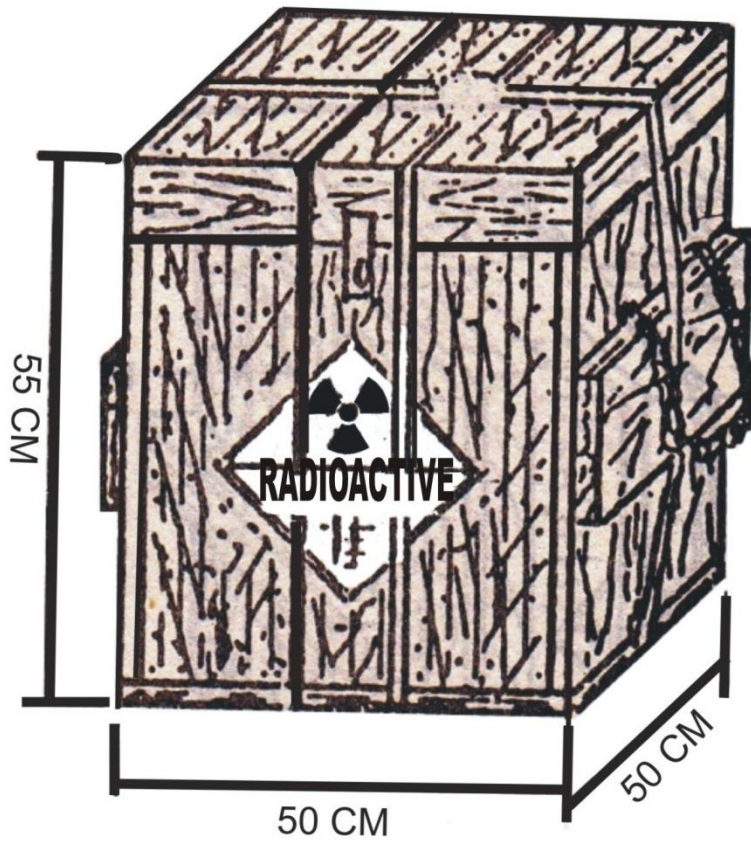
Packing Code RTP-5A weight 35 kg.



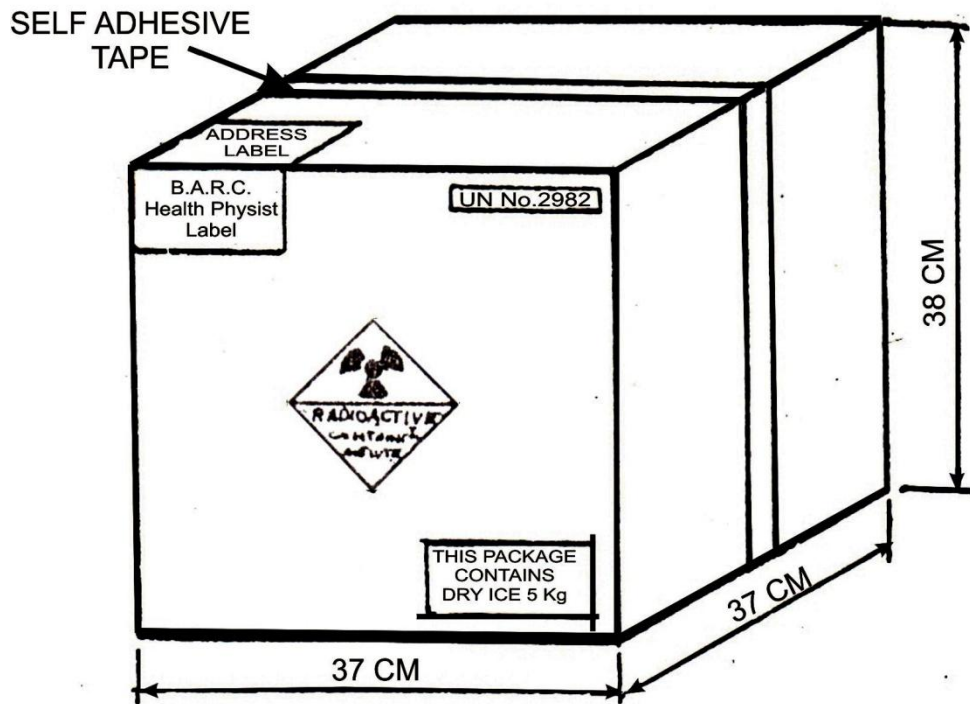
Packing Code RTP-5B weight 45 kg.



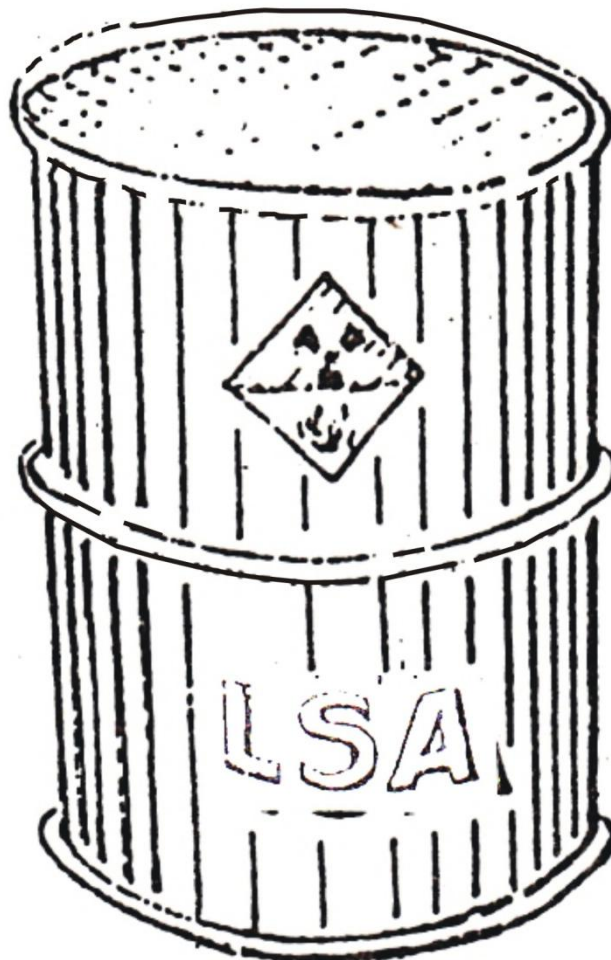
Packing Code TP-9A weight 55 kg.



Packing Code TP-9B weight 65 kg.

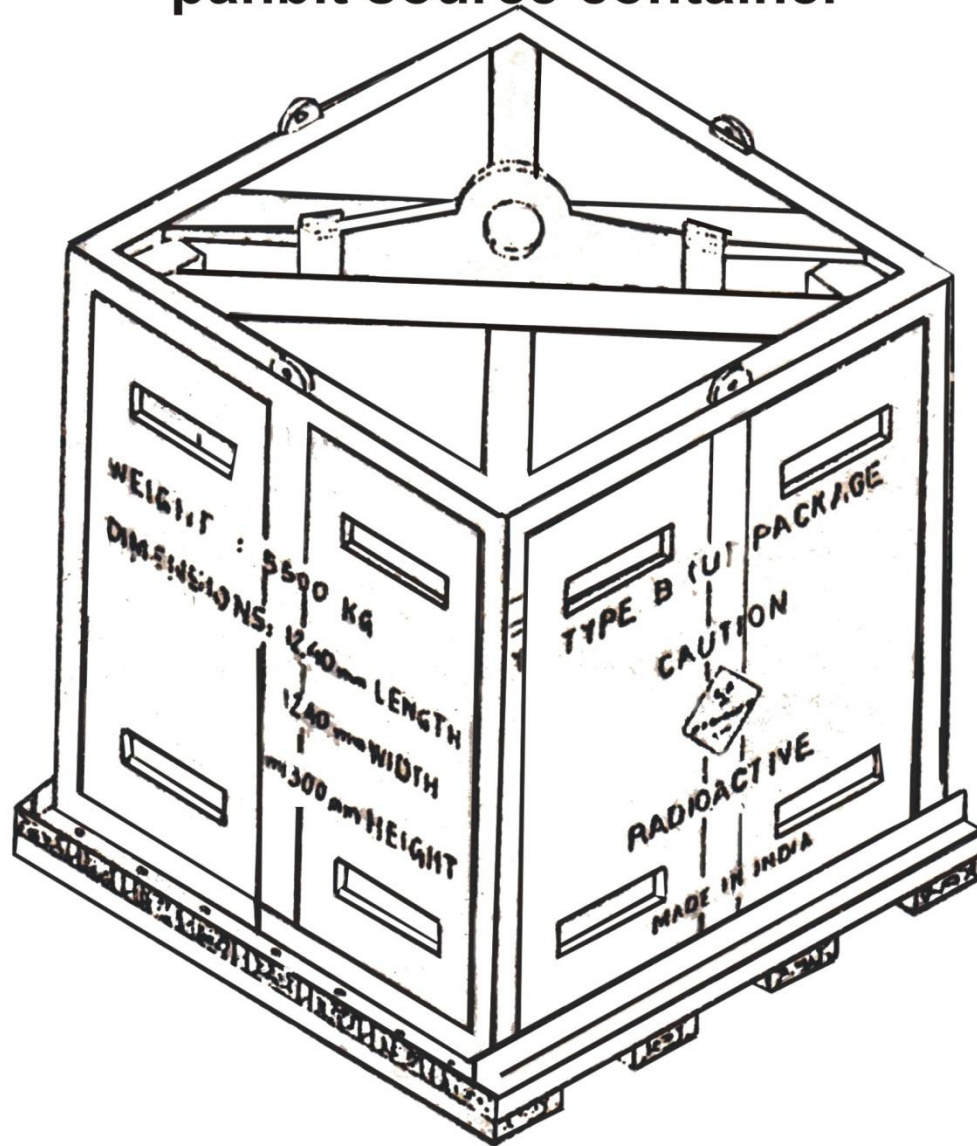


Packing Code TP-16 weight 9 kg.

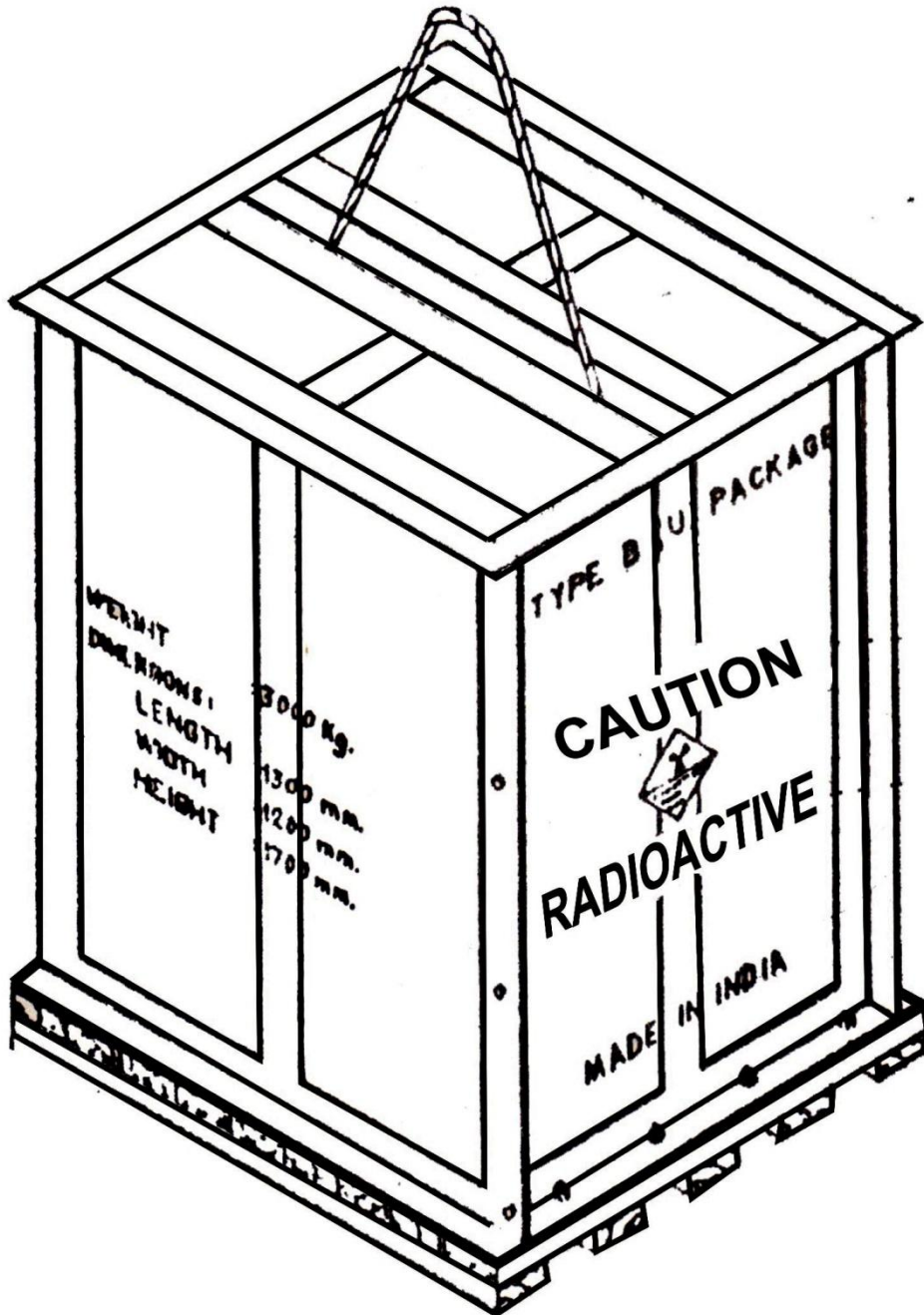


Industrial Package (Steel drum)

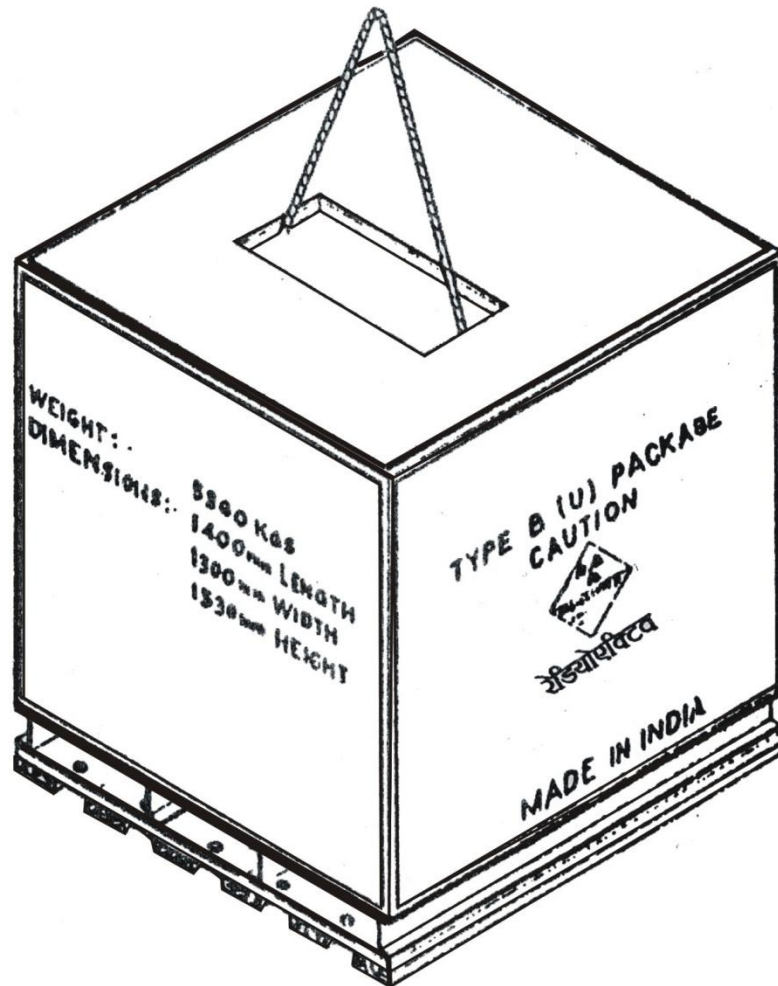
Transportation crate for panbit source container

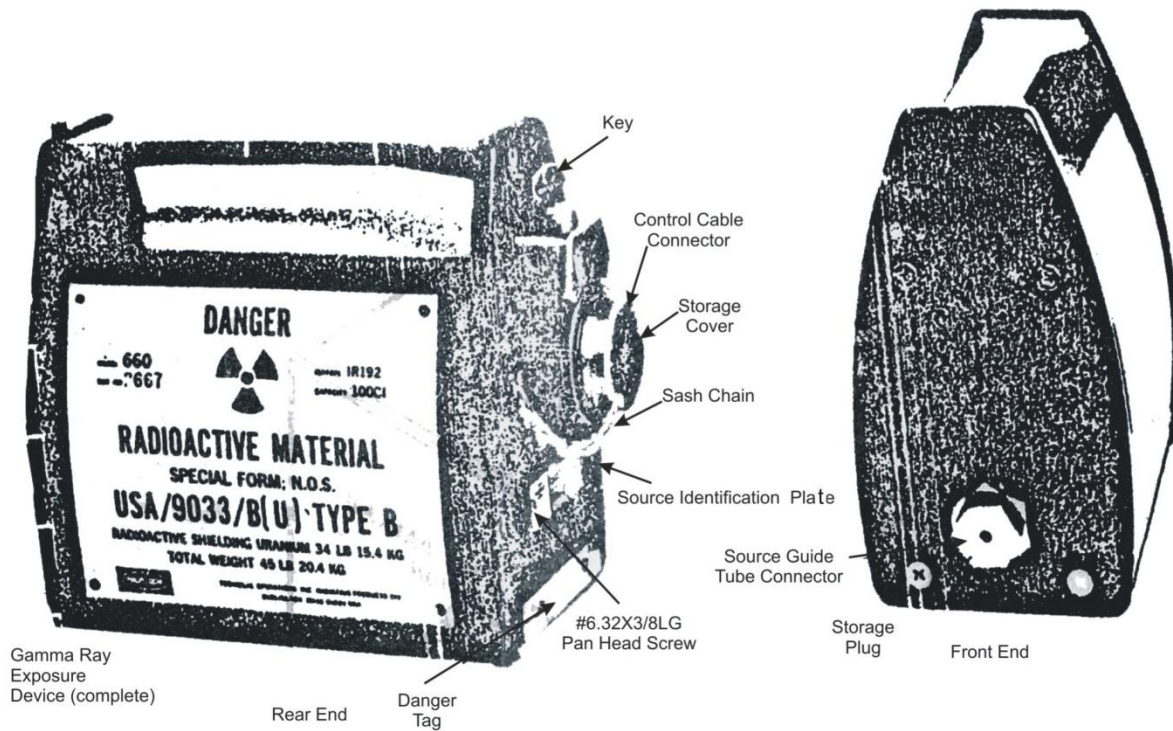


Transportation crate for Gamma Chamber 900L Unit



Transportation crate for Gamma Chamber 4000A Unit





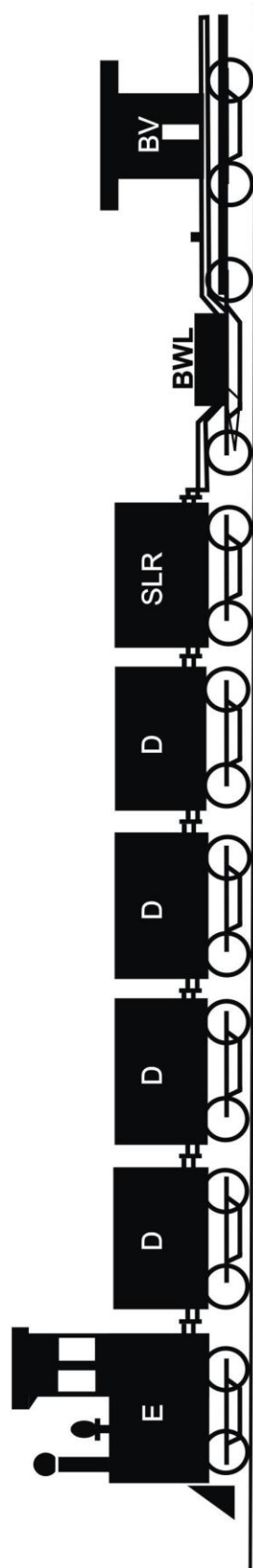
Tech Ops Camera Type package



**Teletron Camera (CSU 50/SU 100)
Type B package**

Appendix VII/6
Rule 718.8

A PROPOSED COMPOSITION OF SPECIAL TRAIN



D DUMMY WAGON

BV BRAKE VAN

BWL WAGON OF APPROPRIATE CAPACITY

E ENGINE

Appendix-VII/7

(Rule 721.1)

APPENDIX VII/7

S. No. :
Station :
Division :
Railway :
Date :

COMMERCIAL DEPARTMENT

Advance Notice of Arrival of Consignment of Radioactive Materials

To

Dear Sir/Madam,

.....
..... have been forwarded to
you from..... Station by
Under Railway Receipt No..... dated.....

2. Will you please arrange to take delivery on arrival of the consignment on production of the Railway Receipt.

3. Please note that if the package is not collected by you within 30 days from the date of this communication, the package would be returned to the consignor and thereafter the Railways are not liable to bear any expenditure for non-delivery of the above package to you.

4. Invoiced freight to Pay/Paid Rs.....

Yours faithfully,
Goods Clerk/ Station Master

CHAPTER VIII

CHAPTER VIII

ACIDS AND OTHER CORROSIVES

Dangerous goods under Railways Act, 1989 (24 of 1989)

801. Acids and other corrosives, specified in Table VIII shall be deemed to be dangerous goods under the Railways Act, 1989 (24 of 1989).

General restrictions on conveyance of Acids and other corrosives

802.1. Acids and other corrosives to be accepted only under the Rules laid down. – A Railway Administration shall accept only the Acids and other corrosives specified in Table VIII for conveyance by rail, subject to the rules and in accordance with the conditions set forth in this Chapter.

802.2. Railway's right to refuse to convey. – Notwithstanding anything contained in these rules, a Railway Administration may notify that it shall not convey by rail for the public any particular acid or other corrosive specified in Table VIII, and after the issue of such a notice, no such acid or other corrosive shall be accepted for conveyance by the said Administration on section or stations in respect of which such notification has been issued.

802.3. (1) Restrictions on Railways. – On the following section of the South Eastern Railway acids and other corrosives may be carried only under special arrangements:-

- (a) Rupsa— Talband;
- (b) Bankura— Damodar

(2) **Mumbai Port Trust Railway.**— Acids and other corrosives in full wagon loads shall be dealt with on the Mumbai Port Trust Railway under special arrangements.

(3) **Central Inland Water Transport Corporation Ltd.**— Acids other corrosives shall be accepted at owner's risk only.

(4) **Eastern Railway.**— Acids and other corrosives shall not be carried over the narrow gauge section of the Eastern Railway, including the Light Railways.

Notice of despatch to be given by sender

803.1. Notice of despatch compulsory.—Subject to any exceptions notified by the Railway Administration from to time, no consignment of acids and other corrosives shall be forwarded to the railway for despatch or accepted for conveyance by rail, unless—

(a) previous notice of intention to send such consignment has been given as prescribed in rule 803.2 and;

(b) the Officer-in charge of the station from which the consignment is proposed to be despatched, has intimated in writing that the consignment can be received.

803.2. Particulars to be given in the notice. – The notice required under rule 803.1 shall be addressed to the Officer-in-charge of the station from which the goods are proposed to be despatched and it shall be sent at least 48 hours before the consignment is brought to the station, unless a shorter period is prescribed by a Railway Administration concerned, and the notice shall contain a statement of the following particulars, namely:-

- (1) the true name, description and quantity of the acids and other corrosives in the consignment;
- (2) the name and address of the consignor;
- (3) the name and address of the consignee;
- (4) a declaration that the acids and other corrosives have been “Packed and marked in accordance with the Rules laid down in the Red Tariff”, i.e., rules 807 and 808.

Note- (1) The forwarding note, complete in all respects, tendered 48 hours in advance of the date of offering of the consignment for booking, shall be deemed to be a proper notice under this rule.

(2) When the Officer-in charge of the railway station or shed is in a position to accept the goods, he shall notify the same on the notice board and such notice shall be deemed as proper intimation to the consignor under this rule.

Certificates, Forwarding Notes, etc., to be obtained by railway staff

804. It shall be incumbent on the railway staff in the case of every consignment of acids and other corrosives, mentioned in Table VIII to obtain from the consignor a Forwarding Note complete in all respects in the form specially prescribed. (For form see Annexure ‘A’).

Prohibitions in acceptance

805.1. Mixed consignments prohibited. – Acids and other corrosives shall not be accepted as forming part of a consignment with other goods, but shall be tendered under a separate Forwarding Note and booked as a separate consignment, and acids other corrosives which cannot be loaded together shall also be tendered under separate forwarding Notes and be booked as separate consignments.

805.2. Consignments in bulk involving break-of-gauge transshipment not normally accepted. – Acids and other corrosives in bulk shall not be accepted for conveyance by rail between any two stations involving break-of-gauge transshipment, except under special arrangement.

Acids and other corrosives to be accepted by authorized Railway servants and at specified place and time

806. Consignments of acids and other corrosives intended to be transported by rail shall be received only-

- (i) by a duly authorized railway servant; and
- (ii) at such time between sunrise and sunset and at such place and places within railway premises as the Railway Administration may specify in this behalf.

Packing

807.1. Acids and other corrosives to be transported only when packed in prescribed manner. – No acid or other corrosive shall be tendered for transport or be transported unless it is packed in the manner laid down in column 2 of table VIII.

807.2. Containers for acids and other corrosives. – (1) All containers used for containing acids and other corrosives shall be well made sufficiently strong to withstand the wear and tear of rail transit and they shall be securely closed (subject to provision of vents where required) so as to prevent leakage of contents or vapour.

(2) Except as otherwise provided in column 2 of Table VIII casks, cases and crates shall be of wood, drums of iron or steel and jars of stoneware or earthenware.

(3) Cases shall be tightly jointed and casks well stoppered.

(4) Jars shall be securely bunged or stopped and luted.

(5) Stoppered bottles shall be luted and tied over.

(6) Containers, containing liquids, shall not be entirely filled and sufficient air space shall be left in each container to provide for the expansion of the liquid under variations of temperature.

807.3. Carboys, containing acids and other corrosives. – (1) Except as otherwise provided in column 2 of Table VIII—

(a) Carboys, containing acids and other corrosives shall be packed securely in iron, wooden or wicker-work crates;

(b) there shall be a minimum thickness of 2.5 cm, of straw packing between the carboy and the crate; and

(c) the straw packing in the carboy crate, when handed over to the Railway Administration, shall be sufficiently damp to prevent fire.

- (2) All carboys shall be closed liquid-tight and provided with a well fitting stopper which shall be well luted.
- (3) The necks of the carboys shall be exposed.

807.4. Inside packing.— Except as otherwise provided in column 2 of Table VIII, the inside packing of cases or crates shall not contain any solid matter or hard substance.

Marking and labelling of packages by consignors

808.1. Marking. – The outermost package containing acids and other corrosives shall be marked in conspicuous characters by means of either branding, stamping, embossing or painting or affixing a securely attached label with-

- (a) the name of the acid or other corrosive;
- (b) the word “Corrosive”.
- (c) the quantity and
- (d) the name and address of the consignor and the consignee.

808.2. Pictorial label. – In addition to the marking specified in rule 808.1. package containing acids and other corrosives shall bear the pictorial shown below indicating the hazard involved on account of the contents of the package:-



Note- (1) Background.....white.

Symbol and Lettering Black.

(2) Minimum dimensions 10 cm x 10 cm.

Bigger labels may be used depending on the size of the packages.

(3) The label should be affixed at an angle of 45° (diamond –shaped), as indicated above.

(4) The label should be divided into 2 equal triangles, the upper being used for the symbol and the lower for the text, as indicated above.

808.3. Indication label. – Unless the top of the inner package is clearly visible from above, or the outer package has a conical top, every package containing acids and other corrosives, shall have affixed on its top the following labels, namely-“THIS SIDE UP”.

Marking by Railway

809.1. Every package containing acids and other corrosives shall be properly marked with railway marks, indicating the code initials of the forwarding and destination stations, the invoice or way-bill number and the number of packages in the consignment.

809.2. When a consignment of acids and other corrosives is tendered for despatch as a wagon load consignment for a destination not involving break-of-gauge transshipment, only 10 per cent of the packages constituting the consignment need be marked with railway marks.

Responsibility of Railway Staff

810. The railway staff while accepting consignments of acids and other corrosives for transport by rail, shall ensure that-

- (a) the declared weight of acids and other corrosives in any one package, as ascertained from the markings thereon, or the weight of the package, does not exceed the maximum laid down in column 2 of Table VIII, and
- (b) the outermost package is in accordance with these rules.

Handling to be done by Consignors and Consignees

811.1. Unless otherwise notified by the Railway Administration, consignors and consignees shall do the loading and unloading of acids and other corrosives in wagon loads.

811.2. When the traffic is booked in smalls and in all cases of handling en-route, the Railway Administration concerned shall do the loading and unloading.

Provided that the transshipment of traffic in tank wagons shall be done by consignors and consignees.

Storage

812.(a) It shall be the duty of every Officer-in-charge of a station to cause every package of acids and other corrosives which is proposed to be despatched by rail or which has been received at any station for transshipment or delivery to the consignee, to be stored in a well ventilated enclosed shed or an open shed, namely, a shed roofed over for weather protection but not having enclosing walls.

(b) Wherever such storage accommodation is not available, the packages, containing acids and other corrosives may be stored in a covered iron wagon, and if this also not possible, they may be kept in an open space completely covered with tarpaulins or other suitable material.

(c) While storing acids and other corrosives all precautions laid down in rule 813 shall be observed.

Precautions to be observed in handling and storing acids and other corrosives

813.1. Time of loading and unloading.— All operations connected with the loading, unloading and handling of acids and other corrosives shall be conducted between sunrise and sunset:

Provided that consignments sent in sectional vans may be handled at any hour or due precautions being taken to prevent accidents, including provision of adequate lighting.

813.2. Handling of packages.— (1) Packages containing acids and other corrosives shall not be thrown, dropped down or dragged along the ground or floor and care shall be exercised to avoid striking them against any hard object.

(2) When loading and unloading heavy drums or casks cushions of a suitable type, thick coir matting, felt, bags filled with saw-dust, or similar protection shall be used to avoid damage to the drums or casks and to prevent leakage.

(3) Whenever practicable, packages containing acids and other corrosives shall be carried or conveyed on trolleys or hand-barrows.

813.3. Prohibition of storage and handling with dangerous substances.—Acids and other corrosives shall not be stored or handled with or near explosives, other dangerous goods or articles of inflammable nature or empties which have contained petroleum or other inflammable liquids.

813.4. Prohibition of storage and handling with foodstuffs.— Acids and other corrosives shall not be stored or handled with or near foodstuffs or foodstuffs empties.

813.5. Protection from sun, rain and snow.— Packages containing acids and other corrosives shall not be exposed to sun, rain or snow shall not be kept on damp ground, and shall be protected with tarpaulins or other suitable material, whenever required.

813.6. Thorough cleaning of place, carriage or wagon or wagon in which acids and other corrosives are laid or handled.— The floor of any place or wagon on which acids and other corrosives have been stored or the wagon or trolley or hand-barrow in which they have been carried shall be swept and thoroughly cleaned after removal of the goods therefrom.

Acids and other corrosives transported by all trains

814. Subject to provision of rule 819, acids and other corrosives in wagons may be transported by all trains, including passenger trains.

Type of wagons to be used for loading acids and other corrosives

815.1. Acids and other corrosives shall be carried in covered iron wagons and tank wagons.

815.2. Acids and other corrosives specified in column 4 of Table VIII may be carried in tank wagons.

Note- End opening carriages or wagons shall not be used.

Conveyance in tank wagons

816.1. Tank wagons to be of approved design:— Tank wagons used for the conveyance of acids and other corrosives shall be of a design approved by the Chief Controller of Explosives.

816.2. Special precautions to be observed while loading tank wagons.— (1) Tank wagons used for the conveyance of acids and other corrosives shall be in good condition and free from leakage.

(2) In filling tank wagons, an air-space of not less than 5% of the capacity of the tank shall be left.

(3) All inlets and outlets shall be securely closed subject to provision of vents where required.

816.3. Empty tank wagons.— All empty tank wagons shall be securely closed air-tight subject to provision of vents, where required.

Quantities to be loaded or handled

817. There shall be no restriction.— (a) as to the quantity of acids and other corrosives which may be loaded at a time, and

(b) on the number of wagons containing such substances which may be loaded or unloaded at any one time at a railway station.

Carriage of acids and other corrosives with ordinary goods in wagons

818. Subject to the loading restrictions contained in rules 820, 821 and 822, acids and other corrosives may be carried with ordinary goods in the same wagon, provided: —

(a) The wagon does not contain any articles or substances of combustible nature of goods of a valuable nature likely to be damaged in the event of leakage, e.g. textile fabrics, paper goods, fibre board cases; and

(b) the packages containing acids and other corrosives are well separated from the other goods in the wagon.

Carriage of acids and other corrosives in brake-van prohibited

819. Acids and other corrosives shall not be carried in the brake-van of trains.

Acids and other corrosives which must be kept separate

820. Acids and other corrosives specified in column 6 of Table VIII shall not be transported together in the same carriage and such acids or other corrosives shall not be stored or handled together.

Carriage of acids and other corrosives with explosives and other dangerous goods prohibited

821. Acids and other corrosives shall not be conveyed in the same carriage with any explosives or other dangerous goods or empties which have contained petroleum and other inflammable liquids.

Carriage of acids and other corrosives with food stuffs prohibited

822. Acids and other corrosives shall not be conveyed in the same carriage with foodstuff or foodstuff empties.

Stowing in Wagons

823.1. Packages to be compactly loaded: - Packages containing acids and other corrosives shall be compactly loaded so that they do not shift during transit.

823.2. Different kinds of acids and other corrosives to be kept apart.— Different kinds of acids and other corrosives when loaded together in the same wagon shall be kept as far apart from one another as may be practicable.

823.3. Drums:- Drums containing acids and other corrosives shall as far as possible, be loaded on the end.

823.4. Bottles, jars and carboys.— (1) Bottles, jars and carboys shall not be loaded on top of other goods, and the other goods shall not be loaded on the top of bottles, jars and carboys.

(2) No merchandise except acids and other corrosives shall be loaded in the same wagon with glass carboys.

823.5. Empty containers.— Empty containers which have contained acids and other corrosives shall be loaded with bungs in such a position that the escape of any remnants of liquids is not possible.

Labelling, Sealing and Locking of wagons

824.1. “Dangerous” label to be affixed on wagon.— A “Dangerous” label as shown below shall be affixed to both sides of every wagon in which acids and other corrosives are stored for despatch or delivery or while in transit: —



- Note: (1) Background White
 (2) Symbol and Letteringblack
 (3) Dimensions 0.3 m. radius
 (4) The label shall be divided into 2 equal half circles, the upper half being used for the lettering “NOT TO BE LOOSE SHUNTED” and the symbol, and the lower half of the text, as indicated above.

Except on road vans on tranship or road van trains on which labels may be pasted on the sides of the wagon or carriage, these labels shall be so pasted on the doors that when they are opened, the labels are automatically destroyed. These labels shall be affixed even when acids and other corrosives are transported along with ordinary goods, irrespective of the quantity of acids and other corrosives loaded in such wagons.

824.2. Private labels.— In addition to the railway labels, there shall be no objection to a consignor pasting a label indicating the contents and hazards involved. Such labels should be pasted on the doors of a wagon.

Shunting precautions to be observed

825. Shunting of wagons containing acids and other corrosives shall not be carried out, except under the superintendence of a duly authorized officer who shall ensure that during shunting operations:-

- (a) the speed of all movements does not exceed 8 kms. an hour; and
- (b) no rough hump, fly or loose shunting takes place.

Marshalling

826.1. Precautions to be observed during marshalling.— (1) There shall be no restriction on the number of wagons containing acids and other corrosives which may at any one time be attached to or transported by any one train.

- (2) Wagons containing acids and other corrosives shall be separated by carriages not containing explosives, other dangerous goods or articles of inflammable nature from carriages containing:-
 - (a) explosives and petroleum and other inflammable liquids, Class 'A', by not less than 3 such carriages;
 - (b) gases, compressed, liquefied or dissolved by not less than two such carriages;
 - (c) Petroleum and other inflammable liquids, Class 'B', inflammable solids and oxidizing substances by not less than one such carriage.
- (3) Wagons containing acids and other corrosives shall be close-coupled to the adjoining carriages and to each other.

826.2. Exemption on certain sections.— On the Darjeeling- Himalayan section of the Northeast Frontier Railway wagons containing acids and other corrosives may not be close-coupled.

826.3. Guard or dummy wagons:— Whenever the requisite number of wagons not containing explosives or other dangerous goods or articles of inflammable nature are not available, empty wagons shall be used as guard or dummy wagons for separating, as required, the wagons containing acids and other corrosives from carriages containing explosives, gases compressed, liquefied or dissolved, petroleum and other inflammable liquids, inflammable solids and oxidizing substances.

Notice of Arrival

827.1. Notice to consignee of arrival of consignment.— The Station Master of the destination station shall ensure that notice of arrival of consignments of acids and other corrosives is issued to the consignee in the prescribed form (for see Annexure 'B') for all consignments received at his station and not removed on the date of unloading.

827.2. Railway's right to recover Wharfage and Demurrage not affected by non-issue of arrival notice.— Non-receipt or late receipt of notice of arrival shall not entitle the consignee to exemption from wharfage and demurrage charges, if the goods are not taken delivery of within the free time allowed.

Delivery or Disposal otherwise

828.1. Delivery.— Consignments of acids and other corrosives shall be removed by the consignee from the station or depot of the railway to which they have been transported as soon as they are made available for delivery.

828.2. Disposal if delivery not effected expeditiously.— (1) If the consignments are still on hand after the expiry of free time allowed for their removal, a notice, as prescribed in section 84 of the Railways Act, 1989 (No.24 of 1989) should immediately be served on the consignee.

(2) The notice shall be in the form prescribed and given in Appendix VIII/1.

(3) After the expiry of the period specified in the notice, consignment still unclaimed shall be sold in accordance with the provisions of Section 83 and 84 of the Railways Act, 1989 (No. 24 of 1989).

Weight for charge and days of acceptance

829. Traffic in wagon loads to be accepted on all days.— Traffic in wagon loads shall be accepted on all days, subject to a minimum weight for charge as prescribed in the Indian Railway Conference Association Goods Tariff.

Prepayment of freight

830. Freight on all consignments of acids and other corrosives shall be prepaid except in the case of commodities where the Indian Railway conference Association Goods Tariff or Coaching Tariff provides for an option to be given to the consignors to book on **“TO PAY”** basis on payment of prescribed surcharge on freight.

Repairs to carriages

831. Before any repairs or alterations are commenced in any part of a carriage in which acids and other corrosives are being transported due precautions shall be taken to remove such acids and other corrosives.

Reports of Accidents

832. (1) Whenever there occurs any accident connected with any consignment of acids other corrosives and attended with loss of life or serious injuries to persons or serious damage to property or a description usually attended with such loss, injuries or damage, the person for the time being in charge of the consignment shall forthwith advise:-

- (a) the Chief Controller of Explosives by available means of communication such as Telephone, Fax, E-mail followed within 24 hours by a letter giving particulars of the occurrence; Address given below:-
Add: - A Block, CGO Complex, 5th floor, Seminary Hills, Nagpur-440006
(MAHARASHTRA) Tel No. 071-22510248,
E-mail:- explosives@explosive.gov.in
 - (b) Controller of Explosives in whose jurisdiction accident has taken place;
 - (c) to the Officer-in-charge of the nearest police station; and
 - (d) Departmental officer concerned;
 - (e) Nearest NDRF Unit.
- (2) Pending the visit of the Chief Controller or his representative, or until instructions are received from the Chief Controller or his representative that he does not wish any further investigation or enquiry to be made, all wreckage and debris shall be left untouched except in so far as its removal may be necessary for the rescue of persons injured and recovery of the bodies of any persons killed by the accident or for the restoration of through communication.

Saving

833. Nothing in this Chapter shall be deemed to detract from the operation of: —

- (a) the Arms Act, 1959 (54 of 1959);
- (b) the Arms Rules, 1962; or

The Poisons Act, 1919 (12 of 1919) and the rules framed there under wherever applicable.

Name of Acid and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Acetyl Chloride	(1) In bottles, packed in saw-dust in partition in cases. (2) In 10 liters jars, packed in slaked lime in cases. In drums.	...	...	...	...
Acid, Acetic (Including Glacial Acetic Acid)	(1) In stoneware jars or glass stoppered bottles. Well secured and standing upright in cases. (2) The inside packing of these cases should be of straw, chaff or saw-dust mixed with coal, wood ashes, chalk or sand. (3) In carboys stoppered with cork, the carboys to be protected by wicker coverings. The carboys may also be packed in metal containers (hampers) with a maximum thickness of 1.27 cms. of straw or wood wool packing between the hamper and the carboys. (4) In wooden barrels each containing not more than 200 kgs. per barrel. So constructed and secured as not to be liable to be defective, leaky or insecure in transit. (5) Glacial Acetic Acid may also be packed in cork-stoppered demijohns in crates, the cork being held in place by aluminum screw caps. (6) Acetic Acid or glacial acetic acid may also be tendered in demijohns or glass carboys without the provision of aluminium screw caps. The mouth of the demijohns and carboys should be securely closed with a cork and sealed with plaster of paris. The glass carboys or demijohns may be packed in crates, provided these first packed in bamboo baskets and then crated with a thick layer of straw in between the bamboo basket and the sides of the wooden crates. (7) Glacial Acetic Acid (not less than 90 percent strong) may also be carried in aluminium containers 35 cm. in height, 30 cm. in diameter of 20 litres capacity. The thickness of the body and ends of the containers should be about 2.54 mm. and the seam should be crimped and solder sealed. (8) Glacial acetic acid (not less than 90 percent strong) may also be carried in security closed aluminium drums, strengthened by rolling hoops. Each drum shall contain not more than 200 kg. of Acid.	...	...	...	...

Name of Acid and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Acid, Acetic—concl.	(9) Except in the case of consignment in wooden barrels or in aluminium drums the weight of any one package must not exceed 200 kg. over the B.G. and M.G. and 100 kg. over the N.G. (10) An air space of not less than 10 per cent of its capacity shall be left in each container. (11) Acid acetic (including Glacial acetic Acid) may also be packed in drums of 30 litres capacity each made out of GF-5740 grade high density polythene subject to the following conditions, namely:— (a) any drum showing any marked discolouration shall be forthwith withdrawn from use, and (b) two different commodities shall not be kept in same railway container.				
Acetyl Anhydride	(1) In bottles, glass or plastics packed in box. (2) In carboy, glass packed in crate or hamper. (3) In carboy, glass packed in box, drum or hamper. (4) In cans, packed in box. (5) In drum, metal.	...	...	...	...
Acid Chlorosulphonic	(1) May be packed in approved steel drums. The gross weight per drum should not exceed 600 kgs. An air space of 5 per cent must be left in the drums. Specification of steel drums for the conveyance of Chlorosulphonic Acid:— (i) The drums must be made of good quality mild steel sheets. (ii) All drums must be welded or riveted. (iii) Thickness of metal must be not less than 12 Birmingham Gauge (2.52mm.) for body and 10 Birmingham Gauge (3.18 mm.) for ends. (iv) The end must be flanged let into the body of the drum from 2.54 cm. to 3.81 cm. and strengthened by welded steel hoops. Either securely shrunk on the body of the drum with projecting heads to cover the ends, or welded to the body of the drum.	...	...	...	...

Name of Acid and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Acid Chromic	(v) Two solid rolling hoops must be shrunk on to the body of each drum. (vi) Each drum must be provided with a well fitting screwed steel plug and steel boss, the boss to be welded to the drum. The plug when screwed home, must not project beyond the rolling hoops or chimb. (vii) Each drum must be tested under internal pressure of 1.4 kg.per Sq. Cm. and proved air-tight, and this test must be repeated whenever the drum shows signs of deterioration and at intervals of not more than six months. (viii) The outside of each drum must be painted or varnished and the paint or varnish must be renewed as often as is necessary to preserve the drum form rusting. (2) Must not be packed with Nitric Acid and Hydrochloric Acid. (a) In solid form- (1) In glass or earthenware containers of suitable make, effectively closed. The containers should be packed in wooden cases with suitable protective material. The protective material may consist of kieselguhr, whiting or an intimate mixture of coarse exfoliated vermiculite and whiting consisting of 70 per cent to 80 per cent whiting and 30 per cent to 20 per cent exfoliated vermiculite by weight.				

Name of Acid and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Acid Chromic—contd.	(2) In metal drums (e.g. steel), each lined or coated internally with lead or other suitable material effectively closed. (3) In heavy gauge steel drums, effectively closed. (b) In liquid form— (1) In glass or earthenware containers of suitable make, effectively closed. The quantity in each container should not exceed 10 litres. To be packed with effective absorbent and protective packing material in wooden cases, not more than 50 litres being packed in each case. The absorbent and protective packing material may consist of kieselguhr. Whiting or an intimate mixture of saw, dust and whiting such that there is present in the mixture not less than 0.31 kg. of whiting and not more than 0.22 kg. of saw-dust per 0.45 kg. of chromic Acid solution or an intimate mixture of coarse exfoliated vermiculite and whiting consisting of 70 per cent to 80 per cent whiting and 30 per cent to 20 per cent exfoliated vermiculite by weight or other substance approved by the Chief Controller of Explosives.				

Name of Acid and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Acid chromic – conclud.	(2) If the quantity in each container exceeds 10 litres, but does not exceeds 50 litres, the glass or earthenware container should be packed singly in- (i) Wicker hampers, with wicker bonnets; or (ii) Strong iron hampers, with iron bonnets, with not less than 1.27 cm. of packing materials, the whole to be contained in a case, crate or hamper; or (iii) wooden cases, the containers being packed with protective packing material specified in item (b) (1) above, well pressed down and enclosed to prevent loss of packing. The thickness of such packing between any part of the container and any part of the inside of the case must not be less than 3.81 cm.				
Acid Formic	(1) In jars or bottles packed in cases, or in casks or carboys. (2) The gross weight of each package must not exceed 75 kgs.	...	...	...	...
Acid Hydrobromic Acid Hydrobromic, diluted	(1) In carboys or bottles packed in cases. (2) Must not be packed in the same case with Sulphuric acid and Nitric acid.	...	...	...	...

Name of Acid and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Acid Hydro Chloric, (Muriatic Acid or Spirit of Salts)	(1) In stoneware jars or glass stoppered bottles, well secured and standing upright in cases. (2) In glass or earthenware carboys of not more than 50 litres capacity, packed securely in iron or wooden crates. The following conditions shall also be complied with:- (i) All containers must be closed liquid tight and each carboy must be provided with a well fitting stopper well luted with- (a) Plastic moist clay tied over with a waterproof material to keep the clay moist; (b) good quality Plaster of Paris; (c) kaolin (China Clay and Sodium of Silicate); (d) a composition containing sand and Sulphur in equal parts by weight. (ii) An air space of not less than 10 per cent of its capacity shall be left in each container other than bottles. (iii) When bottles are used, they must be only three-quarters full. (iv) The inside packing of the cases can be of ashes, free from cinders, or of chalk, sand or dry earth. The inside packing of the cases may also be of straw or refuse, cheap enough for packing such as grass, wood shavings, etc. (v) Must not be packed in the same case with Sulphuric acid and Nitric acid. (vi) The gross weight of any one package must not exceed 100 kgs.	...	May be carried in tank wagons.	...	...

Name of Acid and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Acid Hydrobromic (Fluoric Acid)	(1) In leaden or guttapercha bottles, standing upright in cases. Cases must be made of boards 1.9 cm. thick and provided with means of lifting. The inside packing of the cases must be of straw, chaff or saw-dust mixed with coal, wood ashes or chalk. (2) Must not be packed in the same case with Sulphuric acid and Nitric acid. (3) The gross weight of any one package must not exceed 75 kgs.	...	...	...	Not to be loaded with glass and glassware.
Acid Nitric (Aqua fortis)	(1) In stoneware jars or glass-stoppered bottles, well secured and standing upright in cases. Each jar bottle must be completely surrounded with whiting, kieselguhr or other absorbent and non-combustible material. The cases must not contain any saw-dust, straw or other inflammable substance, but a piece of strong paper may be placed underneath the lid to prevent the escape of the packing material. (2) In special Nitric acid resisting steel drums. (3) In glass carboys, packed in whiting, kieselguhr or other absorbent and non-combustible material in iron or wooden cases. The cases must not contain any saw-dust, straw or other inflammable substances. The following conditions shall also be complied with:-	...	...	...	...

Name of Acid and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Acid Perchloric, diluted (Specific gravity not exceeding 1.12).	(i) All containers must be closed liquid tight and each carboy must be provided with a well fitting stopper well luted with:- (a) Plastic moist clay tied over with a water-proof material to keep the clay moist; (b) good quality Plaster of Paris; (c) kaolin (China Clay and Sodium Silicate); or (d) a composition containing sand and sulphur in equal parts by weight. (ii) An air space of not less than 10% of its capacity shall be left in each container other than bottles. (iii) When bottles are used, they must be only three-quarters full. (iv) Sulphuric Acid, Hydrochloric Acid, inflammable liquids or other chemicals which by contact with Nitric Acid might cause fire or explosion must not be packed in the same case. (v) The gross weight of any one package must not exceed 100 kgs. In bottles packed in cases	...	...	...	...

Name of Acids and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Acid Phosphoric	(1) In carboys. (2) In jars upto 20 litres capacity, wicker covered or packed in crates. (3) In casks. (4) In bottles, packed in cases. (5) Acid Phosphoric (95%) may also be packed in drums of 30 litres capacity each made out of GF-5740 grade of high density polyethylene subject to the following conditions, namely:- (a) any drums showing any marked discolouration shall be forthwith withdrawn from use, and (b) two different commodities shall not be kept in the same railway container.	...	...	...	...
Acid Propionic	In bottles of glass or in approved plastic material, iron drums or carboys.	...	...	...	...
Acid Sulphuric (Oil of Vitriol)	(1) In stoneware jars or glass stoppered bottles, standing upright in cases. The inside packing of the cases must be of ashes, free from cinders, or of chalk, sand, husks or ashes of husks or dry earth. In the case of Sulphuric acid, diluted with not less than twice its volume of water of a specific gravity of 1.250 or below, the inside packing may be of straw or refuse cheap enough for packing such as grass, wood shavings etc. The weight of each case must not exceed 125 kgs.	...	...	May be carried in tank wagons.	...

Name of Acids and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Acid Sulphuric (Oil of Vitriol) – contd.	(2) In glass or earthenware carboys of not more than 50 litres capacity packed securely in iron or wooden crates straw or refuse cheap enough for packing such as grass, wood shavings etc. May also be carried in earthenware jars or carboys of less than 50 liters capacity, firmly packed in straw in wooden racks fixed in the wagons. The weight of each case must not exceed 125 kgs. (3) In hermetically sealed cisterns made of lead weight 25 kgs. per sq. m. enclosed in wooden cases made of 2.5 cm. thick boards bound with 1.27 cm. hoop-iron, the sides of the case being so constructed that the chain runs horizontally on two sides and vertically on the other two. The Net weight of acid in any one case must not exceed 50 kgs. (4) Must not be put into jars or carboys having cork or wooden stoppers. (5) Acid, Sulphuric, concentrated, i.e. of a specific gravity not less than 1.75 at 15° C may be packed in approved steel drums. The gross weight per drum should not exceed 600 kgs. An air space of 5% must be left in the drums. Specification of steel drums for the conveyance of Sulphuric Acid. (i) The drums must be made of good quality mild steel sheets. (ii) All drums must be welded or rivetted. (iii) The thickness of metal must be not less than 12 Birmingham Gauge (2.52 mm.) for body and 10 Birmingham Gauge (3.18 mm.) for ends.	...	...	...	...

Name of Acid and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Acid Sulphuric (Oil of Vitriol) – contd.	(iv) The ends must be flanged let into body of the drum from 2.5 cm. to 3.8 cm. and strengthened by welded steel hoops, either securely shrunk on the body of the drum with projecting heads to cover the ends, or welded to the body of the drum. (v) Two solid rolling hoops must be shrunk on to the body of each drum. (vi) Each drum must be provided with a well fitting screwed steel plug and steel boss, the boss to be welded to the drum. The plug, when screwed home, must not project beyond the rolling hoops or chimb. (vii) Each drum must be tested under internal pressure of 1.4 kg. per sq. cm. and proved air-tight, and this test must be repeated whenever the drum shows signs of deterioration and at intervals of not more than six months. (viii) The outside of each drum must be painted or varnished and the paint or varnish must be removed as often as is necessary to preserve the drum from rusting. (6) Must not be packed with nitric acid and hydrochloric acid. (7) Acid sulphuric (98%) may also be packed in drums of 30 litres capacity each made out of GF-5740 grade of high density polyethene, subject to the following conditions namely:— (a) any drum showing any marked discolouration shall be forthwith withdrawn from use; and (b) two different commodities shall not be kept in the same railway container same as above.	...	...	...	...

Name of Acid and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Acid Sludge	-DO-	...	...	May be carried in tank wagons	...
Acid sulphuric diluted containing not less than 60% by volume of water.	(1) In carboys or in jars. (2) In bottles, packed in cases or hampers.	...	...	...	...
Acid Sulphurous. (Solution)	(1) In carboys (with an effective vent in the bung). (2) In jars upto 20 litres capacity, wicker covered or packed in crates. (3) In casks. (4) In bottles, packed in cases.	...	....	.....	.....
Ammonium Bifluoride, Solid.	(1) In casks, coated on the inside with wax or asphaltum and paperlined. (2) In tinlined cases, the lining hermetically sealed with solder. (3) Must not be packed in the same case with Acid.	...	...	...	Not to be loaded with glass and glassware.
Ammonium Flouride, liquid.	(1) In lead or gutta percha vessels, packed in keiselguhr or similar material in cases. (2) Must not be packed in the same case with acids.	...	...	...	Not to be loaded with glass and glassware.
Ammonium Sulphocyanide.	(1) In cask. (2) In jars, packed in cases. (3) Must not be packed in the same case with acids.	...	...	...	Not to be loaded with acids.
Battery charging Solution (Acid).	(1) In carboys or in jars. (2) In bottles, packed in cases or hampers.	...	...	...	...

Name of Acid and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Battery charging solution (Alkali) (Potash and Lithia Solution).	(1) In stoneware jars or glass stoppered bottles, well secured and standing upright in cases. The inside packing of these cases must be of straw, chaff or saw-dust mixed with coal, wood ashes, chalk or sand. (2) In drums.	....	....	....	....
Benzyl Chloride.	In glass bottles or jars packed in cases, or hampers with suitable cushioning materials or in steel drums.	....	....	....	....
Bromine.	(1) In stoneware jars, not having cork or wooden stoppers, or glass stoppered bottles, well secured and standing upright in cases. No jar or bottle should contain more than 4 kgs. of bromine. 25% air space should be left in each jar or bottle. The inside packing of the case must be of kieselguhr vermiculite,. (2) In lead lined steel drums, conforming to specification No. I.C.C 5H, provided not less than 10 per cent air space is left in each drum. (3) The gross weight of any one package must not exceed 200 kgs. over the B.G. and M.G. and 100 kgs. over the N.G.	....	....	....	...

Name of Acid and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Calcium, Bi-sulphite solution (Bi-Sulphite of lime solution) saturated with Sulphur dioxide gas.	(1) In casks or carboys. (2) In glass bottles, packed cases or hampers.	....	....	....	....
Caustic Potash Liquor.	In strong iron or steel drums of capacity not exceeding 200 litres securely closed so as to prevent leakage.	Tank wagons containing caustic Potash Liquor must be painted with words "Caustic Potash" in bold letters.	May be carried in Tank wagons. Tank wagons, both full and empty must have all inlets and outlets securely closed water - tight.	....	....
Caustic Soda Liquor.	In strong iron or steel drums of capacity not exceeding 200 litres securely closed so as to prevent leakage.	Tank wagons containing Caustic Soda Liquor must be painted with the words "Caustic Soda" in bold letters.	May be carried in Tank wagons. Tank wagons, both full and empty must have all inlets and outlets securely closed water - tight.	....	....
*Charges and Refills for chemical fire extinguishers	(1) In bottles or bulbs, each containing not more than 100 gms. of acid with or without carbon tetrachloride with the necessary charge of sodium bicarbonate in tins or cardboard cartons, in cases.	....	....	....	....
	(2) Hermetically sealed bottles or bulbs each containing not more than 100 gms. of acid in tins tightly filled with chalk and packed in saw-dust and straw in strong wooden cases. (3) The gross weight of any one package must not exceed 100 kgs.	....	....	....	....

*The rules and condition laid down in this tariff do not apply to charges and refills for non-acid chemical fire extinguishers.

Name of Acid and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Cleaning and Washing Fluids, Acid	(1) In carboys or casks. (2) In bottles not exceeding 30 litres capacity, packed in cases or hampers. (3) In bottles, each containing not more than 0.5 kg. packed in cases. (4) In jars, packed in cases or crates.	....	....	....	....
Cleaning and Washing Fluids, Alkaline	(1) In casks or drums. (2) In bottles or tins, packed in cases. (3) In jars, packed in crates or en-closed in wicker work. (4) In demijohns of not more than 20 litres capacity, well packed with straw in iron crates contained in wicker baskets the top of the demi-johns being protected by a wicker cover. (5) Must not be packed with acids.	....	....	....	....
Composition for preventing incrustation in boilers liquid (not containing Arsenic)	(1) In casks or drums. (2) In tins packed in cases. (3) Only accepted in vessels provided with an effective vent, unless declared to be non-fermentable and the forwarding note so endorsed. (4) Zinc coated or galvanized vessels must not be used for this traffic.	....	....	....	....

Name of Acid and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Deoxylyte	In glass bottles or jars or carboys packed in wooden cases.	....	....	....	....
Electric cells of all Types containing acid or alkaline liquids or Jelly	All packages must be securely closed, except for small vents, so constructed as to prevent free escape of the corrosive liquid. The terminals and connecting bars should be protected to prevent short circuiting.	....	....	....	....
Ferric Chloride, solid (Perchloride of Iron, solid)	(1) In casks or drums. (2) In bottles, packed in cases. (3) In jars not exceeding 30 litres capacity.	....	....	....	....
Ferric chloride, solution (Perchloride of Iron Solution liquid)	(1) In stoneware jars, or glass-stoppered bottles, well secured and standing upright in cases. The inside packing of the cases must be of straw, chaff or saw-dust mixed with coal, wood ashes, chalk or sand. (2) The gross weight of each package must not exceed 200 kgs. over the B.G. and M.G. and 100 kgs. over the N.G..	....	....	....	....
Granodine } Granodraw }	In glass bottles or jars or carboys packed in wooden cases.	....	....	....	....

Name of Acid and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Hydrazine Hydrate	(i) In effectively closed glass or polythene bottles of suitable make, packed with suitable protective material in wooden cases. Each glass or polythene bottle shall contain not more than 5 pints of the substance and more than 25 litres shall be packed in each case. A minimum air space of 5 per cent shall be left in each container. (ii) In glass-stoppered glass containers or polythene stoppered polythene containers of suitable make effectively closed and packed singly in wooden cases, with suitable protective material. Not more than 50 litres shall be packed in each container. A minimum air space of 5 per cent which should be filled with nitrogen shall be left in each container. (iii) In effectively closed aluminium drums (not less than 99.5 per cent aluminium or suitable stainless steel drums). The drums should be tested by hydraulic pressure to 50 lbs. per square inch. Not more than 200 litres of the substance shall be packed in a drum. A minimum air space of 5 per cent which should be filled with nitrogen shall be left in each drum.	....	....	....	

Name of Acid and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Paint and Varnish Removers (Corrosive, non-inflammable).	(1) In casks or drums. (2) In tin, packed in cases or hampers. (3) In jars not exceeding 30 litres capacity or in carboys.	....	....	....	....
Phosphorus Oxy Chloride , Phosphorus, Pentachloride, Phosphorus, Trichloride.	(1) In stoneware jars or glass-stoppered bottles well secured and standing upright in cases. The inside packing of the cases must be of kieselguhr or other inert substance. (2) The gross weight of any one package must not exceed 200 kg. over the B.G. and M.G. and 100 kg. over the N.G.	....	....	....	....
Sodium Xanthate.	(1) In bottles, corked and sealed, packed in straw or saw-dust and secured in wooden cases. (2) In air-tight tins, packed in outer wooden cases. (3) In drums.	....	....	....	....
Soldering Fluids.	(1) In carboys. (2) In casks, drums or cans. (3) In jars or bottles packed in cases.	....	....	....	....
Stannic Chloride (Tintetrachloride)	(1) In drum. (2) In jars or bottles packed in cases.	....	....	....	....

Name of Acid and other Corrosive	Packing (see also Rule 807)	Exceptional or Additional Rules regarding Marking and Labelling (See also Rules 808, 809 and 824.1.)	Exceptional or Additional Rules regarding carriage by all Trains (See also Rules 814, 815, 816, 817 and 818)	Exceptional Rules regarding carriage in brake-van of Passenger, Mixed or Parcels Train (See also Rule 819)	Exceptional or Additional Stowage and Carriage Rules (See also Rules 820, 821, 822, 823, 825 and 826)
(1)	(2)	(3)	(4)	(5)	(6)
Sulphur Chlorides (Chlorides of Sulphur)	(1) In stoneware jars or glass stoppered bottles, well secured and standing upright in cases. The inside packing of the cases must be of straw, chaff or saw-dust mixed with coal, wood ashes, chalk or sand. (2) The gross weight of any one package must not exceed 200 kgs. over the B.G. and M.G. and 100 kgs. over the N.G.	....	....	....	....
Synton NB Synton NC Synton PC	In polythene bottles of 3 mm. wall thickness and the bottles are packed in outer cardboard cartons.	....	....	....	....
Zinc Chloride or Muriate of Zinc (solution)	(1) In casks or drums or tins, packed in cases. (2) In jars or bottles, packed in cases.	....	....	....	....
Acid	(1) In bottles or jars, packed in cases. (2) In carboys.	....	....	....	....
Neutral	(1) In bottles or jars, packed in cases. (2) In carboys. (3) In casks or drums.	....	....	....	....

Appendix VIII/1
(Rule 828.2)**Appendix VIII/1****NOTICE TO BE SERVED ON THE CONSIGNEE**

To

S. No :

Station :

Division :

Railway :

Date :

.....

.....

.....

Dear Sir/ Madam,

Sub: Inv./ PWB No. dated

from to

I hereby give you notice that the above consignment/ parcel of which you are the consignee is lying undelivered at destination. Please note that if delivery is not effected within seven days from the date of receipt of this letter on payment of all charges due as per details given below, arrangements will be made to dispose of it under Section 83 and 84 of the Indian Railways Act, 1989 (24 of 1989) without any further reference being made to you.

In the event of sale, if the amount due to the Railway on account of freight, demurrage, wharfage, etc. is not covered by the sale proceeds, I shall look to you to make good the balance.

Details of charges due:

1. Freight ₹.
2. Demurrage ₹.
3. Unloading charges ₹.
4. Wharfage at the rate of ₹.
Per 50 kg. at the rate of ₹.
until removal of the consignment.

Yours faithfully,

अनुबंध - 'क'

ANNEXURE-‘A’

खतरनाक माल के लिए अग्रेषण नोट/ FORWARDING NOTE FOR DANGEROUS GOODS

आकार 21.59 से.मी.X 34.29 से.मी. कागज का रंग: गुलाबी/ Size 21.59 cms X 34.29 cms. Colour of paper: Pink

(रेल अधिनियम 1989, (1989 का 24)) की धारा 64 के अधीन सभी रेलों पर प्रयोग के लिए केंद्रीय सरकार द्वारा अनुमोदित)

(Approved by Central Government for use on all Railways under Section 64 of the Railways Act, 1989, (24 of 1989))

वाणिज्य/एफ-

5/परिशोधित 64 Com/F-5/Rev.64

वाणिज्य /628 एफ

Com.628 F

सेवा में/ To

स्टेशन मास्टर/ The Station Master..... स्टेशन/ Station..... रेलवे/ Railway.....

रुपया अधोलिखित परेषण प्राप्त करें और नीचे यथा प्रेषित..... रेलवे के स्टेशन को माल और /अथवा मिश्रित गाड़ी */सवारी और/ अथवा मिश्रित गाड़ी*

द्वारा भेजें।

Please receive the under mentioned Consignment and forward by Goods and/ or Mixed train*/Coaching and/ or Mixed train* to..... Station on the Railway as consigned below:-

जिसके द्वारा परेषित किया गया By whom consigned		जिस को परेषित किया गया To whom consigned		स्टेशन को Station To	पैकेजों की सं और विवरण No. and description of packages	पण्य Commodity	निजी मार्क Private Marks	भेजने वाले के अनुसार (प्रत्येक पैकेज का अलग-अलग भार) Senders' weight (Separately of reach package)				माल भाड़ा संदत/संदाय Freight Paid/To pay
नाम Name	पता Address	नाम Name	पता Address					वास्तविक/Substance		कुल/ Gross		
								क्विंटल Quintals	किलोग्राम Kilograms	क्विंटल Quintals	किलोग्राम Kilograms	

1. मैं एतद्वारा प्रमाणित करता हूँ कि मैंने इस बात की स्वयं संतुष्टि कर ली है कि मेरे द्वारा परेषित माल का विवरण मार्का और वजन अथवा मात्रा इस अग्रेषण नोट में सही-सही दर्ज की गयी है और भार. सम्मेलन लाल दर सूची में निर्धारित किये गये नियमों के अनुसार परेषण को पैक कर दिया गया है और मार्का लगा दिया गया है।

I do hereby certify that I have satisfied myself that the description, marks and weight or quantity of goods consigned by me have been correctly entered in this Forwarding Note and that the consignment has been packed and marked in accordance with the Rules laid down in the I.R.C.A. Red Tariff.

2. मैं इसके अतिरिक्त यह घोषणा करता हूँ कि मैं रेल की सम्पत्ति अथवा अन्य व्यक्तियों की सम्पत्ति करें जो परिवहन के लिए रेलवे को अथवा अन्यता सुपुर्द की गयी हो अथवा सुपुर्द की जानेवाली है, किन्हीं उन परिणामों के लिए जिम्मेदारी स्वीकार करता हूँ जो कि उक्त परेषण द्वारा की जाये और सभी जोखिम और जिम्मेदारी चाहे वह रेल के लिए हो, उनके कर्मचारियों अथवा अन्यो के लिए है, एकमात्र और पूर्णतया मुझ पर रहेगी।

I further declare that I accept responsibility for any consequences to the property of the Railway, or to the property of other persons, entrusted or to be entrusted to the Railway for conveyance, or otherwise which may be caused by the said consignment, and that all risk and responsibility whether to the Railway, to their servants or agents or to others remains solely and entirely with me.

*3. मैं घोषणा करता हूँ कि उक्त परेषण का मूल्य..... रु. है और मैं प्रशासन द्वारा यथोपेक्षित बड़े हुए जोखिम के लिए अतिरिक्त मूल्य पर प्रतिशत प्रभार संदाय करने का वचन देता हूँ */ वचन नहीं देता हूँ।

I declare that the value of the said consignment is Rs..... and I engage*/ do not engage* to pay the percentage charge on excess value for increased risk as required by the Administration.

*4. मेरे अनुरोध पर..... के रास्ते (मंहगे रास्ते) भेजा जाए।

To be forwarded via..... (a dearer route) at my request.

*5. सबसे सस्ता मार्ग बंद होने/ अंशतः बंद होने पर, इसके बाद के सस्ते खुले मार्ग..... के रास्ते का प्रभार लिया जाय।

The cheapest route being closed*/partially closed*, to be charged via..... the next cheapest open route.

@6. अतिरिक्त घोषणा के लिए स्थान/ Space for additional declaration).E

उपर्युक्त के बावजूद मैं माल बुक करने तथा मंहगे मार्ग का भाड़ा अदा करने के लिए सहमत हूँ, यदि रेल प्रशासन को रेल अधिनियम, 1989 (1989 का 24) की धारा 71 के अधीन ऐसा करने के लिए केंद्रीय सरकार द्वारा प्राधिकृत किया जाता है।

Notwithstanding the above, I agree to book the goods and pay freight by dearer route if the railway administration is authorized by the Central Government to do so under Section 71 of the Railways Act, 1989

प्रेषक अथवा उसके एजेंट के हस्ताक्षर/ Signature of sender or his agent.....

दिनांक/ Date.....पता/ Address.....

£मैं एतद्वारा वचन देता हूँ कि यदि पैकेज गंतव्य रेलवे स्टेशन पर पैकेज की प्राप्ति के 30 दिन के भीतर नहीं छुटा लिया गया तो मैं गंतव्य रेलवे स्टेशन पर सभी रेल प्रभारों का भुगतान करके पैकेज प्राप्त कर लूंगा या सभी आवश्यक औपचारिकताओं का अनुपालन करते हुए मूल अग्रेषण स्टेशन तथा परिदान लेते समय सभी रेल प्रभारों का भुगतान करने के लिए वचनबद्ध होते हुए पैकेज को मूल अग्रेषण स्टेशन भेजने के लिए पुनः बुक करने की भी व्यवस्था करूंगा।

£ I hereby undertake that if the package is not collected within 30 days of receipt of the package at the destination Railway station. I shall collect the package at the destination Railway Station on payment of all Railway dues or I shall arrange for the package to be re-booked to the original forwarding station observing all necessary formalities and undertaking to pay all Railway dues at the time of taking delivery.

कृ.पृ.दे./P.T.O.

अनुबंध-‘क’ (समाप्त)

Annexure- ‘A’ (concl.d.)

(निम्नलिखित फार्म केवल रेल कर्मचारियों द्वारा भरा जाये)

(The form below to be filled in by the Railway staff only)

वाणिज्य/एफ-5/परिशोधित 64

Com/F-5/Rev.64

वाणिज्य /628 एफ

Com.628 F

Forwarding Note No. दिनांक को / Dated Accepted by द्वारा स्वीकार किया गया

अग्रेषण नोट संख्या दिनांक को / Dated Weighed by द्वारा तोला गया

..... दिनांक को / Dated Loaded by द्वारा लादा गया

..... दिनांक को / Dated Invoiced by द्वारा बीजक बनाया गया

To be carried via के रास्ते से ले जाया जाये

To be charged via के रास्ते का प्रभार लगाया जाये

दिनांक को / Dated

पैकेजों की सं. और विवरण Description of packages	पण्य Commodity	रेल मार्को Railway Marks	वास्तविक वजन Actual weight		प्रभारित वजन Weight Charged		प्रभार के लिए वर्गीकरण Classification for charge	प्रति क्विंटल दर Rate per Quintal	दत्त Paid	देय To pay	रसीद संख्या Receipt No.	बीजक Invoice		माल डिब्बों का ब्यौरा Particulars of wagons			
			क्विंटल Quintals	कि. ग्रा. Kilograms	क्विंटल Quintals	कि. ग्रा. Kilograms						संख्या No.	तारीख Date	सं. और किस्म No. & Type	वास्तविक रेलवे Owning Railway	अनुमय वहन क्षमता P.C.C.	दर्ज का क्षेत्रफल Floor area
			₹	₹	₹												

टिप्पणी.- प्रेषक अथवा उसके एजेंट का ध्यान रेलवे द्वारा खतरनाक माल के परिवहन के लिए लागू उन प्रमुख निबंधनी एवं शर्तों की ओर दिलाया जाता है जिन्हें भारतीय रेल सम्मेलन लाल दरसूची से बताया गया है।

Note.- The attention of the sender or his agent is invited to the principal terms and conditions applying to the carriage of dangerous goods by Railway which are set forth in I.R.C.A. Red Tariff.

जब तक कि परेषक किसी परेषण का मूल्य घोषित नहीं करता है और रेल (वित्तीय दायित्व तथा प्रतिशत प्रभार के निर्धारण की सीमा) नियम, 1990 द्वारा यथा प्रेक्षित अतिरिक्त मूल्य पर प्रतिशत प्रभार का संदाय नहीं करता है,

परेषण की हानि, विनय, नुकसानी, अतिरिक्त तथा सुपुर्दगी न करने के लिए रेल प्रशासन के वित्तीय दायित्व की रकम की अधिकतम सीमा 50 रु. प्रति कि. ग्रा. से अधिक नहीं होगी।

Unless the consignor declares the value of any consignment and pays percentage charge on excess value as required by Railway (Extent of Monetary Liability and Prescription of percentage charge) Rules, 1990 the maximum limit of amount of monetary liability of Railway Administration of loss, damage, deterioration and non-delivery or the consignment shall not exceed Rs. 50 per kg.

*जहाँ लागू न हो, काट दें/Strike out where inapplicable.

@ यहाँ वह अतिरिक्त घोषणा लिखे जिसकी भा.रे.स. लाल दरसूची में निर्धारित नियमों द्वारा अपेक्षा की जाये / Here enter additional declaration which may be required by the Rules laid down in the I.R.C.A. Red Tariff.

उपर्युक्त इंदराजों में किये गये परिवर्तनों पर प्रेषक अथवा उसके एजेंट द्वारा हस्ताक्षर नहीं किये जाने चाहिए।

Additions or alteration made in the above entries must be signed (not initialed) by the sender or his agent.

Annexure 'B'

ANNEXURE 'B'
POST CARD

S. No :

Station :

Division :

Railway :

Date :

COMMERCIAL DEPARTMENT
ADVANCE NOTICE OF ARRIVAL OF CONSIGNMENTS

To

.....

Dear Sir/Madam,

*

you from Station by
 under Railway Receipt No

dated..... Arrived on

.....

Will you please arrange to take immediate delivery on arrival of the consignment on production of the Railway Receipt.

2. Invoiced freight To Pay/Paid +Rs. P

Yours faithfully,

.....
 Goods Clerk/Station Master
Station

*Here state description of goods.

+ Strike out what does not apply.