



राजस्थान राज-पत्र

विशेषांक

RAJ BILL/2000/1717  
RAJASTHAN GAZETTE  
Extraordinary

साधिकार प्रकाशित

Published by Authority

चैत्र 28, गुरुवार, शाके 1924— अप्रेल 18, 2002  
Chaitra 28, Thursday, Saka 1924— April 18, 2002

भाग 4 ( ग )

उप-खण्ड ( I )

राज्य सरकार तथा अन्य राज्य प्राधिकारियों द्वारा जारी किये गये ( सामान्य  
आदेशों, उप-विधियों आदि को सम्मिलित करते हुए )

सामान्य कानूनी नियम ।

LABOUR DEPARTMENT

NOTIFICATION

Jaipur, April 16, 2002

G.S.R. 4.—In exercise of the powers conferred by Section 112 of the Factories Act, 1948 (Central Act LXIII of 1948) the State Government hereby makes the following rules further to amend the Rajasthan Control of Industrial Major Accident Hazards Rules, 1991, the same having been previously published in Rajasthan Raj-Patra Extraordinary Part-3 (Kha) dated 28-8-2001 as required by section 115 of the said Act, namely:—

#### AMENDMENT

1. (i) These rules may be called the Rajasthan control of Industrial major Accident Hazards (Amendment) Rules, 2001.

(ii) They shall come into force from the date of their final publication in the Official Gazette.

2. In rule 2 of the Rajasthan control of Industrial Major Accident Hazards Rules, 1991 (hereinafter referred to as the 'said rules').

(i) in sub-clause (i) of clause (a), the existing expression "Schedule 1 and " shall be substituted by the expression "Schedule 1 or"

(ii) the existing clause (b), shall be substituted by the following, namely:—

“(b) “industrial activity” means an operation or process carried out in a factory referred to in Schedule 4 involving or likely to involve one or more hazardous chemicals and includes on-site storage or on-site transport which is associated with that operation or process, as the case may be.”

(iii) in clause (c), for the existing expression “an installation”, the expression “a factory” shall be substituted.

(iv) the existing clause (d) shall be substituted by the following:—

“(d) “major accident” means an incident involving loss of life inside or outside the site or 10 or more injuries inside and/or one or more injuries outside or release of toxic chemical or explosion or fire or spillage of hazardous chemicals resulting in on-site or 'off-site' emergencies or damage to equipment leading to stoppage of process or adverse effects to the environment.”

3. In rule 3 of the said rules ;

(i) in sub-rule (1), after the existing expression “an industrial activity”, the expression “or isolated storage” shall be inserted.

(ii) in sub-rule (1), for the existing word “and” occurring after the words “part I of Schedule 1”, the word “or” shall be substituted.

(iii) The existing sub-rule (2) shall be substituted by the following namely:—

“(2) An occupier of an industrial activity or isolated storage in terms of sub-rule (1) of this Rule, shall arrange to obtain or develop information in the form of Safety Data Sheet as specified in Schedule-5. The information shall be made accessible to workers upon request for reference.”

(iv) in sub-rule (3), for the existing expression "material safety data sheet as indicated" wherever occurring, the expression "safety data sheet as specified" shall be substituted.

4. After the existing rule 3 of the said rules, following new rule-3A shall be inserted,—

"3A. Duties of inspector:—

The Inspector shall—

- (a) Inspect the Industrial activity or isolated storage atleast once in a calendar year ;
- (b) send annually status report on the compliance with the rules by occupiers to the Ministry of Environment & Forests through the Directorate General Factory Advice Service and Labour Institute and Ministry of Labour, Government of India;
- (c) enforce directions and procedures in respect of industrial activities or isolated storages covered under the Factories Act, 1948 and in respect of pipelines upto a distance of 500m from the outside of the perimeter of the factory, regarding —
  - (i) Notice of the major accidents as per rule 5 (1) and 5 (2).
  - (ii) Notification of sites as per rule 7 and 8.
  - (iii) Safety Reports and Safety Audits as per Rules 10-12.
  - (iv) Preparation of on-site emergency plans as per Rule 13."

5. In rule 4 of the said rules ;

- (i) in the heading, the existing expression "occupiers" shall be substituted by the expression "occupier".
- (ii) in clause (a) of sub-rule (1), the existing expression "other than isolated storage" shall be

deleted and the existing expression "and" occurring after the expression "Schedule 1" shall be substituted by the expression "or".

- (iii) In clause (b) of sub-rule (1), for the existing expression "quantity" occurring after the expression "more than the", the expression "threshold quantity" shall be substituted.
- (iv) in sub-rule (2), the existing expression "An occupier who has control of an industrial activity in terms of sub-rule (1) of this Rule shall provide evidence to show that he has-" shall be substituted by the expression "An occupier in terms of sub-rule (1) shall provide information on demand to show that he has-".
- (v) in sub clause (ii) of clause (b) of sub-rule (2), the existing expression "safety" shall be substituted by the expression "safety and health".

6. In rule 5 of the said rules ;

- (i) The heading of rule 5 shall be substituted by the following.—

"5. Notice of Major Accident."

- (ii) in sub-rule (1), for the existing expression "forthwith notify", the expression "within 48 hours notify" shall be substituted.
- (iii) in sub-rule (1), for the existing expression "Chief Inspector" occurring after the expression "furnish thereafter to the", the expression "Inspector and Chief Inspector" shall be substituted.
- (iv) the existing sub-rule (2) shall be substituted by the following:—
 

"(2) The Inspector and the Chief Inspector shall, on receipt of the report in accordance with sub-rule (1) of this rule undertake a full analysis of the major accident and send the requisite information to the Ministry of Environment & Forests through the Directorate General Factory Advice Service & Labour Institutes and Ministry of Labour, Government of India."

- (v) after the existing sub-rule (2), the following new sub-rules (3), (4) and (5) shall be added, namely:—
- “(3) An occupier shall notify to the Inspector steps taken to avoid any repetition of such occurrence on a site.
- (4) The Inspector and the Chief Inspector shall compile information regarding major accidents and make available a copy of the same to the Ministry of Environment & Forests through the Directorate General Factory Advice Service and Labour Institutes and Ministry of Labour, Government of India.
- (5) The Inspector and the Chief Inspector shall inform the occupier in writing of any lacunae which in their opinion need to be rectified to avoid major accidents”.

7. In rule 6 of the said rules;

- (i) the heading of rule 6 shall be substituted by the following:—
- “(6) Industrial activity or isolated storage to which Rules 7, 8, 10 to 13 and 15 apply.—”
- (ii) in clause (a) of sub-rule (1), for the existing expression “Rules 7 to 9 and 13 to 15”, the expression “Rules 7, 8, 13 and 15” shall be substituted and for the existing expression “quantity” occurring after the expression “more than the”, the expression “threshold quantity” shall be substituted.
- (iii) in clause (b) of sub-rule (1), for the existing expression “quantity” occurring after the expression “more than the”, the expression “threshold quantity” shall be substituted.
- (iv) in clause (c) of sub-rule (1), for the existing expression “Rules 7 to 9” appearing in the beginning shall be substituted by the expression “Rules 7 and 8” and for the existing expression

"quantity" occurring after the expression "more than the", the expression "threshold quantity" shall be substituted.

- (v) in clause (d) or sub-rule (1), for the existing expression "Rules 10 to 15", the expression "Rules 10 to 13 and 15" shall be substituted and for the existing expression "quantity" occurring after the expression "more than the" the expression "threshold quantity" shall be substituted,
- (vi) the existing sub-rule (2) shall be deleted.

8. In rule 7 of the said rules;

- (i) the heading of rule-7 "Notification of industrial activities" shall be substituted by the heading "Notification of sites".
- (ii) in sub-rule (1), for the existing expression "3 months" occurring after the expression "atleast", the expression "90 days" shall be substituted and for the expression "quantity" occurring after the expression "liable to be a", the expression "threshold quantity" shall be substituted.
- (iii) in sub-rule (1), after the existing expression "industrial activity", the expression "or isolated storage" shall be inserted.
- (iv) the existing sub-rule (2) shall be substituted by the following:—

"(2) The Chief Inspector within 60 days from the date of receipt of the report in accordance with sub-rule (1) of this rule, shall examine and on examination of the report if he is of the opinion that contravention of the provisions of the Act or the Rules made thereunder has taken place, he may issue notice for obtaining compliance."

9. In rule 8 of the said rules;

- (i) the existing heading of rule-8 shall be substituted by the following:—
- "Updating of the site notification"

(ii) for the existing expression "the " occurring after the expression "pipeline or", the expression "at the" shall be substituted and for the existing expression "Chief Inspector" occurring at the end, the expression "Inspector and the Chief Inspector" shall be substituted.

10. The existing rule 9 of the said rules shall be deleted.

11. In rule 10 of the said rules;

(i) the existing heading "Safety Reports" shall be substituted by the heading "Safety Reports and Safety Audit Reports".

(ii) in sub-rule (1), for the existing expression "3 months" occurring after the expression "atleast" the expression "90 days" shall be substituted.

(iii) in sub-rule (1) after the existing expression "industrial activity" wherever occurring the expression "or isolated storage" shall be inserted.

(iv) the existing sub-rule (2) and (3) shall be substituted by the following respectively:—

"(2) After the commencement of these Rules, the occupiers of both the new and the existing industrial activities or isolated storages shall arrange to carry out safety audit by a competent agency to be accredited by an accreditation Board to be constituted by the Ministry of Labour, Government of India in this behalf.

Further, such auditing shall be carried out as under,—

(a) Internally once in a year by a team of suitable plant personnel.

(b) Externally once in two years by a competent agency accredited in this behalf.

(c) In the year when an external audit is carried out, internal audit need not be carried out.

(3) The occupier within 30 days of the completion of the audit, shall send a report to the Chief Inspector with respect to the implementation of the audit recommendations."

12. In rule 11 of the said rules ;

(i) The existing heading of rule 11 shall be substituted by the following:—

“(11) Updating of safety reports under Rule 10.—”

(ii) In sub-rule (1) for the existing expression “Chief Inspector, at least 3 Months” the expression “Inspector and Chief Inspector atleast 90 days” shall be substituted and after the expression “industrial activity” the expression “or isolated storage” shall be inserted.

(iii) In sub-rule (2), for the existing expression “1 month” occurring after the expression “ shall within” the expression “30 days” shall be substituted and for the existing expression “Chief Inspector” occurring after the expression “report to the”, the expression “Inspector and the Chief Inspector” shall be substituted.

(iv) In sub-rule(2), after the existing expression “industrial activity”, the expression “or isolated storage” shall be inserted.

13. The existing rule 12 of the said rules shall be substituted by the following:—

“ **12. Requirement for further information to be sent to the Inspector and the Chief Inspector.**—Where in accordance with rules 10 and 11 an occupier has sent safety report and safety audit report relating to an industrial activity or isolated storage to the Inspector and the Chief Inspector, the Inspector and the Chief Inspector may, by a notice served on the occupier require him to provide such additional information as may be specified in the notice and the occupier shall send that information to the Inspector and the Chief Inspector within 90 days”.

14. The existing rule 13 of the said rules shall be substituted by the following:—

“13. Preparation of on-site emergency plan by the occupier:—



- (1) The occupier shall prepare, keep up-to-date and furnish to the Inspector and the Chief Inspector an on-site emergency plan containing details specified in Schedule 8A and detailing how major accidents will be dealt with on the site on which the industrial activity or isolated storage is carried on and that plan shall include the name of the person who is responsible for safety on the site and the names of those who are authorised to take action in accordance with the plan in case of an emergency.
- (2) The occupier shall ensure that the emergency plan prepared in accordance with sub-rule (1) of this rule, takes into account any modification made in the industrial activity or isolated storage and that every person on the site who is concerned with the plan is informed of its relevant provisions.
- (3) The occupier shall prepare the emergency plan required under sub-rule (1) of this rule.—
  - (a) before the commencement of industrial activity or isolated storage,
  - (b) within 90 days of coming in to operation of these Rules in case of an existing industrial activity or isolated storage.
- (4) The occupier shall ensure that a mock drill of the on-site emergency is conducted atleast once in every six months.
- (5) a detailed report of the mock drill conducted under Sub-rule (4) shall be made immediately available to the Inspector and the Chief Inspector."

15. The existing rule 14 of the said rules shall be deleted.

16. In rule 15 of the said rules;

- (i) the existing sub-rule (1) and (2) shall be substituted by the following respectively.—

“(1) the occupier shall take appropriate steps to inform persons out-side the site who are likely to be in an area which may be affected by a major accident about—

- (a) the nature of the major accident hazard; and
- (b) the safety measures and the Do's and Don't which should be adopted in the event of a major accident.

(2) The occupier shall take the steps required under sub-rule (1) of this rule to inform persons about an industrial activity or isolated storage before that activity is commenced, except that in respect of an existing industrial activity or isolated storage, the occupier shall comply with the requirements of sub-rule (1) of this rule within 90 days of coming into operation of these Rules.”

17. In rule 16 of the said rules, the existing expression “or the District Emergency Authority” wherever occurring after the expression “Chief Inspector” shall be deleted.

18. The existing rule 17 of the said rules shall be deleted.

19. The existing Schedule-1 and entries thereto appended to the said rules shall be substituted by the following, namely:—

#### SCHEDULE I

[See rule 2a (i), 3(1), 4(1) (a)]

#### PART-1

(a) Toxic Chemicals.—Chemicals having the following values of acute toxicity and which owing to their physical and chemical properties, are capable of producing major accident hazards:

S.No.	TOXICITY	ORAL	DERMAL	INHALATION
		TOXICITY	TOXICITY	TOXICITY
		LD50	LD50	LC50
		(MG/KG)	(MG/KG)	(MG/1)
1.	Extremely toxic	> 5	< 40	< 0.5
2.	Highly Toxic	> 5-50	> 40-200	< 0.5-2.0
3.	Toxic	> 50-200	> 200-1000	> 2-10

**(b) Flammable Chemicals:—**

(i) **Flammable gases.**— Gases which at 20° C and at standard pressure of 101.3 KPa are:—

(a) ignitable when in a mixture of 13 per cent or less by volume with air; or

(b) have a flammable range with air of atleast 12 percentage points regardless of the lower flammable limits.

(Note:—The flammability shall be determined by tests or by calculation in accordance with methods adopted by International Standards Organisation ISO No. 10156 of 1990 or by Bureau of Indian Standards ISI No. 1446 of 1985.)

(ii) **Extremely flammable liquids.**—Chemicals which have flash point lower than or equal to 23° C and boiling point less than 35° C.

(iii) **Very highly flammable liquids.**—chemicals which have a flash point lower than or equal to 23° C and initial boiling point higher than 35° C.

(iv) **Highly flammable liquids.**—Chemicals which have a flash point lower than or equal to 60° C but higher than 23° C.

(v) **Flammable liquids.**—Chemicals which have a flash point higher than 60° C but lower than 90° C.

(c) **Explosives:**—Explosives means a solid or liquid or pyrotechnic substance (or a mixture of substances) or article:—

(a) which is in itself capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings;

(b) which is designed to produce an effect by heat, light, sound, gas or smoke or a combination of these as the result of non-detonative self-sustaining exothermic chemical reaction.

**PART-II****LIST OF HAZARDOUS CHEMICALS**

1. Acetaldehyde
2. Acetic acid
3. Acetic anhydride
4. Acetone
5. Acetone cyanohydrin
6. Acetone thiosemicarbazide
7. Acetonitrile
8. Acetylene
9. Acetylene tetra chloride
10. Acrolein
11. Acrylamide
12. Acrylonitrile
13. Adiponitrile
14. Aldicarb
15. Aldrin
16. Allyl alcohol
17. Allyl amine
18. Allyl chloride
19. Aluminium (powder)
20. Aluminium azide
21. Aluminium borohydride
22. Aluminium chloride
23. Aluminium fluoride
24. Aluminium phosphide
25. Amino diphenyl
26. Amino pyridine
27. Aminophenol-2
28. Aminopterin
29. Amiton
30. Amiton dialate
31. Ammonia
32. Ammonium chloro platinate
33. Ammonium nitrate
34. Ammonium nitrite
35. Ammonium picrate
36. Anabasine

37. Aniline
38. Aniline 2, 4 6-Trimethyl
39. Anthraquinone
40. Antimony penta fluoride
41. Antimycine A
42. ANTU
43. Arsenic pentoxide
44. Arsenic trioxide
45. Arsenous trichloride
46. Arsine
47. Asphalt
48. Azinpho-ethyl
49. Azinphos. methyl
50. Bacitracin
51. Barium azide
52. Barium nitrate
53. Barium nitride
54. Benzal chloride
55. Benzenamine, 3-Trifluoromethyl
56. Benzene
57. Benzene sulfonyl chloride
58. Benzene, I-(Chloromethyl)-4 Nitro
59. Benzene arsenic acid
60. Benzidine
61. Benzidine salts
62. Benzimidazole, 4, 5-Dichloro-2 (Trifluoromethyl)
63. Benzoquinone-P
64. Benzotrichloride
65. Benzoyl chloride
66. Benzoyl peroxide
67. Benzyl chloride
68. Beryllium (powder)
69. Bicyclo (2, 2,1) Heptane-2-carbonitrile
70. Biphenyl
71. Bis (2-chloroethyl) sulphide
72. Bis (Chloromethyl) ketone
73. Bis (Tert-butyl peroxy) cyclohexane
74. Bis (Terbutylperoxy) butane

75. Bis (2,4,6-Trinitrophenylamine)
76. Bis (Chloromethyl) Ether
77. Bismuth and compounds
78. Bisphenol-A
79. Bitoscanate
80. Boron powder
81. Boron trichloride
82. Boron trifluoride
83. born trifluoride comp. with methyl ether,1,1
84. Bromine
85. Bromine pentafluoride
86. Bromo chloro methane
87. Bromodialone
88. Butadine
89. Butane
90. Butanone-2
91. Butyl amine tert
92. Butyl glycidal ether
93. Butyl isovalarate
94. Butyl peroxy maleate tert
95. Butyl Vinyl ether
96. Butyl-n-mercaptan
97. C.I. Basic green
98. Cadmium oxide
99. Cadmium stearate
100. Calcium arsenate
101. Calcium carbide
102. Calcium cyanide
103. Camphechlor (Toxaphenol)
104. Cantharidin
105. Captan
106. Carbachol chloride
107. Carbaryl
108. Carbofuran (Furadan)
109. Carbon tetrachloride
110. Carbon disulphide
111. Carbon monoxide
112. Carbophenothion

113. Carvone
114. Cellulose nitrate
115. Chloroacetic acid
116. Chlordane
117. Chlorofenvinphos
118. Chlorinated benzene
119. Chlorine
120. Chlorine oxide
121. Chlorine trifluoride
122. Chlormephos
123. Chlormequat chloride
124. Chloroacetal chloride
125. Chloroacetaldehyde
126. Chloroaniline-2
127. Chloroaniline-4
128. Chlorobenzene
129. Chloroethyl chloroformate
130. Chloroform
131. Chloroformyl morpholine
132. Chloromethane
133. Chloromethyl methylether
134. Chloronitrobenzene
135. Chlorophacinone
136. Chlorosulphonic acid
137. Chlorothiophos
138. Chloroxuron
139. Chromic acid
140. Chromic chloride
141. Chromium powder
142. Cobalt carbonyl
143. Cobalt Nitrimethylidyne compound
144. Cobalt (Powder)
145. Colchicine
146. Copper and compounds
147. Copperoxychloride
148. Coumafuryl
149. Coumaphos
150. Coumatertralyl

151. Crimidine
152. Crotenaldehyde
153. Crotonaldehyde
154. Cumene
155. Cyanogen bromide
156. Cyanogen iodide
157. Cyanophos
158. Cyanothoate
159. Cyanuric fluoride
160. Cyclo hexylamine
161. Cyclohexane
162. Cyclohexanone
163. Cycloheximide
164. Cyclopentadiene
165. Cyclopentane
166. Cyclotetramethyl entetranitramine
167. Cyclotrimethyl enterinnitranine
168. Cypermethrin
169. DDT
170. Decaborane (1, 4)
171. Demeton
172. Demeton S-Methyl
173. Di-n-propyl peroxy dicarbonate (Conc=80%)
174. Dialifos
175. Diazodinitrophenol
176. Dibenzyl peroxydicarbonate (Conc >=90%)
177. Diborane
178. Dichloroacetylene
179. Dichlorobenzalkonium chloride
180. Dichloroethyl ether
181. Dichloromethyl phenylsilane
182. Dichlorophenol-2,6
183. Dichlorophenol 1,2,4
184. Dichlorophenoxy acetic acid
185. Dichloropropane-2,2
186. Dichlorosalicylic acid-3,5
187. Dichlorvos (DDVP)
188. Dicrotophos



189. Dieldrin
190. Diepoxy butane
191. Diethyl carbamazine citrate
192. Diethyl chlorophosphate
193. Diethyl ethanolamine
194. Diethyl peroxydicarbonate (conc=30%)
195. Diethyl phenylene diamine
196. Diethylamine
197. Diethylene glycol
198. Diethylene glycol dinitrate
199. Diethylene triamine
200. Diethyleneglycol butyl ether
201. Diglycidyl ether
202. Digitoxin
203. Dihydroperoxypropane (Conc $\geq$ 30%)
204. Diisobutyl peroxide
205. Dimefox
206. Dinethoate
207. Dimethyl dichlorosilane
208. Dimethyl hydrazine
209. Dimethyl nitrosoamine
210. Dimethyl P phenylene diamine
211. Dimethyl phosphoramidi cyanidic acid (TABUM)
212. Dimethyl phosphorochloridothioate
213. Dimethyl sulfolane (DMS)
214. Dimethyl sulphide
215. Dimethyl amine
216. Dimethyl aniline
217. Dimethyl carbonyl chloride
218. Dimetilan
219. Dinitro O-cresol
220. Dinitrophenol
221. Dinitrotoluene
222. Dinoseb
223. Dinoterb
224. Dioxane-p
225. Dioxathion
226. Dioxine N

227. Diphacinone
228. Diphosphoramid octamethyl
229. Diphenyl methane di-isocynate (MDI)
230. Dipropylene Glycol Butyl ether
231. Dipropylene glycol methyl ether
232. Disec-butyl peroxydicarbonate (Conc=80%)
233. Disufoton
234. Dithiazamine iodide
235. Dithiobiurate
236. Endosulfan
237. Endothion
238. Endrin
239. Epichlorohydrine
240. EPN
241. Ergocalciferol
242. Ergotamine tartarate
243. Ethanesulfenyl chloride, 2 chloro
244. Ethanol 1-2 dichloracetate
245. Ethion
246. Ethoprophos
247. Ethyl acetate
248. Ethyl alcohol
249. Ethyl benzene
250. Ethyl bis amine
251. Ethyl bromide
252. Ethyl carbamate
253. Ethyl ether
254. Ethyl hexanol-2
255. Ethyl mercaptan
256. Ethyl mercuric phosphate
257. Ethyl methacrylate
258. Ethyl nitrate
259. Ethyl thiocyanate
260. Ethylamine
261. Ethylene
262. Ethylene chlorohydrine
263. Ethylene dibromide
264. Ethylene diamine

265. Ethylene diamine hydrochloride
266. Ethylene flourohydrine
267. Ethylene glycol
268. Ethylene glycol dinitrate
269. Ethylene oxide
270. Ethylenimine
271. Ethylene dichloride
272. Femamiphos
273. Femitrothion
274. Fensulphothion
275. Fluemetil
276. Fluorine
277. Fluoro 2-hydroxy butyric acid amid salt ester
278. Fluoroacetamide
279. Fluoroacetic acid amide salts and esters
280. Fluoroacetylchloride
281. Fluorobutyric acid amide salt esters
282. Fluorocrotonic acid amides salts esters
283. Fluorouracil
284. Fonofos
285. Formaldehyde
286. Formetanate hydrochloride
287. Formic acid
288. Formoparanate
289. Formothion
290. Fosthioatan
291. Fuberidazole
292. Furan
293. Gallium Trichloride
294. Glyconitrile (Hydroxyacetoneitrile)
295. Guanyl-4 nitrosaminoguynyl-1 tetrazene
296. Heptachlor
297. Hexa methyl terta-oxyacyclononate (Conc. 75%)
298. Hexachlorbenzene
299. Hexachlorocyclohexan (Lindane)
300. Hexachlorocyclopentadiene
301. Hexachlorodibenzo-p dioxin
302. Hexachloronapthalene

303. Hexafluoropropanone sesquihydrate
304. Hexamethyl phosphoramidate
305. Hexamethylene diamine N N dibutyl
306. Hexane
307. Hexanitrostilbene 2 2 4 4 6 6
308. Hexene
309. Hydrogen selenide
310. Hydrogen sulphide
311. Hydrazine
312. Hydrazine nitrate
313. Hydrochloric acid (Gas)
314. Hydrogen
315. Hydrogen bromide
316. Hydrogen cyanide
317. Hydrogen fluoride
318. Hydrogen peroxide
319. Hydroquinone
320. Indene
321. Indium Powder
322. Indomethacin
323. Iodine
324. Iridium tetrachloride
325. Ironpentacarbonyl
326. Iso benzan
327. Isoamyl alcohol
328. Isobutyl alcohol
329. Isobutyro nitrile
330. Isocyanic acid 3 4-dichlorophenyl ester
331. Isodrin
332. Isofluorophosphate
333. Isophorone dliisocyanate
334. Isopropyl alcohol
335. Isopropyl chlorocarbonate
336. Isopropyl formate
337. Isopropyl methyl pyrazolyl dimethyl carbamate
338. Juglone (S-Hydroxy Napthalene-1, 4 dione)
339. Ketene
340. Lactonitrile

341. Lead arsenite
342. Lead at high temp (molten)
343. Lead azide
344. Lead styphanate
345. Leptophos
346. Lenisite
347. Liquified petroleum gas
348. Lithium hydride
349. N-Dinitrobenzene
350. Magnesium powder or ribbon
351. Malathion
352. Maleic anhydride
353. Malononitrile
354. Manganese Tricarbonyl cyclopentadiene
355. Mechlor ethamine
356. Mephospholan
357. Mercuric chloride
358. Mercuric oxide
359. Mercury acetate
360. Mercury fulminate
361. Mercury methyl chloride
362. Mesitylene
363. Methacrolein diacetate
364. Methacrylic anhydride
365. Methacrylonitrile
366. Methacryloyl oxyethyl isocyanate
367. Methanidophos
368. Methane
369. Methanesulphonyl fluoride
370. Methidathion
371. Methiocarb
372. Methonyl
373. Methoxy ethanol (2-methyl cellosolve)
374. Methoxyethyl mercuric acetate
375. Methacryloyl chloride
376. Methyl 2-chloroacrylate
377. Methyl alcohol
378. Methyl amine

379. Methyl bromide (Bromomethane)
380. Methyl chloride
381. Methyl chloroform
382. Methyl chloroformate
383. Methyl cyclohexene
384. Methyl disulphide
385. Methyl ethyl ketone peroxide (conc. 60%)
386. Methyl formate
387. Methyl hydrazine
388. Methyl isobutyl ketone
389. Methyl isocyanate
390. Methyl isothiocyanate
391. Methyl mercuric dicyanamide
392. Methyl Mercaptan
393. Methyl Methacrylate
394. Methyl Phencapton
395. Methyl phosphonic dichloride
396. Methyl thiocyanate
397. Methyl trichlorosilane
398. Methyl vinyl ketone
399. Methylene bis (2-chloroaniline)
400. Methylene chloride
401. Methylenebis-4, 4 (2-chloroaniline)
402. Metolcarb
403. Mevinphos
404. Mezacarbate
405. Mitomycin C
406. Molybdenum powder
407. Monocrotophos
408. Morpholine
409. Muscinol
410. Mustard gas
411. N-Butyl acetate
412. N-Butyl alcohol
413. N-Hexane
414. N-Methyl-N, 2,4,6- Tetranitroaniline
415. Naptha
416. Naptha solvent

417. Napthalene
418. Napthyl amine
419. Nickel carbonyl/nickel tetracarbonyl
420. Nickel powder
421. Nicotine
422. Nicotine sulphate
423. Nitric acid
424. Nitric oxide
425. Nitrobenzene
426. Nitrocellulose (dry)
427. Nitrochlorobenzene
428. Nitrocyclohexane
429. Nitrogen
430. Nitrogen dioxide
431. Nitrogen oxide
432. Nitrogen trifluouide
433. Nitroglycerine
434. Nitropropane-1
435. Nitropropane-2
436. Nitroso dimethyl amine
437. Nonane
438. Norbormide
439. O-Cresol
440. O-Nitro Toluene
441. O-Toludine
442. O-Xylene
443. O/P Nitroaniline
444. Oleum
445. OO Diethyl S ethyl suph. Methyl phos
446. OO Diethyl S propythio methyl phosdithioate
447. OO diethyl  
S ethylsulphinyimethylphosphorothioate
448. OO Diethyl S  
ethylsulphonylmethylphosphorothioate
449. OO Diethyl S ethylthiomethylphosphorothioate
450. Organo rhodium complex
451. Orotic acid
452. Osmium tetroxide

453. Oxabain
454. Oxamyl
455. Oxetane, 3,3, -bis(chloromethyl)
456. Oxidiphenoxarsine
457. Oxydisulfoton
458. Oxygen (liquid)
459. Oxygen difluoride
460. Ozone
461. P-nitrophenol
462. Paraffin
463. Paraoxon (Diethyl 4 Nitrophenyl phosphate)
464. Paraquat
465. Paraquat methosulphate
466. Parathion
467. Parathion methyl
468. Paris green
469. Penta Borane
470. Penta Chloro ethane
471. Penta Chlorophenol
472. Pentabromophenol
473. Pentachloro naphthalene
474. Pentadecyl-amine
475. Pentaerythritol tetranitrate
476. Pentane
477. Pentanone
478. Perchloric acid
479. Perchloroethylene
480. Peroxyacetic acid
481. Phenol
482. Phenol.2.2-thiobis (4.6-dichloro)
483. Phenol.2.2-thiobis (4 chloro 6 methyl phenol)
484. Phenol.3-(1—Methyl ethyl)-methylcarbamate
485. Phenyl hydrazine hydrochloride
486. Phenyl mercury acetate
487. Phenyl silatrane
488. Phenyl thiourea
489. Phenylene p-diamine
490. Phorate



491. Phosazetin
492. Phosfolan
493. Phosgene
494. Phosmet
495. Phosphamidon
496. Phosphine
497. Phosphoric acid
498. Phosphoric acid dimethyl (4-methyl thio) phenyl
499. Phosphorothioic acid dimethyl S (2-Bis) Ester
500. Phosphorothioic acid methyl (ester)
501. Phosphorothioic acid, OO Dimethyl S-(2-methyl)
502. Phosphorothioic, methyl-ethyl ester
503. Phosphorous
504. Phosphorous oxychloride
505. Phosphorous pentaoxide
506. Phosphorous trichloride
507. Phosphorous penta chloride
508. Phthalic anhydride
509. Phylloquinone
510. Physostigmine
511. Physostigmine salicylate (1.1)
512. Picric acid (2,4,6, trinitrophenol)
513. Picrotoxin
514. Piperdine
515. Piprotal
516. Prinifos-ethyl
517. Platinous chloride
518. Platinum tetrachloride
519. Potassium arsenite
520. Potassium chlorate
521. Potassium cyanide
522. Potassium hydroxide
523. Potassium nitride
524. Potassium nitrite
525. Potassium peroxide
526. Potassium silver cyanide
527. Powdered metals and mixtures
528. Promecarb

529. Promurit
530. Propanesultone
531. Propargyl alcohol
532. Propargyl bromide
533. Propen-2-chloro-1,3-diou diacetate
534. Propiolactone beta
535. Propionitrile
536. Propionitrile, 3-chloro
537. Propiophenone, 4-amino
538. Propyl chloroformate
539. Propylene dichloride
540. Propylene glycol, allylether
541. Propylene imine
542. Propylene oxide
543. Prothoate
544. Pseudocumene
545. Pyrazoxon
546. Pyrene
547. Pyridine
548. Pyridine, 2-methyl-3-vinyl
549. Pyridine, 4-nitro-1-oxide
550. Pyridine, 4-nitro-1-oxide
551. Pyriminil
552. Quinaliphos
553. Quinone
554. Rhodium trichloride
555. Salcomine
556. Sarin
557. Selenious acid
558. Selenium Hexafluoride
559. Selenium oxychloride
560. Semicarbazide hydrochloride
561. Silane (4-amino butyl) diethoxy-meth
562. Sodium
563. Sodium anthra-quinone-1-sulphonate
564. Sodium arsenate
- 565. Sodium arsenite**
- 566. Sodium azide**

567. Sodium cacodylate
568. Sodium chlorate
569. Sodium cyanide
570. Sodium fluoro-acetate
571. Sodium hydroxide
572. Sodium pentachloro-phenate
573. Sodium picramate
574. Sodium selenate
575. Sodium selenite
576. Sodium sulphide
577. Sodium tellorite
578. Stannane acetoxy triphenyl
579. Stibine (Antimony hydride)
580. Strychnine
581. Strychnine sulphate
582. Styphinic acid (2,4,6-trinitroresorcinol)
583. Styrene
584. Sulphotec
585. Sulphoxide, 3-chloropropyl octyl
586. Sulphur dichloride
587. Sulphur dioxide
588. Sulphur monochloride
589. Sulphur tetrafluoride
590. Sulphur trioxide
591. Sulphur acid
592. Tellurium (Powder)
593. Tellurium hexafluoride
594. TEPP (tetraethyl pyrophosphate)
595. Terbufos
596. Tert-Butyl alcohol
597. Tert-Butyl peroxycarbonate
598. Tert-Butyl peroxy isopropyl
599. Tert-Butyl peroxyacetate (Conc $\geq$ 70%)
600. Tert-Butyl Peroxypivalate (Conc $\geq$ 77%)
601. Tert-Butyperoxyiso-butyrate
602. Terta hydrofuran
603. Tetra methyl lead
604. Tetra nitromethane

605. Tetra-chlorodibenzo-p-dioxin.1.2.3.7.8.(TCDD)
606. Tetraethyl lead
607. Tetrafluoriethyne
608. Tetramethylene disulphotetramine
609. Thallic oxide
610. Thallium carbonate
611. Thallium sulphate
612. Thallous chloride
613. Thallous malonate
614. Thallous sulphate
615. Thiocarbazide
616. Thiocynamicacid.2(Benzothiazolyethio) methyl
617. Thiofamox
618. Thiometon
619. Thionazin
620. Thionyl chloride
621. Thiophenol
622. Thiosemicarbazide
623. Thiourea (2-chloro-phenyl)
624. Thiourea (2-methyl phenyl)
625. Triplate (2,4,dimethyl-1,3di-thiolane)
626. Titanium powder
627. Titanium tetra-chloride
628. Toluene
629. Toluene 2.4-di-isocyanate
630. Toluene 2.6-di-isocyanate
631. Trans-1.4-di-chloro-butene
632. Tri nitor anisole
633. Tri (cyclohexyl) methylstannyl 1.2.4 triazole
634. Tri (cyclohexyl) stannyl-1H-1.2.3-Triazole
635. Triaminotrinitrobenzene
636. Triamphos
637. Triazophos
638. Tribromophenol 2.4.6
639. Trichloro naphthalene
640. Trichloro chloromethyl silane
641. Trichloroacetyl chloride
642. Trichlorodichlorophenyl silane

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643. Trichloroethyl silane
  644. Trichloroethylene
  645. Trichloromethane sulphenyl chloride
  646. Trichloronate
  647. Trichlorophenol 2.3.6
  648. Trichlorophenol 2.4.5
  649. Trichlorophenyl silane
  650. Trichlorophon
  651. Triethoxy silane
  652. Triethylamine
  653. Triethylene melamine
  654. Trimethyl chlorosilane
  655. Trimethyl propane phosphite
  656. Trimethyl tin chloride
  657. Trinitro aniline
  658. Trinitro benzene
  659. Trinitro benzoic acid
  660. Trinitro phenetole
  661. Trinitro -m-cresol
  662. Trinitrotoluene
  663. Tri orthocresyl phosphate
  664. Triphenyl tin chloride
  665. Tris (2-chloroethyl) amine
  666. Turpentine
  667. Uranium and its compounds
  668. Valino mycin
  669. Vanadium pentaoxide
  670. Vinyl acetate monomer
  671. Vinyl bromide
  672. Vinyl chloride
  673. Vinyl cyclohexane dioxide
  674. Vinyl fluoride
  675. Vinyl norbornene
  676. Vinyl toluene
  677. Vinyletene chloride
  678. Warfarin
  679. Warfarin Sodium
  680. Xylene dichloride
  681. Xylidine
  682. Zinc dichloropentanitrile
  683. Zinc phosphide
  684. Zirconium & compounds"
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20. In Schedule 2 appended to the said rules.

(i) the existing expressions "quantities" or "quantity" wherever occurring shall be substituted by the expression "threshold quantities" or "threshold quantity" respectively.

(ii) the existing expression "the occupier" occurring in clause (a) and clause(b) (ii) shall be substituted by the expression "the same occupier".

(iii) the existing table and entries thereto shall be substituted by the following.—

Sl. No.	Chemical	Threshold Quantity	
		For Application of Rules 4, 5, 7, 8, 13 and 15	For application of Rules 10 to 12
1	2	3	4
1.	Acrylonitrile	350	5000
2.	Ammonia	60	600
3.	Ammonium nitrate (a)	350	2500
4.	Ammonium nitrate Fertilizers (b)	1250	10000
5.	chlorine	10	25
6.	Flammable gases as defined in Schedule 1 paragraph (b) (i)	50	3000
7.	Extremely flammable liquids as defined in Schedule.. 1, paragraph (b) (ii)	5000	50000
8.	Liquid ,oxygen	200	2000
9.	Sodium chlorate	25	250
10.	Sulphur dioxide	20	500
11.	Sulphur trioxide	15	100
12.	Carbonyl chloride	0.750	0.750
13.	Hydrogen sulphide	5	50
14.	Hydrogen Flouride	5	50
15.	Hydrogen cyanide	5	20
16.	Carbon disulphide	20	200

1	2	3	4
17.	Bromine	50	500
18.	Ethyleneoxide	5	501
19.	Propyleneoxide	5	50
20.	2-Propenal (Acrolein)	20	200
21.	Bromomethane (methyl bromide)	20	200
22.	Methyl isocyanate	0.150	0.150
23.	Tetraethy lead or tetramethyl lead	5	50
24.	1, 2 Dibromoethane (Ethylene dibromide)	5	50
25.	Hydrogen chloride (liquefied gas)	25	250
26.	Diphenyl methane di-isocyanate (MDI)	20	200
27.	Toluene di-isocyanate (TDI)	10	100"
28.	Very Highly Flammable liquids as defined in Schedule 1, paragraph (b) (iii)	7000	7000
29.	Highly Flammable liquids as defined in Schedule 1, paragraph (b) (iv)	10000	10000
30.	Flammable liquids as defined in Schedule 1. paragraph(b) (v)	15000	100000

21. In Schedule 3 appended to the said rules.

(i) in the table appended to the part-1, the existing headings and sub-headings of the columns, shall be substituted by the following namely :—

S. No.	Chemical	Threshold Quantity		CAS Number
		For Application of Rules 5,7,8, 13 and 15	For Application of Rules 10 to 12	
1	2	3	4	5

(ii) In part-I. the existing serial numbers 101, 106, 109, 110, 112, 117, 123, 124, 144, 148, 150, 160, 163, 164 and 165 and entries thereto shall be substituted by the following respectively:—

1	2	3	4	5
101.	Acrolein (2-propenol)	20t	200t	107-02-8
106.	Bromine	40t	500t	7726-95-6
109.	Diphenyl methane di-isocyanate (MDI)	20t	200t	101-68-8
110.	Ethylene Dibromide	5t	50t	106-93-4
112.	Formaldehyde (Concentration $\geq 90\%$ )	5t	50t	50-00-0
117.	Methyl bromide (Bromomethane)	20t	200t	74-83-9
123.	Tetramethyl lead	5t	200t	75-74-1
124.	Toluene di-isocyanate (TDI)	10t	100t	584-84-9
144.	Liquid oxygen	200t	2000t	7782-44-7
148.	Propylene oxide	5t	50t	75-56-9
150.	Barium azide	100kg	-	18810-58-7
160.	1-guanyl-4- nitrosamineoguanyl-1- tetrazene	100kg		109-27-3
163.	Lead Azide	100kg		13424-46-9
164.	Lead Styphnate (lead 2,4,6-trinitro- resorcinoxide)	100kg		15245-44-0
165.	Mercury fulminate	100Kg		628-86-4

(iii) For part -II and the entries relating thereto the following shall be substituted namely.—

"Part-II

CLASSES OF SUBSTANCES AS DEFINED IN PART-I  
SCHEDULE-1 AND NOT SPECIFICALLY NAMED IN  
PART -I OF THIS SCHEDULE

Sl. No.	Chemical	Threshold Quantity	
		For Application of Rules 5,7,8 and 13 and 15	For application of Rules 10 to 12
1	2	3	4



## Group 5-Flammable substances

1	2	3	4
1.	Flammable Gases	15t	200t
2.	Extremely Flammable liquids	1000t	5000t
3.	Very Highly flammable liquids	1500t	10000t
4.	Highly Flammable liquids which remains liquid under pressure	25t	200t
5.	Highly Flammable liquids	2500t	20000t
6.	Flammable liquids	5000t	50000t "

22. In Schedule 4 appended to the said rules:—

(i) the existing expressions "Industrial Installation" and "installations" wherever occurring shall be substituted by the expressions " Factory" and "Factories" respectively.

(ii) in serial number 4, after the words "production processing," the word "use" shall be inserted.

23. In Schedule 7 appended to the said rules, the existing expression "Activities" appearing in the heading of the schedule shall be deleted.

24. After the existing schedule 8 appended to the said rules following new schedule 8A shall be added:—

"SCHEDULE 8A

[(See Rule 13 (1) ]

DETAILS TO BE FURNISHED IN THE ON-SITE  
EMERGENCY PLAN

1. Name and address of the person furnishing the information.

2. Key personnel of the organisation and responsibilities assigned to them in case of an emergency.

3. Outside organisations if involved in assisting during on-site emergency.—

(a) type of accidents.

(b) Responsibility assigned.

4. Details of liaison arrangement between the organisations.

5. Information on the preliminary Hazard analysis.—

(a) Type of accidents

(b) System elements or events that can lead to a major accident.

- (c) Hazards.
- (d) Safety relevant components
- 6. Details about the site—
  - (a) Location of dangerous substances
  - (b). Seat of Key personnel
  - (c) Emergency control room
- 7. Description of hazardous chemicals at plant site—
  - (a) Chemicals (quantities and toxicological data)
  - (b) Transformation if any which could occur
  - (c) Purity of hazardous chemicals.
- 8. Likely dangers to the plant
- 9. Enumerate effects of:—
  - (i) Stress and strain caused during normal operation.
  - (ii) Fire and explosion inside the plant and effect if any, of fire and explosion out side.
- 10. Details regdring
  - (i) Warning alram & safety and security systems.
  - (ii) Alarm and hazard control plans, in line with disaster control and hazard control planning, ensuring the necessary technical and organiza-tional precaution.
  - (iii) reliable measuring instruments, control units and servicing of such equipments.
  - (iv) Precautions in designing of the foundation and load bearing parts of the building.
  - (v) Continuous surveillance of opertations.
  - (vi) Maintenance and repair work according to the generally recognized rules of good engineering practices.
- 11. Details of communication facilities availabe during emergency and those required for an off-site emergency.
- 12. Details of fire fighting and other facilities available and those required for an off-side emergency.
- 13. Details of first aid and hospital services available and its adequacy."

[No.F 3 (8) legal/F&B/98]

By the Order of the Governor,  
 प्रभाकर भट्ट,  
 Chief Inspector Cum Dy. Secretary  
 Factories & Boilers Inspecton Deptt.