GOVERNMENT OF THE PUNJAB

NOTIFICATION

NO. ( )/20___,- In exercise of the powers conferred by Section 31 of the Punjab Environmental Protection Act, 1997 (amended, 2012), the Punjab Government is pleased to make the following Rules, namely:-

1. Short Title and Commencement. (1) These Rules may be called the Punjab Hazardous Substances Rules 2020.

(2) They shall come into force at once.

2. Definitions. (1) In these rules unless there is anything repugnant in the subject or context-

a) "**Act**" means Punjab Environmental Protection Act 1997 (amended, 2012).

b) "**Agency**" means Punjab Environmental Protection Agency (EPA);

c) "**Authorized officer**" means an officer of the Agency authorized for specific assignment under these rules by concerned authority;

d) "**Director General**" means the Director General of the Provincial Agency Punjab;

e) "**Eliminated Chemicals**" means chemical enlisted in Schedule -I Part B.

f) "**Hazardous Chemical/Substances**" means –

i. A substance or mixture of substance , other than a pesticides as defined in Agriculture Pesticides Ordinance , 1971 (II of 1971), which, by reason of its chemical activity or toxic , explosive, flammable , corrosive , radioactive or other characteristics causes , or likely to cause, directly or in combination with other matters, an adverse environmental effects ; and

ii. Any substance which may be prescribed as a hazardous substance as per PEP ACT, 1997;

iii. Any chemical/substance which is enlisted in Schedule-I part A excluding part B;

iv. Radio Active substances will be managed by Atomic Energy Commission.

v. Conditions of Stockholm Convention applicable to all types of Persistent Organic pollutants.

g) "**Import**" with its grammatical variations and cognate expression, means brining into Pakistan from a place outside Pakistan;

h) "**Industrial activity**" means- Any operation or process for manufacturing, making, formulating synthesizing, altering, repairing, ornamenting, finishing, packing, or otherwise treating any article or substances with a view to its use, sale, transport, delivery or disposal, or for mining, or for oil and gas exploration and development, or for pumping water or sewage, or for generating, transforming, or transmitting power or for any other industrial or commercial purposes;

i) "**Major accident**" means -an incident involving loss of life inside or outside the installation, or ten or more injuries inside and/or one or more injuries outside or release of toxic chemicals 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; storage and industrial activity at a site handling (including transport through

carrier) of hazardous chemicals.

j) "**Schedule**" means Schedule to these rules;

k) "**Section**" means Section to Act ibid;

l) "**Site**" means any location where hazardous chemicals are manufactured or processed, stored, handled, used, disposed of and includes the whole of an area under the control of an occupier and includes pier, jetty or similar structure whether floating or not;

m) "**Treatment and Disposal of Hazardous Substance**" means the treatment and disposal of expire hazardous substances/chemicals;

n) "**Worker**" shall have the same meaning as defined in clause (h) of section 2 of the Factories Act, 1934 (XXV of 1934).

(2) All other words and expressions used in these regulations but not defined shall have the same meanings as are assigned to them in the Act and in case of any ambiguity/missing information in the Rules, the procedure provided in the Act shall be adhered to/adapted.

3. Substances Prescribed as Hazardous Substances. As provided in sub clause (a) & (b) of clause (xviii) of section 2, of the Act, substances listed in Schedule-I are hereby prescribed as hazardous substances.

4. Filing Application for License: (1) An application for grant of license under Section 14 of PEPA 1997 (amended, 2012) shall be filed to the Director General in Form A of Schedule II along with requisite documents given in said Schedule and receipt of payment of Review Fee as specified in Schedule III.

(2) In case of import of hazardous substances, the proponent shall apply to the Joint Secretary (International Cooperation), Ministry of Climate Change, Islamabad for approval.

(3) Import of the hazardous and other wastes from any country to Punjab for disposal shall not be permitted.

5. Environmental Impact Assessment Report of Project or Industrial Activity: (1) An application for grant of license filed under section 14 PEPA 1997 (amended, 2012) shall be accompanied by an Environmental Impact Assessment (EIA) Report of project or industrial activity involving generation, collection, consignment, transport, treatment, disposal, storage or handling of a hazardous substance in respect of which the license is sought.

(2) The Environmental Impact Assessment (EIA) submitted by the applicant shall be prepared as per Guidelines for the Preparation and Review of Environmental Reports, including:-

a) Details of generation, collection, consignment, transport, treatment, disposal, storage, handling or import of a hazardous substance in respect of which the license is sought;

b) Name, list and quantity of hazardous substances handled by applicant;

c) Information regarding status of the project under section 12 of the Act ibid,

d) A safety plan, containing information specified in sub-rule (1) of rule 15.

e) A waste management plan, if hazardous waste shall be generated by the project or industrial activity, containing information specified in sub-rule (1) of rule 16.

f) Firefighting and Emergency Evacuation Plan (emergency exits, spillage control measures along with PPES details).

g) Material Safety Data Sheet (MSDS) of hazardous substance.

h) Laboratory report from EPA certified Laboratory as evidence for compliance of Punjab Environmental Quality Standards (PEQS).

i) Acknowledge acceptance of the stipulated conditions by executing an undertaking in the form prescribed in Schedule VI.

6. Preliminary Scrutiny: The EIA Directorate shall, within Ten (10) working days of the receipt of the application:

(a) Confirm that the application along with the Environmental Impact Assessment Report (EIA) and requisite document is complete for review; or

(b) Return the application on non-provision of any document/ information referred in Form A Schedule II.

(c) Acquire any other additional documents from the proponent.

7. Review: The EIA Directorate shall, within forty five (45) days of the confirmation of completeness regarding provision of requisite documents enlisted in Form A of Schedule II, review the content of Environmental Impact Assessment (EIA) Report and other requisite documents or otherwise.

i. Quantitative and qualitative assessment of Environmental Impact Assessment Report and documents and accord its approval subject to such conditions as it may deem fit to impose, require that the environmental impact assessment be re-submitted after such modifications as may be stipulated, or reject the project as being contrary to environmental objectives.

ii. The In-charge District Officer shall inspect the site of the proposed project and prepared a detail Site Inspection Report with his clear recommendation on site suitability or otherwise.

iii. In reviewing the EIA report; after the completion of data/information furnished by the proponent and Site Inspection Report, the Agency shall consult such Committee of Experts as may be constituted for the purpose by the Director-General for final decision.

8. Issuance of License: (1) After the approval by Director General and recommendation of the Committee of Experts, the Agency shall issue a license in the form prescribed in Form-B of Schedule-II. In case the Committee of experts or Director General rejects the application, the proponent will be informed/ communicated accordingly.

(2) If a license is defaced, damaged or lost, duplicate thereof shall be issued by EIA Directorate on payment of such Fee as prescribed in Schedule-III after obtaining Compliance Status Report (CSR) of the conditions of the original license.

(3) For renewal of license, an application shall be submitted to Director General, EPA in Form A of Schedule II, at least 30 days prior to the date of expiry of the license.

(4) A license accorded by the Agency under section 14 shall be valid for a period of three years.

9. Conditions of License: (1) A License granted under Section 14 of the Act ibid shall be subject to such conditions as it may deem fit to impose.

(2) The Agency will ensure that the licensee maintain adequate insurance cover for any adverse aspect of the project site.

(3) License will not be applicable for sale of acids/chemicals on small scale i.e., in the shops of local markets.

(4) Manufacturing, storage, treatment and disposal of hazardous substances will not be allowed in residential, agricultural or environmentally sensitive area.

(5) The licensee will be bound to inform the Agency about the details of his subsequent consignments, in form of Annual Audit Report.

10. General Safety Precautions: (1) A licensee shall ensure that the following safety precautions are conveyed to persons who deal with generation, collection, consignment, transportation, treatment, disposal, storage and handling of Hazardous Substances–

a. Carefully read, and follow the instructions and safety precautions printed on the container; (Urdu or local language translation of the same may be preferably given to the local buyers).
b. When opening the container, wear protective/chemical resistant clothing and equipment including safety helmet or cloth cap, spectacles or goggles with side shields and a face shield, respirator or mask, chemical resistant rubber or plastic gloves, and work boots, as may be required by MSDS of relevant chemical/substance;
a. Avoid contact of the hazardous substance with exposed skin or eyes, and if such contact occurs, wash the exposed area immediately and consult a doctor;
b. Avoid contamination of protective clothing and equipments with the hazardous substance, and if such contamination occurs, remove the clothing, gloves and footwear immediately and wash the same with water thoroughly before reuse;
c. Do not eat, drink or smoke in the vicinity of hazardous substances.
d. Any unauthorized person will not be allowed to enter the premises dealing with hazardous substances.

(2) The general safety precautions mentioned in sub-rule (1) shall be in addition to such other specific precautions or measures that may be required to be conveyed by the licensee for a particular hazardous substance.

11. Safety Precautions for Workers: The licensee shall ensure that the following safety precautions are taken in respect of workers employed by him for handling hazardous substances-

a. No worker aged below 18 years or over 60 years shall be employed for any job involving physical handling of hazardous substances.
b. All workers shall be thoroughly trained in safety precautions for handling hazardous substances and shall be supervised by qualified supervisors.
c. Personal Protective Equipment (PPEs) and clothing as per MSDS of relevant chemical/substance shall be available for all workers who may be exposed to any hazardous substance, and no worker shall be permitted on job unless and until he is wearing such PPEs.
d. Adequate supply of water shall be made available to the workers for personal washing as well as for washing their protective clothing and equipment.
e. Protective clothing and equipment of the workers shall be washed and cleaned as often as may be required to ensure their efficacy.
f. No worker shall be permitted to eat, drink or smoke till he has removed his protective clothing

and equipment, washed his hands and face, and left the place of work.

g. All fire-fighting, emergency and safety equipment (emergency kits, PPE, first aid box, eye wash facility, washing area and suitable/specific fire extinguishers etc.) shall be frequently checked/ drilled and maintained.
h. First aid medical facility equipped with required antidotes shall be available in the premises, supervised by trained staff.
i. Medical check-up of all workers shall be carried out at the time of employment and at least once a year thereafter.
j. A record of every worker shall be maintained containing, amongst other details, his name and address, his medical check-up history, and the hazardous substances handled by him.
k. Mock drills may be arranged biannually for workers to cope with emergency situation.

12. Packing and Labeling: (1) A container of a hazardous substance shall be of such size, material and design as to ensure that –

a. It can be stored, transported and used without leakage, and safely;
b. The hazardous substance therein does not deteriorate in a manner as to render it more likely to cause, directly or in combination with other substances, an adverse environmental effect.

(2) The following information shall be printed conspicuously, legibly and indelibly on every container of a hazardous substance –

i. Name of the hazardous substance;
ii. Name, address and license number of the licensee;
iii. Net contents (volume or weight);
iv. Date of manufacture and date of expiry, if any;
v. a warning statement comprising –
    a. the word "DANGER!" in red on a contrasting background;
    b. a picture of a skull and cross-bones;
    c. pertinent instructions for use, storage and handling and safety precautions relating thereto.
vi. instructions regarding return or disposal of the empty container:

Provided that if the hazardous substance has an inner container as well as an outer container, the information shall be printed on both containers:

Provided further that, if it is impracticable to print the aforesaid information on the container itself due to its size, material or design, the same shall be printed on a label or tag which shall be conspicuously affixed or attached to the container in such manner as to render it difficult to remove. The empty chemical containers / drums may not be used for other purposes:

vii. Basic instructions mentioning immediate steps to be taken in case of any accident or emergency, preferably in local language.

13. Conditions for Premises: The premises in which a hazardous substance is generated, collected, consigned, treated, disposed of, stored or handled shall –

(a) Comply with the conditions specified in Schedule IV; and

(b) be fitted with a notice on the outer door or gate bearing the following information:

i. the words "DANGER! HAZARDOUS SUBSTANCES!" in red, on a contrasting background; and

ii. a prominent picture of skull and cross-bones.

14. Treatment and Disposal: In case the treatment and disposal of hazardous substance is required, the applicant/licensee shall ensure one or combination of following environmentally sound treatment and disposal methods:—

i. By treating the substance using a method that changes the characteristics or composition of the substance so that the substance or any product of such treatment is no longer a hazardous substance; or

ii. The license shall deposit expire hazardous substance, within its jurisdiction, to a disposal landfill site, selected by respective Provincial EPA, capable of completely destroying hazardous substance or irreversibly transforming them using one of the following methods:

a. physico-chemical treatment (such as chemical destruction)
b. incineration on land (thermal method)
c. transforming them into harmless entities using the waste as a fuel or other means to generate energy in safe way (not for material containing hazardous substance)
d. Biological methods i.e., land farming, bioremediation, microbial decomposition, etc. as the case may be.
e. by storing waste in hazardous waste landfill site. Leachate collection systems must be installed between the liners, and groundwater monitoring wells are required.

15. Safety Plan: (1) The safety plan to be submitted by an applicant under clause (d) of sub-rule (2) of rule 5 shall include –

(a) An analysis of major accidental hazards relating to the handling, storage, generation and disposal of hazardous substance involved;

(b) An assessment of the nature and scope of the adverse environmental effects likely to be caused by major accidents;

(c) A description of the safety equipment and systems installed and safety precautions taken; and

(d) A description of the emergency measures proposed to be taken at the premises of the applicant to control a major accident, and to mitigate its adverse environmental effect.

(e) Details about inspection and monitoring procedures, packaging, labeling, premises, release/ leakage detection system

(2) Before issuance of the license, the EIA Directorate in consultation with In-charge District Officer shall review the safety plan to ensure that it covers all anticipated contingencies and all emergencies likely to result from a major accident involving the hazardous substance involved and that the licensee are aware of their specific responsibilities there under.

(3) After obtaining of the license, the licensee shall ensure that all persons liable to be affected by the approved safety plan are informed of the relevant provisions thereof.

16. Waste Management Plan: (1) The waste management plan, if required to be submitted by an applicant under clause (e) of sub-rule (2) of rule 5, shall –

a) provide for the generation, collection, transport and disposal of the hazardous waste in accordance with the principles of state of art technology to protect environment against adverse environmental effects.
b) ensure that the hazardous waste is not mixed with non-hazardous waste, unless the applicant can prove that such mixing will better protect against an adverse environmental effect.

(2) The waste management plan shall be reviewed every year by the licensee to take into consideration the development of state of art technologies and management practices which can better protect against an adverse environmental effect, and if required revised waste management plan and fresh Environmental Impact Assessment (EIA) Report shall be submitted to EIA Directorate with the application for renewal of license.

17. Transport of Hazardous Substances: (1) The applicant shall, for grant of license for transport of a hazardous substance under Section 14 of the Act ibid, follow the precautions as per schedule-VIII and provide the information contained in Form A of Schedule II.

(2) If the license applied for is granted, the In-charge District Officer shall ensure that other relevant Government Departments or Agencies are informed about the particulars of the proposed transportation activity, for taking necessary safety precautions and other measures.

(3) For the approval of Inter-Provincial transportation of hazardous substances/chemicals, the applicant shall bound to obtain NOC from all relevant Provincial Agencies or departments.

18. Reporting of Accidents. (1) Where an accident occurs within or outside the premises of a licensee, during manufacturing, loading or unloading, supply, storage, marketing, transportation, the licensee shall immediately inform to the In-Charge District Officer and shall submit a report in the form prescribed as Schedule V, within 24 hours and weekly thereafter, the licensee will also inform to all relevant relief giving government departments / agencies.

(2) On receipt of the report under sub rule (1), the In-Charge District Officer shall require the licensee to carry out a detailed environmental audit of the major accident and initiate appropriate action in accordance with the approved safety plan or otherwise, to control the major accident, mitigate its adverse environmental effect and prevent from recurring and submit the report to Director General, EPA, Punjab.

(3) In case of loss of life or property or injury or loss of livestock or fauna & flora, the licensee will be responsible and Director General, EPA, Punjab shall initiate legal action against him as per law.

19. Entry, Inspection & Monitoring: (1) For the purpose of verification of any matter relating to the review or to the monitoring of compliance of conditions of the license, the In-Charge District Officer or any other person as authorized by the Agency shall be entitled to enter and inspect the premises in which the hazardous substance is being generated, collected, supplied, consigned, treated, disposed of, stored or handled.

(2) The licensee shall ensure full cooperation of his staff at the premises to facilitate the inspection and shall provide such information as may be required for this purpose and pursuant thereto.

(3) In case of non-provision of access for inspection, provisions of section 7 (g, h, i & j) of the Act ibid will be initiated against the licensee.

(4) The In-Charge District Officer will maintain record of inspection or monitoring.

20. Cancellation of License: (1) Notwithstanding anything contained in these rules, If at any time on the basis of information or report received or inspection carried out, the In-Charge District Officer is of the opinion that the conditions of an approval/license have not been complied with, or that the information supplied by a licensee in the approved Environmental Impact Assessment Report was incorrect, the non-compliance report will be forwarded to EIA Directorate for issuance of show cause notice, within two weeks of receipt thereof, why the license /approval should not be cancelled/nulled.

(2) If no reply is received within the stipulated time/fifteen days or if the reply is considered unsatisfactory, the Agency may, after giving the licensee an opportunity of being heard:

i. require the licensee to take such measures and to comply with such conditions within such period as it may be specified, failing which the license shall stand cancelled; or
ii. cancel the license.

(3) On cancellation of the license under sub rule (2), the licensee shall cease his operation immediately/forthwith.

(4) Any action taken under this rule shall be without prejudice to any other action that may be taken against the licensee in accordance with law.

(5) After cancellation of the license, if the defaulting person does not stop the operational activities of project, the Agency will proceed against the licensee under Section 16 & 17 of the Act ibid.

21. Register of Projects: (1) The EIA Directorate shall maintain a register as prescribed in Schedule-VII, containing detail of projects securing License under Section 14 of the Act ibid.

22. Other Approvals**:** Issuance of a license under section 14 PEPA 1997 (amended 2012) shall not absolve the licensee to obtain any other approval or consent required under any law for the time being in force.

23. Appeal: Any person aggrieved by an order or direction of the Agency and Committee of Experts under rules 8, 9 & 20, may prefer an appeal before the Punjab Environmental Tribunal within thirty days of the date of receipt of the impugned order or direction.

24. Powers of the Agency to make committee, rules and regulations: (1) Notwithstanding anything contained in the rules, the Agency may:

a) Appoint and constitute Committee of Experts as mentioned in Rule 7(iii).
b) Impose conditions in addition to the condition of license.
c) Null the license granted under the rules.

SECRETARY
GOVERNMENT OF THE PUNJAB
ENVIRONMENT PROTECTION DEPARTMENT

SCHEDULE-I

Part-A [See Rule 3]

List of Prescribed Hazardous Substances

Sr. No	NAME OF CHEMICAL	CAS NO	Sr. No	NAME OF CHEMICAL	CAS NO
1.	Acetaldehyde	75-07-0	2.	Amiton Dialate	
3.	Acetic acid	64-19-7	4.	Ammonia	7664-41-7
5.	Acetic anhydride	108-24-7	6.	Ammonium Chloride	12125-02-9
7.	Acetone	67-64-1	8.	Ammonium Sulphamate	7773-06-0
9.	Acetone Cyanohydrins	75-86-5	10.	Aniline	62-53-3
11.	Acetone Thiosemicarbazide	1752-30-3	12.	Aniline 2,4,6-Trimethyl	88-05-1
13.	Acetylene	74-86-2	14.	Anthraquinone	84-65-1
15.	Acetyl Chloride	75-36-5	16.	Antimony & Compounds	7440-36-0
17.	Acrolein	107-02-8	18.	Arsenic & Compounds	7440-38-2
19.	Acrylamide	79-06-1	20.	Arsine	7784-42-1
21.	Acrylonitrile	107-13-1	22.	Asbestos	1332-21-4
23.	Adiponitrile	111-69-3	24.	Azinphos-ethyl	2642-71-9
25.	Aldicarb	116-06-3	26.	Azinphos Methyl	86-50-0
27.	Allyl alcohol	107-18-6	28.	Bacitracin	1405-87-4
29.	Allyl amine	107-11-9	30.	Barium and Compounds	513-77-9
31.	Allyl Chloride	107-05-1	32.	Benzal Chloride	98-87-3
33.	Amino Biphenyl	92-67-1	34.	Benzenamine 3-Trifluoromethyl	98-16-8
35.	3-Amino-1,2,4 Triazole	61-82-5	36.	Benzene	71-43-2
37.	Aminopterin	54-62-6	38.	Benzene Sulfonyl Chloride	98-09-9
39.	Amiton	78-53-5	40.	Benzene1- (chloromethyl) -4 Nitro	
41.	Benzidine and Salt	92-87-5	42.	Benzene arsenic acid	98-05-5
43.	Benzimidazole,4,5-dichloro-2 (Trifluoromethyl)	3615-21-2	44.	Carbon Disulphide	75-15-0
45.	Benzyl Chloride	100-44-7	46.	Carbon Monoxide	630-08-0
47.	Beryllium and Compounds	7440-41-7	48.	Cellulose Nitrate	9004-70-0
49.	Bis (2-chloroethyl) Sulphide	505-60-2	50.	Chlordane	12789-03-6

Sr. No	NAME OF CHEMICAL	CAS NO	Sr. No	NAME OF CHEMICAL	CAS NO
51.	Bis (chloroethyl) Ketone		52.	Chlorinated Benzene	108-90-7
53.	Bis (Tert-butyl Peroxy) Cyclohexane	3006-86-8	54.	Chlorine	7782-50-5
55.	Bis (Tert-butyl Peroxy)Butane	2167-23-9	56.	Chlorine Oxide	10049-04-4
57.	Bis (2,4,6-Trinitrophenyl)amine	131-73-7	58.	Chlorine Trifluoride	7790-9102
59.	Bromo Chloro Methane	74-97-5	60.	Chloroacetaldehyde	107-20-0
61.	Bromoform	75-25-2	62.	Chlorobenzene	108-90-7
63.	Butyl amine Tert	75-64-9	64.	Chloroform	67-66-3
65.	Butyl-n-mercapton	109-79-5	66.	Chloromethyl Methylether	107-30-2
67.	Cadmium and Compounds	7440-43-9	68.	Chloronitrobenzene	88-73-3
69.	Calcium arsenate	7778-44-1	70.	Chloroethyle Vinyl Ether	110-75-8
71.	Calcium Cyanamide	156-62-7	72.	Chromium and Compounds	7440-47-3
73.	Cantharidin	56-25-7	74.	Cobalt and Compounds	7440-48-4
75.	Captan	133-06-2	76.	Copper and Compounds	7440-50-8
77.	Carbachol Chloride	51-83-2	78.	Crotonaldehyde	123-73-9
79.	Carbaryl	63-25-2	80.	Cumene	98-82-8
81.	Carbofuran	1563-66-2	82.	Cyanides and Compounds	151-50-8
83.	Carbon Tetrachloride	56-23-5	84.	Cyclohexane	110-82-7
85.	Dichlorobenzene	95-50-1	86.	Demeton	298-03-3
87.	Dichloroethyl Ether	111-44-4	88.	Ethyl amine	75-04-7
89.	Dichlorophenol-2.6	87-65-0	90.	Ethyl Ether	60-29-7
91.	Dichlorophenol-2.4	120-83-2	92.	Ethyl Methacrylate	97-63-2
93.	Dichloropropene-l,3	142-28-9	94.	Ethylene Dichloride	107-06-2
95.	Dichloropropionic acid	127-20-8	96.	Ethylene Dibromide	106-93-4
97.	Dichlorvos	62-73-7	98.	Ethylene Diamine	107-15-3
99.	Dimethyl Hydrazine	57-14-7	100.	Ethylene Oxide	75-21-8
101.	Dimethyl Phenol2,4	105-67-9	102.	Ethylenimine	151-56-4

Sr. No	NAME OF CHEMICAL	CAS NO	Sr. No	NAME OF CHEMICAL	CAS NO
103.	Dimethylamine	109-89-7	104.	Fluorine	7782-41-4
105.	Dimethylaniline	121-69-7	106.	Formaldehyde	50-00-0
107.	Dinitrophenol2-4	51-28-5	108.	Formic acid	64-18-6
109.	Dinitrotoluene	121-14-2	110.	Furfural	98-01-1
111.	Dinoseb	88-85-7	112.	Hexachlorocyclohexan (Lindane)	608-73-1
113.	Dinitrobenzene	528-29-0	114.	Hexachlorocyclopentadiene	77-47-4
115.	Dioxane-p	123-91-1	116.	Hydrochloric acid	7647-01-0
117.	Dioxathion	78-34-2	118.	Hydrogen Sulphide	7783-06-4
119.	Diquat	85-00-7	120.	Hydrogen Cyanide	74-90-8
121.	Endosulfan	115-29-7	122.	Hydrogen Fluoride	7664-39-3
123.	Epichlorohydrine	106-89-8	124.	Iridium Tetrachloride	10025-97-5
125.	Ethion	563-12-2	126.	Isobutyl alcohol	78-83-1
127.	Ethyl acetate	141-78-6	128.	Lead (Inorganic)	7439-92-1
129.	Ethyl Benzene	100-41-4	130.	Lead arsenate	7784-40-9
131.	Magnesium Powder Or Ribbon	7439-95-4	132.	Lindane	58-89-9
133.	Malathion	121-75-5	134.	Naphthyl amine	91-51-8
135.	Maleic anhydride	108-31-6	136.	Nickel Salts	7440-02-0
137.	Malononitrile	109-77-3	138.	Nicotine	54-11-5
139.	Mercury and Compounds	502-39-6	140.	Nitric acid	7697-37-2
141.	4-Methoxybenzoyl Chloride	100-07-2	142.	NitricOxide	10102-43-9
143.	Methyl alcohol	67-56-1	144.	Nitro Benzene	98-95-3
145.	Methyl amine	74-89-5	146.	Nitrocholorobenzene	100-00-5
147.	Methyl Bromide (Bromomethane)	74-83-9	148.	Nitrocyclohexane	1122-60-7
149.	Methyl Chloride	74-87-3	150.	Nitrogen Dioxide	10102-44-0
151.	Methyl Chloroform (1,1,1-Trichloroethane)	137-5-3	152.	Nitrogen Trifluride	7783-54-2

Sr. No	NAME OF CHEMICAL	CAS NO	Sr. No	NAME OF CHEMICAL	CAS NO
153.	Methyl Ethyl Ketone Peroxide	1338-23-4	154.	Nitrophenols	88-75-5
155.	Methyl isocyanate	624-83-9	156.	Nitropropane-2	79-46-9
157.	Methyl Methacrylate Monomer	80-62-6	158.	Nitroso Dimethyl amine	62-75-9
159.	Methyl Parathion	298-00-0	160.	Cresol	1319-77-3
161.	Mevinphos	7786-34-7	162.	Nitroaniline	100-01-6
163.	Molybdenum and Compounds	7439-98-7	164.	Osmium Tetroxide	20816-12-0
165.	Monocrotophos	6973-22-4	166.	Oxygen (Liquid)	7727-37-9
167.	Butyl acetate	123-86-4	168.	Oxygen Difluoride	7783-41-7
169.	Butyl alcohol	71-36-3	170.	Ozone	10028-15-6
171.	Naled	300-76-5	172.	Paraoxon (diethyl, 4-Nitrophenylphosphate)	311-45-5
173.	Naphthalene	91-20-3	174.	Parathion	56-38-2
175.	Penta chlorobenzene	608-93-5	176.	Pentaborane	19624-22-7
177.	Penta chlorophenol	87-86-5	178.	Pyridine	110-86-1
179.	Penta Bromophenol	608-71-9	180.	Quinone	106-51-4
181.	Phenol	108-95-2	182.	Sodium Azide	26628-22-8
183.	Phenol, 2, 2-thiobis (4, 6-dichloro)	97-18-7	184.	Sodium Fluoro-acetate	62-74-8
185.	Phenol¸ 2,2,-thiobis (4 Chloro, 6 Methyl Phenol)	4418-66-0	186.	Sodium Hydroxide	1310-73-2
187.	Phenol,3-(1-Methyl-ethyl)-Methylcarbamate	64-00-6	188.	Strychnine	57-24-9
189.	Phorate	298-02-2	190.	Styrene	100-42-5
191.	Phosgene	75-44-5	192.	Sulfuric acid	7664-93-9
193.	Phosphoric acid	7664-38-2	194.	Tert-Butyl Peroxyacetate	107-7-1
195.	Phosphorus	7723-14-0	196.	Tetra Ethyl Pyrophosphate	107-49-3
197.	Phosphorus Oxychloride	10025-87-3	198.	Tetra Nitromethane (Rocketindustry)	509-14-8

Sr. No	NAME OF CHEMICAL	CAS NO	Sr. No	NAME OF CHEMICAL	CAS NO
199.	Phosphorus Pentasulphide	1314-80-3	200.	Tetra-chlorodibenzo-p-dioxin,1, 2, 3, 7, 8 (TCDD)	1746-01-6
201.	Phosphorus Trichloride	7719-12-2	202.	Tetraethyl Lead	78-00-2
203.	Phthalic anhydride	85-44-9	204.	Thallic Oxide	1314-32-5
205.	Picric acid (2,4,6,-trinitrophenol)	88-89-1	206.	Titanium Powder	7440-32-6
207.	Polychlorinated Biphenyls (PCBs)	1336-36-3	208.	Toluene	108-88-3
209.	Propionic acid	79-09-4	210.	Toluene 2, 4-di-isocyanate	584-84-9
211.	Proparyl alcohol	107-19-7	212.	Trans-1 4-dichloro-2-butene	110-57-6
213.	Propylene Oxide	75-56-9	214.	Trichloroethylene	79-01-6
215.	Pyrethrins	8003-34-71	216.	Trichlorophenols	95-95-4
217.	Trichlorophenoxy acetic acid 2, 4, 5 Triethylamine	93-76-5	218.	Vinyl acetate	108-05-4
219.	Trichlorophenol 2, 3, 6	933-75-5	220.	Vinyl Chloride	75-01-4
221.	Trichlorophenol 2, 4, 5	95-95-4	222.	Vinyledene Chloride	75-35-4
223.	Triethylamine	121-44-8	224.	Warfarin	81-81-2
225.	Triethylene Melamine	51-18-3	226.	Xylene	1330-20-7
227.	Trinitrobenzene	99-35-4	228.	Xylidine	1300-73-8
229.	Trinitrotoluene (TNT)	118-96-7	230.	Zinc Chloride	7646-85-7
231.	Turpentine	8006-64-2	232.	Zirconium & Compounds	7440-67-7
233.	Vanadium & Compounds	7440-62-2	234.	Uranium & Compounds	7440-61-1
235.	Any Other Substance declared as Hazardous By EPA Punjab as per CAS No.				

Note: CAS is abbreviated as Chemical Abstracts Service (CAS), is a division of the American Chemical Society. It is a source of chemical information.

This list is from the Hazardous Substances Rules, 2003 (Federal).

Part-B [Rule 2(e)]

To be eliminated under Article 3 of Stockholm Convention

Sr. No	Name of Chemical	CAS No.
1.	Aldrin	309-00-2
2.	DDT (Restricted)	50-29-3
3.	Dieldrin	60-57-1
4.	Endrin	72-20-8
5.	Heptachlor	76-44-8
6.	Hexacholorobenzene	118-74-1
7.	Polychlorinated Biphenyl (PCBs)	1336-36-3
8.	Toxaphene	8001-35-2

SCHEDULE-II

FORM A

[See Rule 4, 5, 6, 7 & 17]

Application for Grant/Renewal of License for Hazardous Substance

I/we [name(s)_____] of [address_____] hereby apply for grant / renewal of license to generate / collect / consign / transport / treat / dispose of / store / handle (delete words inapplicable) the following hazardous substance _____ at my/our premises situated at [address_____].

I/we have read, and hereby undertake to comply with, all applicable provisions of Punjab Environmental Protection Act, 1997 (Amended 2012) and rules and regulations made thereunder, including and in particular the Punjab Hazardous Substances Rules, 2019.

I/we submit herewith the following documents:-

Sr.	Information/Document Required	Status		
		Provided	Lacking	N/A
1	Environmental Approval u.s 12 of PEPA, 1997			
2	Three hard and one soft copy of Environmental Impact Assessment Report of the project/industrial activity involving the above-mentioned hazardous substance, including other information/documents as mentioned in Rule 5 (2).			
3	Approved building plan of the premises mentioned above			
4	List of machinery/equipment installed/proposed to be installed.			
5	List of Qualified Personnel and Number of Workers Employed/Proposed to be Employed			
Transport of hazardous substances (Rule 17)				
5	Certificate of properly trained driver who drive the vehicle.			
6	Mode of transport, including full particulars and specifications of the motor vehicles or other conveyance (**as per schedule-VIII**).			
7	Name and address of the person from whom the hazardous substance is to be collected			
8	Name and address of the person to whom the hazardous substance is to be delivered			
9	Nature of substance which may be liquid or solid and its toxicity along with Material and Safety Data Sheet (MSDS).			
10	Quantity of hazardous substance to be transported			
11	Date, time and route of proposed transportation			

Note: For approval of import of Hazardous Substance, the application may be submitted to Ministry of Climate Change, Punjab for approval.

Date: _____ _____

Applicant's Signatures
(along with copy of National Identity Card)

SCHEDULE-II

FORM-B

[See Rule 8 & 9]

License for Hazardous Substance

M/s [**name** ——————] of [**address**—————————] is hereby granted license to Generate / collect / consign / transport / treat / dispose of / store / handle (**delete words Inapplicable**) the following hazardous substance _____at its premises situated at [**address** _____] subject to the conditions specified below –

(1) A license granted under section 14 PEPA 1997 (amended 2012) shall subjected to the following conditions:

i. The licensee shall employ qualified technical personnel having necessary knowledge and experience regarding the use, storage, and handling of the hazardous substance, and safety precautions relating thereto;

ii. The licensee shall ensure compliance of Punjab Environmental Quality Standards (PEQS) during handling, generation, treatment, storage, manufacturing, transportation, and disposal of hazardous substances.

iii. Mitigation Measures suggested in the EIA Report shall be strictly adhered to minimize any negative impacts on soil, ground water, air and biological resources of the project area.

iv. Monitoring shall be carried out during the entire period of the project activities and monitoring reports of the whole operation shall be submitted to Concerned EPA Field Office on quarterly basis.

v. The licensee shall ensure that strict and efficient health and safety measures are in place for protection of workers backed by a comprehensive emergency response system.

vi. The hazardous substance shall be packed and labeled in accordance with Rule 12;

vii. The premises of the licensee shall comply with the conditions laid down in Rule 13;

viii. The licensee shall ensure compliance with the provisions of Rules 10, 11, 14, 15, 16 and 17 regarding safety precautions;

ix. The licensee shall ensure the sale and delivery of the hazardous substances to the EPA approved vendors only.

x. The licensee shall maintain a detailed record of the quantity, type, quality and origin of the hazardous substance and the names and addresses of the persons to whom the hazardous substances are sold or delivered; and

xi. The licensee shall not extend his operation beyond the scope of the project or industrial activity in respect of which the EIA Report has been submitted and approval was granted.

xii. It will be mandatory for the licensee to report any unusual event/accident immediately to the Provincial Agency.

(2) The following additional conditions if any –

This license shall be valid for a period of three years from the date given below.

Date: _____ _____

For Director General
Environmental Protection Agency, Punjab

SCHEDULE-III
[See Rule 4 & 8]

License Fee

The applicant shall pay, a non-refundable fee amounting to Rupees in accordance with the following schedule in favor of the Director General, EPA, Punjab, Lahore in the form of Bank Draft / Pay Order.

Description	Fee in Rupees
License fee	50,000
Renewal fee	25,000
Duplicate fee	15,000

SCHEDULE-IV

[See Rule 13]

Hazards and Conditions for Premises

1. **Hazards** from hazardous substance/chemicals storage involve physical and health hazards. Physical hazards could include:
    a. Fire
    b. Explosion
    c. Sudden release of pressure (for instance, if a tank of compressed gas is punctured)
    d. Reactivity (fire, explosion, or release of dangerous gases that can result from contact between particular chemicals and certain other chemicals or air or water)
2. **Location:** The premises shall not be located –
    a) in a congested, residential, commercial or office area;
    b) in small lanes or bye-lanes;
    c) near to ignition sources;
    d) close to drinking water sources; or
    e) in an area liable to flooding.
3. **Building:** The building should –
    (a) Have air inlet vents for natural ventilation and protection against direct sunlight;
    (b) Have well-maintained electrical installations;
    (c) Constructed exclusively of non-combustible materials, such as concrete and steel, and is suitable for storing combustible and flammable materials
    (d) Constructed of non-combustible materials with fire-resistant insulation in the walls
    (e) Have fire-resistant doors fitted with self-closing system;
    (f) Floor shall be galvanized with steel for maximum corrosion resistance.
    (g) Have a leak-proof secondary containment sump, drainage & dikes to prevent environmental contamination in the event of a spill and keeping spills from spreading into the water supply and the sewerage system.
    (h) Labeled with Storage and handling rules, such as how to stack and remove containers
    (i) Have signs indicating location of emergency exits, escape routes, and fire-fighting equipment (such as fire extinguishers and spill clean-up materials), prohibition of smoking, and safety precautions;
    (j) Have proper washing facilities with adequate supply of water.
4. **Hazardous Material Storage Building types:** Hazardous material storage buildings are generally designed to address specific packaging or scopes. The type of buildings includes –

i. **Drum Storage -** The safe way for collection in hazardous material storage building is with protected drum cabinets. The main feature of this storage is spill containment. Smaller buildings are usually set for one level storage and drums might be handled with a cart. Larger, multi-leveled storage buildings are set for forklifts. Hazardous material storage & handling features such as loading ramps, shelving and drum cranes, fire rating and climate control must be available in drums to safely store hazardous waste and flammable chemicals

ii. **Pallet and Totes** - perfect solution for palletized substances/chemicals– Usually equipped with racks sized to accommodate the containers of the stored material, they provide easy access for forklifts. Depending on the stored materials, they can be fire-rated or non-fire-rated and might not have secondary containment (if the stored material is not a liquid).

iii. **Multi-Compartment** – These are versatile buildings that allow you to store different types of hazardous materials. Usually, each compartment is customized to respond to the hazards of the stored material and have their own venting and fire suppression, as well as individual sump containment to avoid mixing chemicals that might leak.

iv. **Mixing and Dispensing** – These buildings feature some type of ventilation to minimize worker exposure to harmful vapors and the build-up of potentially explosive vapors. For mixing flammable and combustible materials, explosion panels should be installed.

v. **Climate Controlled** – Designed to maintain hazardous substances at an optimal temperature in order to improve their shelf life and minimize fire and explosion hazards. These units can be cooled (to prevent auto-ignition) or heated.

SCHEDULE-V

[See Rule 18]

Reporting of Accident/Notification of major accident

Report No.____

1. Name and address of licensee
2. License no. and date
3. Nature of industrial activity mentioning hazardous substance involved.
4. Description of major accident –
   (a) Date and time
   (b) Exact location
   (c) Process/operation during which accident took place
   (d) Type and circumstances of accident and estimated quantity of hazardous substance involved.
5. Known causes of the major accident.
6. Nature and extent of damage –
   (a) In the premises;
   (b) Outside the premises.
7. Description of emergency measures already taken:
8. Description of further measures proposed to be taken to –
   (a) mitigate adverse effects _____
   (b) prevent recurrence _____
9. Any other relevant information. _____

Licensee's Signatures

Date:_____

Time:_____

Schedule-VI

[See Rule 5]

Undertaking by the Applicant

I/we [name(s) _____] of [address _____] hereby apply for grant/ renewal of license to generate/ collect/ consign/ transport/ treat/ dispose of/ store/ handle (delete words inapplicable) the following hazardous substance/s –

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at my/our premises situated at [address _____].

I/we have read, and hereby undertake to comply with, all applicable provisions of the Punjab Environmental Protection Act, 1997 (Amended, 2012) and rules and regulations made thereunder, including particularly the Punjab Hazardous Substances Rules, 2019, _____.

Date; **----------**

Signatures and Stamp of the Applicant

Schedule-VII

[See Rule 21]

Register

1. Tracking No.
2. Category Type (generation, collection, consignment, transport, treatment, disposal, storage or handling)
3. Name of Licensee
4. Name, designation and contact No. of concerned person
5. Name of consultant
6. Description of project
7. Location of project
8. Project Capital Cost
9. Date of receipt of Environmental Impact Assessment (EIA) Report
10. Date of confirmation of completeness
11. Approval granted (Yes / No)
12. Date of approval granted or refused
13. Conditions of Approval/reasons for refusal
14. Date of undertaking
15. Date of extension of approval validity
16. Period of extension
17. Dates of filing of monitoring reports
18. Date of cancellation, if applicable.

Schedule VIII

[See rule 17)

Mode of Transport and Specifications of the motor vehicles or other conveyance for transportation of hazardous substances

Transportation includes loading, carrying, and unloading. Mode of Transport can includes Tank trucks, trailers, Rail, intermediate bulk containers and tank containers and any other.

Specifications of the motor vehicles or other conveyance:

- Material of construction, wall thickness and design of vehicle should be resistant to the contents under all possible temperature & pressure conditions and normal & abnormal road shocks
- Linings of vehicle must be compatible with the hazardous materials and wastes to be transported and including such characteristics that they may not alter or modify their properties. The vehicle should be lined suitably if corrosive substances are handled.
- Display labeling indicating the extent of danger of their loads and the best course of action in emergency cases in the language known to the driver/worker.
- Provided with a yellow flash light fixed on the drivers cabin and shall be operated throughout the transport voyage.
- Safety valve or rupture disc for venting. (no rupture disc for toxic and flammable substances)
- If chances of explosion exist, the explosion vents should be provided.
- Proper arrangement for grounding and bonding of the vehicle while filling and discharging.
- Installation of gauges on tanks to measure volume inside.
- Use of dripless hose connections for vehicle tank and fixed connections with storage tanks.
- Equipped with all safety equipment (emergency kits, PPE, first aid box and suitable/specific Fire extinguisher). Emergency team of specialized persons should be kept ready.
- Provision of secondary containment, drip trays or other overflow and drip containment measures, for hazardous materials containers at connection points or other possible overflow points for leakage prevention or spillage of any materials loaded therein.
- Fire proof Screen between load & crew cab and Air inlet to vehicle engine should be provided with flame arrester if loads are flammable gases or liquids.
- Other aspects as per the applicable statutes and standards.

Precautions during transportation:

i. Ensure all precautionary measures during transportation for safe transportation of hazardous substances.

ii. Operating personnel/drivers should be adequately trained and certified.

iii. Extreme care shall be taken in the loading, unloading and transportation of any hazardous materials to keep fire away and to prevent persons in the vicinity from smoking, lighting matches, or carrying any flame or lighted cigar, pipe, or cigarette.

iv. Filling ratio should be decided on the basis of the thermal cubical expansion between the filling temperature and the reference temperature. Do not overload.

v. Proper emergency response procedures must be developed and followed to minimize risk of accidents.

vi. Strict navigational safety and the cargo of hazardous materials should be routed through unpopulated areas (Least traffic congested/least populated & safe route).

vii. Regular inspection, maintenance and repair of fittings, pipes and hoses

Special Requirements for Rail Transportation of hazardous substances

Rail Transportation is safer because two persons can haul a large number of wagons. Yet serious Fires and leakage may occur due to derailment or collisions, lack of proper inspection and maintenance, use of unfit equipment and tank cars, sources of ignition e.g. Engine, caboose, or brake shoe sparks are readily available. Precautions in Rail Transport:

i. Place them at least 3 wagons away from engine or kitchen car.

ii. Meticulous inspection of the whole train.

iii. Wagon coupling should be such that may not disengage on derailment.

iv. Chances of penetration of coupling devices into the tanks should be avoided.

v. As for as possible safety valves should be preferred over rupture discs.

vi. Siphoning of the liquid while transfer should be preferred over unloading from bottom.