Brieser CONSTRUCTION

Section 25
Safety Health and Environmental Manual

2024

Process Safety Management

PURPOSE

To prevent or minimize the consequences of catastrophic releases of toxic, reactive, flammable, or explosive chemicals and establish guidelines for working around process equipment within operating units.

SCOPE

This program shall apply to all Brieser Construction employees working around or on commissioned Process equipment that involves:

1. Chemical at or above the specified threshold quantities listed in CFR 1910.119 appendix A (attached)
2. Flammable liquid or gas on site in one location in a quantity of 10000 pounds or more (not including refueling stations, or heating gas storage)

RESPONSIBILITIES

Employees of Brieser Construction Co. will follow the plant PSM procedures set forth for working around such chemicals.

Procedure

This Process Safety Management plan should encompass the following:

Owner responsibilities

1. Evaluation of contractor safety programs
2. Information of known potential fire, explosion, or toxic released hazards
3. Emergency action plans
4. Dissemination of safe work practices around process equipment including Process Hazard Analysis, Fault Tree Analysis, Hazard & Operability Studies (HAZOPS) and Scope of Work containing management of change procedures and specifications.
5. Owner auditing of contractor performance
6. Maintenance of injury and illness logs.
7. Hot Work shall not be performed until a Hot Work Permit is obtained from our customer/host/facility/client. If a customer Hot Work Permit is being used, it shall be compared to this policies Hot Work Permit and verified that all sections are as stringent as or more stringent than this policy.
8. All incidents must be immediately reported to the President immediately. Lexi Southall (815)-955-3972

Contractor responsibilities

1. Proper training to perform job.
2. Instruction of known potential fire, explosion, or toxic release hazards to the employee related to their job and the process.
3. Documentation of training
4. Assurance that employees follow facility safety rules & respect the confidentiality of trade secret information.
5. Notification to the owner of hazards that are associated with the Contractors work and of any hazards found by the Contractor.

Subpart H-Hazardous Materials

APPENDIX A TO § 1910.119-LIST OF HIGHLY HAZARDOUS CHEMICALS, TOXICS AND REACTIVES (MANDATORY)

This appendix contains a listing of toxic and reactive highly. hazardous chemicals which present a potential for a catastrophic event at or above the threshold quantity.

General Industry Standards

CHEMICAL NAME	CAS*	TQ**
Acetaldehyde	75-07-0	2500
Acrolein (2-Propenal)	107-02-8	150
Acrylyl chloride	814-68-6	250
Allyl chloride	107-05-1	1000
Allylamine	107-11-9	1000
Alkylaluminums	Varies	5000
Ammonia, Anhydrous	7664-41-7	10000
Ammonia solutions (>44% ammonia by weight)	7664-41-7	15000
Ammonium Perchiorate	7790-98-9	7500
Ammonium Permanganate	7787-36-2	7500
Arsine (also called Arsenic Hydride)	7784-42-1	100
Bis(Chloromethyl) Ether	542-88-1	100
Boron Trichioride	10294-34-5	2500
Boron Trifluoride	2095581	250
Bromine	7726-95-6	1500

CHEMICAL NAME	CAS*	TQ**
Bromine Chloride	13863-41-7	1500
Bromine Pentafluoride	7789-30-2	2500
Bromine Trifluoride	7787-71-5	15000
3-Bromopropyne (also called Propargyl Bromide)	106-96-7	100
Butyl Hydroperoxide (Tertiary)	75-91-2	5000
Butyl Perbenzoate (Tertiary)	614-45-9	7500
Carbonyl Chloride (see Phosgene)	75-44-5	100
Carbonyl Fluoride	353-504	2500
Cellulose Nitrate (concentration >12.6% nitrogen)	9004-70-0	2500
Chlorine	7782-50-5	1500
Chlorine Dioxide	10049-04-4	1000
Chlorine Pentrafluoride	13637-63-3	1000
Chlorine Trifluoride	7790-91-2	1000
Chlorodiethylaluminum (also called Diethyl aluminum Chloride)	96-10-6	5000
1-Chloro-2, 4-Dinitrobenzene	97-00-7	5000
Chloromethyl Methyl Ether	107-30-2	500
Chloropicrin	76-06-2	500
Chloropicrin and Methyl Bromide mixture	None	1500
Chloropicrin and Methyl Chloride mixture	None	1500

CHEMICAL NAME	CAS*	TQ**
Cumene Hydroperoxide	80-15-9	5000
Cyanogen	460-19-5	2500
Cyanogen Chloride	506-774	500
Cyanuric Fluoride	675-14-9	100
Diacetyl Peroxide (Concentration >70%)	110-22-5	5000
Diazomethane	334-88-3	500
Dibenzoyl Peroxide	94-36-0	7500
Diborane	19287-45-7	100
Dibutyl Peroxide (Tertiary)	110-05-4	5000
Dichloro Acetylene	7572-29-4	250
Dichlorosilane	4109-96-0	2500
Diethylzinc	557-20-0	10000
Dilsopropyl Peroxydicarbonate	105-64-6	7500
Dilauroyl Peroxide	105-74-8	7500
Dimethyldichlorosilane	75-78-5	1000
Dimethylhydrazine, 1, 1	57-14-7	1000
Dimethylamine, Anhydreous	124-40-3	2500
2, 4 Dinitroaniline	97-02-9	5000
Ethyl Methyl Ketone Peroxide (also Methyl Ethyl Ketone Peroxide; concentration >60%)	1338-23-4	5000

CHEMICAL NAME	CAS*	TQ**
Ethyl Nitrite	109-95-5	5000
Ethylamine	75-04-7	7500
Ethylene Fluorohydrin	371-62-0	100
Ethylene Oxide	75-21-8	5000
Ethyleneimine	151-56-4	1000
Fluorine	7782-41-4	1000
Formaldehyde (Formalin)	50-00-0	1000
Furan	110-00-9	500
Hexafluoroacetone	684-16-2	5000
Hydrochloric Acid, Anhydrous	7647-01-0	5000
Hydrofluoric Acid, Anhydrous	7664-39-3	1000
Hydrogen Bromide	10035-10-6	5000
Hydrogen Chloride	7647-01-0	5000
Hydrogen Cyanide, Anhydrous	74-90-8	1000
Hydrogen Fluoride	7664-39-3	1000
Hydrogen Peroxide (52% by weight or greater)	7722-84-1	7500
Hydrogen Selenide	7783-07-5	150
Hydrogen Sulfide	7783-06-4	1500
Hydroxylamine	7803-49-8	2500

CHEMICAL NAME	CAS*	TQ**
Iron, Pentacarbonyl	13463-40-6	250
Isopropylamine	75-31-0	5000
Ketene	463-51-4	100
Methacrylic Aldehyde	78-85-3	1000
Methacryloyl Chloride	920-46-7	150
Methacryloyloxyethyl Isocyanate	30674-80-7	100
Methyl Acrylonitrile	126-98-7	250
Methylamine, Anhydrous	74-89-5	1000
Methyl Bromide	74-83-9	2500
Methyl Chloride	74-87-3	15000
Methyl Chloroformate	79-22-1	500
Methyl Ethyl Ketone Peroxide (concentration >60%)	1338-23-4	5000
Methyl Fluoroacetate	453-18-9	100
Methyl Fluorosulfate	421-20-5	100
Methyl Hydrazine	60-34-4	100
Methyl Iodide	74-88-4	7500
Methyl Isocyanate	624-83-9	250
Methyl Mercaptan	74-93-1	5000
Methyl Vinyl Ketone	79-84-4	100

CHEMICAL NAME	CAS*	TQ**
Methyltrichlorosilane	75-79-6	500
Nickel Carbonyl (Nickel Tetracarbonyl)	13463-39-3	150
Nitric Acid (94.5% by weight or greater)	7697-37-2	500
Nitric Oxide	10102-43-9	250
Nitroaniline (para Nitroanlline)	100-01-6	5000
Nitromethane	75-52-5	2500
Nitrogen Dioxide	10102-44-0	250
Nitrogen Oxides (NO; NO2; N204; N203)	10102-44-0	250
Nitrogen Tetroxide (also called Nitrogen Peroxide)	10544-72-6	250
Nitrogen Trifluoride	7783-54-2	5000
Nitrogen Trioxide	10544-73-7	250
Oleum (65% to 80% by weight; also called Fuming Sulfuric Acid)	8014-95-7	1000
Osmium Tetroxide	20816-12-0	100
Oxygen Difluoride (Fluorine Monoxide)	7783-41-7	100
Ozone	10028-15-6	100
Pentaborane	19624-22-7	100
Peracetic Acid (concentration >60% Acetic Acid; also called Peroxyacetic Acid)	79-21-0	1000
Perchloric Acid (concentration >60% by weight)	7601-90-3	5000
Perchioromethyl Mercaptan	594-42-3	150

CHEMICAL NAME	CAS*	TQ**
Perchioryl Fluoride	7616-94-6	5000
Peroxyacetic Acid (concentration >60% Acetic Acid; also called Peracetic Acid)	79-21-0	1000
Phosgene (also called Carbonyl Chloride)	75-44-5	100
Phosphine (Hydrogen Phosphide)	7803-51-2	100
Phosphorus Oxychioride (also called Phosphoryl Chloride)	10025-87-3	1000
Phosphorus Trichioride	2125683	1000
Phosphoryl Chloride (also called Phosphorus Oxychioride)	10025-87-3	1000
Propargyl Bromide	106-96-7	100
Propyl Nitrate	627-3-4	2500
Sarin	107-44-8	100
Selenium Hexafluoride	7783-79-1	1000
Stibine (Antimony Hydride)	7803-52-3	500
Sulfur Dioxide (liquld)	2025884	1000

CHEMICAL NAME	CAS*	TQ**
Sulfur Pentafluoride	5714-22-7	250
Sulfur Tetrafluoride	7783-60-0	250
Sulfur Trioxide (also called Sulfuric Anhydride)	2025949	1000
Sulfuric Anhydride (also called Sulfur Trioxide)	2025949	1000
Tellurium Hexafluoride	7783-80-4	250
Tetrafluoroethylene	116-14-3	5000
Tetrafluorohydrazine	10036-47-2	5000
Tetramethyl Lead	75-74-1	1000
Thionyl Chloride	2125597	250
Trichioro (chloromethyl) Silane	1558-25-4	100
Trichioro (dichiorophenyl) Silane	27137-85-5	2500
Trichiorosilane	10025-78-2	5000
Trifluorochioroethylene	79-38-9	10000
Trimethyoxysllane	2487-90-3	1500

***Chemical Abstract Service Number.**
****Threshold Quantity in Pounds (Amount necessary to be covered by this standard).**

Process Safety Management Learning Exercise

Score: **%**

Employees Name: **Date:**

Answer each of the following questions by circling the appropriate letter.

1. The purpose of this section is to prevent or minimize the consequences of catastrophic releases of _____ chemicals and establish guidelines for working around process equipment within operating units. (Circle all that apply).
    a. Toxic
    b. Reactive
    c. Liquid
    d. Flammable
    e. Explosive

2. Employees of Brieser Construction will follow the plant Process Safety Management procedures set forth for working around such chemicals.
    a. True
    b. False

Process Safety Management Learning Exercise

Answer Sheet

1. The purpose of this section is to prevent or minimize the consequences of catastrophic releases of _____ chemicals and establish guidelines for working around process equipment within operating units. (Circle all that apply).
   - **a. Toxic**
   - **b. Reactive**
   - c. Liquid
   - **d. Flammable**
   - **e. Explosive**

2. Employees of Brieser Construction will follow the plant Process Safety Management procedures set forth for working around such chemicals.
   - **a. True**
   - b. False