**DELAWARE RISK MANAGEMENT PLAN (RMP)**

**REGISTRATION**

REGULATION FOR THE MANAGEMENT OF EXTREMELY HAZARDOUS SUBSTANCES under Chapter 77, Title 7 Delaware Code

#### Section 1.Registration DATE

1.1.a. Facility Name:

1.1.b. Parent Company #1 Name:

1.1.c. Parent Company #2 Name

1.2 **Dun and Bradstreet Numbers (DUNS – 9 characters)**

Facility DUNS

* 1. **Facility Location**
     1. Street:
     2. Street:

           

1.3.c City 1.3.d State 1.3.e Zip Code

1.3.f County:

1.3.g Facility Latitude       1.3.h Facility Longitude

1.3.i Method for determining Lat/Long       (GPS, Map, Internet Map, etc)

* 1. **Owner or Operator**

1.4.a Name:

1.4.b Phone:      -     -

Owner or Operator Mailing Address:

1.4.c Street:

1.4.d Street:

           

1.4.e City 1.4.f State 1.4.g Zip Code

1.5 Name of person responsible

for Delaware RMP Implementation:

1.5.a Title:       Phone:      -     -

1.5.b email address:

**DELAWARE RISK MANAGEMENT PLAN (RMP)**

# REGISTRATION

ACCIDENTAL RELEASE PREVENTION REGULATION

#### Section 1. Registration

1.6 **Emergency Contact**

Name:       Title:

Phone:      -     -      24-Hour Phone:      -     -

##### 1.7 Optional Other Points of Contacts:

1.7.a. E-mail Address:

1.7.b. Facility Public Contact Phone:

1.7.c. Facility or Parent Company www Homepage Address:

1.8 Local Emergency Planning Committee (LEPC)

1.8 Number of full-time employees on site (Optional)

1.10 Facility covered by: (Select all that apply)

1.10.a  OSHA PSM

1.10.b.  EPCRA Section 302

1.10.c.  CAA Title V Air Operating Permit/ If covered, Permit #:

1.10.d.  Department of Homeland Security Chemical Plant Site Security Regulation

1.11 **Last Safety Inspection (by an External Agency) Date:**

1.12 **Last Safety Inspection Performed by an External Agency (select one)**

OSHA

State Accidental Release Prevention Program

EPA

State Environmental Agency

State Fire Marshal

LEPC

Never had one

Other, Specify:

Date of Inspection:

**Submission Type:**

First Time RMP Submission

Correction to Current RMP

Re-Submission

Date of Submission:

**DELAWARE RISK MANAGEMENT PLAN (RMP)**

**REGISTRATION**

REGULATION FOR THE MANAGEMENT OF EXTREMELY HAZARDOUS SUBSTANCES

**Executive Summary:** (Attach separate paper if you need more space)

For propane or hydrogen storage/distribution sites:

|  |  |  |
| --- | --- | --- |
| NUMBER OF TANKS | SIZE (Gallons) | Installation date |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Mandatory Executive Summary/Brief Process Safety Program description and/or process safety considerations:

(In particular, operator training and mechanical integrity programs, emergency response planning and any recent or planned improvements):

**DELAWARE RISK MANAGEMENT PLAN (RMP)**

**REGISTRATION**

ACCIDENTAL RELEASE PREVENTION REGULATION

#### Facility Name:

#### Section 1. Registration

1.15 Process Specific Information. For each covered process, fill in this page. If you are reporting more than one process, make a photocopy of this page and report each process on a SEPARATE SHEET.

Process Description: (Example: Number and size of propane or hydrogen tanks)

1.15.a. **Program Level (select one):**  **1**  **2**

1.15.b. NAICS Code(s) for regulated processes (five or six digits)

     

1.15.c. Chemical(s) (regulated substances)

|  |  |  |
| --- | --- | --- |
| 1.15.c.1 Name | 1.15.c.2 CAS Number | 1.15.c.3 Actual Quantity  (lbs) |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Actual Quantity (AQ) means the sum of all the physical quantities of a regulated substance listed in either Section 6.20, 6.30, 6.40 in whatever form at the maximum design capacity of the process considering administrative controls.

**DELAWARE RISK MANAGEMENT PLAN (RMP)**

# WORST CASE

If the substance or process is NOT regulated under Section 5, the owner or operator must also check Section 6 - Table 4 (toxics), Table 5 (flammables), and Table 6 (explosives) to determine if the maximum potential release quantity (PRQ) is greater or equal to the sufficient quantity (SQ). The owner or operators of facilities regulated under Section 6 must implement the appropriate risk management program and register the appropriate risk management plan with the State of Delaware Department of Natural Resources and Environmental Control (DNREC)

A substance or process can be subject to Section 5 or Section 6. (One Section or the other but not both).

Note: All flammable gases, flammable and combustible liquids that are held at or above their atmospheric boiling point, and flammable and combustible liquids which are held below ambient temperatures through refrigeration, but whose vapor pressures at 86 °F is greater than one atmosphere are regulated. Table 5 is a list of common flammable substances. For flammables not listed, the equation in 6.3.4 must be used to determine the sufficient quantity.

1. Name of Substance:

2. CAS Number:

3. Toxic , Flammable , or Explosive  .

Determine the sufficient quantity (SQ) from table 4 (toxics), table 5 (flammables – if not listed may need to determine SQ using the equation provided in 6.3.4, or table 6 (explosives).

4. SQ =        lbs/hour for toxics or,

lbs/minute for flammables or,

(Use 2700 lbs/min for Propane)  lbs for explosives.

You must determine your release rate (RR) for toxics and flammables using Section 6.5.2.8.6.1 equations or graphs for release rates of gas, flashing liquids and pool vaporization rates. If the release is from a hose or pipe, the release rate (RR) must be doubled where it is possible to get flow from both ends of the breakage; otherwise the release rate (RR) equals the potential release quantity (PRQ).

5. PRQ =        lbs/hour for toxics or,

lbs/minute for flammables or,

(Use 10,000 lbs/min for typical 3” Propane Pipe)  lbs for explosives.

If the PRQ is equal to or greater than the SQ, the owner or operator must develop and implement a risk management program and submit a risk management plan.

**DELAWARE RISK MANAGEMENT PLAN (RMP)**

# WORST CASE

Worst-case release analysis is estimation of the greatest distance in any direction to endpoint resulting from an accidental release of regulated toxic of flammable substance, or detonation of an explosive substance. The owner or operator shall use the parameters defined in Section 6.50(b) to determine the distance to the endpoints. Methodology provided in the RMP Off-site Consequence Analysis Guidance can be used or any commercially or publicly available air dispersion modeling techniques, provided the techniques account for the modeling conditions and are recognized by industry as applicable as part of current practices. Proprietary models that account for the modeling conditions may by used provided the owner or operator allows the Department, local emergency planners and the public access to the model upon request. The owner may also use the look-up tables (Tables 7, 8 and 9) to determine the distance to the endpoint (where PRQ/SQ represents the ratio of the actual quantity of a regulated substance contained in a process to the sufficient quantity for that substance - Note regulation has typo of AQ/SQ, should be PRQ/SQ).

1. Model used:  Delaware Table 7

Delaware Table 8

Delaware Table 9

EPA’s RMP\*CompTM

Other Model – Please list model name and give description including wind speed, atmospheric class, and topography used (attach vendor

information as appropriate:

Rural  or Urban  Temperature of release

End Point used

7. Distance to endpoint (miles):       [For Propane use 0.2 miles or 1000 feet for 18k – 60k tank(s)]

8. Estimated population within distance to endpoint:

1. Public Receptors:  Residences  Schools  Commercial, Offices

Hospitals  Child Care Facilities Others:

10. Passive Mitigation considered:

(List all Dikes, Enclosures, Berms, Drains, Sumps, or Other)

**DELAWARE RISK MANAGEMENT PLAN (RMP)**

# Five Year Accident History

## Would you like to certify that your facility did not have any reportable accidents in the past 5 years? Yes, leave the rest of this section blank

**No, fill out this section for each accident**

6.1 Date and time of Accident:       6.2 Time:       AM PM

6.3 Release duration:      (hrs/mins)

6.4 Chemical(s) released:             Estimated Quantity:

6.5 Release event:  Gas release  Fire

Liquid spill/evaporation  Explosion

6.6 Release Source (Select at least one)

Storage vessel  Valve  Process vessel  Joint

Transfer Hose  Piping  Pump

Other (specify)

6.7 Known onsite and offsite impacts (enter numbers)

1. Deaths       d. Evacuated
2. Hospitalizations       e. Sheltered-in-place
3. Other medical treatments       f. Property damage $

Other (specify):

6.8 Initiating event (select one):

Equipment Failure  Natural (weather conditions, earthquake)

Human error  Unknown

6.9 Contributing factors (select all that apply)

Equipment failure  Process design failure  By-pass condition

Maintenance activity  Human error  Unsuitable equipment

Improper procedure  Management error  Overpressurization

Unusual weather conditions  Upset conditions  Other (specify)

6.10 Off-site responders notified:  Notified only  No, not notified

Notified and responded  Unknown

6.11 Changes introduce as a result of the accident (select at least one)

Improved/upgraded equipment  Changed process

Revised maintenance  Reduced inventory

Revised training  None

Revised operating instructions  Revised emergency response plan

New process controls  New mitigation systems

Other (specify):

**DELAWARE RISK MANAGEMENT PLAN (RMP)**

# PREVENTION PROGRAM: PROGRAM LEVEL 2 and 1

8. Prevention Program Description:

8.1 NAICS Code for process:

8.2 Chemical name(s):

8.3.a. Date of most recent review or revision of safety information:

8.3.b. Federal/state regulations or industry-specific design codes and standards used to

Demonstrate compliance with the safety information requirement (select at least one):

NFPA 58  OSHA (29 CFR 1910.111)  ASTM Standards

ANSI Standards  ASME Standards  None

IIAR/ASHRAE Codes  Other (specify):

* 1. Hazard Review:

1. 8.4.a. Date of completion of most resent hazard review or update:
2. 8.4.b. Expected or actual date of completion of all

changes resulting from the hazard review:

8.4.c. Major hazards identified (select at least one):

Toxic release  Corrosion  Contamination

Fire  Overfilling  Equipment Failure

Explosion  Earthquakes  Floods (flood plain)

Runaway reaction  Tornado  Hurricanes

Polymerization  Loss of cooling, heating, or electricity, instrument air

Overpressurization

Other (specify):

## 8.4.d. Process controls in use (select at least one):

Vents  Relief valves  Check valves

Scrubbers  Flares  Manual shutoffs

Interlocks  Alarms and procedures  Keyed bypass  Automatic shutoffs  Emergency air supply  Emergency power

Backup pump  Grounding equipment  Inhibitor addition

Rupture disks  Excessive flow device  Quench system

Purge system  None

Other (specify):

8.4.e. Mitigation systems in use (select at least one):

Sprinkler system  Dikes  Fire Walls

Blast Walls  Water Deluge System  Water curtain

Enclosure  Neutralization  None

Other (specify):

8.4.f. Monitoring/detection systems in use (select at least one):

Process area detectors  Perimeter Monitors  None

Other (specify):

**DELAWARE RISK MANAGEMENT PLAN (RMP)**

# PREVENTION PROGRAM: PROGRAM LEVEL 2 and 1

8.4.g. Changes since the last hazard review or hazard review update (select at least one):

Reduction in chemical inventory  Increase in chemical inventory

Change in process parameters  Installation of process controls

Installation of process detection systems  Installation of mitigation systems

Installation of perimeter monitoring systems  None recommended

Other (specify):  None

8.5 Date of most recent review or revision of operating procedures

8.6.a. Date of most recent review or revision of training programs

8.6.b. Type of Training provided:  Classroom  On the job

Other:

8.6.c. Type of competency testing used (select at least one):

Written tests  Oral tests  Demonstration

Observation  Other:

8.7 Compliance audits:

8.7.a. Date of most recent compliance audit:

8.7.b. Expected or actual date of completion

of all changes resulting from the compliance audit:

8.8 Incident Investigation:

8.8.a. Date of most recent incident investigation (if any):

8.8.b. Expected or actual date of completion

of all changes resulting from the incident investigation:

* 1. The date of most recent change that triggered a review or a revision of safety information, the

hazard review, operating or maintenance procedures, or training:

8.10 Maintenance

8.10.a. Date of most resent review or revision of maintenance procedures

8.10.b. Date of most recent equipment inspection or test

8.10.c. Equipment most recently inspected or tested (list equipment):

     

**DELAWARE RISK MANAGEMENT PLAN (RMP)**

# EMERGENCY RESPONSE

* 1. Written emergency response (ER) plan

9.1.a.  Is your facility included in the community emergency response plan?

9.1.b.  Does your facility have its own written emergency response plan?

9.2  Does your facility’s ER plan include specific actions to be taken in response to accidental releases of regulated substances?

9.3  Does your facility’s ER plan include procedures for informing the public and local

agencies responding to accidental releases?

9.4  Does your facility’s ER plan include information on emergency health care?

9.5 Date of most recent review or update of your facility’s ER plan:

9.6 Date of most recent ER training for your facility’s employees:

9.7 Local agency with which your facility’s ER plan or response activities are coordinated

9.7.a. Name of agency

9.7.b. Phone number of agency

* 1. Facility is subject to: (select all that apply)

OSHA Regulations at 29 CFR 1910.38

OSHA Regulations at 1910.120

Clean Water Act Regulations at 40 CFR 112

RCRA Regulations at 40 CFR 264, 265, 279.52

OPA-90 Regulations at 40 CFR 112, 33 CFR 154, 49 CFR 194, 30 CFR 254

State EPCRA Rules and Laws

Other specify:

**CERTIFICATION**

The certification statement must be signed by the owner or operator or a senior official with management responsibility for the person or (persons) completing the RMP.

**Certification Statement for Program 1 Process(es):**

Based on the criteria for Delaware worst case in Section 6 and in Section 5.10, the distance to the specified endpoint for the Delaware worst-case accidental release scenario for the following process(es) is less than the distance to the nearest public receptor.

Within the past five years, the process(es) has (have) had no accidental release that caused offsite impacts. No additional measures are necessary to prevent offsite impacts from accidental releases. In the event of fire, explosion, or a release of a regulated substance form the process(es), entry within the distance to the specified endpoints may pose a danger to public emergency responders. The undersigned certifies that, to the best of my knowledge, information, and belief, formed after reasonable inquiry, the information submitted is true, accurate, and complete.

     

Signature Print Name

     

Title Date

**Certification Statement for Program 2 Processes:**

To the best of the undersigned’s knowledge, information, and belief formed after reasonable inquiry, the information submitted is true, accurate, and complete.

     

Signature Print Name

     

Title Date

**DELAWARE RISK MANAGEMENT PLAN (RMP)**

**REGISTRATION FACT SHEET/INSTRUCTIONS**

### Background

The Accidental Release Prevention Regulation became effective January 11, 1999 and was amended to incorporate federal rule changes in 2005. This regulation replaced in its entirety the Regulation for the Management of Extremely Hazardous Substances that had been effective since September 1990. The new regulation incorporates the federal 112(r) rule into Section 5 and maintains some of the more restrictive features of the old Regulation for the Management of Extremely Hazardous Substances in (non federally enforceable) Section 6. Delaware continues to have a funded program based upon quantities of hazardous substances. A substance or process can be subject to either Section 5 or Section 6. (One Section or the other but not both). However, a facility can be subject to Section 5 for one substance or process and Section 6 for another substance or process.

**Which Section of Delaware’s ARP Regulation applies?**

Potentially hazardous substances are regulated under the State of Delaware Accidental Release Prevention Regulation. A process having a regulated substance present in threshold quantities as listed in Section 5, Table 1 (toxics) or Table 2 (flammables) must implement the appropriate Federal delegated risk management program. The EPA and the Delaware Accidental Release Prevention website offer guidance and forms (RMP\*Submit) for federal registration.

If the process is NOT regulated under Section 5, the owner or operator of the process must also check Section 6 - Table 4 (toxics), Table 5 (flammables), and Table 6 (explosives) to determine if the maximum potential release quantity (PRQ) is greater or equal to the sufficient quantity (SQ). The owner or operator of a facility that has substances or processes regulated under Section 6 must implement the appropriate risk management program and register the appropriate risk management plan with the State of Delaware Department of Natural Resources and Environmental Control (DNREC).

**How do I determine the maximum potential release quantity (PRQ) for my process under Section 6?**

If you are not subject to Section 5, select the scenario that gives the maximum PRQ in accordance with Section 6.5. This will generally involve severing the largest liquid line in the process. Use the appropriate release rate (RR) equation (gas, flashing liquid, or liquid) from Section 6.5 and calculate the PRQ. If the PRQ is equal to or greater than the (SQ), the process is regulated and must be registered in Delaware.

Note: Table 5 (flammables) is a list of typical substances. All flammable gases could be regulated depending on the whether there is a sufficient quantity present. Highly flammable chemicals with low boiling points not found in the list should have a sufficient quantity calculated using the equation in Section 6.3.4, Table 4 is a list of toxic substances and sufficient quantities that are regulated. Table 6 is a list of regulated explosive substances with threshold quantities.

**How do I register and submit a Delaware Risk Management Plan?**

If a chemical is regulated by Delaware but not on the federal 112 (r) list, the procedure for registering an RMP in Delaware only:

Fill out the available Delaware RMP paper form. The Delaware RMP is available for downloading from the internet (from Delaware Accidental Release Prevention Program webpage) or directly from the Accidental Release Prevention Program. Submit the registration to Delaware Accidental Release Prevention (ARP) Program.

**Where do I send the Delaware Risk Management Plan?**

To register in Delaware, send completed Delaware RMP forms to:

Accidental Release Prevention Program

Risk Management Plan

DNREC

391 Lukens Drive

New Castle, DE 19720

**When is the Delaware Risk Management Plan registration due?**

Section 6.60 states that the initial registration is due June 21, 1999 with updates due every five years. Most Delaware facilities need to Re-submit a new updated RMP by June 22, 2009.

**How can I get help completing my Delaware Risk Management Plan?**

The Delaware Risk Management Plan Registration is based upon the federal RMP\*Submit Paper Form. For further help and guidance with the Delaware Risk Management Program, Plan Registration, or Delaware Worst Case calculations please contact Kenneth Cenci or Mark Dolan in the Accidental Release Prevention Program located at 391 Lukens Drive in New Castle, Delaware - 302-395-2500.