Background

The <u>Accidental Release Prevention Regulation</u> became effective January 11, 1999. This regulation replaced in its entirety the <u>Regulation for the Management of Extremely Hazardous Substances</u> 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 <u>Regulation for the Management of Extremely Hazardous Substances</u> 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. Incorporating the federal 112(r) rule into Delaware's new <u>Accidental Release Prevention Regulation</u> allows the Department of Natural Resources and Environmental Control's (DNREC) Accident Release Prevention Group to apply for delegation of the federal 112(r) rule.

Which Section of Delaware's ARP Regulation applies

Potentially hazardous substances are regulated under the State of Delaware <u>Accidental Release Prevention Regulation</u>. 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 risk management program. A Risk Management Plan must be registered with the EPA prior to June 21, 1999. 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 6.50. 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 6.50 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 6.60. 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 in electronic form or paper form. The Delaware RMP is available for downloading from the internet (from Delaware Accidental Release Prevention Group webpage) or directly from the Accidental Release Prevention Group.

Fill out the Delaware RMP Registration form and submit the registration to Delaware Accidental Release Prevention Group (ARPG).

Where do I send the Delaware Risk Management Plan

To register in Delaware send completed Delaware RMP forms to:

Accidental Release Prevention Group Risk Management Plan DNREC 715 Grantham Lane 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. Companies already registered in the Delaware Accidental Release Prevention Program must check for Section 5 or Section 6 applicability and resubmit an updated registration as outlined above. A facility can be subject to Section 5 for one substance or process and Section 6 for another.

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. The numbers are the same so that the RMP*SubmitTM Users Manual can be easily referred to as guidance. For further help and guidance with the Delaware Risk Management Program, Plan Registration, or Delaware Worst Case calculations contact Rich Antoff, Jay Brabson, or Bob Barrish in the Accidental Release Prevention Group office at Grantham Lane in New Castle, Delaware - 302-323-4542.

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

Submission Type:				
[] First Time RMP Submission				
[] Correction to Current RMP				
[] Re-Submission				
Executive Summary: (Attach separate paper if you need more space)				

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

Sectio	n 1.Reg	gistration			
1.1.a.	Facilit	y Name:			
1.1.b.	Parent	Company #1 Name:			
1.1.c.	Parent	Company #2 Name			
1.2 1.3	(Optio Other	EPA Systems Facility			
1.4	Dun a 1.4.a 1.4.b	ier (15 characters)(Optional) and Bradstreet Numbers (DU Facility DUNS Parent Company #1 DUNS	NS – 9 characters)		
1.5	Facilit	Parent Company #2 DUNS ty Location Street:			
	1.5.b	Street:			
	1.5.c	City	1.5.d	1.5.e	
	1.5.f.	County	State	Zip Code	
	1.5.g.	Facility Latitude	1.5.h. Facilit		
	1.5.i.	Method for determining Lat/I	9	,	
1.6	Owne	Description of location identified or Operator Name:	fied by Lat/Long (See	RMP Users Manual	
	Owne	Phone:() er or Operator Mailing Address Street:	:	_	
		Street:			
	1.6.e.			1.6.g	
		City	State	Zip Code	

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

Section 1.Registration

1.7.a.	Name of person responsible for Delaware RMP Implementation: _		
1.7.b. 1.8	Title:Emergency Contact		
1.8.a.	Name:	1.8.b. Title:	
1.8.c.	Phone:	1.8.d. 24-Hour Phone:	
1.8.e.	24-Hour Phone Extension/PIN #:		
	Optional Other Points of Contacts: E-mail Address:		
1.9.b.	Facility Public Contact Phone:		
1.9.c.	Facility or Parent Company www Hon	nepage Address:	
1.10	Local Emergency Planning Committee (LEPC)		
1.11 1.12	Number of full time employees on site Facility covered by: (Select all that ap 1.12.aOSHA PSM 1.12.bEPCRA Section 302 1.12.cCAA Title V Air Opera		
1.13	OSHA Star or Merit Ranking (Optional) [] Yes [] No		
1.14	Last Safety Inspection (by an External Agency) Date:		
1.15	Last Safety Inspection Performed by 1.15.aOSHA 1.15.bState Accidental Release 1.15.cEPA 1.15.dState Environmental Ag 1.15.eFire Department 1.15.fNever had one 1.15.gOther, Specify:	se Prevention Program gency	
1.16	Will this RMP involve Predictive Filin	g? (Optional) [] Yes [] No	

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

Facili	ty Name:				
Sectio	n 1.Registration				
1.17	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 ID # (Optional for facility reference) Process Description: (Optional for your reference only)				
1.17.a	. Program Level (select one):	[] 1 [] 2	[] 3		
1.17.b	. NAICS Code(s) for regulated	processes (five or six digits)			
	. Chemical(s) (regulated substa	,	117 - 2 A 1 O		
1.17.c	1 Name	1.17.c.2 CAS Number	1.17.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

FACILITY NAME:

risk management program and submit a risk management plan.

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 6.30(d) 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 6.30(d)), or table 6 (explosives).				
4. SQ = lbs/hour for toxics or, lbs/minute for flammables or, lbs for explosives.				
You must determine your release rate (RR) for toxics and flammables using Section 6.50(b)(8)(vi) 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, lbs for explosives.				
If the PRQ is equal to or greater than the SQ, the owner or operator must develop and implement a				

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).

6.	Model used:	Delaware Table 7
		Delaware Table 8
		Delaware Table 9 EPA's RMP*Comp TM
		Other Model – Please list model name and give description including
		wind speed, atmospheric class, and topography used (attach vendor
		information as appropriate:
	Rural or Urbar	Temperature of release
	End Point used	l
7.	Distance to an	dnaint (miles):
/.	Distance to en	dpoint (miles):
8.	Estimated pop	ulation within distance to endpoint:
9.	Public Receptors:	
	-	
		(List all Schools, Residences, Hospitals, Prison/Correctional Facilities
		Recreational Areas, Commercial, Office, or Industrial areas)
10	. Passive Mitigation	n considered:
	J	
		(List all Dikes, Enclosures, Berms, Drains, Sumps, or Other)
		(213t an Direct, Enclosures, Bernis, Drains, Sumps, or Other)

DELAWARE RISK MANAGEMENT PLAN (RMP) Five Year Accident History

(Taken fro	m federal RMP	*Submit form Section	6) Facility Name:	
Would you 5 years?	Yes, No,	leave the rest of this se	photocopies of pages 9 a	•
6.1 Dat	e and time of Aco	cident:	6.2 Time	AM/PM
6.3 NA	ICS code of proc	ess involved (five or six	digits):	
	ease duration: emical(s) released	d: (hours	s and minutes)	
6.5.a.i. Nan	ne	6.5.a.ii.CAS Number	6.5.b.Quantity released (lbs)	of chemical if in a mixture (toxics only)
				%
				%
				%
6.7 Releas	e Source (Select a Storage vessel	quid spill/evaporation at least one) [] Valve	[] Fire [] Explosion	
[]	Process vessel			
a.i. W b. Te d. Pr	er Conditions at t ind speed mperature (°F) recipitation Prese nknown weather	a.ii. Wi c. Atm	nd direction]]ospheric Stability class (a	
6.9 On-site a. De Employ		ers): ors	b. Injuries (enter number Employees or contractors	
	c.	Property Damage	\$	

DELAWARE RISK MANAGEMENT PLAN (RMP) Five Year Accident History

.10	b. Hospitalizations c. Other medical treatments 6.10.g. Environmental damag [] Fish or animal kill [] Tree, lawn, shrub, [] Water contaminati [] Soil contamination	d. Evacuated e. Sheltered-in-place f. Property damage \$ ge (select all that apply): s or crop damage on
.11		[] Natural (weather conditions, earthquake) [] Unknown
.12		[] Process design failure
.13	Off-site responders notified:	[] Notified only [] No, not notified [] Unknown
.14	[] Improved/upgraded equip	nse plan

(Ta	aken from federal RMP*Submit form Section 7) Facility Name:
7.	(If you need to report more than one process prevention program, make a photocopy of Section 7) Prevention Program Description:
7.1	NAICS Code for process:
7.2	Chemical name(s):
7.3	Date on which safety information was last reviewed or revised:
7.4	Process Hazards Analysis (PHA): 7.4.a Date of last PHA or PHA update:
	7.4.b. Technique used: [] What if [] Failure Mode & Effects Analysis
	[] Checklist [] Fault Tree Analysis [] What if /Checklist combined [] Other, Specify: [] HAZOP
	7.4.c. Expected or actual date of completion of all changes resulting from last PHA or PHA update:
	7.4.d Major Hazards identified (select at least one):
	[] Toxic release [] Corrosion [] Tornado
	[] Fire [] Overfilling [] Earthquakes [] Explosion [] Contamination [] Floods (flood plain)
	[] Runaway reaction [] Equipment Failure [] Hurricanes
	[] Polymerization [] Loss of cooling, heating, or electricity, instrument air [] Overpressurization
	[] Other (specify):

(Tak	en from federal RMP*Submit form Section 7) Facility N	Name:			
	7.4.e. Process controls in use (select at least one): [] Vents [] Interlocks [] Relief valves [] Alarms and Procedures [] Check valves [] Keyed bypass [] Scrubbers [] Emergency air supply [] Flares [] Emergency power [] Manual shutoffs [] Backup pump [] Automatic shutoffs [] Grounding equipment [] Other (specify):	[] Inhibitor addition [] Rupture disks [] Excess flow device [] Quench system [] Purge system [] None			
	7.4.f. Mitigation systems in use (select at least one): [] Sprinkler system [] Dikes [] Blast Walls [] Deluge System [] Enclosure [] Neutralization [] Other (specify):	[] Fire Walls [] Water curtain [] None			
	7.4.g. Monitoring/detection systems in use (select at least [] Process area detectors [] Perimeter Monitors [] Other (specify):	one): [] None			
	[] Change in process parameters [] Ins [] Installation of process detection systems [] Ins	at least one): crease in chemical inventory tallation of process controls tallation of mitigation systems ne recommended			
7.5 7.6	Date of most recent review or revision of operating procedures: Training: 7.6.a. Date of most recent review or revision or training programs: 7.6.b. Type of Training provided: [] Classroom [] On the job [] Other:				
	7.6.c. Type of competency testing used (select at least one [] Written tests [] Oral tests [] Demonstra [] Observation [] Other:	e): ation			

(Taken from federal RMP*Submit form Section 7) Facility Name:				
7.7		enance: Date of most recent review or revision of maintenance procedures:		
		Date of most recent process equipment inspection or test: Equipment most recently inspected or tested (list equipment):		
7.8		Date of most recent change that triggered management of change procedures:		
	7.8.b.	Date of most recent review or revision of management of change procedures:		
	7.9	Date of most recent pre-startup review:		
7.10	7.10.a	Compliance Audits 7.10.a. Date of most recent compliance audit: 7.10.b. Expected or actual date of completion of all changes resulting from the compliance audit:		
7.11	Incident Investigation: 7.11.a. Date of most recent incident investigation (if any): 7.11.b. Expected or actual date of completion of all changes resulting from the incident investigation:			
7.12	Date o	of most recent review or revision of employee participation plans:		
7.13	Date o	of most recent review or revision of hot work permit procedures:		
7.14	Date o	of most recent review or revision of contractor safety procedures:		
7 15	Date o	of most recent evaluation of contractor safety performance:		

(Taken from federal RMP*Submit form Section 8) Facility Name: 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 an 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 [] Other (specify): [] Comments: 84 Hazard Review: 8.4.a. Date of completion of most resent hazard review or update: Expected or actual date of completion of all 8.4.b. changes resulting from the hazard review: Major hazards identified (select at least one): 84c [] Toxic release [] Corrosion [] Contamination [] Fire [] Overfilling [] Equipment Failure [] Floods (flood plain) [] Explosion [] Earthquakes [] Tornado [] Runaway reaction [] Hurricanes [] Polymerization [] Loss of cooling, heating, or electricity, instrument air [] Overpressurization Other (specify):

(Take	n from federal RMP*Subm	it form Section 8) Facil	ity Name:	
8.4.0	[] Vents[] Scrubbers[] Interlocks[] Automatic shutoffs[] Backup pump	[] Grounding equipmen [] Excessive flow device [] None	[] Emergency power t [] Inhibitor addition	
8.4.e.	[] Sprinkler system	n use (select at least one): [] Dikes [] Deluge System [] Neutralization	[] Fire Walls [] Water curtain [] None	
8.4.f.	Monitoring/detection system [] Process area detectors [] Other (specify):			
8.4.g.	Changes since the last hazar [] Reduction in chemical i [] Change in process parar [] Installation of process d [] Installation of perimeter [] Other (specify):	nventory [] meters [] etection systems [] monitoring systems []	update (select at least one): Increase in chemical inventory Installation of process controls Installation of mitigation systems None recommended None	
8.5	Date of most recent review of	or revision of operating pro	ocedures	
8.6.a	Date of most recent review or revision of training programs			
8.6.b.	Type of Training provided:	[] Classroom [] On the [] Other:		
8.6.c.	Type of competency testing [] Written tests [] Observation	[] Oral tests	Demonstration	

(Taken from federal RMP*Submit form Section 8) Facility Name:					
8.7	Maintenance				
	8.7.a.	Date of most resent review or revision of maintenance procedures			
	8.7.b.	Date of most recent equipment inspection or test			
	8.7.c.	Equipment most recently inspected or tested (list equipment):			
88 (Compliar	ace audits:			
0.0		Date of most recent compliance audit:			
		Expected or actual date of completion			
		of all changes resulting from the compliance audit:			
8.9 I		nvestigation:			
		Date of most recent incident investigation (if any):			
	8.9.b.	Expected or actual date of completion of all changes resulting from the incident investigation:			
8.10		ate of most recent change that triggered			
	a review or a revision of safety information, the hazard review, operating or maintenance procedures, or training:				

DELAWARE RISK MANAGEMENT PLAN (RMP) EMERGENCY RESPONSE

(Take	n from	federal RMP*Submit form Section 9) Facility Name:		
9.1 9.1.a.	Written emergency response (ER) plan [] 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		
9.8	Facility [] [] [] [] [] [] []	y 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 1Process(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:

[insert description for first Program 1 pro	cess from executive summary]
[insert description for second Program 1]	process from executive summary]
[etc.]	
offsite impacts provided in the risk mana additional measures are necessary to preven event of fire, explosion, or a release of a within the distance to the specified endportes responders. Therefore, public emergency arranged with the emergency contact indice	has (have) had no accidental release that caused agement program rule (Section 5.10(b)(1)). No t offsite impacts from accidental releases. In the regulated substance form the process(es), entry oints may pose a danger to public emergency responders should not enter this area except as eated in the Delaware RMP. The undersigned information, and belief, formed after reasonable curate, and complete.
Signature	Print Name
Title	Date
Certification Statement for Program 2 & To the best of the undersigned's knowledg inquiry, the information submitted is true, ac	e, information, and belief formed after reasonable
Signature	Print Name
Title	Date