RMP – Updates and Audits

NDEQ – 2015 Environmental Update – Ethanol Workshops
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Applicability

EPA's Risk Management Plan

- RMP Regulation is part of the Clean Air Act (CAA)

- Began June 21, 1999 (Seven (7) years after PSM regulation)

- Primary difference from PSM is:
  - off-site consequences (RMP) vs on-site safety (PSM)

- Program Level 3 RMP requirements are VERY similar to Process Safety Management

Applicability

What Chemicals full under RMP?

- 140 substances (63 flammable, 77 toxic)
  - Toxicity
  - Ambient physical state
    - Gas
    - Liquid with vapor pressure > 10 mmHg
  - Flammability
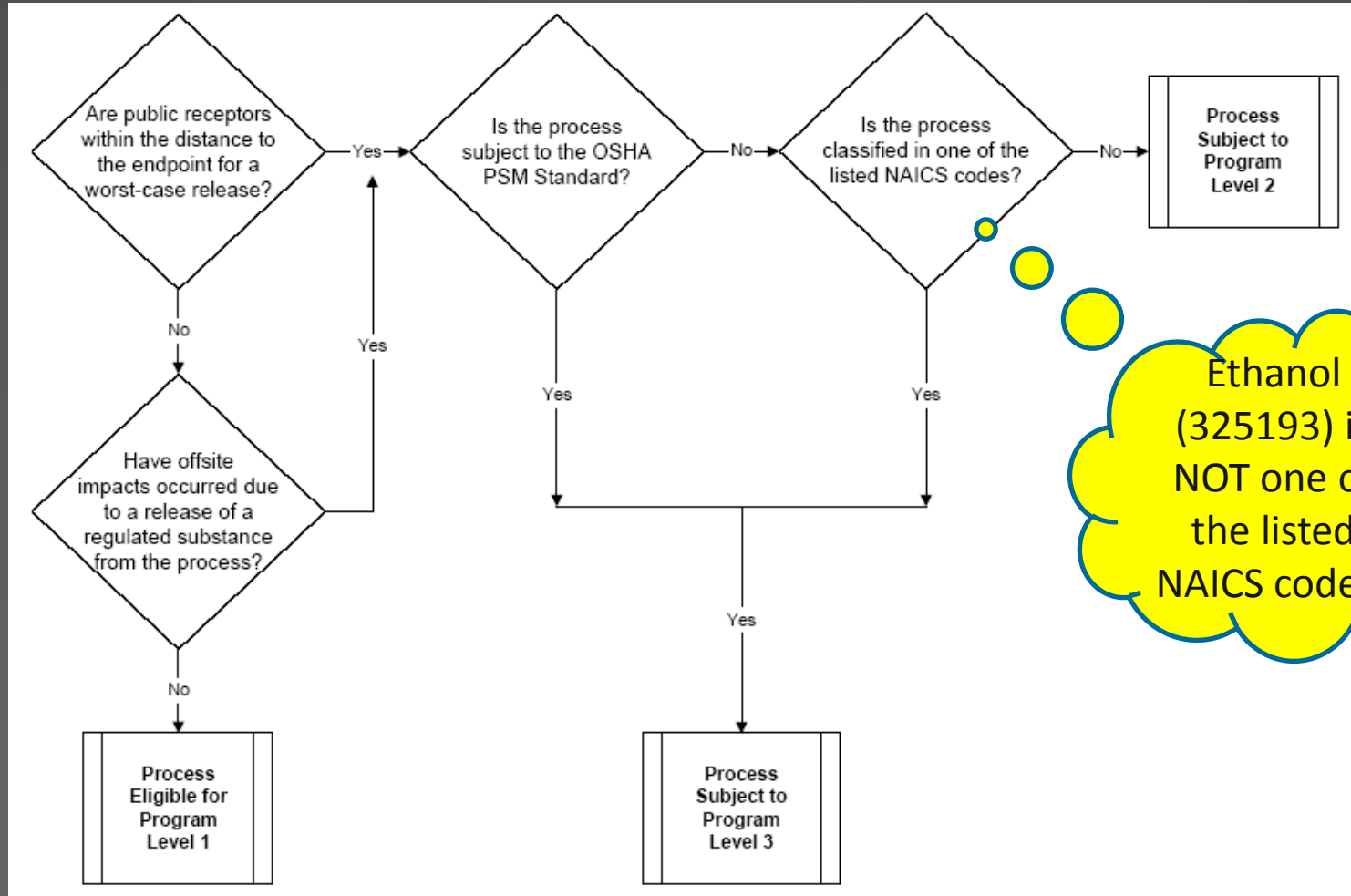   - NFPA 4 flammability (Flash point < 73°F; boiling point < 100°F)

Applicability

- Potential regulated substances at an ethanol facility:

CAS#	Chemical Name	Threshold Quantity (lbs.)
7664-41-7	Anhydrous Ammonia	10,000
7664-41-7	Aqueous Ammonia (>20%)	20,000
7782-50-5	Chlorine	2,500
10049-04-4	Chlorine Dioxide	1,000
Varies	Denaturant	Varies
74-98-6	Propane	10,000

(40 CFR 68.130)

Applicability

- RMP – Program Levels For Covered Processes

Applicability

RMP Requirements

- Written Hazard Assessment (All program levels)

- Written Management System (2 & 3)

- Written & implemented Accident Prevention Program (2 & 3)

- Emergency Response Program (2 & 3)

- Coordination with Emergency Response Agencies (All levels)

- Risk Management Plan and Registration (All levels)

Applicability

Program Level 2

- Safety information
- Hazard review
- Operating procedures
- Training
- Maintenance
- Compliance audits
- Incident investigation

Program Level 3

- Process safety information
- Process hazard analysis
- Operating procedures
- Training
- Mechanical integrity
- Compliance audits
- Incident investigation
- Pre-startup review
- Management of change
- Employee participation
- Hot work permit
- Contractor accountability

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RMP Management Plan

Position	Primary Responsibility	Changes	Responsibility re: Changes
	SAMPLE MANAGEMENT DOCUMENTATION		
Operations Manager	Oversight of operation On-the-job training On-the-job competency testing Process Safety Information Selecting participants for PHAs, incident investigations Develop management of change & pre-startup procedures Submit the RMP	New Process Chemistry New Process Parameters New Procedures Change in Process Utilization	Inform head of maintenance Inform lead for PHAs Inform hazmat team as needed Inform contractors
Training Supervisor	Develop, track, oversee operator training program Track competency testing Set up & track operator refresher training Set up training for maintenance Work with contractors	New Equipment New Process Chemistry New Process Parameters New Procedures Change in Process Utilization New regulatory requirements	Revise training & refresher training courses Revise maintenance courses, as needed Inform other leads of need for additional training
Maintenance Supervisor	Develop maintenance schedules Oversee & document maintenance Revise schedules as needed	New Equipment New Process Chemistry New Process Parameters New Procedures Change in Process Utilization	Inform operations manager of potential problem areas Inform training supervisor of any training revisions Inform contractors Revise schedules
Hazmat Team Chief	Develop & exercise ER plan Train responders Test & maintain ER equipment Coordinate with public responders Select participants in accident investigations	New Equipment New Process Chemistry New Process Parameters New Procedures Change in Process Utilization New regulatory requirements	Revise the ER plan as needed Inform operations manager of problems created by changes Work with training supervisor to revise training of team & others

Common RMP Violations

RMP Updates

- Many facilities had RMP audits within the last few years.

- The audits varied from one day onsite to several days.

- Typically the facility is provided a letter of preliminary findings.

- The EPA will assess the violation and provide a fine outline.

- Two types of fines:
  - Expedited Settlement Agreement (ESA)
  - Max. daily fine (up to $37,500 per day)

RMP Fine Structures

- Expedited Settlement Agreement (ESA)
  - The best fine option
    - Maximum fine is $15,000
    - Based on ALL violations
    - More likely to receive ESA if cooperating with EPA
- Maximum Daily Fine
  - Can be fined up to $37,500/day
  - Can be assessed per violation
  - More likely to receive if violations were knowing and willful, and facility is not cooperating with EPA

RMP – Commonly Fined Items

- Items have be separately fined ranging from $600 to $1500

1. Population Data
   a. Not using most recent census data
   b. Population should be estimated within the circle with its center at the point of the release and a radius determined by the distance to endpoint (e.g. RMP*Comp).

2. Coordinates of the Release Point is inaccurate
   a. The distance to endpoint should be based on the point of release (e.g. the ammonia tank).

RMP – Commonly Fined Items

3. Flammable Mixture Volume is not properly applied to Offsite Consequence Analysis for the WCS and ACS.

    a. According to the EPA's <u>Risk Management Program Offsite Consequence Analysis (March 2009), Section 5.2</u> – "*you should carry out the analysis using the total quantity of all regulated flammable substances or substances in the mixture. Non-flammable components should not be included. However, if additional (non-regulated) flammable substances are present in the mixture, you should include them in the quantity*".

    b. The guidance continues to say, "*for simplicity, you may carry out the worst-case analysis based on the predominant regulated flammable component of the mixture or a major component of the mixture with the highest heat of combustion if the whole vapor cloud consists of flammable substances.*"

RMP – Commonly Fined Items

4. Failure to accurately report Section 9 of the RMP (Emergency Response) per 40 CFR 68.90.

   a. If you are a facility where your employees will NOT respond to accidental releases of regulated substances, the facility should NOT check they have an Emergency Response Plan AND must meet the following:

      o For a facility with any regulated toxic substance (ammonia) in a process above the threshold, the facility is included in the community response plan;

      o For a facility with only regulated flammable substances held in a process above the threshold quantity, the facility has coordinated response actions with the local fire department; and

      o Have appropriate mechanisms in place to notify emergency responders when there is a need for a response.

   b. Checking that you have an Emergency Response Program insinuates that your facility has medical personnel on staff.

Be Prepared for an RMP Audit

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- RMPs should be updated every five (5) years (all sections) or when the following occurs:
  - Within 3 years of the EPA listing a newly regulated substance;
  - No later than the date a new regulated substance is first present onsite above the threshold quantity, in an existing or new covered process;
  - Within 6 months of a change that requires a revised PHA or hazard review;
  - Within 6 months of a change that requires a revised offsite consequence analysis;
  - Within 6 months of a change that alters the covered processes' Program level

Be Prepared for an RMP Audit

- Ensure backup documentation is in order
  - Offsite consequence analysis (e.g. RMP*Comp)
  - Population data
  - Radius maps
  - WCS and ACS determination
  - SDS for reported substances
- Ensure PHAs, PSM compliance audits and review of operating procedures are completed when required
  - PHA – every 5 years
  - Compliance audits – every 3 years
  - Operating procedure review - annually

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What if YOU find deficiencies???

- EPA Self Disclosure Audit Policy
  - Must meet all 9 conditions of audit policy
  - Systematic discovery of the violation through environmental audit or due diligence
  - Voluntary discovery
  - Prompt disclosure
  - Discovery and disclosure independent of government or third party
  - Correction and remediation
  - Prevent recurrence of violations
  - Other violations excluded
  - Cooperation

- In the last 5 years alone, over 2,600 entities have self-disclosed violations at over 7,000 facilities under EPA's Compliance Incentive Policies

Correction to the RMP

- Required corrections to the RMP
  - New accident history information – within six (6) months of a release
  - Emergency contact information – within one (1) month of any change in the emergency contact information

- A correction to the RMP <u>will not</u> reset the 5-year renewal clock!
  - Only a resubmission of the RMP (5-year update) will reset the clock.
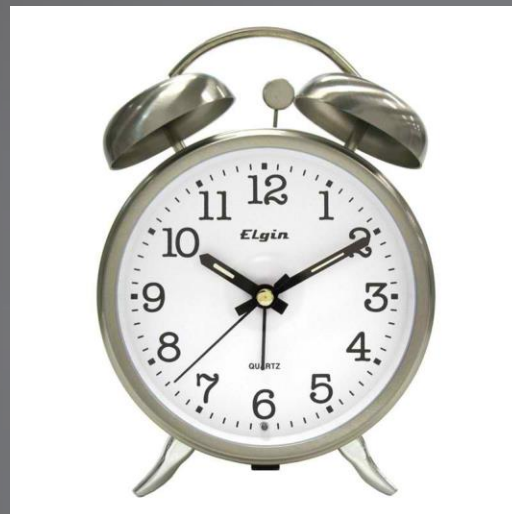
Questions

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