

RISK MANAGEMENT PLANS: WATER SECTOR ISSUES



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Objective

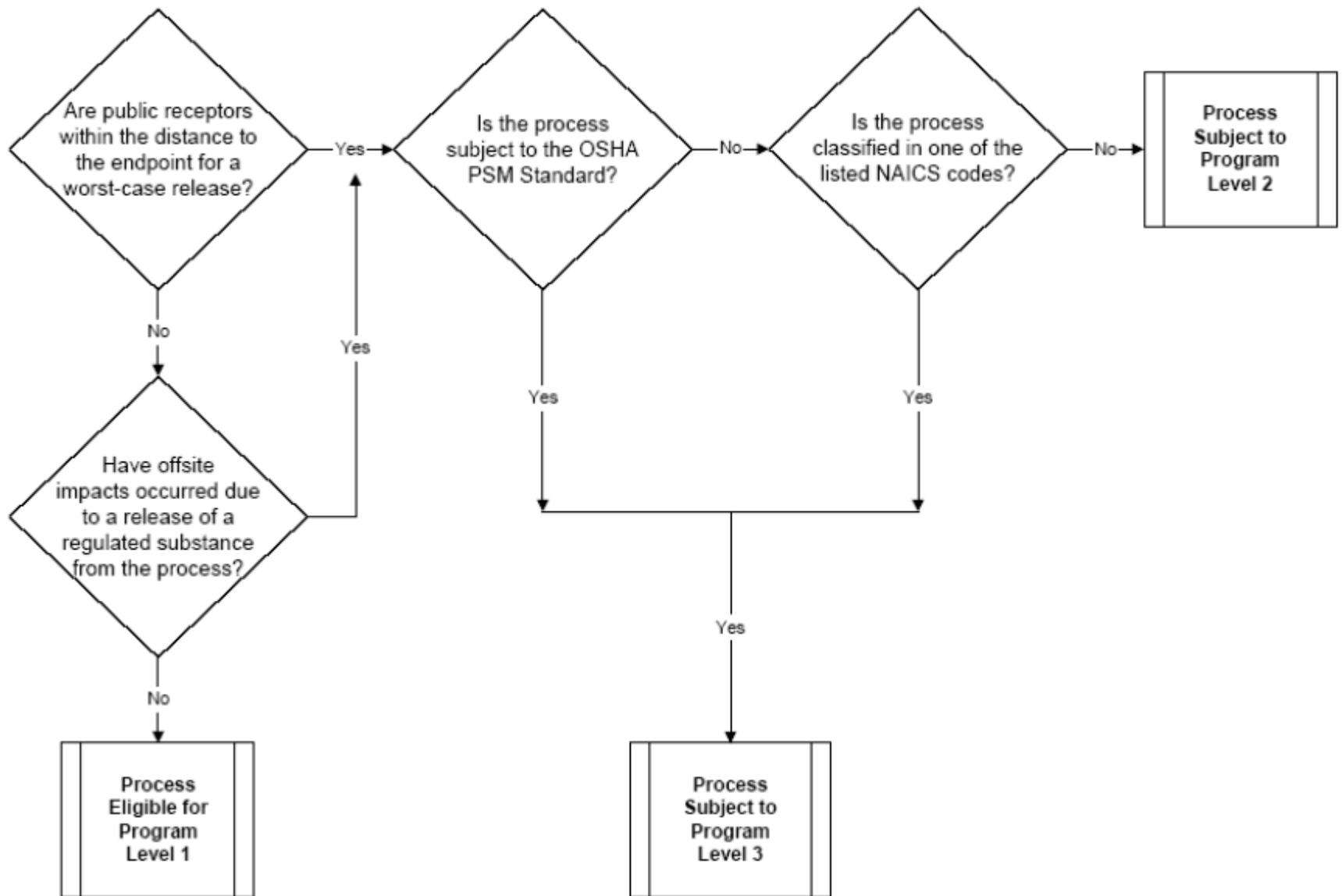
- Overview of the Risk Management Plan (RMP) Rule
- Applicability
- Program Levels
- Preparation/Review
- Submittal
- Maintenance
- Common Pitfalls
- Tips for Success
- References

Rule Overview

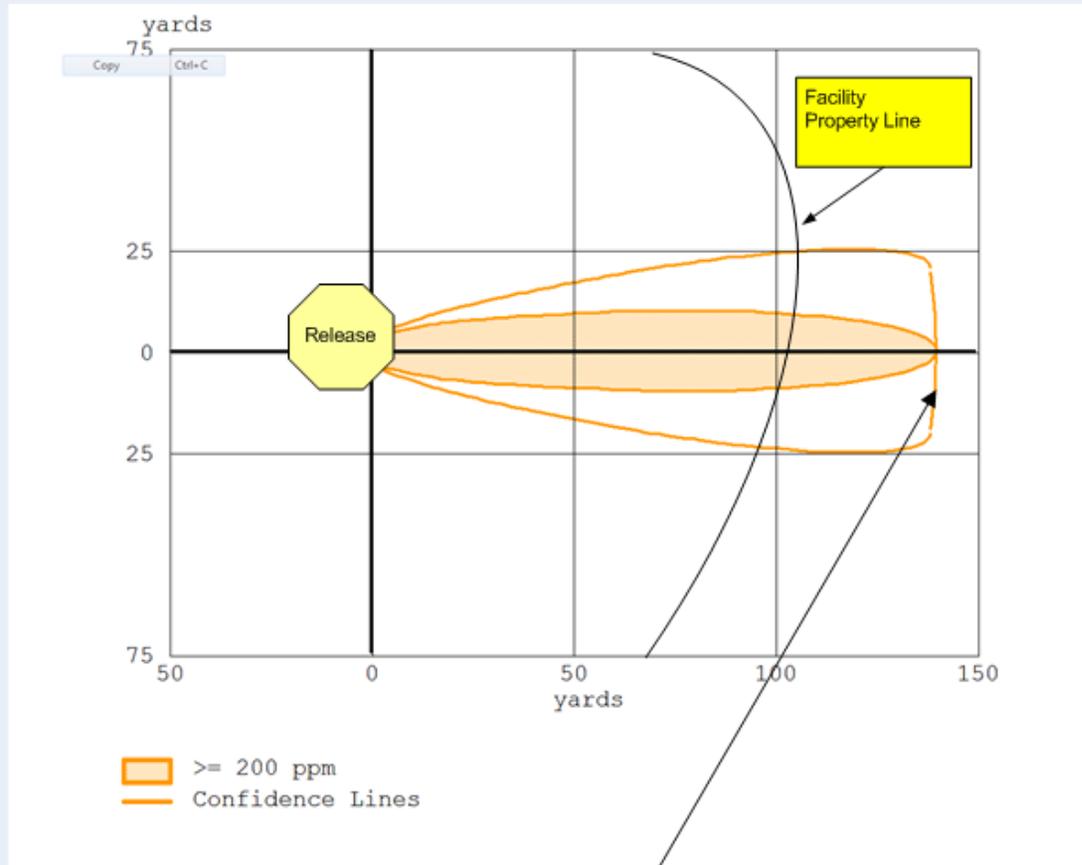
- ⦿ Clean Air Act (CAA) amendments of 1990, Section 112(r) required regulations and guidance for chemicals with a high risk of harm from accidental releases
- ⦿ Published in the Federal Register on January 31, 1994 and June 29, 1996; the latter established the list of regulated substances
- ⦿ Original compliance date of June 21, 1999
- ⦿ Applies to: “Owners and operators of a facility (stationary source) that manufacture, use, store, or otherwise handles more than a threshold quantity of a listed regulatory substance in a process”

Applicability

- ⦿ Water and wastewater utility use various chemicals to treat water
- ⦿ Most common applicable to the Rule are chlorine and ammonia
 - Chlorine: $\geq 2,500$ gallons
 - Ammonia (20%): $\geq 20,000$ gallons
- ⦿ Offsite Consequence Analysis (OCA), or worst-case scenario, drives the program level; the level drives the requirements



Offsite Consequence Analysis



Release and Dispersion Modeling to Identify Offsite Impacts

• Program Levels

COMPARISON OF PROGRAM REQUIREMENTS		
Program 1	Program 2	Program 3
Executive Summary	Executive Summary	Executive Summary
Worst-case release analysis	Worst-case release analysis	Worst-case release analysis
	Alternative release analysis	Alternative release analysis
5-year accident history	5-year accident history	5-year accident history
	Document management system	Document management system
Prevention Program		
Certify no additional prevention steps needed	Safety Information	Process Safety Information
	Hazard Review	Process Hazard Analysis
	Operating Procedures	Operating Procedures
	Training	Training
	Maintenance	Mechanical Integrity
	Incident Investigation	Incident Investigation
	Compliance Audit	Compliance Audit
		Management of Change
		Pre-Startup Review
		Contractors
		Employee Participation
		Hot Work Permits
Emergency Response Program		
Coordinate with local emergency responders	Develop a plan and program (if applicable) and coordinate with local emergency responders	Develop a plan and program (if applicable) and coordinate with local emergency responders

• Program Levels: Level 1

Overall

- ⦿ Executive Summary
- ⦿ Worst-case release (or OCA)
- ⦿ 5-year accident history

Prevention Program

- ⦿ Certify no additional prevention steps needed

Emergency Response Program

- ⦿ Coordinate with local emergency responders

• Program Levels: Level 2

Overall

- ⦿ Executive Summary
- ⦿ Worst-case release (or OCA)
- ⦿ Alternative release analysis
- ⦿ 5-year accident history

Prevention Program

- ⦿ Safety Information
- ⦿ Hazard Review
- ⦿ Operating Procedures
- ⦿ Training
- ⦿ Maintenance
- ⦿ Incident Investigation
- ⦿ Compliance Audit

• Program Levels: Level 2

Emergency Response Program

- ◎ **Develop a plan and program** and coordinate with local emergency responders

• Program Levels: Level 3

Overall

- ⦿ Executive Summary
- ⦿ Worst-case release (or OCA)
- ⦿ Alternative release analysis
- ⦿ 5-year accident history

• Program Levels: Level 3

Prevention Program

- ⦿ Safety Information
- ⦿ Hazard Review
- ⦿ Operating Procedures
- ⦿ Training
- ⦿ Maintenance
- ⦿ Incident Investigation
- ⦿ Compliance Audit
- ⦿ Management of Change
- ⦿ Pre-Startup Review
- ⦿ Contractors
- ⦿ Employee Participation
- ⦿ Hot Work Permits

• Program Levels: Level 3

Emergency Response Program

- ⦿ Develop a plan and program and coordinate with local emergency responders

• Program Levels

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Emergency Response Program		
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Preparation/Review

- ⦿ Program level determines requirements
- ⦿ 40 CFR Part 68
- ⦿ EPA Guidance for Risk Management Plans/Programs under CAA Section 112(r)
- ⦿ Review the RMP once every five years; also must review OCA once every five years
- ⦿ Program Level 2, review hazard assessment at least once every five years
- ⦿ Program Level 3, review PHA at least once every five years

Submittal

- ◎ RMP eSubmit (started in 1999)
- ◎ Will receive response stating it has been rejected or approved; generally, they are approved but the letter clearly indicates that it does not assume the RMP or associated procedures are compliant

Maintenance

◎ All

- Review OCA every five years

Program Levels 2 and 3

- Verify Prevention Program has been carried out as outlined
- Training in operating procedures
- Compliance audits at least every three years
- Inspect and test process equipment
- Implement and document training, as stated in the RMP, and maintain all curriculums and records

Program Level 3

- Annually certify operating procedures
- Update process safety information in the event of a change to the chemicals, technology, equipment, and procedures

Common Pitfalls

- ⦿ Minor requirements missing (i.e., D&B, incorrect latitude/longitude)
- ⦿ Not using the current population to update your OCA
- ⦿ Training for Prevention Program and Emergency Response does not occur in concert with the RMP
- ⦿ “We only have state inspections, and EPA has primacy and never audit facilities”

Tips for Success

- ⦿ Conduct a gap analysis
- ⦿ Review existing RMP and associated/related documents (i.e., PSM)
- ⦿ If you are also subject to a PSM, maximize from the findings of the PSM
- ⦿ Make it easy for an auditor!
- ⦿ Be able to provide training curriculums and attendance in concert with your RMP
- ⦿ **DOCUMENTATION!**

Questions???

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