Risk Management Planning and the General Duty Clause

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Biography



- Managing Partner of ERM's North America Process Safety / Risk Management Practice
- Over 25 years experience with OSHA PSM and EPA RMP programs
- Certified Professional Process Safety Auditor (CPEA) Certificate #45
- Worked with a variety of industrial sector clients, including those in oil & gas, chemical, pharmaceutical, power, food & beverage, semiconductor, automotive, and manufacturing on PSM/RMP related projects
- Conducted or lead Process Safety or Risk Management related audits for over 300 locations across the United States, Mexico, Canada, Europe, Asia, and South America
- Based in Cincinnati, Ohio



The General Duty Clause states:

"The owners and operators of stationary sources producing, processing, handling or storing such substances [i.e., a chemical in 40 CFR part 68 or any other extremely hazardous substance] have a general duty to identify hazards which may result from (such) releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases which do occur."

Source: RMP General Duty Clause Fact Sheet (EPA 550-F-09-002) dated March 2009



Key terms...

- "Stationary source" is defined in Section 112(r)(2)(C) as "any buildings, structures, equipment, installations or substance emitting stationary activities (I) which belong to the same industrial group, (ii) which are located on one or more contiguous properties, (iii) which are under the control of the same person (or persons under common control), and (iv) from which an accidental release may occur."
- "Accidental release" is defined in Section 112(r)(2)(A) as "an unanticipated emission of a regulated substance or other extremely hazardous substance into the ambient air from a stationary source."
- "Extremely hazardous substances" are not defined in Section 112(r). They are not limited to the list of regulated substances listed under Section 112(r) nor the extremely hazardous substances under EPCRA.

Source: Guidance for Implementation of the General Duty Clause Under the CAA (EPA 550-B00-002) dated May 2000



Compliance with RMP General Duty Clause

Facilities subject to the General Duty Clause are, among other things, responsible for the following:

- Knowing the hazards posed by the chemicals and assessing the impacts of possible releases,
- Designing and maintaining a safe facility to prevent accidental releases, and
- Minimizing the consequences of accidental releases that do occur.

Source: RMP General Duty Clause Fact Sheet (EPA 550-F-09-002) dated March 2009



So, what does that really mean?

1. Knowing the hazards posed by the chemicals and assessing the impacts of possible releases

Although the general duty clause does not specify how the owner/operator should identify hazards, the hazard assessment, when concluded, should result in the following information.

- The hazards associated with the EHS and the process,
- Potential release scenarios developed from site specific hazard analysis/review and facility/industry historical data and
- The consequences of the release in each case.

Source: Guidance for Implementation of the General Duty Clause Under the CAA (EPA 550-B00-002) dated May 2000



So, what does that really mean? (continued)

2. Designing and maintaining a safe facility to prevent accidental releases

Designing a safe facility...

- Identify and apply design safety codes that are applicable to the process.
- Substitute less hazardous substances for EHS where applicable or limit inventories of EHS.
- Implement Quality Control program to ensure components meet design specifications, and implement safety design standards and practices that are generally applied in industry.

Source: Guidance for Implementation of the General Duty Clause Under the CAA (EPA 550-B00-002) dated May 2000

Maintaining safe facility...

- Develop and implement written Standard Operating Procedures (SOPs) for all aspects of process.
- Train employees and operators on the hazards of the process and all aspects of safe operation.
- Manage changes to ensure that they are evaluated for potential safety concerns before they are implemented.
- Investigate incidents and near misses
 and implement corrective actions from
 those investigations
- Implement a Preventative Maintenance program in accordance with applicable industry sources and consensus standards.
- Implement a self audit program.



So, what does that really mean?

3. Minimizing the consequences of accidental releases that do occur

- <u>Planning</u>: Develop an emergency response plan that specifically addresses the hazards of the EHS. At minimum it should address the following:
 - Anticipation of the types of releases that may occur from the process.
 - Mitigation process.
 - Notification process to local responders.
 - Local responder involvement.
- <u>Coordination with Local Officials</u>: Open communications with local emergency response agencies and review Emergency Response Plan.
- <u>Training</u>: Train all employees on "out of norm" circumstances.
- <u>Exercises:</u> Conduct periodic exercises to ensure the ERP is adequate. The consequences of the release in each case.

Source: Guidance for Implementation of the General Duty Clause Under the CAA (EPA 550-B00-002) dated May 2000



Ask yourself the following to determine if you are complying with GDC!

- Did the owner or operator identify all chemical and process hazards associated with extremely hazardous substances?
- Did the owner or operator design and maintain a safe facility taking necessary steps to prevent releases?
- Did the owner or operator take necessary steps to minimize the effects of releases?

- Specifically look at the checklist provided in Section 3.2, 3.3, and 3.4 of the Guidance for Implementation of the General Duty Clause Under the CAA to ensure compliance!

Source: Guidance for Implementation of the General Duty Clause Under the CAA (EPA 550-B00-002) dated May 2000



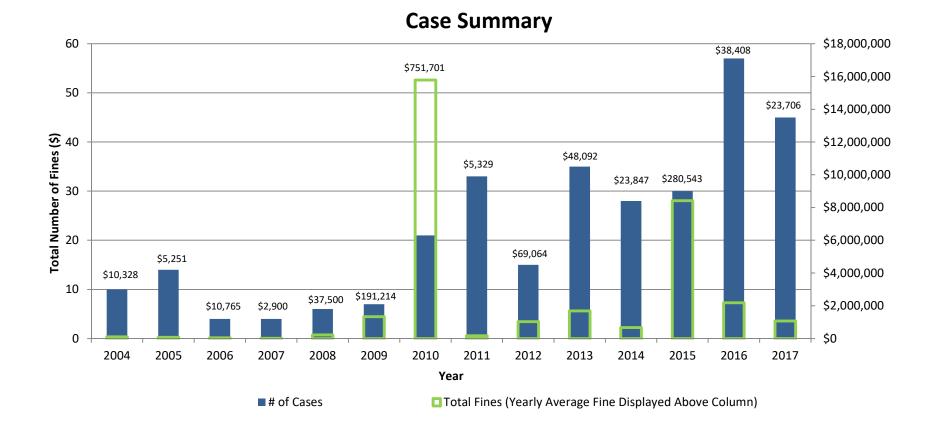
RMP General Duty Clause Enforcement





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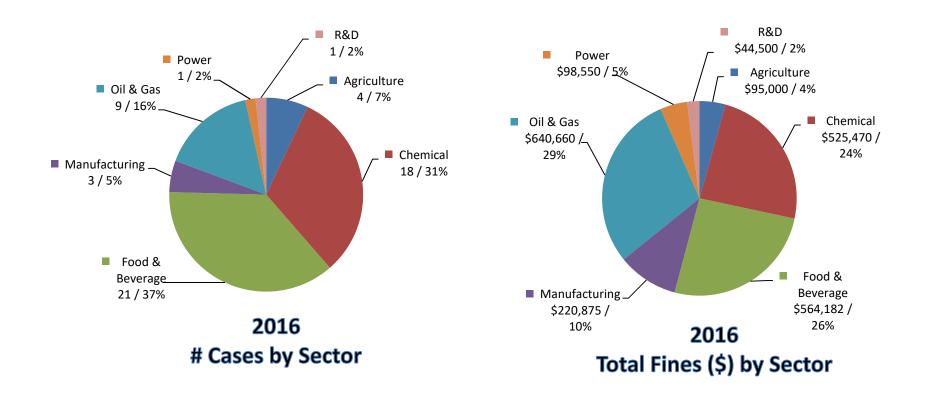
Historic Enforcement Action (2004-2017 ytd)



Source: EPA ECHO Database – data from November 22, 2017



2016 GDC Cases by Sector





2017 GDC Cases by Sector

