

General Guidance on EPA's Risk Management Program Requirements and Toluene Diisocyanate (TDI)

ISSUE AX404 • July 2012

Purpose

The purpose of this document is to provide general guidance on Section 112(r) of the [Clean Air Act \(CAA\)](#). Section 112(r) of the CAA requires the Environmental Protection Agency (EPA) to promulgate regulations for the prevention and mitigation of accidental releases of extremely hazardous substances. Under this section, EPA established a list of regulated substances and thresholds and issued the [Chemical Accident Prevention Provisions](#) (40 CFR Part 68). The goals of this program are to prevent accidental releases of chemicals that could cause serious harm to human health or the environment and to reduce the severity of releases that may occur.

Covered facilities are required to develop and implement a risk management program that includes a five-year accident history, an offsite consequence analysis, an accident prevention program, and an emergency response program. Regulated facilities must submit to EPA a risk management plan (RMP) describing the source's risk management program (40 CFR 68.115). EPA provides an online tool called "[RMP*eSubmit](#)" to allow facilities to prepare and submit their RMPs online.

The Chemical Accident Prevention provisions also require full updates and resubmissions of RMPs at least once every five years. Certain processes and other changes may require a facility to fully update or resubmit its RMP prior to the five-year anniversary of the RMP. The five-year anniversary date is reset whenever companies fully update and resubmit their RMPs.

On April 9, 2004, EPA amended the RMP rule (69 FR 18819). The amendment requires more timely accident history reporting and corrections to emergency contact information; removes the requirement to briefly describe the results of off-site consequence analysis in the Executive Summaries of RMPs; and adds three new data elements to RMPs.

Who is affected?

Owners and operators of a stationary source (as opposed to a mobile source) that manufactures, uses, stores, or otherwise handles more than a threshold quantity of a regulated substance in a process must implement and submit a RMP under Section 112(r). Rather than imposing identical requirements on all sources, EPA established three “Program Levels” under the RMP rule.

What are the qualifications for each Program Level?

Program Level 1

Program Level 1 applies to process that would not affect the public in the situation of a worst-case release and with no accident with specific offsite consequences within the past five years.

Program Level 2

Program Level 2 applies to processes not eligible for program or subject to Program 3.

Program Level 3

Program Level 3 applies to processes not eligible for Program 1 and either subject to the Occupational Safety and Health Administration's (OSHA) Process Safety Management (PSM) standard or belong to specific North American Industrial Classification System Codes (NAISC).

What chemicals commonly used in the polyurethane industry are regulated substances?

Toluene diisocyanate (2,4-, 2,6-, and mixed isomers) is included on the list of regulated substances in 40 CFR Part 68. The list of regulated substances was issued by EPA on January 31, 1994 (59 FR 4478).

What is the “threshold quantity” of TDI?

The threshold quantity for TDI is 10,000 pounds on site.

What is the “General Duty” Clause?

Commonly referred to as the [General Duty Clause](#) (GDC), Section 112(r)(1), makes owners and operators of facilities that have regulated and other extremely hazardous substances responsible for ensuring that their chemicals are managed safely. Under this section, facilities have a “general duty” to identify hazards that may result from accidental releases, to design and maintain a safe facility, taking such steps as are necessary to prevent releases (e.g., identifying and using the “state of practice” in the industry) and to minimize the consequences of releases when they occur. Rather than a threshold quantity of specifically listed substances,

as in the RMP program, the General Duty Clause applies to any facility which has regulated or other "extremely hazardous substances."

What is an "extremely hazardous substance"?

Extremely hazardous substances are not limited to the regulated substances listed under Section 112(r), nor the extremely hazardous substances under EPCRA §302 (40 C.F.R. Part 355, Appendices A and B). Although Congress did not specifically define what constitutes an extremely hazardous substance, it did set out the criteria EPA may use to determine if a substance qualifies. An "extremely hazardous substance" would include any agent "which may or may not be listed or otherwise identified by any Government agency which may as the result of short-term exposures associated with releases to the air cause death, injury or property damage due to its toxicity, reactivity, flammability, volatility, or corrosivity." (Senate Committee on Environment and Public Works, Clean Air Act Amendments of 1989, Senate Report No. 228, 101st Congress, 1st Session 211 (1989) - "Senate Report").

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