
Environmental-Community-Labor Process Safety Promising Practice

Best practices examples; safer and more secure chemicals and processes

SUMMARY

Many facilities have replaced large amounts of extremely hazardous substances with options that do not pose the danger of a major chemical release. This submission provides examples. Please see attachments.

DESCRIPTION

Some facilities that formerly filed Risk Management Plans (RMP) with the Environmental Protection Agency no longer do so because they have removed extremely hazardous substances. In surveys, some cite information they learned through the process of complying with the RMP program as a motivating factor in making the changes. These facilities are located across the USA.

Attached is a list of more than 550 example water and wastewater treatment facilities that have removed gaseous chlorine or other toxic gasses from their disinfection practices. These are understood to be sample facilities; many others have made such changes. Many drinking water facilities switch to sodium hypochlorite, often generated on-site. Some wastewater facilities make the same change, while others switch to ultra-violet light disinfection. Wastewater facilities that remove gaseous chlorine typically remove anhydrous sulfur dioxide gas as well. Leading bleach manufacturers have also removed catastrophic chemical hazards by going to a process that does not accumulate bulk amounts of chlorine gas at any point, including transportation. These bleach manufacturers include: Odyssey Manufacturing (Tampa, Fla.); BleachTech (Seville, Ohio and Petersburg, Va.); Kuehne Chemical (Delaware City, Del.); FSTI (Greenville, Texas); Buckman's (Pottstown, Pa.); Allied New Technologies, (Fort Pierce, Fla.); and KIK (Denver, Colo.). Also attached are some twenty types of industries in which some facilities have removed extremely hazardous substances, based on prior surveys. Avoiding the presence of chemical hazards through the use of alternate processes is a fundamental safety and security practice.

Facilities that make such changes not only remove dangers of a catastrophic chemical release, but also avoid many types of costs and burdens. These savings and avoided costs include: safety devices and personal protective equipment; inspections, certifications, permits, and fees; higher risk-group insurance and potential liabilities; specialized emergency response teams, training, and planning; compliance with chemical related fire codes; chemical purchases; chemical thefts; physical security measures; worker and community notification; background checks; and regulatory compliance.

RECOMMENDATIONS

Local, State, Tribal, and Federal programs should systematically generate solutions in safer and more secure practices. These programs include in particular EPA's RMP program, OSHA's Process Safety Management, and DHS Chemical Facility Anti-Terrorism Standards. Facilities covered by these programs should demonstrate knowledge of available and relevant alternatives and submit information on the costs as well as savings and avoided costs of the alternatives and routinely submit this information as part of plans and assessments.

Best Practice Definition: *The EO Working Group defines Best Practices as being voluntary and are intended to complement existing chemical safety and security regulations and requirements. Application of EO Best Practices will enable facility owners and operators to enhance their safety and security planning and their implementation of measures to protect facility assets, employees, first responders, and the community surrounding the chemical facility.*

REFERENCES

- [Chemical Security 101: What You Don't Have Can't Leak, or Be Blown Up by Terrorists, Center for American Progress, November 2008.](#)
- [Preventing Toxic Terrorism: How Some Chemical Facilities Are Removing Danger to American Communities, Center for American Progress, April 2006.](#)
- [Safer Chemicals Create a More Secure America, Center for American Progress, January 2012.](#)
- [Water Utilities That Have Converted From Extremely Hazardous Substances, Center for American Progress, 2010.](#)
- [Who's in Danger? Race, Poverty, and Chemical Disasters, Environmental Justice and Health Alliance for Chemical Policy Reform, May 2014.](#)

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