



Department of Energy

Washington, DC 20585

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MEMORANDUM FOR DISTRIBUTION

FROM:

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SAFETY, SECURITY, AND QUALITY ASSURANCE

SUBJECT:

Implementation Guidance for Chemical Safety Management

The Documented Safety Analysis (DSA) is not intended to deal extensively with chemicals that do not impact nuclear safety or that can be safely handled by implementation of a hazardous material protection program. Consistent with allowances in Department of Energy (DOE) safe harbor standards (e.g., DOE-STD-3009-94, DOE-STD-3009-2014), a screening process that utilizes documented engineering judgment may be used to select for DSA evaluation those chemicals of concern. To help in this decision-making process, the following guidelines should be used:

- Screening may be utilized to remove standard industrial hazards and chemical hazards, including those that coexist with radioactive material, from further consideration in the DSA (Chapter 3) when such hazards (1) are adequately analyzed/evaluated through 10 Code of Federal Regulation (CFR) 851 and controlled by a safety management program such as the Hazardous Material Protection Program, (2) do not have the potential to initiate or worsen a radiological event, (3) do not have the potential to compromise the ability of facility operators to respond to nuclear events, and (4) do not have the potential for significant offsite consequences (i.e., exceeds Protection Action Criteria (PAC)-2).
- For those chemical hazards not screened and evaluated in the DSA, the chemical hazard may still be controlled using safety management programs with the following exceptions:
 - Chemical hazards with the potential for significant offsite consequences to the public must be controlled with safety significant Structure, System or Component (SSC) or Specific Administrative Control (SAC).
 - Chemical hazards that initiate or worsen a significant radiological release must be controlled with safety significant SSC or SAC.
 - Unique chemicals (e.g., uranium hexafluoride) not addressed by a 10 CFR Part 851 program that could cause significant harm to workers or the public.
 - Chemical that affect a nuclear safety function credited in the facility's Technical Safety Requirements (e.g., incapacitating a worker relied upon to perform a credited safety action, or affecting safety-related SSCs).

The above guidelines are consistent with 10 CFR 830.204(b)(3) requirements to evaluate an uncontrolled release of hazardous materials. The intent of the guidance is to have the



majority of chemical hazards at Environmental Management (EM) facilities controlled by the appropriate safety management program, regardless of whether they are present at nuclear or nonnuclear facilities. Cases involving unique chemical hazards requiring Technical Safety Requirements should be brought to the attention of the EM Central Technical Authority.

If you have any questions on the above guidance, please contact me at 202-586-9636 or Brenda Hawks at 865-805-0391.

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