

CSSG TASKING 2010-02
Date Issued: September 21, 2010

Task Title: Role Of Criticality Safety In Facility Hazard Categorization

Task Statement:

The CSSG is directed to develop a white paper on the proper role of criticality accidents as a hazard in the selection of facility hazard categorization. The objective of the white paper is to provide guidance for the Department in what considerations, if any, criticality accidents should play in the determination of the facility hazard category. The position should look at the current state of criticality safety requirements, standards and guidance as well as the current intent of the facility hazard categorization process. The expectation is that the CSSG will make a recommendation on the proper role, or lack thereof, of criticality as a determining factor in hazards categorization. The CSSG should indicate how the criticality safety expectations inherent in the implementation of DOE Order 420.1B and the ANSI/ANS-8 Nuclear Criticality Safety Standards protect against the occurrence of a criticality accident and mitigate the consequences to workers and the public independently of the need for additional regulatory guidance or requirements. The CSSG should also consider the worldwide history of criticality accidents and what lessons learned have been gleaned from that history insofar as it pertains to the issue of facility hazard categorization.

Specific questions to be addressed include:

- 1 Given the history and nature of criticality accidents and given that DOE Order 420.1B and the ANSI/ANS-8 Standards are appropriately implemented for criticality safety, how should the potential for a criticality accident affect facility hazard categorization?
- 2 What safety gaps remain after implementation of DOE O 420.1B and the ANSI/ANS-8 Standards that are addressed via the facility hazard categorization process and subsequent application of requirements strictly from a criticality accident prevention and mitigation standpoint?
- 3 How does implementation of ANSI/ANS-8.23 mitigate the hazard of a criticality accident to co-located workers and offsite individuals regardless of the hazard categorization of the facility?
- 4 If safety gaps are identified in addressing question two above, what features of safety management programs or federal oversight programs should be implemented to address these regardless of facility hazard categorization?

Resources:

The CSSG Deputy Chair will form a writing team composed of CSSG members. Contractor CSSG members of the team will use their FY10 and FY11 NCSP CSSG support funding as appropriate; DOE CSSG members of the team will utilize support from their site offices. CSSG emeritus members may be included in the team on a voluntary basis. In addition, such resources as need to be consulted from the safety basis area may be involved to the extent that NCSP funds are not involved in their support.

Task Deliverables:

1. Draft white paper issued to the entire CSSG for comments by October 5, 2010.
2. CSSG members submit comments on the draft white paper to the writing team Lead by October 8, 2010.
3. CSSG Chair briefs the NCSP Manager on the comment resolution and the major recommendations of the writing team by October 13, 2010.
4. CSSG Chair transmits the CSSG white paper to NCSP Manager by October 15, 2010.

Task Due Date: October 15, 2010