



Department of Energy  
National Nuclear Security Administration  
Washington, DC 20585



APR 17 2012

MEMORANDUM FOR THE NEVADA SITE OFFICE MANAGER

FROM: DONALD L. COOK  
DEPUTY ADMINISTRATOR  
FOR DEFENSE PROGRAMS

SUBJECT: Temporary Relief from DOE Facility Safety Order Requirement for Automatic Fire Suppression in Area 1 of the U1a Complex at the Nevada National Security Site

REFERENCES: (1) Memorandum, S. Mellington to D. Cook, *Request for Permanent Exemption from the Fire Protection Requirements Designated in [DOE O 420.1B and DOE STD-1066-99] for the U1a Complex in Area 1 of the Nevada National Security Site*, dated June 13, 2011

I approve the subject exemption requested in Reference 1, only during the surrogate testing phase of the Gemini experiments in 2012. The Office of Health, Safety and Security (HSS) commented on the request, and the Central Technical Authority (CTA) concurred on this temporary relief from automatic suppression in separate correspondence.

SPECIAL CIRCUMSTANCES

A temporary relief is granted from DOE O 420.1B, *Facility Safety* Chapter II, ¶ 3.c (4), which requires automatic fire suppression throughout all significant facilities or where the fire loss potential exceeds Department of Energy (DOE) monetary loss limits. The approval applies to the surface buildings (U1a Air Building, U1a Hoist House, and U1h Hoist House) and the U1a underground drift areas of the U1a Complex in Area 1 of the Nevada Nuclear Security Site (NNSS). A separate permanent exemption request and approval will be necessary to allow NNSS to execute sub-critical experiment campaigns in the U1a underground complex without having to install automatic fire suppression.

SAFETY ASSURANCE

I have evaluated the request and concluded that a combination of existing physical features and programmatic measures help to ensure the safety of workers at the U1a complex. Operating conditions for the U1a Complex include limited access to the facility; combustible loading control and hot work programs; the training and drilling of workers to suppress potential fires, don protective apparatus and egress to refuge



chambers; escort requirements for visitors; and minimal set up and operation time for each experiment campaign.

Additionally, the fire alarm/detection system and robust fire barrier in the experiment area ensure early warning to occupants, prompt egress to protected refuge chambers, limited fire and smoke spread; and, fire department dispatch to protect surface facilities in the event of a fire.

## APPROVAL CRITERIA

DOE O 251.C allows exemptions to be granted only if the following criteria are met:

- a) *[it] is not prohibited by law;*  
Section 5.b.2 of DOE O 420.1B identifies a responsibility of the DOE Secretarial Officers to review and approve requests for exemptions from requirements of the Order.
- b) *would not present an undue risk to public health and safety, the environment, facility workers, or security; and*  
The new experiment area is outfitted with appropriate physical features (access to refuge chambers, robust fire barrier, remotely monitored fire alarm and detection) and programmatic measures (limited access, worker training, and combustible loading and hot work controls) which minimize risk to the workers, public, environment, facility and security.
- c) *is warranted under the circumstances.*  
The cost to be fully compliant with the Order exceeds what is programmatically available. NNSA has balanced priorities and determined that any potential impact on worker or public health and safety is minimal.

## TERMS AND CONDITIONS

The following terms and conditions apply to this exemption:

1. Temporary relief from automatic fire suppression requirement in DOE O 420.1B expires at the conclusion of the surrogate testing phase in 2012.
2. NSO reviews NSTec's determination of equivalency to Life Safety Code requirements for underground egress and exiting. All NSO comments shall be satisfactorily resolved prior to commencing the surrogate testing phase.
3. Any necessary upgrades to training and procedures resulting from the Life Safety Code equivalency request shall be completed prior to commencing the surrogate testing phase. All facility upgrades shall be included in the long term fire protection strategy for U1a.

If you have any questions regarding this approval, please contact Mr. Jim McConnell at (202) 586-4379 or have your staff contact Ms. Sharon Steele at (202) 586-9554.

cc: D. Nichols, NA-SH-1  
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Docketing Clerk, HS