
ANNUAL INVENTORIES FOR DOE-OWNED LEASED FACILITIES

QUESTION: DOE O 151.1C, paragraph 4.a. (15) (b) requires that, for DOE-owned leased facilities, "the tenant's hazardous material inventories be reported to the site emergency management organization annually." In addition, the "tenant must also report prior to significant changes to the facility or to hazardous material inventories." What does the "annual inventory" requirement in this paragraph mean? What constitutes a "significant change" in the facility inventory?

ANSWER: A facility within a DOE/NNSA site may be leased to others for non-DOE work [Cf., FAQ – DOE Owned Leased Facilities]. Because these DOE-owned leased facilities present unique difficulties for the site emergency management program, DOE O 151.1C, 4.a. (15) addresses specific requirements related to the hazardous material inventory that must be included in arrangements with these facilities, including:

“(b) a requirement that the tenant’s hazardous material inventories be reported to the site emergency management organization annually.

The tenant must also report prior to significant changes to the facility or to hazardous material inventories. For example, significant changes are those changes, which would result in an unreviewed safety question for nuclear facilities, as defined in 10 CFR 830, or in an unreviewed safety issue for accelerator facilities, as defined in DOE O 420.2B.”

The annual hazardous materials inventory represents a minimum obligation on the part of the leased facility for effectively integrating its activities into the DOE/NNSA site-wide emergency management program. This inventory ensures that site emergency planners have the basic information necessary to plan and respond to an emergency event involving the leased facility. The inventory for a DOE-leased facility should be as detailed and comprehensive as the input required for the Hazards Survey process for an onsite DOE facility.

In addition to the annual inventory, the Order requires that the tenant also report prior to significant changes to the facility or to hazardous material inventories. Reporting ***significant changes*** in inventories ensures that hazardous material information provided by the leased facility to the site program remains current. The Order provides an example of “significant change” in facility or inventory as one which results in an unreviewed safety question (USQ) for nuclear facilities, as defined in 10 CFR 830, or in an unreviewed safety issue (USI) for accelerator facilities, as defined in DOE O 420.2B. According to 10 CFR 830, a USQ for a nuclear facility means a situation where:

- (1) The probability of the occurrence or the consequences of an accident or the malfunction of equipment important to safety previously evaluated in the documented safety analysis could be increased;
- (2) The possibility of an accident or malfunction of a different type than any evaluated previously in the documented safety analysis could be created;
- (3) A margin of safety could be reduced; or
- (4) The documented safety analysis may not be bounding or may be otherwise inadequate.

As defined in DOE O 420.2B, a USI exists if a proposed change, modification or experiment will either:

- (1) Significantly increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety from that evaluated previously by safety analysis; or,
- (2) Introduce an accident or malfunction of a different type than any evaluated previously by safety analysis that could result in significant consequences.

Conditions similar to these USQ and USI situations generally characterize “significant changes” to a facility or to a hazardous material inventory. A practical interpretation of the first situation can result from a change in inventory that may cause an increase in consequences for an analyzed scenario or an addition of potential OEs to the technical planning basis for the emergency management program. The Hazards Survey screening process as applied to DOE facilities identifies inventory materials that have the potential for causing Operational Emergencies (OEs). If a material is screened-in by the process, then further analysis in an Emergency Planning Hazards Assessment (EPHA) is required. Using this criterion, if a previously nonexistent or screened-out material is added to the leased facility inventory and the resulting quantity of that material would be screened-in following the Hazards Survey screening process (i.e., require further analysis in an EPHA), then the added material represents a “significant change” in the inventory.

On the other hand, if the material has previously been screened-in for analysis, then an increase in quantity will result in an increase in consequences, which could result in a change in the classification of the potential OE. Any change in quantity could be considered a reportable “significant change” in inventory. However, a rigorous adherence to this approach could result in numerous EPHA re-analyses because of frequent variations in material usage at the facility. An alternative and reasonable approach for defining a “significant change” in quantity is to establish, by agreement with the lessee, maximum quantities of each material used, which are not to be exceeded without notifying the site emergency management organization. In this case, a “significant change” in inventory will be administratively defined as exceeding the established maximum quantities. These maximum quantities would be used as planning quantities in analyses for the facility EPHA.