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# Memorandum

**Engineering Services ES-EPD**

**Subject: Risk Category for Explosive Facilities at LANL**

## Risk Category Requirements per IBC 2015 Chapter 16

IBC Chapter 16, Table 1604.5 Risk Category of Buildings and Other Structures assigns Risk Category III to: 'Buildings and other structures not included in Risk Category IV containing quantities of toxic or explosive materials that: Exceed maximum allowable quantities per control area as given in Table 307.1 (1) or 307.2 (2) per control outdoor area in accordance with the International Fire Code; and are sufficient to pose a threat to the public if released.<sup>b</sup>

Foot note b states: Where approved by the building official, the classification of buildings and other structures as Risk Category III and IV based on their quantities of toxic, highly toxic or explosive materials is permitted to be reduced to Risk Category II, provided it can be demonstrated by hazard assessment in accordance with Section 1.5.3 of ASCE 7 that a release of the toxic, highly toxic or explosive material is not sufficient to pose a threat to the public.

## Justification to LANL Building OFFICIAL to assign Risk Category II to Explosive Facilities

A facility Explosives Safety Site Plan, approved by the LANL DOE Field Office, constitutes an analysis of the quantity-distance relationships for the amount of explosive materials permitted in the facility to ensure there is no threat to the public from blast pressures, fragments, or noise. LANL Explosives Safety Office and the LANL Building Official agree that such facilities fall within this exemption and classification upon approval of the Explosives Safety Site Plan by the Los Alamos Field Office and may therefore be taken as Risk Category II.

Note on applicability: This memo only considers effect of explosives on assignment of Risk Category. Risk Category may be greater than RC II for other reasons such as operability during or after seismic events; mission importance and security.

Approvals:

Name	Title	Signature	Date
Joseph Lloyd	AHJ Explosive Safety Office		
Jim Streit	LANL Building Official		

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