



Inadequacies of Old EOC

- The EOC size (5000 ft²) too small to accommodate staff for prolonged emergencies
 - Two unisex bathrooms
 - One shower
 - No kitchen facilities (two microwaves and a refrigerator)
- Access roads to the facility were limited making it inaccessible during certain types of emergencies
- Located in the basement could lead to the potential accumulation of heavier than air toxic gases
- Located in the midst of hazardous facilities



New EOC Needed

- Congress approved funds as a fiscal year line item project under the Cerro Grande Emergency Appropriations
- The 38,000 ft² facility houses offices for LANL's Emergency Management & Response staff and personnel from the Los Alamos County Police, Fire and 911 Joint Dispatch Center.
- Conceptualized as a state-of-the-art facility with a full suite of communications and data display capabilities



New EOC Needed

- The LANL EOC is a self-sustaining, stand alone facility during an emergency.
 - Facility has sufficient food, potable water, sanitary sewer capacity, water for fire protection, diesel fuel for backup power and other on-site services to sustain 100 to 120 people for 14 days.



Siting Criteria for New EOC

- Proposed site must be upwind from potential airborne releases
- Proposed site must be up hill from heavier-than-air potential releases from LANL facilities
- Proposed site must be readily accessible to senior LANL and Los Alamos management personnel
- Proposed site must have reasonable access to existing communications duct-bank
- Proposed site must have access to multiple directions of egress
- Proposed site must not be located on or near an existing earthquake fault line



LANL Map Showing Wind Rose and Roads



Map showing the elevation differential for location (if possible)



Map showing fault lines for LANL



Selecting the Proper Site

- Since this was to be a joint Los Alamos County and LANL Emergency Operations Center sites were considered in the County and on DOE property
- However, not all siting criteria could be met
 - Most pre-selected sites that were not near an earthquake fault line were either not upwind or up hill from potential hazards at LANL
 - Most sites had only two directions for egress
- Site selected fit most criteria
 - Upwind from predominately southwestern flow
 - Up hill from most LANL operations
 - Readily accessible
 - Access to an existing communications duct-bank
 - Has four directions for egress
 - Located near an “active” earthquake fault line (PROBLEM)



Siting Problem with Selected Site

- DOE O 420.1, DOE G 420.1-2, and DOE-STD-1021093 specifies that emergency operations centers should be designed to Natural Phenomena Hazard Performance Category (PC) 2
- Because the selected site was near a fault line, PC-2 criteria was not considered to be adequate – construction should meet the PC-3 criteria. However,
 - It was questionable whether a facility could be built at the selected site to meet all the PC-3 standards
 - Estimated cost for a PC-3 standards would raise the construction costs approximately 27% or \$7M
 - Project would be delayed because of the change in direction



Interactions with the Defense Board

- The Defense Board considered the site “undesirable”
- LANL addressed this potential “lack of functionality” under severe seismic conditions by
 - Arguing that the new EOC is just one part of a system of EOCs
 - Two alternate facilities located a considerable distance from the fault
 - Older facilities supplemented by a state-of-the-art communications van with similar communications capabilities as exist in the Primary EOC, and
 - Mobile Command Post to provide the flexibility to handle all credible emergencies
 - Building the new EOC with additional seismic requirements, such as ductile detailing, to enhance its structural reliability