

So, Who Called this an Operational Emergency? Creating a Categorization & Classification Authority

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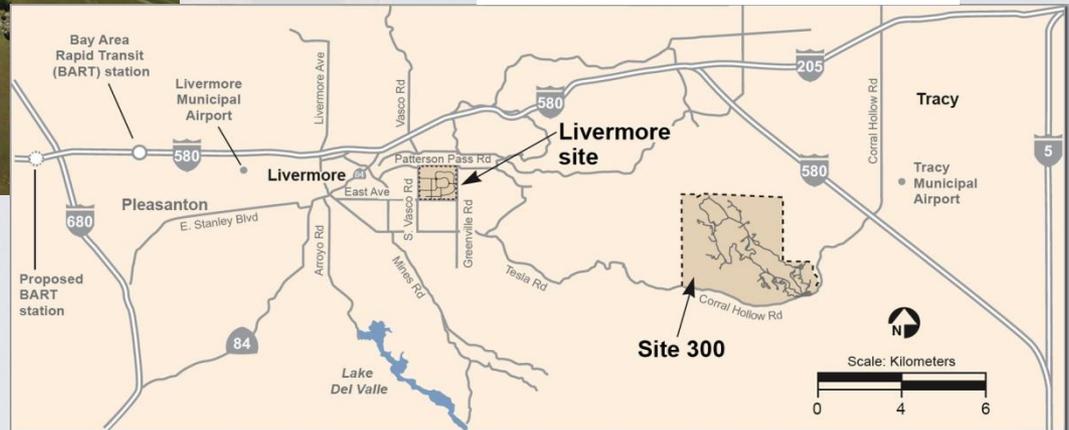
Federally Funded Research and Development Center

- **Mission** - Strengthening the United States' security through development and application of world-class science and technology
- **Operated and Managed By** - Lawrence Livermore National Security, LLC (LLNS) (University of California, Bechtel, Babcock and Wilcox, URS Corporation, and Battelle)



Site 200

Site 300



Lawrence Livermore National Laboratory

- Compact urban college campus like site
- No operating nuclear reactor or large tanks farms
- Limited amount of SNM
- No 24 hour hazardous (EPA) operations
- No central control room for site operations
- No onsite 24 hour site supervisor
- 13 facilities with EPAs, none with 24/7 presence

LLNL's Issue

- Before LLNS: Cat & Class done by the on-site LLNL Fire Department (IC) Duty Chief, a UC employee.
- After LLNS: LLNL Fire Department services provided under contract by the Alameda County Fire Department (ACFD).
- DOE, ACFD, and LLNS not comfortable with subcontractor public safety entity being tasked with Cat & Class responsibility.

DOE Order 151.1C CRD, Section 11

Categorization & Classification

- a. The contractor at all DOE/NNSA facilities must
 - (1) Establish criteria for determining quickly if an event is an Operational Emergency.
 - (3) Categorize an event as an Operational Emergency as promptly as possible, but no later than 15 minutes after event *recognition/identification/discovery*.
- b. The contractor at DOE/NNSA Operational Emergency Hazardous Material Program facilities must also establish procedures to classify emergency events (as an Alert, Site Area Emergency, General Emergency).
 - (2) Site/facility-specific Emergency Action Levels (EALs) must be developed for the spectrum of potential Operational Emergencies identified by the EPHA and must include protective actions corresponding to each EAL.

DOE Order 151.1C Guidance

Cat & Class Purpose

The purpose of a standard event classification system is to:

- Initiate a set of pre-planned response actions appropriate to all events of a given class or severity (e.g., notification, mobilization of resources, and protective actions)
- Activate necessary analytical and decision-making capabilities to make sound determinations of the need for other actions
- Enhance the likelihood that mitigative action will be taken to prevent conditions from becoming more severe

DOE Order 151.1C Guidance

Cat & Class Process Goals

Event classification process should provide for the following.

- Prompt notification of minor events to prevent escalation to more serious consequences
- Mobilization of resources to provide better management of the event or to arrest degradation of safety
- Sufficient lead-time to activate facilities and prepare for protective actions
- Protection of the public and employees at some distance from the event site in case of a release of hazardous material
- Prompt and accurate flow of information

DOE Order 151.1C Guidance

Cat & Class Process Characteristics

- ✓ Timely
- ✓ Reliable
- ✓ Internally consistent
- ✓ Anticipatory
- ✓ Redundant
- ✓ Complete
- ✓ Conservative
- ✓ Usable
- ✓ Integrated

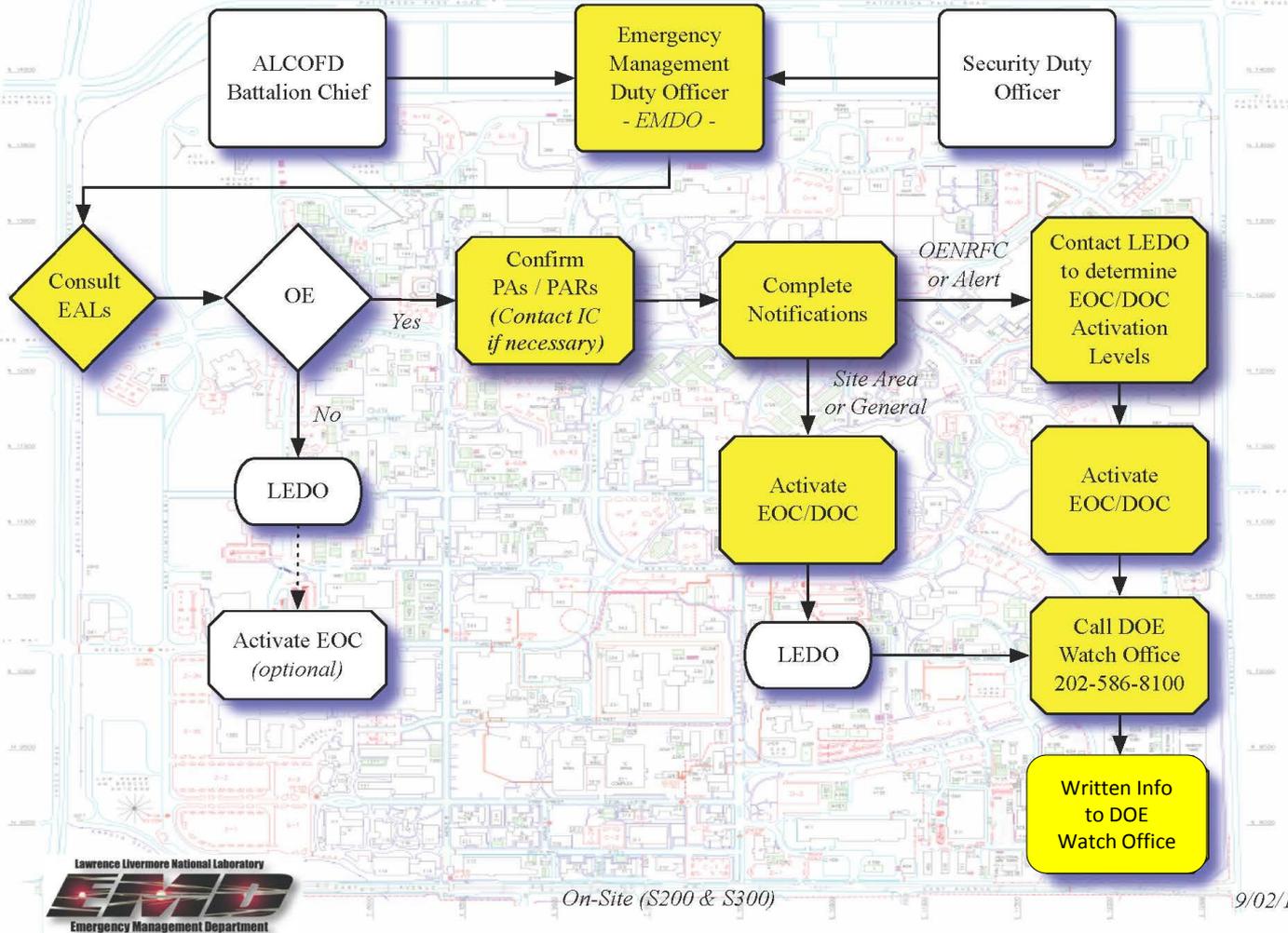
Options for LLNS

- 24/7 On-site Cat & Class presence
 - 4 Full Time Employees. Estimate Cost = \$600K per year
- On-call Duty Officer
 - Use existing Laboratory Emergency Duty Officer (LEDO). Lab Management/Operations focused, not Emergency Management. Represents LLNL Director off-hours.
 - Use existing Occurrence Reporting Duty Officer.
 - Create new Emergency Management Duty Officer (EMDO).
Estimate Cost = \$30K per year

LLNL's EMDO

- Advance knowledge in emergency management
- Using EALs, screen calls from ACFD at LLNL or LLNL Security Duty Officer
- Resides and must be 1 hour or less from LLNL when on-call
- Shift is 0800 Monday to 0759 following Monday
- Carries: EMDO "Binder", LLNL Pager, ACFD Pager, LLNL Radio, and LLNL Blackberry
- Officially appointed by LLNL Emergency Management Department Head

On-Site Emergency Categorization and Classification



EMDO Function

Resources

EMDO "Binder" Handbook Sections:

- 1: Telephone lists for ERO and Offsite Notifications
- 2: EPIP-42 EMDO, (EMDO Checklist/SitRep forms)
- 3: EPIP 41 Cat& Class
- 4: EPIP 51 Notifications, (Emergency Notification forms, Communicator Activation Protocol/Flowchart)
- 5: EPIP-71 Protective Actions, (Bomb Threat Evacuation Chart and Response)
- 6: EPIP-91 Termination & Recovery
- 7: EALs [biggest section]
- 8: Maps; Site 200, Site 300, and SNL/CA [informational only]

EMDO Training and Drills

Reading Requirements:

- LLNL Emergency Plan Implementing Procedures (EIPs):
 - EPIP-41 Emergency Categorization & Classification
 - EPIP-42 EMDO Procedure
 - EPIP-51 Emergency Notifications
 - EPIP-71 Emergency Protective Actions and Reentry
 - EPIP-91 Emergency Termination & Recovery
- EALs: 13 facilities, Earthquake, and OE Not Requiring Further Classification (OENRFC)
- Emergency Response Guidebook Training Module (US DOT ERG)

Tours:

- EPHA Facilities: 13
- Alameda County Regional Emergency Communication Center
- Protective Force Central Alarm Station

EMDO Training and Drills (Cont.)

SEMS/NIMS Training Courses:

- Initial Emergency Response Organization Training
- LLNL EOC Course
- National Incident Management System
- Introduction to the National Response Plan
- Practical on The Communicator! (Notification) System
- Operational Emergency Categorization and Classification
- Categorization and Classification Practical
- Annual ERO Drill Participation

Attend at least four EMDO Meetings (2 hrs each - every two weeks)

Shadow two EMDOs during an exercise

Participate in at least one exercise as the EMDO

Lessons Learned

- Hard work to get EMDO (7-10) group consistency
 - 6 months ramping up initial EMDO group
 - Different backgrounds and views had to be normalized
- Needs to be comfortable working with EMDO tools from anywhere (office, car, picnic table, etc.)
- Practice and drills with EALs are key
 - Every evaluated EPHA exercise has EMDO Objectives
- Not the same as Consequence Assessment Analyst
- Field IC telephone time is very limited
 - Created a SitRep form to use for info collection by EMDO

Lessons Learned (Cont.)

- Revised EALs to reflect info ICs would be expected to be able to obtain in the field
- EMDO position is very specific to Cat & Class duties
- Emergency Notification form cut from 3 to 1 page
- 4 years of the EMDO Program
 - 5 EOC activations
 - 4 OEs (none classifiable)
- Exploring technology (iPads) for improving process
- Building trust relationship between ICs and EMDOs

Questions

