



DOE/NNSA Emergency Management Related Lessons Learned

Do we get it?

SELLS Lessons Learned Workshop

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Overview

- What is “Emergency Management” in DOE/NNSA?
- Emergency Management LL Sources
- Emergency Management LL Sample One-liners
- Emergency Management LL Requirements
- Emergency Manager, LL Coordinator, Responder Partial Disconnect?
- Our Office Response...?
- Your Response...?
- Are we Lessons Learned - Disconnected Elsewhere?



Definition of Emergency

Any unwanted operational, civil, natural phenomenon, or security occurrence that could endanger or adversely affect the health and safety of workers, the public, or the environment.



What is Emergency Management?

Emergency Management: (The mitigation of consequences of an emergency to protect workers, the public, the environment, and national security)

- **Consists of Key Activities**
 - Planning,
 - Preparedness,
 - Readiness Assurance, and
 - Response
- **ISM Feedback and Improvement Lessons Learned can be applied to all Key Activities**



Integrated Safety Management System Core Functions



Define Scope of Work

- Identify Facilities
- **Identify Hazards**
- Allocate Resources
- Assign Responsibilities
- **Set Expectations**

Analyze Hazards

- **Analyze Hazards**
- **Perform Consequence Analyses**
- **Conduct Dispersion Estimates**

Develop/Implement Controls

- Facilities & Equipment
- **Emergency Action Levels**
- **Predetermined Protective Actions**
- Notification and Warning Systems
- Training (**preparedness**)

Perform Work

- **Activate Resources**
- **Rescue Victims**
- **Mitigate Release**
- **Protect Workers**
- **Notify Offsite Authorities**
- **Recovery**

Feedback/Improvement

- Event Critiques
- **Drill/Exercise Evaluations**
- Self-assessment
- DOE Oversight

Emergency Management for

Worker and Public Protection



Categories of Emergencies

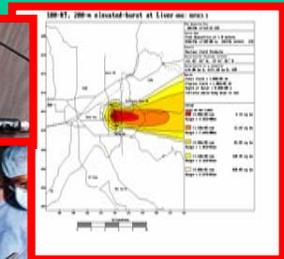
Operational Emergency



Energy Emergency

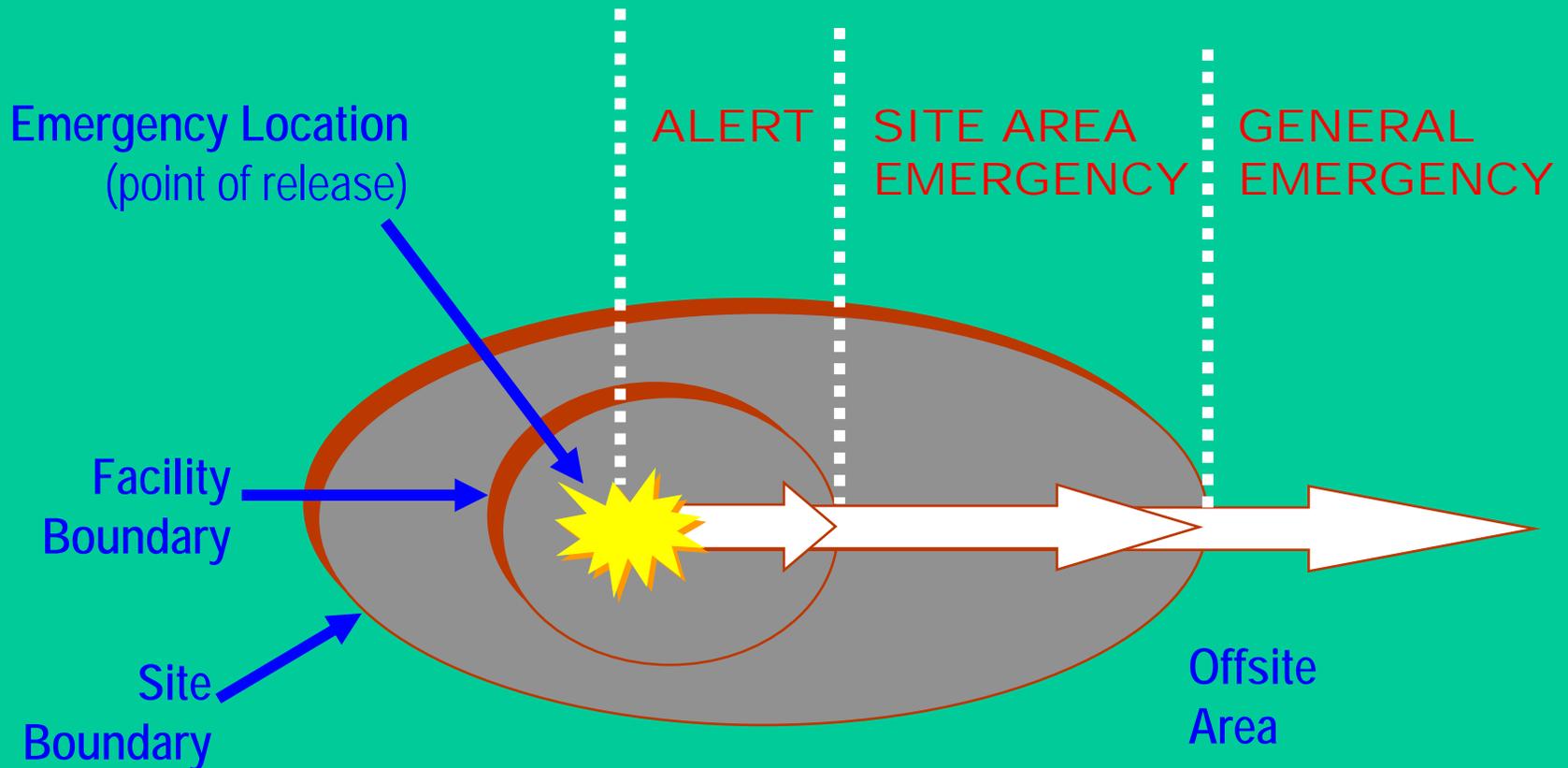


Emergency Assistance





Operational Emergency WITH a hazardous material release (or potential release) should be classified as:





Response Philosophy

Site / Facility
Affected
Area

- Responds to incident
- May be supported by one or more radiological response assets



Site /
Field Office

Deploys a command & control element to the field to coordinate Federal support to the event scene



DOE / NNSA
HQ
EMT

Provide national level coordination, monitoring of the crisis & consequence management actions



Lessons Learned tell us we need an:

Integrated response for all levels



Emergency Management Lessons Learned (LL) Sources

- DOE/NNSA Complex
 1. Submittals through SELLS LL Alert Server and NNSA's LL E-mail Push System
 2. Emergency Management Issues Special Interest Group (EMI SIG)
 3. Major Internal Events/Accidents (e.g., Wildland fires, Type A's)
- Government-Industry Data Exchange Program
- Major External Events (e.g., 9/11, NTSB, Columbia Shuttle Accident, etc.)



A Sampling of Emergency Management One-Line Lessons Learned

- **Emergency Response Organization (ERO) Training**
 1. Stabilize the ERO by setting up minimum term limits for ERO members and educating senior management on the impact of turnovers on training and qualifications
 2. Include ERO assignments in job descriptions
 3. Assign personnel to a training pool prior to actual ERO service
- **Drill and Exercise Evaluation Process**
 1. Be knowledgeable of drill/exercise expectations
 2. Be trained and qualified as evaluators
 3. Have both the personal and organizational freedom to communicate evaluation results to management without fear of reprisal.



A Sampling of Emergency Management One-Line Lessons Learned

- **Drills and Exercises**

1. Design exercises as objective tests and demonstrations.
2. Base exercises on facility hazards assessments.
3. Develop exercises to validate plans, procedures, and capabilities.
4. Allow annual participation in exercises, for facilities with hazards assessments.
5. Review logs, statements, and other documentation from the event.
6. Conduct critiques with responders.
7. Identify tasks and functions done well.
8. Identify tasks and functions which will require corrective actions
9. Review findings with all emergency response organization personnel.
10. Identify findings from assessment, exercises, and emergencies.
11. Develop appropriate documentation.
12. Develop corrective actions plans.
13. Acquire managers' buy-in and commitment.
14. Assign due dates for corrective actions



A Sampling of Emergency Management One-Line Lessons Learned

- **Self Assessments**

1. Emergency management self-assessments should be integrated with drills, exercise evaluations, and independent assessments to achieve an overall evaluation system.
2. The evaluation system should have sufficient rigor to ensure that the emergency management program is compliant and effective, and that a determination can be made that the response organizations perform at a level that adequately protects workers, the public, property, and the environment.



Emergency Management LL Requirements

- **DOE Order 151.1B – Comprehensive Emergency Management System, Chapter XI, Program Administration** requires a Lessons Learned System that includes the generation of lessons learned from training, drills, exercises and actual responses.
- **DOE Order 151.1C (draft)** - contains revised wording to require dissemination of Emergency Management Lessons Learned.
- **ISM** requires continual contractor feedback and improvement processes that include LL. Some don't include Emergency Management in ISM space!
- **DOE Manual 411.1C and NNSA, Safety Management Functions, Responsibilities and Authorities Manuals (FRAMs)** require LL Programs. Next DOE FRAM Revision should include Emergency Management Programs as well. NNSA HQ FRAM already does..



Emergency Manager, LL Coordinator, and Responders Partial Disconnect?

- **Emergency Managers are generating some Emergency Management System related LL and sharing them at the EMI SIG meetings**
- **LL Coordinators are disseminating some LL generated on Site via our DOE/NNSA Servers**
- **Responders are providing Emergency Management System related feedback and LL at Exercise Critiques and some make it into formal corrective action programs**
- **Occasionally, after a really bad event, we generate and share some LL.. But,**



LL from Emergency Managers, Coordinators, and Responders are Partially Exchanged

- **My Limited Research of Emergency Management (EM) related LL has revealed:**
 - **EMI SIG generated LL are not, for the most part, getting into the DOE/NNSA Corporate LL Systems**
 - **DOE/NNSA Drill and Exercise Responders Hot-Wash LL information is not typically shared beyond the Site boundary.**
 - **OA assessments of Site Emergency Management Programs typically result in some Site/Contractor Corrective Actions. The generation of related LL is not occurring and the OA report is only on the web as is CATS information.**
 - **DOE/NNSA No-Notice Exercise LL and other Office of Emergency Management sponsored activities do not currently result in disseminated Emergency Management LL.**



Our Office Response...?

- **Present these conclusions to LL Coordinators at this SELLS Workshop!**
- **EMI SIG (May 3-6) Meeting: Session on Exercise LL! I will encourage LL corporate participation.**
- **Ensure the present draft of DOE Order 151.1 is issued with improved LL dissemination requirements**
- **Figure out how to get OA LL generated and submitted or get Sites to submit them.**
- **Initiate a Emergency Management related LL generation process in NA-41 for activities we sponsor or conduct.**



Your Response...?

- **Seek out Contractor EMI SIG members at your sites and ask them about their LL!**
- **Encourage or work with Site Emergency Managers/POCs to generate LL documents from Emergency Management appraisals, drills, exercises and assessments using the LL Standard and submit them to either the DOE or NNSA Corporate LL System**
- **Encourage Emergency Responders to share their ideas on Emergency Management improvements during Hot-Washes and Critiques and facilitate LL generation and dissemination.**



Conclusions

Do we get it?

- Are we Lessons Learned – Disconnected?
 - Answer is: **SOMEWHAT..**
 - We have LL sitting with SME's and in documents but not currently being generated into "LL" nor disseminated effectively.
 - ...and there's more LL to be had.
 - Recent IG Report validates conclusion and endorses increased use of SELLS!



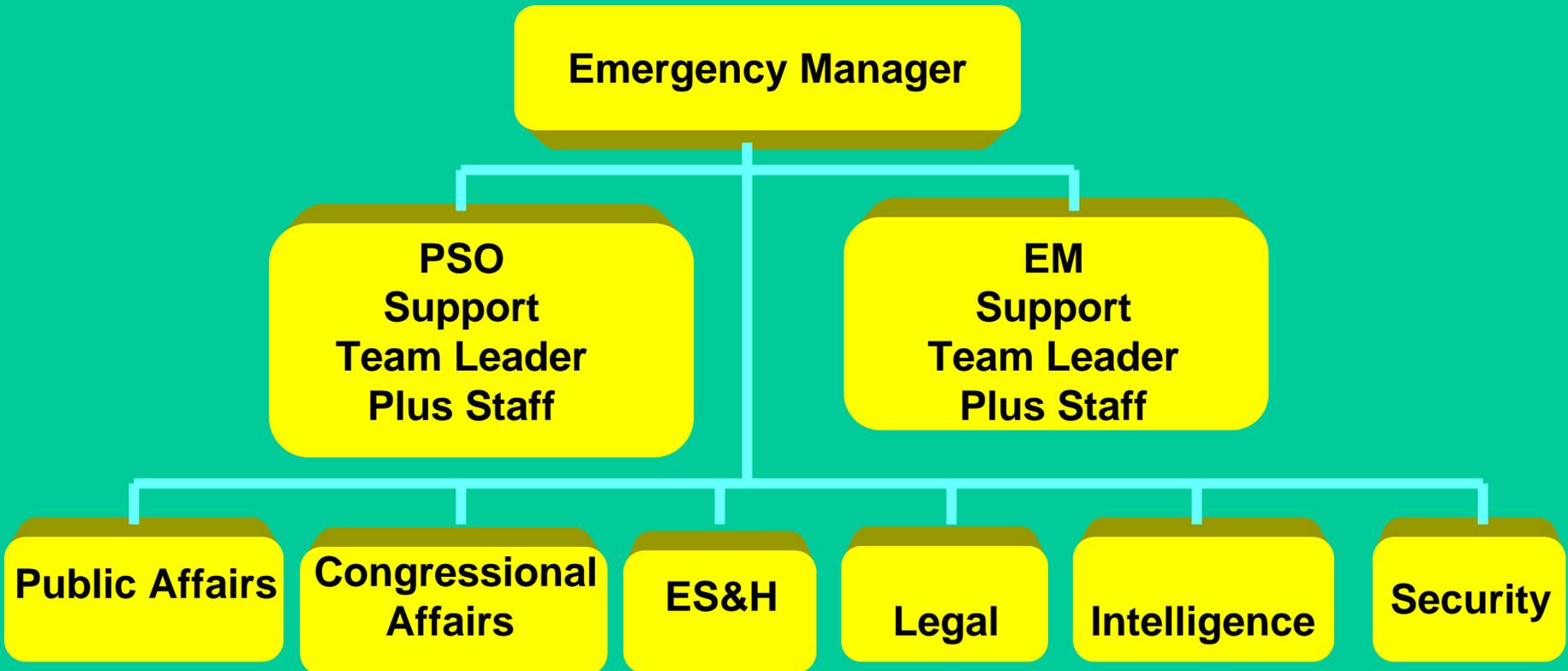
HQ EMT

Mission/Functions

- **Receive/elicit emergency-related information**
 - Field emergency management provides periodic situation reports
 - Review field response (e.g., protective actions)
- **Provide briefings and/or reports to DOE senior management**
- **Coordinate/provide support to field response operations**
- **Coordinate response actions with other Federal agencies**

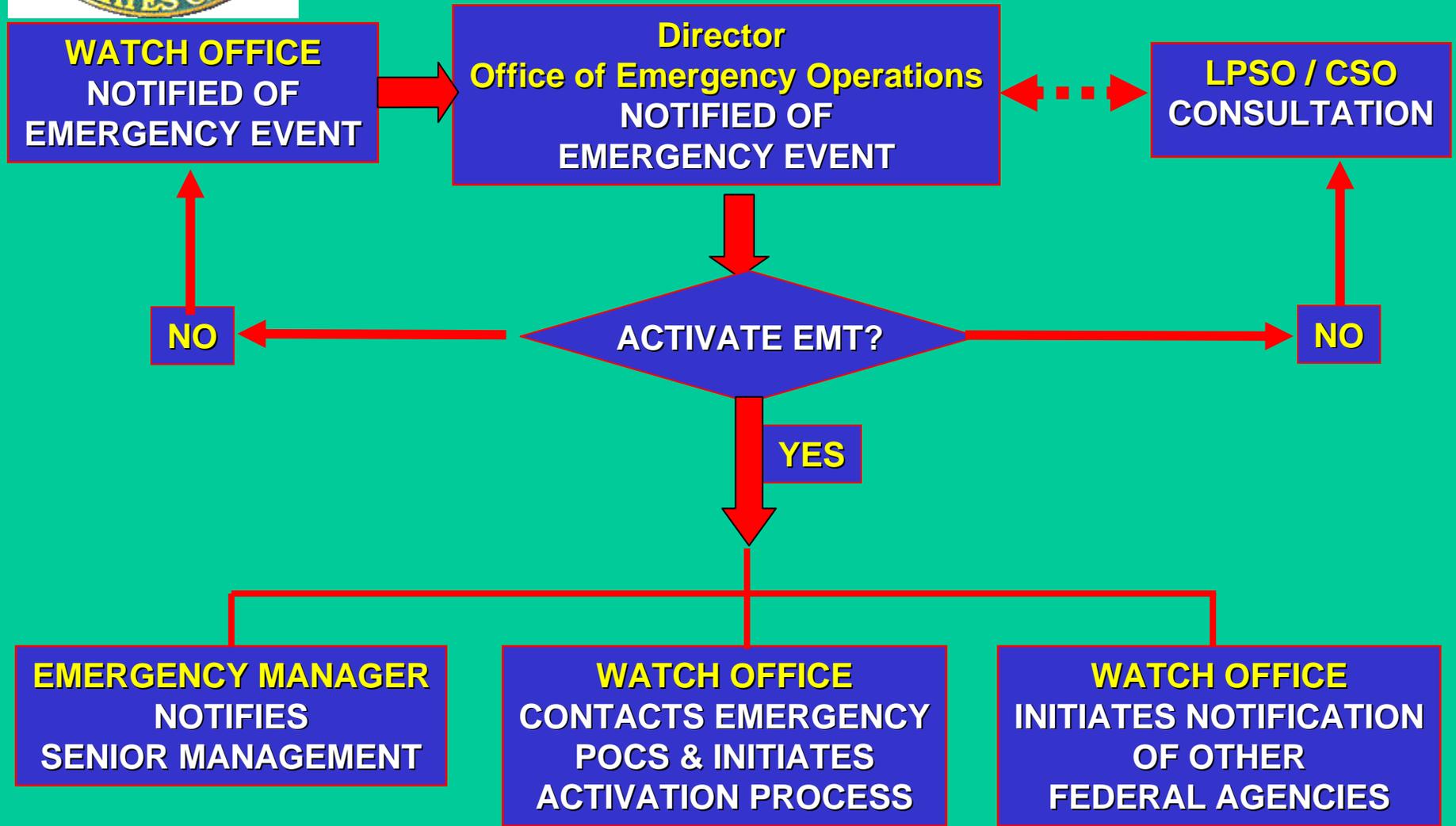


HQ EMT STRUCTURE





Notification & Activation





New EOC Design Vision

New EOC would provide:

- Enhanced command and management capabilities
- Full self-support capabilities, including stand-by power generation, a reserve potable water supply, and kitchen, etc..
- Can independently sustain uninterrupted operations for ?? Days
- Includes a training area, state-of-the-art video wall and safes/vaults for classified information
- Houses offices of some emergency management staff
- Provides emergency coordination between the DOE/NNSA HQ and the Field, Area and Site Offices and facilities and, if necessary, the Counties, the States and other federal agencies.
- Facility is manned 24/7 ..365 days a year



Current Information Flow Process



This is in redesign resulting from experience, LL and technology improvements: WebEOC

