

Can Meeting  
No longer  
of beam  
come out

Additional Security Related Speaker Notes

SECURITY FEATURES OF A DECOMMISSIONING PLANT (i.e., What's Left after Exemption)

- Security organization/management
- Reduced number of armed guards (no attempt to interdict DBT, reports events to LLEA)
- Access authorization program (criminal history checks, no FFD, badges)
- Access control (personnel, packages, and vehicles)
- SFP building as a security area
- Detection of penetration at the perimeter
- Adequate lighting for assessment
- Key and lock controls
- Assessment (closed-circuit television or individual on patrol)
- Patrols (once a shift)
- One hardened, locked alarm station (continuously manned, redundant communications, backup power supply)
- Coordination with local law enforcement agency (LLEA)
- Compensatory measures
- Procedures
- Testing and maintenance
- Audits and records
- Contingency Plan
- Training and Qualification Plan

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**PHYSICAL PROTECTION PROGRAM POLICY ISSUES**

- Is the potential for a zirconium fire an adequate basis for removal of previous exemptions that have been granted?
- What are the backfit implications for rescinding previous exemptions?
- Part 50 licensees are required to have vehicle barrier systems to protect against vehicle bombs. Four plants that were in decommissioning prior to the Vehicle Barrier System rule have not verified compliance.
- What level of physical protection should be required when movement of heavy loads are planned at decommissioning plants? In addition to the external threat, should the active and passive insider also be considered in light of the absence of FFD programs?
- DBT applies to general licensed ISFSIs. Specific licensed ISFSIs are not required to apply the DBT. Due to inconsistencies in the regulations, what design criteria and protection goals should be used to evaluate physical protection programs at ISFSIs? Should rulemaking be initiated to address these inconsistencies?

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## **SAFEGUARDS STAFF ACTIVITIES**

Approximately 3.0 FTE may be required to complete the following:

- Review 66 reactor security plans regarding devitalization/vital area issues
- Review exemptions at 10 decommissioning plants
- Develop generic communication
- Revise regulatory documents and guidance
- Finalize integrated decommissioning plant rule
- Review security plans for ISFSIs at 14 operating sites

The staff plans to issue a Commission paper with the status of the previously identified activities and detailed scheduler information by May 30, 2001.

RSS will assign two staffers full time until 12/30/01 to accomplish this effort.

# Emergency Preparedness

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- Exemptions were granted to onsite and offsite plans based on:
  - Doses from any reasonably conceivable accident do not exceed EPA Protective Action Guidelines (PAGs), or
  - Sufficient length of time for mitigative actions and offsite protective measures
- Emergency Action Levels (EALs) limited to the ALERT level

1) EPA PAGs represent radiation doses that warrant preselected protective actions for the public if the projected doses received by an individual offsite would exceed 1 Rem total effective dose equivalent or 5 Rem committed dose equivalent to the thyroid.

2) Exemptions were issued for 9 licensees and 10 decommissioning plants.

3) The underlying basis of previous EP exemptions was the assumption that zirconium fire would not occur after a generic decay time, therefore offsite doses would not exceed the EPA PAGs.

4) Declarations above an Alert level were not needed if EPA PAGs could not be exceeded. No offsite EP was necessary if no protective actions were anticipated.

5) Releases from zirconium fire are expected to exceed EPA PAGs calling for General Emergency classification and need for offsite protective action recommendations beyond scope of currently approved decommissioning EP.

6) FEMA has not accepted "small change in risk" as an appropriate basis for relaxation of EP after 60 days of decay time.

7) In the unlikely event of fuel uncover, based on the current elapsed decay time (approximately 3 to 4 years), greater than 20 hours is estimated to be available for mitigative actions before start of zirconium fire and postulated offsite release.

8) The staff believes that 20 hours provides time to take mitigative actions without preplanning while evaluation of current exemptions proceed. Assumptions about offsite EP have not been endorsed by FEMA.

#### Other Notes:

FEMA was not consulted for the Maine Yankee and Big Rock Point EP exemptions (based on time for ad hoc measures)

-----staff informed FEMA after exemptions were granted

The staff is coordinating with FEMA on the decommissioning policy issues and implications of the spent fuel pool risk study. FEMA participation in future rulemaking in this area is essential

### Additional EP Related Speaker Notes

If local community is told that the maximum emergency action level is an Alert, the implication is that no event could take place at a decommissioning plant that would ever necessitate an evacuation of the affected public offsite.

The following are the typical changes that take place for a decommissioning site after receiving an EP exemption:

#### No offsite EP means:

- Elimination of Emergency Planning Zones (EPZs)
- Eliminate need to accommodate state and local officials at an Emergency Operations Facility (EOF)
- Eliminate need for offsite plans that rely on information provided by licensee for offsite response
- Eliminate need to notify the public within the EPZ
- Eliminate need for prompt coordination with the public
- Eliminate need to provide information to the public on a periodic basis
- Eliminate need for protective action recommendations for offsite
- Exempted from requirement to provide evacuation time estimates
- No longer required to conduct biennial offsite exercise or ingestion exercise

#### Reduced onsite EP means:

- Simplified emergency response organization staffing
- Exempted from requirement to identify offsite officials responsible for protective actions
- Exempted from requirement to base emergency action levels on offsite monitoring results and consideration of protective measures offsite
- Eliminate need to classify events above Alert Level
- Time to notify offsite officials of an event changed from 15 minutes to 1 hour
- No longer required to have near-site EOF
- Reduce test frequency of communication systems
- Simplified communication systems
- Eliminate need to test public notification system
- Reduced onsite emergency response facilities----eliminate EOF, TSC, OSC

#### Example Exemption Bases for EP:

Maine Yankee: In view of low likelihood of bounding scenario [loss of inventory, with water blocking assembly inlet so no natural circulation flowpath take 10 hours to reach 900C], time elapsed since shutdown, there would be sufficient time for mitigative actions and if necessary offsite protective measures. Thus, doses from any reasonably conceivable accident do not exceed EPA PAGs and for bounding case, length of time provides confidence that offsite measures could be taken without preplanning.

Haddam Neck: With no cooling by water, the decay heat load has decreased to the point that air cooling would maintain fuel cladding temperatures low enough to ensure integrity of cladding (below 565C); thus no longer possible for a complete loss of water to result in release offsite that exceeds the early phase EPA PAGs. In addition, it would take 2.6 days to exceed PAGs from shine dose if all water shielding were lost. This would be sufficient time for mitigative actions or additional offsite measures without preplanning.

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**EMERGENCY PREPAREDNESS POLICY ISSUES**

- Is there a level of risk below which offsite emergency preparedness no longer needs to be considered?
- Should offsite emergency planning continue to be required in consideration of a worst possible accident sequence regardless of its extremely low likelihood?
- Should offsite emergency planning be required when it is still possible to have a radiological release offsite which could exceed the Environmental Protection Agency (EPA) Protective Action Guides (PAGs)?
- Is it acceptable to no longer require offsite emergency preparedness when there is an extended time to take mitigative or protective actions?
- Is it acceptable to rely on the ability of offsite authorities to take protective actions without requiring specific radiological emergency preplanning?

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## EP PLANNED ACTIVITIES

Approximately 2.4 FTE may be required to complete the following:

1. There are nine sites in decommissioning which have EP limited to Alert level classification with no formal offsite EP. These may need to be reviewed to confirm status and bases.
2. Coordinate with stakeholders (NEI and others) the development of EALs for Site Area Emergency and General Emergency - Implications for RG 1.101 endorsement.
3. Coordinate with stakeholders (FEMA and others) determination of level of offsite EP necessary.
4. Complete the revision of exemptions following receipt of Commission Guidance for decommissioning sites to include appropriate EALs, classifications, and offsite EP.
5. Coordinate with FEMA revision of rulemaking plan.

The staff plans to issue a Commission paper with the status of the previously identified activities and detailed scheduler information by May 30, 2001.

PENDING ACTIONS THAT MAY BE IMPACTED

Other Pending Staff Actions that may be impacted as a result of the spent fuel pool risk study

- Specifically , these are pending actions with the staff that may be deferred until Commission direction on the May policy options paper

- ..... Insurance exemption at Millstone Unit 1
- ..... Security amendment for Maine Yankee (ISFSI Related)
- ..... Regulatory Guide on EALs that included decommissioning reactors
- ..... Security Exemption for Millstone Unit 1

The staff is delaying issuing Regulatory Guide 1.101, Revision 4 "Emergency Planning and Preparedness," which would endorse NEI 99-01, Revision 4, "Methodology for Development of Emergency Action Levels," dated August 2000. NEI 99-01, Rev. 4 includes emergency action levels for Permanently Defueled Stations and Independent Spent Fuel Storage Installations. The staff was informed by NEI that the industry feels confident that the EALs are correct and requested that the endorsement be held off until final resolution of the issues