Brookhaven National Laboratory

Wildland Fire Lessons Learned Review

Review of the Lessons Learned From the December 2000 Report: "Initial Joint Review of Wildland Fire Safety at DOE Sites"

March 2001

Introduction

On March 14, 2001, the Assistant Laboratory Director of Facility and Operations appointed a committee to review and evaluate the applicability of the lessons learned from DOE December 2000 “Initial Joint Review of Wildland Fire Safety at DOE Sites.” The committee charge is provided in appendix A. This initiative was developed in response to an element in the BNL Wildland Fire Safety Enhancement Action Plan and tracked under BNL ATS 361.1.9. The committee met and reviewed all 26 lessons learned from the DOE report. This document captures this review and includes the factors regarding the applicability to BNL, and follow up action regarding lessons learned.

Executive Summary

The lessons Learned Committee reviewed each item presented by the DOE report. Each DOE recommendation was reviewed for applicability to BNL facilities and operations. Eight action items were identified and are being tracked in the BNL ATS.

Summary of Action Items

Action Items	Target Date	Responsible Party
Action #1: Complete the BNL Wildland Fire Assessment report (existing ATS Item 361.1.4).	April 16, 2001	Joseph Levesque
Action #2: Update Site Hazard Analysis to incorporate BNL Specific hazards derived from the BNL Wildland Fire Assessment report (ATS 361.1.10)	September 28, 2001	Kenneth Krasner
Action #3: Provide maps with cultural resources and protected species habitats to BNL Fire/Rescue (361.1.11).	September 28, 2001	Tim Green
Action #4: Develop a generic briefing for use by outside departments responding to fires at BNL (ATS 361.1.12).	September 28, 2001	John Searing
Action # 5 Staff Services will explore advising incoming visitors staying at BNL facilities of the potential risks to personal properties. (ATS 361.1.13).	August 1, 2001	Jeff Swenson
Action #6: Modify the Emergency Readiness Assurance Plan to include wildland fires drills every two years (ATS 361.1.14).	September 28, 2001	Kenneth Krasner
Action #7: Obtain unexploded ordnance maps from Environmental Restoration Division for use during Incident Command. (ATS 361.1.15).	June 30, 2001	Kenneth Krasner
Action #8: BNL will contact the New York State Emergency Preparedness Liaison Officer by June 30, 2001 and arrange for a briefing on BNL site hazards and response capabilities. (ATS 361.1.16).	June 30, 2001	Kenneth Krasner

DOE Lessons Learned and BNL's Evaluation

1. Lesson: A pre-existing working relationship with the appropriate Federal, Tribal, State, and local agencies is essential for effective coordination of wildland fire mitigation activities, as well as during a wildland fire response.

DOE Recommendation: DOE sites with a potential for wildland fires should develop and maintain a close liaison with Federal (U.S. Park Service, U.S. Forest Service, and Bureau of Land Management [BLM]) representatives and consider active membership in the National Wildfire Coordinating Group or other Tribal, Regional, State or local groups that coordinate wildland fire mitigation and response. DOE representatives, in coordination with site Emergency Response Organizations (EROs) should incorporate these relationships in site planning and preparedness activities (including MOUs/MOAs). The Interagency Wildfire Management Team established by Los Alamos National Laboratory after their Dome Fire experience is an example of a successful venture with off-site organizations. Headquarters DOE should establish a Liaison Officer (LNO) exchange program for wildland fire events that occur on or impact DOE sites with the Headquarters staffs of the Departments of Interior and Agriculture. A DOE representative knowledgeable of the capabilities of DOE's radiological emergency response assets should be assigned to the National Interagency Fire Center (NIFC) in Boise, ID as an LNO during protracted responses involving either DOE sites and facilities or wildland fires involving radiological materials.

BNL Response: No Action Required

BNL maintains a close liaison with local, state and federal agencies appropriate to our location. Of most importance is our close working relationship with the "Central Pine Barrens Policy and Planning Commission." This is a state legislated consortium of government agencies and public interest groups formed to protect the Pine Barren wildlands on Long Island. BNL participates and routinely interfaces with the "Wildfire Task Force", the "Protected Lands Council", the "Law Enforcement Council", and the "Pine Barren Advisory Council." BNL is also part of the Suffolk County Mutual Aid Plan, giving us access to over 100 fire departments. Additionally, BNL routinely interfaces with local entities such as Brookhaven Town Fire Chief's Council, and the Suffolk County Vocational Education and Extension Board's Fire Academy and Training Center. BNL also works with the U.S. Fish & Wildlife Service through an Interagency Agreement between DOE and the NWS for management of the Upton Ecological Research Reserve. Through this relationship BNL can readily request Fire Management expertise.

2. Lesson: DOE needs a Department-wide policy(s) for assessment of wildland fire threats, for mitigation of those threats, and for use of prescribed fires on DOE site property.

DOE Recommendation: EH should develop (and coordinate with the HQ line management and support offices, Operations/Field Offices, and sites with a documented wildland fire threat) a Departmental policy(s) to address fire protection issues that addresses the threat of wildland fires. HQ and Field organizations and sites should also provide support to ensure effective implementation of this policy. Site emergency readiness assurance programs should report the nature, scope, and schedule of wildland fire mitigation activities as part of their annual ERAP submission. EH should also serve as the POC for Federal coordination of the Departmental policy on a Federal interagency basis (e.g., with US Park Service, Forest Service, BLM,USDA, EPA, etc.).

BNL Response: No action required

This is a DOE Headquarters initiative. The BNL Emergency Planning group will incorporate and report the nature, scope, and schedule of wildland fire mitigation activities as part of their annual ERAP submission when DOE develops guidance.

3. Lesson: Site Hazard Assessments (HA) and Safety Analysis Reports (SAR) must address the potential threat of or vulnerability to wildland fires; if they do not, site emergency management and response (EM&R) plans may not adequately address wildland fire mitigation and potential response operations and needs.

DOE Recommendation: Site emergency plans should contain information for assessing and mitigating potential wildland fires. The Office of Environmental Health and Safety (EH) is surveying the DOE complex to determine what wildland fire polices have been/are being implemented and to develop a new DOE Policy and/or Order on wildland fire planning, preparedness, mitigation, and response requirements and activities. HQ line management (LPSO, CSO, PSO), HQ support offices (EH, OA, SO-40), and Operations/Field Offices should review such documents during assessments, evaluations, program reviews, and assistance visits to assure their inclusion and adequacy.

BNL Response:

The BNL Hazard Assessment does not contain the level of detail requested in this recommendation. A BNL Site Wildland Fire Hazard Assessment is being developed. The planned publication date is April 16, 2001. Also being jointly developed with the Central Pine Barrens Joint Policy and Planning Commission's Wildfire Task Force is a Fire Protection Assessment (due September 2001). These documents will be used as the technical basis for modifications to the BNL Hazard Assessment due September 28, 2001.

> **Action #1:** Complete the BNL Wildland Fire Assessment report (existing BNL Assessment Tracking System (ATS) Item 361.1.4 from the BNL Wildland Fire Safety Enhancement Action Plan report, March 2001; Responsibility Joe Levesque, due April 16, 2001).
>
> **Action #2:** Update Site Hazard Analysis to incorporate BNL Specific hazards derived from the BNL Wildland Fire Assessment report (ATS 361.1.10; Responsibility Ken Krasner; Due 9/28/2001).

4. Lesson: NEPA considerations (e.g., endangered species, historic/cultural areas, etc.) should be included in Hazards Assessments and emergency plans. These considerations can have a significant impact on site preparedness, response, and recovery.

DOE Recommendation: NEPA considerations (e.g., endangered species, historic/cultural areas, etc.) should be included in emergency response planning activities. Existing Environmental Assessments (EA), Environmental Impact Statements (EIS), Hazards Assessments, and emergency plans should be reviewed to ensure NEPA issues are considered in the response and recovery aspects of an emergency. HQ line management, support offices, and Operations/Field Offices should ensure NEPA issues are appropriately addressed.

BNL Response:

BNL has historical and potentially historical buildings that are still operational. As such they are evaluated and protected appropriately.

BNL does have historical sites in the woodland areas (World War I trenches) and environmentally sensitive areas (ponds). These are also dangerous to wildland fire suppression activities. These must be recognized and taken into consideration during wildland fire suppression activities. Maps will be developed that identify these areas. These maps are for the Incident Commander for use during wildland fire activities.

> **Action #3:** Provide maps with cultural resources and protected species habitats to BNL Fire/Rescue (361.1.11; Responsibility Tim Green; Due 9/28/2001).

5. Lesson: All key EM&R facilities must have an adequate back-up power source(s) to accommodate documented threats, vulnerabilities, and support requirements.

DOE Recommendation: Departmental and Program/Operations/Field Office policies and/or guidance identifying stand-by power program standards for key EM&R facilities at each site should be reviewed and specific requirements developed, clarified, and/or revised. The amount of stand-by power generation capability should be initially assessed based on facility (and possibly site) emergency power needs, potential length of projected emergency operations, and the possibility that such capabilities will be used to augment or supplement non-DOE emergency response requirements. Stand-by power production capabilities would have to be tested on a regular basis.

BNL Response: No action

Key EM&R facilities have been identified at BNL. All have emergency power and are maintained in accordance with NFPA 110, Level 1 supplies.

6. Lesson: Off-site responders must always be given briefings on radiation and other site work area hazards prior to beginning work as required by DOE Order 151.1. Personal monitoring and bioassay plans must ensure that all necessary information will be available and provided to off-site responders and that responder health and safety are fully protected.

DOE Recommendation: Sites should review their emergency notification policy and procedures to ensure out-of-area responders are provided the necessary radiation safety briefings. In addition, appropriate site-specific radiation monitoring/dosimetry program plans for both on-site and off-site emergency response personnel should be reviewed and revised as appropriate to assure responder health and safety. If not already available, a generic emergency responder briefing should be developed and tailored to each site (and/or facility on each site).

BNL Response:

The fires in the Mid-West included involvement of transuranic surface contamination. BNL has several areas with soil contamination (not necessarily transuranics). Vegetation uptake of the contamination is the issue under examination under a prior commitment (Wildland Fire Safety Enhancements Action Plan; ATS 361.1.1; responsibility Steve Layendecker; due August 30, 2001).

A wildland fire would invoke the use of the Incident Command System. Radiological and Industrial Hygiene support is integral to the command system's technical support. Safety briefing on hazards would be developed and provided to on-site and off-site forces. Monitoring requirements would be employed by Radiological Control Division First Responders. Bioassay is not anticipated based on BNL site characterization. A generic emergency responder briefing would be beneficial for outside departments responding to fires at BNL. Further, it is envisioned that due to the limited nature of the surface contamination and its location (limited areas of combustible materials), only on-site personnel would be used in these areas.

> **Action #4:** Develop a generic briefing for use by outside departments responding to fires at BNL (ATS 361.1.12; Responsibility John Searing; Due 9/28/2001).

7. Lesson: DOE personnel that interface with off-site emergency response agencies are more effective if qualified in the Incident Management/Command System (IMS/ICS); this ensures sites can effectively function in a Unified Command environment under IMS/ICS.

DOE Recommendation: At a minimum, all DOE emergency responders who are expected to interface with off-site agencies or serve as a DOE Incident Commander (IC) should be trained in IMS/ICS procedures. Also, it would be beneficial for members of the site's ERO and/or emergency management team to have an understanding of IMS/ICS terminology and procedures. (Training for those designated as a possible IC must meet the requirements found in 40 CFR 300.) Sites should adopt the IMS/ICS that is used by local, State, or Regional agencies that provide assistance to the DOE site. For example, the State of New Mexico, by Executive Order, mandates the National Interagency Incident Management System (NIIMS) as the IMS/ICS for State and local emergency responders. In the absence of a locally designated IMS/ICS then NFPA Standard 1561, Standard on Emergency Services Incident Management System, provides information on developing incident management systems. DOE is considering mandating NFPA Standard 1561 in the next revision to DOE Order 151.1. IMS programs such as NIIMS should also be reviewed. The specific type of IMS/ICS to be used should be documented in the various MOUs/MOAs between site emergency services personnel and the outside agencies. The site emergency management plan should identify the specific IMS/ICS to be used. Site emergency readiness assurance programs should document the need for, extent of, and status of such training as part of their annual Emergency Readiness Assurance Plan (ERAP) submission.

BNL Response: No Action

BNL Emergency Response Organization follows the local community use of the Incident Command System (ICS). Local Suffolk County Fire Departments, local Emergency Medical Services, and State fire fighting organizations use the ICS.

8. Lesson: Recovery planning should occur concurrently with the emergency response; recovery resources, funding, and liability issues must be identified and planned for or their potential scope and impacts may not get addressed adequately or in a timely manner.

DOE Recommendation: Site emergency plans and procedures should be reviewed and updated to ensure they adequately address assessing potential events and projecting what resources and actions will be needed to recover from those events. Prior arrangements with response material suppliers and/or Blanket Purchase Agreements (BPAs) should be negotiated for materials and equipment; otherwise these items will often not be available in the type, quantity, and/or time requested.

BNL Response: No Action

BNL is in a suburban area of Long Island, New York. Past fires have demonstrated adequate availability of heavy equipment mechanics, salvage supplies, tow trucks, fuel, food, and other commodities necessary during a wildland fire. These resources are available inside and outside of the Mutual Aid system. BNL has issued and uses government credit cards that can expedite the acquisition of materials not specifically within the existing quartermaster system.

9. Lesson: Use of joint field monitoring teams (DOE, EPA, and State) helps resolve differences in radiological monitoring data collection and interpretation; early resolution of differences enhances the acceptance of such data and interpretations by Federal, Tribal, State, and local jurisdictions.

DOE Recommendation: DOE representatives, in coordination with the sites should develop MOU/MOAs with Federal, State, and local agencies to deploy joint monitoring teams. These MOUs/MOAs would probably need to address areas such as integrated procedures for collection and sharing of monitoring data, assessing and interpreting the data and their impacts, and joint operational, technical, and logistic considerations. Joint involvement in training, drills, and exercises are an integral part of this process; enhancing the effectiveness of working relationships when an emergency occurs as well as the acceptance of the products from these joint efforts. Additionally, site joint radiological monitoring team policy and procedures should be integrated with Federal Radiological Emergency Response Asset policies and procedures (e.g. RAP, FRMAC) to develop a coordinated set of procedures for radiological monitoring efforts. Existing FRMAC radiological response documents should be used as a baseline for this process.

BNL Response: No Action

BNL is the sole provider of emergency radiological monitoring on Long Island. The regional DOE Radiological Assistance Program (RAP) Team is housed at BNL. The nearest alternative agency is provided by New York State. The State response from Albany is 16 to 24 hours from initial notification.

The release of data and its interpretation would be through the Crisis Managerposition within the Emergency Response Organization (ERO) management structure. This information would be discussed with members staffing the ERO, including representatives from local and state agencies. This process would minimize variances in the data interpretation.

10. Lesson: EM&R logistics and support must be anticipated and planned. Housing, food, transport, and other support that is not planned for may not get addressed prior to its need.

DOE Recommendation: Some type of BPA should (be) considered and if appropriate, be in-place with local hotels, car rental companies, construction supply (i.e. Lowe's, Home Depot) companies, etc. for projected services and materials prior to an emergency. DOE Area Offices in coordination with the sites should develop MOUs/MOAs with other governmental agencies, non-governmental agencies (e.g. Red Cross, Salvation Army, Mennonite Relief Services, etc.), or private concerns for access to support materials (i.e., beds, mattresses, blankets, towels, etc.) and/or services (i.e., parking, showers, fixed/portable sanitary facilities, etc).

BNL Response: No Action

BNL is in a suburban area of Long Island, New York. This suburban environment provides numerous resources for the potential demands at BNL. Housing, food, shelters and similar resources are

standard consideration during prolonged operations. BNL has on-site Red Cross kitchens and on-site housing. Multiple local facilities are available off site and are remote from a possible wildland fire.

11. Lesson: Post Incident Analysis (PIA) reports must be prepared as soon as possible after an event impacting a DOE site has been resolved. PIAs should contain descriptions of remedial activities taken by an ERO and any lessons learned information the site considers useful to on-site organizations and/or other organizations within the DOE complex.

DOE Recommendation- A PIA, with sufficient detail about how an event was handled and what did/did not work (e.g., lessons learned), should be prepared once all time-sensitive and emergency response activities have ended. All such PIAs and/or the emergency-specific lessons learned identified during the course of the response should be initially available for use by organizations and sites within the DOE complex. Subsequently, these reports may be released to individuals and organizations outside DOE. The methodologies used to conduct a Class B Safety Investigation should be used as the basis to ensure an established and standardized methodology is used to identify potential safety and emergency response issues. DOE should prescribe one standardized PIA procedure in the next revision of DOE Order 151.1

BNL Response: No Action

BNL has Subject Areas developed on conducting post incident critiques (https://sbms.bnl.gov/standard/0y/0y00t011.htm) and lesson learned (https://sbms.bnl.gov/standard/0t/0t00t011.htm) activities. These programs are active and productive.

12. Lesson: Wildland fires and the response to them affect radiation deposition in the particular geographic area of the fire/response; baseline area radiation deposition measurements taken before the fire/response may no longer be valid.

DOE Recommendation: The recovery planning process should include identification of current hazards. If areas of known radiation deposition have been affected by the fire/response, such planning should include the need to provide for and conduct new baseline radiological surveys.

BNL Response: No Action

Baseline samples are taken routinely on and off site as part of BNL's environmental surveillance monitoring. The ICS process would staff the command post with technical experts who in the course of their job include surveys of potential areas of deposition. These elements have been incorporated into BNL's drill program for years.

13. Lesson: At times, the information demands of DOE HQ overwhelmed site response personnel and affected both on-site response coordination activities and emergency operations.

DOE Recommendation: The DOE Operations or Area Office representative(s) should be designated as POC(s) for HQ contacts and present in the EOC during an event. Standardized HQ reporting formats, times, and briefing requirements should be developed and their use integrated in training, drills, and exercises, as well as emergencies. Procedures should be developed to assure site POC(s) notify HQ per those standards or when on-site conditions may interfere with the site's ability to meet HQ's information requirements. Pushing information to HQ will minimize the number of contacts HQ

should or needs to make with the site. Public affairs information needs to be available at HQ prior to public release whenever possible.

BNL Response: No Action

BNL has observed this in several incidents. Corrective action is with DOE.

14. Lesson: Foreign nationals visiting or using DOE laboratory facilities may not be able to collect compensation for losses incurred as a result of a wildland fire or the response to it.

DOE Recommendation: Foreign nationals working at or visiting DOE sites for extended periods should be briefed on this possibility. The briefing should identify site-specific threats and vulnerabilities, identify that DOE does not provide insurance coverage for non-DOE property that may be damaged/lost as a result of working at or being on its sites, and should advise them either to adequately insure their personal property or to seek advice from their respective Embassy, Consulate, or employer.

BNL Response:

BNL does not advise visitors of this risk.

> **Action # 5** Staff Services will explore advising incoming visitors staying at BNL facilities of the potential risks to personal properties. (ATS 361.1.13; Responsibility Jeff Swenson; Due 08/01/2001).

15. Lesson: Sites and facilities must adequately train, drill, and exercise their EROs (and their non-DOE counterparts) with wildland fire scenarios.

DOE Recommendation: DOE sites should plan and conduct comprehensive training, drills, and exercises to ensure all ERO members are knowledgeable on wildland fire plans, procedures, necessary resources, and off-site agencies responding. The scope, frequency, and duration of these activities should be based on the perceived nature of the threat and an assessment of previous fires and their impacts. Biennial exercises are recommended as a minimum. Where possible, sites should include participation of non-DOE responders in such activities.

BNL Response:

BNL documents its drill plans in the Emergency Readiness Assurance Plan (ERAP). Currently three Wildland Fire scenarios have been conducted over the past nine years. The ERAP will be modified to perform them biannually.

> **Action #6:** Modify the Emergency Readiness Assurance Plan to include wildland fires drills every two years (ATS 361.1.14; Responsibility Ken Krasner; Due 9/28/2001).

16. Lesson: An imperative during a wildland fire is ensuring that on-site and off-site response agency media relations are coordinated so contradictory information is not released.

DOE Recommendation: Ensure all response agencies are located or represented in a Joint Information Center (JIC) established by DOE or the agency responsible for leading the overall response. At the JIC, procedures need to be implemented to provide for all media releases to be coordinated prior to release to ensure a continuity of information. Whenever possible, coordination would include on-scene, regional/state, and response agency HQ-levels.

BNL Response: No Action

This is a basic element of BNL Emergency Management Program and has been included as objectives (and successfully achieved) in several drills.

17. Lesson: Site-level emergency planners need to become more familiar with the various standards and information available on wildland fires. DOE sites that are vulnerable to wildland fires should have personnel trained and qualified as Prescribed Fire Planners (and other necessary positions) under the National Wildfire Coordinating Group's Wildland and Prescribed Fire Qualification System Guide (PMS 310-1). Personnel qualified in these positions are better able to evaluate proposed prescribed burn fire plans and operations.

DOE Recommendation: Site emergency planners should review the information on the U.S. Forest Service and BLM web sites. A number of National Fire Protection Association (NFPA) Technical Standards on all aspects of wildland fires exist and are available through the NFPA. DOE sites should also review all the above referenced documents on qualifications and contact regional offices of BLM for the appropriate training courses. Training information can also be found at the following web site: http://fire.nifc.nps.gov/sacs/html/training.html. Sites should also update the training section of their emergency plans to define what wildland fire or related training is required for which ERO members.

BNL Response: No Action

Emergency Planning and Fire Protection are located within the same organization (Emergency Services Division). Development of the Site Hazard Assessment incorporates input from the Fire Protection Engineering Group as a matrixed resource. Fire Protection is the subject matter expert on wildland fire matters and guides the document and program regarding that issue.

BNL also hosts the New York Fire Incident Management Academy, a major regional training event. BNL receives training through this program.

18. Lesson: Communication Operability and inter-Operability issues complicated the response efforts. Site ERO paging systems did not always function in a timely manner. Off-Site emergency responder communications equipment were not compatible with on-site communications systems.

DOE Recommendation: Group paging priorities should be identified and included in the emergency plan along with a procedure for regular tests of the system. A procedure for issuing site communications equipment and providing training on this equipment to arriving off-site emergency responders should be developed and included in the site emergency plan. Web-based internet communications need to be explored and developed in more depth.

BNL Response: No Action

BNL has permission and is equipped to operate on the common Suffolk County fire frequencies. All mobile units have county radios. The Fire Department, Emergency Operations Facility, and BNL Security have base stations that operate on Suffolk County frequencies. Radios are used during mutual aid calls (~ eight per year). Radios are tested weekly.

19. Lesson: Unexploded ordnance, inert ordnance and other hazards not specifically associated with particular facility operations should be identified and mapped as part of environmental restoration activities. Restoration personnel should periodically update these maps as new items are discovered.

DOE Recommendation: Evaluate and formalize the updating and distribution of these maps to emergency response facilities as new items are discovered.

BNL Response:

BNL is a former military base. Experience has demonstrated the presence of unexploded ordnance in certain areas. Ordnance is limited to hand grenades and infantry ordnance. Maps are available and are currently being updated with information.

> **Action #7:** Obtain unexploded ordnance maps from Environmental Restoration Division for use during Incident Command (ATS 361.1.15; Responsibility Chief Carroll; Due 9/28/2001).

20. Lesson: Many emergency response organizations operate with four teams each on duty for 24/7 on a rotating basis. A long-term staffing procedure, policy or mechanism should be in place for staffing appropriate positions during extended operations.

DOE Recommendation: Evaluate and formalize as necessary a long term staffing mechanism. Agreements with other DOE sites for providing emergency staffing assistance or possibly with off-site emergency response agencies should be considered.

BNL Response: No Action

Part of staffing a prolonged incident is the distribution of personnel over the duration of the event. Prolonged incidents will strain resources. The approach devised by BNL is to utilize off site agencies as much as practical while keeping BNL resources as guides and command elements. The ERO would operate in a 12 hours on and 12 hours off mode per existing SOPs.

21. Lesson: Facility evacuation and accountability procedures are written for evacuation due primarily to radiological or chemical emergencies and do not address evacuation or personnel accountability during wildland fire events. During wildland fire evacuations vehicles left in parking lots on site may add to the fire danger.

DOE Recommendation: Evaluate and revise evacuation procedures to address wildland fires and the removal of private vehicles as safety permits.

BNL Response: No Action

The BNL Emergency Plan and site training instructs personnel to evacuate the site with their own vehicles unless retrieving the vehicle places them in personal danger.

22. Lesson: Hazards Assessments sometimes screen out facilities that are below the planning thresholds, but may contain materials that could complicate a wildland fire response (e.g. explosives storage, small quantities of chemicals, limited amounts of ammunition). Mitigation activities may also reduce or eliminate a facility's threat during a wildland fire, but this information may not be readily available.

DOE Recommendation: Evaluate the need for additional information that identifies facilities containing quantities of materials that have been screened out by the hazard assessment process. Additionally, evaluate and establish, as appropriate, a formal procedure of notifying all duty teams of the identity and location of areas where additional hazard mitigation has been undertaken.

BNL Response: No Action

BNL maintains chemical inventories via a web based inventory system, the Chemical management System (http://www.esh.bnl.gov/cms/perl/inv.pl). Inventories are by room and can be linked to the Material Safety Data Sheets for each chemical.

Summaries of hazards within BNL structures are documented in a web based information system, the Fire/Rescue Fire Pre Plan response system (http://home.bnl.gov/emergencyservices/runcards/), also known as Run Cards.

Communication of hazards with field teams is an integrated part of the ICS.

23. Lesson: Some sites conducted Critical Incident Stress Debriefings (CISD) for emergency responders and wildfire victims during the recovery and demobilization phases of the event.

DOE Recommendation: All sites as part of their response and recovery efforts should incorporate a mental health capability. During the response trained mental health providers, clergy, and other qualified personnel should be available to monitor the mental health of the emergency responders and to assist with disaster victims. CISD should be made available to the emergency responders in a timely fashion after the disaster demobilization occurs.

BNL Response: No Action

Critical Incident Stress Debriefing is part of the emergency preparedness program. On-site mental health staff would be called to assist when a significant event occurs. The Suffolk County CISD Team is also available through the mutual aid plan.

24. Lesson: A number of State, Tribal, and local emergency planners and responders were not aware of the full range of DOE's radiological emergency response asset capabilities that could assist with radiological materials issues.

DOE Recommendation: Sites should ensure that information on DOE's radiological emergency response asset capabilities are included in the off-site orientations provided to agencies that will respond to assist at DOE facilities during emergencies. The HQ Office of Emergency Response (SO-42) should develop presentations and provide information to the various emergency management and response professional organizations to help enhance the knowledge level of the respective memberships. Organizations such as the National Emergency Management Association, the International Association of Emergency Managers, International Association of Chiefs of Police, National Association of Emergency Medical Technicians to name a few, would be able to distribute DOE capability information to their memberships.

BNL Response: No Action

This action is a DOE action item. The section will be passed onto the regional Radiological Assistance Program Office. The Regional RAP team has demonstrated their capabilities to local agencies with visits and demonstrations. RAP has been used successfully in regional incidents.

25. Lesson: At one site a National Oceanic and Atmospheric Administration (NOAA) meteorologist was present to assist with weather forecasting and providing timely meteorological information for both plume modeling and weather impacts on emergency responders.

DOE Recommendation: Sites should contact local NOAA offices and explore the possible benefits of a NOAA meteorologist augmenting the site EOC staff.

BNL Response: No Action

BNL's Emergency Management Program has a meteorological component. BNL has an on-site data station and an on-site meteorologist. The BNL site houses the regional National Weather Service (NWS), which lends assistance with forecasting during server weather conditions. The regional NWS Office at BNL also provides Fire Weather via their web page (http://www.nws.noaa.gov/er/okx/okxfirewx.html) which assists with the forecasting outlook. The National Weather Service does not provide information on local weather (on site), but will provide directions on regional trends. BNL also have access to 3 weather stations used by the US Fish and Wildlife Service in determination of Long Island specific fire weather.

26. Lesson: Each State has Department of Defense (DoD) Emergency Preparedness Liaison Officers (EPLO) in their State and Region. These EPLOs provide the interface between DoD and State, Tribal, local, and DOE Site emergency response agencies. EPLOs are not well versed in DOE site operations, hazards, or radiological emergency response asset capabilities.

DOE Recommendation: Sites should contact the respective state emergency management offices or Forces Command Headquarters, Ft. McPherson, GA (404) 464-7900 to identify EPLOs in their areas and offer them briefings on DOE site hazards and response capabilities. The DOE Office of Emergency Response Director is scheduled to make a presentation on DOE's radiological emergency response asset capabilities at the 2001 National EPLO conference, March 2001, in Atlanta.

BNL Response:

Action #8: BNL will contact the New York State Emergency Preparedness Liaison Officer by June 30, 2001 and arrange for a briefing on BNL site hazards and response capabilities. (ATS 361.1.16; Responsibility Ken Krasner; Due 6/30/2001).

Committee Member Signature Page

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Chief Michael Carroll, Fire Chief BNL FD, Emergency Services Division

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Tim Green, Natural Resource Manager, Environmental Services Division

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Kenneth Krasner, Emergency Planning Supervisor, Emergency Services Division

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Joseph Levesque, Fire Protection Engineer, Emergency Services Division

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Tom Roza, Site Superintendent, Plant Engineering Division

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John Searing, P.E., Manager, Standards Based Management Systems Office

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Edward A. Sierra, Laboratory Lessons Learned Coordinator, Independent Oversight Office

Appendix A

March 14, 2001 Charge Letter from M. Bebon to Committee