



**Department of Energy**  
**National Nuclear Security Administration**  
Washington, DC 20585

**September 24, 2009**

The Honorable John E. Mansfield  
Vice Chairman  
Defense Nuclear Facilities Safety Board  
625 Indiana Avenue, N.W., Suite 700  
Washington, D.C. 20004

Dear Mr. Vice Chairman:

This letter provides the final response to your letter regarding Fire and Emergency Response Capabilities at Los Alamos National Laboratory (LANL) dated December 8, 2008. The National Nuclear Security Administration (NNSA) memorandum dated March 10, 2009, committed to provide the Board the 180-day report by September 25, 2009, because the Baseline Needs Assessment upon which the report was conditioned was not completed until March 31, 2009.

The enclosed memorandum completes the response for the 180-day report. If you have any questions, please contact Mr. James McConnell, Director, Office of Safety, at (202) 586-4379.

Sincerely,

A handwritten signature in black ink, reading "Garrett Harencaak".

GARRETT HARENCAK, Brig Gen, USAF  
Principal Assistant Deputy Administrator  
for Military Application  
Office of Defense Programs

Enclosure

cc: w/enclosure  
M. Whitaker Jr., HS-1.1



# memorandum

National Nuclear Security Administration  
Los Alamos Site Office  
Los Alamos, New Mexico 87544

DATE: SEP 08 2009  
REPLY TO: SO:19BG-132607  
ATTN OF: SO:19BG-132607  
SUBJECT: Transmittal of the Los Alamos National Laboratory's Response to the Defense Nuclear Facilities Safety Board's Letter Regarding Baseline Needs Assessment Recommendation Implementation Plan

TO: Brigadier General Garrett Harencak, Principal Assistant Deputy Administrator for Military Application, NA-10, HQ/FORS

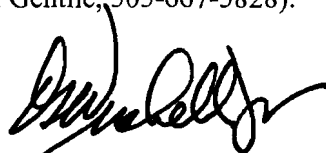
Reference:

- 1.) Contract Number DE-AC52-06NA25396, Los Alamos National Security, LLC and the Department of Energy, National Nuclear Security Administration

As requested by the December 8, 2008, Defense Nuclear Facilities Safety Board letter, the attachment provides the Los Alamos National Laboratory (LANL) response to the identified 180-day deliverable for Baseline Needs Assessment (BNA) implementation.

The Los Alamos Site Office (LASO) will continue to work closely with both LANL and the Los Alamos Fire Department (LAFD) to disposition and resolve the recommendations of the BNA. LASO believes that significant progress was achieved by LANL in Fiscal Year (FY) 2009 for training, tours, and exercise activities of LAFD personnel. A Performance Based Incentive in FY 2010 has been established to improve upon these initial efforts.

For any questions regarding this memorandum, you may contact the LASO Field Operations Assistant Manager (Charles Keilers, 505-665-6352) or the LASO Emergency Management Program Manager (Bill Gentile, 505-667-5828).



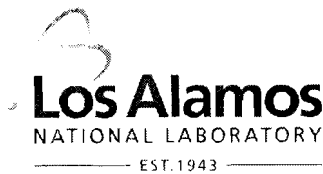
Donald L. Winchell, Jr.  
Manager

Attachment

cc: See Page 2

cc:

S. Steele, NA-171.1, HQ/FOR  
L. Walker, NA-43, HQ/GTN  
R. Snyder, OOM, LASO  
C. Keilers, FO, LASO  
F. Bell, FO, LASO  
B. Gentile, SO, LASO  
J. Vozella, SO, LASO  
R. McQuinn, AD-NHHO, LANL, MS-K778  
M. Lansing, AD-SS, LANL, MS-G729  
J. Streit, FP-DO, LANL, MS-K491  
R. Farris, FP-DO, LANL, MS-K493  
A. Stanford, EO-DO, LANL, MS-C938  
Records Center, LASO  
Official Contract File, LASO



## memorandum

***Nuclear and High Hazard Operations***

***Fire Protection Division***

PO Box 1663, MS K778

Los Alamos, New Mexico 87545

505-665-3628/FAX 505-665-7193

Date: September 2, 2009

Refer to: FP-DO-09-056

Mr. William Gentile, Emergency Management Program Manager

National Nuclear Security Administration

Los Alamos Site Office

Building TA-3-1410, Mail Stop A316

Los Alamos, NM 87545

**Subject: REVISION 0 IMPLEMENTATION PLAN FOR THE CY2009 FIRE  
DEPARTMENT BASELINE NEEDS ASSESSMENT (BNA)  
RECOMMENDATIONS**

**References:**

- 1) Contract DE-AC52-06NA25396
- 2) LANL Document No. LA-CP-09-00529, *Baseline Needs Assessment, Fire Prevention and Suppression Services and Resources*, Revision 0, April 24, 2009.
- 3) LASO Memorandum No. SO:25BG-8265, *Los Alamos Site Office Approval of Los Alamos National Laboratory Baseline Needs Assessment*, May 19, 2009.
- 4) LANL Letter No. FP-DO-09-049, *Plan of Action for FY2009 Fire Department Baseline Needs Assessment (BNA) Recommendations*, July 27, 2009.
- 5) LASO Memorandum No. SO:25BG-001, *Los Alamos National Laboratory Response to the Defense Nuclear Facilities Safety Board's Emergency Response Concerns*, January 21, 2009.

Dear Mr. Gentile:

LANL completed an updated fire department emergency response services BNA in accordance with DOE O 420.1B Chapter II ¶ 3.b(8) expectations earlier this year [Reference (2)]. The BNA includes fifteen recommendations for improving fire department emergency response services and capabilities to support LANL facilities and operations. LASO approved the BNA within Reference (3), and requested that LANL submit an initial proposed plan of action for all of the recommendations contained within the BNA to LASO. The proposed plan of action was provided to LASO in July [Reference (4)].

As indicated within Reference (5) and reiterated within Reference (3), LANL was further expected to provide an Implementation Plan, which included planned LANL-responsible actions, schedules and funding sources for, and any progress toward completion of, the BNA recommendations to LASO. Following our meeting on August 24, 2009, we have updated and modified our initial plan of action into an Implementation Plan responsive to your comments and the expectations contained within References (3) and (5).

Attached please find our Revision 0 Implementation Plan describing LANL-responsible actions, schedules, and funding sources for, and current progress toward completion of, the fifteen CY2009 BNA recommendations. LANL has entered the planned actions within the Implementation Plan into the ICAM process under the presently assigned LIMITS numbers as directed within Reference (3). LANL will maintain the Implementation Plan as a "living document" that will be subject to revision and update as planned actions are completed and changes to schedule are accommodated.

If LANL can provide any additional information or clarification, please contact feel free to contact Rob Farris at 667-9045 or myself at 665-3628.

Regards,

Jim Streit  
*Fire Protection Division Leader*

JRS:tlc

Attachment: LANL Implementation Plan for CY2009 BNA Recommendations, Revision 0, September 1, 2009, including the CY2012 Construction Working Group (CWG) Planning Cycle project data sheet for "Fire Station Replacements"

Cy w/attachment:

R.L. McQuinn, ADNHHO, K778  
R.J. Farris, FP-DO, K493  
J.H. Dare, EO-ER, K542  
K.J. Schlindwein, IP-DO, K774  
A.A. Thomas, PMF-WEP, J590  
M.M. Nuckols, PADWP, A107  
IRM-RMMSO, A150  
FP-DO Correspondence File, K493

M.B. Mallory, PADOPS, A102  
A.R. Stanford, EO-DO, C934  
W.F. Purtymun, EO-EPP, C938  
W.D. Zwick, CT-DO, C342  
L.M.D. Rodriguez, OS-BSI, A194

**Recommendation #1, LIMTS #2009-1906**

*LANL in concert with LASO must develop a directive that establishes the Fire Department's Baseline response expectations in the context of the BNA. This document must delineate the expectations, roles and responsibilities for both Laboratory and Fire Department management that will successfully integrate the fire department with the LANL.*

1. LANL, in concert with LASO, will issue a letter to LASO recommending and requesting multiple changes to the current Cooperative Agreement that address response needs and expectations, roles and responsibilities for LANL, LASO and LAFD to successfully integrate the fire department into LANL operations. Furthermore, this letter will include requests for specific improvements cited by the BNA as described in Recommendation 4 (Corrective Action #1), Recommendation 5 7<sup>th</sup> bullet (Corrective Action #1), Recommendation 6 (Corrective Action #1), Recommendation 7 (Corrective Action #1), Recommendation 8 (Corrective Action #1), Recommendation 9 (Corrective Action #1), Recommendation 11 (Corrective Action #1), Recommendation 14 (Corrective Action #1) and Recommendation 15 (Corrective Action #1). An expected outcome of this recommendation would be a new or revised LAFD Fire Chief's Directive (FCD) that specifically incorporates LANL needs and expectations and describes how LAFD will satisfy these objectives.

This letter will also reiterate LANL requests of LAFD to update procedures associated with testing of fire hydrants (corrective action from LANL ORPS Report No. NA--LASO-LANL-WASTEMGMT-2009-0007, *TSR Violation Associated with Fire Hydrant Testing*), and to develop and implement an operating procedure for using Class I standpipe systems at LANL consistent with NFPA 13E recommendations and design bases for these systems (corrective action from LANL ORPS Report No. NA--LASO-LANL-BOP-2009-0002, *Near Miss: Class 1 Dry Standpipe System Fails Catastrophically during Fire Department Training Exercise*).

Deliverable: FP-DO will issue a memorandum to the LASO emergency management program manager recommending and requesting multiple changes to the current Cooperative Agreement that address response needs and expectations, roles and responsibilities for LANL, LASO and LAFD to successfully integrate the fire department into LANL operations. In addition, this memorandum will include additional recommendations and requests for inclusion in the Cooperative Agreement to address specific BNA recommendations.

Responsible Organization: FP-DO (Jim Streit / Rob Farris)

Funding Source(s): FY10 Operational Budget for FP-DO (Infrastructure Support)

Anticipated Completion Date: 11/2/2009.

**Recommendation 2, LIMTS# 2009-1907**

*Based on the facility conditions and the need to improve response time, Station 1 should be replaced and relocated to enable fire department response times to the largest LANL worker population areas in less than 4 minutes.*

1. LANL is currently completing a feasibility study to evaluate the potential options for replacing Fire Station 1. Criteria for placement of the new station includes consideration of location(s) that will provide the maximum benefit (improved response times) to laboratory operations.

Deliverable: LANL-approved Feasibility Study for Fire Station replacement and refurbishment.

Responsible Organization: PMF-WEP (Angela Thomas)

Funding Source(s): FY09 Infrastructure Support Program Office (Infrastructure Support)

Anticipated Completion Date: 10/30/2009. The funding source for the study expires at the end of FY2009 (9/30/2009). The Study will wrap-up and be formally issued during October 2009.

2. Upon completion of the conceptual design and feasibility study, add the replacement Fire Station 1 to the Ten Year Site Plan (TYSP) during its next revision.

Deliverable: Insertion of the Fire Station 1 replacement project scope within the TYSP during its next revision.

Responsible Organization: IP-DO (Ken Schlindwein / Randy Parks)

Funding Source(s): FY10 Operational Budget for IS-DO (Infrastructure Support)

Anticipated Completion Date: 4/30/2010

3. Request line item funding for Fire Station 1 Replacement.

Deliverable: Submittal of a line item project initiation request package in accordance with LANL and DOE program requirements. In August 2009, LANL prepared and submitted a "Replacement Fire Stations" project data sheet to the NNSA Office of Construction Management (NA-172) in response to the CY2012 NNSA Construction Working Group (NWG) Planning Cycle. A copy of the project data sheet is included as an attachment to this Plan.

Responsible Organization: PADWP (Matt Nuckols)

Funding Source(s): FY10 Operational Budget for PADWP (RTBF)

Anticipated Completion Date: 6/30/2010. This date may change depending on priorities and decisions made by the NNSA CWG.

### **Recommendation 3, LIMTS# 2009-1913**

*As an interim action, and consistent with the cooperative agreement, maintenance and upgrading of the deficiencies at Station 1 and 5 should be completed in an emergency or priority designation.*

1. FP-DO will re-emphasize Cooperative Agreement direction to the IFCS FOD to treat maintenance and upgrading of deficiencies at LASO/LANL controlled fire stations that may impact operations and/or response as Priority Work.

Deliverable: FP-DO will issue a memorandum to IFCS FOD to treat maintenance and upgrading of deficiencies at LASO/LANL controlled fire stations that may impact operations and/or response as Priority Work.

Responsible Organization: FP-DO (Rob Farris)

Funding Source(s): FY09 Operational Budget for FP-DO (Infrastructure Support)

Anticipated Completion Date: 9/30/2009 (preceding start of FY2010).

2. LANL to support priority work completion in LASO/LANL controlled fire stations.

Deliverable: FP-DO will provide funding for priority work from G&A LAFD cost account within LASO/LANL controlled fire stations.

Responsible Organization: FP-DO (Rob Farris)

Funding Source(s): FY10 Operational Budget for LAFD cooperative agreement (G&A)

Anticipated Completion Date: 10/1/2009 (commencing at start of FY2010 and recurring).

#### **Recommendation 4, LIMTS# 2009-1914**

*In accordance with NFPA 1710, a minimum of two Paramedics must be deployed to respond as a team to medical emergencies at LANL.*

1. Concurrent with Recommendation 1, LANL will issue a letter to LASO recommending and requesting that the Cooperative Agreement be amended to specify that a minimum of two paramedics be deployed to respond as a team to medical emergencies at LANL.

Deliverable: As part of the Recommendation 1 deliverable, FP-DO will issue a memorandum to the LASO emergency management program manager recommending and requesting that the Cooperative Agreement be amended to specify that a minimum of two paramedics be deployed to respond as a team to medical emergencies at LANL.

Responsible Organization: FP-DO (Jim Streit / Rob Farris)

Funding Source(s): FY10 Operational Budget for FP-DO (Infrastructure Support)

Anticipated Completion Date: 11/2/2009.

#### **Recommendation 5, LIMTS# 2009-2070**

*Submit a Request for Equivalency to DOE to the NFPA 1710 Fire Suppression and EMS delivery and response time objectives. The basis for the equivalency includes:*

- *Maintaining a sufficient staff complement of not less the complement of a full first alarm assignment stipulated by NFPA 1710 (see Table 12.1) and sufficient number of personnel to provide emergency medical assistance (see Table 12.2).*



- *Constructing a replacement fire station for station 1 which optimizes response time to the majority of the LANL population.*
  - *Maintaining, mutual aid agreements and supplemental staff to enable sufficient support capability for a compounded event.*
  - *Maintaining reliable automatic fire suppression systems in all high hazard and high value facilities*
  - *Deploying a minimum of two paramedics per shift to respond as a team to medical emergencies at LANL.*
  - *Maintaining an active AED Program throughout the Laboratory*
  - *Revising the response district of FS #3 to include TA-54 and TA-51*
1. LANL, in concert with LASO, will prepare and submit to LASO for approval an Equivalency Request to DOE O 420.1B and NFPA 1710 response expectations for LANL areas that compliance with NFPA 1710 is impractical and which may be supported by the conditions stated in the recommendation. Given that some of the bases for justifying equivalency are reliant on significant facility improvements (replacement fire stations) and changes to the Cooperative Agreement (two paramedic deployment, revising response districts), the equivalency will need to be written in the form of a compliance schedule agreement where future improvements will have to be forecasted, scheduled and subject to securing funding.

Deliverable: FP-DO will develop and submit an Equivalency Request to DOE O 420.1B and NFPA 1710 for LANL areas that compliance with NFPA 1710 is impractical and which may be supported by the conditions stated in the recommendation, which may be used in the development of the Cooperative Agreement-specified "NFPA Exceptions Document" by LASO.

Responsible Organization: FP-DO (Jim Streit)

Funding Source(s): FY10 Operational Budget for FP-DO (Infrastructure Support)

Anticipated Completion Date: 12/30/2009.

### **Recommendation 6, LIMTS# 2009-2071**

*As part of pre-incident planning and emergency response preparation, all response time factors must be reviewed and opportunities for improving response time incorporated into the plan. Emphasis must be placed on improving "Access" and "Set-up" time.*

1. LANL, in concert with LASO, will recommend and request that improvements be made in LAFD pre-incident plans to meet NFPA 1620 expectations for the purpose of improving "Access" and "Set-up" time.

Deliverable: As part of the Recommendation 1 deliverable, FP-DO will issue a memorandum to the LASO emergency management program manager recommending and requesting that improvements be made in LAFD pre-incident plans to meet NFPA 1620 expectations as part of the Cooperative Agreement for the purpose of improving "Access" and "Set-up" time.

Responsible Organization: FP-DO (Jim Streit / Rob Farris)

Funding Source(s): FY10 Operational Budget for FP-DO (Infrastructure Support)

Anticipated Completion Date: 11/2/2009.

2. LANL will continue to support LAFD facility familiarization/walkdown tours in accordance with the annual LAFD Training Plan and Schedule (submitted annually in January). LANL will continue support efforts to formalize the tours as training for LAFD uniformed shift personnel and command staff to include the objectives established in response to the expectations described in the Cooperative Agreement, LAFD touring of facilities is intended to improve pre-incident plan development, comprehensiveness and accuracy, and improve response time through development of facility-specific strategies for fire response.

Deliverable: On-going support and delivery of LANL facility familiarization/walkdown tours in accordance with the annual LAFD Training Plan and Schedule.

Responsible Organization: FP-DO (Jim Streit)

Funding Source(s): FY10 Operational Budgets for FP-DO (Infrastructure Support), EO-DO (G&A primarily), and for the LAFD cooperative agreement (G&A)

Anticipated Completion Date: On-going

3. LASO review of LAFD pre-incident plans for accuracy and completeness as stipulated within the Cooperative Agreement.

Deliverable: LASO review and feedback to LAFD on pre-incident plans in accordance with the Cooperative Agreement.

Responsible Organization: LASO (Bill Gentile)

Funding Source(s): LASO

Anticipated Completion Date: Per the Cooperative Agreement

4. LANL and LASO will utilize emergency management drills and exercises to test and evaluate LAFD pre-incident plans and "Access" and "Set-up" time performance. LAFD objectives will be coordinated with LANL and LASO drill and exercise objectives.

Deliverable: LANL and LASO performance of emergency management drills and exercises to test and monitor LAFD pre-incident plans and "Access" and "Set-up" time performance. After-action or other evaluation reports will be utilized to document LAFD performance relative to facility drill and exercise "Access" and "Set-up" time objectives, and establish plans of action for improvement. There may be additional specific actions formulated in response to the final DOE Office of Inspector General (OIG) Inspection Report review of "Fire Suppression and Related Services at LANL" when issued.

Responsible Organization: LANL EO-DO (Tony Stanford) and LASO (Bill Gentile)

Funding Source(s): FY10 Operational Budgets for FP-DO (Infrastructure Support), EO-DO (G&A), for the LAFD cooperative agreement (G&A), and LASO

Anticipated Completion Date: Will be recurring.

**Recommendation 7, LIMITS# 2009-2072**

*Consistent with NFPA 1710 criteria, track and trend emergency response call data to determine the extent to which emergency response objectives are met.*

1. Concurrent with Recommendation 1, LANL will recommend and request to LASO that LAFD track, trend and report LANL emergency response call data to evaluate NFPA 1710 emergency response objectives as part of the Cooperative Agreement. NFPA 1710 reporting should be provided to both LANL and LASO, so that future decisions regarding fire department and fire station staffing, skill sets, and resources can be effectively made to align with NFPA 1710 response objectives.

Deliverable: As part of the Recommendation 1 deliverable, FP-DO will issue a memorandum to the LASO emergency management program manager recommending and requesting that LAFD track, trend and report LANL emergency response call data to evaluate NFPA 1710 emergency response objectives as part of the Cooperative Agreement.

Responsible Organization: FP-DO (Jim Streit / Rob Farris)

Funding Source(s): FY10 Operational Budget for FP-DO (Infrastructure Support)

Anticipated Completion Date: 11/2/2009.

2. LANL and LASO will review emergency response call data provided by LAFD and make recommendations for improving response times, effectiveness of responses, and placement of resources for maximum availability.

Deliverable: Upon receipt of LAFD reports, LANL and LASO will review the call data and evaluate and develop improvement plans as necessary to better align with NFPA 1710 response objectives.

Responsible Organization: LANL (EO-DO, FP-DO) and LASO

Funding Source(s): FY10 Operational Budgets for FP-DO (Infrastructure Support), EO-DO (G&A), and LASO

Anticipated Completion Date: Will be recurring.

**Recommendation 8, LIMITS# 2009-2073**

*A LAFD and HAZMAT interface and mutual aid agreement must be developed and implemented to ensure that the baseline staffing identified in the BNA can be achieved at all HAZMAT incidents. This agreement must be referenced or integrated into the REC 1 Directive.*

1. Concurrent with Recommendation 1, LANL will draft and submit to LASO recommended content and criteria for the inclusion of a Mutual Aid Agreement between LASO and LAFD within the Cooperative Agreement to ensure proper staffing, skill sets and resources are deployed to HazMat incidents at LANL.

Deliverable: As part of the Recommendation 1 deliverable, LANL will issue a memorandum to the LASO emergency management program manager that will include recommended content and criteria for the inclusion of a Mutual Aid Agreement between LASO and LAFD within the Cooperative

Agreement to ensure proper staffing, skill sets and resources are deployed to HazMat incidents at LANL.

Responsible Organization: EO-DO (Tony Stanford / Jeff Dare)

Funding Source(s): FY10 Operational Budgets for FP-DO (Infrastructure Support) and EO-DO (G&A)

Anticipated Completion Date: 11/2/2009.

### **Recommendation 9, LIMITS# 2009-2074**

*To ensure an effective HAZMAT response during non-business hours, the cooperative agreement should be amended to include a requirement for the LANL baseline staffing to include a minimum of two LAFD personnel per shift trained at the HAZMAT Technician Level.*

1. Concurrent with Recommendation 1, LANL will recommend and request to LASO that LAFD baseline staffing for LANL include a minimum of two personnel trained and qualified at the HazMat Technician Level be incorporated into the Cooperative Agreement to ensure an effective HazMat response to LANL during non-business hours.

Deliverable: As part of the Recommendation 1 deliverable, LANL to issue a memorandum to the LASO emergency management program manager recommending and requesting that LAFD baseline staffing for LANL include a minimum of two personnel trained and qualified at the HazMat Technician Level be incorporated into the Cooperative Agreement to ensure an effective HazMat response to LANL during non-business hours.

Responsible Organization: EO-DO (Tony Stanford / Jeff Dare)

Funding Source(s): FY10 Operational Budgets for FP-DO (Infrastructure Support) and EO-DO (G&A)

Anticipated Completion Date: 11/2/2009.

### **Recommendation 10, LIMITS# 2009-2075**

*In order to provide adequate and timely response to HAZMAT events, the LAFD should be dispatched simultaneously with EO-ER HAZMAT.*

1. LANL will develop and implement an emergency response procedure for the dispatch of LAFD concurrent with dispatch of LANL HazMat to provide an adequate and timely response to LANL HazMat events that require a full contingent of qualified responders.

Deliverable: LANL Emergency Operations Division will develop and implement an emergency response procedure for the dispatch of LAFD concurrent with dispatch of LANL HazMat to provide an adequate and timely response to LANL HazMat events that require a full contingent of qualified responders.

Responsible Organization: EO-DO (Tony Stanford / Jeff Dare)

Funding Source(s): FY10 Operational Budget for EO-DO (G&A)

Anticipated Completion Date: 12/17/2009.

### **Recommendation 11, LIMTS# 2009-2076**

*Based on the review of Laboratory Hazards and Risks and the Task Analysis, a LANL Baseline Staffing of 24 personnel is recommended.*

1. Concurrent with Recommendation 1, LANL will draft and submit to LASO recommended content and resource criteria for inclusion in the Cooperative Agreement that ensures that LAFD provides a minimum baseline staffing of 24 personnel for response to a bounding LANL emergency response event. The plan of action for this recommendation acknowledges that current Cooperative Agreement staffing levels and skill sets assigned to LANL Fire Stations 1 (12) and 5 (5) would rely on additional resources arriving from other LAFD fire stations as the emergency event escalates beyond the first full alarm response level.

Deliverable: As part of the Recommendation 1 deliverable, LANL will issue a memorandum to the LASO emergency management program manager that will include recommended content and resource criteria for inclusion in the Cooperative Agreement that ensures that LAFD provides a minimum baseline staffing of 24 personnel for response to a bounding LANL emergency response event. Available resources might include reliance on effective LAFD "call-back" procedures and mutual aid agreements in addition to additional resources arriving from other LAFD fire stations.

Responsible Organization: FP-DO (Jim Streit / Rob Farris)

Funding Source(s): FY10 Operational Budget for FP-DO (Infrastructure Support)

Anticipated Completion Date: 11/2/2009.

2. In response to § IV of the Cooperative Agreement (9/30/2008) and Item (19) of LASO Memorandum #SO:14BG-011, *Los Alamos National Laboratory's Role and Responsibility with Respect to the Los Alamos County Cooperative Agreement Regarding Fire Department Services* (12/10/2008), LANL issued Memo #ADNHHO:09-039, *Actions to be Taken by Facility Operations Directors Upon Notification that Fire Department Manning has Fallen Below 50%* (2/5/2009) which describes compensatory actions each FOD will take upon notification of depleted LAFD resources from the Emergency Operations Division. The described compensatory actions were developed prior to finalization of the BNA and its task analysis establishing a minimum LAFD baseline staffing level of 24. Because the BNA minimum baseline staffing level exceeds the Cooperative Agreement-designated minimum staffing levels at Fire Stations 1 and 5, LANL will re-evaluate whether the identified compensatory actions are appropriate should a large fraction of LAFD resources be otherwise engaged in a non-LANL event and codify these actions in a LANL policy/procedure document.

Deliverable: LANL will re-evaluate and finalize compensatory actions to be implemented upon notification of depleted LAFD resources (< 50% of on shift staffing), and will incorporate these actions into a formal LANL policy/procedure document.

Responsible Organization: FP-DO (Jim Streit / Rob Farris) and EO-DO (Tony Stanford)

Funding Source(s): FY10 Operational Budgets for FP-DO (Infrastructure Support) and EO-DO (G&A)

Anticipated Completion Date: 1/31/2010.

### **Recommendation 12, LIMITS# 2009-2077**

*A vehicle/apparatus replacement schedule must be developed by LANL and LASO to ensure the replacement of vehicles prior to reaching the end of its service life.*

1. LANL will provide to LASO draft language detailing steps to be used in determining vehicle replacement schedules for inclusion in the Cooperative Agreement.

Deliverable: LANL has provided LASO with proposed draft language detailing steps and criteria to be used in determining vehicle replacement schedules for inclusion in the Cooperative Agreement.

Responsible Organization: FP-DO (Rob Farris)

Anticipated Completion Date: COMPLETE 6/26/2009.

2. Upon direction from LASO, LANL will implement the procurement of vehicle replacements from G&A LAFD cost account.

Deliverable: Procurement of directed vehicle replacements.

Responsible Organization: FP-DO (Rob Farris)

Funding Source(s): FY Operational Budgets for the LAFD cooperative agreement (G&A)

Anticipated Completion Date: Will be recurring.

### **Recommendation 13, LIMITS# 2078**

*Station 5 should be replaced and relocated to optimize fire department response times to the LANL worker population areas.*

1. Concurrent with Recommendation 2, LANL is currently completing a feasibility study to evaluate the potential options for replacing and refurbishing Fire Station 5. Criteria for placement of a new station includes consideration of a location that will provide the maximum benefit (improved response times) to laboratory operations.

Deliverable: LANL-approved Feasibility Study for Fire Station replacement and refurbishment.

Responsible Organization: PMF-WEP (Angela Thomas)

Funding Source(s): FY09 Infrastructure Support Program Office (Infrastructure Support)

Anticipated Completion Date: 10/30/2009. The funding source for the study expires at the end of FY2009 (9/30/2009). The Study will wrap-up and be formally issued during October 2009.

2. Upon completion of the conceptual design and feasibility study, add the replacement or refurbishment of Fire Station 5 to the TYSP during its next revision.

Deliverable: Insertion of the Fire Station 5 replacement or refurbishment project scope within the TYSP during its next revision.

Responsible Organization: IP-DO (Ken Schindwein / Randy Parks)

Funding Source(s): FY10 Operational Budget for IS-DO (Infrastructure Support)

Anticipated Completion Date: 4/30/2010

3. As appropriate (depending on the option selected), request line item, IGPP, Infrastructure Support (IS) or other appropriate funding for Fire Station 5 Replacement or Refurbishment.

Deliverable: Submittal of a line item project initiation request package in accordance with LANL and DOE program requirements. In August 2009, LANL prepared and submitted a "Replacement Fire Stations" project data sheet to the NNSA Office of Construction Management (NA-172) in response to the CY2012 NNSA Construction Working Group (NWG) Planning Cycle. A copy of the project data sheet is included as an attachment to this Plan.

Responsible Organization: PADWP (Matt Nuckols)

Funding Source(s): FY10 Operational Budget for PADWP (RTBF)

Anticipated Completion Date: 6/30/2010. This date may change depending on priorities and decisions made by the NNSA CWG

#### **Recommendation 14, LIMITS# 2009-2079**

*All Pre-incident plans and strategies prepared for nuclear facilities, and high and moderate hazard non-nuclear facilities must address specific hazards that would have an impact on the response (e.g. nuclear inventories, criticality, high hazard chemicals or specialty gases, confined spaces, HEPA filtered ventilation, glovebox and hood hazards, special suppression systems, and utility disconnects).*

1. LANL, in concert with LASO, will recommend and request that improvements be made in LAFD pre-incident plans to include LANL facility-specific hazards that may have an impact on effective emergency response to meet NFPA 1620 expectations.

Deliverable: As part of the Recommendation 1 deliverable, FP-DO will issue a memorandum to the LASO emergency management program manager recommending and requesting that improvements be made in LAFD pre-incident plans to include LANL facility-specific hazards that may have an impact on effective emergency response (e.g. nuclear inventories, criticality, high hazard chemicals or specialty gases, confined spaces, HEPA filtered ventilation, glovebox and hood hazards, special suppression systems, and utility disconnects) to meet NFPA 1620 expectations.

Responsible Organization: FP-DO (Jim Streit / Rob Farris)

Funding Source(s): FY10 Operational Budget for FP-DO (Infrastructure Support)

Anticipated Completion Date: 11/2/2009.

2. LANL will continue to support LAFD facility familiarization/walkdown tours in accordance with the annual LAFD Training Plan and Schedule (submitted annually in January). LANL will continue support efforts to formalize the tours as training for LAFD uniformed shift personnel and command staff to include the objectives established in response to the expectations described in the Cooperative Agreement. LAFD touring of facilities is intended to improve pre-incident plan development through review of facility-specific hazards (e.g. nuclear inventories, criticality, high hazard chemicals or specialty gases, confined spaces, HEPA filtered ventilation, glovebox and hood hazards, special suppression systems, and utility disconnects) to improve response effectiveness through development of facility-specific strategies for fire response.

Deliverable: On-going support and delivery of LANL facility familiarization/walkdown tours in accordance with the annual LAFD Training Plan and Schedule.

Responsible Organization: FP-DO (Jim Streit)

Funding Source(s): FY10 Operational Budgets for FP-DO (Infrastructure Support), EO-DO (G&A), and for the LAFD cooperative agreement (G&A)

Anticipated Completion Date: On-going

3. LASO review of LAFD pre-incident plans for accuracy and completeness as stipulated within the Cooperative Agreement.

Deliverable: LASO review and feedback to LAFD on pre-incident plans in accordance with the Cooperative Agreement.

Responsible Organization: LASO (Bill Gentile)

Funding Source(s): LASO

Anticipated Completion Date: Per the Cooperative Agreement.

4. LANL will coordinate LAFD participation in ~80% of the required EPHA/Hazmat facilities exercises (Note that proposed FY10 PBI stipulates LAFD participation in at least 10 facility exercises). LANL will coordinate with LAFD to establish objectives relating to facility-specific hazards as part of these facility exercises. LANL and LASO will utilize emergency management drills and exercises to test and monitor the accuracy and breadth of LAFD pre-incident plans with respect to facility-specific hazards that may affect response effectiveness.

Deliverable: LANL and LASO performance of emergency management drills and exercises to test and monitor LAFD pre-incident plans and response effectiveness with respect to facility-specific hazards. After-action reports will be utilized to document LAFD performance relative to facility drill and exercise objectives, and establish plans of action for improvement. There may be additional specific actions formulated in response to the final DOE OIG Inspection Report review of "Fire Suppression and Related Services at LANL" when issued.

Responsible Organization: LANL EO-DO (Tony Stanford) and LASO (Bill Gentile)



Funding Source(s): FY10 Operational Budgets for FP-DO (Infrastructure Support), EO-DO (G&A), for the LAFD cooperative agreement (G&A), and LASO

Anticipated Completion Date: Will be recurring.

### **Recommendation 15, LIMITS#2009- 2080**

*LAFD/LANL Exercise and Drill frequency should be increased until there is sufficient confidence by all parties that LAFD responses are acceptable. Emphasis must be placed on nuclear facilities, "Access" and "Setup time", response to facility specific hazards and familiarity with the facility and its operations.*

1. Concurrent with Recommendations 1 and 6, LANL, in concert with LASO, will recommend and request that improvements be made in LAFD pre-incident plans to meet NFPA 1620 expectations for the purpose of improving "Access" and "Set-up" time.

Deliverable: As part of the Recommendation 1 deliverable, FP-DO to issue a memorandum to the LASO emergency management program manager recommending and requesting that improvements be made in LAFD pre-incident plans to meet NFPA 1620 expectations as part of the Cooperative Agreement for the purpose of improving "Access" and "Set-up" time.

Responsible Organization: FP-DO (Jim Streit / Rob Farris)

Funding Source(s): FY10 Operational Budget for FP-DO (Infrastructure Support)

Anticipated Completion Date: 11/2/2009.

2. LANL will continue to support LAFD facility familiarization/walkdown tours in accordance with the annual LAFD Training Plan and Schedule (submitted annually in January). LANL will continue support efforts to formalize the tours as training for LAFD uniformed shift personnel and command staff to include the objectives established in response to the expectations described in the Cooperative Agreement, LAFD touring of facilities is intended to improve pre-incident plan development, comprehensiveness and accuracy, and improve response time through development of facility-specific strategies for fire response.

Deliverable: On-going support and delivery of LANL facility familiarization/walkdown tours in accordance with the annual LAFD Training Plan and Schedule.

Responsible Organization: FP-DO (Jim Streit)

Funding Source(s): FY10 Operational Budgets for FP-DO (Infrastructure Support), EO-DO (G&A), and for the LAFD cooperative agreement (G&A)

Anticipated Completion Date: On-going

3. LASO review of LAFD pre-incident plans for accuracy and completeness as stipulated within the Cooperative Agreement.

Deliverable: LASO review and feedback to LAFD on pre-incident plans in accordance with the Cooperative Agreement.

Responsible Organization: LASO (Bill Gentile)

Funding Source(s): LASO

Anticipated Completion Date: Per the Cooperative Agreement.

- LANL will coordinate LAFD participation in 80% of the required EPHA/Hazmat facilities exercises (Note that proposed FY10 PBI stipulates LAFD participation in at least 10 facility exercises). LANL will request LAFD to establish objectives relating to "Access" and "Set-up" time performance as part of these facility exercises. LANL and LASO will utilize emergency management drills and exercises to test and monitor LAFD pre-incident plans and "Access" and "Set-up" time performance.

Deliverable: LANL and LASO performance of emergency management drills and exercises to test and monitor LAFD pre-incident plans and "Access" and "Set-up" time performance. After-action reports will be utilized to document LAFD performance relative to facility drill and exercise "Access" and "Set-up" time objectives, and establish plans of action for improvement. There may be additional specific actions formulated in response to the final DOE OIG Inspection Report review of "Fire Suppression and Related Services at LANL" when issued.

Responsible Organization: LANL EO-DO (Tony Stanford) and LASO (Bill Gentile)

Funding Source(s): FY10 Operational Budgets for FP-DO (Infrastructure Support), EO-DO (G&A), for the LAFD cooperative agreement (G&A), and LASO.

Anticipated Completion Date: Will be recurring.

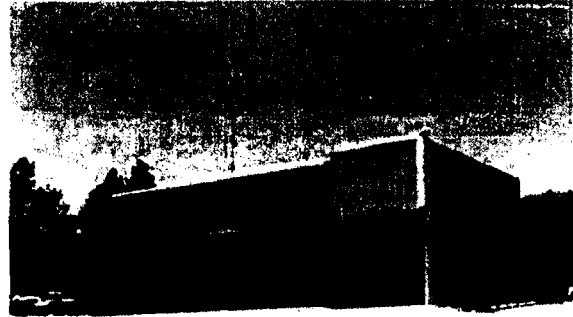
**Title: Fire Station Replacements**

**Site:** Los Alamos National Laboratory

**Program Sponsor:** NA-172 / NA-52

**Mission Area:** Site Infrastructure

**Mission Gap:** The two existing LANL fire stations were constructed in the early 1950's and continue to be operated beyond their useful life. The current facilities are inadequate to house assigned fire apparatus and personnel and do not meet current DOE, NFPA and 10CFR851 standards. The current location of one fire station is not optimal to provide DOE O 420.1B and NFPA 1710 expected response capabilities to the majority of LANL nuclear and moderate-hazard facilities as determined by the most recent DOE O 420.1B-required baseline needs assessment (BNA). New facilities would reduce enduring maintenance costs in these aged facilities (\$400,000 for FY10) and eliminate \$1,500,000 in deferred maintenance investment.



**Fire Station 1 (TA-3-41)**

**Alternatives and Impacts:**

- **No Action:** Increasing enduring facility maintenance costs and deferred maintenance backlog. Continued inadequacy for housing of response personnel and apparatus. Less than adequate emergency response to the majority of LANL nuclear and moderate-hazard facilities.
- **Alternative:** One fire station is being evaluated in FY09 for refurbishment and upgrade for life extension in lieu of replacement to determine cost-benefit of options.
- **Proposed Actions:** Construct two modern replacement fire stations meeting current DOE, NFPA and 10CFR851 expectations optimally located to improve response capability to LANL nuclear and moderate-hazard facilities.



**Fire Station 5 (TA-16-180)**

**Main Benefit:** Effective and compliant emergency response to the majority of LANL nuclear and moderate-hazard facilities. Reduced enduring facility maintenance costs and elimination of the deferred maintenance backlog. Addresses emergency response improvement recommendations contained within the FY2009 BNA for LANL.

**Proposed Timeframe:** FY 2012-2016

**Proposed Cost Range:** \$20-35M