



Department of Energy  
National Nuclear Security Administration  
Washington, DC 20585



March 10, 2009

The Honorable A. J. Eggenberger  
Chairman  
Defense Nuclear Facilities Safety Board  
625 Indiana Avenue, N.W., Suite 700  
Washington, D.C. 20004-2901

Dear Mr. Chairman:

This letter provides an interim response to your letter regarding Fire and Emergency Response Capabilities at Los Alamos National Laboratory (LANL) dated December 8, 2008. You requested both a 90-day and 180-day report on the Cooperative Agreement between Los Alamos County and the National Nuclear Security Administration (NNSA). Both reports were conditioned on the completion of the Baseline Needs Assessment (BNA) in December 2008. However, in accordance with the Cooperative Agreement, the BNA is not scheduled to be completed until March 31, 2009. Therefore, we are able to respond partially to the requested scope for the 90-day report, and we request an extension to the 180-day report.

To address the first element of your 90-day report request, the attached Los Alamos Site Office (LASO) memorandum dated February 24, 2009, transmits those *prudent immediate measures* that have been undertaken to improve fire and emergency response capabilities. These actions include providing emergency responder radiological training, participating in hazardous material exercises, performing facility familiarization tours, updating fire pre-plans, and conducting table-top exercises. Also, LANL increased the minimum on shift-staffing, per the Cooperative Agreement.

For the second element of the 90-day report, the Board requested a *summary of the result of the [latest BNA]*. While the draft BNA is available, it is not scheduled to be finalized and submitted for LASO approval until March 31, 2009. It would be premature to summarize a draft document for inclusion in this report before it is fully vetted and finalized. The NNSA will transmit the BNA summary to the DNFSB by June, 2009, as well as a discussion on how the Cooperative Agreement will address the capabilities identified in the BNA.

For the third element of the 90-day report, the Board requested information on the *strategy and schedule for achieving the necessary fire and emergency response capabilities*. Upon completion of the revised BNA, LANL intends to develop a Plan of Action (POA) to implement BNA recommendations. The Plan will include lessons learned from drills and exercises, verification of drill effectiveness, and the formal



tracking of identified issues. Additionally, LANL has recently increased staffing and reorganized the Fire Protection Division to improve management of corrective actions, improve fire fighter training, and strengthen fire department contract management.

Finally, the Board requested that the 180-day report provide detailed plans, schedules, funding sources, and progress for fully implementing the revised BNA. As discussed above, the BNA is not final. Therefore, we request that the due date for the second report be extended to September 25, 2009, approximately 180-days from when the BNA will be available.

If you have any questions, please contact Mr. James McConnell, Director, Office of Safety, at (202) 586-4379.

Sincerely,



William C. Ostendorff  
Principal Deputy Administrator

Enclosures

cc: M. Whitaker Jr., HS-1.1

# memorandum

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

DATE: FEB 24 2009  
REPLY TO: SO: 25BG-48872  
ATTN OF:  
SUBJECT: Los Alamos National Laboratory (LANL) Fire and Emergency Response Improvements

TO: William C. Ostendorff, Deputy Administrator for Defense Programs (Acting), NA-10, HQ/FORS

Reference:

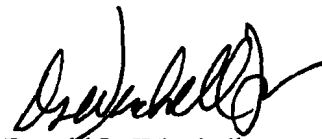
- 1) Cooperative Agreement No. DE-FC52-07NA28090/A000, *Provide Fire Department Services for the Protection of Los Alamos National Laboratory and Los Alamos County*, dated September 30, 2008

In a letter dated December 8, 2008, the Defense Nuclear Safety Board (DNFSB) expressed concerns regarding the alignment the Los Alamos County Fire Department services with the unique fire protection needs at Los Alamos National Laboratory (LANL). Los Alamos Site Office (LASO) believes that the referenced Cooperative Agreement establishes a framework to address those needs and improve fire and emergency response capabilities at LANL.

As requested by the DNFSB, the attachment provides the LANL response to two of the three 90-day reporting requirements. Also attached is a summary of improvements in LANL response capabilities that are complete or underway. Regarding the third DNFSB reporting requirement, which asks for a summary of the latest Baseline Needs Assessment (BNA), LASO has received initial drafts of the BNA and found them unfinished. The BNA will be finalized by March 31, 2009, in accordance with the Cooperative Agreement. LASO will submit the associated response to this particular request by May 29, 2009.

The DNFSB letter also requested a detailed report regarding implementation plans schedules, funding sources, and progress towards fully implementing the BNA. LASO believes the date of September 25, 2009, will allow for an accurate response to this request and requests NA-10 to communicate that commitment to the DNFSB.

Please refer any questions to C. Keilers at (505) 665-6352 or W. Gentile, (505) 667-5828.



Donald L. Winchell, Jr.  
Manager

Attachment

cc: w/Attachment  
S. Steele, NA-1, HQ/FOR  
L. Walker, NA-43, HQ/GTN  
R. Snyder, OOM, LASO  
C. Keilers, FO, LASO  
J. Vozella, SO, LASO  
B. Gentile, SO, LASO  
F. Bell, FO, LASO  
B. Broderick, DNFSB, LASO  
R. T. Davis, DNFSB, LASO  
R. McQuinn, AD-NHHO, LANL, MS-K778  
M. Lansing, AD-SS, LANL, MS-G729  
J. Streit, ESHQ, LANL, MS-K491  
R. Farris, OS-FP, LANL, MS-K493  
A. Stanford, EO-DO, LANL, MS-C938  
Records Center, LASO  
Official Contract File, LASO

## **Attachment (1): Summary of Actions to Improve Fire and Emergency Response Capabilities at Los Alamos National Laboratory (LANL)**

### Actions Taken and Underway:

- Los Alamos Fire Department (LAFD) has increased minimum on-shift staffing to 37, of which at least 12 are at Station 1 (LANL main administrative area) and five are at Station 5 (S-Site), per the Cooperative Agreement. LAFD will have a reserve force available of seven, including one paramedic, except under extraordinary circumstances and with NNSA Los Alamos Site Office approval.
- In 2007, LANL provided LAFD with emergency responder radiological training, including formal examination and evaluated exercises/drills.
- Within the last year, LANL Emergency Operations has coordinated and LAFD has participated in nine hazardous material exercises, including at nuclear facilities (i.e., TA-55, WETF, TA-54, CMR, RLWTF, and WCRR).
- Within the last year, LANL and LAFD have expanded facility familiarization tours and engaged in pre-plan development at LANL facilities. LAFD has participated in 24 tours/walk-downs in TA-55, 5 tours at CMR, 12 tours at CMRR, and two tours per month of other facilities. Pre-planning and facility walk-downs continue.
- Within the last 3 years, LANL and LAFD have conducted about a dozen table-top exercises to ensure roles and responsibilities are understood. LANL is establishing and LAFD will participate in an exercise committee that will meet quarterly and plan upcoming exercises and identify LAFD support needs.
- A number of recommendations from the 2004 Baseline Needs Assessment (BNA) have been addressed (see LANL attachment). Per the Cooperative Agreement, an updated LANL-specific BNA will be finalized by March 31, 2009.

### Near-term Actions to be completed:

- On February 23, 2009, LANL will begin multiple-week training of LAFD personnel on radiation protection, initial on-site response, handling a contaminated patient, and transferring from a contaminated area, per the 2008 Cooperative Agreement.
- In March 2009, LANL Central Training and LAFD will prepare job-task analyses of LAFD duties and will develop a qualification card and training plan. LANL and LAFD will develop and deliver drills and practical exercises.
- During May, LANL and LAFD will conduct additional proficiency drills.



***Security and Safeguards Directorate***

P.O Box 1663, MS G729  
Los Alamos, New Mexico 87545  
505-667-4875/Fax 505-665-3810

*Date:* February 19, 2009  
*Refer To:* ADSS: 09-031

U.S Department of Energy  
Los Alamos Site Office (LASO)  
Attn: Joe Vozella  
Assistant Manager, Safety Operations  
528 35<sup>th</sup> Street, MS A316  
Los Alamos, NM 87544

**Thru: Robert L. McQuinn, Associate Director, Nuclear and High Hazard Operations**

**SUBJECT: Response to Los Alamos Site Office Memorandum (SO:25BG-001) dated January 21, 2009.**

**Dear Mr. Vozella:**

Attached is Los Alamos National Laboratory's (LANL) revised response to the information based on feedback from the Los Alamos Site Office (LASO) as requested in the subject memo.

Respectfully,

  
Michael Lansing  
Associate Director for Security and Safeguards

Attach: a/s

Distribution:

M. Mallory, PADOPS, MS A102  
R. McQuinn, ADNHHO, MS K778  
J. Streit, ADNHHO, MS K491  
W. Gentile, SO, LASO, MS C938  
T. Stanford, EO-DO, MS C938  
J. Killeen, PS-DO, MS G729  
R. Farris, OS-FO, MS K493

## Attachment 1

### Response to Los Alamos Site Office Memo SO-25BG-001

Provided is the Los Alamos National Laboratory (LANL, or the Laboratory) response to the Los Alamos Site Office (LASO) Memorandum (SO:25BG-001) dated January 21, 2009. The subject memorandum directs the Laboratory to respond to bullets one and three of the Defense Nuclear Facility Safety Board (DNFSB) letter dated December 8, 2008. These two bullet points represent concerns that the DNFSB has regarding the fire and emergency services provided at the Laboratory.

#### RESPONSE TO BULLET ONE

Bullet one of the DNFSB letter asks that the National Nuclear Security Administration (NNSA) provide the *"prudent immediate measures to be taken to begin improving the identified weaknesses in fire and emergency response capabilities prior to fully implementing the updated Baseline Needs Assessment."*

#### Training Program Development

In response to bullet one, the Laboratory formed a small working group comprised of LANL and NNSA Subject Matter Experts (SMEs), and, in concert with Los Alamos Fire Department (LAFD) leadership, discussed the prudent steps to be taken to bring response capabilities for nuclear and high-hazard facilities to an acceptable level. To integrate the efforts of the working group, the Laboratory's Central Training organization has now become involved and will provide training development and presentations, in addition to benchmarking with other NNSA/DOE sites to compare training needs. And in order to expedite the development process, training materials from other NNSA/DOE sites may be utilized in the interim. These actions are being taken in response to the deliverable cited in the recently signed Cooperative Agreement (CA) with Los Alamos County that calls for the establishment of training requirements for the enhanced Fire Department Services provided by LAFD.

Laboratory fire protection and training SMEs have partnered with the LAFD training staff to:

- (1) Develop an updated training plan that will address LAFD response to LANL emergencies
- (2) Provide specialized training, including Radiation Emergency Assistance Center/Training Site (REAC/TS), for uniformed responders and command personnel responding to emergencies at nuclear and high-hazard facilities
- (3) Continue to provide LANL-required training, such as General Employee Training and Security course, as well as site-specific training at high-hazard and nuclear facilities.

(4) Expand and formalize the LANL facility familiarization tours of LAFD firefighters.

To meet the training expectations established by LASO, LANL intends to use and modify existing training classes, and hire credible and expert contractors to deliver training to LAFD under the auspices of the Central Training (CT) Division.

#### **Existing Training**

LANL's CT organization currently provides training to LAFD firefighters for LANL's radiation hazards. This Emergency Responder Radiological Training (ERRT) training includes classroom training (~6 hours); a formal examination (up to 3.5 hours, but normally completed in less time); and a hands-on, evaluated practical exercise (~3.5 hours). The classroom training and subsequent exam does address:

- Fundamentals of radioactivity, radioactive material, and radioactive contamination;
- Biological risks to the exposed population;
- Personnel monitoring programs used in terms of purpose, types, and worker responsibilities;
- Methods used to keep doses as low as reasonably achievable (ALARA);
- Methods used to control the spread of radioactive contamination;
- Radiological postings; and
- Radiological emergencies and alarms, and the appropriate response to each.

Monitoring addresses the use of personal radiation monitors used in emergency response situations, and the emergency procedures section includes roles, responsibilities, and operational requirements for LAFD. The practical evaluation includes:

- The proper use of the Ultra-Radiac radiation monitor,
- Proper doffing procedures for potentially contaminated fire protection gear, and
- Contaminated patient handling (referred to as "strip-and-ship").

The evaluation is currently being revised to include the establishment of contamination control perimeters and other core functions in the absence of health physics support. The ERRT course was first delivered on 6/19/1998 and was delivered again two years later to meet the biannual training requirement. Individual sessions of ERRT were delivered for a number of years to meet the needs of new hires, but full retraining was not conducted again until 2007. Table 1 provides training completion statistics for LAFD staff.



**Table 1**

**LAFD Training Completion Statistics**

	All	Currently Active
<b>Classroom</b>	193	184
<b>Exam</b>	266	256
<b>Drill</b>	77	75

### **Radiological Contamination Practical Training**

LANL will begin training LAFD uniformed responders and command personnel the week of February 23, 2009. The training will focus on:

- LAFD competencies in basic radiation protection concepts using monitoring equipment;
- Initial on-site response actions including perimeter setting; and
- Handling a contaminated patient, and transferring from a contaminated zone to an uncontaminated zone.

The February training will serve as the first class delivered in response to the LASO LAFD Cooperative Agreement letter directing LANL to train the LAFD (SO:14BG-011). All training and course materials will also be reviewed and concurred by the LANL Fire Marshal.

CT is coordinating with LANL's Radiation Protection (RP) Division and the LAFD to provide radiological contamination practical training. This course will provide hands-on exercises that address:

- Purpose and goals of the enhanced training program,
- Establishment of contamination control perimeters in the absence of health physics support,
- Radiation monitoring,
- Contaminated patient handling, and
- Patient hand-off from contaminated to uncontaminated areas.

Training will commence on February 23, 2009 and will be completed in 3 - 4 weeks. LAFD will continue with regular proficiency training on individual drill activities. During mid May, CT, RP, and LAFD will conduct second proficiency drills to address:

- Self-contained breathing apparatus (SCBA) bottle changes under potentially contaminated conditions,
- Protective gear doffing, and
- LAFD roles and responsibilities in the absence of health physics support.

## **Formal Qualifications and Training Plan**

CT will coordinate with LAFD to conduct a complete job-task analysis of LAFD Laboratory duties and responsibilities and will develop a formal qualification standard and a training plan (completion due date: March 2, 2009). CT will work with LAFD and RP to create and deliver practical exercises which will address:

- Purpose and goals of the enhanced training program;
- Handling of contaminated patients;
- Establishment of perimeters;
- Hand-off of personnel, patients, and equipment between contaminated and non-contaminated zones; and
- Radiation monitoring instrumentation.

Subsequent training will follow the established training plan.

## **Exercise Participation**

In the past year, the Laboratory's Emergency Operations (EO) Division has coordinated with LAFD personnel to have them participate in nine required hazardous material, facility-operations-based exercises at the following facilities: the Dual Axis Radiographic Hydrodynamic Test (DARHT); Weapons Engineering Tritium Facility (WETF); TA-55 (Plutonium Facility); Gas Plant; TA-54 Drum Prep; Chemistry and Metallurgy Research (CMR); Radiological Liquid Waste Treatment Facility (RLWTF); the Beryllium Technology Facility; and Waste Characterization, Reduction, and Repackaging (WCRR). Table 2 describes the total number and type of facility exercises performed. The majority of these exercises directly involve LAFD.

The Laboratory has also recognized the need for closer collaboration with LAFD at two (2) of our most concerned facilities. Such collaboration has included:

- Annual participation, both in planning and responding to TA-55 and CMR annual evacuation exercises.
- Participation in as many as 12 tabletop exercises with varying formats over the last three years. Immediately following the 2007 full-scale exercise, a tabletop exercise was conducted using the 2007 full-scale exercise scenario in order to ensure a clear understanding of roles, responsibilities, and methodology associated with managing contaminated victims. Other tabletops included nighttime responses to TA-55, Interim Radiography Operations (IRO) tunnel, fire scenarios, criticality events, etc. Several of these tabletops included management of contaminated victims.
- At least two responses to exercises at the IRO tunnel.
- Response to as many as six drills associated with the now removed temporary TA-18 relocation facility.

LAFD has participated in multiple EOD-sponsored tours and pre-incident-plan (PIP)-driven walk-downs at Laboratory hazardous and non-hazardous material facilities in the past year. These include the following tours/walk-downs:

- 12 scheduled tours to accommodate three shifts at five stations at the CMR Replacement facility,
- 24 tours and walk-downs at TA-55,
- 5 tours at the CMR facility,
- Regular PIP-driven walk-downs throughout the year at TA-55 and CMR,
- Up to two tours per month at the Laboratory's Infrastructure and Facilities Central Services Facility Operations Division (FOD),
- 13 PIP-driven walk-downs at the Science and Technology Operations FOD,
- 4 tours at the Environmental and Waste Management Facility Operations FOD, and
- 11 PIP-driven tours at the Los Alamos Neutron Science Center (LANSCE).

EO Division will continue to work with LAFD to ensure the pre-incident plans and facility tours are scheduled and completed. As noted earlier, there will also be increased emphasis on establishing facility familiarization walk-downs with LAFD personnel.

The EO Division will continue to engage LAFD in the planning and response to exercises. A formal Laboratory exercise committee, which will meet quarterly beginning in the second quarter of FY 2009 and will include a representative from LAFD, is being assembled. These meetings will ensure that LAFD is kept apprised of upcoming exercises and support needed for those exercises.

For exercises in which the scenario would require LAFD to respond, Laboratory exercise planners will request that a representative from LAFD serve on the design team and provide objectives and technical information relevant to the scenario and that they serve as the point of contact for coordinating exercise activities with LAFD (e.g., coordination of personnel and equipment needed to realistically respond to the exercise scenario). Attachment 2 is an example of a letter to LAFD personnel requesting their participation in the second quarter FY09 planned LANL facility exercises.

### **RESPONSE TO BULLET THREE**

Bullet three of the DNFSB memorandum further directs NNSA to *"provide the strategy and schedule for achieving the necessary fire and emergency response capabilities."*

#### **Baseline Needs Assessment**

A Revision to the 2004 Baseline Needs Assessment (BNA) is currently under way. Upon completion and acceptance of the BNA revision, a Plan of Action will be developed and

commitments executed. This includes incorporating lessons learned from previous drills and exercises, and then scheduling more drills to verify effectiveness of previous lessons learned. All will be tracked via the Los Alamos Issues Management Tracking System (LIMTS).

In addition to the summary provided above, it's important to note that many recommendations from the 2004 BNA have been closed, or actions have been taken to minimize impact. Of particular note are the following:

- Recommendation 14.2-1: "improved alarm tracking and trending capabilities." The Central Dispatch Center is operating the Intergraph computer-aided dispatch system, which was selected by NNSA for this specific purpose.
- Recommendations 14.2-2 and 14.2-4: "replace Fire Station 3" and "relocate a pumper to Fire Station 3 to implement NFPA 1710." Fire Station 3 has been replaced with a modern station and now houses multiple apparatus' and additional personnel. Currently, a pumper, a ladder truck, and an ambulance are operational at Station 3.
- Recommendation 14-2.3: "increase minimum staffing from 28 to 45 per shift." The CA now requires a minimum of 37 on-duty personnel. Of these 37, at least 12 must be assigned to Station 1 and 5 to Station 5. The CA also stipulates that, except in extraordinary circumstances and with approval from the Site office, a reserve force of 7 personnel (including 1 paramedic) will always be available for response to the Laboratory.
- Recommendation 14.3.1: "transition to a joint fire and police communications center." This has been accomplished, and the dispatch function for both police and fire is combined at the LANL EOC/Central Dispatch Center.
- Recommendation 14.3-2: "The assessment team recommends repair or installation of remote alarm annunciation equipment for the DACS Head End equipment in Fire Stations 1, 3, 4, 5, and 6." DACS monitoring equipment was installed as recommended.
- Recommendation 14.2-5: "The assessment team recommends LAFD upgrade EMS service to paramedic level throughout the service area, deployed in a manner consistent with NFPA 1710 response time objectives." The CA now mandates that at least one paramedic-level EMT will remain available for response to District 1, and no later than January 1, 2011, a paramedic level EMT will be assigned to Station 5.
- Recommendation 14.5-2: "The assessment team recommends that the LANL wildland fuels management and mitigation programs continue to reduce the potential for significant wildfires with the Laboratory and County." To date, mitigation activities

continue within the Laboratory's boundaries. Mitigation programs include active thinning to reduce fuel density, maintaining fire roads and breaks, and making continuous improvements to wildland fire-suppression operations.

- Recommendation 14.6-1: "The assessment team recommends implementation of a comprehensive fleet management program for the emergency response apparatus, including maintenance program management and life cycle – replacement program." A fleet management program (Fleet Pro) has been established by the former Support Services Subcontractor and is currently being utilized. Vehicle replacement is currently under negotiation between LASO and Los Alamos County.

### **Fire Protection Program Management**

As part of a longer-term strategy, the Laboratory is taking the following steps to improve fire and emergency response capabilities:

- 1) The fire protection function is being organized into a new Fire Protection Division that will organizationally house three new functions:
  - Fire deficiency corrective action management,
  - Fire fighter training program, and
  - Los Alamos County Fire Department contract management.
- 2) These new functions will be combined with the existing functions of the Fire Protection Group:
  - Fire protection engineering,
  - Fire SMEs and program support to the Laboratory,
  - Fire hazard analysis,
  - Project support,
  - Lab-wide fire alarm system oversight and maintenance, and
  - Fire inspection services.

**Table 2**

**October 2008 through January 2009 Hazardous Materials Facility Exercise Summary**

Facility Name and Date of Exercise	Scenario Synopsis	Functions Tested	Performance Summary	Opportunities for Improvement Identified
<p>March 31, 2008 DARHT Facility Exercise</p>	<p>An extension cord overheats and causes a fire. An employee injures his leg while he is evacuating the area of the fire.</p>	<p>Notifications and communications, evacuation and accountability, interface between the facility and on- and off-site emergency responders, emergency medical support.</p>	<p>Facility personnel made all required notifications and evacuated to their muster area and completed accountability. TA-15/DARHT Access Control did not provide information about the extent of the employee's injury to 911 dispatch. LAFD would have preferred to receive information about the type of injury prior to rolling out response.</p>	<p>Develop a TA-15 Access Control emergency checklist to ensure critical information is identified (e.g., extent of injuries, need for ambulance, etc.) This information will be used to inform 911 dispatch in order to ensure responders are preparing for the appropriate response while en route to the incident.</p>
<p>May 20, 2008 WETF Facility Exercise</p>	<p>Tritium release and an injured employee.</p>	<p>Notifications and communications, evacuation and accountability, categorization and classification of the event, emergency medical support.</p>	<p>Facility personnel made all required notifications and evacuated to their muster area and completed accountability. Facility personnel communicated to the Laboratory's Emergency Management (EM) and LAFD the tritium release, and the injured worker. LAFD requested more information on the release conditions of tritium and how a tritium release would affect their response to the facility.</p>	<p>Reassess the responders' stand-off location for the potential of tritium contamination.</p>

Facility Name and Date of Exercise	Scenario Synopsis	Functions Tested	Performance Summary	Opportunities for Improvement Identified
<p>May 21, 2008 TA-55 Interim Radiography Operations (IRO) Readiness Assessment Exercise</p>	<p>IRO tunnel modulator fire with an injured missing worker.</p>	<p>Facility and on- and off-site response to a fire, the ability to interact and respond to an emergency according to the National Incident Management System (NIMS) and the Incident Command System (ICS), notifications and communication, accountability, emergency facilities and equipment, emergency medical support.</p>	<p>Facility personnel demonstrated the capability to assess the emergency and to remain focused on strategic actions. Interaction between the facility and response organizations was conducted in accordance with NIMS and ICS. The facility demonstrated the capability to use existing plans and procedures to respond to an emergency situation until response agencies arrive. Facility personnel effectively managed patient care until LAFD arrived. Due to an apparent miscommunication unnecessary delays were observed during the response to the reported fire and injured patient.</p>	<p>TA-55 will develop a IRO "responder's guide" that will include response protocol during working hours and non-working hours.</p>
<p>May 22, 2008 Gas Plant Facility Exercise</p>	<p>Release of anhydrous ammonia and an injured worker.</p>	<p>Notifications and communications, evacuation and accountability, interface between the facility and on- and off-site emergency responders.</p>	<p>Facility personnel evacuated the facility and conducted accountability, personnel contacted EM and LAFD and requested a response given the presented scenario, facility personnel provided the response agencies a briefing on the current hazards and the injured worker. Facility personnel notified facilities downwind of the material release (protective actions were simulated.)</p>	<p>None related to EM or LAFD.</p>

Facility Name and Date of Exercise	Scenario Synopsis	Functions Tested	Performance Summary	Opportunities for Improvement Identified
June 25, 2008 TA-54 Remote Drum Venting Operations Exercise	Drum deflagration and an injured employee.	Notifications and communications, evacuation and accountability of facility personnel, interface between the facility and on- and off-site emergency responders.	Remote drum venting personnel immediately assisted and tended to the injured employee, there was effective segregation of potentially contaminated personnel and "clean" personnel, facility personnel evacuated up wind from the incident, Radiological Control Technician (RCT) monitoring of personnel was effective, field communications to the TA-54 Operations Center was clear, concise, and prompt.	None related to EM or LAFD.
July 1, 2008 CMR Facility Exercise	CMR basement corridor electrical substation fire.	Notifications and communication, evacuation and accountability, emergency facilities and equipment, emergency medical support, protective action guidance.	The facility demonstrated the capability to assess the emergency and to remain focused on strategic actions, the facility used existing plans and procedures to respond to an emergency situation until response agencies arrived, response agencies discussed necessary protective action recommendations that would be necessary in order to maintain the highest level of staff protection and the notifications necessary to protect personnel who could be affected by a release from the facility. If the CMR operations center was evacuate, response organizations would not have a point of contact to determine pre-arrival conditions. The Facility Incident Commander was not immediately identifiable to the responding LAFD Chief.	Install rollover capability on the CMR operations center phone should it have to be evacuated. Provide the operations center with radios capable of communicating directly with LAFD. Work with LAFD officials in order to determine appropriate course of action in ensuring a facility liaison is available to the LAFD responders—this may mean that a liaison position needs to be established as part of the facility incident command staff.



Facility Name and Date of Exercise	Scenario Synopsis	Functions Tested	Performance Summary	Opportunities for Improvement Identified
July 30, 2008 RLW Facility Exercise	An operator hears an unusual noise from the acid transfer pump. As the operator approaches the pump to investigate, the pump discharge seal fails, spraying acid waste onto the operator and surrounding area. The operator experiences an intense burning sensation in his eyes.	Notifications and communication, evacuation and accountability, emergency facilities and equipment, emergency medical support, protective action guidance.	Personnel contacted 911 dispatch to report the injured worker, facility personnel requested EM and the Laboratory Hazmat team to respond to the incident, personnel evacuated the area of the incident and conducted accountability. The facility leader did not provide LAFD with facility status information because he was unaware that he needed to approach the LAFD command vehicle.	Train facility personnel on the interface with emergency responders (e.g., communicating facility information to LAFD.)
October 29, 2008 BTF Facility Exercise	Lightning strikes the high pressure gas atomizer.	Notifications and communications, evacuation and accountability, interface between the facility and on- and off-site emergency responders, protection action guidance, categorization and classification.	Personnel evacuated the facility and conducted accountability, facility residents communicate to the facility leader any concerns regarding the facility and its operations, EM determined immediate protective actions and categorized and classified the incident.	None related to EM or LAFD.
January 12, 2009 WCRR Facility Exercise	Personnel are using a forklift to move drums into TA-50 building 69. During this movement activity, a single drum is dropped and catches on fire. A hydraulic leak from the forklift causes a pool fire impacting the staged material.	Notifications and communications, evacuation and accountability, interface between the facility and on- and off-site emergency responders, protection action guidance, cat/class	The After Action Report is in progress.	The After Action Report is in progress.



Attachment 2

**Emergency Operations Division**

PO Box 1663, MS C938  
Los Alamos, New Mexico 87545  
505-665-5597/Fax 505-667-7770

Date: January 20, 2009  
Refer To: EO-DO:09-008

Chief Doug MacDonald  
Los Alamos County Fire Department, MS M994  
196 East Road, STE 101  
Los Alamos, NM 87532

**References:**

- 1) Cooperative Agreement No. DE-TC52-08NA28090 "Los Alamos County and the Department of Energy, National Nuclear Security Administration"
- 2) SO:14BG-011 Letter from LASO to LANL "Los Alamos National Laboratory's Role and Responsibility with Respect to the Los Alamos County Cooperative Agreement Regarding Fire Department Services"

**Chief MacDonald:**

Per section IV of Reference (1) and item number five of Reference (2), the Los Alamos National Laboratory is providing Los Alamos County Fire Department a list of nine exercises scheduled for the second quarter of the Fiscal Year 2009. LANL is requesting LA Fire Department's participation in the following exercises:

- TA-54 Area G Facility Operations-Based Exercise, Wednesday, February 25, 13:30
- TA-03-0066 Sigma Facility Operations-Based Exercise, Wednesday, March 4, 14:00
- TA-15 DARHT Facility Operations-Based Exercise, Wednesday, March 11, 12:30
- EOC/TA-21 MDA-B Functional/Facility Operations-Based Exercise, Wednesday, March 17, 09:00
- TA-03 Tech Shops Facility Operations-Based Exercise, Wednesday, March 18, 14:00
- CMR Tabletop Exercise, Wednesday, March 31, 09:00

Each exercise will be planned and coordinated with an exercise design team. The design team will include a representative from each participating organization. This representative will become a trusted agent and cannot participate as a player in the exercise. Design team meetings are currently being scheduled for the exercises listed above. You will be contacted with the dates and times for each design team meeting. Also, you will be promptly notified if there are any changes to the schedule.

Should you have any questions, please contact Monique Sanchez at 667-6211 or via email at [moniques@lanl.gov](mailto:moniques@lanl.gov).

Sincerely,

Tony Stanford, Emergency Operations Division Leader