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Mitigation Action Plan

for the
Nuclear Facility Portion of the Chemistry and Metallurgy Research Building Replacement Project at Los Alamos National Laboratory, Los Alamos, New Mexico

Department of Energy
National Nuclear Security Administration
Los Alamos Site Office
Los Alamos, New Mexico

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Background Information: The U.S. Department of Energy (DOE), National Nuclear Security Administration (NNSA) has issued a Final *Supplemental Environmental Impact Statement for the Nuclear Facility Portion of the Chemistry and Metallurgy Research Replacement Project at Los Alamos National Laboratory, Los Alamos, New Mexico* (DOE/EIS 0350-S1; the Final CMRR-NF SEIS), on a proposal to construct and operate the nuclear facility portion of a replacement facility for the existing Chemistry and Metallurgy Research (CMR) Building at Los Alamos National Laboratory (LANL). Based on the analysis of potential environmental impacts presented in the Final CMRR-NF SEIS, the NNSA issued its decisions regarding the CMRR-NF in a Record of Decision (ROD) which was published on October 18, 2011, in the Federal Register (76 FR 64344). NNSA's decision was to implement the Modified CMRR-NF Alternative.

As described in the Final CMRR-NF SEIS, the CMRR-NF would be constructed at Technical Area-55 (TA-55) at LANL adjacent to the existing CMRR Radiological Laboratory/Utilities/ Office Building (RLUOB). The construction activities would involve the use of ancillary locations for equipment laydown areas, parking areas, concrete batch plants, spoils storage sites, stormwater detention areas, warehousing, and similar related construction-required sites. The Modified CMRR-NF Alternative is described in detail in Section 2.6.2 of the Final CMRR-NF SEIS.

Environmental Effects: The impact analysis in the Final CMRR-NF SEIS indicates that potential adverse effects of the subject project would be minimal under normal conditions. The analysis of environmental effects of the Modified CMRR-NF Alternative nonetheless identifies mitigation measures for land use, visual resources, site infrastructure (potable water use and electricity use), air quality, noise, surface water quality, ecological resources, cultural resources, waste management and pollution prevention, and construction traffic.

Function of the Mitigation Action Plan: This Mitigation Action Plan (MAP) describes mitigation and monitoring commitments for constructing and operating the Modified CMRR-NF. The commitments made in this MAP are designed to mitigate potentially adverse environmental consequences associated with the CMRR-NF Project as the CMRR-NF is constructed and operated, and as direct, indirect, and cumulative impacts from these actions occur over time. Adaptive resource management practices are generally applied to projects or programs during the design, management, implementation, and monitoring stages. The intent of this approach is to

systematically monitor impact assumptions as the actions progress. Changes may be made to project activities to ensure the efficacy of the mitigation techniques in an iterative fashion.

Mitigation Action Plan Annual Reporting: The Final CMRR-NF SEIS includes a general discussion of mitigation measures in Section 4.7 of that document. This MAP is being issued as a stand-alone document to facilitate its implementation. After issuance, the mitigation measures committed to in this MAP will become part of the overarching *2008 Site-Wide Environmental Impact Statement for the Continued Operation of Los Alamos National Laboratory (DOE/EIS 0380) Mitigation Action Plan* (LANL SWEIS MAP). Beginning in 2012, annual reporting of the mitigation activities taken for CMRR-NF construction activities and their implementation status (as well as their effectiveness for accomplishing the intended mitigation of adverse effects) will be part of the LANL SWEIS MAP Annual Report (MAPAR) or other annual reporting documents with prior NNSA approval (such as the annual LANL Environmental Surveillance Report or the LANL SWEIS Yearbook[1]). The LANL SWEIS MAP will be updated as details of the specific mitigation activities required for these subject activities are further developed, or as additional mitigation actions are identified as being necessary. NNSA may amend the LANL SWEIS MAP when necessary to address changing needs, or in response to changing site conditions.

This MAP, the LANL SWEIS MAPAR, and related CMRR-NF SEIS documentation will be made available at the following websites:

- http://energy.gov/nepa/mitigation-action-plan
- http://www.lanl.gov/environment/nepa/sweis.shtml?2
- http://www.doeal.gov/laso/NEPADocuments.aspx

Responsible Parties: The NNSA's Los Alamos Site Office (LASO) Manager will ensure adequate and timely completion of all activities associated with this MAP. The LANL Principal Associate Directors for Capital Projects (PADCAP) and Operations & Business (PADOPS), as Los Alamos National Security, LLC (LANS[2]) representatives, will share the responsibility for work assignments for conducting the mitigation measures performed by LANS or subcontractors, and for conducting project-specific activities identified for the CMRR-NF Project. This responsibility includes certain data collections, monitoring activities, and other actions that may be split between various LANL Associate Directors and/or Divisions.

Mitigation Activities: The mitigation activities identified in the following table address all phases of the CMRR-NF Project, as well as CMRR-NF operations. Because some mitigation activities apply to more than one phase of the project, the tasks associated with each activity may be implemented in an iterative fashion over time at the discretion of the responsible parties. As

[1] The LANL SWEIS MAP Annual Report is presented as part of the LANL SWEIS Yearbook, which is posted annually online at the following website: http://www.lanl.gov/environment/nepa/sweis.shtml?3

[2] LANS is the current management and operations contractor for LANL.

mitigation activities are completed and deemed successful in meeting the mitigation goals, the activities shall be identified as closed. The NNSA may initiate certain mitigation measures or required permitting actions in advance of the project, as appropriate. As the project activities progress, additional requirements and mitigation measures may be triggered (e.g., if cultural resources are encountered during land excavation; or if federally protected threatened or endangered species move into any of the work areas or if additional species become listed for protection and must, therefore, be taken into consideration). NNSA recognizes the obligation to comply with such laws and other requirements although they may not specifically be referenced in the following table. **The provisions of this MAP will be effective immediately upon its issuance.**

Affected Environmental Area of Concern	Mitigation Action	Purpose	Party Responsible for Implementing Action	Status
Land Use	Restore temporary-use areas after construction or when use is complete. Protect the integrity of the excavated materials at the spoils storage sites.	To minimize negative impacts to native vegetation and wildlife. To ensure the excavated materials can be reused as clean fill elsewhere at LANL.	LANS	Open
Visual Resources	Reduce night-time light pollution from lighting CMRR-NF Project parking areas.	To minimize impacts to the environment associated with night time lighting effects on wildlife both in terms of nuisance attraction and undesirable wildlife habit modifications.	LANS	Open

Affected Environmental Area of Concern	Mitigation Action	Purpose	Party Responsible for Implementing Action	Status
Site Infrastructure - Potable Water Use	Reduce potable water use during construction and operation of the CMRR-NF. Use treated effluent water in construction activities to the fullest extent possible. Reduce CMRR-NF consumption of potable water during operations to the extent practicable.	To minimize negative impacts to the LANL-area potable water supply in light of current and expected long-term area population growth, and dependency on this resource. These reductions of potable water use over the projected levels identified in the Final CMRR-NF SEIS would support compliance with requirements for potable water consumption reduction as required under Executive Order 13514.	LASO and LANS	Open
Site Infrastructure – Electricity Use	Manage peak electric power demands by planned upgrades and modifications to increase distribution capacity to the NF construction site. This may include adding transmission lines and/or reconductoring the two existing electric transmission lines to increase transmission capacity, or installing a TA-50 substation.	Increase available capacity to manage electric power demands.	LASO and LANS	Open

Affected Environmental Area of Concern	Mitigation Action	Purpose	Party Responsible for Implementing Action	Status
Air Quality	Modify LANL site-wide Title V permit for combustion sources. Decrease construction-related emissions using standard construction emission controls, maintaining equipment for optimal operation, watering exposed soil to control fugitive dust, applying chemical stabilizers, using administrative controls, and using of special equipment, if identified, to further reduce emissions. Obtain pre-construction approval for radionuclide emissions from operating the CMRR-NF.	New Source Review permit compliance NESHAP compliance	LASO and LANS	Open
Noise	On-site workers and site visitors will wear hearing-protection PPE as required. No adverse off-site impacts.	OSHA compliance	LANS	Open

Affected Environmental Area of Concern	Mitigation Action	Purpose	Party Responsible for Implementing Action	Status
Surface Water Quality	All construction and operation activities will be performed under stormwater pollution prevention plans. Mitigation of potential impacts will be accomplished using best management practices and design controls. All fuel and oil spills will be promptly cleaned up.	NPDES compliance	LASO and LANS	Open
Ecological Resources	Restore temporary-use areas after construction or when use is complete. Follow requirements in Biological Assessments, including timing construction to avoid migratory bird breeding seasons, clearly marking work areas to minimize disturbance of adjacent areas, and using BMPs and Nighttime Sky Act-compliant lighting. Subject matter expert consultation with regulators, as needed. Use native plants in landscaping.	Minimize lasting environmental impacts to disturbed areas.	LANS	Open

Affected Environmental Area of Concern	Mitigation Action	Purpose	Party Responsible for Implementing Action	Status
Cultural Resources	Subject matter expert onsite during clearing and grubbing activities to monitor avoidance of known sites and identify new sites, if uncovered. Mitigate sites if required. Work with subject matter experts to re-establish affected portions of the Mortandad Kiva trail to maintain continued limited access to the site. Fence the TA-72 parking perimeter to prevent direct trail access. Subject matter expert consultation with regulators, as needed.	Avoid impacts to cultural resources.	LASO and LANS	Open
Waste Management and Pollution Prevention	Waste will be managed in accordance with LANL procedures and subcontract requirements. Minimize PRS disturbance. Subject matter expert consultation with regulators, as needed.	Compliance and sustainability.	LASO and LANS	Open

Affected Environmental Area of Concern	Mitigation Action	Purpose	Party Responsible for Implementing Action	Status
Construction Traffic • Reduce traffic congestion during peak traffic periods • Reduce parking congestion	Contractually require all construction workers to park commuting vehicles at a CMRR-NF Project designated parking site (most likely on-site at TA-72) and be shuttled by bus to the construction locations along Pajarito Road. To the extent possible, require CMRR-NF Project truck hauling traffic to be staggered throughout the day during non-peak traffic times and at night to the extent possible. Construct the designated parking site at TA-72 and restrict its use to CMRR-NF construction workers, which would free up other parking areas at LANL for non-CMRR-NF Project worker use. Prohibit CMRR-NF Project delivery truck parking along the highway right-of-way in the vicinity of the Tsankawi Unit of Bandelier National Monument. Equip the safety lighting at the dedicated TA-72 CMRR-NF parking lot with timers to turn the lights off at night when not required for worker safety.	To minimize impacts to the environment associated with daytime traffic congestion, parking congestion, and night time lighting effects on wildlife, including nuisance attraction and undesirable wildlife habit modification. Additionally, these traffic mitigation actions would serve to support the continued enjoyable daytime visitor experience at the neighboring Tsankawi Unit of Bandelier National Monument operated by the U.S. Department of the Interior, National Park Service.	LASO and LANS	Open

Signed in Los Alamos, New Mexico, on _____, 2011.

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Kevin W. Smith, Manager
Los Alamos Site Office
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Signed in Los Alamos, New Mexico, on 11/1, 2011.

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