IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF NEW MEXICO

THE LOS ALAMOS STUDY GROUP,

Plaintiff.

v. Case No. 1:10-CV-0760-JH-ACT

UNITED STATES DEPARTMENT OF ENERGY; THE HONORABLE STEPHEN CHU, in his capacity as SECRETARY, DEPARTMENT OF ENERGY; NATIONAL NUCLEAR SECURITY ADMINISTRATION; THE HONORABLE THOMAS PAUL D'AGOSTINO, in his Capacity as ADMINISTRATOR, NATIONAL NUCLEAR SECURITY ADMINISTRATION,

Defendants.

SECOND AFFIDAVIT OF GREGORY MELLO

State of New Mexico)
) ss
County of Bernalillo)

Gregory Mello, under penalty of perjury, hereby declares as follows this 12th day of November 2010:

- I am member and the Executive Director of the Plaintiff, Los Alamos Study Group ("Plaintiff" or "LASG"). I make this affidavit in support of Plaintiff's Motion for Preliminary Injunction.
 - 2. My background and qualifications were described in \P 2-5 of my first Affidavit.
- 3. I make this affidavit to present pertinent facts concerning the following issues relative to defendants' Chemistry and Metallurgy Research Replacement Nuclear Facility ("CMRR-NF" or "Nuclear Facility"):

- A. If a preliminary injunction is not granted defendants will proceed to complete design of, and to construct, the CMRR-NF as quickly as their schedule will allow. Their stated "unequivocal" commitment to a specific Nuclear Facility alternative will enter the full construction stage. Defendants will try to build up equities in favor of the project alternative they have chosen. Defendants seek to bring the CMRR-NF project to such a point that no court would consider delaying its completion to permit NEPA compliance.
- B. If defendants are allowed to proceed now, the resulting impacts to the environment and injuries to plaintiff will be those of the entire proposed action, including construction, operation, and decommissioning or abandonment.
- C. If a preliminary injunction is not granted, there will be irreparable injuries to plaintiff and the environment, both immediate and long-term. These will include:
 - 1. <u>Direct impacts</u> of <u>Nuclear Facility</u> construction;
 - 2. <u>Direct impacts</u> of <u>connected construction projects</u>;
 - 3. <u>Indirect impacts</u> of construction of the Nuclear Facility and connected projects;
 - 4. Operational impacts of Nuclear Facility and connected projects; and
 - 5. Impacts associated with <u>decommissioning or abandonment</u> of the Nuclear Facility and connected projects.
 - 6. Harms to plaintiff, others, and the environment from <u>violation of due process and</u> the informational requirements of the National Environmental Policy Act (NEPA).
- D. Significant resources will be irreversibly committed if a preliminary injunction is not granted.
- A. If a preliminary injunction is not granted Defendants will proceed to complete design of, and to construct, the CMRR-NF as quickly as their schedule will allow.

 Their stated "unequivocal" commitment to a specific Nuclear Facility alternative will enter the full construction stage. Defendants will try to build up equities in

favor of the project alternative they have chosen. Defendants seek to bring the CMRR-NF project to such a point that no court would consider delaying its completion to permit NEPA compliance.

- 4. Plaintiff has demonstrated defendants' commitment to the construction of the CMRR-NF in accordance with their current plans. (Mello Aff. #1: ¶53-74) There is additional evidence:
- a. On October 28, 2010 defendant D'Agostino stated: "...it is critical that we complete the design and construction of key facilities like...the Chemistry and Metallurgy Research Replacement (CMRR) project at Los Alamos."
- b. Progress on the Nuclear Facility is an indicator of whether the LANL management and operating (M&O) contractor, Los Alamos National Security, LLC ("LANS"), will keep its position.² The gross value of LANL's contract is \$2.2 billion for FY2011; this includes nearly all of the funds appropriated for CMRR-NF.³ This contract includes annual renewal options for more than 20 years.⁴ NNSA's Performance Evaluation Plan ("PEP") establishes priorities for LANS. In the PEP, the task of CMRR-NF design is deemed "essential." Even partial failure to achieve "essential" goals jeopardizes renewal of the entire LANS contract.
- c. LANS is NNSA's prime contractor for developing purpose and need, managing, and executing CMRR-NF. LANS' gross income rises in proportion to CMRR-NF cost, which depends on requirements and specifications LANS influences, to the extent those costs do not

¹ D'Agostino, Thomas, Woodrow Wilson Center speech, 28 Oct 2010, http://nnsa.energy.gov/mediaroom/speeches/wilsoncenter102810.

² NNSA, Los Alamos Site Office (LASO), FY2010 LANL Performance Evaluation Plan (PEP), 28 Apr 2010: 40, http://www.doeal.gov/FOIADOCS/RR00486.pdf.

³ NNSA, FY2011 Congressional Budget Request (CBR), Laboratory Tables, 1 February 2010: 41-43, http://www.cfo.doe.gov/budget/11budget/Content/FY2011Lab.pdf.

⁴ NNSA, Management and Operating Contract for LANL, DE-AC52-06NA25396, 21 Dec 2005: 12. http://www.doeal.gov/laso/NewContract.aspx.

⁵ Id. 40

infringe on other LANL programs – a problem the Administration promises to avoid.⁶

d. NNSA is also using cash bonuses to LANS to promote CMRR-NF construction. The FY 2010 PEP calls upon LANS to develop integrated planning to support Pajarito Corridor construction by June 30, 2010.⁷ By that date LANS was to:

Institute...a process to manage the institutional interfaces and resolve issues for TA-50-55 related projects (CMRR, TA-55 Reinvestment, RLWTF, New TRU, and NMSSUP2) that enhance overall site project performance and minimize operational impacts for the next decade.

This calendar year, LANS was to be rewarded for producing tools for planning very specific construction activities for CMRR-NF and connected projects:

- 1. laydown, staging and warehousing;
- 2. concrete batch plant strategy;
- 3. parking and workforce transportation;
- 4. security strategy;
- 5. scope or schedule conflicts;
- 6. master integrated schedule;
- 7. multi-year staffing plan; and
- 8. FY 2011 and FY 2012 budgets.

If LANS met each measure it would receive a \$300,000 cash bonus. Defendants are compensating LANS for proceeding with construction as planned for CMRR-NF and other Pajarito Corridor projects.

e. The specificity of Vice President Biden's "unequivocal commitment" to the Nuclear

⁶ Biden, Jr., Vice President Joseph R., Letter to Senator John F. Kerry, in Senate Foreign Relations Committee report of 15 September 2010: 124-125. http://foreign.senate.gov/download/?id=4C65B25B-F3E8-4CF6-8660-36E21D639ECC.

⁷ NNSA, Los Alamos Site Office (LASO), FY2010 LANL Performance Evaluation Plan (PEP), 28 Apr 2010: 121, http://www.doeal.gov/FOIADOCS/RR00486.pdf.

Facility (Mello Aff. #1: ¶59) is revealed in an exchange with Senator Kyl, the Senate Minority Whip. On August 19, 2010 Kyl wrote to Biden, suggesting that the failure to provide Congress with realistic (higher) cost estimates for CMRR-NF "raises questions about the Administration's long-term commitment" to the project and, therefore, threatens ratification of the New START treaty. Thereafter, the Vice President responded, promising increased financial commitment to the projects "this fall." (Mello Aff. #1: ¶59). Press reports indicate Biden and Kyl will meet within days, or have met, to increase the Administration's commitment to the CMRR-NF.

- f. Essentially all of defendants' design efforts apply only to today's specific CMRR-NF project. By August 2010 defendants had completed "40-45%" of engineering design ¹⁰ and they expect the overall design to advance 15% between October 2010 and June 2011. (Cook Aff. ¶25). Thus, by June 2011 design will be 55% or 60% complete. Preliminary design, let alone the pre-conceptual or conceptual design where NEPA analysis is due (Mello Aff. #1 ¶¶66-69), is past, as defendants advised Congress in February. Then, defendants requested funds for Final Design *only*, ¹¹ meaning detailed design based upon specified project parameters. At this rate of advance final design would be at least two-thirds complete by the end of 2011.
- g. Defendants are now reportedly pursuing "front-end" funding for the multi-billion-dollar CMRR-NF project, a unique financing approach for DOE that would fully commit the federal government at the beginning of construction and wrest yearly funding control from

⁸ Kyl, Senator Jon, letter to Vice President Biden, 19 Aug 2010, http://lasg.org/CMRR/Litigation/MPI/Kyl ltr to Biden 19Aug2010.pdf.

⁹ Jacobson, Todd, "Despite GOP Gains, Admin. Still Urging Lame-Duck 'New START' Vote," *Nuclear Weapons and Materials Monitor*, 8 Nov 2010, http://lasg.org/CMRR/Litigation/MPI/NWMM 8Nov2010.pdf.

¹⁰ Ramos, Derrick, NNSA, email to Katie Matthews, Rep. Markey's office, 6 Aug 2010, http://lasg.org/CMRR/Litigation/MPI/Matthews_Samuels_CMRR_review_6Aug2010.pdf.

¹¹ NNSA, FY2011 Congressional Budget Request (CBR), 1 February, 2010: 221, http://www.cfo.doe.gov/budget/11budget/Content/FY2011Lab.pdf.

Congress. 12

- 5. In mid-2010 defendants anticipated "beginning" construction of the Nuclear Facility "infrastructure package" in approximately April of 2011, with other CMRR-NF project phases beginning construction after that. (Mello Aff. #1 ¶44). (CMRR-NF construction really began in 2006 with the otherwise-unnecessary removal of 90,000 cubic yards of earth. Mello Aff. #1 ¶65) Major construction on the CMRR-NF was never meant to begin at the CMRR-NF site itself, and that is not defendants' plan today. Defendants state they will not begin "excavation or construction" during FY 2011 at the Nuclear Facility excavation site itself (Cook Aff. 21). Excavation at the CMRR-NF site itself requires extensive prior construction of required infrastructure elsewhere, which has already begun to a slight degree as discussed below, and which will increase in 2011 long prior to any site excavation.
- 6. Construction of a parking lot for security perimeter construction workers, and later for future CMRR-NF staff, is already underway on the south side of Pajarito Road. (Oral report from defendants' project personnel, October 20, 2010). The parking lot appears on defendants' CMRR-NF project map and in defendants' 2010 Supplement Analysis (SA); its area is given as 13 acres. In July 2005 the NF site itself was a parking lot. It is a parking lot today. Without CMRR-NF, another parking lot might not be needed.

¹² Jacobson, Todd, "Costly Uranium Processing Facility Also a Necessity, Harencak says; Are Multi-Year Appropriations an Answer to GOP Concerns on Out-Year Funding for Major NNSA Projects?" *Nuclear Weapons and Materials Monitor*, 15 Nov 2010, http://lasg.org/CMRR/Litigation/MPI/NWMM 15Nov2010.pdf

¹³ NNSA, CMRR Nuclear Facility Project Overview LA-UR10-07047, October 2010, http://nnsa.energy.gov/sites/default/files/nnsa/inlinefiles/LA-UR10-07047CMRRNuclearFacilityProjectOverview.pdf; NNSA, CMRR SA:11, http://lasg.org/CMRR/Litigation/MPI/CMRR_predecisional_SA_17Aug2010.pdf; Benson, Jody, Affidavit, 2 Nov 2010, http://lasg.org/CMRR/Litigation/MPI/Benson_Jody_affidavit.pdf

¹⁴ Google Earth, LANL TA-55, image of 30 Jul 2005, http://lasg.org/CMRR/MPI/Litigation/GoogleEarth TA-55_30Jul2005.pdf.

¹⁵ Los Alamos Study Group, CMRR aerial photo, Jan 2009, http://lasg.org/CMRR/Litigation/MPI/CMRR aerial photo Jan2009.pdf.

- 7. Large portions of defendants' Nuclear Materials Safety and Security Upgrades (NMSSUP) Phase II project, under construction since December 2009, are in effect part of the CMRR-NF. A major purpose of NMSSUP is to expand the secure area at TA-55 to include the CMRR-NF. The whole project will cost \$245 million (approximately \$5,200 per inch of final perimeter). Plans for NMSSUP were recently changed to move a 600-foot section 200 feet north, allowing ramp access to the CMRR-NF excavation by construction vehicles and a conveyor for concrete. (SA 14) After construction this section of perimeter will be returned to its original location or nearly so. When the Nuclear Facility is completed, NMSSUP will form a security perimeter around two sides of it.
- 8. Defendants plan to begin full-scale project execution imminently and at a much higher rate than past work. As of September 30, 2010 the government had appropriated \$296 million to this project, over a 9-year period (\$33 million/year). Defendants plan to invest an additional \$169 million just during FY2011. On an emergency basis they sought and received a threefold increase in CMRR-NF funding. Defendants say they will employ an average of 125 full-time *construction* workers in FY2011, ¹⁷ in addition to all others. At the beginning of FY2011, 283 persons were working on the project (Cook Aff at 19). Given the three-fold increase in funding, defendants may employ at least 400 people on the CMRR-NF in FY 2011. FY 2012 expenditures are likely to double from FY 2011 without injunctive relief. ¹⁸

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¹⁶ NNSA, FY2011 CBR, Weapons Activities, Project Data Sheet 08-D-701, Nuclear Materials Safeguards and Security Upgrades Project (NMSSUP) Phase II: 297-303, http://www.cfo.doe.gov/budget/11budget/Content/Volume%201.pdf.

¹⁷ Bretzke, John. "Pajarito Construction Activities," LANL Construction Forum, Espanola, New Mexico, 16 June 2010, slide 4, http://www.lanl.gov/projects/pcc/presentations/John-Bretzke Prensation for Community Forum.pdf.

¹⁸ NNSA, FY2011 Congressional Budget Request (CBR), 1 February, 2010: 227, http://www.cfo.doe.gov/budget/11budget/Content/FY2011Lab.pdf as updated by Biden, Jr., Vice President Joseph R., Letter to Senator John F. Kerry, 15 September 2010: 124-125, http://foreign.senate.gov/download/?id=4C65B25B-F3E8-4CF6-8660-36E21D639ECC.

Employment is likely to double correspondingly. Without injunctive relief, cumulative commitment will rise to \$465 million by September 2011 and again to roughly \$800 million by September 2012. Thus, given defendants' "unequivocal" commitment, and with construction imminent, and with cumulative investment poised to spike upwards, defendants' decisions of whether, where, and how to build any Nuclear Facility are fully predetermined.

B. If Defendants are allowed to proceed now, the resulting impacts to the environment and injuries to Plaintiff will be those of the entire proposed action, including construction, operation, and decommissioning or abandonment.

9. Without a preliminary injunction <u>all</u> the environmental impacts of the project and <u>all</u> the predictable injuries to plaintiff, and to plaintiff's members and successors over the entire lifetime of the project and afterwards are very likely to occur. Moreover, without a preliminary injunction, the CMRR-NF project will become legally unstoppable, and all further NEPA and management analyses would be moot.

C. <u>If a preliminary injunction is not granted there will be irreparable injuries to Plaintiff and the environment.</u>

- 10. Plaintiff cannot show in detail all the likely harms of this huge and closely guarded project; that is the function of an EIS. But plaintiff can indicate likely impacts and injuries based on the imperfect, incomplete, and tardy information defendants have disclosed. This project dwarfs in cost all other government projects in the history of New Mexico, save the interstate highways. Its full scope remains blurred by euphemisms like "providing capability," the "hotel concept" for missions, "integrated nuclear planning," and so on. It would bring unprecedented quantities of highly-toxic plutonium for storage, experimentation, and processing.
- 11. Some injuries are certain or highly likely; others are harder to predict. "Hazard" is defined as the product of likelihood ("risk") and consequence. The huge cost increases seen in this project are partly due to defendants' attempt to reduce risks and mitigate consequences to

workers and the public, including for highly-consequential events associated with plutonium storage, processing, and handling. These huge costs indicate the scale of potential hazard. Every site which has operated industrial-scale facilities for plutonium has experienced serious accidents, few of which were thought likely beforehand.

- 12. <u>Nuclear Facility construction will have direct impacts</u>. This construction is expected to last for approximately 10 years. Most construction impacts would have permanent or long-lasting effects.
- a. <u>Consumption of land and associated biota</u>. The CMRR-NF and its sub-projects (*e.g.*, construction yards and offices, a warehouse, a truck inspection facility¹⁹, a craft worker facility, an electrical substation and other utilities, parking lots, two concrete batch plants, security infrastructure, excavation spoil storage space, disposal space, stormwater retention basins, and road relocation) will occupy about 79 acres in Pajarito Canyon and adjacent mesas, exclusive of the 4-acre RLUOB.²⁰ The 1,000 car parking lot in Sandia Canyon²¹, will consume very roughly 13 acres, for a total of 94 acres. This does not include land for connected projects (Complaint ¶67), temporary housing for transient workers, or offices for LANL staff displaced from Pajarito Corridor facilities. This is more than four times the land usage estimated in the 2003 EIS (22.75 acres exclusive of RLUOB²² and more than 14 times the CTSPEIS estimate (6.5 acres).²³ The

¹⁹ Recent information suggests this facility may not be necessary. NNSA, "Draft Supplement Analysis for the CMRR-NF" (CMRR SA), 2010: 26.

http://lasg.org/CMRR/Litigation/MPI/CMRR predecisional SA 17Aug2010.pdf. But: "Our current truck inspection facility which is supporting our ongoing mission operations is not capable of this kind of increased load, and so we'll probably be installing a dedicated truck inspection station that really is focused on the construction activities themselves." (John Bretzke presentation, quoted in Mello Aff. #1: 25)

²⁰ NNSA, CMRR SA, 2010: 17, http://lasg.org/CMRR/Litigation/MPI/CMRR_predecisional_SA_17Aug2010.pdf.

²¹ Benson, Jody, Affidavit of 2 Nov 2010, ¶4B, http://lasg.org/CMRR/Litigation/MPI/Benson_Jody_affidavit.pdf.

²² NNSA, CMRR EIS: 2-40, http://nepa.energy.gov/nepa_documents/EIS/EIS0350/Chapter02.pdf.

²³ Federal Register, Vol. 73, No. 245, 19 December 2008: 77650, http://edocket.access.gpo.gov/2008/pdf/E8-30193.pdf.

land is located in technical areas ("TAs") TA-46, 48, 50, 52, 55, 63, 64, and 66; for the truck inspection facility, presumably TA-54 or 36; and for the Sandia Canyon parking lot(s), TA-53, 61, or 72. Ecologically, all these areas will be destroyed. Many of these areas are being permanently committed to industrial operations. Hydrologic effects are likely even with mitigation measures. Reclamation may never be sought and may be problematic. Defendants plan to eventually make large areas (34.4 acres) to be destroyed by CMRR-NF construction into what they enigmatically call "pits." Thus on these acres, as well others this project devotes to permanent heavy industrial and supporting uses, the actual and potential support to the fragile ecological web of the Pajarito Plateau will be irreparably destroyed and denied. Partial destruction is likely to extend to adjoining and downstream lands, including wetlands. These certain and likely impacts will add to those resulting from past industrial use and other impacts and will combine with the effects of climate change. Climate change is widely expected to be devastating in the American Southwest²⁵ and is already very visible on the Pajarito Plateau today. 26 The overall fragility, ecological importance, and geographically patchy character of the key transitional habitats of the Plateau cannot be overemphasized, and the cumulative effect of construction on critical habitats and populations is unknown.

b. Excavation at the CMRR-NF (and possibly at sub-project and connected project sites) will generate spoil; the excavated volume is likely to be between 489,000 and 614,000 cubic

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²⁴ NNSA, Annex D, FY2011 Biennial Plan and Budget Assessment on the Modernization and Refurbishment of the Nuclear Security Complex: 28, http://lasg.org/CMRR/Litigation/MPI/FY2011 AnnexD BPMR NWC.pdf.

²⁵ For a readable entry to recent work see Joseph Romm, "New study puts the 'hell' in Hell and High Water," http://climateprogress.org/2010/10/20/ncar-daidrought-under-global-warming-a-review/, citing Aiguo Dai, "Drought under global warming: a review," National Center for Atmospheric Research, October 19, 2010, and other studies.

²⁶ David D. Breshears, et. al., "Regional vegetation die-off in response to global-change-type drought," Proc. Nat. Acad. Sci. Vol 102 Issue 42, 18 Oct 2005: 15144-151482005, http://www.pnas.org/content/102/42/15144.full.pdf

yards from the CMRR-NF alone. Defendants plan to use 153,000 cubic yards as fill.²⁷ Transport, storage, and disposal of spoils are likely to have significant environmental, aesthetic, and cultural impacts. Spoil piles may be visible from far away. These spoils will be erodible by water and wind. Since on its removal its final disposition may be unknown or not ready, much of this material may require digging, loading, transporting, dumping, and/or spreading *twice*.²⁸ Assuming so and based on 10 cubic yards per truckload, 98,000 to 123,000 short-haul round trips will be required, with a variety of attendant impacts.

- c. <u>Pajarito Road is to be closed</u> for two years and near the CMRR-NF, it is also to be relocated. Temporary or permanent traffic bypass(es) have also been publicly discussed by defendants. (Mello Aff. #1: ¶25). Moreover, road closure denies direct access to their workplace to 4,400 LANL staff. According to defendants, it will have ramifying effects on the surrounding transportation network and may require temporary work quarters elsewhere.
- d. Two concrete batch plants with a combined capacity of 300 cubic yards per hour would supply the estimated 371,000 cubic yards of concrete and grout required for the CMRR-NF, again excluding sub-projects and connected actions. These plants require raw materials, coming from locations off the Pajarito Plateau: sand, gravel, and portland cement hauled day and night on regional roads. The CMRR-NF will require approximately 260,000 cubic yards of aggregate, *i.e.*, 26,000 round trips in 10-yard trucks. A typical delivery distance might be about 30 miles each way. Approximately 40,000 cubic yards of portland cement will be required; the typical distance each way is a minimum of 110 miles, or 1,846 round trips with a 55,000-lb standard hauler. If fly ash is used, the nearest conceivable source is roughly 230 miles distant.

²⁷ NNSA, CMRR SA, 2010: 19, http://lasg.org/CMRR/Litigation/MPI/CMRR predecisional SA 17Aug2010.pdf.

²⁸ It is partly for this reason, and for similar reasons related to utilities, access, topography, and functional interdependence, that the various projects of the Pajarito Construction Corridor are connected and must be managed as a single project with multiple elements, as defendants have long recognized and are acting upon.

These batch plants will require a total of 28,000 round trips by heavy trucks, totaling about 2.0 million miles for the CMRR-NF alone. All deliveries must climb and descend a 1,775 ft hill.

Batch plants emit dust, noise, and at night, light pollution.

- e. <u>Noise from construction</u> will continue day and night and is likely to be audible and disturbing in the Royal Crest Trailer Park (0.7 miles north) and audible in White Rock (5 miles east southeast) under some atmospheric conditions, as well as at locations within LANL during the day. Truck noise will be present over a wide area at all hours, since aggregate deliveries must traverse long distances, often at night to avoid congestion as project staff has told me.
- f. <u>Light pollution from construction</u> is already visible far from the site. This problem was discussed at a recent Los Alamos County Council meeting. These lights will affect wildlife (see below) and will do so over a wider area than assumed in the 2003 EIS.
- g. <u>Construction will consume water and electricity</u>. Defendants estimate construction will require 96 million gallons of water; peak electrical demand is not known (the units presented in the SA appear incorrect).²⁹
- h. Pajarito Canyon and its Two Mile Canyon tributary, downstream from and immediately adjacent to CMRR-NF and most of its construction areas, comprise an important wildlife habitat and corridor. Pajarito Canyon contains more than one-third of the wetlands within LANL. It is an important wildlife habitat for many species, including threatened and endangered species, and is a transit route for elk, deer, black bear, and mountain lion, among other species. Its wetlands, which will become more isolated for some resident populations

²⁹ NNSA, CMRR SA, 2010: 18, http://lasg.org/CMRR/Litigation/MPI/CMRR_predecisional_SA_17Aug2010.pdf.

³⁰ DOE (DOE), Final Site-Wide Environmental Impact Statement for the Continued Operation of the Los Alamos National Laboratory ("SWEIS") for LANL: 4-98, http://nepa.energy.gov/documents/EIS-0380F Chapter 04.pdf.

³¹ NNSA, Integrated Natural and Cultural Resources Management Plan for Los Alamos National Laboratory, Sept 2002: 7, 42 (map of threatened and endangered species habitat), http://www.lanl.gov/prr/Cultural Resources/PRR-CULT-0001.pdf

under drying conditions, are important for threatened and endangered species, aquatic invertebrates, amphibians, and reptiles, and for numerous species of local and migratory birds. ³² This importance is growing under climate change, which is expected to create severe, permanent drought during the lifetime of the proposed project. ³³ At LANL as a whole defendants list 25 threatened, endangered, and other sensitive species as highly likely or moderately likely to be present and 10 others with "low" likelihood of presence. ³⁴ Construction will damage wildlife habitat and movements (daily and seasonal), and will affect endangered species, including the Mexican Spotted Owl, due to habitat loss and nighttime construction lights. ³⁵ These impacts will be greater than those of the 2003 project, given the much greater land and number of sites involved and the much longer duration of construction. Deer and elk migration through the canyon may be cut off or changed by noise and lights. ³⁶ Wildlife may become victims of the increased traffic, especially by increased nighttime traffic, or may lose access to habitat due to noise, lighting changes, or changes in runoff or vegetation.

i. <u>Construction will cause air pollution, directly and indirectly.</u> Defendants will seek air quality permits for, *e.g.*, one or more concrete batch plants and the nuclear facility itself.³⁷ However, respirable particulates from diesel trucks will be emitted for ten years in Espanola, Santa Clara Pueblo, San Ildefonso Pueblo, White Rock, and possibly Los Alamos, as well as densely-occupied laboratory areas, affecting drivers, cyclists, pedestrians, and children. Portland cement manufacture releases not just carbon dioxide but also mercury and other toxic materials;

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³² Id: 40-41.

³³ See Paragraph 11a, note 24.

³⁴ NNSA CMRR EIS: 3-38, http://nepa.energy.gov/nepa_documents/EIS/EIS0350/Chapter03.pdf.

³⁵ NNSA, CMRR EIS: S31, http://nepa.energy.gov/nepa_documents/EIS/EIS0350/Summary.pdf.

³⁶ NNSA, CMRR EIS: 3-33, http://nepa.energy.gov/nepa_documents/EIS/EIS0350/ Chapter03.pdf.

³⁷ NNSA and LANS, CMRR Project Update, Steve Fong and Rick Holmes, 6 Oct 2010 http://lasg.org/CMRR/Litigation/MPI/LA-UR-10-06560 CMRR-Public-Mtg Oct-2010-Vol-10.pdf.

here, the most likely location, Tijeras Canyon, is near residences and schools. Aggregate will come from pits in Santa Fe, Rio Arriba, and/or Sandoval counties, necessitating heavy truck traffic in these areas. Gravel pits as well generate air pollution, dust, noise, and habitat loss.

j. Construction will cause a variety of traffic impacts and dangers. For ten years construction traffic on Pajarito Road will be intense. Road closure will displace from Pajarito Road the traffic from thousands of construction workers, LANL employees, and their families to other routes, including NM 4, NM 501 (Main Hill Road), the Truck Route (in Sandia Canyon), and Trinity Drive or Central Avenue in downtown Los Alamos. Defendants have stated they are studying alternatives, including new roads, to mitigate these expected traffic impacts.

"What we are anticipating is that we are going to have to shut down the road right here in this area, to back up in here [indicates on map]....And so not only are we impacting northern New Mexico with the additional traffic loads, just to bring the construction personnel, construction material, all the concrete, the sand, the rock, etc., the aggregate up there, but within the site itself we've got a lot of microplanning that's going on in the background to try to help the lab deal with this impact because for a decade we are going to be disrupting their lives pretty significantly.

[Question from Vincent Chiravalle, Los Alamos County Council] "I'd like to understand if you've considered building a bypass road around the construction site...?"

Answer: "Yes we have considered that, and those options are still on the table. This is a difficult area to build an alternative route through because of the canyons and plateaus that we're dealing with, so we've got three or four different options that we're looking at, and part of this trade off study [unclear] is part of that." (NNSA, quoted in Mello Aff. #1: ¶25)

Increased road repairs, selective widening, and traffic control upgrades are likely to be necessary and will be costly.

Traffic studies is a huge one for us right now[....] We are going to be changing traffic flows. So we're trying to do our best right now to understand and predict where we think that traffic is going to go, what kind of impact are we going to have down in White Rock, what impact are we going to have on State Road 4, what impact are we going to have along the truck route, etc. We will be changing

traffic loads at intersections. We know that. We're trying to quantify that right now....(*Id.*)

There will be increased danger to all parties, especially bicyclists. Recreational and commuter bicycling in and through Pajarito Canyon, currently commonplace, will become dangerous to impossible. Commuters on all these roads are likely to experience delays on some occasions. Accidents and broken windshields will increase. Young drivers are of particular concern. Traffic congestion may affect businesses and tourism, including visitors to Bandelier National Monument who will travel the same roads. (Affidavit of Jody Benson)

- k. <u>Construction, traffic, road closure, and related impacts will damage and deny</u> recreational opportunities. Even where access is theoretically possible, enjoyment may be lost. For example, flying debris, dust, exhaust fumes, potential collisions (especially with limited-sight vehicles), congestion, and visual impacts may make bicycling dangerous and unpleasant.
- 1. Pajarito Canyon is archeologically, historically, and culturally unique and important. It has been a focus of human habitation for many hundreds of years and contains one of the largest pueblo ruins on the Pajarito Plateau (Tshirege), outstanding and unique petroglyphs, numerous cavates, and more recent homestead ruins. It has a high density of prehistoric sites and has been the subject of local poetry, a resort of photographers, and a place to contemplate the history of humankind and its fragile prospects in this unique region. It was for a time the ranch home of Ashley Pond and his family, including his daughter Peggy Pond Church. All of these civilizations have left fragile remains in the Canyon. In defendants' words, "[t]here are more than 1600 known Ancestral Pueblo archaeological sites at LANL, among the highest densities of such sites in the American Southwest." 38

³⁸ LANL, March 2006: 67, *A Plan for the Management of the Cultural Heritage at Los Alamos National Laboratory, New Mexico*, LA-UR-04-8964, http://www.lanl.gov/environment/cultural/docs/CRMP_LA-UR-04-8964.pdf. The plan notes that a 165 acre parcel including portions of Pajarito and Two Mile canyons, evidently near CMRR-NF

- m. Construction will deny access to and will degrade sacred space, sites, plants, and animals. ³⁹ (Exhibit 1)
- n. Construction of CMRR-NF supposedly entails dismantling and disposing (D&D) of most or all of the CMR building, generating large quantities of waste including: an estimated 16,000 cubic yards of radioactive waste; 10,000 cubic yards of solid waste; regulated hazardous wastes; large volumes of asbestos, much of which is radioactive; plus radioactive soil and outbuildings. Defendants estimate the cost of CMR D&D at \$350 to \$500 million in 2012 dollars and its duration at 4-5 years; it is a big project. Neither defendants' most recent cost estimate provided to Congress (\$3.4 billion, now obsolete) nor any of the cost estimates used in this or my First Affidavit include D&D cost. This environmental impact and financial cost would be mitigated by alternatives, not yet analyzed, which retain and upgrade CMR wings.
- Connected project construction will also have direct impacts. These connected actions include: NMSSUP; Radioactive Liquid Waste Treatment Facility (RLWTF); Transuranic (TRU) Waste Facility (which with RLWTF is part of a "Consolidated Waste Capability);" TA-55 Reinvestment Project (TRP); Material Disposal Areas (MDAs) C and G closure projects; Waste Disposition Project; RLUOB Occupancy; and other subprojects that defendants classify and manage within "Integrated Nuclear Planning" and the "Pajarito Construction Corridor."
- a. Connected project construction will cause the same classes of direct impacts discussed in paragraph 12 above.
 - b. Defendants plan to use a major part of the excavation spoils to cap hazardous

construction sites, has not been adequately surveyed. (Id. 53)

³⁹ Madalena, Gov Joshua, Pueblo of Jemez, letter, 4 Oct 2010, http://lasg.org/CMRR/Litigation/MPI/Madalena ltr to Chu 4Oct2010.pdf; Sanchez, J. Gilbert, affidavit, 3 Nov 2010, http://lasg.org/CMRR/Litigation/MPI/Sanchez J Gilbert affidavit, pdf

⁴⁰ CMRR EIS: 2-29-34, http://nepa.energy.gov/nepa_documents/EIS/EIS0350/Chapter02.pdf.

⁴¹ DOE CBR FY2010: 223. http://www.cfo.doe.gov/budget/10budget/Content/Volumes/Volume1.pdf.

chemical and nuclear MDAs, specifically MDAs C and G, in lieu of other closure options for those sites. Defendants state that MDAs C and G contain roughly 14 million cubic feet of diverse nuclear and chemical wastes, including transuranic wastes. Decisions to: (a) leave these wastes in place; and (b) cover these sites with volcanic ash removed from the CMRR-NF excavation, were not mentioned or analyzed in the 2003 EIS. The decision to leave 14 million cubic feet of nuclear and chemical waste in shallow unlined pits would be a major federal action significantly affecting the quality of the human environment, with far-reaching impacts.

14. <u>Construction of the CMRR-NF and connected projects will have indirect</u> impacts on surrounding communities and their environment.

a. Continued operation of portions of the Chemistry and Metallurgy Research (CMR)

Building until 2022 or longer, if the CMRR-NF were to proceed from this point, has become part of the project by default. Another 12 years of operation in wings 5 and 7 of CMR are likely to be necessary, if not 16 years, ⁴² meaning that the decision in 2001 to abandon seismic and major safety upgrades projects at CMR in favor of CMRR-NF would incur more than two decades of elevated worker safety risks at CMR. Moreover, CMRR-NF will not replace CMR Wing 9.

Defendants may retain an (upgraded) CMR Wing 9 and its support infrastructure indefinitely, calling into question the purpose and need for, and reasonable alternatives to, CMRR-NF. ⁴³ Due to CMRR-NF and related funding constraints, defendants are not investing adequately in CMR

⁴² Defendants assume a 4-year transition period once CMRR-NF begins full operation. NNSA, CMRR EIS: 2-38, http://nepa.energy.gov/nepa_documents/EIS/EIS0350/Chapter02.pdf.

⁴³ Oral briefing with Greg Mello, Los Alamos Study Group and DNFSB Chair, Vice-Chair and member Peter Winokur, John Mansfield, Joseph Bader, respectively, and DNFSB senior staff, May 7, 2010, Washington, DC; NNSA Principal Associate Director of Defense Programs Glenn Mara letter to Don Winchell, NNSA Los Alamos Site Office (LASO) Site Manager of February 22, 2008 (study of hot cell capabilities -- housed in Wing 9 – "ongoing"); LANL, *Ten-Year Site Plan FY09-FY18*, September 2008, LA-UR-08-0654: 41 ("Until replacement facilities can be developed, Wing 9 of CMR will need to remain in operation to support NE [Nuclear Energy] as well as environmental, NNSA, and other activities"); Mello conversation with Brett Broderick, DNFSB LANL site representative, 1 June, 2010 (NNSA or LANL study of Wing 9 retention underway).

maintenance. "The CMR facility currently operates on a 'run-to-replacement' philosophy due to funding constraints and in anticipation of CMRR project completion." All LANL's existing nuclear facilities are affected. "Given the fiscal realities of declining budgets, maintenance investment decisions require consideration of potentially significant tradeoffs at the site level." (*Id.* 69)

- a. <u>Peak construction employment</u> has been estimated at 844 and at 1,000 persons for the CMRR-NF. If connected actions are included the figure is greater. Such an increase in the transient workforce, some of whom will come from out of state because nuclear quality certifications are in some instances required, could affect local housing markets, possibly requiring temporary housing. (NNSA, Mello Aff. #1: ¶25). Such an influx is likely to affect schools, roads, public transportation, medical services, housing, and local job markets.
- b. Regional prices and availability of construction materials may be affected. (Affidavit of Jody Benson.)
- offsite impacts. Defendants estimate the CMRR-NF operational period at 50 years. The operational impacts of the Nuclear Facility closely depend on what is done in, and as a result of, CMRR-NF and how prudently and safely those activities are managed. For reference, in 2003 defendants estimated CMRR-NF would generate 2,754 cubic yards of nuclear and hazardous waste annually. This large waste volume would be disposed at a variety of locations on- and

⁴⁴ LANL, Ten Year Site Plan FY09-FY18: 25.

⁴⁵ Bretzke, John. "Pajarito Construction Activities," Los Alamos National Laboratory Construction Forum, Espanola, New Mexico, 16 June 2010, slide 4, http://www.lanl.gov/projects/pcc/presentations/John-Bretzke Prensation for Community Forum.pdf; NNSA, CMRR SA, 2010: 25, http://lasg.org/CMRR/Litigation/MPI/CMRR predecisional SA 17Aug2010.pdf.

⁴⁶ DOE, CMRR EIS: 2-39, http://nepa.energy.gov/nepa_documents/EIS/EIS0350/Chapter02.pdf.

⁴⁷ Id. 2-41.

off-site, causing permanent sacrifice of the lands involved. Defendants have not provided sufficient information to estimate operational impacts given their vision of CMRR-NF as a "hotel" for unstated missions. A major mission of the CMRR-NF and driver of its design is to enable a program of plutonium explosions in tanks on-site at LANL, a dangerous activity having the potential for releases.

or abandonment of the Nuclear Facility. The CMRR-NF will become contaminated upon first use and will grow more thoroughly contaminated over time. Its scale and internal complexity make decommissioning an expensive challenge. Initiation of plutonium storage and processing in this facility creates a hazard that will require hundreds of millions in today's dollars for decommissioning and disposal. (Paragraph 12n). No matter what strategy is pursued, some hazard will remain on site and new hazards will be created by transportation and disposal.

17. There will harms to Plaintiff, others, and the environment from violations of the due process and informational requirements of NEPA.

- 18. Walatowa (Jemez) Pueblo has written defendants, expressing detailed concern over the interwoven issues of environmental impact and due process, calling for a cessation of investment pending a *de novo* EIS, including proper notice and comment to tribes.⁵⁰
- 19. The Pajarito Group of the Sierra Club (PGSC), which has more than 350 members in Los Alamos County, has written defendants, expressing a number of concerns regarding the

⁴⁸ DNFSB Staff Issue Report, "Review of [CMRR] Facility": 8, http://www.dnfsb.gov/pub_docs/staff_issue_reports/lanl/sir_20080530_la.pdf.

⁴⁹ For background see defendants' materials at http://www.lasg.org/technical/lanl-hydrotest-index.htm and LANL Comprehensive Site Plan 2000, LA-UR 99-6704, 31 Jan 2000, Vol. IV: 4, http://lasg.org/maps/pages/contents/ComprehensiveSitePlanVol2/03%20Program%20Needs.pdf. Compare to LANS, Holmes, Rick, 10 June 2010, "[CMRR] Project": 13, http://eteba.org/Presentations/RickHolmestoNM6.10.10.pdf.

⁵⁰ Governor Joshua Madelena, letter to Steven Chu and Thomas D'Agostino, 4 October 2010. http://lasg.org/CMRR/Litigation/MPI/Madalena ltr to Chu 4Oct2010.pdf.

CMRR-NF project, which have in common violations of required NEPA procedure.⁵¹ (Exhibit 2) They request a halt to any physical actions in the environment and only very limited planning in support of mission definition, cost assessment, and development of alternatives until a *de novo* EIS (not a SEIS) is prepared.

- 20. Defendants admit violations of NEPA. On October 6, 2010 defendants' LASO Deputy Manager Roger Snyder stated, "Are we covered by the 2003 environmental impact statement? We are partially covered..." 52
- 21. On November 10, 2010 the City of Santa Fe passed a resolution requesting a full EIS, not a SEIS, for the CMRR-NF project, citing the need for timely citizen involvement in the notice and comment process.⁵³

D. Resources will be irreversibly committed if a preliminary injunction is not granted.

22. <u>Land will be irreversibly committed</u>, including but extending beyond the 94 acres discussed above. The Nuclear Facility and its connected projects require a zone of increased security and institutional commitment affecting land uses over a wider area, both directly and through the creation of an industrial-scale plutonium storage, processing, and handling complex, which will prejudice a variety of future decisions. Over the presumed life of the facility, 1,370,000 cubic yards of nuclear and hazardous waste would be created, not counting CMR disposition or ultimate CMRR-NF disposition, to be disposed at LANL and elsewhere. ⁵⁴
Defendants remain undecided regarding the CMRR-NF's precise purpose, requirements, and

⁵¹ Pajarito Group of Sierra Club, Letter to John Tegtmeier, NNSA, 1 November 2010. http://lasg.org/CMRR/Litigation/MPI/PGSC CMRR scoping comments 1Nov2010.pdf.

⁵² Snodgrass, Roger, "Facility design may proceed," Santa Fe New Mexican 10/9/10. https://www.santafenewmexican.com/mobile/Los-Alamos-National-lab-Nuke-facility-design-may-go-forward.

⁵³ City of Santa Fe and Santa Fe County, "Joint Resolution in Support of a New Environmental Impact Statement for LANL's Chemistry and Metallurgy Research Replacement Nuclear Facility (CMRR Project)," Nov 2010. http://lasg.org/CMRR/Litigation/MPI/SF City County CMRR Resolution.pdf.

⁵⁴ NNSA, 2003 CMRR EIS, p. 2-41. http://nepa.energy.gov/nepa_documents/EIS/EIS0350/Chapter02.pdf.

missions.

- 23. Defendants rely for disposal of excavation spoils on a plan that implies permanent shallow burial of nuclear and chemical wastes at MDAs C and G, committing those specific 75 acres to long-term hazards from such disposal. In the event of a major breach of confinement, perhaps human-caused, surface users and future downstream water users could be affected. These landfills have never been permitted. They contain large quantities of waste including attractive resources, including fissile materials and metals. Defendants propose to use their excavation spoils as shallow cover for these landfills, subject to approval by the New Mexico Environment Department (NMED). To initiate excavation will significantly prejudice Defendants' LANL cleanup program by tipping the scales in favor of a least-cost "solution," *i.e.*, shallow cover, to LANL's two largest potential contamination sources.
- 24. <u>Vegetation and habitat will be irreversibly destroyed</u>, as mentioned above in detail. In part, defendants argue that the land has already acquired "an industrial character" which means only that defendants have labeled it as such.⁵⁵ To dismiss the restoration of lands under defendants' stewardship is contrary to the policy enshrined in NEPA of "fostering conditions under which man and nature can exist in productive harmony" for "future generations of Americans." (42 U.S.C.A. §4331).
- 25. <u>Concrete and grout requirements</u> for the Nuclear Facility have recently increased again, to 371,000 cubic yards.⁵⁶ This is 116 times the estimated concrete requirement for the CMRR-NF, stated in the 2003 EIS and 2004 ROD.⁵⁷ Of the total, 250,000 cubic yards are needed to replace a 50-60 foot thick layer beneath the structure with lean, low-slump concrete,

⁵⁵ NNSA, CMRR SA, 2010: 17, http://lasg.org/CMRR/Litigation/MPI/CMRR predecisional SA 17Aug2010.pdf.
⁵⁶ Id. 29.

⁵⁷ DOE, CMRR EIS: table 2-1, http://nepa.energy.gov/nepa_documents/EIS/EIS0350/Chapter02.pdf. I have only recently realized this table implies an estimate of 2003 Nuclear Facility concrete, also provided in the CMRR SA.

and the remaining 121,000 cubic yards will go into the building itself. This structural concrete is 38 times the original estimate. These increases stem from changes in project scope and requirements, and from a more careful consideration of the difficult geological environment.

- 26. <u>Steel requirements</u> are about 18,500 tons. This steel would be irreversibly committed.⁵⁸
- 27. <u>Greenhouse gas (GHG) emissions</u> are, in the case of carbon dioxide, irreversible on a human timescale. From its usage of concrete and grout alone, the Nuclear Facility will generate more than 100,000 metric tons (MT) of carbon dioxide, more than 100 times the quantity implied by the concrete usage of the 2003 EIS⁵⁹ and more than four times CEQ's proposed threshold for required EIS analysis (25,000 MT).⁶⁰ It is more than three times the annual production of GHG from LANL as a whole.⁶¹ GHGs were not analyzed in the 2003 EIS; the much greater quantities and significance of CMRR-NF GHG emissions comprise a strong, independent reason to consider alternatives to the project as designed.
- 28. The \$5 to 6 billion required for the Nuclear Facility is to be supplied by taxes and new federal debt, irreversibly committed year by year. What is spent cannot be unspent, and the project as a whole is poised to become practically irreversible (paragraphs 4-8). Over FY 2011 and FY 2012 defendants are likely to receive and spend or obligate one-half billion dollars to advance this project. In the absence of a preliminary injunction, defendants seek to spend more

⁵⁸ NNSA, CMRR SA, 2010: 30, http://lasg.org/CMRR/Litigation/MPI/CMRR predecisional SA 17Aug2010.pdf.

⁵⁹ BuildingGreen.com, Embodied Energy and CO emissions from Cement and Concrete Production: tables 2 & 4, http://www.buildinggreen.com/auth/article.cfm/1993/3/1/Cement-and-Concrete-Environmental-Considerations/.

⁶⁰ Council on Environmental Quality (CEQ), "Draft NEPA Guidelines on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions," 18 Feb 2010, http://www.whitehouse.gov/sites/default/files/microsites/ceq/20100218-nepa-consideration-effects-ghg-draft-guidance.pdf.

⁶¹ New Mexico Environment Department (NMED), "Inventory of New Mexico Greenhouse Gas Emissions: 2000 – 2007," 15 Mar 2010: 45-49, http://www.nmenv.state.nm.us/cc/documents/GHGInventoryUpdate3 15 10.pdf.

on this project this year and next than the *total* cost, in constant dollars, of *any* government project in the history of New Mexico, except the two interstate highways. ⁶²

Gregory Mello, Affiant, being first duly sworn states on oath, that all of the representations in this Affidavit are true as far as the Affiant knows or is informed, and that such Affidavit is true, accurate and complete to the best of Affiant's knowledge and belief.

Dated: October 21, 2010.

Gregory Mello		

SUBSCRIBED AND SWORN TO before me this 12^{th} day of November, 2010, by Gregory Mello.

Notary Public

My Commission Expires:

⁶² See list of historic New Mexico projects at http://www.lasg.org/CMRR/open_page.htm.