

## **Attachment 7A**

### **Explanatory Notes for Department of Energy's (DOE's) Report February 1, 2010**

#### **Summary**

The Department of Energy report addresses 154 projects and activities receiving ARRA funds. Some of those ARRA projects consist of subprojects that have independent utility and are therefore subject to individual NEPA reviews. Of the 154 projects and activities, 10 are reported as not requiring NEPA review because 9 involve Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) actions and 1 is a ministerial action that does not trigger NEPA review requirements.

As of December 31, more than 4,700 NEPA reviews had been completed for projects and activities receiving ARRA funding, an increase of more than 2,700 since the previous report. Of the completed reviews, more than 4,600 are CEs, more than 30 EAs and more than 20 EISs. Projects and activities include the Weatherization Assistance Program, most of the DOE projects and activities to accelerate environmental cleanup, and many other research, development, demonstration, and deployment activities for obligations totaling more than \$23.2 billion under ARRA, an increase of more than \$5.8 billion. Another 43 NEPA reviews are underway as of December 31, including 7 EISs, 30 EAs, and 6 CEs.

DOE is reviewing additional applications received in response to funding opportunity announcements related to the ARRA and new projects receiving ARRA funds are expected to be identified for the Bonneville Power and Western Area Power Administrations, and other DOE programs. This will result in an increase in the number of DOE projects receiving ARRA funding and the corresponding NEPA actions in future reports.

The notes below supplement information contained in the reporting spreadsheet. Row numbers identified below refer to those on page two of the reporting spreadsheet.

#### **Pending NEPA Reviews**

Forty-three NEPA reviews are pending, 21 of which were pending in the previous report (6 CEs, 10 EAs, and 5 EISs). A pending CE determination generally refers to a situation where the initial review indicates that a CE determination is appropriate but additional information is necessary to complete the review. Based on that additional information, DOE could finalize the CE determination or decide that an EA or EIS is the required level of NEPA review. Similarly, a pending EA could result in a decision to prepare an EIS.

Following is the status, by appropriations account, of documents reported as pending in more than one report (i.e., does not include NEPA actions initiated during the last quarter):

- Title 17 - Innovative Technology Loan Guarantee Program - Recovery Act – 1 CE is pending during application review. 5 EAs and 3 EISs are in preparation (row 44); their

schedules are aligned with application review. BLM issued a draft EIS during the past quarter; DOE is a cooperating agency. DOE completed 1 EA discussed as pending in the last report. 1 EIS and 2 EAs are on hold at the request of the applicant.

- Defense Environmental Cleanup – 2 CE determinations are pending appropriate points in project planning to ensure all information is considered in the determination (row 51). 4 EAs are in preparation.
  - The EA for Building 310 D&D at Argonne National Laboratory involves consideration of new characterization information (row 46).
  - DOE has completed a public review period for the EA for the ORP Recovery Act Project: 242-A Evaporator Upgrades and Life Extension (row 51).
  - DOE is coordinating with the U.S. Environmental Protection Agency on issues related to an EA being prepared to support the Hanford Central Plateau D&D Recovery Act Project (row 53).
  - The Bureau of Land Management is the lead agency for preparation of the EA associated with the WIPP Recovery Act Project, which was issued during the last quarter in draft for public review (row 60).
- Energy Efficiency and Renewable Energy (EERE) – DOE is reviewing 1 existing EA against the scope of the National Wind Technology Center Upgrades project to determine whether further NEPA review is required (row 14).
- Fossil Energy R&D/Carbon Capture and Storage – Pending is consideration of updated information and a potential second ROD regarding future phases of the FutureGen project (row 72).
- Non-Defense Environmental Cleanup – During the reporting period, DOE reviewed public comments on the draft EIS associated with the West Valley Recovery Act Project and worked on preparation of the final EIS (row 133).
- Uranium Enrichment Decontamination and Decommissioning Fund – 3 CE determinations are pending appropriate points in project planning to ensure all necessary information is considered in the determination (row 138).

DOE has not determined the appropriate level of NEPA review for all proposed actions. The most common explanations are that DOE is reviewing applications received in response to funding opportunity announcements or is still in discussion with potential awardees. These processes can affect the timing and scope of NEPA review and the availability of related information.

## **Appropriations Data**

Changes in appropriations amounts relative to the previous report reflect transfers of \$560,000 from Electricity Delivery and Energy Reliability and \$2,161,834 from Fossil Energy Research and Development to the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs within the Science account (total increase \$2,721,834).

The Isotope Production and Distribution Fund did not receive a separate appropriation under ARRA. Rather, of funds appropriated to the Science account, \$14,617,000 has been paid to the Isotope Production and Distribution Fund. The funds remain appropriated to the original Science account but will be executed from the Isotope fund.

### **Obligations Data**

Obligations as of December 31, 2009, included on page 1 of the report for 14 DOE Recovery Act accounts total \$23,282,068,699, an increase of \$5,839,097,942 over the last quarter. This is less than the \$23,416,600,735 reported in the DOE Financial and Activity Report to OMB as of December 31. The difference of \$134,532,036<sup>1</sup> is accounted for, in part, by the inclusion in the report to OMB of \$112,542,542 in reimbursable Recovery Act work for others under three accounts: General Science and Research Activities, \$84,677,683; Energy Efficiency and Renewable Energy, \$1,887,800; and Weapons Activities, \$25,977,059. Because this work is not paid for by DOE with Division A ARRA funds, it is not included in this report. The difference also includes \$21,989,493 obligated under the Departmental Administration account which are used to administer projects receiving ARRA funding and are therefore not included in this report.

Separately, a change in requirements by OMB that went into effect during the reporting period affects the obligations reported on recovery.gov (and reflected in this report) for four accounts: (1) Defense Environmental Cleanup - Recovery Act; (2) Electricity Delivery and Energy Reliability - Recovery Act; (3) Non-Defense Environmental Cleanup - Recovery Act; and (4) Uranium Enrichment Decontamination and Decommissioning Fund - Recovery Act. Under each of these accounts, other Federal agencies are performing work for DOE. Funds for this work were included as obligations in DOE's prior report. However, pursuant to current OMB guidance, funds for this work are no longer reported by DOE as obligations; the funds are included in the financial reports of the agencies performing the work. The effect of this change is most noticeable in the Non-defense Environmental Cleanup - Recovery Act account where \$38,380,000 is excluded from DOE's reported obligations, and that amount is only partly offset by new obligations made during the quarter (i.e., the difference in obligations between the prior and current report for that account is \$35,548,682). The amounts excluded from obligation in this report for the other accounts are: Defense Environmental Cleanup - Recovery Act, \$890,000; Electricity Delivery and Energy Reliability - Recovery Act, \$10,000,000; and Uranium Enrichment Decontamination and Decommissioning Fund - Recovery Act, \$200,000.

### **NEPA Not Applicable, Including CERCLA Projects**

Information on 10 of DOE's Recovery Act projects is not reported on page 2 because NEPA reviews are not required. This includes the following 9 CERCLA projects referred to in the "NEPA Not Applicable" column on page 1 of the report:

#### Defense Environmental Cleanup

Hanford River Corridor Soil and Groundwater Recovery Act Project (WA)

INL Soil and Groundwater Recovery Act Project (ID)

Mound Operable Unit 1 Recovery Act Project (OH)

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<sup>1</sup> The difference is off by \$1 due to rounding to the nearest dollar; the correct value is \$134,532,035.

Oak Ridge Defense Y-12 D&D Recovery Act Project (TN)  
Oak Ridge Defense ORNL D&D Recovery Act Project (TN)  
SPRU Recovery Act Project (NY)

Non-Defense Environmental Cleanup

Oak Ridge Non-Defense Recovery Act Project (TN)  
Stanford Linear Accelerator Center Recovery Act Project (CA)

Uranium Enrichment D&D Fund

Oak Ridge UE D&D Funded Recovery Act Project (TN)

The remaining project listed under “NEPA Not Applicable” is an Energy Efficiency and Renewable Energy project (EE Appliance Rebate Programs) for which DOE has no agency discretion for decisionmaking and therefore there is no requirement for a NEPA analysis.

**Projects Involving CERCLA and NEPA**

Ten projects involve both NEPA review and work being performed under CERCLA. These projects are not included in the “NEPA Not Applicable” column on page 1. The status of NEPA compliance is reported on page 2. The projects are listed below.

Defense Environmental Cleanup

INL Recovery Act Project (ID) (row 47)  
Hanford River Corridor D&D Recovery Act Project (WA) (row 52)  
Hanford Central Plateau D&D Recovery Act Project (WA) (row 53)  
Hanford Central Plateau Soil and Groundwater Recovery Act Project (WA) (row 54)  
SRS D&D P & R Areas Recovery Act Project (SC) (row 56)  
SRS D&D M & D Areas Recovery Act Project (SC) (row 57)  
SRS D&D, Soil & Groundwater Activities Site-wide Recovery Act Project (SC) (row 58)

Non-Defense Environmental Cleanup

BNL Recovery Act Project (NY) (row 129)

Uranium Enrichment D&D Fund

Paducah Recovery Act Project (KY) (row 137)  
Portsmouth Recovery Act Project (OH) (row 138)

**NEPA Actions Applicable to Multiple Projects**

For the 3 environmental management accounts (Defense Environmental Cleanup, Recovery Act; Non-Defense Environmental Cleanup, Recovery Act; and Uranium Enrichment Decontamination and Decommissioning Fund, Recovery Act), 2 EISs of national scope are applicable to multiple projects involving waste disposal. These are the Waste Management Programmatic EIS and the Waste Isolation Pilot Plant Supplemental EIS. To avoid over-reporting the number of completed EISs, these 2 EISs both are reported on page 2 only for the Defense Environmental Cleanup/WIPP Recovery Act Project (row 60).

The 2008 Los Alamos National Laboratory (LANL) Site-Wide EIS is relevant to four Recovery Act projects. The first ROD (issued 9/26/2008) for that EIS is relevant to the Defense Environmental Cleanup/LANL Defense Soil and Groundwater Recovery Act Project (row 62) and to the Isotope Production and Distribution Fund/Enhanced Utilization of Isotope facilities: Isotope Production Facility (row 141). The second ROD (issued 7/20/2009) for the LANL Site-Wide EIS is relevant to a portion of the Recovery Act work for the Defense Environmental Cleanup/LANL Defense D&D Recovery Act Project (row 61) and the Non-Defense Environmental Cleanup/LANL Non-Defense Recovery Act Project (row 131). The LANL Site-Wide EIS is reported on page 2 for only the LANL Defense D&D Recovery Act Project to avoid over-counting the number of NEPA actions (row 61).

Three Science projects at Brookhaven National Laboratory in New York (PHENIX Silicon Vertex and PHENIX Forward Vertex equipment purchases, and enhanced AIP funding at BNL) are addressed in the same EA (rows 106-107). That EA is reported only once on page 2 of the spreadsheet (row 106) therefore row 107 is left blank for quantity and type of NEPA action.

### **Additional Notes Regarding Spreadsheet Organization**

The number of ARRA Funded Projects/Activities is different from the number of NEPA actions. First, some DOE Recovery Act projects involve distributing funds to multiple applicants, with distinct NEPA compliance requirements for each application. Second, some DOE Recovery Act projects include multiple activities, with distinct NEPA compliance requirements for each activity. Third, implementation of some DOE Recovery Act projects relies on more than one NEPA action (e.g., programmatic and tiered site-specific EISs).

Separate spreadsheet entries delineate activities within a project that differ by NEPA compliance strategy. We have indented the Project/Activity Description for each row after the initial row to identify the activities that are grouped by particular NEPA actions (i.e., CE, EA, and EIS).

The “Date NEPA is Done” is the date a CE determination or FONSI was signed or the date a ROD was published in the *Federal Register*. For all projects where the current NEPA status is indicated as “done,” DOE will continue to monitor implementation. Should new information arise or the proposed action change, DOE will determine whether additional NEPA review is required.

Regarding whether all Federal environmental reviews and documents are complete, a blank cell indicates that DOE is continuing to confirm the answer. Information will be updated in future reports.

### Project-Specific Notes:

EERE/Energy Efficiency and Conservation Block Grant Program (row 27) – The approximately 2,200 grant applications (state, territory, city, county, and tribal governments) include multiple activities, many of which are independently justified and not connected actions. As of December 31, 2009, DOE had made 4014 CE determinations for discrete, independent activities within

2,007 of the applications. DOE is continuing to review applications and will identify additional NEPA actions in future Section 1609(c) reports.

EERE/State Energy Program (row 29) – The 56 grant applications (50 states, District of Columbia, American Samoa, Guam, Northern Marianas, Puerto Rico, and the Virgin Islands) include multiple activities, many of which are independently justified and not connected actions. As of December 31, 2009, DOE had made 187 CE determinations for discrete, independent activities within all of the applications. DOE is continuing to review other activities proposed in the applications and will identify additional NEPA actions in future Section 1609(c) reports.

Title 17/Credit Subsidy Program Section 1705 (row 44) – The Bureau of Land Management is the lead agency for preparation of EISs for Aqua Caliente, BrightSource, and Solar Millennium. DOE is, or has requested to be, a cooperating agency for each of these NEPA reviews. These NEPA actions are reported on page 2 of DOE’s Section 1609(c) report because DOE is the funding agency for these projects.

Science/ARM Climate Research Facility Initiative (row 91) – One pending EA was withdrawn from the report. DOE was confirming whether the scope of work fit within an existing EA. DOE determined instead to make new CE determinations for the ARRA activities.

### **Examples of Benefits of NEPA Review of Department of Energy (DOE) ARRA Projects**

#### **Energy Efficiency and Conservation Block Grant Program**

Energy Efficiency and Renewable Energy, Recovery Act (row 27)

Level of NEPA action: CE (for many proposed actions)

Brief project description: Grant program to U.S. states, territories, local governments, and Indian tribes to improve energy efficiency and reduce energy use and fossil fuel emissions in their communities.

Value added by the NEPA process: DOE uses the NEPA process to work with grant applicants to better define proposed projects and to enhance and protect resources through actions such as improving awareness and treatment of historic structures, and verifying plans to properly recycle or dispose of wastes.

#### **Credit Subsidy Program Section 1705: Beacon**

Title 17 - Innovative Technology Loan Guarantee Program - Recovery Act (row 44)

Level of NEPA action: EA

Brief project description: DOE loan guarantee for construction and operation of a flywheel-based frequency regulation facility at an undeveloped seven acre site in Stephentown, New York. A frequency regulation facility assists in maintaining the grid’s equilibrium by storing energy when supply exceeds demand and releasing energy back onto the grid when demand exceeds supply.

Value added by the NEPA process: The NEPA staff was in continuous communication with the applicant, which contributed to the forward movement of the project through the loan guarantee process. The NEPA process provided a forum in which to document and explain the benefit of the project to the public and decisionmakers, specifically, the greenhouse gas savings that could be achieved by using the proposed flywheel-based frequency regulation technology, versus using fossil fuels-based frequency regulation technology.

**ANL Recovery Act Project: Building 330 Decontamination and Decommissioning (D&D)**

Defense Environmental Cleanup, Recovery Act (row 46)

Level of NEPA action: EA

Brief project description: Demolition of a research reactor facility at Argonne National Laboratory (ANL) will be followed by capping the affected area to protect human health and the environment from risks associated with unneeded and deteriorating structures that contain radioactively-contaminated material.

Value added by the NEPA process: The EA process was a useful tool for integrating project planning and environmental concerns. The scoping phase of the process brought operational and environmental expertise together and facilitated development of demolition and transportation approaches to better protect workers and the public.

**Idaho National Laboratory (INL) Transuranic (TRU) Waste Recovery Act Project**

Defense Environmental Cleanup, Recovery Act (row 48)

Level of NEPA action: EA

Brief project description: Accelerate disposition of remote-handled TRU (radioactive) waste.

Value added by the NEPA process: Information received from external technical experts during the comment period on the draft EA facilitated the selection of a transportation route that minimized the risk of potential impacts to cultural and biological resources.

**Oak Ridge Defense TRU Waste Recovery Act Project**

Defense Environmental Cleanup, Recovery Act (row 50)

Level of NEPA action: EIS

Brief project description: Accelerate work at the Transuranic Waste Processing Center.

Value added by the NEPA process: Mitigation measures were implemented for a small wetland that was identified during the NEPA review. Early consideration of environmental information (during the review of proposals for the project pursuant to DOE's NEPA regulations) helped DOE avoid costly analysis of alternatives that may not have been viable. The NEPA process facilitated communication with other agencies regarding the alternatives and their associated impacts. It also provided an educational tool for the public, showing that various alternatives were considered and that DOE was moving forward with the alternative that would least impact the environment in the short-term and improve the environment in the long-term.

**Office of River Protection (ORP) Recovery Act Project**

Defense Environmental Cleanup, Recovery Act (row 51)

Level of NEPA action: CE

Brief project description: Laboratory 222-S Upgrades and Life Extension Projects.

Value added by the NEPA process: The CE required preparation of cultural and biological reviews prior to any action. The biological review identified appropriate time windows for conducting certain activities to reduce impacts to nesting wildlife.

**Hanford Central Plateau D&D Recovery Act Project**

Defense Environmental Cleanup, Recovery Act (row 53)

Level of NEPA action: EA

Brief project description: Removal of excess facilities and infrastructure within the Fitzner/Eberhardt Arid Lands Ecology Reserve at the Hanford Site.

Value added by the NEPA process: The NEPA process identified the need for additional tribal interactions and controls to limit ecological and cultural impacts, which led to a Memorandum of Agreement between DOE and the State Historic Preservation Office. The NEPA process provided a clear understanding of the environmental setting and of tribal and community values that helped build support for the proposal. Specifically, the EA provided an opportunity for stakeholders, in particular Tribal Nations, to participate in the identification of sensitive cultural resources resulting in the consolidation of numerous communication towers into two, thereby reducing the visual impact to a traditional cultural property.

### **SRS D&D, Soil & Groundwater Activities Site-wide Recovery Act Project**

Defense Environmental Cleanup, Recovery Act (row 58)

Level of NEPA action: EA

Brief project description: Accelerate disposition of depleted uranium (scope addressed within this EA; ARRA project also includes other work addressed in other NEPA actions).

Value added by the NEPA process: This NEPA process was designed to look more comprehensively and farther into the future with respect to planning than had previously been done at the Savannah River Site (SRS). This EA analyzed the waste streams of both low-level and mixed low-level radioactive wastes, for both the then-current and anticipated scope of work, and all potential government and commercial waste facility destinations. This resulted in solutions that were much more cost- and time-efficient, and limited the expected transportation impacts over the long term in the surrounding communities. This comprehensive approach was achieved due to input received during agency and public scoping.

### **BPA Borrowing Authority: McNary-John Day Transmission Line**

Borrowing Authority: Bonneville Power Administration (row 78)

Level of NEPA action: EIS

Brief project description: Build and operate a new 500-kilovolt transmission line along the Columbia River in Oregon and Washington.

Value added by the NEPA process: The NEPA process helped refine the transmission line route to avoid conflicts with people's lives. The route refinement would not have been apparent without public participation in the NEPA review. The process facilitated public understanding of the project and identified appropriate mitigation measures relative to cultural sites, sensitive plants, wildlife, wetlands, and land use.

### **National Synchrotron Light Source II**

Science, Recovery Act (row 81)

Level of NEPA action: EA

Brief project description: Construction of a light source facility at Brookhaven National Laboratory to deliver x-rays with unprecedented intensity and brightness to research solutions for important energy challenges.

Value added by the NEPA process: The NEPA process identified and facilitated avoiding a potential construction delay and adverse impacts to a sensitive specie. During the EA scoping process, DOE learned that a state mining permit would be required to acquire sand from outside the immediate project area, which would delay the start of construction. Input to the design process identified a sufficient volume of sand from the immediate project area, and the delay was avoided. The NEPA process also identified the potential for project storm water discharge to

affect recharge basins considered designated habitat for the Tiger Salamander, a State Threatened Species, and existing groundwater contamination plumes. This triggered changes to the project design to adjust discharge location points and maintain flows to ensure salamander habitat remains suitable.

### **Nanoscale Science Research Centers: Molecular Foundry**

Science, Recovery Act (row 84)

Level of NEPA action: EA

Brief project description: Capital equipment funds to optimize existing and procure novel equipment in order to ensure the availability of state-of-the-art capabilities.

Value added by the NEPA process: Analysis of the proposed facility at the Lawrence Berkeley National Laboratory influenced design, construction, and operation decisions and identified mitigation measures to avoid impacts to the Alameda whipsnake, a species listed as threatened under the Endangered Species Act. As a result, DOE sited the facility outside of critical habitat, restricted construction activities to daylight hours, disposed of soils in a manner to reduce the potential for encountering and injuring whipsnakes, and implemented landscape design and maintenance during and after construction so as to reduce potential impacts to the whipsnakes.

### **Fundamental Neutron Physics Beamline MIE at SNS full funding (ORNL)**

Science, Recovery Act (row 105)

Level of NEPA action: EIS

Brief project description: Accelerate the schedule for HVAC and utilities installation to support this beamline for studying the fundamental properties of the neutron at the Spallation Neutron Source (SNS) at Oak Ridge National Laboratory (ORNL).

Value added by the NEPA process: In evaluating the then-proposed SNS in the late 1990s, the EIS identified potential adverse impacts to a creek; this resulted in a change in the location of an effluent discharge point to reduce the potential for adverse impacts.

### **Moab Recovery Act Project**

Non-Defense Environmental Cleanup, Recovery Act (row 132)

Level of NEPA action: EIS

Brief project description: Accelerate relocation of 16 million tons of mill tailings and debris from a former, commercial uranium ore processing operation adjacent to the Colorado River and Arches National Park, to an engineered disposal cell 30 miles away.

Value added by the NEPA process: Ore processing near Moab, Utah, left radioactive tailings and debris in an unlined and uncovered pile spanning approximately 130 acres, and resulted in the contamination of soils, groundwater, and ponds with ammonia, copper, manganese, sulfate, and uranium. Contaminants have been detected in the Colorado River, mostly due to groundwater discharge. The decisionmaking associated with the disposition of the site was long and, at times, contentious. The NEPA process facilitated receiving input from agencies (including 12 cooperating agencies) and the public that resulted in a decision to remediate contaminated groundwater and dispose of the tailings off-site. This will benefit four fish species listed as endangered under the Endangered Species Act, and will remove a potential human health risk from the banks of the Colorado River.

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