U.S. DEPARTMENT OF ENERGY

Finding of No Significant Impact, Facility Operations at the U.S. Department of Energy Grand Junction Projects Office, Grand Junction, Colorado

AGENCY: U.S. Department of Energy

ACTION: Finding of No Significant Impact

SUMMARY: The U.S. Department of Energy (DOE) has prepared a sitewide environmental assessment (EA) (DOE/EA-0930) of the proposed action to continue and expand present-day activities on the DOE Grand Junction Projects Office (GJPO) facility in Grand Junction, Colorado. Because DOE-GJPO regularly proposes and conducts many different on-site activities, DOE decided to evaluate these activities in one sitewide EA rather than in multiple, activity-specific documents. On the basis of the information and analyses presented in the EA, DOE has determined that the proposed action does not constitute a major Federal action significantly affecting the quality of the human environment, as defined by the National Environmental Policy Act (NEPA) of 1969 (42 *U.S. Code* 4321, et seq.). Therefore, preparation of an environmental impact statement is not required for facility operations, and DOE is issuing this Finding of No Significant Impact (FONSI).

ADDRESSES: Individual copies of the EA are available from: Mr. Don Leske, Project Manager, U.S. Department of Energy Grand Junction Projects Office, P.O. Box 2567, Grand Junction, CO 81502-2567, (970) 248-6008.

FOR FURTHER INFORMATION ON THE NEPA PROCESS, CONTACT: Mr. Jeff Robbins, NEPA Compliance Officer, Environmental Protection Division, U.S. Department of Energy Albuquerque Operations Office, P.O. Box 5400, Albuquerque, NM 87115, (505) 845-4426.

SUPPLEMENTARY INFORMATION:

Background

History of GJPO Facility

GJPO facility lands were purchased in 1943 by the U.S. War Department for the development of a central refinery to treat and concentrate uranium oxide in support of the Manhattan Project. In late 1947, the U.S. Atomic Energy Commission (AEC) established an office on site to manage the domestic uranium program and to establish a uranium exploration program. AEC conducted uranium milling and assaying activities until 1971. In 1974, AEC initiated the National Uranium Resource Evaluation program to comprehensively assess the nation's uranium resources; this program was completed in 1984 by DOE, the successor agency to AEC. In recent years, DOE-GJPO has provided technical and administrative support personnel for various DOE, U.S. Department of Defense, and U.S.

Environmental Protection Agency (EPA) programs, including laboratory and construction services that are required to support environmental restoration activities.

History of Grand Junction Projects Office Remedial Action Project

In 1984, formal site investigations were initiated under the Grand Junction Projects Office Remedial Action Project (GJPORAP) to assess the extent of radiological contamination on the facility from past operations. Historically, uranium mill tailings and associated radioactive materials (collectively referred to as "UMT waste") were stored or disposed of on site. An estimated 76,500 cubic meters of tailings and contaminated soil was stabilized on site, and 230 cubic meters of contaminated process equipment was buried on site. Approximately one-third of the facility was assessed as contaminated.

A Remedial Investigation/Feasibility Study—EA was prepared to identify potential cleanup strategies and to satisfy NEPA and Comprehensive Environmental Response, Compensation, and Liability Act requirements (the GJPO facility, however, is ***not*** a Superfund site). A FONSI for GJPORAP removal operations was issued by DOE in 1989, and the GJPORAP Record of Decision was finalized and approved in April 1990. Removal of UMT waste began in 1989 and is ongoing. By July 1, 1994, all known exterior UMT waste had been removed from the facility and transported to the Uranium Mill Tailings Remedial Action (UMTRA) Project Cheney Disposal Cell. This cell is located 18 miles southeast of Grand Junction and is designed to permanently contain residual radioactive materials.

Future GJPORAP actions entail removal of UMT waste from facility buildings; these actions are described and analyzed in the EA associated with this FONSI.

Proposed Action

DOE proposes to continue operations at its GJPO facility, expand specific on-site facilities, and upgrade selected operations. The EA describes continuing operations under nine general categories: facility maintenance and operations, laboratory operations, GJPO tenant operations, environmental restoration activities, other GJPO operations, research and development, waste management, environmental monitoring, and workplace monitoring. In addition, the EA describes the proposed activities associated with the anticipated expansion and upgrade of GJPO facilities and operations. The need for environmental cleanup and project management support across the DOE complex would increase requirements at the GJPO for environmental restoration, waste management, research and development, engineering and geoscience capability, and laboratory capacity. Providing this increased capability would involve the renovation of existing facilities and construction of new facilities. The planned activities associated with continuation and expansion of facility operations are summarized in Table 1.

Remedial actions under GJPORAP, encompassing removal of UMT waste in on-site buildings, would continue under the proposed action. Table 2 lists the buildings proposed for decontamination and demolition.

Table 1. Summary of Proposed Construction Activities Under the Proposed Action Alternative

Fiscal Year	Proposed Construction Activity
1997	Three Modular Buildings (new buildings) Radiochemistry Preparation Laboratory (upgrade within Building 20) Organic Extraction Laboratory (upgrade within Building 20) Health Training Facility (new building) Maintenance and Testing Facility (new building)
1998	Two Modular Buildings (new buildings) Emergency Operations Center (new building—replaces Building 19) Environmentally Controlled Volatile Organic Measurement Laboratory (upgrade within Building 20) Kitchen Addition (addition to Building 46)
1999	Three Modular Buildings (new buildings) New Irrigation System Office Building (new building—replaces Buildings 57A-E) Semivolatile Organic Laboratory (upgrade within Building 20)
2000	Northwest Office Complex (new building—replaces Buildings 2, 18, 54, and 810) Medical Facility (new building)
2001	Site Management Offices and Shops (new building)
2002	Environmental Restoration Field Equipment Facility (new building)
2007	New Analytical Chemistry Laboratory (new building)

Environmental Impacts

The environmental impacts associated with the proposed action are described in the EA and are summarized in this FONSI. Only those elements of the environment that would be affected by the proposed action are discussed. Because cultural resources, prime or unique farmlands, and threatened and endangered plants do not occur on or adjacent to the facility, these elements are not discussed in this FONSI. Other elements of the environment, such as land use, visual resources, floodplains, wetlands, geology, mineral resources, and recreation, may occur on or adjacent to the facility but are not affected by activities associated with the proposed action; therefore, they also are not discussed in this FONSI.

Transportation

Under the proposed action, daily traffic to and from the GJPO facility would continue as in the past. Approximately 600-660 vehicles driven by employees and approximately 50 service vehicles driven by subcontractors or delivery personnel would arrive at and depart from the facility each day. An average of three vehicle accidents per year could be expected

Table 2. Proposed Remedial Actions Under GJPORAP

Building	Remedial Action
Building 1	Demolition
Building 34	Demolition
Building 35	Demolition
Building 36	Demolition
Building 46	Demolition of floor; tailings removal from beneath building
Building 810	Assessment of contamination on soil surface; decontamination if necessary
Building 31-A	Decontamination of sump
Building 33	Demolition
Building 938	Decontamination of attic areas
Building 2	Decontamination or demolition
Building 7	Demolition
Building 20	Decontamination

to occur in the employee parking lot, and an average of two vehicle accidents per year could be expected to occur within the confines of the facility. Injuries to people are not expected to occur, and damage to vehicles is expected to be minor.

When buildings are decontaminated or demolished under GJPORAP, three to four tandem dump trucks would be used to transport waste materials to the UMTRA Cheney Disposal Cell or Mesa County landfill. Each truck would make a maximum of five trips per day and would haul a maximum of 9 cubic meters (about 17 tons) of material per trip. The impacts associated with the transportation of these wastes are discussed in the environmental impact statement for the Climax Mill Site and the *Administrative Record: Grand Junction Projects Office Remedial Action Project, Direct Truck Haul of Residual Radioactive Material to the Cheney Repository.*

About twice a year, approximately 500 kilograms (1,100 pounds) of hazardous, polychlorinated biphenyl (PCB), low-level, and mixed wastes would be shipped from the GJPO facility by a subcontracted waste packaging and shipping service and transported to one or more commercial waste facilities. The potential for spill accidents during transportation of these wastes would be low because of the relatively small volumes and low frequency of shipments. In addition, the potential for spills would be reduced by complying with U.S. Department of Transportation regulations for packaging and shipping and by complying with Procedure 5.5, "Shipment of Hazardous Waste," in the DOE contractor's *Stores, Property, and Transportation Desktop Manual.*

On the facility itself, a small potential for transportation accidents involving spills of hazardous, PCB, low-level, or mixed waste would exist. Wastes would be transferred periodically from satellite accumulation areas to the Waste Accumulation Modules or to the Hazardous and Mixed Waste Storage Unit. The potential for spills would be reduced by following established procedures for on-site waste transportation outlined in Procedure 7.4, "On-Site Waste Transfer," in the DOE contractor's *Environmental Services Desk Instructions*. Generally, no more than 150 liters (40 gallons) of waste would be transported at one time. If an accidental spill were to occur, emergency spill-response procedures in Chapter 12, "Hazardous Materials Contingency Plan and Emergency Procedures," of the *GJPO Emergency Preparedness and Response Plan* would be followed.

Noise

Under the proposed action, temporary increases in noise levels would result primarily from routine renovation activities, GJPORAP remedial actions, building construction, and the use of motorized vehicles. With rare exceptions, noise levels would be well below the Federal action level of 85 decibels. Administrative or engineering controls would be considered if noise levels exceeded 85 decibels, in accordance with regulations in 29 *Code of Federal Regulations* Section 1910.95, "Occupational Noise Exposure."

Air Quality

Radon emissions from the instrument calibration facilities and radon calibration chambers would continue to be released at a rate of approximately 0.52 curies per year. This amount would have no measurable effect on the atmospheric radon concentration at the facility boundary.

Radioparticulate emissions from the Analytical Laboratory and Baghouse and nonradiological air particulate emissions (dust) would continue to be well under applicable Federal and State standards. The expected dose to the maximally exposed off-site individual (from radioparticulate emissions) would be about 0.00006 millirem per year, which is well under the EPA and DOE dose limit of 10 millirems per year. Concentrations of nonradiological air particulate emissions also would be well under the EPA and State of Colorado maximum annual concentration of 50 micrograms per cubic meter ($\mu g/m^3$) and maximum 24-hour concentration of 150 $\mu g/m^3$. In 1993, when UMT waste was removed from exterior areas of the facility, the maximum annual concentration was 16.9 $\mu g/m^3$, and the maximum 24-hour concentration was 42.8 $\mu g/m^3$. Future GJPORAP operations, which would entail removal of UMT waste from buildings only, are expected to generate substantially lower concentrations of particulate matter.

Soils

Under the proposed action, areas of unknown, radiologically contaminated soils could be discovered during GJPORAP remedial actions. These soils would be removed upon discovery and hauled to the UMTRA Cheney Disposal Cell.

Soil contamination could result if a waste or fuel spill occurred on the facility. Hazardous, PCB, low-level, or mixed wastes would be transported across the facility from satellite accumulation areas to Waste Accumulation Modules or to the Hazardous and Mixed Waste Storage Unit. However, spills would be unlikely because of the primary and secondary containment features of the packaging and waste storage areas. If a spill were to occur, the affected area would be small because of the relatively small volumes (generally less than 150 liters or 40 gallons) of waste transported. GJPO emergency spill-response procedures would be followed if a spill occurred. Contaminated soils would be immediately treated and/or contained so that the affected area was minimized.

Another source of potential soil contamination would be the sewer pipelines, from which sewer effluent could leak. Currently, there is no leak detection system for the pipelines. If a leak should occur, an unknown area of soil might be contaminated. If the leak were detected, contaminated soils would be treated and/or disposed of properly.

Groundwater

Under the proposed action, groundwater-quality impacts could occur as a result of a fuel or waste spill or a sewer-line leak. If a spill or leak were to occur, contaminants could migrate to the alluvial aquifer through the soil or, more likely, through the surface ponds that are in hydrologic contact with the underlying alluvial aquifer. However, it would be unlikely for the spilled contaminants to adversely affect groundwater quality because of the generally small quantities of fuel or waste transported or stored on the facility.

Because all known exterior UMT waste that historically contaminated the groundwater was removed by July 1, 1994 (contamination still exists within and under buildings), groundwater quality should improve over time by means of natural flushing. Concentrations of water-quality constituents associated with past leaching of uranium mill tailings are expected to be below applicable standards within 50 to 80 years.

Surface Water

Surface-water quality of the North Pond, South Pond, and wetlands is expected to improve over time through passive remediation of the alluvial groundwater. Surface-water impacts could occur as a result of a fuel or waste spill near or directly into a water source; however, it would be unlikely for the spilled contaminant to adversely affect water quality because of the generally small quantities of waste and fuel stored or transported on the facility. If a spill were to occur, GJPO emergency spill-response procedures would be followed.

Vegetation

Under the proposed action, impacts to vegetation could occur as a result of a fuel or waste spill. If a spill were to occur, the affected area would be minimal because of the relatively small volumes of waste and fuel stored or transported on the facility. GJPO emergency spill-response procedures would be followed if a spill were to occur. The contaminated material

would be immediately treated and/or contained and disposed of properly; vegetation, if destroyed or removed, would be replaced.

Minor impacts to vegetation would occur as a result of building construction. Most of the proposed construction would occur in areas currently covered with asphalt or road base. Construction of the Northwest Office Complex, the new Analytical Chemistry Laboratory, and the Medical Facility, however, would result in the removal of about 0.2 hectare (0.5 acre) of vegetation, consisting mainly of upland seeded species, bluegrass lawn, and ornamental trees and shrubs. This loss in vegetated area would be offset by the revegetation of disturbed ground around the newly constructed buildings.

Wildlife

Building construction and GJPORAP activities under the proposed action would cause temporary increases in noise levels, which could result in temporary displacement of wildlife. Permanent displacement of wildlife might result from the increase in human activity associated with the use of a new building, such as the Northwest Office Complex. Most of the new construction would occur in areas currently covered by asphalt or road base, which support minimal or no wildlife habitat. Construction of the Northwest Office Complex, the new Analytical Chemistry Laboratory, and the Medical Facility, however, would result in the removal of about 0.2 hectare (0.5 acre) of vegetation, which could result in the destruction of one to five bird nests and temporary displacement of two to three rabbits or squirrels. Destroyed habitat would be replaced by revegetating disturbed ground around the newly constructed buildings.

Potential waste or fuel spills would not substantially affect wildlife or aquatic life because (1) the spill would be contained and GJPO emergency spill-response procedures would be implemented immediately, and (2) spills into surface-water sources would be of a relatively low volume and would be diluted immediately. The greatest potential impact would be to aquatic life (e.g., frogs or frog eggs) present at the actual spill location.

Socioeconomics

Under the proposed action, continuation and expansion of GJPO facility operations would not negatively affect current socioeconomic trends in the Grand Junction area. Overall, the city and local businesses would continue to benefit from the employment of up to 680 people who buy homes, goods, and services in the area. The purchasing of local goods and services by DOE–GJPO would continue as in the past (goods and services purchased by the DOE contractor in fiscal year 1995 totaled $17.7 million, about 70 percent of which went to local businesses). In fiscal year 2000, the purchasing of local goods and services could decrease as a result of the completion of GJPORAP activities.

Human Health

Workers involved in GJPORAP and waste transportation activities and personnel working in the Analytical Laboratory, Radon Laboratory, Sample Preparation Plant, Petrology Laboratory, Environmental Sciences Laboratory, Maintenance Shop, and Hazardous and Mixed Waste Storage Unit would potentially be exposed to chemicals, toxic substances, and radioactive sources. All these personnel would be required to follow established operational, health, and safety procedures to reduce or eliminate their exposure to harmful elements. Additionally, standard operating procedures would require engineering or radiological controls to be implemented to reduce exposure levels. Actual procedures that would be followed are discussed in numerous GJPO plans, manuals, and desk instructions.

Personnel involved in renovation, construction, and GJPORAP activities would have the highest exposure to tripping hazards and industrial accidents. The risk to personnel would be about the same as that for workers on any other construction site. On the GJPO facility, renovation, construction, and GJPORAP personnel would be required to attend job-site safety meetings and implement the "buddy system" to help reduce injury risks. The potential for other workers on the facility and the general public to be exposed to chemicals, toxic substances, radioactive sources, tripping hazards, or industrial accidents would be low or about the same as that for a worker in a similar office environment.

Alternatives to the Proposed Action

No Action Alternative

Under the No Action Alternative, present-day activities would continue on the GJPO facility; however, the program expansions and concomitant facility upgrades under the proposed action would not occur. Impacts associated with the continuation of GJPO operations would be very similar to those outlined for the proposed action. Slight adverse effects to humans and wildlife would occur from the continuation of current noise levels and traffic volumes on and adjacent to the facility. The potential for waste or fuel spills that could negatively affect soils, groundwater, surface water, vegetation, wildlife, or human health would continue to be negligible. If a spill were to occur, GJPO emergency spill-response procedures would be implemented immediately to mitigate the effects.

The primary impacts of the No Action Alternative would be socioeconomic. Continued operation of the GJPO facility would result in the continued employment of up to 680 people from the Grand Junction area and, subsequently, the continuation of these individuals' contributions (e.g., housing, retail sales, and community services) to the local economy. Continued operation also would sustain local procurement of a variety of materials, equipment, supplies, and subcontracted labor and services. The socioeconomic impacts of continued facility operations, which were associated with a funding of $88 million in fiscal year 1995, would be highly beneficial.

Shutdown Alternative

Under the Shutdown Alternative, current operations at the GJPO facility, with the exception of GJPORAP activities, would be discontinued (the GJPORAP Record of Decision commits DOE to completing GJPORAP). Programmatic responsibilities presently maintained by DOE-GJPO would be discontinued or transferred to other DOE offices. Up to 680 people would lose their jobs at the facility. Implementation of this alternative would prohibit the GJPO from supporting DOE's cleanup goals.

Termination of operations under the Shutdown Alternative would have several long-term beneficial impacts. Traffic volumes on and adjacent to the facility would be nearly eliminated, resulting in three to five fewer traffic accidents annually, less pollutant emissions, and less noise. Suspension of renovation and construction activities would result in reduced noise levels, dust concentrations, and potential for human injury. The elimination of wastes generated by and fuel used on the facility would prevent impacts to the environment from spills.

The most substantial impacts under this alternative, however, would be adverse. Socioeconomically, the loss of up to 680 jobs would negatively affect the Grand Junction housing market, local tax base, vigor of many service industries, and well-being of the community in general. The mental well-being of the terminated employees and their families also could be adversely affected for several years, until new jobs could be acquired.

FINDING: On the basis of the analysis of potential environmental impacts in the EA, the No Action and Proposed Action Alternatives to continue and expand present-day activities at the GJPO facility would not significantly affect the quality of the human environment within the meaning of NEPA. Therefore, DOE is issuing this FONSI, and an environmental impact statement is not required.

Signed in Albuquerque, New Mexico, this 8 day of June, 1996.

Bruce G. Twining, Manager