United States Department of the Interior

[redacted]

IN REPLY REFER TO:

FINDING OF NO SIGNIFICANT IMPACT:
PROPOSED RADIOACTIVE SOIL REMOVAL FROM THE
PROJECT CHARIOT SITE AT CAPE THOMPSON

This Finding only covers those actions which occur on refuge lands. The Department of Energy is the lead Agency and will issue a finding for the entire action, which is beyond the purview of the U.S. Fish and Wildlife Service.

The U.S. Fish and Wildlife Service proposes to permit the removal of 155 cubic yards of radioactive soil from the Project Chariot Site by the U.S. Department of Energy. The Department of Energy's removal action will occur on the Alaska Maritime National Wildlife Refuge. Alternatives to the proposed action include (1) conducting radiological site sampling to determine the need to remove radioactive contaminated materials based upon health risks, or (2) no action. Study of the environmental and socioeconomic effects of the proposal has shown them not to represent a negative impact on the quality of the human environment. I find that:

1) The action will not significantly degrade environmental quality on the Alaska Maritime National Wildlife Refuge.

2) The action will not affect species listed or proposed to be listed on the Federal Threatened or Endangered Species List.

3) The action will not significantly affect historical or cultural resources. This includes properties listed or proposed to be listed on the National Register of Historic Places.

4) The action will not prevent continued subsistence use of refuge lands.

I have determined that removal of the radioactive soil from the Alaska Maritime National Wildlife Refuge is not a major Federal action which would significantly affect the quality of the human environment within the meaning of Section 102(2)(c) of the National Environmental Policy Act of 1969. The environmental assessment, along with other references, support the conclusion that impact of this action will not significantly affect refuge resources. Accordingly, the preparation of an environmental impact statement on the proposed activity is not required.

Supporting References

1. Environmental Assessment of Proposed Radioactive Soil Removal from the Project Chariot Site at Cape Thompson (1993)

2. Section 810 Subsistence Evaluation and Findings (1993)

3. Alaska Maritime National Wildlife Refuge Final Comprehensive Conservation Plan, Environmental Impact Statement, and Wilderness Review (1988)

Walter R. Stieglitz
Regional Director

7/27/93
Date

DOE F 1325.8
(8-89)
EFG (07-90)

United States Government **Department of Energ**

memorandum

DATE: July 28, 1993

REPLY TO ATTN OF: Office of NEPA Oversight:Borgstrom:6-4600

SUBJECT: Environmental Assessment and Finding of No Significant Impact for Proposed Radioactive Soil Removal from the Project Chariot Site at Cape Thompson, Alaska

TO: Thomas P. Grumbly
Assistant Secretary for Environmental
Restoration and Waste Management

This is in response to your memorandum of July 7, 1993, requesting that DOE review and adopt the environmental assessment (EA) of the subject proposed action prepared by the U.S. Fish and Wildlife Service (FWS). You also recommended that an environmental impact statement is not required and issuance of a finding of no significant impact (FONSI) is appropriate. We have considered your request for a waiver of the DOE requirements for State and Tribal preapproval review because the FWS distributed this EA for a 30-day review by the public and other Federal, State, and local agencies, and Indian tribes on June 8, 1993. We agree that the EA preapproval review requirements have been met. We also agree with your request to waive the 15-day review period for the floodplain statement of findings because a prompt start is needed to allow the project to be completed in one working season. This waiver is in accord with 10 CFR 1022.18(c), which allows a waiver of minimum time periods when there are overriding considerations of project expense or effectiveness. DOE issued a Notice of Floodplain and Wetland involvement in the Federal Register on July 13, 1993 (58 Fed. Reg. 37719).

Based on an independent evaluation of the FWS EA, the comments received during a 30-day public review period, and responses to public comments and the recommendation that your NEPA Compliance Officer provided to the Office of NEPA Oversight on July 27, 1993, and after consultation with the Office of General Counsel, I have determined that the FWS EA together with the responses to comments meets the requirements of an environmental assessment for the DOE action. This determination is subject to your acceptance of the attached markup containing changes needed to improve the accuracy and quality of the responses to public comments. Therefore, DOE hereby adopts the FWS EA and response to comments document as a DOE EA (DOE/EA-0880) for DOE's proposed action regarding the Project Chariot site. Further, I have determined that DOE's action regarding the project does not constitute a major Federal action significantly affecting the quality of the human environment and signed the attached FONSI. Therefore, an environmental impact statement is not required. The FONSI incorporates the Floodplain Statement of Findings required by 10 CFR Part 1022.

The Office of Environmental Restoration and Waste Management is responsible for providing public notice of the availability of the EA (which includes the responses to comments) and FONSI as required by the Council on Environmental Quality NEPA Regulations (40 CFR 1506.6(b)). Publication of

the FONSI in the Federal Register is not necessary since this is not an action with effects of national concern. Please send 5 copies of the EA to the Office of NEPA Oversight along with a copy of the distribution list for our records.

for Peter N. Brush
Acting Assistant Secretary
Environment, Safety and Health

Attachments

cc: Donald Elle, NV
NEPA Compliance Officer

Randal Scott, EM-20
NEPA Compliance Officer

DEPARTMENT OF ENERGY

FINDING OF NO SIGNIFICANT IMPACT AND FLOODPLAIN STATEMENT OF FINDINGS FOR THE PROPOSED RADIOACTIVE SOIL REMOVAL FROM THE PROJECT CHARIOT SITE AT CAPE THOMPSON, ALASKA

AGENCY: Department of Energy

ACTION: Finding of No Significant Impact (FONSI) and Floodplain Statement of Findings

SUMMARY: The U.S. Department of Energy (DOE) proposes to conduct site characterization and remediation of affected soils at the Alaska Maritime National Wildlife Refuge at Cape Thompson, Alaska. The characterization activities would determine the concentration of existing radioactive contaminants at a disposal mound and other study sites potentially contaminated during a 1962 radioactive tracer study, and would also include sampling of biota, soils, and sediments at other locations in the Ogotoruk and Kisimilok Valleys. Radioactively contaminated soil would be removed from the disposal mound and, if contamination is still present at any of the tracer study sites, from the respective sites. All contaminated soil would be transported to a DOE low-level radioactive waste disposal site at the Nevada Test Site (NTS). The removal of the mound and other radioactive materials located on the study site would eliminate a potential source of radioactive contamination from the tundra environment and therefore serve to reduce public concerns and perceptions of risk associated with the contamination. The project would be subject to the conditions and permits issued by the U.S. Fish and Wildlife Service (FWS), U.S. Army Corps of Engineers, and other Federal, State, and local agencies.

The proposed project includes several activities that would occur within floodplain areas. Pursuant to the requirements of Executive Order 11988, Floodplain Management, and 10 CFR 1022, Compliance with Floodplain/ Wetlands Environmental Review Requirements, and on the basis of the information in the project environmental assessment (EA), which includes the contents of a Floodplain Assessment, DOE has determined that (1) there is no practicable alternative to the proposed action within the floodplains and (2) the proposed action has been designed to avoid and minimize potential impacts to the floodplains associated with Ogotoruk and Kisimilok Creeks and their tributaries.

The land directly involved with the 1962 Tracer Study and disposal mound presently lies within the Alaska Maritime National Wildlife Refuge. The FWS has prepared an EA to aid in reaching its decisions regarding the authorizations and associated project design requirements that the FWS would need to provide in a special use permit before the proposed action could proceed. FWS distributed the EA on June 8, 1993, for a 30-day comment period. Distribution of the EA included all known interested individuals in the local and regional area, Native Government officials, interested Native corporations, numerous environmental departments in the State of Alaska, points of contact for the National Environmental Policy Act (NEPA)(42 U.S.C. 4321 et seq.) in Alaska, Nevada, and Washington, potentially affected tribes in the vicinity of Richland, Washington, potentially interested Federal agencies, affiliated Senators and Representatives, and area libraries and news media.

Thirteen individuals, organizations, and agencies commented on the EA during the public review period. The principal issues and concerns raised by commenters in various ways included: 1) the adequacy of mitigation included as part of the proposed action to protect sensitive tundra resources; 2) the adequacy of surveys, and thoroughness with which DOE would search for, identify, and remove radioactive contamination; and 3) the purpose and need for action in view of an apparent lack of a significant health risk associated with the contamination.

Based on independent review of the FWS EA, public comments, and DOE responses to public comments, DOE has determined that the FWS EA together with the comment response document meets the requirements of an EA for DOE's proposed action. DOE has adopted the FWS EA and the responses to comments as DOE/EA-0880. Based on the analyses presented in the EA, DOE has determined that the proposed action is not a major Federal action significantly affecting the quality of the human environment, within the meaning of NEPA. Therefore, preparation of an environmental impact statement is not required and DOE is issuing this FONSI.

DATES: DOE needs to begin the proposed action as soon as possible to ensure project completion before inclement winter weather makes further remedial action work impossible during 1993. In accordance with 10 CFR 1022.18(c), DOE waives the 15-day period for public review of the Floodplain Statement of Findings included in this FONSI.

ADDRESSES: Persons requesting additional information concerning the proposed action or a copy of the EA should contact:

Leslie A. Monroe
Environmental Protection Division
Nevada Operations Office
Department of Energy
P.O. Box 98518
Las Vegas, NV 89193-8518
(702) 295-1744 FAX: (702) 295-0838

FOR FURTHER INFORMATION CONTACT: Persons requesting further information regarding DOE's general NEPA procedures should contact:

Carol M. Borgstrom
Office of NEPA Oversight (EH-25)
Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585
(202) 586-4600 or (800) 427-2756
FAX: (202) 586-7031

SUPPLEMENTARY INFORMATION:

Proposed Action

The proposed characterization and remedial action would establish a baseline on background radiation and would eliminate a radioactive disposal site from the Alaska tundra, which has been a source of concern for the local population who live near and use the site. The proposed project includes a program to (1) sample a disposal mound and all other areas used as test plots during the 1962 study to determine the present concentration of radioactive contaminants, (2) excavate and remove contaminated soils, (3) transport the excavated soils for disposal at a DOE low-level radioactive waste disposal site at the NTS, (4) secure FWS and Alaska Department of Enviornmental Conservation approval of final closure of the mound and test plots, and (5) revegetate the excavation sites. In addition, the biota,

soils, sediments, and water in Ogotoruk Creek Valley, where the test plots and mound are located, would be sampled and concentrations of radionuclides would be compared to concentrations measured at the time of the experiments. These same media would be sampled in the nearby Kisimilok Valley to aid in establishing regional background levels. DOE proposes to complete the project during 1993.

During experiments at the Project Chariot site in 1962, radioactive tracers were added to test plots to determine the mechanism and rate of migration of the radioactive material through the soil. Small quantities of radioactive material and about 15 pounds of soil containing radioactive fallout from the Project Sedan test (a Project Plowshare experiment in Nevada) were used as the tracers. The following types and quantities of radioisotopes were used: 6 millicuries of Cesium-137, 5 millicuries of Iodine-131, 5 millicuries of Strontium-85 and 10 millicuries of Project Sedan soil containing mixed fission and activation products. The Project Sedan soil includes some radionuclides that decay slowly, such as Americium-241 and Plutonium-239. After the experiments, the test plots were excavated and the soils containing radioactive materials were consolidated and covered with 4 feet of clean soil to form a mound approximately 6 feet thick and 40 feet by 40 feet in areal extent. After allowance for decay of the short-lived radionuclides used in the tests, the present concentration of radioactivity in the soils at the mound is estimated to be 0.03 nanocuries per gram, with a total radioactivity of less than 3 millicuries for the entire mound.

The project would require only temporary facilities at the wildlife

refuge in Alaska. A base camp would be established near the coastline and airstrips and all characterization and removal activities would originate from that camp. Access from the base camp to the sampling and removal sites would either use vehicles that do not exceed the FWS ground pressure limit of 3 pounds per square inch or would use wide, low-pressure track vehicles in conjunction with pressure displacing mats to ensure that the pressure limit is not exceeded. Stream crossings for sampling would involve all-terrain vehicles that would not exceed the ground pressure limit. The removal equipment would use temporarily installed crossing facilities designed to prevent erosion.

The removal activities would stockpile uncontaminated soil on sheeting located adjacent to the mound. Contaminated soil would be loaded into radioactive waste transport containers, even though DOE does not expect the waste to contain enough radioactivity to be defined under U.S. Department of Transportation regulations as a radioactive hazard. Upon FWS and Alaska Department of Environmental Conservation agreement that the contamination has been removed, using criteria based on background levels and current knowledge of the health effects of radiation, the stockpiled material would be spread over the removal site. The soil would be contoured, seeded with an approved mix of grasses and covered with excelsior to prevent erosion. An existing trail left from the 1962 study would also be seeded.

A barge would transport all radioactive waste removed from the site to a port where the containers could be loaded onto trucks that would carry the waste to the disposal facility at NTS.

Alternatives Considered

Under the No Action alternative, the characterization and removal actions would not occur. The impacts, including temporary floodplain and wetland impacts associated with sampling and removal, would not occur and the disposal mound would remain on the project site.

DOE also considered an alternative involving only site characterization to support a future decision on whether or not to take remedial action. A project to conduct sampling-only would introduce many of the same impacts associated with establishing a base camp as would occur for the proposed project. The vehicles used for access to the sampling points would have negligible impact and may not need the temporary crossing points in the floodplains and wetlands. The disposal mound would remain on the site. If, following analysis of study results, DOE elected to remove the mound, the impacts associated with establishing a base camp would occur again as well as the impacts associated with removal.

Other alternatives considered but not analyzed in detail because they were not feasible involved alternative base camp locations, encapsulation of the contaminated material at the site, and other transport options, such as air transport.

Environmental Consequences

Analyses contained in the environmental assessment indicate that no significant impact to the environment is likely to occur as a result of the proposed action. There would be a short-term impact on the air quality from

equipment exhaust and from incineration of domestic waste, with the ash from this latter function to be sent to Fairbanks for disposal. There would be some minor disturbance of the soil during excavation of the disposal mound but erosion control measures should limit the potential for impacts. Adverse impacts to the permafrost would be kept small by the use of insulation and other protective materials during the excavation process. Minor adverse impacts on vegetation would result from the excavation of the disposal mound, but these impacts would be limited through a revegetation program. Positive impacts would result from revegetation of trails left from the 1962 study. Temporary minor impacts on surface water could result from potential erosion at stream crossings and as a result of pumping approximately 5000 gallons per day from the Ogotoruk drainage for drinking water and other freshwater needs of the work crew. Discharge of greywater (settled sanitary wastewater) to the Chukchi Sea from the camp would be controlled by a permit from the Alaska Department of Environmental Conservation and would have only negligible impact. Based on the EA, there would be some minor short-term impacts to the tundra soils, permafrost, vegetation, and surface water, however, adequate controls have been established to ensure that no significant impacts to sensitive tundra resources would result.

Temporary minor impacts would occur for some of the wildlife at the project site and in the vicinity. The use of the project area by large mammals, e.g., caribou, musk ox, and bears, is expected to be disrupted for the duration of project activities. Several small animals would be taken for

scientific research but use of firearms other than for protection against bears would be prohibited. Restrictions would be applied to local ground and air travel to avoid disturbing wildlife.

The FWS conducted an internal Section 7 consultation under the Endangered Species Act. No endangered species are present. Threatened species that may be present in the project vicinity include the arctic peregrine falcon and the spectacled eider. Peregrine falcons may nest at Crowbill Point three miles up the coast. Spectacled eiders are not known to nest at the site but may pass through on migration. Kittlitz's murrelet, a candidate species still being evaluated for listing as threatened or endangered, is known to nest on ridges to the north but not in the valley where the work would take place. An exclusion zone has been established to ban all surface and air disturbance type work within a half-mile of Crowbill Point. Based on these facts, FWS determined that no endangered, threatened, or candidate species would be adversely affected by the proposed sampling and remediation planned for the Ogotoruk and Kisimilok Valleys.

There would be short-term minor impacts upon the aesthetics of the project site caused by the camp, heavy equipment operation, and aircraft and vehicle use. However, the revegetation activities would repair damage to the tundra from earlier operations so there would also be a positive impact to the natural appearance. The State Historic Preservation Officer has required that clean-up personnel be informed of the significance of the Project Chariot

site, buildings, articles, and structures. The personnel would be instructed not to use any of the historic elements in a way that would detract from their historic integrity.

Accidents that could occur during the conduct of the proposed action, including those involving non-radiological hazards and those involving radiological hazards were analyzed in the EA. The non-radiological hazards are those associated with such elements as bears, cold stress, use of earth-moving equipment, support vehicles, and aircraft. Based on the EA adequate controls are in place to assure that the non-radiological risks would be low. A health and safety plan describes procedures that would be followed to reduce the hazards from such activities.

The potential for an accident involving dispersal of radioactive material is low. In the event of such an accident, because of the very small quantity of radioactive material and the characteristics of the soil containing it, no adverse health effects would occur.

Impacts associated with transportation and disposal also involve non-radiological and radiological risks. The non-radiological impacts for transport and disposal, both for normal operations and for accidents, are expected to be the same as those ordinarily associated with any transport of materials and would be minor. Radiological impacts that could occur under routine or accident conditions during transportation were analyzed in the EA. Because of the small amount of radioactive material, there is no potential for significant radiological risk associated with transportation and disposal.

For example, due to the short duration of exposure and the low levels of radioactivity in the contaminated soil, radiation hazards during normal transportation and disposal would not result in any adverse health effects. The EA shows that even in the extremely unlikely case of an accident releasing in the most harmful manner up to the entire cargo during truck transportation, no adverse human health or ecological impacts would be expected. For an accident during barge transport, even if the entire inventory were dispersed in the marine environment, the impacts on human health and the environment, including those that could result from biological uptake and spread of the radionuclides, would also be inconsequential.

Floodplain Statement of Findings

This Floodplain Statement of Findings was prepared in accordance with 10 CFR 1022. A Notice of Floodplain Involvement was published in the Federal Register on July 13, 1993, and the information ordinarily contained in a floodplain assessment was incorporated in the EA. DOE is proposing to perform characterization and remedial actions on the Alaska Maritime National Wildlife Refuge. Characterization actions would include collecting samples from several widely separated points within the Ogotoruk and Kisimilok Valleys which would require incidental crossings of creeks within each valley. Remedial actions involve removal of radioactively contaminated soil from a disposal mound. The EA shows the location of streams on the site where potentially affected floodplains occur. Stream crossing structures are required to provide access to the disposal mound for the heavy equipment to be used for the removal activities. All stream crossings, both on structures and incidental, are needed to provide the shortest possible travel routes in the

tundra environment for project equipment. Alternatives considered included the proposed project, no action, and a project involving only site characterization that would also involve floodplain activities. The proposed project would comply with all applicable State and local standards, including floodplain standards. The stream crossings would use either a vehicle that does not exceed FWS ground pressure limits for the environment (3 pounds per square inch) or a temporary crossing structure to prevent damage to the floodplain. The temporary structure would be removed at the close of the project with the result that DOE does not expect any impact on structures in the floodplain.

Based on the assessment, DOE determined that there is no practicable alternative to the proposed action within the floodplain and that the proposed action has been designed to avoid and minimize potential impacts to or within the floodplain.

Determination:

Based on the analysis in the EA, the proposed remedial action, including sampling, excavating, transporting, and disposing of the soils, closing and revegetating the site, and conducting the environmental sampling program does

not constitute a major Federal action significantly affecting the quality of the human environment within the meaning of NEPA. Therefore, an environmental impact statement for the proposed action is not required.

Issued at Washington, D.C., this 28th day of July 1993.

for Peter N. Brush
Acting Assistant Secretary
Environment, Safety and Health