# U. S. DEPARTMENT OF ENERGY
# FINDING OF NO SIGNIFICANT IMPACT FOR A NEW SILT/CLAY SOURCE DEVELOPMENT AND USE AT THE IDAHO NATIONAL ENGINEERING AND ENVIRONMENTAL LABORATORY

**Agency:** U. S. Department of Energy (DOE)

**Action:** Finding of No Significant Impact

**SUMMARY:** The DOE-Idaho Operations Office (DOE-ID) has prepared an environmental assessment (EA) to analyze the environmental impacts of closing its current silt/clay source and opening as many as three new sources with volumes sufficient to support potential Idaho National Engineering and Environmental Laboratory (INEEL) projects through 2005. The current source, Spreading Area B [southwest of the Radioactive Waste Management Complex (RWMC)], is the sole INEEL silt/clay source. Of the estimated 717,700 cubic yards of silt/clay (Corps 1994) available in Spreading Area B, about 300,000 cubic yards remain and, at the present rate of mining, will be depleted in late 1997. A 1996 survey estimated that the INEEL needs 2,300,000 cubic yards of silt/clay material over the next ten years (see Section 1, p. 1, of the EA). The silt/clay would be used for, but not be limited to a) the construction of soil caps for contaminated sites, research sites, and landfills, b) the replacement of radioactively contaminated soil with topsoil for revegetation, and backfill and, c) the sealing of sewage lagoons.

The EA examined the potential environmental impacts of the proposed action and evaluated reasonable alternatives, including the no action alternative in accordance with the Council on Environmental Quality Regulations (40 CFR Parts 1500-1508). Based on the analysis in the EA, the impacts of this action, including opening any one of the on-site borrow sites and the one off-site location, will not have a significant effect on the human environment within the meaning of NEPA and 40 CFR Parts 1508.18 and 1508.27.

**Selected Action:** The selected action includes opening one to three new borrow sources concurrently or individually to meet INEEL silt/clay needs through 2005. The following on-site locations could provide this material: Ryegrass Flats, 5.5 miles east of the Central Facility Area (CFA); Spreading Area A, 9.0 miles southwest of CFA; and WRRTF, 25 miles north of CFA (see Figure 1 in the Environmental Assessment). While any of the three sites could meet the entire silt/clay needs of the INEEL, it is likely a combination of sites would be used to meet INEEL's needs because of lower cost and transportation efficiencies. Most projects are likely to use material from pits located within a 10-mile radius . The action is described in detail in Section 2.1.1 of the EA.

**Schedule:** Closure activities for Spreading Area B would occur during the late Spring of 1997 and will occur regardless of the alternative chosen in this EA. Depending on the needs of INEEL Projects, silt/clay sources or sites may be opened beginning in the Spring of 1997, and continue through 2005 as described in Sections 2.1.1 and 2.1.2 of the EA.

**SUMMARY OF IMPACTS:** The following is a summary of the impacts evaluated in the EA at the referenced pages and presented in relation to the significance criteria described in 40 CFR 1508.27.

*1) **Beneficial and adverse impacts*** [40 CFR 1508.27 (b)(1)]:

- There are no significant adverse impacts associated with: Construction and operation activities Section 4.1.1, p. 17. Revegetation at each location will occur at the end of the construction year and at the end of the life of the pit Section 2.1.3, p. 9. Standard mitigation Section 2.1.4, p. 10 will be used to reduce impacts from air emissions Section 4.1.1.1, p. 17, soil disturbance Section 4.1.1.2, p. 18, water resources Section 4.1.1.3, p. 18, ecological resources Section 4.1.1.4, p. 18, cultural resources Section 4.1.1.5, p. 20, visual resources Section 4.1.1.6, p. 20, socioeconomics Section 4.1.1.7, p. 20, transportation Section 4.1.1.8, p. 20, and noise levels Section 41.1.9, p. 20.

*2) **Public health and safety*** [40 CFR 1508.27 (b)(2)]:

- There will be no public or worker exposure to radiation as a result of this project.
- Short-term elevated levels of fugitive dust and exhaust emissions will be controlled by mitigative measures (Section 4.1.1.1, p. 17).
- Accidents resulting in fatalities or injuries are potential risks during transportation of gravel or silt/clay on-site or off-site during construction and operation activities. Based on total miles driven, it is estimated that less than one fatal accident would occur. Injuries are expected to be less than four persons for haul trucks and less than three persons for belly dumps. Spills of gravel or silt/clay on or along one of the highways will be mitigated under the Job Safety Analysis Plan for that project (Section 4.1.1.8, p. 20).

*3) **Unique characteristics of the geographical area*** [40 CFR 1508.27 (b)(3)]:

- Activities associated with opening and operating silt/clay sources will disturb an estimated 240 acres over a 10-year period. A maximum of 24 acres (Section 2.1.1) would be mined each year with rehabilitation of these disturbed acres occurring at the end of each construction season in October or November (Section 4.1.1.2, p. 18).
- There are no jurisdictional wetlands, streams or rivers, or permanent bodies of water on any of the on-site alternative locations. However, Spreading Area A experiences periodic flooding during years of high run-off and is therefore designated "Waters of the U.S." As a result it will require a Clean Water Act Section 404 Permit to discharge dredged and fill material if discharge were to occur (Section 4.1.1.3, p. 18).
- By the nature of the activity, the extraction of silt/clay from any of the on-site alternatives would alter the immediate contour of the ground surface. Some individual plants or animals would be affected by the removal of silt/clay. Some members of less mobile species, such as lizards, snakes, and some small mammals would be displaced during surface clearing operations. Other more mobile species would move away from the disturbance (Section 4.1.1.4, p. 18).

- No long-term impacts to visual resources on or near the INEEL would occur from construction and operation of these on-site silt/clay sources. Short-term stock piles and fugitive dust plumes may be visible from time to time. (Section 4.1.1.6, p. 20).

*4) Degree to which effects on the quality of the human environment are likely to become highly controversial* [40 CFR 1508.27 (b)(4)]:

- The project will result in no significant adverse effects on the quality of the human environment based on accepted methods of evaluation.

*5) Uncertain or unknown risks to the human environment* [40 CFR 1508.27 (b)(5)]:

- No unique, uncertain, or unknown risks or effects to the human environment will result from the operational or cumulative impacts associated with the project.

*6) Precedent for future actions* [40 CFR 1508.27 (b)(6)]:

- The opening of silt/clay sources does not set a precedent for future actions or automatically trigger the opening of similar pits.
- Further environmental evaluations (Environmental Checklist, Environmental Assessment) would be required for any new aggregate sources such as gravel, cinder, sand, or silt and clay other than those described in this analysis.

*7) Cumulatively significant impacts* [40 CFR 1508.27 (b)(7)]:

- There are no significant cumulative impacts associated with the project (Section 4.1.2, p. 21).

*8) Effect on cultural or historical resources* [40 CFR 1508.27 (b)(8)]:

- No cultural resources are anticipated to be impacted (p. 20). However, DOE will complete consultation as required under Section 106 of the National Historic Preservation Act before commencement of any activities associated with the selected action (Section 4.1.1.5, p. 20 and Section 6, p. 29).

- Cultural resource surveys completed within 40-acre plots at each on-site alternative location have revealed no significant resources in areas where excavation is scheduled to begin. However, potentially significant archaeological sites were identified in the vicinity of the 40-acre plots and along access corridors. Therefore, additional archaeological investigations would be required before any expansion beyond the 40-acre plots or before any road upgrades (Section 4.1.1.5, p. 20).

*9) Effects on threatened or endangered species or critical habitat* [40 CFR 1508.27 (b)(9)]:

- No threatened or endangered species or critical habitat will be affected by the action (Section 4.1.1.4, p. 18 and Section 6, p. 29).

*10) Violation of Federal, State, or Local law* [40 CFR 1508.27 (b)(10)]:

- The project will not violate any federal, state, or local law (Section 5, p. 27).

**DETERMINATION:** Based on analysis presented in the attached EA, I have determined that this project does not constitute a major Federal action significantly affecting the quality of the human environment. Therefore, preparation of an environmental impact statement is not required and I am issuing this finding of no significant impact.

**INFORMATION:** Copies of the EA and the Department of Energy's Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Programs Final Environmental Impact Statement, DOE/EIS-0203-F, April 1995 (FEIS) are available from: Brad Bugger, Office of Communications, MS-1214, Idaho Operations Office, U. S. Department of Energy, 850 Energy Drive, Idaho Falls, Idaho, 83403-3189, or by calling (208) 526-0833 or the toll-free INEEL citizen inquiry line (800) 708-2680.

For further information on DOE's NEPA process contact: Roger Twitchell, NEPA Compliance Officer, MS-1216, U. S. Department of Energy, 850 Energy Drive, Idaho Falls, Idaho, 83403-3189, (208) 526-0776.

Issued at Idaho Falls, Idaho on this 11th day of May, 1997.

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Manager, Idaho Operations Office