U.S. Department of Energy
Finding of No Significant Impact
Cleanup and Closure of the Energy Technology Engineering Center

AGENCY: U.S. Department of Energy (DOE)

ACTION: Finding of No Significant Impact (FONSI)

SUMMARY: The U.S. Department of Energy (DOE) NNSA Service Center is responsible for the operation of the Energy Technology Engineering Center (ETEC), located in Ventura County California. DOE has determined that ETEC is surplus to its current needs and is closing the site, but first must cleanup the remaining radioactive and chemical contamination at the site. The cleanup of the radiological contamination at ETEC and release of the site from regulatory control is being done in accordance with various laws and regulations, including the Atomic Energy Act, the National Environmental Policy Act and CERCLA (Comprehensive Environmental Response and Liability Act).

DOE prepared an environmental assessment (EA) to evaluate the potential impacts of implementing cleanup and closure activities (*see Environmental Assessment for Cleanup and Closure of the Energy Technology Engineering Center*, DOE/EA-1345), in accordance with NEPA and DOE's NEPA implementing regulations (10 CFR Part 1021). Based on the results of the analysis in the EA and other information described below, DOE has decided to implement its preferred alternative (cleaning up radiological facilities and surrounding soils to a 15 millirem exposure per year standard plus ALARA (As Low As Reasonably Achievable) DOE has determined that implementation of this alternative will be fully protective of future users of the site and does not significantly affect the quality of the human health or the environment within the meaning of NEPA. Therefore, preparation of an environmental impact statement is not required.

DESCRIPTION OF THE PROPOSED WORK:
DOE's preferred alternative (***Alternative 1***) is cleaning up the ETEC site using a 15 mr/year standard plus ALARA for decontamination of radiological facilities and surrounding soils. Using this standard, DOE would ensure that any remaining radiological contamination would result in no more than an annual 15-millirem additional radiation dose (above background) to the maximally exposed individual from all exposure pathways results in an additional theoretical lifetime cancer risk of no more than 3×10^{-4} (three in 10,000) to the maximally exposed individual over 40 years. However, annual exposures are likely to be much lower as a result of the application of the ALARA (As Low As Reasonably Achievable) principle. Under this alternative, DOE would also decontaminate, decommission, and demolish the remaining sodium facilities and all of the remaining uncontaminated support buildings for which it is responsible. Ongoing groundwater treatment would continue. Radioactive, hazardous, and nonhazardous debris waste would be transported off the site to approved disposal facilities. Sodium would be transported off the site for reuse. Clean soil from an onsite borrow area would be used to regrade the site as necessary. Implementation of Alternative 1 would result in the generation of approximately 9,100 cubic meters (321,400 cubic feet) of low-level radioactive waste.

ALTERNATIVES:
Although several alternatives were considered, DOE analyzed two additional alternatives in the EA:
Alternative 2 – DOE would ensure that any remaining radiological contamination would result in no more than an annual 0.05-millirem additional radiation dose (above background) to the maximally exposed individual (assumed to be a person living in a residential setting on Area IV) from all exposure pathways (air, soil, and groundwater). This exposure would result in an additional theoretical lifetime cancer risk of no more than 1×10^{-6} (1 in 1,000,000) to the maximally exposed individual over 40 years. Implementation of this alternative would require substantially more soil remediation than would be required under Alternative 1 (approximately 45 times more) and also would require the transportation of clean soil to Area IV from an offsite borrow area. This additional soil remediation would result in more worker accidents, and greater transportation impacts than under Alternative 1, without any demonstrable public health benefit from averted dose. Implementation of Alternative 2 would result in the generation of approximately 408,450 cubic meters (14.4 million cubic feet) of material managed and ship as low-level radioactive waste. Of this 408,450 cubic meters, 399,350 cubic meters of excavated soil would not be classified as low level radioactive waste under current federal or state regulations.

No Action Alternative – DOE would conduct no further cleanup of radiological facilities or soil or cleanup of the remaining sodium and other support facilities for which it is responsible. Rather, Rocketdyne would prohibit or control access to contaminated facilities, soil, groundwater, and surface water and continue groundwater treatment.

Implementation of the alternatives analyzed would have no impact on air quality (emissions of criteria air pollutants), water quality and water resources, or socioeconomics. Impacts to geology and soils, human health, waste management, transportation, and biological resources will be minor.

DOE considered and assessed other alternatives that were eliminated from further study because of technical or jurisdictional considerations.

DETERMINATION:
Based on the information and analysis in the EA and other information, DOE has decided to implement Alternative 1. This decision is based on several factors, including that the implementation of the 0.05-millirem dose cleanup standard would result in greater environmental impacts (such as traffic fatalities, the disturbance of sensitive habitat and increased air pollution) than Alternative 1 without an appreciable reduction in risk to human health or the environment, Cleanup conducted at the site has shown that the results of using the 15 mrem plus ALARA has resulted in residual risk below $2x10^{-6}$, which is fundamentally the same level of risk associated with the 0.05 mrem dose cleanup standard Alternative 2. Furthermore, it is technically infeasible to distinguish radionuclide contamination in soil at a 1-in-a-million risk level above background for most radionuclides, because these levels are, in general, less than laboratory soil detection limits and less than background soil variability.

Based on the findings in the EA and the substantially greater cost of Alternative 2 without a perceptible reduction in risk to human health or the environment, DOE has determined that the 15 mrem plus ALARA standard for decontamination of radiological facilities and surrounding soils of the ETEC site shall be used. The cleanup of Area IV does not constitute a federal action significantly affecting the quality of the human environment within the meaning of NEPA. Therefore, a FONSI is made and an environmental impact statement is not required.

PUBLIC AVAILABILITY:

Copies of this EA are available from:
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