

NUCLEAR REGULATORY COMMISSION

[Docket No. 070-3073]

Finding of No Significant Impact**AGENCY:** Nuclear Regulatory Commission.**ACTION:** Finding of No Significant Impact Related to Amendment of Materials License No. SNM-1999, Kerr-McGee Corporation, Cushing Refinery Site, Cushing, Oklahoma.

The U.S. Nuclear Regulatory Commission (hereafter referred to as NRC) is considering issuing a license amendment to Materials License No. SNM-1999, held by the Kerr-McGee Corporation (Kerr-McGee or the licensee), to authorize remediation of Acid Sludge Pit 4 located on its Cushing refinery site (Cushing site located in Cushing, Oklahoma), and authorize placement of radioactive contaminated material into the radioactive material storage area (RMSA).

Summary of Environmental Assessment*Background*

Kerr-McGee has environmental responsibility for a former refinery site near the city of Cushing, Oklahoma. The refinery opened around 1912 and was purchased by Kerr-McGee in 1956. During the early 1960s, in addition to petroleum processing, Kerr-McGee processed uranium fuel and thorium metal in several buildings onsite under licenses issued by the Atomic Energy Commission (AEC). The uranium fuel and thorium processing area was decommissioned, the property and facilities were released for unrestricted use, and the license was terminated by the AEC. Kerr-McGee continued to operate the refinery until 1972, at which time it was torn down. In May 1990 Kerr-McGee entered into a Consent Order with the Oklahoma State Department of Health (now referred to as the Oklahoma Department of Environmental Quality; ODEQ), addressing the investigation and remediation of the Cushing refinery site. The ODEQ Consent Order divided the site work into radiological and non-radiological remediation efforts. The non-radiological remediation is being performed in a manner similar to the Federal Superfund Remedial Investigation/Feasibility Study (RI/FS) process. On April 6, 1993, NRC issued Materials License SNM-1999 to Kerr-McGee Corporation, for the radiological decommissioning of its Cushing site. This license authorized the licensee to possess radioactive contaminated soil,

sludge, sediment, trash, building rubble, and any other radioactively contaminated material, at its Cushing site.

Proposed Action

One of the refinery acid sludge pits being remediated under the ODEQ Consent Order contains thorium contamination in one corner of the pit. This affected pit is designated as Acid Sludge Pit 4. The licensee proposed to remediate Acid Sludge Pit 4 based on the experience gained from remediating non-radiologically contaminated acid sludge pits. The licensee would establish a 50-by-50-foot grid system over the surface of Acid Sludge Pit 4, referenced to the site-wide grid system. A layer of reagent (agricultural lime) would be placed over each grid block. The acidic sludge in each block would be neutralized to a pH of approximately five to six by adding and mixing in the reagent to depth. The mixing process should produce a relatively homogeneous material. The licensee plans to surface-scan this material in 18-inch lifts, to determine if material exceeds NRC's Branch Technical Position (BTP) (46 **Federal Register** 52061) Disposal Option 1 for thorium concentrations. Material that exceeds this Option 1 limit would be transported to the RMSA. Once this material is in the RMSA the licensee plans to package and transport this material to a licensed offsite disposal facility, the Envirocare Low-Level Radioactive Waste Disposal Site in Clive, Utah, for disposal. Material that meets the Option 1 limit would be excavated, stabilized by blending in cement kiln dust or similar reagent, and transported to the onsite Other Industrial Waste (OIW) disposal cell. The licensee plans to perform a final survey of the material, once it is placed in the OIW disposal cell, to confirm that the material meets NRC's release criteria, Option 1 limit.

There are five acid sludge pits located on the Cushing site. These acid sludge pits contain acidic hydrocarbon sludge from an earlier lubricating oil manufacturing operation. The waste is primarily heavy hydrocarbon containing sulfuric acid (typically 15 to 20 percent). The northwest corner of Acid Sludge Pit 4 also contains thorium-contaminated material in concentrations that exceed current remediation criteria and pose a long-term risk to the environment. The other acid sludge pits do not contain radiologically contaminated material. Phase One of the non-radiological effort is remediation of the five acid sludge pits. The RI/FS process was completed and reviewed by the ODEQ and local citizens. The ODEQ

issued a record of decision for the acidic sludge pits requiring neutralization, excavation, and placement in an onsite engineered disposal cell.

License Condition 11.B.1 authorized construction of the RMSA but prohibited use of the RMSA until the licensee demonstrated that liquid effluent releases would be in compliance with the requirements of 10 CFR Part 20. The licensee requested License Condition 11.B.1 be amended to allow radioactive contaminated material to be placed into the RMSA. The licensee also provided its proposed RMSA liquid effluent monitoring program.

In addition to the RMSA the licensee plans to construct an Acid Sludge Pit 4 storm water retention pond (retention pond). The purpose of the retention pond is to collect surface water runoff caused by rainstorm events that may occur during the several week period while the licensee will be performing Acid Sludge Pit 4 remediation activities in zones 1 and 2 (known contaminated or possibly contaminated areas, respectively). Therefore, surface water runoff that may contain radiologically contaminated material from a rainstorm event would be collected and monitored prior to release from this area. The licensee plans to use the same liquid effluent monitoring procedures prior to release of liquid from the retention pond as it plans to use for monitoring RMSA liquid effluent releases. Finally, both the RMSA and the retention pond use a common discharge point in Skull Creek.

The Need for Proposed Action

This proposed action is necessary to remove radiologically-contaminated material from Acid Sludge Pit 4. This action will facilitate compliance with the Consent Order, and remediation of Acid Sludge Pit 4 for release for unrestricted use, a necessary action for termination of Materials License SNM-1999.

Alternative to Proposed Action

An alternative to the proposed action is a no-action alternative. No action would mean that Acid Sludge Pit 4 would not be remediated now. This would prevent the licensee from complying with the ODEQ Consent Order. Also, this conflicts with NRC's requirement, in 10 CFR 40.42, of timely remediation at sites that have ceased operation. Although there is no immediate threat to the public health and safety from this site, not undertaking remediation at this time does not solve the regulatory and potential long-term health and safety problems associated with storing this

waste. No action now would delay remediation until some time in the future, when costs could be much higher than they are today. It is even possible that no disposal option will be available in the future if the current low-level radioactive waste disposal facilities are closed and no new ones are opened. Therefore, the no-action alternative is not acceptable.

Environmental Impacts of Proposed Action

The 10 CFR Part 20 liquid effluent release limits are based on a total effective dose equivalent of 50 mrem if the radionuclide were ingested continuously over the course of a year. The licensee has committed to maintain annual cumulative averaging less than 20 percent of the effluent limits stipulated in Appendix B of 10 CFR Part 20. The Cushing license SNM-1999 will be conditioned to reflect this commitment. The licensee's analysis indicates that the actual releases will likely be less than one percent of the effluent limits. If the licensee did release liquid effluents at one percent of the 10 CFR Part 20 release limits and if a member of the public were able to directly consume this contaminated liquid effluent, that member of the public would receive a total effective dose of less than 0.5 mrem/year. Further, if the licensee released liquid effluents at 20 percent of the 10 CFR Part 20 release limits and if a member of the public were able to directly consume this contaminated liquid effluent, that member of the public would receive a total effective dose of less than 10 mrem/year. Therefore, effluent releases from the RMSA will be limited to an annual average of not more than 20 percent of the 10 CFR Part 20 limit and, in accordance with ALARA, any discharge above 20 percent of the limit will be investigated and corrective measures will be taken and documented. This condition will ensure that the maximum potential dose to a member of the public is less than 10 mrem/year. Therefore, the impact on the human environment due to the release of potentially radioactive contaminated liquid effluent from either the RMSA or the retention pond is insignificant.

Further, the low-level waste disposal facility, Envirocare, eligible to receive this waste, is regulated under State of Utah rules for land disposal of radioactive wastes, which provide for long-term institutional control and minimize the potential for human intrusion and other environmental impacts. Therefore, NRC staff believes that disposing of the Acid Sludge Pit 4 radiologically contaminated wastes at

the Envirocare facility will not cause any significant impacts on the human environment and is acceptable. The conditions and restrictions placed on the Envirocare facility, combined with the facility design provisions and its location, provide an acceptable level of protection of human health and safety and the environment.

Conclusions

Based on NRC staff's evaluation of the licensee's Acid Sludge Pit 4 remediation plan and placement of radioactive contaminated material into the RMSA, NRC staff has determined that the proposed plan and use of the RMSA complies with NRC's public and occupational dose and effluent limits, and that authorizing the proposed activities by license amendment would not be a major Federal action significantly affecting the quality of the human environment. NRC staff concludes that a finding of no significant impact is justified and appropriate, and that an environmental impact statement is not required. In accordance with the requirements of Subpart L of 10 CFR Part 2, an Opportunity for a Hearing was offered.¹

Finding of No Significant Impact

Pursuant to 10 CFR Part 51, NRC has prepared an environmental assessment related to the issuance of a license amendment to Materials License SNM-1999, authorizing remediation of Acid Sludge Pit 4 and placement of radioactive contaminated material into the RMSA. On the basis of this environmental assessment, NRC has concluded that this licensing action would not have any significant effect on the quality of the human environment and does not warrant the preparation of an environmental impact statement. Accordingly, it has been determined that a Finding of No Significant Impact is appropriate.

Further Information

For further details with respect to this action, the Environmental Assessment and other documents related to this proposed action are available for public inspection and copying at NRC's Public Document Room at the Gelman Building, 2120 L Street NW., Washington, DC.

Dated at Rockville, Maryland, this 15th day of July 1998.

For the Nuclear Regulatory Commission.

Lawrence G. Bell,

Acting Chief, Low-Level Waste and Decommissioning Projects Branch, Division of Waste Management, Office of Nuclear Material Safety and Safeguards.

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NUCLEAR REGULATORY COMMISSION

Sunshine Act Meeting

AGENCY HOLDING THE MEETING: Nuclear Regulatory Commission.

DATES: Wednesday, July 29, 1998.

PLACE: NRC Headquarters, 11555 Rockville Pike, Rockville, Maryland.

STATUS: Public.

MATTERS TO BE CONSIDERED:

Week of July 27

Wednesday, July 29

2:00 p.m.

Briefing on Operating Reactors and Fuel Facilities (Public meeting)

4:00 p.m.

Affirmation Session (Public meeting)

*(Please note: This item will be affirmed immediately following the conclusion of the preceding meeting.)

a: Private Fuel Storage, L.L.C.; Atomic Safety and Licensing Board Memorandum and Order, LBP-98-7 (April 22, 1998) (Tentative)

*The schedule for Commission meetings is subject to change on short notice. To verify the status of meetings call (recording)—(301) 415-1292.

CONTACT PERSON FOR MORE INFORMATION: Bill Hill (301) 415-1661.

The NRC Commission Meeting Schedule can be found on the Internet at: <http://www.nrc.gov/SECY/smj/schedule.htm>

This notice is distributed by mail to several hundred subscribers; if you no longer wish to receive it, or would like to be added to it, please contact the Office of the Secretary, Attn: Operations Branch, Washington, D.C. 20555 (301-415-1661). In addition, distribution of this meeting notice over the Internet system is available. If you are interested in receiving this Commission meeting schedule electronically, please send an electronic message to wmh@nrc.gov or dkw@nrc.gov.

Annette L. Vietti-Cook,

Acting Secretary, Office of the Secretary.

[FR Doc. 98-20102 Filed 7-23-98; 11:30 am]

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¹ 60 Federal Register 46318 (September 6, 1995).