

August 9, 2005

Mr. John H. Ellis
President
Sequoyah Fuels Corporation
P.O. Box 610
Gore, OK 74435

SUBJECT: SEQUOYAH FUELS CORPORATION - MATERIALS LICENSE NO. SUB-1010 -
ENVIRONMENTAL ASSESSMENT OF GROUND WATER MONITORING PLAN
(TAC L52529)

Dear Mr. Ellis:

The U.S. Nuclear Regulatory Commission (NRC) has completed its review of the environmental aspects of Sequoyah Fuels Corporation's (SFC's) proposed Ground Water Monitoring Plan (GWMP) for the SFC facility in Gore, Oklahoma. We have reviewed the GWMP submitted by your letter of February 25, 2005, which updated the original GWMP submitted on June 12, 2003. We have prepared an Environmental Assessment (enclosed) that resulted in a finding of no significant impact.

We will publish our findings in the *Federal Register*, after which we will act upon your license amendment request. If you have any questions concerning this letter please contact me at (301) 415-6629 or via e-mail to mhf1@nrc.gov.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Sincerely,

/RA/

Myron H. Fliegel, Project Manager
Fuel Cycle Facilities Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Docket No.: 40-8027
License No.: SUB-1010

Enclosure: Environmental Assessment

cc: William Andrews, USGS
Patricia Ballard, NRMNC
Michael Broderick, OK DEQ
Kelly Burch, Esq., OK AG
Will Focht, OSU
Alvin Gutterman, Esq., Morgan Lewis & Bockius
Pat Gwin, Cherokee Nation
Jeannine Hale, Esq., Cherokee Nation
Craig Harlin, SFC
Jim Harris, USACE
Troy Poteete, Cherokee Nation
Charles Scott, USFWS
Saba Tahmassebi, OK DEQ
Rita Ware, EPA
Kim Winton, USGS
Merritt Youngdeer, BIA

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DISTRIBUTION :

FCFB r/f J. Whitten/RIV J. Park

ML052200616

*See previous concurrence

OFC	FCFB		FCFB		FCFB	
NAME	M. Fliegel*		B. Garrett		R. Nelson	
DATE	8/3/05		8/9/05		8/9/05	

**ENVIRONMENTAL ASSESSMENT
FOR THE SEQUOYAH FUELS CORPORATION
REQUEST FOR AMENDMENT OF ITS LICENSE TO
APPROVE A GROUND WATER MONITORING PLAN**

INTRODUCTION

Sequoyah Fuels Corporation (SFC) requested U.S. Nuclear Regulatory Commission (NRC) approval of a proposed ground water monitoring plan (GWMP) for its Gore, Oklahoma site. NRC staff has reviewed the environmental aspects of the proposed GWMP in accordance with the requirements in 10 CFR Part 51 and has documented the results of its review in this environmental assessment. Separately, NRC staff has reviewed the proposed GWMP and has concluded that it meets the requirements in Appendix A to 10 CFR Part 40. The results of that review are documented in a Technical Evaluation Report.

The SFC facility operated as a uranium conversion facility but has not operated since 1993. SFC submitted decommissioning plans for the site in 1998 and 1999 in accordance with subpart E of 10 CFR 20 (the license termination rule). In July 2002, the Commission determined that most of the waste material at the site can be classified as 11e.(2) byproduct material⁽¹⁾, allowing SFC to decommission the site under Appendix A to 10 CFR Part 40. In December 2002, SFC's license was amended to reflect the change in classification of the wastes. One of the conditions added to the license was a requirement that SFC submit a GWMP by June 15, 2003. SFC submitted a proposed GWMP on June 12, 2003. As a result of NRC staff review, the GWMP was revised several times, and the final version was submitted on February 25, 2005.

The purpose of the GWMP is to satisfy the requirement in Criterion 7A of Appendix A to 10 CFR Part 40 to establish a ground water monitoring program to detect ground water contamination and to monitor compliance with ground water standards.

THE PROPOSED ACTION

The proposed action is implementation of the February 25, 2005 GWMP. The GWMP identifies well, seep, and surface water locations where samples would be collected, the schedule for sample collection, and the constituents that would be analyzed for.

SFC has been monitoring ground water at the site since the 1970s under requirements in its NRC license and as a result of U.S. Environmental Protection Agency requirements under the Resource Conservation Recovery Act. The GWMP would rely in large part on existing monitoring points. However, 157 existing wells would be abandoned and plugged and 10 new wells would be installed. Abandoned wells would be plugged in accordance with Oklahoma requirements to ensure that they would not provide pathways between aquifers. New wells would be drilled and completed using standard equipment and techniques for shallow wells (the deepest well to be drilled would be approximately 78 feet below ground surface). SFC estimates that well drilling and plugging activities would be completed in about 4 months.

(1) 11e.(2) byproduct material is material that meets the definition in section 11e.(2) of the Atomic Energy Act of 1954, as amended. It is "tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content."

Drilling additional groundwater monitoring wells would consist of using a drill rig to bore holes into the subsurface and then constructing monitoring wells using PVC piping, with sand and grout placed in-between the PVC pipe and the soil. SFC has not contracted with a drilling company, pending NRC approval of the GWMP, but expects that the bidder chosen would likely use one or two drill rigs to accomplish this work. Drill cuttings and the small potential for a minor amount of dust may occur while drilling with minor surface disruption. In addition, a number of monitoring wells would be abandoned in accordance with the State of Oklahoma well abandonment criteria. Well abandonment criteria can be found in Appendix D to the SFC February 25, 2005, submittal. A drill rig may also be used to accomplish this and a small amount of dust may occur. Cement grout would be placed into the borehole to seal the hole in order to prevent surface runoff from migrating down the drill hole.

THE NEED FOR THE PROPOSED ACTION

Criterion 7 of 10 CFR Part 40, Appendix A, requires 11e.(2) licensees to implement a plan to monitor the ground water to detect contamination and to monitor compliance with ground water standards. With the change in classification of the waste material at the site to 11e.(2) byproduct material, SFC was required to comply with that requirement. SFC incorporated elements of its existing ground water monitoring program into the proposed GWMP. The GWMP cannot be implemented until NRC grants the license amendment authorizing it. If the license amendment is not granted, SFC would continue its current ground water monitoring program, but may not be able to implement a proposed ground water clean-up plan (which is currently under review by NRC) until a ground water monitoring plan satisfying the requirements of Criterion 7 is implemented.

ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION

NUREG-1157 provides detailed descriptions of the SFC facility and the nearby environment. Additional descriptions can be found in several SFC documents, including, *Sequoyah Fuels Corporation Facility Environmental Investigation Finding Report (1991)*, *Final RCRA Facility Investigation Report (1996)*, and *Site Characterization Report (1998)*.

The only potential environmental impacts of implementing the GWMP would be those associated with the necessary physical activities of plugging abandoned wells and drilling and completing several new wells. Plugging abandoned wells in accordance with State of Oklahoma criteria would prevent cross contamination of different aquifers. New wells would be constructed with well casings in a manner that also would prevent aquifer cross contamination.

The drill rigs to be used would generate a moderate amount of noise (most operators wear ear protection) but as the nearest resident is about a half a mile away with a buffer zone of trees, noise impacts are not expected. The drilling and plugging operations may also generate a small amount of dust but the impact offsite would be minor to nonexistent. These impacts would only exist for the short period of time necessary to complete these actions and are very minor.

NRC's conclusion is that only short duration, minor impacts to the environment would result from implementing the GWMP.

NRC has found no other current or planned activities in the area that could result in cumulative impacts.

ENVIRONMENTAL IMPACTS OF ALTERNATIVES TO THE PROPOSED ACTION

Alternative monitoring plans, with different sets of monitoring locations are possible. Depending on the alternative, several more or less existing wells could be plugged and several more or less new wells drilled and completed. However, the impacts would be similar to the proposed GWMP.

An alternative to the proposed action would be for the staff to deny the licensee's request. The licensee would then be unable to implement an approved plan for monitoring the ground water. As a plan to clean up contaminated ground water cannot be approved without an approved GWMP in place, the licensee would not be able to complete actions to clean up the ground water.

CONCLUSION

The NRC staff has concluded that the proposed action, implementation of the proposed GWMP, would result in minimal environmental impacts, which would be of short duration.

The NRC staff has prepared this environmental assessment in support of the staff's review of the proposed action to amend NRC license SUB-1010. On the basis of this environmental assessment, NRC has concluded that there are no significant environmental impacts and the license amendment does not warrant the preparation of an Environmental Impact Statement. Accordingly, it has been determined that a Finding of No Significant Impact is appropriate.

AGENCIES AND PERSONS CONSULTED

The Oklahoma Department of Environment Quality and the Cherokee Nation were consulted. Pre-decisional copies of this Environmental Assessment were forwarded to both on July 7, 2005. The Oklahoma Department of Environment Quality agreed with the NRC's conclusions. The Cherokee Nation did not comment.

NRC staff has determined that the proposed action would have no effect on threatened or endangered species or their habitat. Following an informal consultation (for SFC's proposed reclamation of the site) under Section 7 of the Endangered Species Act, the U.S. Fish and Wildlife Service (Tulsa Ecological Services Office) advised the NRC that only one listed species, the bald eagle, could be found in the project area, and that this species is not likely to be affected by the proposed reclamation activities. As the proposed GWMP would be significantly less disruptive than the reclamation activities, the staff concludes that it would not affect that species. Therefore, no further consultation with the U.S. Fish and Wildlife Service is required.

Likewise, based on previous consultation with the Oklahoma State Historic Preservation Officer (SHPO) and the Cherokee Nation, the staff has concluded that there are no cultural or historic properties that could be affected by the proposed action. By letter dated June 27, 2005, the staff requested the SHPO's concurrence with this determination. By letter dated July 26, 2005, the SHPO concurred with the staff's determination.

REFERENCES:

Code of Federal Regulations (CFR), Title 10, Chapter I - Nuclear Regulatory Commission, Parts 20, 40 and 51, revised as of January 1, 2004.

Roberts/Schornick and Associates, Inc., *Sequoyah Fuels Corporation Facility Environmental Investigation Findings Report*, July 1991.

Sequoyah Fuels Corporation, *License SUB-1010, Docket No. 40-8027, Final RCRA Facility Investigation Report*, October 14, 1996.

Sequoyah Fuels Corporation, *License SUB-1010, Docket No. 40-8027, Site Characterization Report*, December 15, 1998.

Sequoyah Fuels Corporation, *License SUB-1010, Docket No. 40-8027, License Condition 49, Groundwater Monitoring Plan Submittal*, June 12, 2003, ML031710847.

Sequoyah Fuels Corporation, *License SUB-1010, Docket No. 40-8027, Update of Groundwater Monitoring Plan (TAC L52529)*, February 25, 2005, ML050680226.

U.S. Nuclear Regulatory Commission, NUREG-1157, *Environmental Assessment for Renewal of Special Nuclear Material License No. SUB-1010*, 1985.