

VIA E-MAIL AND CERTIFIED MAIL

July 24, 2015

Clayton Eubanks, Esq.
Oklahoma Attorney General's Office
313 NE 21st Street
Oklahoma City, Oklahoma 73105

Sara Hill, Esq.
Senior Assistant Attorney General
Cherokee Nation Office of the Attorney General
P.O. Box 948
Tahlequah, Oklahoma 74465

Re: Sequoyah Fuels Corporation Onsite Disposal

Dear Mr. Eubanks and Ms. Hill:

I am writing to you as a follow-up to our June 25, 2015 meeting at the offices of the Oklahoma Department of Environmental Quality ("ODEQ") regarding the status and plan for final disposition of the "Materials"¹ at the Sequoyah Fuels Corporation ("SFC") site in Gore, Oklahoma. Representatives of the ODEQ, Oklahoma Attorney General's Office, and the Cherokee Nation participated in the meeting in person or by phone.

I. Introduction and Summary

The purpose of this letter is to summarize the conversations that took place at the June 25, 2015 meeting, and in particular the basis for SFC's conclusions that: (1) there is no viable option for *offsite* disposal of the Materials; and (2) the near-term placement of the Materials in SFC's existing, engineered onsite disposal cell is an appropriate option approved by the U.S. Nuclear Regulatory Commission ("NRC") that will protect the public health and safety and the environment and will expedite completion of site remediation.

II. Summary of SFC's Efforts to Seek an Offsite Disposal Option

SFC has explored options for offsite disposal of the Materials for almost eleven years. For the reasons discussed below, it is now clear that no such viable option exists.

A. Cañon City, Colorado

We investigated the Cañon City site as a possible location to dispose of the Materials as

¹ These "Materials" include the raffinate material, north ditch sediments, emergency basin sediments and sanitary lagoon sediments.

Alternate Feed Stock ("AFS"). However, the Cañon City facility ceased operations nine years ago, in 2006, the operator applied for license termination in 2011, and virtually every structure at the facility has been demolished. Cañon City is not an option.

B. White Mesa, Utah

We investigated use of the White Mesa site for disposal of the Materials as AFS. The White Mesa facility currently is not licensed to accept any of the Materials. We began our discussions with the White Mesa operator in early 2006 – nine years ago – and negotiated a Letter of Intent. In the interim, the White Mesa facility, in 2007, applied for renewal of its Radioactive Material License but, as of July 2015, that license renewal has not been granted. In 2011, it applied for a license amendment to allow White Mesa to process SFC's raffinate material for recovery of uranium and to dispose of the resulting processing waste in its mill tailings impoundment. The Utah regulator has indicated that it will not move forward on its review of the license amendment to process SFC's raffinate material until the mill license renewal application (filed more than eight years ago) is resolved and granted. There is, of course, no guarantee that license renewal will be granted, or if so, when. Nor is there any guarantee as to the outcome or timing of the license amendment request if the mill license renewal is ever granted.

The White Mesa option is, at best, uncertain and likely years away. For those reasons, and for the reasons discussed in Section III below, White Mesa also is not a viable option.

C. Pathfinder Company, Wyoming

The high Thorium 230 concentrations in SFC's Materials (averaging about 55,000 pCi/gm) are not acceptable for disposal in the Pathfinder mill tailings impoundment. For that reason and the reasons set forth in Section III below, Pathfinder is not a viable option.

D. EnergySolutions, Utah

EnergySolutions ("ES") has two bulk waste disposal cells – one for the disposal of low-level radioactive waste ("LLW"), and one for the disposal of "11.e.(2) byproduct material" as defined in the Atomic Energy Act of 1954, as amended.

The Material is "11.e.(2) byproduct material" and, by definition, not LLW. As such, it cannot be disposed of in the ES LLW disposal cell.

With respect to the ES 11.e.(2) byproduct material disposal cell, the Materials do not meet the ES Waste Acceptance Criteria ("WAC"). The ES WAC preclude disposal of uranium in concentrations greater than 4,000 pCi/gm. The Materials exceed that limit, with average uranium concentrations of about 5,690 pCi/gm. The ES bulk waste disposal cells, therefore, are not a viable option.

E. Waste Control Specialists, Texas

Waste Control Specialists ("WCS") has both an 11.e.(2) byproduct material facility and a hazardous waste facility. The 11.e.(2) byproduct material facility is only licensed to dispose of such material from a single site – the U.S. Department of Energy's ("DOE") Fernald facility in Ohio. SFC specifically requested that WCS seek additional authorization from the State of Texas to dispose of the Materials. WCS declined.

At the WCS hazardous waste facility, some radioactive materials can be accepted, but only under approved exemption limits. The concentrations of Thorium 230 and Uranium 238 in the Materials are much higher than the approved exemption limits. The WCS Thorium 230 limit is 8,535 pCi/gm of waste and SFC's Thorium 230 concentrations range from approximately 43,900 pCi/gm to 74,400 pCi/gm. Thus, the WCS facilities are not a viable option.

III. The Importance of Timely, Near-Term Commencement of Placement of the Materials in SFC's Onsite Disposal Cell

On May 29, 2015, a tornado passed over the SFC site. At our June 25, 2015 meeting, I shared with you aerial photographs of the SFC site and showed you the path of the tornado right through the site. The severe winds passed directly over the main portion of the temporary, above-ground Materials storage area and concrete pad. While there was little damage to the site, and no dispersal of radioactive material, it highlighted the importance of timely disposal of the Materials in the onsite, engineered disposal cell.

Furthermore, apart from the risk of another severe natural event, prompt movement of the Materials from the temporary concrete pad storage area will enable faster completion of the overall site reclamation and turnover to the DOE for long-term care. In particular, as long as the Materials remain on the pad:

- SFC cannot remove and dispose of the contaminated pad;
- SFC cannot remediate the contaminated soil under the pad; and
- SFC cannot begin to remediate the contaminated perched groundwater under the eastern portion of the pad.

Finally, in the absence of prompt progress towards onsite disposal of the Materials, SFC will have to temporarily shut down site reclamation activities, and lay off most of the staff. This will create logistical delays once the decision is made to re-mobilize the work force and recommence reclamation activities, in addition to the potential loss of the trained and experienced personnel currently conducting those activities.

IV. Onsite Cell Design and Safety

The SFC design of the onsite disposal cell has been approved by the NRC.

A location has been reserved, mainly within the Phase III portion of SFC's onsite disposal cell, for disposal of the Materials. SFC is taking actions to ensure that the disposed

Materials will have at least 25 feet of radon-attenuating cover as required by SFC's NRC-approved Reclamation Plan. This cover will consist of uranium-contaminated soil and concrete from the area at which the Materials is currently being stored, other impacted soils, and the ten-foot-thick layer of clean clay and soil that comprise the cell cover system.

The Materials will be encapsulated with high-density polyethylene ("HDPE") in their location in the disposal cell. This will be done by lining the bottom and sides of the disposal location with 60 millimeter thick welded HDPE. The Materials, which are stored in one cubic yard (nominal) woven polypropylene bags, will then be transferred to trucks from the storage stacks, transported to the disposal cell location and placed in layers in the HDPE-lined location. After two or three layers of bags are placed, a protective layer of sand or clay will be placed over the bags to allow compaction of the bagged material for void reduction. This process will then be repeated as necessary, until all the Materials have been placed in the cell. Then, a top cover of 60 millimeter thick welded HDPE will be placed over the Materials and welded to the side panels of the bottom liner.

V. **Conclusion**

SFC appreciates the constructive meeting we had on June 25, 2015. For the reasons stated above, SFC has concluded that placing the Materials in the onsite disposal cell, which had its design approved by the NRC, is fully protective of public health and safety and the environment and is the only viable option. We believe that movement of the Materials into the onsite cell should commence no later than October 1, 2015. This should enable SFC to complete the site surface reclamation and begin installing the cell cap system by late next year.

Thank you for your time and attention. If you have any questions, please feel free to contact me at jhellis@sequoyahfuels.com.

Regards,



John Ellis
President

cc: Pam Dizikes, Esq.
Ken Kalman, NRC Project Manager
Robert Evans, NRC Lead Site Inspector