

RETURN TO 396-SS

40-8027
PDR/LPDR

SEQUOYAH FUELS CORPORATION

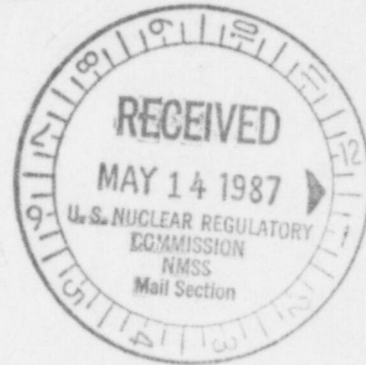
RE: 8731

POST OFFICE BOX 25861 • OKLAHOMA CITY OKLAHOMA 73125

May 7, 1987

JAMES G. RANDOLPH
PRESIDENT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED



Victor Stello, Jr.
Executive Director for Operations
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555



Re: License SUB-1010; Docket 40-8027
Request To Reduce IOT Coverage

Dear Mr. Stello:

In an Order Modifying License SUB-1010, dated October 2, 1987, James M. Taylor, Director, Office of Inspection and Enforcement issued conditions required of Sequoyah Fuels Corporation in order to receive permission to restart the UF⁶ Facility at Gore, Oklahoma. One requirement was that an independent organization be retained to oversee operation of the facility. The Order also set forth the mechanism with which the provision could be relaxed or rescinded.

In letters dated February 24, 1987, and April 6, 1987, to Mr. Taylor, Sequoyah Fuels Corporation respectfully requested authorization to reduce around-the-clock coverage provided since November 5, 1986 by the Independent Oversight Team (IOT). We have not received a response to our latest request.

These previous requests were based in part, on recommendations made by the IOT in their monthly reports dated February 20, 1987 and March 30, 1987. In their sixth report, dated May 1, 1987 (copy enclosed) the Program Manager of the IOT states:

"In view of the fact that all of the objectives for the Independent Oversight Team in the NRC Order of October 2, 1986, have now been fulfilled and in view of the good performance of SFC in all aspects of operating the Sequoyah Facility, we recommend that continuous Independent Oversight Team coverage be immediately terminated."

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response to order.

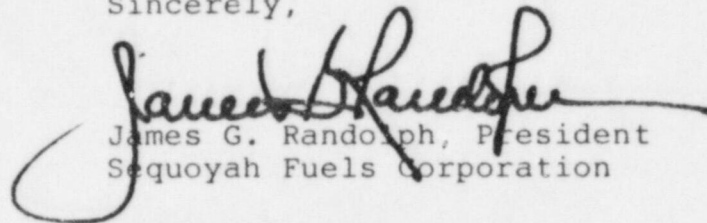
A SUBSIDIARY OF KERR-MCGEE CORPORATION

RE: 8731
May 7, 1987
Page 2

The Program Manager further recommends that intermittent IOT coverage be provided one week per month for two months and one week per quarter for the balance of the year.

SFC fully concurs in both recommendations made by the IOT. In view of these recommendations and SFC's sustained performance, we believe good cause to rescind the provision has been conclusively demonstrated. Accordingly, SFC requests your timely review of this request for prompt phased reduction of IOT coverage at the Sequoyah Facility. We are prepared to meet with you at your earliest convenience to discuss our request in more detail, should you feel a meeting would be worthwhile.

Sincerely,



James G. Randolph, President
Sequoyah Fuels Corporation

JGR/jkw

Enclosure

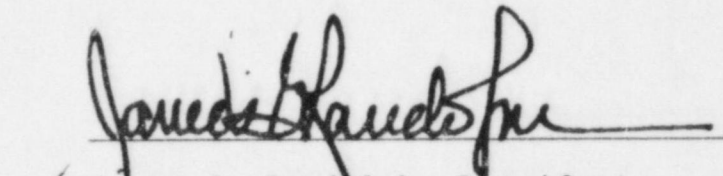
xc: H.L. Thompson, Jr., NMSS
L.V. Rouse, NMSS
R.D. Martin, Region IV

A F F I D A V I T

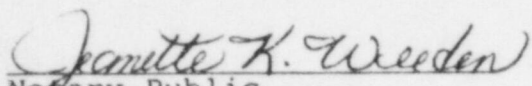
STATE OF OKLAHOMA
COUNTY OF OKLAHOMA

SS: License SUB-1010; Docket 40-8027
Request to Reduce IOT Coverage

I, James G. Randolph, President, Sequoyah Fuels Corporation, hereby attest that the facts contained in the attached documents are accurate to the best of my knowledge.


James G. Randolph, President
Sequoyah Fuels Operations

Subscribed and sworn before me on this 7th day of May, 1987.


Notary Public

My Commission Expires:
December 5, 1990

RECEIVED

MAY 5 1987

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May 1, 1987

Steven D. Emerson, General Manager
Sequoyah Fuels Operations
Kerr-McGee Center
123 Robert S. Kerr Boulevard
Oklahoma City, OK 73124

Dear Dr. Emerson:

Reference: License SUB-1010, Docket 40-8027
Order Modifying License

Subject: Sixth Report of Independent Oversight Team

In accordance with the Statement of Work for the Independent Oversight Team at the Sequoyah Facility and as required by the NRC Order Modifying License of October 2, 1986, we are enclosing the sixth formal report of the activities and findings of the Independent Oversight Team.

If there are any questions on any item in this report, please let me know.

Sincerely,

James A. Buckham
IOT Program Manager

JAB/sim
Enclosure

cc: R. D. Martin, Region IV Administrator, Nuclear Regulatory Commission
J. G. Randolph, President, Sequoyah Fuels Corporation
W. L. Utnage, General Manager, Sequoyah Facility
B. J. Garrick, President, Pickard, Lowe and Garrick, Inc., Program Director
E. M. Ward, Vice President, Pickard, Lowe and Garrick, Inc.

May 1, 1987

SEQUOYAH FACILITY
INDEPENDENT OVERSIGHT TEAM
SIXTH FORMAL REPORT

1.0 ORGANIZATION

The Independent Oversight Team has been organized and in place at the Sequoyah Facility since November 5, 1986. The team consists of a Program Director, a Program Manager, a Program Assistant Manager, and 16 other team members. All team members have received the requisite training for performing shift surveillance coverage and have been approved by the Nuclear Regulatory Commission as qualified for this activity.

With the exception of the 4-day Christmas plant shutdown, the Independent Oversight Team has maintained 24-hour surveillance of operational and maintenance activities since November 5, 1986, with appropriate overlaps in coverage by team members to permit exchange of information on plant status, activities and plans. In addition, the Program Manager or Assistant Program Manager has been on duty during this entire period, serving a normal work day at the Facility and being continuously available to team members by telephone or paging service.

As discussed later in this report, the Independent Oversight Team has fulfilled the objectives set forth for it in the October 2, 1986 Order Modifying License. Therefore, we have recommended prompt reduction in coverage to a level consistent with verifying continued good performance by Sequoyah Fuels Corporation in all areas previously reviewed.

2.0 FACILITY OPERATIONS AND STATUS

Following completion of pre-restart activities, approval for restart of Facility operations was received on November 14, 1986. The normal startup problems were systematically resolved and normal UFs production operations have been occurring since December 11, 1986. The first UFs cylinder filling was completed on December 17, 1986.

The restart phase of operations has now been completed, and the operating difficulties caused by the extended shutdown were resolved by the end of January. Production operations were initiated at a nominal throughput rate of 300 metric tons of uranium per month, with this rate being exceeded in both February and March. Starting in March, about 30 additional operating personnel were hired and their training was initiated. This permitted additional equipment to be operated simultaneously in April and an April production goal of 400 metric tons of uranium was established. Actual April production was 411.9 metric tons of uranium.

To date, 216 cylinders have been filled with UF₆ since restart and either have been shipped or are awaiting shipment. To date, 30 cylinders have been heated in the remodeled steam chest and the contents recycled because the product specification limit of 10 ppm chromium had been exceeded. Methods are being implemented to reduce the possibility of chromium reaching the product.

3.0 OPERATIONAL INCIDENTS

3.1 Cooling Water Line Break

At about 0840 on April 10, 1987, an "Alert" was declared by the Sequoyah Facility shift supervisor because of a loss of cooling water input to the Facility. This was caused by a contractor-operated bulldozer rupturing the 16-inch buried input line from the Lake Tenkiller source while digging drainage ditches for SFC on company property. All operations were shut down and remained down until the damaged section of pipe could be replaced and tested; this was completed at 1930. To prevent similar future problems, each company employee or contractor preparing to perform any future digging operations will be briefed by a member of the Engineering Department as to the location of all buried lines in the work area.

We feel that the incident was very properly handled by the licensee, and we believe the remedies are appropriate.

3.2 High Beta Accumulations

Twice in the past month, very high beta readings (over 10 R/hr) were discovered in two different parts of the process. One was in the material filtered from the UF₆ during draining to fill shipping cylinders and the other in solid material remaining in "emptied" cylinders after washing. In both cases, the material is believed to be thorium-234, the 24-day half-life daughter of uranium-238, together with its 5-hour half-life daughter, protoactinium-234. This hypothesis has been confirmed by several isotopic analyses to date, and it is believed that other pending analyses will confirm that it is the only isotopic pair significantly involved in both places. Both of these daughter products are very low energy beta-gamma emitters, but their high degree of accumulation in these two places requires special plant practices.

The high accumulations in UF₆ filter solids and in cylinder residues are due to the physical characteristics of ThF₄, which is insoluble in both UF₆ and water and not volatile. Therefore, it would be expected to accumulate in the UF₆ filters and to remain in "emptied" shipping cylinders.

No significant beta exposures to personnel were measured from either source of accumulated beta emitters, but Sequoyah Facility personnel responded aggressively to both findings and have instituted new practices to prevent any personnel exposure from these accumulations of high intensity beta emitters. Additional beta-detection survey instrumentation has been ordered, and beta surveys will routinely be made in many plant areas. During the course of changing and cleaning of UF₆ filters, personnel will be continuously shielded from the beta fields, and health physics technicians will carefully monitor all steps with beta detecting instrumentation. Cylinder washing and drying operations are being modified to collect and recycle all residues. However, in keeping with the ALARA principle, the major improvement in practices will be to delay washing of cylinders and filters for many months so that the 24-day-half-life Th-234 will have largely decayed.

We feel that the rapid response and overall management attention to the discovery of these accumulations of beta emitters has been excellent, and the corrective measures adopted are appropriate and adequate.

3.3 General Emergency Exercise

On April 30, 1987, the Sequoyah Facility held an exercise of its emergency procedures, including the off-site practices that would be involved in a General Emergency. Observers from several State and local agencies and the NRC were present.

The exercise lasted nearly four hours and the scenario was not revealed to Facility personnel in advance. The scenario involved initiation of events from high winds and a nearby tornado. It began as an "Unusual Event" when several hundred pounds of yellowcake were spilled from toppled drums that are stored outside. The event escalated to an "Alert" and a "Site Area Emergency" when wind damage toppled a signboard on the roof which broke ductwork. A General Emergency was declared when a wind-hurled object broke the piping atop an outdoor tank used to store anhydrous ammonia. The offsite sirens were then activated as was the automatic telephone system used to notify nearby residents and appropriate officials of the nature of the emergency.

The exercise was well conducted and over 100 employees participated. Some proved to be better actors than others; some employee responses did not include performing all steps in the way that would be required in an actual emergency, although this was very likely due to the realization that the hazards weren't really present.

Some valuable lessons were learned from the exercise, and these will be incorporated in improved procedures. Such exercises are required at least every five years, but partial drills will be held at much more frequent intervals, (e.g. The offsite sirens and telephone notification system are tested monthly).

4.0 OPERATING PROCEDURE AUDITS

Field monitoring of the performance by Sequoyah Facility personnel of the operating procedures has been the principal activity of the Independent Oversight Team. To insure that this activity was performed so as to emphasize safety-related activities, we chose to give highest priority to those procedures involving receiving, transfer, production, or use of HF, F2, or UFs, as well as to those activities performed to prevent release of hazardous materials to the environment. Procedures were assigned an audit priority number in accordance with this emphasis.

Each of the 37 Priority No. 1 procedures were audited thoroughly at least twice, while all of the other 137 auditable procedures were audited thoroughly at least once.

A total of 47 Audit Report Forms were issued because of an apparent difference between procedure language and either intent or performance. None of these reports represented an operator willfully or otherwise violating an operating procedure. Most represented omissions or apparent contradictions in the procedure language or suggestions to improve the safety-related coverage of the procedure.

Sequoyah Fuels Corporation management issued written responses to each Audit Report Form. In a few cases, the Independent Oversight Team was not satisfied with the initial response, and revised responses have been issued in those cases. The Independent Oversight Team is now completely satisfied with the response on all 47 Audit Report Forms, and all actions promised by SFC in these responses have been effectively implemented.

Having finished the complete auditing of all procedures, we have switched in the past two months to selective surveillance of key portions of those procedures judged to have the greatest safety significance, since reauditing of complete procedures appeared to be of diminishing value. We have also turned our attention more to surveillance of other safety-related activities such as non-routine maintenance. These activities are unlikely to result in the preparation of additional Audit Report Forms.

5.0 SUGGESTION REPORTS

We also submitted over 100 written suggestions to SFC Management on Independent Oversight Team Suggestion Report Forms on observations not related to procedures or on minor wording problems in procedures such as typographical errors. These reports have received serious consideration by SFC management. Over 2/3 of them have been effectively implemented, while others are still under active consideration.

6.0 REVIEWS

The Statement of Work required special reviews by the Independent Oversight Team in four areas. Our comments on these reviews follow:

6.1 Qualifications, Training, Commitment, Adequacy, and Capability of SFC Employees

As stated in our last report, we feel our review of this area has been completed, but we are continuing adequate observations to assure continued good performance by Sequoyah Fuels Corporation.

6.2 Adequacy and Accuracy of Procedures

As indicated in our last report, we feel our review of this area has been completed. If any new procedures are issued during our coverage, we will review them and audit their implementation.

6.3 Adequacy of SFC Record Keeping

We have observed no instance of record keeping that is not adequate to demonstrate regulatory and procedural compliance. We feel our review in this area has been completed but we will continue adequate observations to assure continued good performance.

6.4 Quality Assurance

We have continued our extensive review of the SFC Quality Assurance (QA) program this month. With the considerable progress made the past month, we now feel that the program is fully developed, appropriate, and is being effectively implemented. Comments on various elements of this program are contained in the ensuing subsections.

6.4.1 QA Procedural Auditing

As was done by the Independent Oversight Team, under the SFC QA Program the operating procedures have been given an audit priority by the SFC QA Manager, with the ones having a significant safety aspect being given a Priority No. 1 rating and others being rated Priority No. 2, 3 or 4. As required by License Condition 31 of the October 2, 1986 Order, all Priority No. 1 operating procedures are being audited annually while those of a lower priority level are being selected for audit through a systematized selection system. A comparison of the SFC selection system with that of the Independent Oversight Team leads us to the conclusion that the SFC system is appropriate.

We have carefully reviewed the SFC QA procedural audit findings to date and have found that their auditing appears to be very thorough. This is borne out by the fact that on several procedures previously audited and found by the Independent Oversight Team to be satisfactory, the SFC QA audit found and recommended several procedural improvements, albeit of minor safety significance.

Each SFC procedural audit includes verification of the adequacy of the training received by the operators involved, pointedly observes the operator attitude, and verifies the adequacy of the associated record keeping. Thus, continued review in the areas required of the Independent Oversight Team in the October 2 Order is covered by the SFC QA Program.

Two other important features of the Independent Oversight Team system are incorporated in the SFC QA Program. First, timely written responses (within 30 days) must be made to the QA Manager on all audit findings. These responses must provide commitments to timely resolution of identified problems. Second, the QA program requires reaudits of the procedure by the QA Manager until he is assured that all responses to audit findings are appropriately implemented. Only then is the audit report closed out. Both of these features are now being effectively implemented.

6.4.2 Periodic Surveillance

The Independent Oversight Team found that a majority of our beneficial contributions came from observations made in the field on plant walkthroughs and the verbal comments made on those observations to SFC supervisors. The SFC QA Manager has adopted a similar system of weekly walkthroughs and verbal transmittal of his observations. These walkthroughs are now required by a revision in the QA procedures. The SFC QA Manager maintains a written record of his observations in a log book, appropriately varies the areas walked through, and periodically reviews his findings to detect any long-term trends.

6.4.3 Receipt of Bulk Chemicals

We have reviewed the detailed written analysis prepared by the Facility QA Manager of the operational quality requirements for each of the bulk chemicals used at the Sequoyah Facility together with the quality assurance aspects of ordering and receiving these chemicals. We believe this document is appropriate and complete and that adequate quality assurance is being provided to bulk chemical receipt.

6.4.4 Selection of Material for Repairs

A procedure has been issued for making and segregating critical materials such as plate, piping, valves, pipe fittings, and gaskets according to material of construction to provide assurance that proper materials are selected for repair work at the Sequoyah Facility. We have audited the implementation of this procedure and found no deviations. The SFC QA Manager has also scheduled this procedure for an early audit.

6.4.5 Follow-Up on Plant Incidents

The SFC QA procedures have been revised to require follow-up by the QA Manager of each plant incident to assure that appropriate "lessons learned" have been identified and are being implemented in a timely manner. This follow-up is now being appropriately implemented.

6.4.6 Follow-up on Independent Oversight Team and NRC Findings

Systems are now in-place, including computerized logging, for follow-up by SFC of all NRC and IOT recommendations.

In summary, the SFC Quality Assurance program is now fully implemented and operational. It has been thoroughly reviewed by the Independent Oversight Team and we find it to be totally appropriate. The practices of the Independent Oversight Team have been incorporated appropriately into this program, and it will serve effectively when the Independent Oversight Team is no longer providing continuous on-the-floor coverage and its functions are assumed by the SFC QA Manager.

7.0 STATUS OF PRIOR RECOMMENDATIONS

7.1 Open Recommendations in First Independent Oversight Team Report -- None

7.2 Open Recommendations in Second Independent Oversight Team Report

7.2.1 Off-Gas Burner Failures

Considerable maintenance and engineering effort, including the help of outside experts, has been applied to reducing the frequency of off-gas burner failures. The frequency of these failures has been reduced to an acceptably low level, and this recommendation is now considered closed.

7.2.2 SFC Procedures for Material Selection

As indicated earlier, we have reviewed and audited this procedure. We find it to be appropriate and that it is being effectively implemented. Therefore, this recommendation is considered closed.

7.3 Open Recommendations in Third Independent Oversight Team Report -- None

7.4 Recommendations in Fourth Independent Oversight Team Report

7.4.1 Emergency Valve Closure System

SFC Operating Procedures have been revised to require railroad-car-type seals instead of padlocks to hold open the block valves ahead of relief valves on vessels. This will permit emergency closing of these valves should the relief valve develop a leak. The procedure requires filing of an incident report if any seal is broken in an emergency. We have audited this procedure and find it to be appropriate and fully operational. This recommendation is considered closed.

7.4.2 Study of Exposures Caused and Saved by Strapping Yellowcake Drums

Tests and studies are being planned by SFC to determine if the strapping of yellowcake drums causes more radiation exposure than it is likely to prevent. These tests and studies appear appropriate. We recommend that follow-up to assure proper implementation be incorporated in the SFC QA system and that this recommendation be considered closed by the Independent Oversight Team.

7.5 Recommendations in Fifth IOT Report

The fifth IOT report contained two recommendations for SFC to request NRC approval of reduced IOT coverage. SFC did make these requests, but to date no response has been given by the NRC. We now consider these commendations closed and replaced by a new recommendation in this report.

8.0 CURRENT RECOMMENDATIONS

8.1 Termination of IOT Coverage

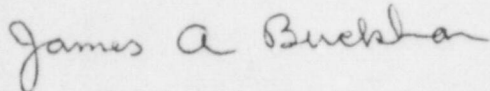
In view of the fact that all of the objectives for the Independent Oversight Team in the NRC order of October 2, 1986, have now been fulfilled and in view of the good performance of SFC in all aspects of operating the Sequoyah Facility, we recommend that continuous Independent Oversight Team coverage be immediately terminated.

8.2 Follow-On Intermittent Oversight

In order to verify continued good performance by SFC in all areas previously reviewed, it is recommended that intermittent IOT coverage be provided one week per month for two months and one week per quarter for the balance of the year. This coverage should become an integral part of the SFC QA program and should be provided entirely by PLG (usually the Program Manager).

No significant safety concerns were noted during this reporting period, and no official notifications to the NRC were necessary.

Respectfully submitted,



James A. Buckham, Program Manager
Independent Oversight Team

JAB/slm

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DATE OF DOC. 05/07/87
DATE RCVD. 05/14/87
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