

AUG 12 1982

Docket File No. 40-8681  
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MEMORANDUM: Docket File No. 40-8681

FROM: Susan E. Pantell, Project Manager  
New Facilities Section, WMUR

SUBJECT: REVIEW OF QUALITY ASSURANCE PROGRAM SUBMITTED BY ENERGY  
FUELS NUCLEAR (EFN) IN RESPONSE TO LICENSE CONDITION NO.  
52A OF SUA-1358

I have reviewed the Quality Assurance Program (QAP) submitted by letter dated May 3, 1982, in response to License Condition No. 52A of SUA-1358 and have the following comments.

1. Organizational Structure, Responsibilities, and Qualifications of Managerial and Operational Personnel for the Environmental Monitoring Program

The licensee provided the organizational structure of the environmental monitoring personnel and the responsibilities and qualifications for these positions. The organizational structure shows that the production-oriented positions are separate from the radiation safety staff. The Radiation Safety Officer (RSO) is in charge of the monitoring and quality assurance programs. He reports to the Licensing Director, who reports to the corporate officers. The Radiation Technicians assist the RSO. All of the radiation safety staff except for the Radiation Technicians must have a B.S. degree in a related technical field, or equivalent relevant experience. All personnel involved in environmental sampling will be trained in collection techniques and quality assurance. The Radiation Technicians will receive training from the RSO in radiation protection activities.

Appraisal

The organizational structure and the personnel responsibilities and qualifications described by EFN satisfactorily meet the recommendations presented in Regulatory Guide 4.15.

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2. Operating Procedures and Instructions

Written procedures for carrying out the monitoring program are contained in the licensee's Health and Safety Manual dated July 1, 1982. The procedures for the quality assurance program are contained in the QAP.

Appraisal

The operating procedures and instructions section of the QAP is adequate. By License Condition No. 11 of SUA-1358, the licensee is required to twice annually approve and conduct reviews of operating procedures and revisions as discussed in the licensee's application dated February 6, 1978.

3. Records

The licensee will maintain records on: a) personnel exposure, b) in-plant monitoring, c) environmental monitoring, d) instrument calibration and operational checks, e) radionuclide reference standards, and f) results of reviews and audits of the radiation safety program. The records on monitoring will include: a) sample description and preparation b) sampling procedures (contained in the Health and Safety Manual), c) sample preparation, d) the name of the laboratory that analyzes the sample, e) reduction and recording of the data, and f) results of the QA samples. The personnel exposure records will be maintained until the Commission authorizes their disposition (10 CFR 20.401). The licensee does not separately indicate how long the other records will be maintained.

Appraisal

The records section of the QAP is adequate. However, EFN must retain all records according to the requirements contained in 10 CFR 20.401 and License Condition No. 16 of SUA-1358. In addition, it is standard procedure for the vendors to maintain records which will be turned over to EFN upon termination of their contracts.

4. Quality Control in Sampling (Including Packaging, Shipping, and Storage of Samples)

The licensee has prepared procedures for quality control in sampling which are contained in their Health and Safety Manual. These procedures discussed in the manual include: a) techniques for ensuring that samples

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are representative of the given materials, b) methods used in preparing, storing, packaging, and shipping the samples, c) calibration of the equipment used, and d) taking replicate samples.

Appraisal

A copy of the Health and Safety Manual was sent to Mr. Michael Shopenn of Region IV. I spoke with Mr. Shopenn by telephone on July 14, 1982, and he informed me that the sampling procedures described in the manual are complete. Therefore, the quality control procedures for sampling referenced in the QAP and contained in the Health and Safety Manual are considered acceptable.

5. Quality Control in the Radioanalytical Laboratory

EFN performs the analyses on samples of the radiation status of the work areas and the environmental radon daughters. The remaining samples are sent to commercial laboratories as listed below:

<u>Analysis</u>	<u>Laboratory</u>
TLD's	Eberline
Urinalysis	Western Bio-Assay
Lung Counts	Helgeson Nuclear Services
Stack Sampling	Alpha Nuclear
Water (surface and groundwater)	Core Laboratories
	Alpha Nuclear
	WAMCO
Lo-Vol Filters	Alpha Nuclear
Soil	Alpha Nuclear
Vegetation	Alpha Nuclear

The quality assurance programs used by the above laboratories are included in EFN's QAP. At least 5% and typically 10% of the samples submitted by EFN will be for quality control purposes. EFN will routinely submit replicate samples to two or more laboratories in order to cross-check the separate laboratory results. In addition, each laboratory is required to participate in the EPA's Environmental Radioactivity Laboratory Intercomparison Studies Program, or an equivalent program.

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Appraisal

The quality assurance programs submitted by the vendors meet the intent of Regulatory Guide 4.15 and are acceptable. The quality control procedures followed by EFN supplement the vendors' programs.

6. Review and Analysis of Data

The RSO shall perform a monthly inspection of all work and storage areas and a monthly review of all personnel exposure and radiation survey records. All mill areas will be inspected daily by the mill foreman and work and storage areas will be inspected weekly by the radiation safety staff. Any items of non-compliance will be reported to the RSO.

Appraisal

The licensee's program for review and analysis of data is acceptable.

7. Audits

Audits will be performed quarterly by an internal Audit Committee consisting of the Radiation Safety Officer, the Licensing Director, the Mill Superintendent, the Chief Chemist, and the Manager of Uranium Processing. The committee will audit procedures, exposure records, radiation safety staff reviews, inspection reports, equipment calibrations and training programs. Trends in the radiation safety program will be examined to ensure that ALARA principles are maintained. Audit reports will be submitted to the Vice President of Uranium Operations, who is responsible for directing the Audit Committee on follow-up actions.

Appraisal

EFN's audit procedure is acceptable.

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