

September 11, 1992

Mr. Robert M. Bernero  
Director, Office of Nuclear Material  
Safety and Safeguards  
U.S. NUCLEAR REGULATORY COMMISSION  
Washington, D.C. 20555

RE: Native Americans for a Clean Environment  
May 11, 1992, "Request for Emergency  
Enforcement Action"  
Pursuant to 10 CFR Section 2.206

Dear Mr. Bernero:

On May 20, 1992, Sequoyah Fuels Corporation (SFC) submitted its preliminary response to the May 11, 1992, "Request for Emergency Enforcement Action" (Petition) submitted by Native Americans for a Clean Environment (NACE). By letter date July 7, 1992, you denied NACE's request for immediate enforcement action, but stated that the Nuclear Regulatory Commission (NRC) was continuing to investigate the matters discussed in NACE's Petition. We are also in receipt of NACE's August 18, 1992 letter to you, transmitting additional information relating to its Petition in response to your July 7 request.

Upon review of NACE's August 18, 1992 letter and further investigation by SFC, we have concluded that several matters discussed in NACE's letter warrant additional clarification or correction. We have also determined that a portion of our May 20, 1992 letter was in error. This letter provides those additional clarifications and corrections.

NACE's August 18 letter enclosed a videotape which, according to NACE, was taken in May, 1991 and which shows areas of vegetation that have burned or discolored, apparently due to the application of raffinate fertilizer by SFC. On the videotape, several trees are also characterized as dead or dying as a result of fertilizer application and the narrator indicates that SFC removes such trees once dead.

Normal application of ammonium nitrate fertilizer results in an initial burn or discoloration of pasture grasses and significant discoloration and elimination of broad leaf weeds, plants, etc. What is shown on the videotape is typical of SFC's program for a short period after application; however, the results after a few weeks are lush enhanced growth grasses with less weeds than typical

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to a pasture. Similarly, trees tend to lose the low branches which were contacted by the fertilizer but respond as plants do to the added nutrient provided. SFC has not cut down or removed trees because of the fertilizer program.

SFC recently identified the general location which appears to be shown in the videotape and examined the area. With recent rainfall, the area is green with tall grass and much of the brown area shown in the NACE videotape has disappeared. SFC has videotapes available at the Sequoyah Facility which document its recent examinations of the area.

SFC's fertilizer program was subjected to an extensive series of experiments, tests and monitoring studies over a period of 14 years, in order to assess the effectiveness of the raffinate solution as a fertilizer and to determine the effects of the fertilizer on forage composition, soils, ground and surface waters and livestock. The results of those efforts are documented in the Sequoyah Fuels Corporation Fertilizer Program Report 1973-1986, published by Oklahoma State University in 1988 (Program Report). The Program Report contains a number of findings and conclusions. Among these are:

- *[The raffinate fertilizer]* (SFC-N) reacts no differently from other commercial ammonium nitrate fertilizer in common use. No harmful effects to soils, surface waters, or groundwater was obtained. Forage produced by using SFC-N was normal in all respects . . . .
- The benign nature of SFC-N is most clearly seen by direct chemical comparison of it with conventional fertilizers . . . .
- Comparison of trace element composition of forage produced using SFC-N compared to livestock dietary standards is illustrated in Figure I-4. All elements . . . . are present in concentrations below the dietary standards, which supports the finding that livestock performance was normal.
- The *[surface and ground water]* is very pure from these areas receiving SFC-N as a fertilizer for the past 10 years. It is interesting to note that SFC-N meets irrigation standards for most elements.

NACE's videotape also shows a pit containing, according to NACE's August 18 letter, "about 38" dead cows. NACE speculates that the cows may have been "poisoned, perhaps by excessive nitrates". There is no basis for that assertion.

During March-May, 1991 over 5,000 head of cattle were shipped to SFC's property from other locations around the country. It is common for some portion of cattle to die during, or as a result of, such transportation. While we cannot provide the precise cause of death of the cattle shown in the NACE videotape (or even verify that the videotape was taken on SFC property), it is likely that most died from the effects of being transported long distances to the SFC site (commonly called "shipping fever").

In any event, there is no basis for concluding that the fertilizer had anything to do with the loss of the cattle. During 1978-79, tests were conducted under the auspices of the Oklahoma State University Animal Disease Diagnostic Laboratory, the Oklahoma Department of Agriculture and the NRC on cattle grazed on pasture fertilized with SFC's fertilizer. Those tests showed that the fertilizer program was sound and caused no harm to the animals. In particular, as described in the Program Report:

- This cattle testing program was undertaken to compare the effects of forage produced using SFC-N with commercial ammonium nitrate on grazing animals and the food chain.
- The results of the pre- and post-test cattle blood analyses and tissue from all vital organs indicated no appreciable difference between the cattle grazing SFC-N produced forage and commercial ammonium nitrate produced grass regarding blood levels of lead, copper, molybdenum, zinc, nickel, or uranium.
- [N]either the experimental nor control cattle had any significant pathological changes. Neither group showed any departure from normal that were greater than those commonly observed in tissues from cattle slaughtered and approved for human consumption.

The basic conclusion of the Program Report was that:

The use of SFC-N as a fertilizer was studied comprehensively over a 14-year period . . . . Compared to many published standards for health and environment, SFC-N and its use as a fertilizer pose no risk or threat to the environment or food chain.<sup>1</sup>

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<sup>1</sup> SFC's fertilizer application program recently was reviewed in an NRC inspection. That review included an examination of fertilizer soil loading (quantity of nitrogen applied to the land); loading logs; fertilizer solution laboratory analyses; and environmental laboratory analyses for soil, water and vegetation from the areas fertilized by SFC. The inspection indicated that the fertilizer application program was in conformance with applicable license and procedural requirements. NRC Inspection

Accordingly, we continue to believe that there has been no violation of NRC requirements and no threat to public health and safety as a result of SFC's fertilizer program.

Our review of NACE's August 18 letter and our subsequent investigation has also indicated that in our May 20 letter we erred in describing the status of certain litigation and other disputes related to SFC's raffinate fertilizer program. In particular, in footnote 1 of SFC's letter, we stated that we were not aware of any lawsuit by a Mr. David Clarke or that he had informed us of any alleged injuries sustained from contact with the fertilizer. Although Mr. Clarke has not filed any lawsuit against SFC, he did file a worker's compensation claim with the Oklahoma Workers' Compensation Court in January, 1992 and he has alleged that he was injured as a result of exposure to the fertilizer. The individuals who participated in drafting the letter were not aware of or did not recall Mr. Clarke's claim or allegations related to contact with the fertilizer. In responding to NACE's May 1, 1992 Petition, our focus was on whether a lawsuit had been filed and we did not consult with Mr. Mike Dunn, SFC's Human Resources Department Manager, who was aware of Mr. Clarke's worker's compensation claim.

Footnote 1 in our May 20 letter also stated that the Tyler family had a civil lawsuit pending, but that the complaint in that case did not allege any physical injuries arising out of SFC's fertilizer application activities. In preparing that portion of our May 20 response, SFC consulted with its counsel handling that litigation, and apparently through some miscommunication, was informed that there were no such allegations of physical injuries. After receipt of NACE's August 18 letter, we again inquired and were informed that the complaint alleged, in part, that the Tylers had suffered "personal injuries as a result of their exposure to the toxic cloud and substances created by the release of chemicals, the spraying of 'fertilizer', and the various other releases which were caused by the Defendants' actions". The case in question was Keats D. Tyler and his Wife Janice E. Tyler v. Sequoyah Fuels Corporation and its successor in interest Sequoyah Fuels International, and General Atomics, Sequoyah County, Oklahoma, No. 92-26, and was dismissed on May 6, 1992.<sup>2</sup>

We hope the additional information in this letter is helpful in completing your review of NACE's Petition. We regret any confusion

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Report 92-20 at p. 5.

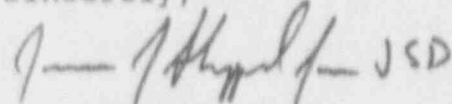
<sup>2</sup> NACE's August 18 letter also refers to two other cases. Docket No. CJ 87-14716, was settled and dismissed in December, 1992. Docket No. CJ 92-6569 was not filed until August 3, 1992, several months after our May 20 letter.



that may have resulted from the errors in footnote 1 or our previous response.

Based on our May 20 response and the information contained in this letter, SPC again respectfully requests that the Petition be denied. Please contact me if there is any additional information that you require.

Sincerely,

A handwritten signature in dark ink, appearing to read "John S. Dietrich", followed by the initials "JSD".

John S. Dietrich  
Vice President  
Regulatory Affairs

JSD:lh

cc: NRC Commissioners  
Office of Commission Appellate Adjudication  
Administrative Judge James P. Gleason  
Administrative Judge Jerry R. Kline  
Jack R. Goldberg, Esq.  
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Senator Committee on Indian Affairs