ENCLOSURE 13

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

DEC 17 1993

MEMORANDUM FOR: Len Williamson, Director
Office of Investigation

FROM: Dwight D. Chamberlain, Acting Director
Division of Radiation Safety and Safeguards

SUBJECT: ALLEGATION NUMBER RIV-93-A-0124

This memorandum responds to an assignment from the Region IV Allegation Review Panel (ARP) regarding issues raised in a letter dated November 4, 1993, from Ms. Diane Curran, Counsel to Native Americans for a Clean Environment, to Mr. Ben B. Hayes, Director of NRC's Office of Investigation. In accordance with the ARP's recommendation, enclosed with this memorandum is a copy of an analysis of the 12 issues raised in Ms. Curran's letter which was prepared by my staff.

In addition to the aforementioned analysis, I have also enclosed a copy of a letter dated December 3, 1993, from Mr. John Ellis, President of Sequoyah Fuels Corporation (SFC), to Messers. Ben B. Hayes, David L. Williams, and John C. Martin. Mr. Ellis' letter documents information obtained by SFC representatives during recent interviews with Sequoyah County employees and other individuals involved with emergency response at the Sequoyah facility. The information in Mr. Ellis' letter addresses some of the issues raised in Ms. Curran's letter which were not reviewed during the Augmented Inspection Team's review of the November 17, 1992, event. Issues associated with distribution of SFC's Contingency Plan and training provided to offsite medical personnel were reviewed during a recent inspection conducted by Division of Radiation Safety and Safeguards (DRSS) staff members. Information developed during the inspection will be published in NRC Inspection Report 40-8027/93-13.

The enclosures are being provided for your reference in preparing recommendations for the Office of Investigation's response to Ms. Curran. Should you have any questions regarding information presented in the enclosures, I and my staff will be pleased to discuss them with you.

Dwight D. Chamberlain

Dwight D. Chamberlain, Acting Director
Division of Radiation Safety
and Safeguards

Enclosures: (As stated)

cc:
Russ Wise

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ANALYSIS OF ISSUES IDENTIFIED IN DIANE CURRAN LETTER DATED NOVEMBER 4, 1993

The following is an analysis of issues raised in Ms. Curran's letter of November 4, 1993, to Mr. Ben Hayes, Director, of NRC's Office of Investigations. Ms. Curran identified 12 items which her client, Native Americans for a Clean Environment (NACE), believes constitute wrongdoing on behalf of Sequoyah Fuels Corporation (SFC) (NRC License SUB-1010, Docket No. 40-8027) regarding SFC's response to the November 17, 1992, release of nitrogen dioxide (NO2) at the Sequoyah facility.

Ms. Curran's letter is based upon issues raised in a report compiled by NACE, entitled "Silent Sirens," which was released on September 28, 1993. In her letter, Ms. Curran paraphrased concerns identified in the report, providing references to the report and its many attachments where necessary. The Silent Sirens report documents findings of an investigation conducted by NACE into "the circumstances of the accident, the adequacy of SFC's emergency response to the accident, and the sufficiency of regulatory oversight provided by the Nuclear Regulatory Commission ("NRC") and the Environmental Protection Agency ("EPA")." (See Silent Sirens Report at pg. 1) A significant portion of the information presented in the report involves NRC's investigation of the event, conducted by an Augmented Inspection Team (AIT) with assistance from NRC consultants, and the enforcement action taken by NRC in response to findings developed by the AIT and through subsequent inspection effort.

The information provided below was developed with consideration of Ms. Curran's letter, the Silent Sirens report and its attachments, information and documents collected by AIT members during the November 1992 AIT inspection, and subsequent documents issued by NRC relating to the November 17, 1992, event.

The allegations identified below are shown as they appear in Ms. Curran's letter.

Allegation:

> During the accident, SFC officials knew that toxic nitrogen dioxide (NO2) gas was leaving the plant, but they failed to sound any sirens. As a result, workers at a nearby tree farm and children playing on a local school yard were exposed to the fumes. Thus, SFC knowingly violated its strong and unequivocal commitments to the U.S. Congress and the NRC, following the 1986 accident, that the sirens would be sounded during <u>any</u> emergency that could affect the offsite public.

In describing the basis for this allegation, the Silent Sirens report references the transcript of a Commission briefing conducted on March 13, 1986. Sections of the transcript referenced in the report were reviewed and were found to include discussion of Kerr-McGee's plans for: (1) enhancing its quality assurance program; (2) strengthening communications between corporate management and plant managers; and (3) improving the facility's emergency preparedness program. Kerr-McGee representatives provided a number of examples of proposed improvements in the emergency preparedness program, including communications equipment, procedure revisions, and proposed

training. In addition, Kerr-McGee representatives noted that the program would "formalize and expand the steps included in our previous program to alert and instruct neighboring residents in the event of any emergency," and "include offsite sirens to provide timely warning of any emergency to nearby residents."

The statements were provided in the context of a number of examples of proposed and planned improvements which, although they addressed specific elements of an emergency response system, were fairly general in nature. Based on a reading of the limited portion of the transcript referenced in the Silent Sirens report, it does not appear that the statements shown above were intended to be verbatim commitments, particularly in light of the fact that they were provided during a Commission briefing with the knowledge and understanding that the proposed changes would be submitted in writing for NRC staff review.

Irrespective of the statements provided by the former owner and management, the licensee's Contingency Plan and Contingency Plan Implementing Procedures (CPIP) contain general and specific guidance regarding the level and type of notification required for each of the four event classifications. Both the plan and implementing procedures are consistent with regard to on- and offsite notification requirements. Specifically, the fist three levels of event classification (Unusual Event, Alert, and Site Area Emergency) require activation of an onsite alarm horn and announcement of the event classification and any specific instructions for personnel evacuation of specific areas of the facility. Only the fourth, or highest, level of event classification (General Emergency) requires activation of an onsite alarm horn, announcement of the event classification and specific instructions for personnel evacuation, AND activation of the offsite alarm system. SFC's offsite alarm system consists of sirens which are sufficient to be heard at a distance of up to three miles from the plant and an automated telephone notification system.

The event classification scheme outlined in SFC's Contingency Plan was developed with consideration of the status of (process) systems (whether containment was available or whether the release could be controlled or terminated), the potential for or actual levels of radiological or hazardous materials released to the facility, facility effluents, and the relative risk or potential consequences of exposure to the particular materials involved. (For chemical substances, the plan considers risk assessments and limits established by the Occupational Health and Safety Administration and guidance from other industry and government sources.)

Although the Contingency Plan and CPIP procedures contain examples of possible event scenarios for each emergency classification, the plan focuses on qualitative, rather than quantitative, assessments for emergency classification. Within the framework of the event classification scheme identified in SFC's Contingency Plan, the factors which distinguish one event classification from the next successive severity level may be difficult to clearly define given the nature and scope of potential releases or events that could occur at the facility. Thus, determining the appropriate event

classification requires that judgement be exercised regarding the potential or actual safety risk associated with a specific event.

NRC reviewed the licensee's classification of the event and identified no concerns regarding classification of the event as a Site Area Emergency. Given the circumstances known at the time, the licensee's classification appeared reasonable.

However, it could also be argued that the release of NO2 could have reasonably been expected to have represented a threat to public health and safety for areas beyond the site boundary or, in other words, that the event may have satisfied the definition of a General Emergency. Nonetheless, when the licensee escalated the event classification, the release was essentially controlled (although not contained) due to the nature of the event. In short, because there was a limited amount of material available for reaction and the material was consumed rapidly, the release was self-terminating. Because the plume was dissipating quickly and the source of the release had been depleted, SFC determined that the event did not rise to a General Emergency and instead classified the event as a Site Area Emergency.

Although NRC identified no enforceable issues regarding classification of the event, the AIT did identify several concerns regarding the timeliness of upgrading the event (see NRC Inspection Report No.40-8027/92-30).

Because the event was classified as a Site Area Emergency, the licensee would not have been expected to activate the offsite alarm system. The licensee was expected to activate the onsite alarm horn as required by the plan and implementing procedures. However, on the morning of November 17, 1992, the onsite alarm horn was not activated when an Unusual Event was initially declared. This issue was identified as a violation and was described fully in NRC's Notice of Violation and Proposed Imposition of Civil Penalty dated March 25, 1993, wherein NRC noted that this violation was one of several violations which had the potential for significant injury or loss of life to site personnel had conditions been different than those encountered on November 17.

(It should be noted that the licensee did activate the onsite alarm horn when the event classification was upgraded from an Unusual Event to a Site Area Emergency.)

Allegation:

> NRC inspection reports say that the control room was occupied during the accident; thus, we assume this is what SFC told the NRC inspectors. NACE obtained documents through the Freedom of Information Act which indicate that in fact the control room was evacuated. Silent Sirens report at 12-13. If indeed the control room was evacuated, this has great safety significance, because it automatically would have required the classification of the accident as a General Emergency, for which the offsite sirens must be sounded. Instead, SFC classified the accident as a Site Area

> Emergency, for which sounding of the sirens is not required. As a result, members of the offsite public were exposed to toxic nitrogen dioxide gas without any warning from SFC. Did SFC lie to the NRC about the evacuation of the control room in order to gain NRC approval of SFC's classification of the accident as a Site Area Emergency?

Although neither Ms. Curran's letter nor the Silent Sirens report specifically identifies the documents obtained through NACE's Freedom of Information Act (FOIA) request, NRC staff suspects that the referenced document is an internal memo dated November 17, 1992, written by Ms. Linda Kasner of the Region IV office (see Attachment 16 of Silent Sirens report). The memo documents information initially provided to Ms. Kasner and other Region IV staff members during several telephone conversations with SFC personnel on the morning of November 17, 1992. The memo notes that "Harlan reported to Kasner... at 9:12 a.m., the event status was upgraded to a Site Area Emergency due to NOX vapors which had filled the UO3 and UF6 process areas and entered the control room... Harlan reported that the control room and both the UF6 and DUF4 facili(ti)es had been evacuated..." The memo further notes that the report was provided to Kasner at approximately 9:30 a.m.

The purpose of the memo was to document information initially conveyed by SFC personnel to the Region IV staff. The information was maintained as a tool for briefing AIT members who were unable to participate in initial notifications of the event. It was expected that all information initially provided by licensee personnel would later be verified by AIT members through reviews of records and interviews of SFC staff. Because the memo was shared with AIT members and other NRC staff, it was submitted in response to NACE's FOIA request regarding specific communications and documents assembled during the AIT's review of the event.

The potential for incomplete information or oversight of details due to communication difficulties at the site during the event (the event was ongoing at the time that Harlan called Kasner) was recognized at the time the memo was written. The information initially conveyed to NRC staff was updated during subsequent conversations on November 17 while the AIT was en route to the site and immediately upon the team's arrival on site. In short, the memo only documented the information known by Kasner prior to departing the Region IV office for the Sequoyah facility on the morning of November 17, 1992.

AIT members independently interviewed all control room operators present at the site during the event and verified that the control room was not fully evacuated but was instead evacuated of all nonessential personnel. Interviews with control room operators assigned responsibilities for emergency response confirmed that the required control room operating staff was present in the control room while the release was occurring and remained there until the event status was terminated. Given the fact that NO2 entered the control room as a result of ventilation problems, evacuation of all nonessential personnel was deemed prudent.

With respect to the November 17, 1992, event, NRC initially questioned the licensee's classification of the event, noting that the event was "initially misclassified as an Unusual Event, rather than an Alert" (see NRC Inspection Report 040-8027/9230). However, based upon further review and discussions held during the enforcement conference conducted on March 2, 1993, NRC determined that the licensee's initial classification was not the primary concern but rather the promptness of escalating the event classification to a Site Area Emergency was of primary concern.

Notwithstanding the AIT's conclusions, NRC later determined that the factors to be considered in determining whether a licensee has responded within a reasonable period of time to modify or upgrade an event classification are varied and complex. This is particularly true of materials and fuel cycle facilities which use a variety of different materials/chemicals posing varied safety risks. Furthermore, because of the complexity and variety of factors to be considered, there are no uniform standards of performance that can be used to evaluate whether the licensee's response was appropriate or timely. NRC determined that a citation regarding the licensee's initial event classification and timeliness of the declaration of a Site Area Emergency was not warranted because timeliness of upgrading the event classification did not affect the facility's overall response (see NRC Notice of Violation and Proposed Imposition of Civil Penalty dated March 25, 1993).

In summary, the staff believes that NACE's allegation of wrongdoing or misleading the staff with regard to evacuation of the control room is based upon incomplete information and is without fact. The AIT was satisfied that the control room was adequately manned during the event and developed sufficient information during the inspection to support the agency's conclusion that the event was properly classified as a Site Area Emergency.

Allegation:

> It appears that SFC failed to notify offsite authorities of the accident through the county police dispatcher, as required by the Contingency Plan. The dispatcher's log contains no record of any contacts with SFC on the morning of the accident. But NACE has obtained two documents which raise the concern that SFC may have attempted to create a false record that contact with the dispatcher was made: handwritten notes on SFC's Contingency Plan implementing procedures which state that the Sheriff's office was notified at 9:30; and notes on the Sequoyah County emergency plan -- which SFC took from the Sheriff's office, without permission, in March of 1993 -- which state that notification was made at 9:20. Silent Sirens report at 16.

The staff has reviewed the Silent Sirens report and the attachments referenced on page 16 of the report; however, the staff finds insufficient information to support NACE's claims.

The report states that "handwritten notes on a form from SFC's Contingency Plan Implementing Procedures ("CPIP's"), provided to NACE by NRC through the Freedom of Information Act, indicate that an SFC official contacted Sequoyah County Sheriff's Office dispatcher Rich Crutchfield at 9:30 a.m. on November 17, 1992." This document was reviewed by an AIT member who later submitted the document in response to NACE's FOIA request.

The team member who reviewed this portion of the licensee's response identified no fact which would render the document suspect. To the contrary, several SFC employees noted various attempts to contact local authorities, and the accounts of actions taken were supported by independent interviews. The particular document referenced by NACE was reviewed shortly after the AIT's arrival at the site. It is doubtful that licensee personnel would have fabricated the document within such a short time given that personnel in the control room during the event spent many hours following the event termination with SFC management analyzing the root causes of the event, as well as time with site medical personnel to review medical complaints resulting from exposure to NO2. In addition, interviews with other county personnel (members of the county health department) indicated that the sheriff's office had been notified as documented in SFC's records.

In short, the AIT found no reason to question the licensee's account of notification efforts.

The report also notes that the County Sheriff's Office dispatcher log contains no notation of a call received from SFC. AIT members have reviewed a copy of the dispatcher's log, which was included as an attachment to the report, and found no legible entry documenting such a call. However, the copy quality is poor, and since the AIT did not interview the Sheriff's Office dispatcher during the inspection, the AIT is unable to confirm that the document attached to the report represents a full record of calls received by the Sheriff's Office on November 17, 1992.

The AIT is unable to address the allegation that a copy of SFC's Off-site Emergency Management Plan was removed from the County Sheriff's Office nor whether the copy was modified. Given the timeframe in which NACE asserted that the Emergency Management Plan was removed from the County Sheriff's Office (March 1993), this issue was clearly outside the scope of the AIT inspection.

(The staff notes that the reference to the controlled copy of SFC's Off-site Emergency Management Plan, noted as Attachment 5 in the report, appears to be incorrect. Attachment 5 of the report is NRC Inspection Report 40-8027/92-30.)

Allegation:

Did SFC stop answering the telephone during the accident? Silent Sirens report at page 17. This refusal to take calls would be particularly egregious, since SFC made no affirmative effort to

> communicate with the offsite public, other than to send two vice presidents to the mayor of Gore's office.

The Silent Sirens report notes that a member of the public who was working at the Gore Quik-Stop called the local police on the morning of the event to question what had occurred at the plant. According to the report, the individual was informed by the local police that they had tried unsuccessfully to contact the plant. NACE further states that "this communication failure is not discussed in any of the NRC's inspection reports."

AIT members did not directly interview members of the Gore police department and therefore, the AIT is unable to address the specifics of this allegation. However, AIT members did review telephone records maintained during this period and noted that some calls were received by various members of SFC's staff during the event. Although the Silent Sirens report provides no time reference as to when the difficulty occurred, it would be reasonable to expect some delay in contacting site personnel during a period where administrative offices were evacuated and the only personnel remaining in areas serviced by telephones were either responsible for responding to the event and shutting down process lines or for providing notification of event status to on- and offsite personnel and authorities.

Allegation:

> SFC's communication and notification equipment was in such a state of disrepair during the accident that we believe it shows reckless disregard for the safety of SFC employees and the public. Silent Sirens report at 21-22.

Since the Silent Sirens report contains a number of separate, but related, charges regarding onsite communications equipment at the Sequoyah facility at the time of the event, the staff believes it prudent to address each charge as presented in the report. However, the staff does not feel it necessary to address or challenge NACE's characterization of SFC's Contingency Plan provisions for communication equipment or of the status of communication equipment at the time of the event. Instead, the staff provides a summary of facts regarding the equipment and its state of operability below.

The Silent Sirens report notes that "SFC's Contingency Plan requires that this (communications) equipment be operable, and it must be operationally checked on a monthly basis if it is not in regular use." (The Silent Sirens report cites Sections 6.3.1 and 6.3.3 of SFC's Contingency Plan.) A review of SFC's Contingency Plan reveals that the requirements of the plan may not be as enforceable as indicated in the Silent Sirens report.

As noted below, the specified provisions of the plan were reviewed during the AIT inspection, and no violation of a legally binding commitment was identified. However, the AIT did find notable weaknesses in SFC's communication systems during its investigation of the November 17, 1992, event. NRC Inspection Report 40-8027/92-30 documents several problems

involving communication equipment operability. Specifically, radios designated for use during emergency response were found with "dead" batteries on the morning of the event and the public address system at the DUF4 plant was inoperable due to hardware-related problems.

The issues noted above were discussed in NRC Inspection Reports 40-8027/92-30 and 40-8027/92-31. In reviewing issues associated with power supplies for the hand-held radios, AIT members reviewed the licensee's records documenting monthly audits of emergency equipment and noted that the audits were performed as specified in the CPIP procedures for all equipment which was not in normal use. The previous monthly audit records revealed that several batteries were charged in the event that use of radios was required during an emergency. (It should be noted that hand-held radios comprised the primary system for daily communications between the control room and operators located within the restricted area. Therefore, the requirement for monthly operational checks would not necessarily apply to all hand-held radios.)

Although the licensee had complied with Contingency Plan auditing procedures, NRC raised the issue of communication equipment problems in the AIT inspection report as an issue of concern. In addition, the operability of the DUF4 plant public address system was raised as a restart issue and was reviewed prior to NRC providing authorization to restart the DUF4 facility in December 1992. Thus, NRC did not fail to address these issues, they simply were not the subject of the escalated enforcement action taken by NRC in response to the November 17, 1992, event.

In addition, NACE charged that NRC failed to make any attempt to evaluate the effect of radio communication failures on the adequacy and timeliness of SFC's emergency response. The AIT notes that although NRC Inspection Report 40-8027/92-30 did not provide a lengthy discussion of the AIT's review of this issue, the impact of emergency communications was reviewed in detail by the AIT. The AIT concluded that although problems with radio communications may have contributed to a delay in control room staff being notified of the potential for plume travel offsite and did result in an individual unnecessarily entering the control room, radio communications were not determined to be the root cause of timeliness concerns regarding upgrading the event from the initial classification. Of greater concern was the fact that SFC personnel did not recognize the potential for offsite travel of the plume in a more timely manner.

In summary, the AIT identified several concerns regarding communication equipment; however, NRC did not identify any enforceable issues regarding maintenance of communications equipment.

The Silent Sirens report also raises another issue which is not specifically identified as an allegation but which is worthy of discussion for information purposes only. As noted in the report, the Contingency Plan does state that activation of the air horn would automatically shut down the ventilation system for the administrative areas, the laboratory, change rooms, and the control room. However, based on further review of this issue subsequent to the AIT inspection, NRC inspectors learned that during the 1980's SFC modified

the air horn activation system and separated controls for the air horn and ventilation system. The Contingency Plan was never modified (this would have been within the scope of modifications which probably would have been accepted by NMSS) although the CPIP procedures were modified to incorporate the necessary steps to shutdown ventilation when required. The licensee's reason for doing this was that according to the Contingency Plan, the air horn must be activated when any event is declared, resulting in automatic shut down of the ventilation system. The licensee determined that it would not always be desirable or advisable to shut down ventilation to occupied areas of the facility, particularly when an event did not involve or affect occupied areas of the facility. Thus, the licensee implemented procedures for manual control of the ventilation system.

The issue discussed above was viewed as a licensing issue in that SFC may modify its Contingency Plan without license amendment provided that the overall effectiveness of the plan is not reduced. NRC informed SFC following the AIT inspection that this issue should be resolved through correction of the plan and corresponding notification to NRC.

Allegation:

> John Ellis, who was vice president of SFC at the time of the accident, was the principal onsite emergency response director designated by the Contingency Plan. Yet, according to an NRC inspector, he received no emergency training, in violation of the Contingency Plan. Silent Sirens report at 25. Mr. Ellis left the plant during the accident, along with another vice president. We believe that it was not only inappropriate that two high-level officials left the site during the accident, but it also raises the concern that Mr. Ellis may have left in order to avoid questions as to whether he had been properly trained to assume his responsibility as onsite emergency response director.

Chapter 4 of SFC's Contingency Plan discusses the response organization. Various sections of Chapter 4 identify, by position and title, individuals who are responsible for completing specified tasks in accordance with the Contingency Plan and appropriate CPIP procedures. Sections 4.1 and 4.2.1 specify that upon declaration of an event and during the initial interval thereafter, the Senior Shift Supervisor will assume the position of Onsite Emergency Director until relieved by the Senior Vice President or an alternate. Section 4.2.1 specifies the order of succession for the position of Onsite Emergency Director as: (1) Senior Vice President, (2) Manager, Operations, (3) Manager, Engineering, (4) Manager, Health and Safety. In addition, throughout Chapter 4, whenever the title of Senior Vice President appears in reference to filling the position of Onsite Emergency Director, the provision for an alternate is documented.

Based on the provisions of SFC's Contingency Plan as described above, the AIT identified no violation relative to staffing responsible emergency response positions during the November 17, 1992, event. In fact, the AIT reviewed all

emergency response documents to verify that (1) individuals identified in facility "contingency response personnel lists" were qualified to serve in their respective positions and (2) position assignments were consistent with the licensee's Contingency Plan and CPIP procedures. The AIT found no discrepancies in the licensee's assignment of personnel.

Ms. Curran's letter states that "according to an NRC inspector, he (John Ellis) received no emergency training, in violation of the Contingency Plan." The staff believes that Ms. Curran is referring to discussions held during a public meeting conducted at the conclusion of the AIT inspection. If this is the case, Ms. Curran's characterization of this discussion is not entirely factual. An AIT team member who reviewed emergency response staffing was questioned by Mr. Lance Hughes, Executive Director for NACE, regarding this issue with specific focus on why Mr. Ellis did not serve as the Onsite Emergency Director as well as why he left the site during the event. The inspector noted that Mr. Ellis had not yet completed all training required to serve as the Onsite Emergency Director at the time of the event and that it was appropriate for the Manager, Operations to have served in the position at that time. The inspector specifically addressed Mr. Hughes' charges that Mr. Ellis had received no emergency training during the meeting, noting that Mr. Ellis' background included various responsible positions in the nuclear industry and that he had received emergency training from various sources prior to assuming his position at the Sequoyah facility. The inspector noted that Mr. Ellis had not completed all required site-specific training prior to November 17, 1992.

In summary, the AIT identified no violations of the Contingency Plan with regard to staffing emergency response positions. In addition, the staff disagrees with Ms. Curran's characterization of discussions held by an NRC inspector.

Allegation:

> SFC knew before the November 1992 accident occurred that the control room was not sealed -- a violation of its license and prior commitments to Congress -- but it did nothing about it. Silent Sirens report at 14-15.

The Silent Sirens report provides ample discussion regarding previous commitments made by the licensee to ensure that the control room was sealed following the 1986 event. However, problems related to control room air supply and circulation during the 1986 event were much different than those identified during the AIT's investigation of the November 17, 1992, event. Specifically, problems identified in 1986 included the fact that windows in the control room were installed and used in a manner which permitted process area air to circulate freely to the control room. The commitments made by the licensee following the 1986 event included sealing the windows; however, the staff is unable to confirm that either SFC's commitments or statements in the license were ever intended to ensure that the control room was hermetically sealed.

Notwithstanding the above, as noted in the Silent Sirens report, NRC did raise questions regarding an earlier event involving detection of fluorine gas in the control room which occurred in June 1992 (see NRC Inspection Report 40-8027/92-16). During the period between June and November 1992, NRC inspectors repeatedly reviewed the licensee's progress in completing a review of the June incident and implementing corrective measures. However, despite repeated efforts to resolve this issue, due to the number of engineering requests and ongoing engineering projects, the licensee had not yet resolved the problem at the time of the November 17, 1992, event.

Although circumstances associated with the June and November 1992 events were much different, AIT members nonetheless raised questions as to whether the licensee should have suspected that air from the process area could enter the control room as a result of investigating the June 1992 incident. (The June event involved a release of fluorine on the north side of the main process building which was believed to have been carried from the north to the south side of the building where it entered the air intake plenum that served the control room.)

During the AIT inspection, questions and concerns raised by NRC regarding the licensee's investigation of control room ventilation prompted SFC to re-evaluate this issue. The licensee's subsequent evaluation and findings were reviewed in detail by AIT members. As noted in NRC Inspection Report 40-8027/92-30, the AIT did not consider the licensee's earlier investigation adequate. The inspection report notes that the licensee's engineering study considered only the obvious route of entry for control room air and did not include a detailed examination of the control room air supply system. Further, the report notes that the proposed solution did not consider engineering controls to isolate the control room air supply in order to prevent exposure of control room operators to hazardous gases and vapors.

NRC did consider the failure to seal the control room to be significant, and as acknowledged in the Silent Sirens report, the Notice of Violation and Proposed Imposition of Civil Penalty issued to SFC on March 25, 1993, included a citation involving this issue. However, notwithstanding the AIT's concerns regarding SFC's failure to aggressively investigate control room ventilation, the AIT did not conclude that SFC had knowledge of the control room ventilation problems documented in the AIT report prior to the November 17, 1992, event.

Allegation:

> Actions by SFC in March of 1993 raise questions about whether SFC had kept offsite officials up to date with current revisions of the Contingency Plan, and if not whether SFC later tried to suppress evidence that the offsite officials did not have the correct revision to the plan when the accident happened. Silent Sirens report at 8.

The AIT is unable to address this allegation as it involves actions which were outside the scope of the AIT inspection.

Allegation:

> The NRC's inspection report raises questions about the manner in which SFC attempted to monitor the concentration of the NO2 plume after it left the site. Did SFC purposely avoid sampling the plume at its most concentrated locations? Silent Sirens report at 19-21.

The Silent Sirens report raises concerns that SFC employees may have purposefully taken samples at locations in and around Gore **before** the plume reached the sample locations. The staff believes that NACE may have misinterpreted information conveyed in the AIT inspection report. AIT members who reviewed the licensee's air monitoring efforts determined that the licensee selected reasonable locations within the plume's pathway and that samples were taken as the plume passed overhead. Although there is no accurate means of determining whether samples taken by the licensee were representative of the highest ground concentrations of NO2 (due to the fact that NRC inspectors were not present at the time and the plume was above the ground and had dispersed significantly by the time that it reached Gore), the AIT believed that based on information reviewed during the inspection, the licensee's efforts were reasonable given the circumstances at the time.

In addition, NACE noted that NRC did not cite any violations of license conditions with regard to offsite monitoring of NO2. The staff notes that the license does not incorporate any specific requirements for offsite monitoring of NO2.

The Silent Sirens report also raises concerns regarding the licensee's monitoring for release of uranium during the event and the level of detail provided in NRC Inspection Report 40-8027/92-30 regarding plant and fenceline air samples and analysis. The AIT conducted a detailed review of roof vent and fenceline samples collected during the event. However, documentation of this review in the inspection report did not include full detail of the team's review and instead contained only the information which the team believed necessary to support its conclusions. The team based its conclusions on a review of roof vent samples rather than other process area samples because they were believed to be representative of the highest potential for uranium release from the process area. The AIT recognized that other release pathways existed, such as doorways which remained open and equipment hatches, but believed that the predominant release pathway from the main process building was the roof vents.

NACE also questions the AIT's reliance on a fenceline sample as the basis for concluding that there was no release of uranium offsite in excess of regulatory limits. AIT members have reviewed data collected during the inspection and agree with the team's initial conclusions that the fenceline samples evaluated during the inspection were most likely within the plume

pathway. In addition, fenceline sample results were compared with calculated results based on roof vent sample data corrected for atmospheric dispersion, and the two data sets were found comparable.

Allegation:

> SFC repeatedly and knowingly made false public statements that there were no injuries as a result of the accident. Silent Sirens report at 17-18. These false statements could have influenced individuals who were exposed to the fumes not to seek necessary treatment.

NRC is aware that SFC issued several press releases which stated that there were no injuries as a result of the event and later upheld such statements during a public meeting conducted during the inspection. However, because NRC was sensitive to this issue, NRC also issued press releases which documented the AIT's findings regarding adverse health effects experienced by members of the public as a result of the NO2 release. In addition, NRC discussed this issue during several public meetings held at the Sequoyah facility during and subsequent to the AIT inspection.

The staff notes that although NRC disagreed with the licensee's initial characterization of the potential impact of the event on members of the public, there were no enforceable issues identified regarding the licensee's characterization of the event to the press.

Allegation:

> SFC also instructed a local hospital not to treat a tree farm worker who came to the emergency room complaining of burning eyes and itching skin as a result of his exposure to the NO2 plume. SFC has a written agreement with this hospital to treat offsite injured individuals, and supposedly has trained hospital employees regarding proper treatment for chemical injuries from the plant. Not only was SFC's instruction to the hospital wrong, but it appears to reflect undue influence on the conduct of a public health facility.

AIT members met with the tree farm workers who were exposed to the NO2 plume on several occasions during the inspection. In addition, an inspector met with local physicians who examined the tree farm workers and was present during initial physician interviews conducted by NRC's medical and occupational health consultants. Based on interviews of the hospital staff and physicians staffing the emergency room, the inspector identified one tree farm worker who reported to a hospital in Sallisaw, Oklahoma, on the day of the event (the individual identified in the Silent Sirens report). The inspector confirmed that emergency room personnel (nursing staff) had contacted SFC representatives; however, the inspector was unable to confirm that SFC representatives instructed hospital employees not to treat the

prospective patient. Based upon interviews of hospital personnel, it appeared that the nursing staff had instructed the worker to return home after the nursing staff contacted SFC.

The inspector later met with a physician who worked at the hospital and requested the physician to followup on this issue with the responsible emergency room physician. The physician was also unable to verify that SFC had provided specific instruction that the patient should not be treated, although he was able to verify that the tree farm worker was seen at the hospital and released without treatment. The inspector later interviewed the worker and confirmed that he was subsequently examined by another physician. The examining physician was later interviewed by the inspector and NRC's consultants with the findings of the interview documented in the consultants' report.

With regard to NACE's allegation that SFC wrongly instructed hospital personnel and unduly influenced a public health (care) facility, the staff notes that the hospital and its medical staff maintain primary responsibility for actions taken with regard to rendering treatment to patients. Moreover, AIT members and NRC consultants discussed the event with a member of the medical staff of the subject hospital, as well as with other local physicians, to ensure that accurate information was provided to medical professionals who might have been called upon to treat members of the public affected by exposure to NO2.

Allegation:

> SFC has not fulfilled its commitment to Congress or the terms of its licensee with respect to training of offsite health officials. Moreover, SFC submitted to the NRC, As part of its 1990 license renewal application, a letter of agreement which falsely indicates that SFC has conducted annual training at the Sparks Regional Medical Center, when in fact no training has be given since 1986. Silent Sirens report at 27.

Although Ms. Curran's letter references the Silent Sirens report and indicates that a letter of agreement between Sparks Regional Medical Center was submitted to NRC as part of the 1990 license renewal, the Silent Sirens report does not specify that the letter was submitted as part of the license renewal. Ms. Curran and her client allege that SFC misrepresented training provided to local medical facilities and that on the basis of discrepancies between the letter and a recent interview with a representative of Sparks Regional Medical Center, that questions should be raised about "whether misrepresentations have been made about other aspects of offsite training for the various state and local institutions that SFC's Contingency Plan relies on during an accident affecting the offsite public."

The AIT notes that the issues raised by this allegation are beyond the scope of the AIT inspection. Training provided to local medical facilities was not reviewed during the inspection. Therefore, the AIT is not prepared to refute

or substantiate the allegation.

Initial Telecon: N/A Initial Letter: N/A ARP: 10/25/93

Inspection Report: N/A Division Memo: N/A OI Report: N/A

Closure Letter: N/A Allegation No: RIV-93-A-0124

CHRONOLOGY

DATE	REMARKS
11/1/93	RE-ARP – CLOSE ALLEGATION
11/2/93	FILE CLOSED
11/8/93	RE-ARP - BRSS ACTION

ALLEGATION MANAGEMENT SYSTEM

ALLEGATION NUMBER - RIV-93-A-0124 RUN DATE: 11/02/93

DOCKET/FACILITY/UNIT: 04008027 / SEQUOYAH FUELS CORPORATION /
DOCKET/FACILITY/UNIT: / /
DOCKET/FACILITY/UNIT: / /
DOCKET/FACILITY/UNIT: / /

ACTIVITY TYPES - MATERIALS

MATERIAL LICENSES - SUB-1010

FUNCTIONAL AREAS - OTHER

FAILURE TO TAKE ADEQUATE REGULATORY ACTION
DESCRIPTION - NACE'S ATTORNEY'S LETTER TO DIRECTOR OI ALLEGES THAT NRC FAILED TO TAKE ADEQUATE REGULATORY ACTION, FAILED TO ADEQUATELY INVESTIGATE, AND FAILED TO ENSURE THAT SFC HAD
CONCERNS - MET COMMITMENTS TO NRC - RELATING TO THE 1986 AND 1992 3 INCIDENTS.

10/25/93 ARP CONVENED - RE-ARP 11/1 - CLOSE ALLEGATION
SOURCE - NACE'S ATTORNEY CONFIDENT - NO

RECEIVED - 931018 BY - L. WILLIAMSON / OI

ACTION OFFICE CONTACT - R. WISE

RESPONSIBLE PGM OFFICE - M VIOLATION SECTION 210 ALLEGED - NO

STATUS - CLOSED SCHED COMPLETION - 940418 DATE CLOSED - 931101

ALLEGATION SUBSTANTIATED - NO ALLEGER NOTIFIED - NO

OI ACTION - NO OI REPORT NUMBER -
REMARKS - 11/1/93 RE-ARP - CLOSE ALLEGATION - NO APPARENT ASSIGNMENT TO REGION IV - MEMORANDA ADDRESSED TO OI AND OIG
11/2/93 FILE CLOSED - NO FURTHER ACTION REQUIRED AT THIS TIME

10/25/93 ARP CONVENED, RE-ARP ON 11/1
AC
ACTION: FILE CLOSED
ENTERED SYSTEM - 931102 CLOSED SYSTEM - 931102 RECORD CHANGED - 931102

A. _EGATION ASSIGNMENT F _RM

Allegation Number: RIV-93-A-0124

Licensee/Facility or Location: SEQUOYAH FUELS

Discussed at ARP meeting on: 11/8/93

Assigned to DRP - DRS - (DRSS) AC Section: _____

OI involvement? _____ OI tracking number: _____

ARP instructions/guidance: DRSS will review all recent (9/28 & 11/4) letters from (NAGE & Curran) and develop a position/response for the points identified in the 11/4/93 letter for INTERNAL DISCUSSION AT THIS POINT. INITIAL REVIEW REVEALED NO NEW TECHNICAL ISSUES.

ARP Chairman Dwight D. Chamberlain Date: 11-9-93

Allegation Resolution Plan (**return to the AC within 10 days of ARP meeting**):

Submitted by: _____ Date: _____

cc: Allegation File, ARP Meeting File, OI

ALLEGATION ASSIGNMENT FORM

Allegation Number: RIV-93-A-0124

Licensee/Facility or Location: SEQUOYAH FUELS

Discussed at ARP meeting on: 11/1/93

Assigned to DRP - DRS - DRSS AC Section: _____

OI involvement? _____ OI tracking number: _____

ARP instructions/guidance: DRSS CURRENTLY REVIEWING LETTER TO DETERMINE WHETHER "NEW" SAFETY ISSUES WERE IDENTIFIED. BASED ON CURRENT AVAILABLE INFO, THIS MATTER HAS NOT BEEN FORWARDED TO RIV FOR ACTION. (DELETE FROM ARAS)

ARP Chairman Dwight D Chamberlain Date: 11-2-93

Allegation Resolution Plan (return to the AC within 10 days of ARP meeting):

Submitted by: _____ Date: _____

cc: Allegation File, ARP Meeting File, OI

ALLEGATION ASSIGNMENT FORM

Allegation Number: RIV-93-A-0124

Licensee/Facility or Location: SEQUOYAH FUELS

Discussed at ARP meeting on: 10/25/93

Assigned to DRP - DRS - DRSS AC Section: _____

OI involvement? _____ OI tracking number: _____

ARP instructions/guidance: *RE-ARD ON 11/1/93

ARP Chairman _____ Date: 10/27/93

Allegation Resolution Plan (**return to the AC within 10 days of ARP meeting**):

Submitted by: _____ Date: _____

cc: Allegation File, ARP Meeting File, OI