Department of Energy

Washington, DC 20585

February 4, 2003

Mr. Philip O. Strawbridge
BNFL Inc.
10306 Eaton Place
Fairfax, VA 22030

EA 2003-01

Subject: Preliminary Notice of Violation and Proposed Imposition of Civil Penalty $123,750

Dear Mr. Strawbridge:

This letter refers to the Department of Energy's (DOE) investigation of the facts and circumstances concerning quality assurance issues affecting nuclear safety surrounding the July 25, 2001, and June 27, 2002, tube bundle fires at the East Tennessee Technology Park (ETTP) during converter dismantlement activities.

The DOE Office of Price-Anderson Enforcement (OE) initiated investigations of these tube bundle fires with a full review of relevant documentation. In addition, discussions that involved DOE and BNFL, Inc. personnel took place at ETTP on March 12-13, 2002, to cover nuclear safety related issues with the July 25, 2001, tube bundle fire. For the tube bundle fire that occurred on June 27, 2002, OE did not conduct onsite discussions, but rather relied heavily on the facts gathered during the course of a Type B Accident Investigation conducted at the request of the DOE Oak Ridge Operations Office. Our findings were provided to you in two Investigation Summary Reports dated May 9, 2002, and November 6, 2002. Enforcement Conferences were held with you and members of your staff on July 2, 2002, to discuss the findings associated with the July 25, 2001, tube bundle fire and on November 22, 2002, to discuss the findings associated with the June 27, 2002, tube bundle fire. Enforcement Conference Summaries covering both Enforcement Conferences are enclosed.

Based on DOE's investigation and information that you provided during the Enforcement Conferences, DOE has concluded that violations of 10 CFR 830 subpart A (Quality Assurance Requirements) occurred. These violations are described in the enclosed Preliminary Notice of Violation (PNOV).

The enclosed PNOV describes numerous violations of the nuclear safety requirements related to your converter dismantlement activities. Of particular concern is the repetitive nature of the types of nuclear safety compliance violations seen in the three tube bundle

fires that have occurred over the last 2.5 years. The violations involve weaknesses in the BNFL work process controls including (1) development of Enhanced Work Planning (EWP) documentation, (2) adherence to EWP requirements during performance of work activity, and (3) proper use of personal protective equipment.

Additional violations were also identified that related to the quality improvement provisions of the Quality Assurance rule. DOE investigations determined that multiple opportunities existed for BNFL to correct known deficiencies with its work practices over the past 2.5 years through either its own internal assessment activities, or through external oversight and investigations conducted by DOE. However, BNFL failed to adequately correct known deficiencies such that the likelihood of recurrence would be minimized. Specifically, deficiencies in BNFL work practices related to (1) hazard identification and control, (2) worker knowledge of EWP content, (3) emergency response, and (4) corrective action management, have emerged as common areas of weakness found in all three tube bundle fires.

In accordance with the General Statement of Enforcement Policy, 10 CFR 820, Appendix A, the violations described in the enclosed PNOV have been classified as three Severity Level II violations. In determining the Severity Level of these violations, DOE considered the actual and potential safety significance associated with the two most recent tube bundle fires, the programmatic and recurring nature of the problems, and other factors.

To emphasize the importance of maintaining a comprehensive quality program for DOE nuclear activities, I am issuing the enclosed PNOV and Proposed Civil Penalty in the amount of $123,750. DOE has determined that no mitigation is warranted for timely self-identification and reporting given that the tube bundle fires were self-disclosing events. However, DOE does acknowledge that once the fires occurred, BNFL promptly reported the associated noncompliances into the Noncompliance Tracking System (NTS). DOE also evaluated the adequacy of corrective actions identified and implemented by BNFL. Our evaluation concluded that no mitigation was warranted for the work process violations associated with the July 25, 2001, tube bundle fire as corrective actions taken in response to the this fire failed to adequately address the weaknesses in work practices identified in the associated Investigation Summary Report. However, the recent change in BNFL management at ETTP and your apparent commitment to prompt and comprehensive change directed at improving nuclear safety performance is viewed as a significant step in the right direction. Of particular note was the significant improvement made by BNFL in its causal analysis associated with the June 27, 2002, tube bundle fire. Consequently, 50 percent mitigation of the maximum Severity Level II civil penalty for the work process violations associated with the June 27, 2002, tube bundle fire and a 25 percent mitigation of the maximum Severity Level II civil penalty for overall quality improvement violations was applied.

You are required to respond to this letter and follow the instructions specified in the enclosed PNOV when preparing your response. Your response should document any additional specific actions taken to date. Corrective actions will be tracked in the NTS.

You should enter into the NTS (1) any actions that have been or will be taken to prevent recurrence and (2) the target and completion dates of such actions. After reviewing your response to the PNOV, including your proposed corrective actions, in addition to the results of future assessments or inspections, DOE will determine whether future enforcement action is necessary to ensure compliance with DOE nuclear safety requirements.

Sincerely,

Stephen M. Sohinki
Director
Office of Price-Anderson Enforcement

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Enclosures:
Preliminary Notice of Violation
Enforcement Conference Summary Reports
List of Attendees

cc: G. Boyd, DOE-ORO
M. Morrow, DOE-ORO
R. Brown, DOE-ORO
J. Howard, DOE-ORO
B. Hawks, DOE-ORO
J. Christian, BNFL
M. Cooter, BNFL PAAA Coordinator
B. Cook, EH-1
M. Zacchero, EH-1
J. Roberson, EM-1
S. Johnson, EM-1
H. Himpler, EM-5, EM PAAA Coordinator
R. Orbach, SC-1
M. Johnson, SC-3
R. Schwartz, SC-83, SC PAAA Coordinator
R. Day, OE
S. Zobel, OE
Docket Clerk, OE

Preliminary Notice of Violation
and
Proposed Imposition of Civil Penalty

BNFL, Inc.
East Tennessee Technology Park

EA-2003-01

During a Department of Energy (DOE) investigation conducted in March 2002 concerning the July 25, 2001, tube bundle fire in Building K-31 and in reviewing the August 2002 DOE-Oak Ridge Operations Office Type B Accident Investigation Report, "Exothermic Metal Reaction Event During Converter Disassembly in Building K-33 at the East Tennessee Technology Park on June 27, 2002," and associated documentation, potential violations of DOE nuclear safety requirements were identified. In accordance with 10 CFR 820, Appendix A, "General Statement of Enforcement Policy," DOE issues this Preliminary Notice of Violation (PNOV), with proposed civil penalty, pursuant to section 234a of the Atomic Energy Act of 1954, as amended, 42 USC 2282a, and 10 CFR 820. Following an Enforcement Conference held on November 22, 2002, DOE has concluded that the following violations have occurred. The associated civil penalties are also set forth below.

I. Violation Pertaining to Work Processes

10 CFR 830.122(e)(1) requires that work be performed consistent with technical standards, administrative controls, and other hazard controls adopted to meet regulatory or contract requirements, using approved instructions, procedures, or other appropriate means.

Contrary to the above, between November 2000 and July 25, 2001, converter disassembly work was not performed consistent with technical standards, administrative controls, and other hazard controls adopted to meet regulatory or contract requirements, using approved instructions, procedures, or other appropriate means. Examples related to the July 25, 2001, Building K-31 tube bundle fire include the following:

A. Work planning for work activities at K-31 is controlled by job-specific Enhanced Work Plans (EWP). Procedure PR-RO-005, "Enhanced Work Plan," revision 6,

dated April 10, 2001, specifies the development of EWPs. EWP CONV31-002, revision 1, "Remove Small End Cap," was inconsistent with PR-RO-005 as follows:

1. Section 3.6 requires the Group Manager to ensure that "...additional SMEs whose work experience/skills match those necessary for the task under evaluation have been consulted and have reviewed the task plan prior to the start of work." This requirement is reiterated in section 4.2 where the Group Manager is directed to prepare the EWP planning documents and assemble the EWP team. However, there was no evidence that a fire safety subject matter expert (SME) reviewed and approved EWP document EWP-CONV31-002, "Remove Small End Cap," revision 1, dated April 4, 2001, even though fire hazards were identified.

2. Section 3.8 requires the Group Manager to "...ensure that relevant information from lessons learned and near miss files have been applied to the EWP process." Section 4.3 requires this information to be entered in Attachment 1, Phase 2, of the EWP. However, lessons learned from the April 4, 2000, tube bundle fire and other BNFL experience with metal fires were not recorded in EWP CONV31-002.

3. Section 4.5.1 requires the Group Manager to ensure "...that appropriate approval signatures...are obtained." However, the Group Manager did not sign EWP-CONV31-002, revision 1.

4. Section 4.7 describes the procedure for making relevant field changes to an EWP work document to keep that document up to date. However, the method developed for locating where to cut a "00" converter small end cap was not added to EWP CONV31-002, revision 1, in accordance with section 4.7.

5. Section 3.22 requires the EWP team to "...identify and analyze hazards for the defined scope of work." Section 4.4.3 goes on to state that a "…task hazards assessment shall be performed. The hazards associated with the task and the controls required to mitigate the hazards shall be listed." However, the hazards assessment in EWP CONV31-002, revision 1, does not mention the known hazard associated with metal fires.

6. Section 4.4.4 states "Bounding conditions shall be defined." Section 6.0 defines a bounding condition as a "...condition or parameter that establishes the point beyond which work cannot be continued until additional evaluations are conducted and controls implemented." However, EWP CONV31-002, revision 1, does not list metal fires as a bounding condition.

B. Procedure PR-SS-067, "Near Miss/Hazard Identification and Safety Suggestion Program," revision 2, dated March 5, 2001, states in section 3.1 that all "...project personnel including BNFL employees and sub-contractors are responsible for reporting any incidents or hazards." Section 4.2 states that "Project personnel will

complete the Near Miss/Hazard Identification card to report any incident or identified hazard...." However, a cutter inadvertently began a cut in the wrong location--over the tube bundle--and cut approximately two feet before the fire watch stopped the cut and did not report this incident as required.

C. Procedure PR-RO-005, "Enhanced Work Planning," revision 6, dated April 10, 2001, states in section 3.18 that the Supervisor/General Foreman is to "Ensure that work is performed within established EWP controls." Section 3.25 states that the Work Team is to "Perform work within the established controls." However, on July 25, 2001, this did not occur during the removal of the small end cap from a "00" converter in K-31.

D. EWP CONV31-002, revision 1, provides the following Work Plan Actions (WPA) for the work crew to follow when removing a small end cap:

1. WPA #4 states "Cover all openings on converter to ensure smoke is captured by HEPA system." However, on July 25, 2001, not all openings on the converter being cut were covered as required.

2. WPA #5 states "Position plasma torch, while burning, toward the small end cap to prevent spatter from entering the sheet area.…Point torch tip toward small end cap end thus reducing possibility of slag being captured near sheet." However, the cutter, at some point, did not angle the torch toward the end cap.

3. EWP CONV31-002, revision 1, states "Additional Information and References" in item 5 of "Actions to be Taken in the Event of a Metal Reaction" that "If a metal reaction is known to be occurring and there is no visible plume in the HEPA (high efficiency particulate air) filter unit exhaust, ensure the HEPA unit is on, then evacuate." However, during the July 25, 2001, evacuation of K-31, the HEPA unit was turned off even though no one observed a plume coming from the unit.

Collectively, these violations constitute a Severity Level II problem.
Civil Penalty - $55,000

II. Violation Pertaining to Work Processes

10 CFR 830.122(e)(1) requires that work be performed consistent with technical standards, administrative controls, and other hazard controls adopted to meet regulatory or contract requirements, using approved instructions, procedures, or other appropriate means.

Contrary to the above, between March 2002 and June 27, 2002, converter disassembly work was not performed consistent with technical standards, administrative controls, and other hazard controls adopted to meet regulatory or contract requirements, using

approved instructions, procedures, or other appropriate means. Examples related to the June 27, 2002, tube bundle fire include the following:

A. PR-RO-005, "Enhanced Work Planning," revision 9, section 3.7, dated April 1, 2002, requires that the Group Manager ensure that a comprehensive hazard analysis is performed prior to the start of a task and prior to any changes to that task. However, some welded brackets were cut, utilizing a metal shield to prevent hot kerf from contacting the tube bundle. The use of this shield was not approved nor analyzed during the hazard assessment performed for the EWP.

B. EWP CONV-111, revision 2, states that in the event of a tube bundle reaction personnel are to "Leave HEPA unit running and leave area." However, PR-SS-500, "General Employee Response," states "if the employee(s) is/are able to control the fire themselves using one fire extinguisher, they should do so." In addition, PR-SS-500 prohibits the use of CO_2 in fighting metal fires. However, the pre-fire plan allows for the use of CO_2 extinguishers. These inconsistencies may have led to BNFL worker confusion as to how to respond to the June 27, 2002, tube bundle fire.

C. The cutter and fire watch did not respond to the fire in accordance with established protocol in either the EWP or PR-SS-500 as described in B above. Specifically, the following noncompliant activities were performed in an attempt to terminate the metal fire:

- Removing the burning tube bundle from the converter shell.
- Discharging what was thought to be a Met-L-X extinguisher (it was actually CO_2).
- Trying to separate burning metal from remainder of the tube bundle using a shovel and extinguisher nozzle.

D. The pre-fire plan requires that two 150-pound, wheeled Met-L-X extinguishers be placed at column X-10, located in the D&D workshop. Only one of the two required extinguishers was present at the time of the fire.

E. The radiological work permit applicable to hotwork activities for dismantlement of converters requires that powered air purifying respirators (PAPRs) be worn if personnel are within 20 feet of the hotwork. However, the fire watch initially responded to the tube bundle fire by discharging an ABC extinguisher without wearing a required PAPR.

F. Procedure PR-SS-001, "Powered Air Purifying Respirator Issue and Use," revision 3, section 4.2, requires PAPR users to verify that the respirator recharge battery light is not lit; if it is lit, the use of that respirator is to be restricted until the battery is recharged. However, the fire watch, after discharging the ABC extinguisher, left the area to retrieve his PAPR. As the fire watch returned, he noticed that the battery on his PAPR was low as indicated by the low battery light and that he was experiencing less than normal airflow through the mask. The fire watch chose to re-enter the area and continue to fight the tube bundle fire using the malfunctioning PAPR.

G. Procedure PR-SS-001, revision 3, section 4.3, requires PAPR users to keep the clear face shield closed when the PAPR is in use. However, during the course of fighting the tube bundle fire, the cutter raised his clear face shield to communicate with the fire watch.

H. Procedure PR-CS-005, "Safety Evaluations/Unreviewed Safety Questions," revision 2, sections 4.16 and 4.2.1, states the Regulatory Compliance Unit shall perform an Unreviewed Safety Question Determination (USQD) screening when any change is proposed to an existing procedure that is outlined, summarized, or described in an Authorization Basis document. However, EWP CONV-111, revisions 1 and 2, were not subjected to a USQD as required.

Collectively, these violations constitute a Severity Level II problem.
Civil Penalty - $27,500

III. Violation Pertaining to Quality Improvement

10 CFR 830.122(c)(2) requires the identification, control, and correction of items, services, and processes that do not meet established requirements.

10 CFR 830.122(c)(3) requires the identification of causes of problems and work to prevent recurrence as a part of correcting the problem.

Contrary to the above, between September 1999 and June 27, 2002, the identification, control, and correction of items, services, and processes that do not meet established requirements; and the identification of causes of problems and work to prevent recurrence as a part of correcting the problem did not occur in that on April 4, 2000, during the cutting of a tube sheet on an exposed tube bundle, the first fire was initiated; on July 25, 2001, during the cutting of a converter small end cap, a second fire was initiated; on June 27, 2002, during removal of brackets welded to a converter tube bundle, a third fire was initiated. The following are the more significant recurrent problems in all three fires:

A. Hazard Identification and Control

1. In the first fire, a field change notice (FCN) was issued to allow hot (torch) cutting of the tube bundle tube sheet without benefit of SME review of the change to aid in the identification and control of hazards introduced by hot cutting the tube sheets.

2. In the second fire, the EWP team preparing the EWP did not recognize the hazard associated with a gap created by the converter design that had the potential to allow hot kerf to contact the tube bundle. The EWP Team did not have fire protection SME participation.

3. In the third fire, the FCN did identify the hazard associated with the cutting of welded brackets to the tube bundle (the possibility for hot kerf to contact the tube bundle). However, there was no documented evidence that the EWP Team SMEs analyzed this hazard introduced by the FCN to identify controls that could have mitigated the possibility of a fire, nor was there documented evidence that the SMEs considered alternate bracket removal methods that could have lessened or eliminated the potential for a metal fire.

4. In developing and refining EWPs used in converter dismantlement, BNFL often uses a research and development (R&D) approach. This R&D approach typically has not been subjected to a rigorous and formal method for hazard identification and control. In the refinement of the EWP used when the first fire occurred, several techniques were utilized to remove tube sheets from a tube bundle. In the refinement of the EWP used when the second fire occurred, the small end cap was cut at several locations before identifying an optimal cut location. In the refinement of the EWP used when the third fire occurred, a shield was employed to protect the tube bundle from hot kerf when the welded brackets were cut. This process was ultimately discontinued. In all three cases, the hazards associated with the approaches used were not formally identified or controlled.

B. Worker Knowledge of EWP Content

1. The investigation into pre-job brief related issues associated with the first fire demonstrated that some of the workers (1) did not know who provided the briefing, (2) lacked knowledge of the hazards associated with the job evolution, and (3) lacked an understanding of the requirements and controls necessary to perform the job evolution.

2. The worker performing the cut on the small end cap leading to the second fire did not understand the EWP requirement to angle the cutting torch toward the small end cap.

3. After the third fire, interviews with the cutter and the fire watch performing the work indicated that they did not know the meaning of the statement "90 degrees below the centerline" specified by the EWP. The cutter and fire watch also did not respond to the fire in accordance with the EWP.

C. Emergency Response

1. In the first fire, the applicable EWP FCN made reference to the need to have a Class D extinguisher available, but no other guidance on worker response to a metal fire was made in the EWP. However, in addition to the use of the Class D extinguisher, workers attempted to fight the fire with CO_2 and ABC extinguishers. Additionally, the fire department was unaware that it was responding to a metal fire, did not come prepared with metal fire extinguishers, and had to contact other sites to obtain the proper extinguishing agent. There was no pre-fire plan in

place for the D&D workshop at the time of the fire even though this deficiency had been previously identified.

2. In the second fire, workers responded to the fire in accordance with the EWP by activating the fire alarm box and exiting the area. However, BNFL personnel authorized the fire department to use water even though the use of water to fight metal fires was not mentioned in the pre-fire plan. Additionally, there was confusion on the part of BNFL with regard to providing direction to the fire department and coordinating emergency response efforts.

3. In the third fire, the applicable EWP states that workers were to ensure that a nearby HEPA filter unit was running and then leave the area. However, the workers removed the burning tube bundle from the converter shell and attempted to fight the fire in a variety of different ways that included the use of varying fire extinguishing media and physical separation of the burning metal. In addition, the pre-fire plan called for two 150-pound Met-L-X extinguishers to be located in the area. However, only one was present and the fire department had to retrieve a second 150-pound Met-L-X extinguisher from another building.

4. Complicating the emergency response actions taken by workers and the fire department is the fact that BNFL internal procedures are, in some cases, inconsistent. Specifically, emergency response actions found in the EWP CONV-111, "Converter Disassembly," revision 9, indicates that the workers are to activate the alarm box and leave the area. The procedure "General Employee Response" indicates that workers should fight the fire if they can and also notify their supervisor. The pre-fire plan allows for the use of CO_2 extinguishers on metal fires. However, the procedure on "General Employee Response" prohibits the use of CO_2 on metal fires.

D. Corrective Action Management Process

The corrective actions prepared in response to the three fires indicate a corrective action management process that fails to correct identified deficiencies. The rigor applied to causal analysis varied considerably for the three fires with the most recent causal analysis being the most complete and comprehensive. Another failure to correct identified deficiencies was the failure to adequately implement corrective actions or the failure to periodically reemphasize an area of identified weakness.

Collectively, these violations constitute a Severity Level II problem.
Civil Penalty - $41,250

Pursuant to the provisions of 10 CFR 820.24, BNFL is hereby required within 30 days of the date of the Preliminary Notice of Violation and Proposed Imposition of Civil Penalty, to submit a written statement or explanation to:

(if sent by U.S. Postal Service):

Director, Office of Price-Anderson Enforcement
Attention: Office of the Docketing Clerk
EH-10, 270 Corporate Square Building
U.S. Department of Energy
1000 Independence Avenue, SW
Washington DC 20585-0270

(if sent by overnight carrier):

Director, Office of Price-Anderson Enforcement
Attention: Office of the Docketing Clerk
EH-10, 270 Corporate Square Building
U.S. Department of Energy
19901 Germantown Road
Germantown, MD 20874-1290

Copies should also be sent to the Manager, DOE Oak Ridge Operations Office, and to the Cognizant Secretarial Offices at Headquarters for the facilities that are a subject of this notice. This reply should be clearly marked as a "Reply to a Preliminary Notice of Violation" and should include the following for each violation: (1) admission or denial of the alleged violations, (2) any facts set forth in this PNOV which you believe are not correct, and (3) the reasons for the violations if admitted, or if denied, the basis for denial. Corrective actions that have been or will be taken to avoid future violations should be delineated with target and completion dates in DOE's Noncompliance Tracking System. In the event the violations set forth in the Preliminary Notice of Violation are admitted, this PNOV will constitute a Final Order in compliance with the requirements of 10 CFR 820.25.

Any request for remission or mitigation of civil penalty must be accompanied by a substantive justification demonstrating extenuating circumstances or other reasons why the assessed penalty should not be paid in full. Within the 30 days after the issuance of the PNOV and civil penalty, unless the violations are denied, or remission or mitigation is requested, BNFL shall pay the civil penalty of $123,750 imposed under section 234a of the Act by check, draft, or money order payable to the Treasurer of the United States (Account 891099) mailed to the Director, Office of Price-Anderson Enforcement Attention: Office of the Docketing Clerk, at the above address. Should BNFL fail to answer within the time specified, the contractor will be issued an order imposing the civil penalty. Should mitigation of the proposed civil penalty be requested, BNFL should address the adjustment factors described in section IX of 10 CFR 820, appendix A.

Stephen M. Sohinki
Director
Office of Price-Anderson Enforcement

Dated at Germantown, MD
this 4th day of February 2003

Enforcement Conference Summary
(NTS-ORO-BNFL-K31-2001-0001)

The Department of Energy's (DOE) Office of Price-Anderson Enforcement (OE) held an Enforcement Conference with BNFL personnel on July 2, 2002, in Germantown, Maryland. OE called the meeting to discuss the facts, circumstances, and corrective actions pertaining to nuclear safety related issues associated with the July 25, 2001, tube bundle fire in Building K-31 located in the East Tennessee Technology Park (ETTP). Susan Adamovitz, acting on behalf of the Director of the Office of Price-Anderson Enforcement and serving as Presiding Officer, called the conference to order. Information and key areas discussed at the conference are summarized below, and material provided by BNFL during the conference was incorporated into the docket file. A list of attendees is attached.

Phillip Strawbridge, Senior Vice President and Chief Operating Officer, introduced members of his staff and emphasized that BNFL is committed to safe, compliant, and efficient completion of project work. John Christian, Vice President of D&D Operations, provided an overview of the three building project at ETTP and concurred with issued identified in the May 9, 2002, Investigation Summary Report. Mr. Christian went on to describe the event, identify what went right and what went wrong, and delineated some of the actions taken, or planned to be taken, by BNFL to address weaknesses in the processes by which they manage their work activities. Jeff Stevens, ETTP Project General Manager, discussed BNFL initiatives to improve the training and qualification of personnel involved with converter dismantlement and the qualifications of personnel leading event investigations. Matt Smurr, Corporate Quality Assurance Manager, addressed BNFL initiatives to enhance its quality improvement activities at ETTP with an emphasis placed on those initiatives related to corrective action management. Mr. Stevens then addressed BNFL's weaknesses in its work control processes. BNFL's corrective actions taken in this area focused on the Enhanced Work Planning process, establishment of a Shift Manager position, and converter cutting improvements. Mr. Christian then discussed the actual and potential consequences as a result of the July 25, 2001, tube bundle fire and presented other aspects of the fire for DOE consideration in the application of mitigation. Mr. Strawbridge then concluded the BNFL presentation by stating that BNFL is committed to follow through on changes put into place, that BNFL senior management would remain involved in the improvement process, that BNFL assessments of progress made are planned, and additional improvement will be made as required.

Mrs. Adamovitz stated that DOE would consider the information presented by BNFL together with the entire record, when DOE undertakes its enforcement deliberations. Mrs. Adamovitz then adjourned the conference.

July 2, 2002

July 25, 2001, Tube Bundle Fire
Enforcement Conference List of Attendees

Office of Price-Anderson Enforcement

Susan Adamovitz, Presiding Officer
Richard Day
Steve Sohinki
Howard Wilchins
Steven Zobel

DOE Oak Ridge

Robert Brown
Brenda Hawks
Jack Howard

Office of Environmental Management

William Boyce
Teresa Gepner
Henry Himpler
Judson Lilly
Randall Smyth

Office of Special Projects and Investigations

Prakash Kunjeer
Carl Caves

BNFL

Marian Boussios
John Christian
Margaret Cooter
Carl Smith
Matt Smurr
Jeff Stevens
Phillip Strawbridge

Enforcement Conference Summary
(NTS-ORO-BNFL-K33-2002-0002)

The Department of Energy's (DOE) Office of Price-Anderson Enforcement (OE) held an Enforcement Conference with BNFL personnel on November 22, 2002, in Germantown, Maryland. The OE called the meeting to discuss the facts, circumstances, and corrective actions pertaining to nuclear safety related issues associated with the June 27, 2002, tube bundle fire in Building K-33 located in the East Tennessee Technology Park (ETTP). Stephen Sohinki, Director of the Office of Price-Anderson Enforcement, called the conference to order. He stated that OE had deferred any enforcement decisions in regard to the July 25, 2001, tube bundle fire until OE had completed its investigation of the June 27, 2002, tube bundle fire consistent with his July 11, 2002, letter to Phillip Strawbridge, and that this Enforcement Conference is convened to address the issues noted in the November 6, 2002, Investigation Summary Report. Information and key areas discussed at the conference are summarized below, and material provided by BNFL during the conference was incorporated into the docket file. A list of attendees is attached.

Phillip Strawbridge, Chief Executive Officer and President, introduced members of his staff and emphasized BNFL's commitment to safety by stating that BNFL is focused on safe operations of its decontamination and dismantlement activities at ETTP and that BNFL has made a significant investment in safety. As part of this commitment BNFL has placed a new management team at ETTP. John Christian, Vice President of D&D Operations, provided a brief description of the June 27, 2002, tube bundle fire and stated that BNFL concurs with the overall issues identified in the Investigation Summary Report. In a letter from Mr. Christian to Mr. Sohinki, dated November 20, 2002, BNFL did provide OE with a list of factual inaccuracies and points of clarification associated with the Investigation Summary Report. These comments will be incorporated into the docket file. Jeff Stevens, ETTP Project General Manager, and Matt Smurr, Corporate Quality Assurance Manager, then addressed each of the potential violations noted in the Investigation Summary Report by covering the issue and stating the corrective actions that BNFL has taken to address the issue. Carl Smith, Corporate ES&H Manager, addressed the BNFL commitment to culture change at ETTP. Implementation of a Behavior Based Safety Program at ETTP was cited as a major initiative to accomplish this change. The effectiveness of recent initiatives at improving the safety culture at ETTP was depicted through the use of several performance indicators. Mr. Christian then presented the results of an early effectiveness assessment in which several initiatives were identified to improve management of the ETTP work and the overall plant safety culture. Mr. Strawbridge concluded the BNFL presentation by

addressing the actual and potential safety consequences of the June 27, 2002, tube bundle fire and reiterating the BNFL management commitment to nuclear safety rule compliance.

Mr. Sohinki stated that DOE would consider the information presented by BNFL together with the entire record, when DOE undertakes its enforcement deliberations. Mr. Sohinki then adjourned the conference.

November 22, 2002

June 27, 2002, Tube Bundle Fire
Enforcement Conference List of Attendees

Office of Price-Anderson Enforcement

Stephen Sohinki, Presiding Officer
Richard Day

DOE Oak Ridge

Robert Brown
Brenda Hawks
Jack Howard

Office of Environmental Management

William Boyce
Henry Himpler
Judson Lilly

Office of Science

Ray Schwartz

Office of Special Projects and Investigations

Dennis Vernon

BNFL

Marian Boussios
John Christian
Margaret Cooter
Carl Smith
Matt Smurr
Jeff Stevens
Phillip Strawbridge