

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
BEFORE THE PRESIDING OFFICER

March 7, 2003

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OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

In the matter of )  
 )  
Nuclear Fuel Services, Inc. ) Docket No. 70-143  
 )  
(Materials License SNM-124) )  
 )

**REPLY BY KATHY HELMS-HUGHES  
TO NFS'S RESPONSE  
TO HER SECOND HEARING REQUEST**

As permitted by the Presiding Officer's Order of February 28, 2003, Petitioner Kathy Helms-Hughes hereby responds to Nuclear Fuel Services' ("NFS's" or "The Applicant's") response to her hearing request regarding NFS's second license amendment application for the Blended Low-Enriched Uranium Project at NFS's Erwin, Tenn., facility. (See "Request for Hearing and Leave to Intervene by Kathy Helms-Hughes in the Matter of Nuclear Fuel Services, Inc.'s Notice to Amend its NRC Special Nuclear Materials License SNM-124," Feb. 6, 2003; and Applicant's Answer to Request for Hearing and Leave to Intervene by Kathy Helms-Hughes on NFS' Second License Amendment Request," Feb. 21, 2003)

**Response to NFS's objection that Helms-Hughes be given standing**

In the Applicant's Feb. 21, 2003 response, NFS argued that Ms. Helms-Hughes' hearing request be denied because she "lacks standing to participate in this proceeding, in that she does not show that she would suffer any injury-in-fact from the granting of the license amendment."

Section 189a of the Atomic Energy Act, 42 U.S.C. 2239, creates a statutory right to the opportunity to request a hearing in most NRC licensing proceedings for persons "whose interest

may be affected by the proceeding." The relevant statutory language is as follows:

"In any proceeding ... for the granting, suspending, revoking, or amending of any license or construction permit, or application to transfer control ... the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as party to such proceeding."

In *Portland General Electric Co. (Pebble Springs Nuclear Plant, Units 1 and 2)*, CLI-76-27, 4 NRC 610 (1976), the Commission adopted a strict legal test for standing, but moderated the effect by allowing discretionary intervention for petitioners "who would have a valuable contribution to make to our decision-making process." The Commission advised the adjudicatory boards that the participation of discretionary intervenors could be limited "to the issues they have specified as of particular concern to them," whereas intervenors as a matter of right "are now entitled to participate in all issues in contention."

Helms-Hughes maintains that the fact that she resides in Butler, Tenn., less than 20 miles downwind of NFS, places her in NFS's Region of Interest, and that she has identified issues of particular concern, therefore she should be granted standing. NFS's contention that Butler, Tenn., is 25 miles (by automobile) from NFS is of no consequence. Any cumulative air emissions since NFS began operation in 1957, and any future air effluent dispersion from the proposed BLEU Project resulting from normal operations as well as unplanned events of significant consequence still has the potential to be carried by the prevailing wind and deposited onto Helms-Hughes' property, thus potentially affecting her health, the health of her family, members of her community, and Helms-Hughes' property value.

The relationship between levels of radioactivity and the dose that can affect people's health is complex. It depends first on whether exposure is external or internal, the latter from inhaling or ingesting radionuclides. Other factors include the mobility of different radionuclides in the environment and whether they accumulate in important foodstuffs. At low doses, the main

concern is an increased risk of cancer. The probability of cancer increases with the dose. While NFS contends that air pollutant concentrations will be less than applicable standards, there is no evidence of a threshold dose, a lower limit below which there is no risk.

Long-lived radionuclides in the air will eventually fall to the ground, or be washed out by rain and snow. Radionuclides captured by rain or snow contaminate vegetation and the ground, as does dry deposition. Some plants also take up radionuclides from the soil through their roots. Freshwater systems such as lakes and rivers accumulate contaminants from the air and from the soil. Strontium, in particular, ends up in the water, since it does not adhere strongly to soil particles or to sediment. Radioactive contaminants such as cesium and strontium, both of which will be released from NFS during operation of the BLEU Project, are of particular concern because of their propensity to be taken up either by the roots of berries and vegetables grown on Helms-Hughes' land and consumed by her and her family, or by their deposition in mountain streams which she and her family — as well as most community members — rely on for drinking water. There is no public source of drinking water available in Helms-Hughes' home community of Fish Springs, or in the Little Milligan area five miles away, therefore, a minimum of 125 families have the potential to be impacted as a result of NFS's increased air emissions. (Both Fish Springs and Little Milligan are located in Butler, Tenn., within the NFS Region of Interest.)

Research published in January by the European Committee of Radiation Risk (ECRR) found that radioactive releases from nuclear energy and weapons programs up to 1989 have caused, or will eventually cause the deaths of 65 million people worldwide, based on evidence from recent discoveries in radiation biology and human epidemiology.

It is therefore reasonable to conclude that cumulative radioactive emissions from NFS since 1957, coupled with the BLEU Project's increased airborne releases of uranium, thorium, americium, and plutonium — to name a few — create a distinct new harm and threat to the health of Helms-Hughes, her family, and members of her community.

## **Preparation of an EIS/Segmentation under NEPA**

According to a document posted March 3, 2003, on ADAMS (ML030570556) regarding a conference call February 20, 2003, between Kevin Ramsey of the Nuclear Regulatory Commission (NRC) and participants from NFS and Framatome, NFS is "hoping" to start operations at the Uranyl Nitrate Building (UNB) by April 15, 2003.

Helms-Hughes questions how it is possible for NFS to proceed with operation of the UNB when it has not yet received the Special Nuclear Material license amendment to SNM-124?

On February 28, 2002, NFS submitted its first request for an amendment to its license to authorize the storage of low-enriched uranium-bearing materials at the Uranyl Nitrate Building, which already has been built. In October 2002, NFS submitted the second part of its license amendment request. Part three of the license amendment request is due to be submitted in May or June, according to NFS.

NFS proposes to move the operation for downblending high-enriched uranium-aluminum alloy and high-enriched uranium (HEU) metal to low-enriched uranyl nitrate to a now inactive, existing building, known as Building 333, located within the NFS plant site. Approximately 7.4 metric tons of HEU-aluminum alloy and 9.6 metric tons of HEU metal will be used to produce high-enriched uranyl nitrate solution, which will be downblended with uranyl nitrate solution produced from 211.7 metric tons of natural uranium oxide to yield low-enriched uranyl nitrate solution in 5,000 gallon batches. That uranyl nitrate solution will then be transferred to and stored at NFS' UNB.

Helms-Hughes questions why it is that NFS is proposing to begin operation of the UNB by April 15 when it is clear that the building is to be used to store the end product resulting from the downblending operation. She also questions how it would be possible for the Nuclear Regulatory Commission (NRC) to approve operation of the UNB when the issue is still on the table, as it was raised during the intervention process.

Helms-Hughes maintains that operation of the UNB before the third portion of the license amendment request has been presented to the NRC for review is clearly a violation of the National Environmental Policy Act and demands an Environmental Impact Statement.

The Department of Energy's generic Final Environmental Impact Statement (June 1996) specifically states (page 2-35): "Because the capabilities exist already at NFS for performing the recovery and blending of HEU, no additional buildings need to be constructed." NFS already has completed the shell of the new UNB facility and apparently will have it operational by April 15, according to the ADAMS document. The FEIS also states that "no future activities are currently proposed for NFS other than existing licensed operations; therefore, cumulative impacts at NFS would be similar to the impacts analyzed for each alternative in this EIS."

The FEIS further states (page 4-147): "Any future construction at B&W (Babcock & Wilcox) or NFS would be a business decision, and is not proposed by DOE or necessitated by this proposed action or alternatives. ... If any such construction at any of the sites were proposed, it could involve land disturbance and associated impacts, such as minor air emissions. Additional NEPA review would be conducted as necessary for any such new construction, if it were proposed."

If NFS is going to rely on DOE's FEIS as rationale to go ahead with the BLEU Project, then it cannot ignore these statements that no additional buildings are necessary to carry out the project and that it must undergo additional NEPA review for new construction. This is further evidence that NFS must be compelled to produce an EIS.

### **Decommissioning**

The March 3, 2003, ADAMS document (ML030570556) by NRC's Kevin Ramsey also states that NFS will obtain a letter of credit for \$3.1 million as requested by NRC, to be used as financial assurance toward decommissioning of the UNB. The letter of credit is to be effective

April 1.

According to NFS's SNM-124 documentation on decommissioning: "The decommissioning cost estimates submitted to the NRC on September 19, 1994, have been reviewed and are valid and current as of October 1, 1998." In 1998, the NRC stated that NFS should update its 1994 decommissioning cost estimate, and that all plans and estimates should assume unrestricted release. However, NFS maintained that previous cost estimate scenarios had not changed and that current decommissioning cost estimates requested by the NRC also remained unchanged.

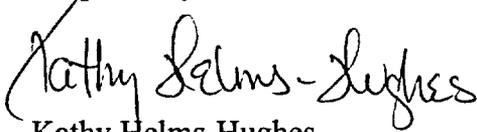
According to the NRC, the Applicant provided a cost estimate of \$2,945,936 for decommissioning the UNB in a letter dated February 28, 2002. However, NFS reduced its total decommissioning cost by subtracting an "escalation adjustment," yet offered no basis for the reduction. The NRC recommended NFS eliminate the escalation adjustment and increase the amount of its financial assurance to \$3,133,975 to cover the total of all estimated costs.

Helms-Hughes questions why it is that financial issues relative to the BLEU Project are now being approved by the NRC during the license amendment request process and submits that \$3.1 million is not sufficient to even begin to prepare the site for decommissioning, much less pay for the decommissioning.

## **Conclusion**

Helms-Hughes respectfully submits that for the foregoing reasons, as well as issues raised in her Feb. 6, 2003, request for hearing and leave to intervene, that she should be found to have standing, and that the issues raised by Helms-Hughes in this response and the Feb. 6, 2003, request should be admitted for a hearing.

Respectfully submitted,



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Dated: March 7, 2003

CERTIFICATE OF SERVICE

I certify that on March 7, 2003, copies of "Reply by Kathy Helms-Hughes to NFS's Response to Her Second Hearing Request" were served on the persons listed below by e-mail transmission, with copies to follow in U.S. Mail.

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