RAS 5863

February 6, 2003

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

Before the Presiding Officer

In the Matter of	)	Docket No. 70-143
Nuclear Fuel Services, Inc.	)	Special Nuclear Material
(Blended Low Enriched Uranium Project)	)	License No. SNM-124

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

1. INTRODUCTION

Pursuant to Federal Register notice published January 7, 2003 (Volume 68, Number 4, Page 796-797) by the Nuclear Regulatory Commission (NRC), Kathy Helms-Hughes hereby respectfully requests a hearing and leave to intervene in this proceeding regarding Nuclear Fuel Service's (NFS's or the Applicant's) second license amendment application for its Special Nuclear Materials License SNM-124, which would authorize processing operations in the Blended Low-Enriched Uranium (BLEU) Preparation Facility and two administrative changes. This response is in the matter of NFS's second of three license amendment requests planned to support operations associated with downblending and conversion of high-enriched uranium materials to low-enriched uranium oxides at its Erwin, Tennessee, facility. Helms-Hughes also respectfully requests that a hearing pertaining to the BLEU Project be held within 20 miles of NFS's Erwin plant at an evening hour which would permit most persons who work for a living an opportunity to attend. Helms-Hughes also respectfully requests that the NRC order NFS to

prepare an Environmental Impact Statement (EIS) to fully address the collective or the cumulative impacts of the BLEU Project and new process operations, as required by the National Environmental Policy Act (NEPA).

II. REQUESTOR'S INTEREST

Helms-Hughes respectfully requests that she be given standing based on the fact that she lives less than 20 miles downwind of NFS, inside NFS's Region of Concern; she is in the flight path of air effluent dispersion carried by the prevailing wind (northeast), living on the same land her grandmother purchased in 1932 — land that her mother, aunts and uncles grew up on; land on which NFS has been depositing airborne uranium, plutonium, americium and/or thorium as well as chemical contaminants since 1957, based on elementary science: gravity, wind velocity and wind direction.

As stated in the "Environmental Assessment (EA) on Proposed License Amendments to Special Nuclear Material License No. SNM-124 Regarding Downblending and Oxide Conversion of Surplus High-Enriched Uranium" (June 2002), airborne emissions of uranium and thorium will increase four to five times current levels. In addition, NFS's hydrogen and nitrogen oxide emissions from the BLEU Complex will nearly double when added to their existing airborne releases. Radiological impacts from the proposed BLEU Project operations also would include the release of plutonium, americium, actinium, and lesser quantities of fission products including technetium, cesium, and strontium.

NFS claims that the added airborne effluent from the BLEU Project will not have a significant impact on human health or the environment outside NFS's protective fence. Helms-Hughes maintains that the additional airborne contaminants will increase the health risks for herself, her family and her community. Helms-Hughes suffers from chronic asthma and her 10-year-old female child also has respiratory problems, as do many residents in the area, which is

devoid of industry and therefore, output of industrial contaminants.

Helms-Hughes farms the land on which she has resided for the last five years and has lived at various times since age 3; land where she and her family have lived for three generations. She and family members eat produce from the land and drink the spring water that flows across her land from the Cherokee National Forest which bounds her property. The mountain springs which provide drinking water for Helms-Hughes and her family, as well as the majority of community residents, further flows into Watauga Lake, less than 1/2 mile away. Springs located in the vicinity of the lake — all northeast of NFS — are the source of drinking water for the City of Elizabethton and the communities of Hampton and Valley Forge. Watauga Lake is a popular recreation area for Helms-Hughes, her immediate and extended family, as well as thousands of local residents and tourists who utilize its waters for boating, swimming, water skiing and fishing. It is not unreasonable to conclude that plutonium that has been carried on the wind from NFS has been deposited downwind in those springs, as well as Watauga Lake, and that those plutonium particles have bound themselves to invisibly small bits of rock or clay. Those bits of rock and clay bound with plutonium are then ingested by catfish and other bottom-dwelling fish, allowing the plutonium particles to bioaccumulate in fish tissue, which is then consumed by Helms-Hughes, her family, community members and tourists to the area. Researchers at Lawrence Livermore National Laboratory in California and Los Alamos National Laboratory in New Mexico have shown that plutonium can hitch a ride on invisibly small bits of rock or clay in underground water, and that even when the particles were filtered out, they contained almost all of the radioactive material.

Helms-Hughes, her family and community members also would suffer increased health risks from airborne uranium, which is stored in the body for decades.

"Uranium can enter the body through inhalation, ingestion, or direct contamination of open wounds. The health consequences are confined primarily to the organs of concentration:

lung, kidney and bone." As a result, one severe health impact is a potential loss of kidney function. (Highly Enriched Uranium Working Group Report, U.S. Department of Energy (December 1996, page 5). Helms-Hughes' mother and an aunt died in renal (kidney) failure. Other residents in the community who also underwent dialysis during the time of Helms-Hughes' mother's illness also have since died in renal failure.

A prudent person would be led to believe and even "presume," as in the Radiation Exposure Compensation Act, that the deposit of radioactive airborne emissions in Helms-Hughes' community since 1957 — especially during the intervening years from NFS's startup to implementation of the Clean Air Act when air pollution controls were virtually nonexistent — have had a negative impact on the health of Helms-Hughes, her family, and other members of the community. Helms-Hughes also submits that she and other community members, as well as members of the public in NFS's other Regions of Interest have been unwittingly subjected to radioactive and hazardous chemical airborne contaminants from NFS's operations since 1957 and that increased airborne effluent from NFS which will settle on the area during the years of operation of the BLEU Project will further increase health risks to the community.

Helms-Hughes also submits that discrepancies in the Environmental Assessment, as pointed out in the January 6, 2003, declaration of Arjun Makhijani, Ph.D., would lead a prudent person to believe that airborne radiological releases from NFS have been grossly underestimated, on the magnitude of 6 to 59 percent, further pointing to the need for an EIS to evaluate the impact to human health and the environment.

Helms-Hughes respectfully requests that she be given standing in this proceeding in accordance with Gulf States Utilities Co., et al. (Riverbend Station, Unit 1), LBP-94-3, 39 NRC 31, AFF'D, CLI-94-10, 40 NRC 43 (1994): "A petitioner need not establish that injury will inevitably result from the proposed action to show an injury in fact, but only that it may be injured in fact by the proposed action."

Helms-Hughes also respectfully submits that the cumulative impacts on NFS's Regions of Interest — including her home community of Carter County — since NFS began operation in 1957 have not been fully addressed in the Environmental Assessment and that those impacts must be addressed in an EIS.

The Nuclear Regulatory Commission states that its primary mission is to "protect public health and safety, and the environment from the effects of radiation from nuclear reactors, materials, and waste facilities." The congressional mandate that provided this process clearly affords the public a place at the table in the decision-making when public health and safety are at risk.

Helms-Hughes previously has provided this panel with significant health and safety issues which clearly exist, as well as weaknesses in NFS's control of its operations. (See "Declaration of Kathy Helms-Hughes," November 29, 2002; "Kathy Helms-Hughes Response to Nuclear Fuel Services, Inc.'s Motion to Deny Helms-Hughes' Request for Standing and Leave to Intervene," January 6, 2003; and "Kathy Helms-Hughes' Response to Applicant's Motion to Strike Part of Helms-Hughes Response to Nuclear Fuel Services, Inc.'s January 16, 2003, Motion to Deny Helms-Hughes Request for Standing and Leave to Intervene," January 26, 2003) Helms-Hughes respectfully requests that all information included in her previous submissions regarding the BLEU Project be considered in this proceeding, as all issues are pertinent to the Applicant's second license amendment request.

As a member of the community affected by those issues, Helms-Hughes clearly has a place at the table in this public process. If NRC's public process worked as its mission states, Helms-Hughes and, indeed, other petitioners already would have been granted standing and would be sitting at the table having their issues addressed for the common good, rather than having the Applicant try to strip away their rights ensured by Congress, as is the case with NFS's challenges to Helms-Hughes responses to NFS's first license amendment request.

NFS claims it is concerned with protecting public health and safety and the environment, yet when the public tries to obtain reasonable assurance from the Applicant that it is doing all it can to meet this end, the Applicant objects to any and all issues voiced by the public. Further, the Applicant attempts to ensure those issues are not heard by this adjudicatory panel by trying to prove "lack of standing" and objecting to the public having a seat at the table. The Applicant previously has objected to health and safety issues raised by members of the public who live downwind, property owners living near NFS, members of the public who recreate in the area — indeed, everyone who has dared challenge NFS's incomplete, inconsistent, segmented data. The Applicant and the NRC cannot have it both ways: They cannot invite the public to participate in this process and then deny them that role which is guaranteed by Congress. Therefore, Helms-Hughes respectfully requests that she be granted standing and leave to intervene in this public process.

III. REQUESTOR'S ISSUES

1. Environmental Impact Statement

The Applicant is attempting to deny this panel and the public a complete picture of the dangers associated with this new process by submitting license amendment requests for the BLEU Project in piecemeal fashion — a direct violation of the National Environmental Policy Act. Considering the environmental impacts of the proposed BLEU Project in three separate segments would appear to constitute unlawful segmentation under NEPA. Environmental impacts of just one aspect of the project could appear less significant than if the environmental impacts of the entire project were considered. An addendum to the original Department of Energy EIS, such as is being presented in the Applicant's Environmental Assessment, does not meet NEPA requirements and take into consideration population growth, new schools, aging population growth, or the lack of an acceptable evacuation plan in the event of an accident for all

Regions of Concern, including Helms-Hughes home community of Carter County, which borders Unicoi County where NFS is located. Carter County is mostly mountainous terrain with narrow two-lane highways which provide few means of escape from the dangers of a hydrogen explosion, one of the major risks associated with the HEU blend-down process.

Not only has NFS not put forth an engineering assessment which addresses the cumulative effect of airborne radioactive and chemical emissions since the company began process operations in 1957 along with airborne emissions expected to result from the BLEU Project, but the Environmental Assessment also fails to address the cumulative effect of future airborne emissions resulting from NFS's and International Uranium Corp.'s joint "USM Ore Program." That program was made public Nov. 14, 2002, by International Uranium Corp. — long after NFS submitted its first license amendment request and Environmental Assessment to the NRC. The program involves the development of a process and construction of yet another plant at NFS to blend currently unusable low-enriched uranium with depleted uranium bearing materials — a process which has never been conducted on a commercial basis — to produce a homogeneous ore which will be transported to White Mesa Mill near Blanding, Utah, and processed as an alternate feed material.

Feed materials to be used in the USM Ore Program will be transported from various DOE sites to NFS in Erwin for storage and processing. NFS plans to first design, construct and operate a pilot test. If the pilot test is successful, NFS plans to modify the pilot facility and convert it to a commercial facility, with commercial production expected to last up to 10 years, and possibly 14 years, depending on the amount of "orphaned" materials the Department of Energy makes available for the program. "Orphaned" means contaminants in the materials make them unfit for sale or use as commercial nuclear fuel, or that they do not meet DOE waste disposal criteria. DOE is considering modifying the waste acceptance criteria at its Hanford, Wash., and Nevada Test Site facilities. Unless the material is submitted for further processing, contaminants exceed

current American Society of Testing Materials (ASTM) standards for reintroduction into the nuclear fuel cycle. Handing over the orphaned materials to the USM Ore Program would eliminate DOE's need to modify the waste acceptance criteria. DOE has an inventory of more than 4,700 metric tons of surplus LEU-bearing materials in the form of alloyed and unalloyed metals and oxides at its facilities in Hanford, Wash., and Fernald, Ohio, with an additional 5,000 metric tons of excess LEU-bearing materials held in inventory.

The proposed BLEU action currently before the U.S. Nuclear Regulatory Commission would allow NFS to construct and operate a Low-Enriched Uranyl Nitrate Storage Building (UNB) at the NFS site in Erwin, and to "increase NFS's possession limit of Uranium 235." That increase amounts to doubling the possession limit from 7,000 kilograms to 14,000 kilograms.

NFS's EA fails to state whether the increase in NFS's possession limit of U-235 takes into account the additional U-235 concentrations projected under the proposed USM Ore Program and whether plans include the use of the proposed Oxide Conversion Building from the BLEU project to convert orphaned materials for the USM Ore Program. This must further compel the NRC to order an Environmental Impact Statement which would investigate the cumulative health, safety, and environmental impacts of both projects. An EIS also must be performed to evaluate hazards associated with the transportation of 33 metric tons of high-enriched uranium, plus up to 9,700 metric tons of "orphaned" materials from DOE sites to NFS's Erwin facility.

The Environmental Assessment also fails to address transportation issues resulting from the USM Ore Program as well as CSX Transportation's use of remote-control locomotives, which was implemented last autumn. CSX railroad is located adjacent to NFS and its locomotives pass within a few hundred feet of the plant. CSX officials are unsure whether a testing period was conducted at its Erwin yard before remote-control technology was fully implemented.

Helms-Hughes also respectfully submits that there is lack of data on the cumulative effect

of airborne emissions from the Studsvik Processing Facility, located on property owned by NFS, due to the fact that the plant only became fully operational in 1999. On May 12, 2001, a "minor" leak in one of the process systems at Studsvik's Erwin plant shut down the facility for about four weeks.

Studsvik also has joined with Washington Group International Inc. to process federal nuclear waste for DOE. Testing and demonstration of the THOR process for the thermal treatment of various organic and inorganic radioactive wastes stored at DOE facilities possibly will be or already have been carried out at the Erwin facility. The EA does not address any cumulative effects from this project.

2. DOE's Final Programmatic Environmental Impact Statement

The U.S. Department of Energy's "Disposition of Surplus Highly-Enriched Uranium Final Environmental Impact Statement," (FEIS) provides only generic analysis of four proposed sites for the HEU blend-down project, further demanding the need for the Applicant to perform an EIS. According to the National Evironmental Policy Act of 1969, an EIS is required for every major federal action that may significantly affect the quality of the human or natural environment. There are an estimated 326 acres of prime and unique farmland within 3 miles of NFS (FEIS, Page 3-97), which will be impacted by radioactive and chemical emissions from the BLEU Project.

DOE found in its FEIS issued in June 1996 that NFS had only uranyl nitrate hexahydrate (UNH) capability, and that the Applicant was licensed to possess up to 7,000 kilograms (kg) of Uranium-235 (U-235). Because the total quantities of the HEU and uranium oxide blendstock under the proposed action would exceed these limits, DOE proposed that it might be necessary to increase NFS's licensed posession limits OR "to schedule and stage the receipt and processing of these materials so that the quantity of uranium onsite would not exceed any NRC requirements."

The proposed BLEU action currently before the NRC would allow NFS to construct and operate a Low-Enriched Uranyl Nitrate Storage Building (UNB) at the NFS site in Erwin, and to double NFS's possession limit of U-235, from 7,000 kilograms to 14,000 kilograms of U-235. Given NFS's haste to proceed with the BLEU Project and its plans to embark on the USM Ore Program, which also would impact its possession limit of U-235, a prudent person would be led to question whether the DOE alternative of scheduling and staging the receipt and processing of these materials so that the quantity of uranium onsite would not exceed any NRC requirements was even considered.

DOE's generic FEIS, on which the BLEU Project ultimately is based, further points to the need for NFS to perform an EIS. According to the FEIS (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 is in the process of site preparation on the Oxide Conversion Building — two out of three new buildings NFS says it needs to carry out the BLEU Project.

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." This information also is outdated and does not include the USM Ore Program or any other activities undertaken since 1996. In addition, the FEIS 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."

This is further evidence that NFS must be compelled to produce an EIS, given the fact that NFS is constructing three new buildings to carry out the blend-down project without the

benefit of NEPA review.

3. NFS's Changing Mission

The primary mission of NFS's operation is to convert HEU into a classified product used in the Naval Reactor Program. (FEIS, Page 3-99). Helms-Hughes respectfully submits that the BLEU Project changes NFS's primary mission of producing fuel for the U.S. Navy, to profit-oriented production of fuel for commercial nuclear reactors. This change in mission, and the new processess NFS plans to undertake to carry out this new mission, calls for a new Special Nuclear Material license, rather than the amendment of SNM-124.

At the time of the FEIS (June 1996), the most recent NEPA document addressing NFS's operations was the "Renewal of Special Nuclear Material License SNM-124," (U.S. NRC, August 1991.) On May 7, 1993, NRC issued Amendment No. 3 to SNM-124. At last count, NFS has had a total of 33 amendments to its SNM-124 license since its July 2, 1999, renewal, making way for revisions, adjustments, time extensions, and deletions to accommodate NFS's operation. (i.e., ADAMS Document ML010960361, Oct. 22, 2000, "Nuclear Fuel Services Amendment 12 [TAC NO. L31387] Adjust Liquid Effluent Discharge Limits.") After NFS notified the NRC that it had possibly exceeded its annual effluent discharge limits, per 10 CFR Part 20, for May 2000, NFS requested NRC approval of an expedited amendment of License SNM-124 to allow the Applicant to change liquid effluent action levels and reporting commitments, contained in Chapter 5 of its license, from concentration-based levels to dose-based levels. Rather than enforcing the discharge limits to protect public health, safety, and the environment, NRC approved the expedited amendment of License SNM-124, allowing NFS to discharge even more contaminants.

DOE is only supplying material for this project through TVA and has no direct connection to the processing operations. According to the FEIS (Page 1-3) "The proposed

actions would begin to reduce DOE's HEU inventory and costs associated with storage, accountability, and security rather than depending upon indefinite storage of all such material." The ultimate disposition of the off-spec material will depend on the ability and willingness of nuclear fuel fabricators and nuclear utilities to use and the NRC to license the use of off-spec fuel. (Page 1-3) Both of these statements appear to support that DOE, TVA and Framatome are using NFS as a pilot company to see whether this process can work, which begs for an EIS. DOE is not only a bystander, it is outside the loop in the development of this operation and does not have a vested interest in the BLEU Project except to rid itself of its stockpile of surplus high-enriched uranium by dumping it on the public through a small facility such as NFS. DOE's FEIS not only is inaccurate, it does not suffice to meet NEPA standards. Therefore NFS must be ordered to provide an updated, current EIS on this project.

The NRC will be derelict in its duty as a regulatory authority if it does not demand NFS perform an EIS based on the Applicant's own admission in the EA that the proposed blend-down contains new process operations (Sect. 5.1.2.2, page 5-8, paragraph 1), and that the proposed blend-down process operations are only "patterned after" existing, NRC-licensed processes (Sect. 5.1.2.2, page 5-7, paragraph 2).

These "new process operations" are also further evidence that the BLEU Project demands a new Special Nuclear Material License.

Conducting a process only "patterned after" existing processes approved for Framatome ANP Inc. under License SNM-1227 (EA, Sect. 5.1.2.3, page 5-10, paragraph 3), does not provide the public reasonable assurance that NFS has sufficient control of its operation to safely and responsibly conduct HEU blend-down on the magnitude of 33 metric tons. In 1998, NFS performed a conversion of only "test quantities" of material which were then manufactured into lead test assemblies for TVA's Sequoyah Unit 2 reactor. The public is being asked to assume that NFS and Framatome ANP can safely convert 33 metric tons of HEU based solely on that one

test. Not only does NFS have a history of accidents related to criticality issues (Helms-Hughes' Nov. 29, 2002, Declaration, Item 4; Helms-Hughes Jan. 6, 2003, Response, page 5, pagragraphs 3-9), but the public also has not been provided reasonable assurance that Framatome ANP has sufficient control of its operations to carry out this project. Framatome appears to have its own set of problems as evidenced by loss of criticality safety controls at its Richland, Wash., facility on April 2-3, 2002, and the NRC's issuance of "Notification of Significant Enforcement Action" and proposed imposition of a $15,000 penalty. (ADAMS ML022340587, Aug. 22, 2002)

According to the Environmental Assessment (Page 2-5), a "new system" will be used to convert the HEU metal (buttons) into uranyl nitrate solution. The EA does not state whether this system has ever been used by either NFS or Framatome. Also, low-enriched uranyl nitrate will be converted to uranium oxide powder in the Oxide Conversion Building using a process borrowed from Framatome ANP's Richland, Wash., facility. The liquid waste processing system to be used at the OCB for concentration of dilute sodium nitrate waste stream, however, is not used at Richland. The EA leads a prudent person to believe that this is a "new" and untried process.

Further, the EA (Page 2-7) refers to operations at the Effluent Processing Building which call for the bottoms stream to be treated in the "new liquid waste processing system" and states that "hazards associated with this new process include carryover ammonia ..."

The EA (page 2-13) gives further evidence that NFS is changing its mission and therefore should be required to apply for a new SNM license. "Because the BLEU Project supports the production of nuclear generated electric power for public use, NFS will have to comply with a more stringent public dose constraint of 0.25 mSv/yr (25 mrem/yr). To address this change, NFS has submitted revised dose assessment methods for NRC review in the first license amendment request for the BLEU Project. NRC staff will evaluate new methods as part of the upcoming review of the amendment request so it will not be considered further in this EA."

Neither TVA, NFS, nor Framatome ANP, which is the apparent overriding financial

participant here, have provided an EIS for the BLEU Project. This would lead a prudent person to believe that the participants in the BLEU Project are attempting to deny the public access to relative information and to circumvent the NEPA process.

The BLEU Project is projected to save Tennessee Valley Authority 20 percent in fuel costs and add $150 million to NFS coffers. The Department of Energy will save at least $500 million through the reduction of DOE's surplus high-enriched uranium stockpile. But this project should not be carried out for industry profit at the expense of the health and safety of the surrounding public.

NFS's further attempts to guilt-trip the NRC into approving the BLEU Project by stating in the EA (Page 5-15) that "Failure to fulfill its role in the DOE program could cause DOE to select other alternatives for disposition of the surplus material that may be less cost effective ..." is not to be considered by this tribunal. Money cannot be a factor.

Evidence that the NRC sometimes turns a blind eye to deficiencies in the interest of industry profit came to light recently during an investigation by the Inspector General into boric acid leaks and cracks in the reactor head vessel at Davis-Besse. The IG found disturbing evidence that First Energy Nuclear Operating Co. had put production interests ahead of public safety and that the NRC knew about the deficiency but was slow to order Davis-Besse to shut down because it did not want to impose unnecessary costs on the owner. Lax regulatory oversight by the NRC and Tennessee Department of Environment and Conservation, and prodding from Congress to proceed with an ambitious blend-down project should not override public health and safety issues.

In the EA, NFS correctly identified that the BLEU operation would include new processes, (Pages 5-7 and 5-8). In a May 30, 2002, letter to Ms. B. Marie Moore (ADAMS ML021510274), the NRC also correctly identified that the BLEU operations included new processes. "NRC's major comment on the licensing plan of action was that while much of the

BLEU preparation facility operations are activities that previously have been licensed by NRC, several processes appear to be sufficiently different to be subject to the requirements for new processes in 10 CFR 70 Subpart H."

This new mission, as defined by DOE's FEIS, clearly identifies a new and untried process which would clearly have an immediate impact on the community of Erwin, and surrounding communities, of which this small town could not cope. NFS is clearly not qualified or equipped to perform these types of experiments. There are unstated reasons for this which could have untold implications on public health and safety. Therefore, it is prudent on this panel to deny this amendment request and to direct NFS to perform an EIS.

Helms-Hughes and other members of the affected public have a responsibility to ensure enforcement of state and federal environmental regulations and to ensure that NFS is in compliance with those laws, not above the law. It is imperative that this panel consider all options before proceeding with a project which has such a high degree of risk to the surrounding communities.

4. NFS's Control of Operations

NFS has not provided reasonable assurance that it has adequate control over its operation, an issue raised in Helms-Hughes' Nov. 29, 2002, Declaration. Control of operation refers not only to environmental issues, but demonstration of a decommissioning fund that assures end-of-plant-cycle clean-up; demonstration of the Principal Responsible Parties, as identified by a detailed listing of the partners which make up NFS ownership in the event the Erwin site closes due to development of a situation similar to what occurred at NFS's West Valley Demonstration Project site in New York. To date, ownership of NFS remains a closely guarded secret from the public.

NFS opted against costly retrofitting of the West Valley facility and decided to cease

reprocessing operations and transfer the management and long-term storage of approximately 600,000 gallons of high-level radioactive liquids and sludges at the West Valley Site to the site's landlord, the New York State Energy Research and Development Authority. New York is still cleaning up the legacy left by NFS when it returned the facility to NYSERDA in 1982. Given information in the EA and in SNM-124 relative to decommissioning costs, the local public has no assurance that NFS's Erwin site will not become another West Valley at the end of plant life. In fact, NFS attempts to hide this decommissioning information from the public in its second license amendment request by labeling it "proprietary information." This information was included in the reissuance of NFS's SNM-124 in June 2000, however, the information submitted is obviously outdated as it relies on financial information provided in 1998.

What type of financial assurance does NFS have to cover decommissioning activities at the Erwin site not covered by U.S. government funding? The decommissioning cost is to be borne by the Department of Energy only if the funds are "appropriated" by Congress. At this point in time, history shows that DOE does not always get the funds required for decommissioning. According to Clause H.015 from the NFS/USDOE Contract DE-AC12-90SN39106, at the time decommissioning occurs, "DOE will pursue the necessary funding, however, nothing in this contract shall be construed as implying that the Congress will, at a later date, appropriate funds sufficient to meet said deficiencies."

The Memorandum of Understanding Concerning Decommissioning of the NFS Erwin Facilities (Clause H.025) states that the government is not obligated and shall not be liable for expenses related to any Erwin facilities which are acquired or added to the NFS site after the effective date of the Memorandum of Understanding (1992) and used for non-Naval Reactors activities; decommissioning of any non-contaminated portion of the NFS Erwin facilities where non-Naval Reactor activities occurring after Dec. 8, 1992, give rise to the need for decommissioning; and decommissioning any NFS Erwin facility that has been decommissioned in

accordance with the provisions of Clause H.015 and is subsequently recontaminated due to the use of this facility for non-Naval Reactor activities.

In the event DOE has the appropriated decommissioning funds available but NFS continues to use a particular portion of the Erwin facilities for non-Naval Reactor purposes, delaying decommissioning activities set forth in the decommissioning schedules, the parties will negotiate "in good faith to determine the government's specific liability for the decommissioning costs for that portion of the facilities."

Given NFS's foray into activities beyond the scope of producing fuel for U.S. Naval Reactors, i.e., producing fuel for TVA's commercial nuclear reactors and producing feedstock for White Mesa Mills through the USM Ore Program, NFS will need to provide decommissioning funds for these activities. The NRC has previously denied TVA's attempt to provide financial assurance through TVA bonds for the BLEU Project, as TVA bonds are not backed by the government and do not meet financial assurance criteria. TVA's nearly $30 billion budget deficit also came under attack this week from the Bush Administration. The White House intends to produce its own TVA debt-reduction goal by September. That goal calls for TVA to cut its debt level in half. From this information, it is intuitively obvious to the most casual observer that TVA will not be the entity paying for decommissiong of the BLEU Project.

Additional information on NFS Financial Assurance shows that NFS will use one or more of the methods authorized in 10 CFR 70.25 (f). However, in Part 1, Chapter 1, Revision 5 of License SNM-124, NFS requested exemption from the requirements of 10 CFR 70.25 (f).

According to 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." Though even the NRC stated in 1998 that NFS should update its 1994 decommissioning cost estimate, and that all plans and estimates should assume unrestricted release, NFS maintained that previous cost estimate scenarios had not changed and that current

decommissioning cost estimates requested by the NRC also remained unchanged.

Helms-Hughes respectfully submits that the cost estimate submitted in 1994 is ludicrous when applied against a 2003 operation, and that any cost estimate regarding decommissioning for "unrestricted release" derived in 1994 will be met by cost overruns in 2003 or the distant future.

NFS states that it has escrow accounts with First Tennessee Bank in Johnson City, Tenn., for:

• Additional equipment installed in Building 233 to support the conversion of the Rocky Flats UNH material to uranium oxide (established, 1997);

• Additional equipment installed in Building 230 for uranium hexafluoride cylinder cleaning (established, 1997) ;

• Newly installed equipment in Building 233 associated with the dissolution and conversion of uranium-aluminum to various forms (established, 1997) ; and,

• New downblending and Uranium Oxide Conversion equipment installed in Building 230 (established, 1998).

Installation of new downblending and Uranium Oxide Conversion equipment leads a prudent person to believe that NFS is going ahead with the BLEU Project even before it receives NRC approval. Also, one building to be used for the BLEU Project already has been erected at the NFS site. This is arrogance at its best. This also provides evidence that the NRC has already has approved a backroom deal for this project which excludes the public.

Although NFS lists escrow accounts, it fails to state exactly how much money is going into those escrow accounts and what specifically that money in escrow is to be used to pay for. NFS states it is still making payments on the "Getty Notes," payable to Getty Oil Co., and Skelly Oil Co. and purchased by NFS Services, Ltd. The financial information states, however, that NFS Inc. will not be required to make any payment on the "Getty Notes" which will cause the current liabilities reflected on the most recent balance sheet of Nuclear Fuel Services, Inc., to

exceed the current assets reflected on that balance sheet.

This information fails to outline what NFS's current liabilities are and leaves open-ended the schedule for payment in full on the "Getty Notes." The financial information also mentions restrictions on payment of the "Getty Notes" imposed by a Settlement Agreement, Stipulation, and Order among Nuclear Fuel Services, Inc., Getty Oil Co., and the New York State Energy, Research, and Development Authority dated Feb. 18, 1982. This clearly shows that NFS still has major financial obligations related to cleanup of the West Valley, N.Y., site and clearly impacts the financial future of this site in Erwin, Tenn.

NFS has failed to demonstrate financial assurance for the proposed BLEU project and also has failed to demonstrate financial assurance for end-of-plant-site decommissioning. This should further compel the NRC to order NFS to perform an EIS.

The fact that there is litigation pending against NFS in U.S. District Court, Greeneville, Tenn., seeking damages for contamination from radioactive and non-radioactive hazardous substances (see Attachment submitted January 26, 2003: Impact Plastics, Inc., Preston Tool and Mold, Inc., and Gerald M. O'Connor Jr. vs. Nuclear Fuel Services, Inc., Civil Action No. 2:02-CV-148), is a clear indication of NFS's inability to adequately control its operation.

5. NFS Ownership

In Appendix D of SNM-124, NFS provides a list of its affiliates. At the top of the heap is NFS Services, LLC., a limited partnership chartered in the state of Georgia which owns 100 percent of the stock of NFS Holdings, Inc., a corporation which owns 100 percent of the stock of Nuclear Fuel Services, Inc., NFS Technologies, Inc., and the majority of the public relations firm, Creative Energy Group, Inc. Five of the affiliates listed appear to exist only on paper, as they neither conduct business nor are currently operational. In NFS's second license amendment application, it states that EcoTek LSI and EcoTek Engineering Services are no longer NFS

Affiliate corporations.

Nowhere in NFS's EA, SNM-124, or the second license amendment request is there a detailed listing of the parties involved in ownership of NFS Services, LLC, NFS Holdings, NFS, Inc., or Creative Energy Group, Inc. This would lead a prudent person to ask who owns NFS and why are their names not available to the public. The public has a right to know who they are dealing with and who is responsible for these companies. The NRC also should compel NFS to submit this information.

6. Duplicate use of SNM-124 License

Each manufacturing facility in the United States has a special identification number designated for its use. It is their own personal number. It is a number that is significant only to that manufacturing facility, but again NFS is showing to be special in the eyes of the NRC. NFS's Special Nuclear Material License number assigned by the NRC is SNM-124, Docket No. 70-143. However, in researching NRC's ADAMS website, Helms-Hughes found several documents pertaining to General Atomics, which also used the same reference number: License SNM-124. The Docket Number, 70-734, was different, however. Ironically, the chairman for General Atomics was named J. Neal Blue.

The fact that NFS and General Atomics were using the same SNM-124 license number at the same time further demonstrates the Applicant's lack of control over its operation, and demands an investigation by the NRC, which oversees Special Nuclear Material licensees. (i.e., ADAMS Document ML003670084, Dec. 28, 1999 "Offsite Disposal of Decommissioning Debris," see attachment included in Helms-Hughes' January 26, 2003 response).

This would lead a prudent person to question whether there is a connection between General Atomics and NFS, and whether NFS's "BLEU Project" might be connected to General Atomics Chairman J. Neal Blue. This also brings into question just who the players are at NFS,

as well as the NRC's ability to regulate its licensees. It appears that the NRC surely would know whether two separate, supposedly unrelated facilities were conducting activities under the same SNM license number.

7. Training and Qualification

The health and safety of the public and the environment rests largely in the personnel NFS hires and trains. However, as the NRC well knows, most of the accidents at nuclear material processing facilities and nuclear power plants are attributable to human error. NFS touts its training program and states in its second license amendment request that the objective of the site training and qualifications program is "to provide all personnel on site with the knowledge and skills to safely and efficiently perform their job function." (Page 4-99)

Helms-Hughes respectfully submits that many of NFS's employees are not properly trained, and that those who sometimes, but not always, are lacking in education are used to perform some of the most high-risk tasks with inadequate supervision. (See attachment)

The public has no assurance that personnel who will be involved in the blend-down of 33 metric tons of high-enriched uranium are qualified to perform this high-risk job. The NRC must carefully review the employment backgrounds and training of those associated with the blend-down project to ensure their qualifications are more than "adequate," the NRC's lowest criteria of acceptance. This also has not been addressed in the Applicant's EA.

8. Safety Risks Associated with the BLEU Preparation Facility

One of the risks associated with the BLEU Project is a hydrogen explosion. Hydrogen, which is odorless, can be fatal. Vapors may cause dizziness or asphyxiation without warning. Fire may produce irritating and/or toxic gases, as well as an explosion.

According to the Integrated Safety Analysis (ISA) Summary dated October 11, 2002, the

closest residence is about 650 feet from the BLEU Production Facility. NFS has not accounted for the breakdown of population within a 1-mile radius of the facility, however, the Applicant notes that it includes portions of the residential neighborhoods of Banner Hill, Love Station and Evergreen. (Page 1-1)

Helms-Hughes submits that NFS easily could have acquired that information by making one phone call to the East Tennessee Economic Development Center in Knoxville, Tenn., or by making a trip to local libraries located in Erwin or Johnson City, Tenn. NFS has not done its homework in assessing the local population, therefore, it cannot possibly have evaluated the health and safety risks to those persons living in its own back door. Given this information, the the public has no assurance that NFS has thoroughly evaluated the health and safety risks to outlying areas which also will be affected by the BLEU Project.

The ISA also states that a failure of engineering controls at Studsvik could potentially lead to a release of radiological materials to the air, and that in such an event, Studsvik would notify NFS of appropriate protective actions to take. (Page 1-6) Again, the public is excluded. Nowhere does it state that Studsvik or NFS would notify the public.

The ISA admits that there is a potential for the NFS Site to be impacted by fire, explosion, or hazardous chemical releases from the CSX railroad yard. (Page 1-7) It does not evaluate the additional risks associated with remote-control locomotives, as previously stated.

NFS states in the ISA that it has performed a lightning risk analysis for the facilities near the BLEU Production Facility (BPF) and has found that the area is at moderate to severe risk of being damaged by lightning. NFS states that it will provide lightning protection in accordance with NFPA 780, however, it does not state what those protective measures are, nor does it provide reasonable assurance that the public would be protected in the event that lightning struck the BPF. (Page 1-11)

Risks associated with flooding could cause a loss of power, or loss of the various utility

and auxiliary systems supporting BPF operations. NFS maintains that flooding would not have significant consequences for BPF operations. In the last two years, Erwin, as well as other bordering towns have had several major incidents of flooding. The fact that Martin Creek and Banner Spring Branch are located on or near NFS property and could become elevated in the event of flooding, does not appear to be adequately addressed. NFS fails to provide details or data in regard to what it considers "significant." (Page 1-12)

The main feedstock to the BPF uranium/aluminum alloy (UAl) Dissolution Process is high-enriched uranium in the form of uranium/aluminum alloy. The uranium has an average enrichment of 65.5 w/o. The dissolution of uranium aluminum alloy by caustic solution will generate hydrogen gas. The primary nuclear criticality hazards in the UAl arise from process upsets. The main upsets of concern are process control failures that lead to equipment overflows with potential to backflow into unfavorable geometry utility supply systems (deionized water, plant air, nitrogen, bulk nitric acid, chemical make-up, and cooling water. NFS is relying on a passive barrier to prevent backflow scenarios and operator training to prevent potential criticalities.

Helms-Hughes questions whether adequate attention has been given to the purging of tank headspaces and vent systems to prevent the potential build-up of explosive concentrations of hydrogen.

IV. Conclusion

As previously stated, Helms-Hughes petitions the NRC for a hearing on the entire BLEU Project to be held locally at night so that the working public may attend. There is overwhelming, compelling evidence to show that this is outside NFS's current mission covered under its SNM-124 license. It is so evident that they are expanding to include a totally new process that there can be no other finding than for this tribunal to order an EIS to be performed. The third license

amendment request must be included in the application for a new facility. Helms-Hughes also requests that she be given standing and leave to intervene as a participant in this public process.

CERTIFICATE OF SERVICE

I certify that on February 6, 2003, copies of 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 were served on the persons listed below by e-mail transmission with copies and attachment to follow in first-class U.S. Mail.

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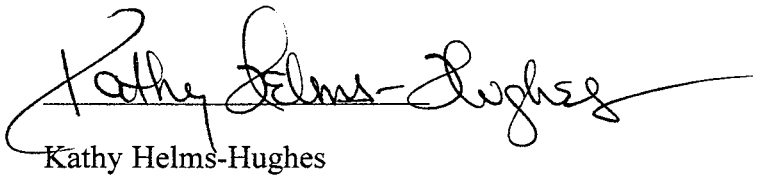

Kathy Helms-Hughes

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From: Julie Fann <jfann@starhq.com>
To: "khelms@mounet.com" <khelms@mounet.com>
Date: Wednesday, February 5, 2003 6:31 PM
Subject: Re: NFS info

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> My name is Julie Fann, and I was an employee at Nuclear Fuel Services in
> Erwin,Tennessee for six months, from June 2001 through December 2001. I
> worked at the RBG, an abbreviation for the Radiological Burial Ground, a
> place where, under direction from the NRC and others, the company was
> required to dig up radiological waste that had been buried in the 1950s,
> then ship it to Utah for permanent disposal.
> I would describe my experience there as disturbing and eye-opening. Below
> are a few minor stories about my work at NFS. My feeling was that adequate
> safety measures were often ignored, and also that, overall, the company was
> unconcerned about ridding the environment of harmful chemicals, in spite of
> their efforts.
> I had several jobs on the RBG. One of them was lining intermodals, or rail
> cars used to transport waste. This involved pouring a chemical called
> "encap" (I don't know what the formal name is), a polymer used for absorbing
> moisture, around the inside edge of the rail cars. We were never required or
> instructed to wear a face mask while spreading the encap, so most employees
> didn't use one. I tried to habitually wear a mask to keep from breathing the
> chemical, but sometimes I would forget, and no one would say anything - not
> other employees, and certainly not supervisors. When I didn't wear a mask, I
> would usually sneeze, and sometimes I would develop nasal problems. When
> that happened, I would try to wear the mask as much as possible again. I
> always wondered why we weren't made to wear them.
> Another job I did at the RBG involved standing at the edge of the ditches
> where waste was buried, while the person who operated the CAT (bulldozer)
> dug up the waste. After the driver lowered a bucket full of dirt, sometimes
> mixed in with various visible waste such as barrels, pipes, etc., I would
> scan the dirt using an instrument that was only marginally operational and
> would often be taken inside the facility for repair. During training, they
> showed us how to operate it, but not in any kind of detailed way. Most of us
> barely had college degrees, if that even. I had a master's degree in
> English, but that didn't mean much in this job. I would point this
> cylindrical tube at the dirt and press a button. All I knew (all I'd been
> told) was that if the number went above 5,000, then the material was "hot"
> or radioactive. If that was the case, we would wear two pairs of gloves and
> move whatever was "hot" (barrel or whatever) into a plastic bag, then place
> the bag in another area where we were required to place "hot" stuff---it was
> outlined with tape, but was just another area yet to be dug, I guess. What
> upset me the most was that the machinery used to determine radioactivity on
> the RBG was so incredibly old and dysfunctional. It seemed preposterous,
> that we were entrusted with the task of determining factual information
> about contamination with only minimal training. (We all received one month
> of training prior to going on-the-job, but it wasn't training that really
> prepared us for anything out there at all.)
> Sometimes, I was instructed to work with the "environmentalist", a young
> woman with a two year associates degree in chemistry that she received from
> a community college. I was required, along with the other employees I was
> hired on with, to rotate jobs with them sometimes, which would mean spending

> a day doing "environmental work". On this particular occasion, it was my day
> to do so. The "environmentalist" (Amy) told me we would be inspecting the
> dirt for PCBs. I remembered learning about PCB's in my one month of
> training, but I couldn't remember what the abbreviation stood for. I only
> knew that it was a dangerous chemical if there's too much of it in the soil.
> She handed me a small box that contained what was something like a home
> chemistry set, with instructions on how to test for PCBs. She told me to
> follow the directions in the box and that she would record the data and take
> the tubes inside. I followed the instructions as best I could, but I had no
> real idea what I was doing. My training hadn't prepared me for this task in
> any way. I had to use this flimsy scale that was in the PCB box kit to
> measure chemicals. It seemed ridiculous. I kept comparing it to a more
> complicated version of a home pregnancy test, but, all the time, I couldn't
> help feeling like someone besides me, or her for that matter, needed to be
> inspecting the soil, and with more effective equipment. Neither of us knew
> what we were doing; yet, this company was relying on us to determine if
> there were high levels of PCBs in this dirt they had contaminated years
> prior. It seemed highly absurd and irresponsible to me. It just didn't seem
> like the company was that serious about cleaning up the area, or they
> wouldn't have people so lacking in skill, like myself, out there. But maybe
> I'm wrong.
> During the hot days of summer, another job I was required to perform was
> commonly referred to as "picking". Across from the digging area, there was a
> roped off section called the PU (plutonium) pit. Dirt that was determined to
> be extremely "hot" was dumped there, and it was full of debris--steel drums,
> pipes, other metal. We would spend usually two hours at a time in there
> pulling out the debris, separating it from the dirt and putting it in a
> separte pile. Then, we'd fill burial boxes full of debris, and put the "hot"
> soil in soil sacks. The first two months I did this, employees were only
> required to wear a smock, an air sampler, shoe covers, and two pairs of
> gloves. One night, I got contaminated and had to get out of my clothes,
> shower, and get dressed again. Later, my air sampler reported a high level,
> so I also had to give a urine specimen. I never heard anything from it,
> though, so I guess I'm o.k. That same night, several of us were contaminated
> with plutonium. A couple of weeks later, they started making us where tyvec
> chemical suits and respirators.
> The experience I had while working at NFS wasn't necessarily a "Silkwood"
> experience, but it wasn't a safe, healthy experience either. I realize that
> radiological safety has come a long way, but after being an employee at a
> nuclear facility for six months, it seems obvious to me that we still have a
> long way to go. It is my hope that these stories I've shared will facilitate
> improvement.
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Julie Fann

Julie Fann

2/5/03