

Erwin Citizens Awareness Network
P. O. Box 1151
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December 24, 2008

Mr. William Tobey
Deputy Administrator for Nonproliferation
National Nuclear Security Administration
Department of Energy
1000 Independence Avenue, S.W.
Washington, DC 20585

VIA FAX: (202) 586-4414
(Original w/enclosures via U.S. Mail)

SUBJECT: Nuclear Fuel Services' (NFS) proposal to process UF6 in the new CD Line in Erwin, Tennessee

Dear Mr. Tobey:

The purpose of this letter is to express our concerns regarding NFS' proposal to process UF6 in the "new" CD Line.

In a conference call on Dec. 9, 2008 between members of Erwin Citizens Awareness Network, NRC, and NFS, the following question was posed to the NRC: Can the DOE take back the UF6 which has been stored here at NFS (right in the middle of town) since 1999? NRC's response was "yes." That is what the residents of Erwin, represented by the Erwin Citizens Awareness Network, want. Additionally, there was discussion in the meeting that the DOE has not yet agreed, in writing, to fund the decommissioning of the CD Line, which also appears to be an unresolved issue.

It is our understanding that the UF6 was secretly brought into Erwin in 1999. No one, including the City/County leadership, was told about it. That is simply wrong, especially since the NRC EA/FONSI for the CD Line (ML082280438), dated August 15, 2008, states that "Long-term storage of uranium in the form of UF6 is undesirable because it is a reactive chemical that can form hydrofluoric acid (HF) if exposed to air. HF is extremely dangerous." Need we remind you that NFS is right in the middle of Erwin, within the City limits, adjacent to private homes, schools, churches, nursing homes, shopping centers, the hospital, and a stones-throw from I-26, a major freeway, and the Nolichucky River? NFS is entirely too close to a populated area to be storing and handling extremely hazardous UF6.

Additionally, all of this secrecy surrounding the DOE programs and contracts is not serving the people of this community or region within a 50-mile radius. Erwin is not a federal reservation like a national laboratory that the federal government has jurisdiction over.

The 1996 Record of Decision for the Disposition of Surplus Highly Enriched Uranium Final Environmental Impact Statement, Federal Register/Vol. 61, No. 151, August 5, 1996, page 40625, it states "If new blending facilities or processes are proposed in the future, additional NEPA review would be conducted, as appropriate, either by DOE or in connection with NRC licensing proceedings for a commercial facility."

The NRC EA/FONSI states "the new processing line is being assembled in an existing building." It also states that "a new gaseous effluent treatment system is being installed with the new processing line." Yet with all of these "new" processes and equipment, Erwin residents have seen nothing remotely resembling a NEPA review from the NRC, and we were insulted with the DOE/EIS-0240-SA1, dated October 11, 2007, which did not even mention the processing of UF6. And, what has happened to that document? It seems to have disappeared from your website.

We urge the NNSA/DOE to recognize that the NFS facility has a long history of non-compliance and regulatory problems not to mention that it is operating unsafely, according to the Independent Safety Assessment Team (SCUBA) 2008 Report. We wonder what the DOE doesn't understand about the safety problems at NFS? While the SCUBA report is approximately 144 pages, perhaps the enclosed 15-page excerpt will help to enlighten you, and furthermore, support our concerns. Certainly Patrick Card, Naval Reactors -- who was an advisor to the SCUBA Team, should be knowledgeable about the report, (as well as the OOU secrecy policy which he was instrumental in creating).

In the SCUBA Report, you will note that the 51-year old NFS infrastructure is degraded and that the equipment is run to failure, including Safety Related Equipment (SRE) and Items Relied on for Safety (IROFS). In one instance, the old wastewater filter press was run to "catastrophic failure," (SCUBA's words, p. 55) which could have resulted in a serious injury or fatality. The Safety Assessment Team also found that NFS has a history of putting production over safety, a fact publicly admitted by NFS. (NRC Document ML071930389), Platts, and Nuclear Fuel Monitor, 4/28/08.

In the past, NFS has released more than 44 pounds of radioactive gases (including UF6) into the air we breathe, and given their current state and lack of safety culture, the probability of a more routine or accidental releases of UF6 again are highly likely. (Enclosed is a list of known releases).

During the conference call with NFS on Dec. 9, we asked to see the Integrated Safety Analysis (ISA) for the UF6 processing, but were told by the NRC that it could not be made available to the public due to information that may assist an adversary. We told them to redact that portion. We are interested in the information relating to our health, safety and environment, and want to know what kind of probabilities and health consequences are being assigned to each accident scenarios.

NFS is situated on top of five (5) fractures with two (2) fault lines, and is located within three earthquake zones, the Appalachian Tectonic Belt and the New Madrid Seismic Zone, the most seismically active area east of the Rocky Mountains. In 1993, an additional seismic zone was identified in East Tennessee running roughly parallel to Interstate 75 between Chattanooga and Jellico. **The risk associated with this seismic area has not been rigorously quantified.** Unicoi County is at moderate risk of being affected by a large New Madrid earthquake. The strongest earthquake recorded in East Tennessee was a 4.6 event in Blount County in 1973 and was widely felt. The most recent earthquake above MMI IV (magnitude 3.9) occurred Oct. 26, 1995 a distance of about 50 miles from the site (NFS). Each year more than 200 earthquakes occur, but most are unfelt by the populace. There is a concern that a large magnitude event grows more probable with each passing year. Such an event could directly affect more than 75% of the county's population, primarily through a

disruption of pipelines, as well as damage to older masonry structures. (p 3-11, Figure 3.3, 1999 NRC EA; Unicoi County Emergency Plan, 4/7/06, p. xiii). Recently, the USGS released a new study on earthquakes showing that Tennessee would "suffer great shakes." In ECAN's opinion, this new information needs to be taken into consideration in any environmental assessment regarding radioactive or chemical processing at NFS.

Additionally, according to the EA/FONSI, the UF6 will be processed in Building 301. On page 4-54 DOE 1996 Final EIS (regarding the disposition of surplus HEU), the NFS section states "The site has the potential for being flooded if the Nolichucky River experiences very high flow. Elevations of the building floors are between 1,640 and 1,670 ft. **The UF6 conversion and blending facility would not be accommodated at facilities in the 300 area located *inside* the 100-or-500 year floodplain (text deleted).**"

The Record of Decision for the Disposition of Surplus Highly Enriched Uranium Final Environmental Impact Statement, (Federal Register, Vol. 61, No. 151, Aug. 5, 1996), states "Of the four candidate sites, two DOE (Y-12 and SRS) and two commercial (B&W and NFS), all facilities *except* NFSwould be outside the limits of the 100-year floodplain and are at least one foot above the 100 year floodplain elevation and, therefore would conform to both State and local floodplain requirements. **As discussed in section III.D, the potential for flooding at NFS is another relative disadvantage of that facility.**" (*emphasis added*)

Other reasons for expecting NNSA/DOE to do the right thing for Erwin/Unicoi County:

(1) Residents of Unicoi County have turned away companies in the past even when billions of dollars were dangled under their noses. On July 15, 2002, the first ever protest and picketing at Unicoi Town Hall happened. Hundreds of signatures were collected on petitions overnight, and by August 24, 2002, URENCO was turned away. The newspapers read "Unicoi won't see nuclear plant."

(2) When Studsvik, Inc. wanted to build another incinerator in 2006, the community rose up against it, and once again collected hundreds of signatures on petitions in a very short period of time. The company withdrew their permit application to build another incinerator, and the plant manager lost his job.

(3) And, let's not forget the brave citizens of nearby Bumpass Cove, who became fed up with NFS dumping waste at their backdoor and one evening they barricaded the road and the residents met the trucks, loaded with chemicals and other hazardous materials, loaded for bear. This site needs to be cleaned up now, especially because it's possible that some of the waste buried in Bumpass Cove resulted from DOE projects of decades past.

In short, this is not a new-found resistance coming from a handful of citizens. This has been ongoing for some time. The only difference between the past and now is that the OUO policy has been overturned and we have become a more knowledgeable citizenry -- just as President Eisenhower urged us to become. We know that our health, safety, air and water are being adversely impacted and are at substantial risk due to the nuclear operations at NFS. The cancer rate here is off the charts! People now realize that they have been deceived in the past and are continuing to be misled by NFS, Studsvik, the NRC, and the DOE.

In an October 2, 2008 License Performance Review, Mr. Tim Lindstrom, NFS General Manager, stated that the duration of the UF6 processing would be 3 months. (See Greeneville Sun, Oct. 3, 2008). Members of the public who attended the meeting did not believe that. Perhaps Mr. Lindstrom had forgotten about a Jan. 10, 2008 news article in the Johnson City Press, in which the NFS spokesman stated that "NFS expects the project (UF6 processing) to last for several years." (see Johnson City Press, Jan. 10, 2008). Of course NFS would not have worked for over a year to get a license amendment for a 3-month process. That does not pass the common sense or business sense test.

We are the outliers -- beyond the statistical norm and we know why. A good example is the story of a former Tennessee judge's wife who was from this area. While she married and moved away early in her adult life, her other five siblings remained here and all died of cancer before the age of 50. The judge actively sought answers as to why this had happened to his wife's family. He questioned members of academia in community health about the anomalies of this occurrence.

People in the community know there is a reason for the abnormally high rate of cancer here, and many of them point to NFS and Studsvik. Even those people in the academic community health field seem to know too and will tell you so, but because this is an economically depressed Appalachian region, with higher-than-average poverty, cancer statistics were not kept until recently. We have babies born with cancer, teenagers with brain cancer -- everyday, another victim, another neighbor. Why is our community an outlier, if not for the "outlier" (SCUBA, p.103) operations at NFS?

Our organization receives calls from perfect strangers telling us, you're on the right track -- keep it up. These callers frequently encourage us to continue voicing their long-held suspicions and concerns about NFS and the other nuclear companies in our area.

Plus, the Agency for Toxic Substances & Disease Registry (ATSDR) has confirmed our suspicions in its May 29, 2007 Public Health Assessment for Nuclear Fuel Services, Inc. when it called NFS an "Indeterminant Public Health Hazard" (p.25) due to previous releases of UF6 and other radiological and chemical toxins by NFS -- facts documented in the ATSDR report too.

Concerns about the health impacts from "mixtures" of contaminants released into Erwin's air and water were also addressed in the ATSDR report:

"Because the contaminants present in the groundwater are a mixture of many volatile organic compounds, health effects of mixtures may be an issue. However, no available studies directly characterize health hazards and dose-response relationships for exposures to 'whole' mixtures containing 1,1,1-trichloroethane, 1,1-dichloroethane, trichloroethylene, and tetrachloroethylene. Further, physiologically based pharmacokinetic (PBPK) models have not been developed to predict dispositional and toxicological outcomes of joint action of mixtures of these four chemicals. Similarly, interactions of heavy metals with other heavy metals or organic compounds are unknown at this time." (p.25)

That was the best science available as of a year and a half ago.

But just last week, the National Academy of Sciences released its study, Phthalates and Cumulative Risk Assessment, which DID study the cumulative risk of a "mixture" of

each other's actions, that

“there is an expectation with dose addition that every component at any dose contributes, in proportion to its prevalence, to the overall mixture toxicity”. (p.6, emphasis added)

The National Research Council further advised the EPA that

“Because differences in susceptibility clearly depend on age, species, and exposure route, research to understand why the differences occur is important. Finally, research is needed to investigate possible deviations from the dose-addition concept – that is, identification of cases of synergism or antagonism relative to dose addition”. (p. 8, emphasis added)

The fact that the committee used a heavy metal, methylmercury and PCB mixture as another example of “combined exposures” ... that “all contribute to cumulative risk”, makes this new study not only directly relevant to our situation in Erwin but also a compelling reason for the DOE to fund

- (1) a new EIS on the disposition of surplus HEU
- (2) a comprehensive, in-depth study of the health impacts of DOE projects at NFS, including the cumulative effect of other nuclear operations – Studsvik, Aerojet, the Hawkins County landfill receiving low-level radioactive waste -- on our health.

The DOE owes this and more to our community -- which has been exposed to a radioactive cocktail of chemicals and heavy metals for too long -- because the special nuclear materials and nuclear waste were transferred to NFS, Studsvik, Aerojet, and the Hawkins County landfill as a direct result of DOE programs for their disposition.

But, what kind of response do we get from our government? Your DOE/EIS-0240-SA1 tells us that the latent cancer fatalities for MEOIs around NFS is 1 in 71, and then you explain that this number is not correct, that it should really be 1 in 85,000. The NRC then says no, it's really 1 in 71 years. Then, the NRC projected that exposure to 100 millirems per year over a lifetime (the same regulatory limit as DOE) will result in 3.5 fatal cancers per 1000 members of the public exposed, or 1 cancer deaths in every 286 people exposed. Of course, that 100 millirems per year for the public in Erwin is not accurate, because it does not include Studsvik, which handles some of the hottest material around. It also does not account for the many times that NFS has released radioactive material above permitted limits, or when this accident-prone company had fires, explosions and other accidents. NFS has contaminated the City Sewer on numerous occasions, not to mention pouring uranium and plutonium directly onto the ground and burying whole contaminated vehicles like bulldozers. This is not hearsay; it is documented fact.

The NRC sent us a copy of a letter you supposedly sent to us in June regarding our request for a community health assessment. We never received the original copy of that letter. However, we find it curious in the letter that you mentioned the DOE EIS-0240-SA1 of June 2007, when in fact it was October 11, 2007. It seems odd that you would not know the date of your own document! Additionally, we could not read the signature on the letter; therefore, we do not know who signed for you. Please resend it to the address in ECAN's letterhead.

The bottom line here is that we want DOE to remove the UF6 from NFS. We believe that DOE should send it to a DOE site far from private homes, hospitals, businesses -- and

especially from schools and daycare centers where children, who are harmed the most from radiation exposure, spend time. We are making enough sacrifices with current operations at NFS, Studsvik, and Aerojet (processing depleted uranium), not to mention the fact that DOE awarded Studsvik "7.5 million dollars for 22 months for THOR Treatment Technologies (TTT) to demonstrate THOR's ability to treat high-level radioactive waste." (Studsvik Annual Report 2007). The public was never informed about this; neither were NFS workers, who have long been concerned about the gamma radiation emitted by Studsvik.

Additionally, Studsvik has now assumed the title and financial liability for the storage and processing of medium-level waste here in our town beginning with FPL's radioactive garbage, and signed a similar agreement with Unistar for processing waste for the new Calvert Cliffs #3, and perhaps many more. **It is blatantly obvious to us that DOE is running roughshod over this community.** DOE doesn't care where the radioactive waste goes, just as long as it goes away from the generators and away from DOE.

DOE appears to ignore the terrorism threat in Erwin. The Unicoi County Director of Emergency Management said "safety measures and evacuation plans are constantly reviewed in Unicoi County since 911, and especially since the Internet has alerted us to the fact that (Nuclear Fuel Services) is on a terrorists' target list." He went on to say "what worries me is the Interstate (26). We don't know if we have a truck load of terrorists coming through town with bombs or not." (Johnson City Press, January 27, 2005).

The Project on Government Oversight (POGO) stated, "The DBT (Design Basis Threat) for Category I facilities at Nuclear Fuel Services (NFS) in Erwin, TN and Nuclear Products Division of BWXT in Lynchburg, VA is significantly below the DBT for DOE sites with the very same types of special nuclear material. For example, the number of attackers in the NFS DBT is slightly larger than the power plants, but less than half that of the Pantex Plant." (Docket ID: NRC-2008-0413 and NRC-2008-0413-0001, September 11, 2008 (ML082660535). Yet, there are **no** environmental assessments that address terrorism or terrorist threats at NFS.

This community needs and deserves a comprehensive EIS that addresses all of these aspects that we have mentioned above, and especially one that includes DBT and terrorism. We also need and deserve a health assessment, regardless of whether NFS is privately owned or not. NFS has DOE contracts and is processing material for the DOE.

Last, but certainly not least, we urge DOE to begin cleaning up the mess at Bumpass Cove and the contamination created by the BLEU Project at NFS, and all the plutonium and uranium in our soil which has been dumped and buried here over the years, which from documented accounts, has found its way into the Nolichucky River. Cleaning up these areas would not only help the environment and communities along the River, it would provide much-needed jobs in this economically depressed Appalachian area.

We look forward to a positive response.

Marianne Crowe
Cassandra Rice-Mitchell
Jesse Hensley
Chris Tipton
Sam Pinkerton
John Kelley
Angie Hensley
Wanda Kelley
John Kelley
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Paul Gray

for Erwin Citizens Awareness Network

(Please note: Ms. Park Overall, Hollywood actress and property owner near the Nolichucky River in Greene County, contacted the Erwin Citizens Awareness Network and asked that her name be added to this letter). Erwin CAN is most appreciative of her continued interest and support.

4 Enclosures (with Original Mailed Copy)

CF:

Representative Henry Waxman
Representative John D. Dingell
Representative Bart Stupak
Representative Ed Markey
Representative-elect Phil Roe, MD
Mr. Gregory H. Friedman, DOE Inspector General
NRC Commissioner Gregory Jaczko
President-elect Obama's Transition Team
Sierra Club Radiation Committee
We the People