From: buzzd@comcast.net
Sent: Tuesday, October 02, 2012 11:24 AM
To: John Batherson
Cc: Buzz J Davies;
Subject: Return control of Nuclear fuel prosessing to DOE

Mr. Batherson,

I was not in the loop to hear about the Knoxville meeting until it was to late to prepare a speech. However, I am writing to you requesting that you convey to the DOE, that from my view point, the commercialization of Highly Enriched Special Nuclear Materials has been a decades long fiasco. I would recommend that the regulation and control of ALL these Nuclear Fuel Re/Processing Plants be immediately removed from the jurisdiction of the Nuclear Regulatory Commission.

Historically, there was Apollo, PA that now has over 800 operator lawsuits from public CANCER VICTIMS and Hundreds of Millions left in decontamination/decommissioning costs. There was Rocky Flats where there are currently over Fifteen Hundred CANCER VICTIMS and because of multiple fires/explosions and releases of Plutonium that the NRC bought 10,000 Acres --- (that's 16 sq. miles) of contaminated adjacent land as a human excluded permanent wild life preserve. Of course there is Nuclear Fuel Services here in Erwin, that over the years has had multiple releases of literally Hundreds of Pounds of Highly Enriched Uranium Hexaflouride gas, Plutonium and other radioactive materials. The plant operator is currently being sued by over Two Hundred CANCER VICTIMS and there are hundreds more as far away as 20 miles that I can provide you with their names and addresses. Additionally, there are measurable qualtities of HEU in the Nolichuky River as far away as Douglas Lake (50 miles) and Plutonium in the local creeks and estimated decontamination/decomissioning costs of Four Hundred Million dollars.

All these decades of thousands of failures at multiple sites simply cannot just be attributed to commercial learning curves, they are the direct result of the intentional deletion by the NRC of Nuclear Quality Assurance Program requirements of the Code of Federal Regulations e.g. (10 CFR 50 Appendix B NQA-1) from the Licensing requirements for ANY/ALL of these Nuclear Chemical Re/Processing Plants. Quite simply, without Nuclear Quality Programs you have NO ASSURANCE that any Items Relied On For Safety even work --- Hence NO SAFETY exists! The NRC has recently re-licensed NFS to process pyroforic forms of HEU and Plutonium. The Project Manager for the NRC (Kevin Ramsey) sent a letter to the NFS Safety Manager (Moore) in Aug 2009 delineating the necessary requirements for re-

licensing of the plant. Conspicuous in its intentional absence from this licensing letter is any reference to 10 CFR 70/72 (f) [the NQA requirement for plant operation]. It seems early on, that the NRC learned from the plant lobbyists that they had a marketable item in NOT requiring these plants to have Nuclear Quality Programs and the NRC has been playing NUCLEAR ROULETTE with the Safety of the Public ever since! You need only review the Licensing documents for any of these plants to observe the ABSENCE of QUALITY POSITIONS in the ORGANIZATIONAL CHARTS to confirm what I am relating.

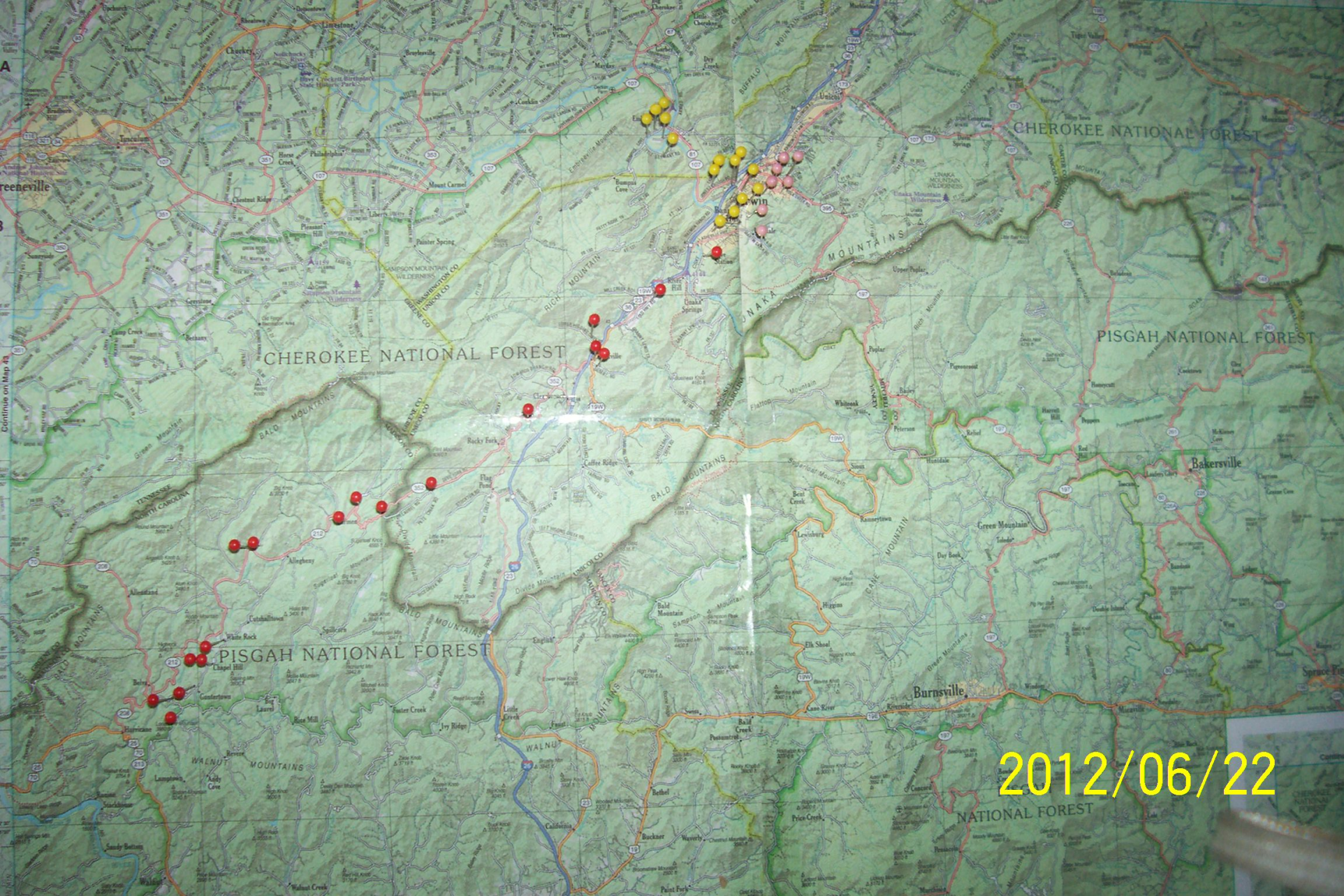
Not only are these Nuclear Chemical Plants a threat to the environment and the public, but there are recent deroggatory reports from Vermont Yankee, Palesaides, MI, Comanche, TX, Turkey Point, FL and a Nuclear News report that 62 out of 104 Nuclear Power Plants under NRC regulation suffered emergency shutdowns in 2011. Well a 60% emergency shutdown failure rate for the Nuclear Power Plants in the entire country has to be just a few steps away from another Three Mile Island at multiple locations.

The Nuclear Regulatory Commission as it currently exists must be removed from control of ALL Nuclear Fuel Re/Processing Plants and jurisdictional control be returned to the DOE as the NRC is so corrupted at so many levels as to render it unfit to license or regulate. Indeed, the NRC is the biggest nuclear threat to the Safety of the Public in the entire country!

Please feel free to contact me concerning any of this or any additional information that I can provide.

With all due concern,

Buzz Davies, Nuclear Quality Engineer, Retired


CHEROKEE NATIONAL FOREST
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NATIONAL FOREST
UNAKA MOUNTAINS
BALD MOUNTAINS
WALNUT MOUNTAINS
Bakersville
Burnsville
Erwin
2012/06/22

NFS 1984 ENVIRONMENTAL REPORT
(ML12068A168)

July 27, 1984

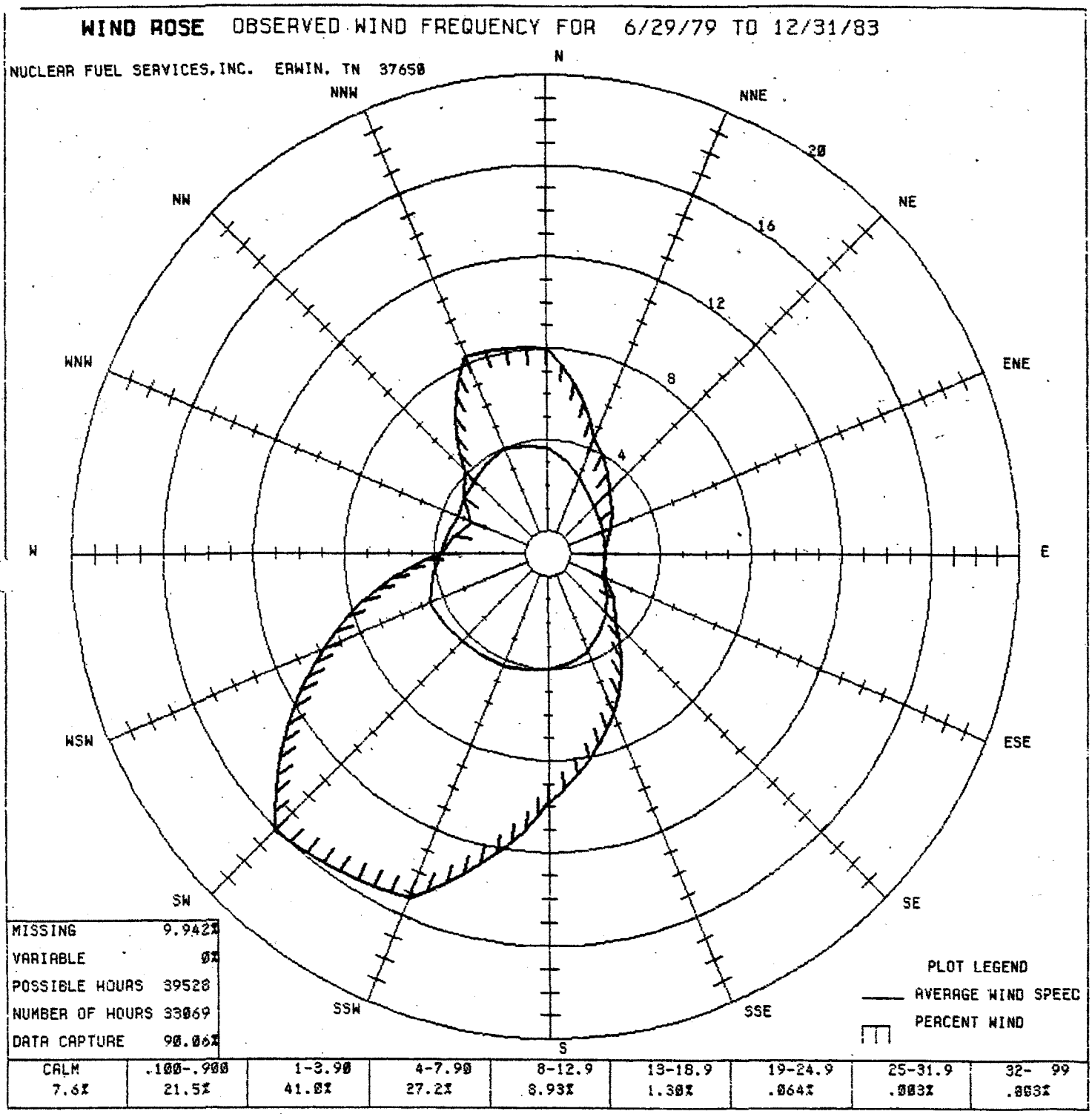

FIGURE 2.13

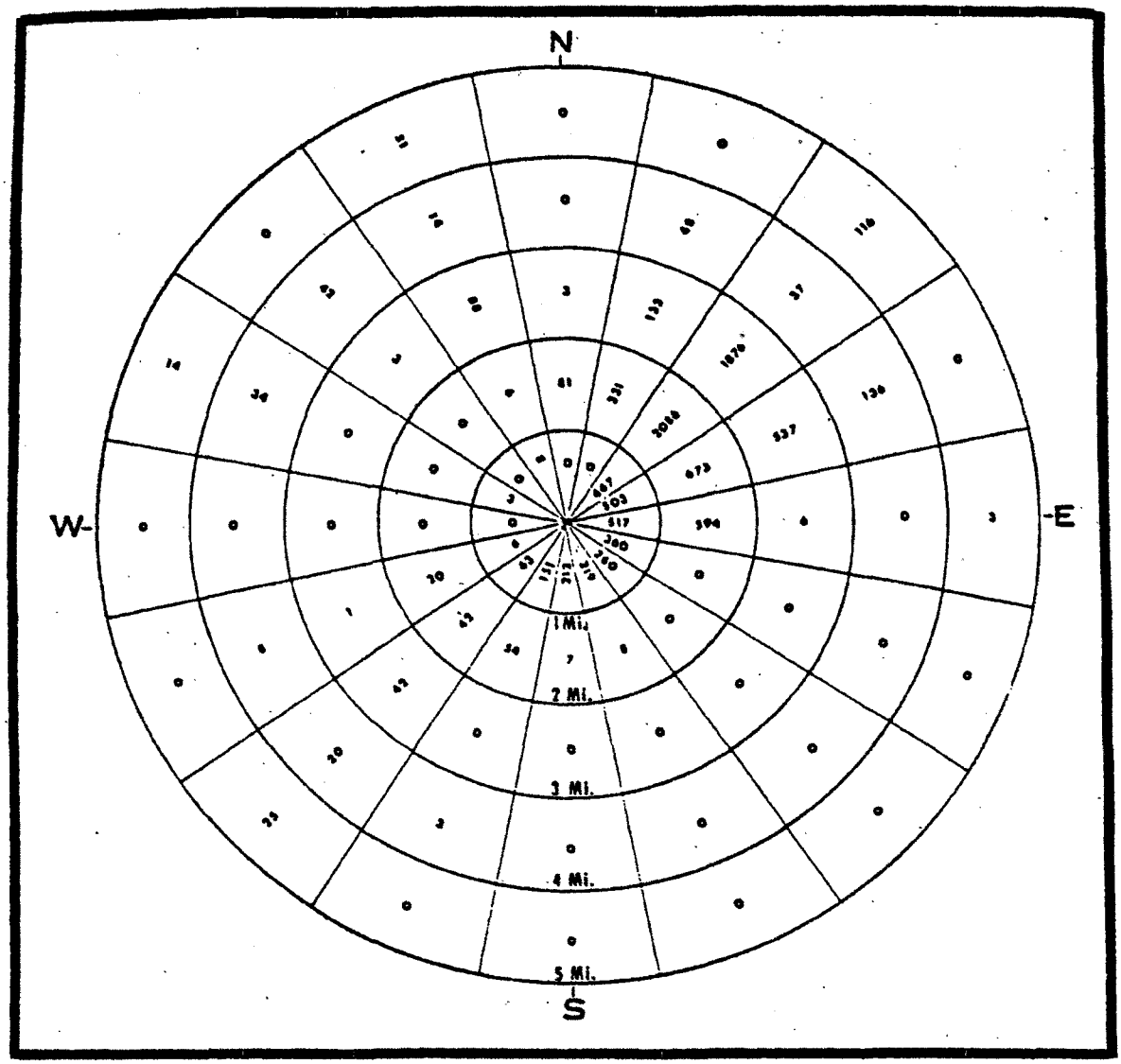

FIGURE 2.3

Estimated Population Within
5 Miles of the NFS-Erwin Site

SOURCE: Section 4.4.2, Demography, NFS EIR, January, 1976.

They Knew All Along

In 1979 there had been another reported release of over a hundred pounds of Highly Radioactive Enriched Uranium Hexafluoride (UF6) gas during processing at Nuclear Fuel Services (NFS). Of course there had been several other documented UF6 releases back in '62 , '64 and '71 without any apparent harm being done to the environment. The thinking was that the releases had been randomly dispersed across the plant site and perhaps minor quantities had found their way 'harmlessly' into the Nolichucky River. Now we know that there are places on the plant site where it is unsafe to walk and 95 miles of the Nolichucky River clear down to Douglas Lake has been contaminated and that takes an enormous amount of enriched Uranium. We also know about localized pockets of Cancer victims existing as far as thirteen miles away and statistically significant quantities of local thyroid Cancers. Interestingly, there was at least one confirming worker's visual report of; "A hissing orange ball of gas that had drifted out across the railroad yard and disappeared !" The hissing was the exothermic reaction of Fluorine from the UF6 combining with the moisture in the air, violently forming Hydrofluoric (HF) Acid steam at the periphery of the plume. This phenomenon of acid steam formation is only interesting in that it keeps the UF6 confined in a concentrated plume and the heat of the forming acid steam actually buoys it in the air like a balloon. Thus the UF6 is surrounded and insulated from cooling, prolonging its existence as a gas, hence preventing it from deposing/solidifying into crystals for an extended period of time before falling to the ground like so much lethally radioactive snow. Unfortunately the UF6 never really disappears for hundreds of thousands of years but eventually it will disperse into the environment. Since you can't sense its presence the real question is just how much potential exposure is out there and where ! The unwritten rule is that once you let the Radiation Genie out of the bottle you can never put him back ! Nevertheless, the Nuclear Regulatory Commission (NRC) hoped that it had all been flushed down the Nolichucky, diluted, never to be found again, except maybe just a trace that could be readily explained away. After all, "Out of sight is out of mind"and "Dilution is the solution"are the "government guidelines". But since there had been so many other spills, releases, and large unaccounted for quantities of Highly Enriched Uranium (HEU) from various processes at NFS in the recent past, the plant had been temporarily shut down for investigation of the losses. The recent missing quantities amounted to over a hundred and thirty pounds of Bomb Grade, 95+ % HEU, which is a large enough quantity to make several atomic bombs. At an estimated cost of thousand dollars a gram for bomb grade enriched Uranium, we can reasonably understand the NRC's nervous concern, especially if this Special Nuclear Material (SNM) was being sold on the black market or to terrorist organizations bent on destruction of the United States.

Just to be sure, in August of 1979, the NRC brought their decontamination trucks to Erwin and contracted with EG&G , a big brother helicopter company out of Las Vegas, NV to search the local area for any residual "Hot Spots". The Hot Spots, as the name implies, were radioactively "Hot" materials concentrated in small areas "Spots" that were detectable from helicopter low altitude flyovers. The assumption being that the sublimated/heated UF6 gas, that had escaped from cracked pipes would quickly cool and (freeze)/depose back into solid crystals and being dense stuff, quickly fall out of the air like heavy crystalline dust, before traveling too far. Besides, NFS is topographically located at the bottom of a mountainous bowl and the SNM

obviously couldn't travel too far. Right? Well not exactly ! You see, there is a natural chimney surrounded on all sides by mountains quickly rising to over 3000 ft,. that slowly rises 1300 ft., up the thirteen miles to the Southwest via South Indian Creek/Rocky Fork Gorge to Shelton Laurel, NC. It is through this gorge that a continuously venting hissing plume of lethally radioactive gas traveled as it found its way out of the Erwin mountain bowl. Of course as the UF6 moved it gradually disintegrated into insoluble highly radioactive uranic crystals and also some other highly radioactive deposed crystalline Uranium Hexafluoride. This is what dusted down on Shelton Laurel and all points in-between. The other natural vent from the bowl is via the Nolichucky river gorge by Canah Chapel and down past Bumpas Cove where other clusters of cancer victims also have currently been mapped.

Regardless, the solution was simply for the helicopters to survey the bowl and find any radioactive concentrations and communicate those locations back to the decontamination trucks. Whether they originally searched the Rocky Fork Gorge is unconfirmed, but then the Gorge doesn't readily lend itself to helicopter maneuvering. We do have eyewitness reports from twenty years later in 1999 of helicopter(s) on the ground in Shelton Laurel taking samples, after the rare cancers started being reported . However, back in 1979 the NRC would have their decon-teams (you know the guys in the white moon suits) collect any significant quantities of this randomly released highly radioactive lethal dust they found. This response would minimize questions about threats to the environment or failure to protect the health and safety of the local citizenry. Since this plant is the sole manufacturer of fuel for the nuclear navy, this would also have the desired result of preventing the NRC's perceived level of secrecy associated with this plant from being compromised or its failure to properly regulate this plant from being questioned. Ultimately, these large unaccounted for quantities of SNM would be written off as accounting process errors, in-as-much as the material accountability at this plant was marginal at best and stringent quality regulations had never been enforced and are still not to this day.

Now as to question of if the NRC has failed to properly regulate this plant, you only need to read the pertinent parts of the Code of Federal Regulations (CFRs) which establish the requirements for the NRC as an agency of the government, whose Congressional Charter is to protect the health and safety of the public, and further, delineates the proper requirements that need to be applied to license and operate nuclear plants. Even thought there are multiple NRC internal letters and memos from Exxon and other plant owners over the years that make reference to this plant being a Nuclear Fuel Reprocessing Facility, the NRC has repetitively performed a tiptoe tapdance with the Licensing Regulations to avoid identifying this plant as a "Reprocessing Facility". Because to identify this plant as a Reprocessing Facility would automatically place it in the classification of Title 10 CFR 50, that requires the NRC to allow its operation only within the scope of a 10 CFR 50 Appendix B NQA-1 "Quality Assurance Criteria for Nuclear Power Plants & Reprocessing Facilities" nuclear quality assurance program. Without going into a prolonged dissertation about the NQA-1 Nuclear Quality Assurance Program, suffice it to say that it is designed to prevent repetitive failures culminating in releases, spills and other environmental insults from reprocessing SNM.. NQA-1 requires the plant to have a mature engineering management structure with a corporate Director of Quality, a Vice President of Quality, a Quality Engineering Manager, Quality Engineers, and various levels of Quality Technicians and Inspectors. This independent line of staff control through all facets of

operation, and above the plant President thereby assures that all the eighteen point criteria of this mature engineering management system is working properly to prevent failures at all levels. Unbelievably, this plant has NO formal quality engineering staff! NOR is there anything resembling a mature engineering management structured organization. Instead the NRC has allowed this plant, for half a century, to have a tail wagging dog, process operations driven, presidential figurehead system that is fraught with spur of the moment knee jerk responses, calamities, and an operating philosophy analogous to that of a chemical plant in Baupal, India. The cavalier "We don't see it that way" reply by Region II NRC employees to quality enforcement failure questions, has ultimately allowed this plant to release hundreds of pounds of lethally radioactive highly enriched uranium, plutonium, thorium and other associated materials into the local environment.

In addition to the CFRs, the Department of Energy (DOE) long ago issued a specification, SEC-651 Rev 7, See Page 4, Table 1, now maintained by the U.S. Enrichment Corporation for DOE, entitled, Uranium Hexaflouride Manual of Safe Handling Practices, which requires all nuclear plants that process UF6, that are regulated by the NRC to have a Nuclear Quality Assurance Program in accordance with 10 CFR 50 Appendix B., regardless of their Title 10 Classification. As further justification for classification of this plant as a fuel reprocessing facility, in the late 1960's this plant, in addition to down-blending (reprocessing) "Bomb Grade" Uranium, also processed Plutonium, which is a manmade element that can only be obtained from the spent fuel out of a nuclear reactor. Title 10 CFR 50 clearly defines any work performed on spent reactor fuel as fuel reprocessing. Therefore, anything done to Plutonium obviously must be classified as fuel reprocessing work! Since this 10 CFR 50 classification of nuclear fuel reprocessing is so blatantly obvious, the failure of the NRC to implement enforcement of the NQA-1 Nuclear Quality Engineering Requirements at this plant can only be logically attributed to financial lobbyist influence pedaling, greed, and corruption. This overwhelming lobbying influence has rendered the NRC unfit to make the independent judgements necessary to protect the health and safety of the public. By comparison, a Senate investigation of Region I of the NRC was recently conducted with the reported results of "Multiple Incidences of Illegal Gratuities" being received by NRC employees, and as demonstrated by their grossly negligent actions of failing to properly regulate this facility, the people here in Region II certainly can expect nothing better from the NRC.

The irony here is that by not implementing the NQA-1 regulatory requirements, the NRC has done nothing to prevent historically unprecedented quantities of extremely expensive SNM from being released to the environment. Nor has the NRC prevented lawsuits against this plant for contamination of the environment and exposures of the public, which in turn has gained this plant the infamous international nuclear watchdog title of "The Sieve of the Nuclear Industry"! Additionally the NRC has failed to prevent the estimated decontamination clean-up costs which continue to escalate and have already exceeded a Half-a-Billion dollars. Indeed the salary and operating expenses for a Nuclear Quality Engineering staff for the entire life of that plant wouldn't have come anywhere near the currently incurred decontamination/decommissioning costs, let alone the costs of the lost and/or spilled radioactive materials themselves. I'm sure that the Navy never planned on placing the citizens of North East Tennessee in harms way when

they contracted with the NRC to regulate this plant. Because there is no Quality organization at this plant, there is no applied statistical process control or incentive to improve manufacturing processes. This leaves the Navy's cost plus contract paying for obsolete processing practices that while achieving satisfactory hand-picked fuel pellets also generates hundreds of barrels of mixed waste at a cost in excess of a million dollars per barrel. The NRC does nothing but approve License amendments to store more and more hundreds of these barrels of this mixed waste on site because there is no national archive that is willing to take this highly radioactive scrap. Over the years, the NRC employees have received their thirty pieces of silver, and frankly I don't really see them as being any different than the rest of the bureaucrats. The exception being that their intentional failures to properly regulate this plant constitute gross negligence in the performance of the duties of their office and these decisions have resulted in the unnecessary radiological exposures, illnesses, birth defects, and cancer deaths of hundreds of innocent people.

The latest development in this ongoing saga of governmental corruption is the story of the Forestry Service over the past few years buying up all the property in the Rocky Fork Tract, ostensibly to become a pristine wilderness hikers , hunters, and fishermen's park. The interesting portion of this story is that the actual land purchases have been done by a nonprofit conservancy who's funding is for all practicality non-traceable.

Black's Law Dictionary defines:

"Gross negligence. The intentional failure to perform a manifest duty in reckless disregard of the consequences as affecting the life or property of another."
... "Gross negligence consists of conscious and voluntary act or omission which is likely to result in grave injury when in face of clear and present danger of which alleged tortfeasor is aware."
And further clarifies the subcategory:

"Hazardous negligence. Such careless or reckless conduct as exposes one to very great danger of injury or to imminent peril."