

EDO Principal Correspondence Control

FROM: DUE: 08/03/05 EDO CONTROL: G20050462
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FINAL REPLY:

Pamela Blockey-O'Brien

TO:

Reyes

FOR SIGNATURE OF :

** GRN **

CRC NO:

Dyer

DESC:

ROUTING:

2.206 - Nuclear Power Plants

Reyes
Virgilio
Kane
Silber
Dean
Cyr/Burns
Strosnider, NMSS
Skay, NRR
Goldberg, OGC

DATE: 06/29/05

ASSIGNED TO:

CONTACT:

NRR

Dyer

SPECIAL INSTRUCTIONS OR REMARKS:

Coordinate response with NMSS.

Template: EDO-001

ERIDS: EDO-001

6/22/05



2.206 Petition under 10 CFR Ch. 20
to the
United States Nuclear Regulatory Commission
from
Pamela Blockey-O'Brien
against

23 G.E. Mark I Boiling Water Reactors - so-called Nuclear Lemons - namely :
Browns Ferry I,II III. Brunswick I and II. Cooper I. Dresden II and III.
Duane Arnold. Edwin I. Hatch I and II. Fermi II. Hope Creek I. James A. Fitz-
patrick. Monticello. Nine Mile Point I. OYSTER CREEK (the mother of all nuclear
lemons). Peach Bottom II and III. Pilgrim I. Quad Cities I and II. Vermont
Yankee. Collectively and individually, with Bases.

9 Westinghouse Pressurized Water Reactors - so called "Ice Condensers"-
namely: Catawba I and II. D.C. Cook I and II. McGuire I and II.
Sequoyah I and II. Watts Bar I. Collectively and individually, with Bases.

15 Special Circumstance Reactors, namely: Salem I and II. St. Lucie I and II.
Turkey Point III and IV. San Onofre II and III. Crystal River III. Calvert
Cliffs I and II. Farley I and II. Grand Gulf I. Three Mile Island I. With
Bases.

2 Nuclear Death Traps from Hell, namely : NUCLEAR FUEL SERVICES, Erwin, TN.
UNITED STATES ENRICHMENT CORPORATIONS PADUCAH GASEOUS DIFFUSION PLANT, Ky.
With Bases.

Requesting
SHUTDOWN. LICENSE REVOCATION. CLEAN UP OF SITE AND SURROUNDING AREA, WORKER
COMPENSATION and far more, as detailed herein, including removal of any and all
deadly radioactive "spent" fuel as soon as humanly possible, as detailed herein.

This Petition
was written from October 1st, 2004 through June 16th, 2005. It is based on
thousands of pages of documentation, including nuclear facility Dockets and
some inspection reports. It is the first and only draft, as I am not in good
enough health to re-write it with better grammar and punctuation. I am also
exhausted. Documenting evil is exhausting. What is in here is not only evil,
it is unbelievably stupid, because it invites disaster - it is also tragic.

This Petition
is dedicated to my children, grand-children and children everywhere, plus all
wild creatures, birds, plants and aquatic species who have no voice and suffer
also, due to the nuclear nightmare. It is also dedicated to my husband, James,
who also always supports my efforts to end the nuclear nightmare. I also
give thanks to Almighty God for sustaining me and giving me strength to do
this work, for over 44 years, to try and protect Creation.

The Basis of
Nuclear Weapons, is the same as the basis of nuclear power. Materials and
technologies required are mainly the same, as are the establishments and
science pushing both. There can be no abolition of nuclear weapons without the
abolition of nuclear power. More nuclear weapons and nuclear plants are being
advocated. The enclosed Petition shows the evil consequences in existence due
to current and past policy and actions. They are terrible. My Petition should
be granted. Not to grant it, would be negligent in the extreme.

63 pages total, minus
petition cover. 64 total. 1.

The Executive Director,
United States Nuclear Regulatory Commission,
Washington, DC 20555



Pamela Blockey-O'Brien
D23 Golden Valley
7631 Dallas Highway
Douglasville, GA 30134 USA

Re: Shutdown of facilities named in text,
under 2.206.

October 2004
to June 2005.

Dear Director:

This is a Petition under Section 2.206 of 10 C.F.R. Ch. 20, for the shutdown, clean-up of contaminated area soil, groundwater, sediment in adjacent rivers/canals/beaches/shorelines/streams which have recieved discharges via air and/or water from the named facilities, as well as contamination in wetlands, swamps, marshes from the facilities - such as Cesium-137, Strontium-90, Cobalt-60, H-3 (tritium), radioactive iodines, plutoniums, carbon-14 etc. etc. released to the environment from all nuclear reactors either directly, indirectly, as decay products, activation products and so on (including from noble gases), - decontamination and removal of all equipment, material and buildings on site; compensation of contaminated workers (which means all of them, as it is not possible to work at such a facility without being contaminated), compensation of the general public in the area around the facilities, due to their exposure to low-levels of ionizing radiation from routine and non-routine releases; testing of any wells within a twenty mile radius for radioactive contaminants; removal of any and all deadly radioactive "spent" fuel from the sites as soon as humanly possible - which means, in all probability within 12 years of the last core offload, i.e., 10 year "cool down" in the "spent" fuel pool plus a two year additional "margin of error" for safety - because as both the NRC and the Death Of the Earth squad (D.O.E.) know, the "spent" fuel will ultimately meltdown on site, whether in crappy pools or crappy casks, and be released to the environment one way or the other, due to degradation of storage containers from the container bombardment by radiation, and things like weathering, freeze-thaw cycles etc., failure of zircalloy cladding, and various other scenarios; whereas, if removed off-site, to a dry geologic repository deep below ground, - (wherever that may be, that is the only environment 50 years of scientific study has deemed the best environment for such material) - the Department of Energy HAS BEEN CHARGED WITH TRYING TO RECONTAINERIZE IT IN EXTRA OVERPACKS AND PREVENTING SUCH A MELTDOWN FOR 10,000 YEARS (good luck) AFTER (or before) WHICH IT BECOMES THE RADIOACTIVE BLOB FROM HELL (having read thousands of pages of DOE stuff on the issue) ANYWAY - if the "spent" fuel stays on site, each site becomes the radioactive blob from hell in our children or grandchildrens lifetime, and the criminal negligence of the industry and the so-called "regulators" and nuclear pushers who have known of the problems for fifty years and didn't care (being too busy making money off the nuclear nightmare) will become the ultimate nail in the planets' coffin at the expense of all life, - we may well experience such a "blob from hell" in our lifetime considering that most nuclear facilities are run /operate like a bad movie theatre, where the film keeps breaking and some partially trained fellow splices it to get it going again.

The NAMED nuclear facilities to which this 2.206 Petition applies are as follows :

1) the nuclear lemons, namely all G.E. MARK I BOILING WATER REACTORS, ALL PRESSURIZED WATER REACTORS ICE CONDENSER DESIGN, WESTINGHOUSE.

THE NAMES ARE AS FOLLOWS : Browns Ferry I, II and III; Brunswick I and II; Cooper I; Dresden II and III; Duane Arnold; Edwin I. Hatch; I and II; Fermi II (and what about the mess re Fermi I also ?); Hope Creek I; James A. Fitzpatrick; Monticello; Nine Mile Point I; (and Nine Mile Point II even though its a Mark II due to proximity/danger); OYSTER CREEK (the mother of all nuclear lemons); Peach Bottom II and III; Pilgrim I; Quad Cities I and II; Vermont Yankee; all these are GE Mark I. Catawba I and II; D.C. Cook I and II; McGuire I and II, Sequoyah I and II; Watts Bar I; all these are Westinghouse, ice condenser design.

2) Special circumstance reactors : Salem I and II; St. Lucie I and II, Turkey Point III and IV; San Onofre II and III; Crystal River III; Calvert Cliffs I & II, Farley I & II, Grand GULF I, T.M.T.

OVER

3) Other nuclear licensees : Paducah Gaseous Diffusion Plant/USEC -this facility would include addressing cleanup of the entire site and adjacent properties formerly part of it, and removal of the massive amount of deadly radioactive depleted uranium cylinders from the site, cleanup of groundwater, removal of sediment in all creeks flowing offsite both on and offsite, as well as worker compensation. The Hell Pit known as Nuclear Fuel Services in Erwin, Tennessee, which would also include digging up all buried wastes, pumping out groundwater, and entire cleanup of site and surrounding area past the fence line, plus worker compensation.

In all cases 1,2,3, it would involve license revocation.

The Bases are as follows :

NUCLEAR LEMONS a) Boiling Water Reactors of the Mark 1 type, general base applicable to all : It is historical fact, that GE was too cheap to enclose their reactors in a proper traditional "containment" dome, because of the size of their reactors it would have had to be larger and would have put them at a financial disadvantage over the competition, so they came up with the ultimate in Rube Goldberg type contraptions (for those in Britain reading this, think Ronald Searle the cartoonist) with the reactor contained in a sort of thick cement wall roomlet, type thing, and below that (with all sorts of pipes and valves and more pipes and pumps and valves and thingamajigs and bits and bobs going down to it) a huge container, half filled with cold water, into which (in case of catastrophe) all the hot radioactive steam, high pressure steam, that would be escaping from the reactor would supposedly be diverted into the pond (via the bits and bobs and valves etc.) called (mysteriously !?) a "torus" - the word is from the Latin meaning "a prominence" or, anatomically "a rounded muscular protruberance" - this torus is like a huge donut/doughnut half filled with water, and when one first sees the drawings of a Mark I, its phallic symbolism is unmistakable, so that it's difficult not to laugh at this ridiculous design, which, the NRC itself, stated was "VIRTUALLY CERTAIN TO FAIL". Why? The malfunction of a few of the thingamajigs would permit steam coming out of the reactor to bypass the water pool and accumulate in the small cement roomlet round the reactor and cause it to rupture, and a helluva lot more besides. To "solve" the problem, a bunch of idiots - instead of scraping the entire design off their drawing boards with a sharp instrument to erase any trace of it - didn't do that, why? Many of the plants had already BEEN BUILT because the AEC/NRC signed off on the situation, and staff raising it (and concerns about ice condensers) suggesting these so-called "pressure suppression" systems should be banned, were ignored. In fact, in 1972, a top AEC/NRC official, Dr. Joseph Hendrie, sent a note on the issue raised of not allowing such designs to Dr. John O'Leary, the director of licensing, saying that the idea to ban pressure-suppression containment schemes was an "attractive one in some ways", and raised no objections, scientific or otherwise, to a proposed ban, but then said that "the acceptance of pressure-suppression containment concepts by all elements of the nuclear field, including Regulatory and the ACRS is firmly embedded in the conventional wisdom. Reversal of this hallowed policy, particularly at this time -(Emergency Core Cooling System hearings then in progress were proving a major embarrassment to the AEC) - could well be the end of nuclear power. It would throw into question the continued operation of licensed plants, would make unlicensable the GE and Westinghouse ice-condenser plants now in review and would generally create more turmoil than I can stand ~~ix~~ thinking about." (See "Meltdown - The Secret Papers of the Atomic Energy Commission" by Daniel Ford, former Executive Director of the Union of Concerned Scientists). In the end an outrageous thing was done, a so-called DTVS-"Direct Torus Vent System"- was allowed to be installed, which, as NRC well knows, is a way of venting some of the steam out over the countryside bypassing the torus, to lower the pressure, to gain time before the inevitable steam explosion/meltdown etc. etc. etc. - Spewing radioactive steam out over the countryside as prelude to rupture and meltdown is not my idea of solving a serious problem. Shut the damned things down. These plants are old and suffer aging, corrosion, and embrittlement issues, not to mention the cracked core shroud issues rampant among BWR's. How many people know that in all likelihood their not-so-friendly nuclear

plant may well be held together by steel braces, in what amounts to what I consider patching the damned things up and holding them together with baling wire, as I have told NR C in the past, like an old jalopy - the difference is, we are talking a NUCLEAR REACTOR. This is insane.

The years have born out the problems with these lemons, read the Dockets. Furthermore, unlike other designs, the control rods must be pushed in from below, i.e. they are not gravity assisted which ensures faster shutdown - that in itself is a problem.

To make matters worse, the deadly "Spent" fuel pool is located at about the fourth to fifth floor level, ABOVE and to the side of the reactor, and is not under any type of containment other than the steel roof. These pools are packed to the gills with spent fuel, reracked, and so on, and as NRC well knows, themselves subject to meltdown if the water is lost shielding the spent fuel assemblies/rods. Some of the plants have now got outside-in-plain-view storage, inside ridiculous cement casks subject to the elements plus degradation from the constant radiation bombardment from within, plus what is called their "natural cooling" is air circulating between cask and cement overpack to carry off the radioactive decay heat full of gamma and neutron radiation. One type, The Holtec casks, are a bloody unsafe nightmare according to the renowned "whistleblower", the highly trained, eminent Oscar Shirani, and from what I know, he's right. -

The fact of the matter is this : both the spent fuel pools and the spent fuel in casks are about the biggest damned terrorist targets anyone can think off. At the risk of repeating myself, PRIOR to 9/11 I wrote my concerns about this issue, and which type of weapons some nut might use against them with awful consequences, to the former head of the Joint Chiefs of Staff, in sheer desperation. He sent me a very nice note back commending me, by the way. It all got sent on to DOE, and to cut a long story short, DOE was very concerned, in particular about the outdoor-in-plain-view storage, but opined that they could not tell NRC what to do. Frankly, I find that a stretch, but they just dumped the ball back in NRC's court. NRC can do the right thing and shut down the plants for all the above reasons, and to prevent any more generation of nuclear wastes no one knows what to do with, as no one can change the Laws of the Universe. Obviously, this applies to all plants in some way, but we can start with the lemons and some at high risk. Nuclear power only provides about 20% of the nations enrgy, and over 10% of that could be saved via conservation, if not more, according to various sources, we can go to renewables for at least 15%.

NRC can also stop making pronouncements about how thick the containment domes at other reactors are and instead read the Dockets and find out that at the top, that is just not the case. Anyone can find out this information, probably hundreds of thousands of people know this due to their work, like I do. As I have REPEATEDLY told NRC, Security is a major concern. No one should be allowed within at least one mile of the plants unless they work there, (or are unfortunate enough to live there) in any type of vehicle. This means NRC should be working with authorities to re-route traffic. The fact that the NRC has a bizarre way of classifying what is and is not a "High" or "Low" population zone, so that reactors wound up in the middle of populated areas, is to NRC's eternal shame, and to its predecessors, the AEC. Overflights must also be banned. It is terrible to just shove it off onto the FAA and say the FAA makes the decision. Hell, they even had some plants in the wrong State (as NRC knows) until I called up to get it corrected, during the time they did ban overflights. Civilian planes could have been blown out of the sky due to incompetence. All this is a similar issue. Add shielding to everything on site, including spent fuel pool building interiors. Have a separate, independant back-up water supply for spent fuel pools in case of problems.

Bases for Boiling water reactors, individual :

Oyster Creek, N.J.* This dump is so old and decrepit, only the Grace of God holds it together.

As NRC knows, it has a cracked core shroud held together with the aforementioned "baling wire" scheme. But there is more to it, documents show there are 29 cracks on welds, 12 surface indications, and one bracket having a linear indication. However, only 30 of 36 brackets were inspected. Plus, additional inspections of weld H4 were terminated as soon as it was decided to fix the dump up with baling wire/tie rods. Furthermore, it seems only a certain percentage of the total circumference of many welds

* ALSO SEE P. 10, 1ST PARAGRAPH.

were inspected, which is unacceptable. But here comes the real disgrace: as far back as 1968 (during construction) the core shroud support ring had a defect indicating evidence of stress corrosion and further, major defects involving the core shroud head and steam separator assemblies for both "Jersey Central Power and Light Company's Oyster Creek reactor facility and Niagara Mohawk Power Company's Nine Mile Point * reactor facility". The components "were fabricated by P.F. Avery Company, Billerica, Massachusetts." There were a number of fabrication deficiencies, and they involved "poor quality welds, missing welds, and misalignment of steam separator components". They also found fabrication deficiencies "in other components that are to be installed in the reactor pressure vessels." Now, it appears that they intended to disassemble the core shroud head and steam separator assemblies to repair them "onsite at Nine Mile Point and Offsite at Oyster Creek." They also found "additional fabrication deficiencies" that were in "other components that are to be installed in the reactor pressure vessels." However they stated that the "corrective measures for these deficiencies are not expected to require disassembly." So it appears that Oyster Creek was a piece of junk from day one, and it is also questionable that proper repairs could have been made without disassembling some of it and goodness knows how all of it was repaired. It should have been re-fabricated, not bloody repaired. It's a NUCLEAR REACTOR for crying out loud. You SPLIT THE DAMNED ATOM INSIDE THE MONSTER. Yet all this repaired stuff - and how do we know it even was properly repaired? - went into service and here we are with more of same it seems, only knowing that past history, the current problems are far worse in all probability than at first glance. Shut that dump down before it either falls apart spewing deadly, hot reactor fuel bits everywhere, or it melts down on us. Furthermore, the dump is run so badly, that for example a containment spray pipe support clamp that periodically rotated out of alignment SINCE 1985 STILL HAD NOT BEEN CORRECTED BY 2001 nor had the cause been evaluated or the effects assessed. Since 1996 up until 2001 they had not evaluated a potential non-conservative assumption in the main steam line break analysis. But NRC only gave them a non-cited violation. Nrc gave them another non-cited violation for being unable to get their act in gear to maintain all provisions of their fire protection program (Rube Goldberg strikes again). There are lots of other constant problems surrounding the fire protection issue, but it could have turned into quite a catastrophe- yet NRC let them off easy, even though the report said there was a "failure to maintain vital switchgear room manual fire suppression system capability" and if you read the details, as noted above Rube Goldberg seems to have linked with Murphy. Oyster Creek has local leak rates in excess of Tech Specs due to component wear. They have plant shutdowns (why not keep it shutdown), skin doses in association with control room HVAC system B exceeded the limit, reactor recirculation pumps keep tripping, SCRAMS galore over the years, And then, at this old dump what happens regarding the spent fuel pool? NRC has the gall to grant these idiots an amendment to allow them to move HEAVY LOADS OVER 800 POUNDS OVER THE SPENT FUEL POOL as they got another crane. And they "did not conduct" a particular specified test, but got round it by proposing alternative testing. One has to read the entire thing to grasp the idiocy of allowing this, which shows among other things that they did not seem to take the effects of aging and corrosion into their analysis, when they did the reactor building steel superstructure analysis for increased loads, due to getting, what they term, a "failure-proof" crane- (give me a break, nothing is failure proof.) When that system fails and a huge cask drops into the spent fuel pool, crashes through the spent fuel rods, initiates not only a criticality but also busts through the pool so it drains and then smashes down the remaining floors, and the water drains from the pool and then ultimately everything heads to meltdown city, we won't need to worry about terrorists, as both NRC and Exelon Nuclear will have done their work for them. NRC even complained about the lack of information the company had originally provided to get what it wanted, yet NRC still allowed it.

Further : Oyster Creek is in an extremely high population area, next to a highly travelled road, in an area that attracts tourists and consequently more people each weekend. Little do those poor suckers know that they are being irradiated via the usual constant

radioactive emissions from the plant via air/soil/water. They don't know that the big thing with Boiling Water Reactors, is the huge Curie quantity of radioactive air-borne emissions full of tritium (H3) -radioactive hydrogen which suffuses every cell in the body and crosses the placenta to irradiate the unborn - and carbon-14 and radioactive iodines, and gases which immediately decay to cesium-137 and strontium-90 among others, they don't know the plant discharge canal dumps to Barnegat Bay, they don't know, that the weasels that came up with the "allowable" (not safe) levels of radiation, the good ol' nuclear boys at the ICRP (self appointing, no oversight ICRP) came up with the levels to allow "the emerging" nuclear industry to operate and that it all had nothing to do with public health, and still doesn't. They don't know that the nuclear pushers who built Oyster Creek and every other plant, go by a piece of garbage called the "Offsite Dose Calculation Manual" and in it its decided, for example, what dose they'll all allow to their "teen, child, infant" for everything from water ingestion, to shore exposure, to salt water sport fish ingestion, to irrigated vegetable ingestion, to fractions of deposited activity retained on vegetation to period of buildup of (radio) activity in soil, to period of crop exposure to activity ... and on and on, ad nauseum. All a bloody outrage of course - plus, as all nuclear power plants and research reactors create PLUTONIUM IN THEIR FUEL RODS WHILE THEY OPERATE (yup, that's how you get plutonium - so every country that gets a nuclear plant, willing to spend their nations hard earned money to create weapons of mass destruction while their people don't have free health care for example, becomes a candidate for the mass murderers club, the nuclear weapons club - you know, one-megaton-creating-a-firestorm-one-hundred-square-miles, (for starters) club of raving nuclear lunatics.) as I was saying, create plutonium in their fuel rods while they operate; there are multiple ways plutonium can be released to the environment with bad luck. But all that never worried the NRC, just as the liquid effluents pouring out of this dump of a reactor containing over time everything from the above mentioned radioactive contaminants to cobalt-60 and radioactive iron has never worried the nuclear boys, but can mean death to child. So you have Barnegat Bay and the effluents coming past (perhaps mixing with ?) residential lagoons, containing radioactive crud, thanks to Oyster Creek. This must stop. To top it all off, the operation of Oyster Creek has created a further environmental disaster, as NRC knows, nuclear plants suck in millions of gallons of water a day on average to simultaneously cool the core of a BWR while the atom is split, and in turn the water is heated to steam because of that, to drive the turbines, the most dangerous way to boil water in history - sort of like using a nuclear bomb to light a candle - the water- called cooling water as it cools the reactor fuel to prevent meltdown (while being heated by the incredible heat energy generated from splitting atoms) of course is warmer when it leaves the plant, due to having been heated as well as the radioactive decay heat component in the water, as the cladding of the fuel always has minute pinhole leaks, so some radioactive contaminants escape into the water - this warm radioactive water has serious consequences to marine life, however at Oyster Creek due to what was done, the operation of the cooling water system changed the flow of the lower portions of Oyster Creek itself and of South Branch Forked River, from alternating flows typical of estuarine streams to unidirectional flows with constant salinity. South Branch Forked River became an intake canal, salt water continuously moving upstream towards the plant - Oyster Creek became a discharge canal with heated (radioactive) water, salt water, moving constantly away from the plant. The creeks have become basic hydrologic extensions of the bay and have caused significant changes in both water quality and aquatic communities in the creeks, due of course not only to the changes in salinity, but radioactive contamination, temperature change, and the impact of the various toxic chemicals used in nuclear plants to "clean" the systems, including chlorine. All of this goes to Barnegat Bay. Shutdown and cleanup is essential to not only protect the people, but also the Bay and marine ecology. Also, as NRC knows, nuclear power plants warm water discharges can increase the presence of *N. fowleri* in the waters which, in susceptible people can penetrate the nasal mucosa and eventually migrate and cause a rapidly fatal meningoencephalitis, so frequent water testing is advised, (and swimmers may decide to avoid such areas.) I don't know if it lives in more salty water or not, but it could be checked.

By the way, in NRC's response, I don't want to hear anything about NPDES discharge permits in connection with the plants, as EPA bowed to the nuclear boys and, under the Clean Water Act, as implemented by EPA, EPA refined the definition of "Pollutant" to exclude radioactive materials regulated under the Atomic Energy Act of 1954, which means implementing regulations under the Clean Water Act do not apply to "source, byproduct or special nuclear materials as defined by the AEA." Roughly translated that means: you can eat your cobalt-60 contaminated fish or shellfish as no one gives a damn and you can starve if you don't like it. NRC also should be ashamed that it allows incredible amounts of tritium contaminated waters to be dumped, and whenever challenged on the issue, NRC (who I believe employs ONE doctor nationwide, part time) blathers on about everything being just fine, as EPA (here we go again) allows up to 20,000 picoCuries per liter of water (20,000 picoCuries of tritium/H₃ per liter) neglecting to mention that prior to the nuclear age, the natural background in North American Rivers of radioactive hydrogen/tritium/H₃ was 10 picoCuries per liter of water. It's anyone's guess what the thousands upon thousands of Curies of tritium released by all pathways at Oyster Creek over 40 years has done a) to the environment, b) to the birth defect and/or spontaneous abortion amounts to unsuspecting women, across a chunk of New Jersey. Radiation exposure causes both of course - oh, I forgot, the aforementioned ICRP (International Commission on Radiological Protection) which sets "standards" against which the entire world sets comparable standards using ICRP as guidance, decided that not only would it allow "a permissible genetic dose" to sperm or ovum (they permitted it) but even had a top member, Dr. R. Mole, who, although it was well known that ionizing radiation caused stillbirths, spontaneous abortion, infant deaths, asthmas, severe allergies, depressed immune systems, leukemia, solid tumors, birth defects and more, stated: "The most important consideration is the generally accepted value judgement that early embryonic losses are of little personal or social concern." According to Dr. Bertell (No Immediate Danger. Page 53. Dr. R. Bertell) So the NRC, which follows ICRP guidelines must believe the same garbage as Dr. Mole and his ilk. However, NRC better "get with the program" - to use an Australian expression, and start using some of the latest non-ICRP guidance, such as some outlined in the European Committee on Radiation Risk 2003 guidelines (www.euradcom.org) when considering exposures and releases from all nuclear facilities, not just Oyster Creek. NRC and other agencies must finally grasp, really grasp, the fact that AT THE MOMENT OF IRRADIATION THE CELL IS DAMAGED. This has been known for decades, further that it causes genetic defects - as I told NRC and DOE before, the 1943 Nobel Prize was awarded the great geneticist Herman Mueller due to his establishing radiation caused genetic damage passed unto successive generations. NRC simply cannot allow a facility like Oyster Creek, right next to a major highway and a beach, in a highly populated area, to continue operation. It must be shutdown and the community should be compensated and job training be provided workers so they can work in a clean energy plant that is the future, such as installing passive solar systems and building offshore wind systems, and onshore wind systems for local farmers for example.

Anyone within a ten mile area of Oyster Creek should also have their well water tested by NRC, billed to the company, for migrated radioactive contamination from site contamination from Oyster Creek via groundwater, or from airborne deposition migrating down into wells, as has been established happened in the south.

NRC needs to be reminded, that in the event of a loss of cooling water accident to the core, in ^{Mark I} boiling water reactors, the core begins to uncover extremely rapidly and that means in about thirty - three (33) minutes and core melt would start at about seventy minutes (70 minutes) - after the core melts and slumps the vessel will be breached in about 30 minutes The CLWG results, therefore, lead one to conclude that Mark I failure within the first few hours following core melt would appear rather likely." Welcome to hell. Obviously this applies to all Mark I's cited not just Oyster Creek. Read all about it in NUREG-1079. CLWG = Containment Loads Working Group and to quote NUREG-1079, "The group is composed of expert analysts from Battelle Columbus Laboratories (BCL), Brookhaven National Laboratory (BNL), Los Alamos National Laboratory (LANL), Oak Ridge National Laboratory (ORNL), Sandia National Laboratory (SNL), Perdue University, University of Wisconsin, Factory Mutual Research Corporation, (FIRC), and includes staff from the NRC'S offices of Research and

N.B.

Regulation. I say this, to avoid NRC from trying to dismiss NUREG-1079, in the way I once saw some young staffers trying to downplay one of the other most important reports ever done on the issue of fatalities in case of a meltdown and release to air. Oyster Creek fatalities from a major meltdown equalled 13,000 in 1980 population zone. Hope Creek: all issues pertaining to Mark 1's apply also to Hope Creek so I will not repeat them. Further, Hope Creek shares the same area, I believe some would say the same incredible area as Salem Nuclear Plants 1&2 - incredible because it is my understanding both are on an artificial island of construction fill, in tidal marshes on the Delaware River. As that seems to be the case from what I've read, whoever approved the reactors be built there should be shipped to the site and be required to live there, while helping to dismantle both Hope Creek and Salem. I mean, that was criminal negligence or close to it. Hope Creek uses a system of natural draft cooling towers which spew (radioactive) salt spray (it uses the Delaware River for cooling water) over the surrounding area which damages the environment/crops and so forth to a good distance from the plant, as they release drift and moisture high into the atmosphere. Breathing in radioactive salt mist would be particularly injurious to pregnant women infants, children and the elderly, and due to Hope Creek's proximity to Salem, the salt drift will have mixed with the noble gases and radioactive particulate matter from Salem also. It is also an area of farms and agriculture which are affected as it is a matter of scientific fact that salinity increases in soil, affect crops as does deposition onto them and can reduce yield. Area crops and vegetation should be tested for damage (no, surveys by air don't get it, unless its to pick up the radioactive signature) from salt and radioactive contamination as well as chromosomal aberrations in livestock and wildlife, and estuarine life, including marsh birds/wildfowl and fish. Hope Creek, like Salem, dumps to the Delaware estuary/Delaware River, as has been established for decades, radiation causes genetic damage from generation to generation, which can result in species extinction or the extinction of a particular line (including in humans....) the consequences of dumping radioactive crud to the Delaware can not be underestimated, and in the event of meltdown, -you know, the Class 9 accident NRC keeps saying is "not credible" to me, to which I always respond that I find it INCREDIBLE than NRC says its not credible - meltdown at Hope Creek or Salem, the consequences would be the death of the Delaware River, end of story. Not to mention the thousands upon thousands of dead- for Salem 100,000 with 1980 figures..... for Hope Creek alone as I have no figures, I'm using a comparison with Browns Ferry as its similar Mwe, and one unit's estimated deaths, 1980 figures again, which were 18,000, but it was in a less populated area - of course those figures didn't include spent fuel pool meltdown figures, which become mindboggling, worst case scenario for a boiling water reactor spent fuel pool, full pool, accident 0-500 mile distance is 101 immediate dead and 138,000 latent fatalities, with 2170 square miles of condemned land. For a pressurized water reactor, same scenario, it's 95 prompt fatalities and 143,000 latent fatalities and 2790 square miles condemned land. NOW, AS SALEM IS ON THE SAME SITE, MORE OR LESS AS HOPE CREEK, ONE CAN SAFELY SAY THAT A CATASTROPHIC ACCIDENT (OR ATTACK, GOD FORBID) WOULD AFFECT ALL REACTORS IN SOME WAY. IF NRC HAS ANY IMAGINATION -(WHICH I OFTEN DOUBT I.E. I DOUBT IT HAS CONSCIENCE, OR IMAGINATION) - WITH POPULATION INCREASES SINCE 1980 THE DEATH, INJURY AND ENVIRONMENTAL RUIN WHICH WOULD OCCUR, WOULD BE A CATASTROPHE OF IMMENSE AND HORRIBLE PROPORTIONS, THEREFORE HOPE CREEK (AND SALEM) MUST BE SHUT DOWN FOREVER NOW. Hope Creek's problems are documented on the Docket to a large extent. Oh- by the way- if the screw up with the control room pressure situation had actually had over 1000 cubic feet a minute of unfiltered, radioactive air streaming in, control room personnel could have been fatally injured. However, as under NRC regulations nuclear workers are not considered "members of the public" then the industry can irradiate the hell out of them - after all, most of the damage won't show up for years, or until the next generation, so the industry doesn't care. If it cared about worker and public health, they wouldn't be in the nuclear business. I'm going to briefly (1) go to a PWR, Salem, as it's on the same site as Hope Creek, to cite other bases not yet mentioned for Salem.

Salem: When a whole group of people mess up so royally, that they twice verify a rod position IN THE WRONG DAMN REACTOR - there's a problem (which I admit they

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did note and said they'd make sure it didn't happen again) which doesn't go away, the problem is this; had it been an emergency, it took from 8.21 am to past 8.30 pm to realize it, and two checks. There also seems to be a problem with dealing with real emergencies, as well as an apparent cover up concerning the contamination of groundwater at Salem 1 concerning tritium. In an event report for 7/25/2003, it said there was a "spill" of radioactive material discovered February 6th 2003 and keep saying that they can't determine if it's an existing or historic condition, however on the PNO "Subject : Elevated levels of tritium in groundwater" it turns out that in actual fact since SEPTEMBER 2002 they'd identified contaminated water leakage from the Unit 1 Fuel Handling Building into the 78' elevation of Unit 1 Auxiliary building and it all came from clogged drain lines for the Unit 1 SPENT FUEL POOL LINER LEAKAGE COLLECTION SYSTEM. So, this could well have gone on for years, or at least from not long after you all discovered THE SPENT FUEL POOL WAS LEAKING, i.e. the liner was leaking. First, there is no way this side of hell that it only contains tritium, - coming from that source. Second, is the NRC (and the State of New Jersey who was, it seems informed) out of its mind to continue to allow a dump to keep operating with a leaking spent fuel pool liner? Tritium can't be contained, when it's out it's out. It will be migrating everywhere. The fact that it was found to a depth of 20 feet is bad news. It will eventually migrate into the Delaware River, as the groundwater pathway is to the estuary, then the bay/river and then the Atlantic Ocean, what makes it worse, is that NRC knows that due to the complexity of ocean and estuarine sites and the food pathways and a lot more besides, interdicting the pathways is not sufficient, but food (shellfish etc.) may need/will need to be restricted from consumption. The fact is, that not only do the pathways need blocking, but the groundwater needs pumping out so it does not reach the estuary. All the associated soil will need removing. Obviously no more spent fuel can be stuck in the spent fuel pool to begin its thousands of years of "cooldown!" keeping the reactor going generates more spent fuel, so shut it down forever. End of story. As Unit I and Unit II have multiple problems on the Dockets, and due to the fact that the entire Delaware Bay is being affected by them, (and Hope Creek), not only dumping radioactive effluents which also contain particulates to the estuary and bay, and due to the fact that vast amounts of micro-organisms, small fish and all manner of sea creatures are sucked into the reactor systems and creamed as they pass the entraining systems, this affects the total catch for fishermen and women, as well as contaminates anything eating/swimming in the radioactive discharges. As radiation exposure affects fertility, this too can contribute to species decline. Bottom-feeders are particularly at risk due to contaminants such as Cobalt-60 in sediment. Now the NRC takes an appalling, totally unscientific stand concerning radiological impacts to fish and wildlife, as does the EPA, namely this : "...the NRC staff position is that maintaining doses to the public within the established limits (i.e. the ones NRC, ICRP and others made up) also provides protection to other species. This is consistent with the position expressed by EPA when it promulgated 40 CFR 190. Specifically, the discussion in support of 40 CFR 190 (see 40 FR 23420) includes the following statement : Standards developed on this basis (use of a linear non-threshold dose-effect relationship for humans) are believed to also protect the overall ecosystem, since there is no evidence that there is ~~any~~ any biological species sensitive enough to warrant a greater level of protection than that adequate for man." (This is from a letter to the Dept. of the Interior from NRC.) That is a bunch of hogwash. A blatant lie, to make out that there isn't any other biological species sensitive enough to warrant more protection than man. First of all, the Regulation is about 29 years old and does not reflect all the advances in scientific knowledge, as well as the fact that it was wrong then, as it's wrong now. It has been known for over 50 years that radiation exposure not only kills birds, for example, but reduces their fertility, causes everything from weight loss to radiation sickness and kills the embryos in the eggs. Due to bioaccumulation up the food chain, known for 50 years, from birds drinking contaminated water, eating contaminated seeds/grasses/insects etc. not only do birds carry the contamination in their bones and other organs as far as other countries, (or up the eastern seaboard after overwintering in contaminated effluent ponds) they drop radioactive excreta as they go (just as workers in nuclear facilities pass contaminated feces) and when they die, they leave behind a radioactive "puddle"

if you will, which can be detected with instruments. Small mammals suffer great agony and die in grim ways at exposures far below what humans may be exposed to. Put a rabbit next to an unshielded 20 Curie Cobalt-60 source and a person also, and I guarantee it'll take the rabbit less than three minutes to die, and the person about five minutes longer. The fact of the matter is, that millions of animals were killed by mentally ill so-called "researchers" or "scientists" who had less compassion than Attila the Hun, in order to find out if radiation kills or harms them, and those bastards are still at it today, all under the guise of science. I have read enough "research" papers by these killers. I cannot believe NRC staff haven't also. The papers are positively Orwellian, and use phrases like "sacrificed" instead of "killed". It's a cult of insanity not just the famous Cult of the Atom. Deer foraging on feed contaminated with cesium-137, tritium, radioactive iodine etc., are going to die from that combination of cancerous tumors and suppressed immune system, in the same pain as their human counterparts - only minus the medical attention. The deformed fish and shellfish downstream from nuclear facilities are legendary, the frogs with chromosomal aberrations, the contaminated shellfish - let me inform the NRC, It's not a question of some dose that got made up by a bunch of charlatans and considered "allowable", it's a basic fact that Cobalt-60 for example, is not a natural constituent of shellfish, or strontium-90 not a natural constituent of fish. But it's there, at every single nuclear facility that sort of thing is measured in aquatic resources and crops. How about telling people that if they peel the potatoes it might lower the plutonium? Been there, studied that. Everything NRC is allowing is migrating up the food chain, so the next time someone who lives near Salem, or Oyster Creek, comes down with bone cancer isn't it time NRC said "Well, it was caused in all likelihood by the strontium-90 in the air you breathe and the food you eat that migrated to the bone to displace calcium, because it thinks it's calcium, and it has irradiated the hell out of you." You know, take a hit for the team. The U.S. Fish and Wildlife know that billions of fish get killed, and endangered sea turtles and even seals get sucked into the intakes and killed at plants, yet they have no guts and won't stand up and hold a press conference about it. FDA knows the food is contaminated but again, won't say a word. Isn't there a single person within the NRC who will stand up and say: "Enough, even though it is nowhere defined in regulations exactly WHAT our favorite phrase 'protecting the health and welfare of the public' means, we are not protecting the public by allowing this killer industry to keep contaminating everything in sight, something which, unlike chemicals, cannot be rendered harmless, neutralized, burned, diluted, (that just spreads it around), but must decay back to its stable state in some cases taking millions of years, so therefore we are going to stop it, we are going to initiate shutdown."

All this applies to all facilities here named (plus all nation and worldwide) of course. NRC can no longer hide behind outdated, faulty science and regulations. Back to the issue of contaminated foodstuffs going up the food chain - here's a little 44 year old quote "Because the omnivorous diet of passerine birds is ecologically comparable to the mixed diet of man, uptake of radionuclides by wild birds provides an assay of amounts to be expected at the trophic level of primary interest to man." (from a study partly funded by NRC/DOE forerunner, the Atomic Energy Commission) Because the AEC was secretly having the bones and tissues of dead children and fetuses from all over the world tested for radioactivity, they were doing comparisons of, for example, what was found in birds, to what was found in the bones of children 0-3 in the Northern Hemisphere from Strontium-90 fallout from nuclear tests - and may I remind NRC again, that's the same fallout from nuclear plants. In case NRC is interested, the levels increase according to the seasons, due to variable items in the diet.

Further, in regard to the Tritium contamination at Salem, tritium is cycled through trees and results in a higher concentration of tritiated water vapour in the air at breathing height, and in the nighttime the concentrations are higher when air movement under tree canopies are slower, the consequence is, that exposure levels are actually far higher than just calculating by usual models used for predicting concentrations in air - this has been established since thirty years. It is all through the soil/water root/leaf uptake. Of course it goes on and on, it is a constant exposure. So any wooded areas on site would be affected. Of course offsite, around EVERY nuclear plant the same thing happens in the woods and trees from the tritium released from the plants

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so, for example at Oyster Creek, the 9.61 Curies of tritium released/measured at an elevated level at Oyster Creek during the month of July 2004 alone will be cycling its way through vegetation - and children - across the neighborhood. 'Shutting down nuclear plants results in an immediate decrease in airborne releases, so obviously a plant such as Oyster Creek, or Salem or Hope Creek in populated areas must be shutdown. Due to the beach and lighthouse near Oyster Creek, the tourist, potentially irradiated while strolling the beach should at least be warned too via large signs. (And in case anyone at NRC is even THINKING of coming up with some ridiculous response equating solar radiation with effects of man made fission and activation products on the body-drop the thoughts.) Back to Hope Creek again: if, after all these years, procedures regarding the travelling screens aren't even done, so this safety-related equipment fails, firstly the company is obviously unfit to operate a nuclear plant and, second, how many other events happen that don't get reported which are safety related? Such as issues related to the core shroud?

Back to Salem I and II - they are special circumstance reactors because of a) the earlier mentioned number of deaths which would occur in event of a catastrophe, which is in part because the location is such that major cities would be affected in three states, possibly also including Washington, DC as well if the wind path happened to go that way, as well as both the Delaware and Chesapeake Bays, the first via direct discharge and airborne deposition, the second via airborne deposition, along with other areas which are drinking water sources. b) If there were a core melt/groundwater interaction, fire/explosion, in a worst case scenario, it could affect Hope Creek say via a turbine missile crashing into Hope Creek's spent fuel pool, through the roof - after all, I believe one chunk once wound up in the parking lot. (FROM SALEM)

James A. Fitzpatrick : Other than the usual aforementioned issues affecting all such lemons, the spent fuel pool is full and it's "stuff-the-deadly-stuff-outside" time. They had problems with the casks at Fitzpatrick - so they're "modified!" That alone should determine shutdown. It's on the Great Lakes, i.e. Lake Ontario, so it hauls millions of gallons a month out of the Lake and the percentage it returns is full of various chemicals and radioactive contaminants, as at all plants. Of course, it does its share of killing goodness knows how many million fish fry and other aquatic species yearly contributing to the decline of fish in the Lakes. In case of severe accident, kiss Lake Ontario goodbye, not to mention the contamination ultimately moving to the St. Lawrence River affecting Montreal and Quebec en route. Plus the airbornes all over Syracuse. Similar applies to Nine Mile Point as it is basically on the same site, plus it would affect the confined aquifer as well. Both Fitzpatrick and Nine Mile Point have numerous problems on the dockets. Due to the age of Nine Mile Point I aging and embrittlement issues are of great concern. As both Fitzpatrick and Nine Mile Point are in such close proximity, again an accident at one could have consequences for the others. This site would be ideal for wind energy around it instead of the nuclear plants. Even area farmers could be paid to locate a wind turbine or two on their land to feed into the grid. Obviously one cannot put anything ON the sites, as the ground and groundwater is contaminated from the plants, hence I say "around". The confined aquifer is probably already contaminated and should be tested at Nine Mile Point. Same applies to wells near Fitzpatrick.

Peach Bottom: The usual aforementioned issues applicable to GE Mark I lemons apply.

Because of the appalling way many plants got licensed - i.e. BEFORE plants were licensed (following the formula for early radio licensing laws - hence the term "licensing") a pathetic Safety Analysis Report was submitted to the Atomic Energy Commission, usually so bad, the AEC had little specific knowledge about the kind of equipment in the plants that staff used to refer to engineering drawings they received as "cartoons" according to Daniel Ford in "Meltdown - the Secret Papers of the Atomic Energy Commission", but they were licensed anyway - serious safety issues were not addressed prior to startup in many cases, such as the issue of cable separation and real fire barriers (which would not also catch fire) between cables. Peach Bottom had a major fire in the cable system. It is doubtful all the cable was redone plant-wide with proper fire barriers between. (And I don't mean with that stuff called Thermolag.

It is possible the fire safety issues were never addressed. Peach Bottom receives water from - and dumps to - Conowingo Pond, which is a reservoir, part of the Susquehanna River, in event of catastrophe, it will affect the river, then go to Delaware Bay and of course the Atlantic. The Amish will be ruined, as it's not far from Lancaster Pa. As Peach Bottom I was shutdown and II and III remain, the cable/fire issue remains, plus NRC might as well shut them so they too can sit and radiate quietly millions of Curies from reactor components, corrosion products and such, three radioactive monkeys in a row, Evil I, II, III. It really is obscene to call it SAFSTOR. How many more years to go ? 100 ? 1000 ? 1000000? How secure are the plants "decommissioning" funds ? The bottom of the 5,000 foot discharge canal to Conowingo Pond's contamination may affect groundwater. Also, entrainment/impingement of American shad at the plants has been reported to be a possible problem. Plus, there are cracks in shroud support access hole cover welds.

Three Mile Island This is a special circumstance reactor situation, but as it also dumps to the Susquehanna/Delaware/Bay area like Peach Bottom I'm putting it here. First of all, the TMI II actually caused terrible damage when it had its accident. The increase in thyroid cancers is now becoming apparent. The agonizing deaths suffered by many animals/family pets left behind during evacuation and found on their owners return, the birds that were killed by the thousands, so deep were the carcasses farmers ploughed them under, the terrible, long lingering deaths suffered by area residents who were suffused by the clouds vented, collapsing incapacitated, are all on record, thanks to interviews conducted by outside journalists and health professionals who went door to door gathering information afterwards. Survivors are still plagued by a strange metallic taste that happens whenever additional venting occurred/occurs. Releases were not only estimated, not measured, the way the whole catastrophe was handled and has been handled since is a disgrace. In particular the downplaying of effects. Truly criminal is the fact that the surrounding area that was heavily dumped on was never "cleaned up", nor were the ecological consequences such as the contaminated trees, deformities in vegetation and wildlife, absence of ANY birds for a long period from certain areas, ever rectified. Furthermore, the contamination of the island itself that the reactors sit on, has not been addressed, nor contaminated sediment, runoff, vegetation and probably anyone working there. To continue to operate TMI I next to TMI II, exposing workers to higher radiation from the crippled, ruined unit, as well as the operating one is a disgrace. The fact of the matter is this : after the massive investigations after the TMI accident showed that massive deficiencies also existed at NRC, re: licensing and safety review processes, there was an Action Plan developed, which even the NRC's Inspector General James Cummings, and his office, who audited its implementation said that "... we do not believe that the same commitment exists within the Agency to implement the Action Plan as existed to prepare it." and went on about how there was no system for managing implementation of the Action Plan. Further, a stupid point system in it allocated points in a manner that safety considerations are subordinated to many other considerations such as time and money, so quick fixes are often done. One can see this same mentality in license renewals being given to aged plants by NRC, where the entire plant Docket is not even read first, and serious concerns are ignored if costs are too high. Because all the problems with TMI have not been resolved, the other Unit should be shutdown. Sticking safety valves are still issues nationwide. Furthermore, NRC needs to fully disclose everything they vented out in the years following the accident, and now. It is cruel to put people through this awful suffering again - the flare ups - and again that was initially caused by TMI. Also the fine "snow" that fell on peoples yards, cars etc. I assume NRC tested it (between running around telling people they didn't see it) and that should be disclosed as to its contents. Someone had taken all the filters out and forgot to put them back in, so the amount of Iodines that got released is sure to be far higher - one doctor attributed the metallic taste perhaps to that. Here is how one of hundreds of animals died : Told by a family that evacuated the TMI area approx. Friday pm for seven days "We had a four year old male German shepherd. He was healthy when we left. He knew how to take care of himself because

N.B. we go to Florida every winter normally, and he would stay in the garage. We had food prepared. We had 200 pounds of Purina Dog Chow separated out in boxes. I had ten five gallon cans of water that he always used. Same cans he ever used. (This is a direct transcript I'm making.) And, we left a window cracked in the garage, and he had a mattress in the back. WHEN WE CAME BACK HE WAS LAYING ON HIS MATTRESS DEAD. AND HIS EYES WERE BURNT WHITE. BOTH EYES WERE BURNT WHITE. he didn't eat no food, hardly any food. He drank a whole five gallon can of water, and he threw it up all over the garage. He was dead a lot more than a day. We walked in, we were sick. And you could still taste this like a burning galvanized steel, metal. It made you half sick. WE HAD FIVE CATS OUT IN BACK. AND FOUR OF THEM WERE LYING DEAD WITH THEIR EYES BURET OUT, BURNT WHITE LIKE THEY WERE, JUST LIKE THEY WERE BURNT BAD YOU KNOW....."

I can't continue to copy the transcript, because it makes me want to slap every single nuclear pusher, including the entire NRC - and I am a pacifist, as is well documented. Suffice to say, the entire family suffered subsequent health problems. Shutdown TMI I. Stop venting TMI - if you have to vent due to the possibility of explosion, inform everyone in a 20 mile radius in advance.

Vermont Yankee: Same issues as affect all nuclear lemons of this type mentioned earlier. Vermont Yankee already has far too much deadly spent fuel on site, done reracking of it and so on, plus has long gone to increased burnup which increases fission products and transuranic -waste concentrations in plant waste streams. This has put the workers, the public and the environment at higher risk. On top of that, Vermont Yankee also uses its spent fuel pool for interim storage of reactor components. Contamination of the Connecticut River sediment and fish is an issue.

Pilgrim I : Same issues as affect all nuclear lemons of this type gone into earlier. Effects on Cape Cod Bay from dumping the radioactive/chemical effluent not only affect fish and shellfish, but contaminate the bottom of the bay. It has been established elsewhere, that radioactive contaminants enter the salt spray at ocean sites and lead to an extra avenue of contamination via inhalation and skin deposition, plus, the beach nearby/bay edge is likely contaminated as well as shellfish/crustaceans which cling to rocks, and also seaweeds, and bioaccumulate the radioactivity. These areas may need posting to keep children in particular away. The amount of deaths in case of a serious accident was calculated at only 3,000, with peak early injuries of 30,000 in a sixty-five mile radius - but that was population figures from 1982. Again, if the spent fuel pool goes with its reracking, as well, the numbers become horrible. It's right near Plymouth, Mass. which is really sickening, only four miles. They're being irradiated 24/7. Nothing like breathing all that tritium in with the salt air. And radioactive iodine. Etc. Etc. Maybe if they're lucky, a snippet of plutonium, or cobalt-60. Shut it down: I nearly forgot - anymore nuclear plant operators fallen asleep on the job lately? Shut it down before they do. What about the standby gas treatment system being inoperable due to the pneumatic accumulator leakage rate and installed instrumentation not providing sufficient leak rate accuracy.

Quad Cities : Same issues as affect all nuclear lemons of this type mentioned before. Was the damage caused by leaving an entire welders outfit INSIDE Unit II fixed properly? While I am fully aware, that the NRC has decided lately that an accident involving a meltdown with a major release to air is "not credible" - which I find INCREDIBLE, as I told NRC, NRC, Sandia Labs and specialists working for Congress found it extremely credible, if not likely, years ago and therefore proper estimates were made of consequences. for Quad Cities, dead was estimated at 12,000 a unit and the early injuries at 41,000 - but that was over two decades ago. Again, it didn't include spent fuel pool consequences (i.e. a meltdown there too) . This nuclear waste generating station (which is what all reactors are) is on the Mississippi River, contaminating it by its discharges - but in even ~~in~~ the aforementioned type of accident, the contamination of the Mississippi would be terrible, and would go to the Gulf of Mexico ultimately. And what about the cracked core shroud? Just 18 inches below the bottom of the fuel, a 360 degree crack.

Fermi II: As the potential for control rod guide tube collapse at Fermi II was not addressed, but shoved under the famous "generic" (i.e. we'll just postpone the issue) rug, the dump should be shutdown, in particular coupled with all problems associated with these nuclear lemons as described before. A major accident at Fermi would contaminate two of the Great Lakes for starters - this means millions of people and their livelihood - as well as deposit on land. The idiot statements by NRC peons concerning dealing with the issue of lake contamination which include the obvious like basically impounding all fisheries, all drinking water, and so on completely ignores the absolute catastrophe - the ruin of Lake Erie and Lake Ontario, - that would result. Further, Lake Huron would also get airborne deposition, and possibly Lake Michigan too. It borders criminal negligence to allow a Mark I in particular to be on the Great Lakes, period.

In the event of a meltdown, as Detroit is only about 30 miles away, how fast does NRC and Fema think they can evacuate Detroit? Got any spare helicopters at the ready loaded up with slings and buckets containing sand, lead, cement and all the other goodies that would have to be dumped on top of such a melting behemoth to try and limit airbornes etc.? Have the pilots been briefed that the overflights will wind up killing them? Didn't think so.....

Cooper I: problems with these nuclear lemons as described before, plus, this dump is on the Missouri, so if it has a serious accident or meltdown, with large discharges to the Missouri River, it will affect Kansas City and St. Louis Missouri before it dumps such a radioactive cargo into the Mississippi after leaving Nebraska where it's located. Wind could take airbornes also across Iowa, and I hate to think what it would do to the farm economy in the parts of Iowa, (or Kansas, or Missouri, or Nebraska) when a) farmers get that mandated warning to go out and COVER THEIR CROPS, put animals inside on stored feed and water and, then all crops get impounded. Of course if FDA's ghastly allowable levels are instituted and the notorious ICRP gets its wish (along with NRC) to increase allowable levels after a disaster involving radiation (so the industry doesn't have to worry so much) the cereal producers might as well have a bunch of packages at the ready bearing a little radioactive symbol and the message "we have been assured by the powers that be, that munching cesium-137 and plutonium and a laundry list of other deadly radioactive contaminants, is not only no immediate problem but will ultimately cure you of your will to live." - Furthermore, the local populace may not agree with NRC that the Missouri River got classified as a "small river", and due to the fact that a) contrary to NRC and others view that dilution is a solution to pollution, radioactive contaminants bioaccumulate up the food chain, so effects are magnified from the smallest aquatic plants and creatures up through fish and so on. (Of course lots of this also applies to another nuclear dump further ~~down~~ the river, Ft. Calhoun right next to a National Wildlife Refuge which will be exposed to airborne emissions from it). Now a one mile zone around Cooper, has been declared by NRC in its inimitable, horrid fashion as being a "low population zone" BUT the nearest town, Nemaha is a mile south. At that one mile imaginary line around Cooper, if someone is standing with one foot on one side of it and one foot on the other, what classification do they fall into? Which group of criminally negligent bureaucrats allowed this plant to be basically on top of a town which wouldn't stand a hope in hell in case of a catastrophe? Considering Coopers record they are lucky to be alive as it is. I mean, how fortunate to have people on duty who happened to remember what to do when they had those recent reactor scrams and High Pressure Coolant Injection screw-ups. What's going on with those reactor low water level alarms? There are problems with a reactor feedwater pump - that's not good. What is the condition of all the pumps? What is the turbine vibration problem?

Duane Arnold: same problems as associated with such nuclear lemons as described earlier, plus, this dump discharges its radioactive and chemically contaminated water via a canal to the Cedar River, so the ground/area beneath the canal is probably also radioactively contaminated. In event of accident, the liquid contamination pathway is both to the Pleistocene-Holocene aquifers and toward Cedar River AND towards the town of Cedar Rapids groundwater resources. Of course the Cedar River goes to the Iowa and Mississippi Rivers. Now, apart from the millions of gallons of cooling water required per month, it uses approx. 38 Million gallons per day of river water as cooling tower make-up water during normal river flow conditions, in dry spells they pull water from a standby reservoir on a tributary to the river - of course they always must have cooling water, as even a shutdown plant requires the water to prevent the nuclear fuel in the reactor core from melting down, and the pools containing deadly spent fuel rods must also be cooled or they'll wind up melting down, so in a drought it's farmers and the public be damned, they can go buy bottled water from somewhere else as preventing a meltdown is not negotiable - plus, Duane Arnold is allowed to further deplete area water resources by being permitted by some state agency that calls itself a protector of the environment to withdraw a further 3,000 gallons a minute (4,320,000 gallons a day) of groundwater for potable and service water systems. Due to airborne contaminants settling on the ground and the usual spills and leaks, it is possible that the groundwater/those aquifers may be contaminated already. The effect of groundwater usage in any case can deplete other area wells and this is a very serious issue.

Duane Arnold has also experienced the need to manually scram the reactor due to degrading condenser vacuum and to make a long story short the cause turned out to be a failed seam weld between the condenser loop seal top plate and the condenser shell and the seam failed because it was inadequate to provide structural support and long term sealing. IT WAS ESTABLISHED THAT THE WELD HAD ORIGINALLY BEEN INSTALLED WRONGLY, it was not a full penetration weld but a filled weld, also the weld material was eroding. In how many other areas and welds is there the same problem? The licensee only committed to inspecting "selected" shell seam welds. The place is so old, due to the effects of aging and embrittlement and so on due to radiation it should be shutdown before some welds fail which could have more disastrous consequences than this could have, and Iowa winds up becoming the mid-west's first radioactive farm wasteland. It's an outrage that a nuclear power plant spewing tritium and other contaminants onto the crops 24/7 should be situated in an agricultural area anyway - for that reason alone it should be shutdown.

Furthermore, the notorious historical problems involving the core spray pipe break detection system at Duane Arnold, (and perhaps at other BWR's) and the Rube Goldberg type way the situation was fixed may well be in a shambles by now and all bears rechecking. Many people may not know WHY the technical specifications were changed or even that they were changed to reflect a revised alarm setpoint.

Dresden: To refresh the NRC's memory let us remember it started out as the Atomic Energy Commission, then became ERDA/DOE and NRC. Little actually changed, except DOE gets to do all the completely insane things, like nuclear weapons and plutonium pit manufacturing and contaminating vast stretches of the nation even worse than NRC licensees do by far (but do not fret, that may change with NRC licensing the terrible Mixed Oxide Fuel Manufacturing facility on the Savannah River Nuclear Site which belongs to DOE, the so-called MOX site -also known as the Mother Of eXtermination site)- but I digress as usual....) when Dresden (and Indian Point and Browns Ferry) applications came before the Advisory Committee On Reactor Safeguards (ACRS) according to Daniel Ford of the Union of Concerned Scientists (back when UCS was a real force to be reckoned with) the ACRS members debated behind closed doors whether they should write to the Atomic Energy Commission to possibly "call a halt" to the huge increase in the size of reactors, in part because the A.E.C. had been dishing out construction permits when many safety questions were unresolved and most of those problems were still not resolved, and there were many issues that had never been addressed of a very serious nature. Suffice to say ACRS generally had the spine of an

oyster.... and even when ACRS pushed a range of corrective measures to deal with reactor safety problems, few of its suggestions were acted upon by AEC/NRC due to the expense they may cause industry. The whole sorry mess that followed is the basis of reactors built since Dresden etc. and of course include Dresden. The Dresden plants, being BWR Mark 1 suffer from the same problems listed earlier about these nuclear lemons, and the Docket speaks for itself. For example, Dresden 3 has "severe cracked H-5 welds" (NRC) and they are located (like at Quad Cities) 18 inches below the bottom of the fuel, in the heat affected zone, a 360 degree circumferential crack. So far NRC has done what the old AEC boys would have been proud of, i.e. talked the hind leg off a donkey concerning this issue, even developing a "probabilistic safety perspective regarding shroud separation at the lower elevation" which shows they believe "a large rupture of either a steam or recirculation line would have to occur to generate loads sufficiently large enough to move the shroud" - which by the way would not only laterally displace, or tip the shroud affecting the ability to insert control rods, and a crack could allow leakage through the shroud and out the pipe - and then these twits say that "probabilistic risk assessments categorize such ruptures to be of low probability and none has ever actually occurred at an operating nuclear plant." - You don't say ! - then the twits go on to say "Therefore, the unlikely occurrence of a 360 nearly through-wall crack along with a large pipe break would be necessary to pose any incremental risk". Say what ????...they've ALREADY GOT the 360 degree crack that's almost an inch deepfurthermore, there were numerous crack indications in the heat affected zone of weld H-3. How about SHUTDOWN of the bloody thing.

Now Dresden hauls water in via a canal from the Kankakee River and it dumps its radioactive and chemically contaminated water via a canal to a lake - a so called cooling lake covering 1275 acres - the water then divides, some going to the Illinois River some returns to the plant.. The lake is large enough for any waterfowl using it to become contaminated of course, plus the sediment in the lake bottom is likely contaminated also. Furthermore, another nuclear dump downstream, Braidwood, had to once cease withdrawing water from the Kankakee due to drought - because the flow of the river was below the level at which makeup withdrawals were permitted. It is obvious the same thing could have happened or may happen at Dresden. Back to the cooling lake for a moment - I would remind NRC that the fission and activation products that can be found in discharges, are not normal constituents of birds/waterfowl/wild-life, and that wherever they go/fly they drop radioactive excreta. when they die, their little radioactive skeletons leave a little radioactive "puddle" on the land which remains a "hot spot" for up to hundreds of years. Hunters can be eating radioactive ducks and not know it - and don't respond with that made up "dose" issue - doses are guesswork and not only that but a guess at the amount of damage done to the tissue, the damage is done, period. The radiation promoters/industry's attitude of "it's a low dose only" as compared to a "high dose", is equivalent to telling a man that he should not complain about loosing his hand, as it would be a small injury as compared to loosing both arms. Old Boiling water reactors also release very high amounts of tritium (radioactive hydrogen) which enters every cell in the body, irradiating it, and crosses the placenta to irradiate and damage the unborn in subtle or overt ways, including killing the unborn. Dresden 2 and 3 are both old clunkers, spewing radioactive crud. The city of Chicago would be in the windpath of a meltdown with major release to air, as it is approx. 50 miles away. The city could not be evacuated and any pronouncements to the contrary are a lie. A twenty five mile an hour wind would cause fallout to reach Chicago within two hours. A catastrophic accident at one plant would probably lead to similar at the other as any worker with half a brain would realize they were going to be irradiated from the accident at the other plant, and would probably shut down the one not yet affected and put what they could on "autopilot" so to speak, and get out and take their family as far away as possible. A meltdown would have the groundwater contaminating consequences of hitting the Pleistocene aquifer, the Illinois river, then the Mississippi. We are speaking of millions of people contaminated, vast natural resources ruined.

At Monticello, the loose oil drain plug problems, which could have led to the high pressure coolant injection system (HPCI) to be non-functional, when the HPCI is needed to assure the reactor core is cooled to limit fuel clad temperature in the event of a small break in the reactor coolant system etc. etc. is outrageous, as is the lousy training of personnel.

Monticello: The fallout from this dump contaminates the grass on which the dairy cattle feed leading to the cow-milk-child pathway, even more than normally such nuclear dumps contaminate, because it was criminally located in the middle of agricultural and dairy farming areas, a key reason why it should be shutdown - besides there are State Parks and a National Wildlife Refuge all within the "kill zone" of ten miles - as well as the town itself. Then of course, there is Minneapolis furthermore, all the same reasons concerning nuclear plants of this type as stated earlier apply. Monticello uses an intake canal to draw in water and aquatic creatures and organisms from the Mississippi River as part of plant operation - of course the creatures are creamed in the intake and the cooling water (to simultaneously cool the reactor while the atom is being split and generating the incredible heat from that process which becomes steam to drive the turbines) is eventually discharged (I should say some of it is discharged, i.e. the portion not "consumed") to the discharge canal, but it is now a) warm water due to the radioactive decay heat and b) contains chemical/radioactive/metal contaminants. Other aquatic species make their way into discharge canals as they like the warm water in winter in particular. (They don't know they are being contaminated too). If a Plant has to shutdown for some reason, cold shock can occur, this kills the species outright - as opposed to the slow death from contamination - and this has been a problem at Monticello. However, if a plant is shutdown awhile, and then restarts, heavy metals have built up inside it as stagnant water has come in contact with metal structures for extended periods, and these heavy metals are then discharged at high levels - the buildup in the discharge canal is likely very high, as well as where it dumps into the Mississippi, in particular in sediment. The combination of radioactive and chemical/heavy metal contamination is probably very high due to the age of the plant and long operation. The obscenity of putting a nuclear plant towards the headwaters area of the Mississippi River, which contaminates the river with radioactive, chemical and heavy metal effluent at this early stage of America's great river, must make Native Americans, early settlers and Mark Twain turn in their graves - Oh, the shame of it all.

A meltdown at Monticello would hit alluvium and then the Mississippi headwaters area. There are groundwater resources in the alluvium. It is possible these groundwater resources may already be somewhat contaminated due to fallout from the plant and the usual spills onsite, but a meltdown would be horrendous; Furthermore, since Monticello's primary containment was "inoperable" since construction, decades ago, and no one bloody realized, what else is "inoperable" yet undiscovered? Such incompetence requires shutdown.

Browns Ferry: Same issues as affects all nuclear dumps of this type: as mentioned before, I, II, III.

but multiplied by three. Part of the ghastly TVA system of reactors which dump their radioactive/chemical crud to the Tennessee River via lakes/reservoirs etc. constructed to provide cooling water for the reactors and DOE Death Sites like Oak Ridge, making the Tennessee River a radioactive and chemical stew. Were those reactor water level indicators ever properly fixed? Where are the accurate sets of technical drawings that show how the electrical control system was installed? i.e. the diagrams concerning millions of feet of Class 1E Cables that run the safety systems? Of course, ^{MANY} were burnt in that raging fire that a workman holding a candle started, but I mean all of them, the ones that were reported missing? Were fire barriers (no, not Thermolag), proper fire barriers, put between duplicate cables in all three plants. Were cables separated properly in all three plants? Were sprinkler systems installed? This would apply obviously to all nuclear power plants and research reactors nationwide. Browns Ferry seems determined to immolate itself one way or the other, in particular concerning its ridiculous cooling towers MADE OUT OF WOOD -REPEAT- MADE OUT OF WOOD. In 1986 cooling tower No. 4 burnt DUE TO ELECTRICAL WIRING PROBLEMS. Ten years later to the month (May 1996) cooling tower No. 3 burnt. Redwood cooling towers. How dumb can the AEC/NRC be/have been to allow wooden cooling towers? I believe they must be wet down

weekly. These towers will be/will have been saturated with radioactive effluents in airborne form, when they burned, the smoke will have been full of radioactive contaminants which will have been breathed in by area residents and firemen who responded, as well as workers. Area wildlife will also have been affected. Particles will have settled out onto vegetation and water. All area residents within ten miles should be tested for internal contamination by what would be a laundry list of radioactive contaminants. Workers and firemen also. Which brings me to the issue of first responders : It is criminal negligence to let these smalltown fire departments respond to fires and accidents at a nuclear facility without proper training and the use of Chernobyl-type radiation protection gear, with the full helmet and self-contained breathing equipment. Criminal, because both the licensee and the NRC must know these people will be contaminated and die horrible deaths, just as the thousands involved with Chernobyl did, either at the time, or since. (DO NOT LIE TO ME in any response with the garbage the IAEA gives out on Chernobyl.) One of the fire departments that responded to the 1996 fire was a volunteer fire department (Tanner Volunteer fire dept.) For these reasons alone (vulnerability of local first responders and fire prone-ness of Browns Ferry) the dumps should be shutdown forever. Furthermore, it is a fact that cooling towers and thermal discharges can have serious effects on human health such as cases of microorganisms causing infections of the type Naegleria - and legionnaires disease can also be caused. Naegleria fowleri can enter the nasal passages and cause a rapidly fatal form of encephalitis. Even the name of the county Browns Ferry is located in, Limestone County, should have been a warning to the Bozos who licensed it and the ones who put it there. Contamination goes straight through, and as it sits on weathered limestone /over it, it is likely that water below it, groundwater, is already contaminated from the usual spills and from airborne on-site deposition and particles washed down in rain. A meltdown would affect Wheeler reservoir for starters, and ultimately hit the Ohio and Mississippi. There is no way this could be prevented. Historically, Browns Ferry has a long list of problems and safety violations, Daniel Ford cites NRC as having admitted to that also in testimony before Congress in 1986. The Docket is self-explanatory.

Hatch: I hereby submit my entire comments and written comments on this wart on the face of the state of Georgia, which can be found in NRC's NUREG-1437 Supplement 4, Final Environmental Impact Statement on Edwin Hatch I and II License Renewal Volume, Final Report, Pages A-116, A-117, and pages A-138, A-139, A-140, A-141, A-142, A-143, A-144, A-145, A-146, A-147, A-148, A-149, A-150 (as well as the fact that Hatch contaminated the local aquifer as far back as 1979 and continued deposition from Hatch fallout and other major spills, such as the massive spent fuel pool release accident, will have made the contamination worse). This is Plant Hatch which has contaminated the Altamaha River and sediment to the coast at Darien, Hatch of leaking fuel fame, Hatch of the cracked core shroud, the wiring errors, the junk in the "suppression pool", screw ups of the tie-rod nut locking devices, Hatch of the stove bolt wedged under the alignment tab of the control rod blade guide tube for control rod blade 42-43, Hatch of the deficient valve maintenance oversight reviews, Hatch of the continuous HPCI valve maintenance problems, Hatch where groundwater leakage into the turbine building causes sand to be deposited on the building floor, Hatch where they contaminated the hell out of the place so frequently the licensee just went and upped the threshold for documenting Personnel Contamination Events to 10,000 disintegrations per minute from 3,000 disintegrations per minute - probably because they had so many the year before, they wanted it to look lower, which is of course disgraceful; plus, the way they once transferred radioactive filter resins 130 feet up via a transfer hose read like a Buster Keaton routine. Hatch of the "worker contamination is our middle name" philosophy. Furthermore, NRC itself has allowed the use by the licensee of those terrible, unsafe HOLTEC casks to stuff Hatch's deadly radioactive spent fuel in. I have repeatedly tried to get the NRC to do something about this situation and to take the damned fuel back out of the casks (obviously hauling the entire casks

back up four and a half floors and sticking the contenets back into the spent fuel pool) and then re-examining the welds, as NRC's inspection of the welds was not visual, they just went over the records, furthermore, a nonconforming Holtec cask was also loaded at Dresden with spent fuel. There seems to be a major problem concerning loading of casks with deadly radioactive spent fuel, and then being unable to return them from the pad into a spent fuel pool to resolve problems which can arise, due to the fact that the spent fuel pools are full. This is a major safety issue wherever cask storage is done outside. These casks are supposedly going to be transported to Yucca Mountain, or a similar facility, for placement deep underground, these casks need to be a) checked prior to transport in case of unforeseen problems, and b) HOW are they to be even placed onto a transport vehicle, as they must first be removed from an overpack and put inside a transport cask, or similar; and this must all be done shielded underwater. It would all appear that the utilities are hoping to leave all this deadly spent fuel on site, in casks, nationwide, and walk away from the problem they have created. The result, as we all know, and as even DOE knows, is that they will ultimately meltdown through their casks on site (which is why they were to be placed belowground to begin with, as they will ultimately become the radioactive blob from hell below-ground at Yucca) and contaminate about every major river and ocean site in the United States. For these reasons, there should be no further cask loading at Hatch, or any other location, until all this is resolved, and then only for transport. So, Hatch and every other site with casks must be shutdown. Stop compounding the problem. Obviously, all the same issues that affect nuclear lemons of the Hatch type, as gone into earlier for the other similar plants also apply. Then of course there is the issue of whether or not the parent company actually has the money meant to be set aside for so-called "decomissioning", either for Hatch or any of the other nuclear dumps it owns. Hatch is also depleting the vital Floridan Aquifer at a million gallons a day. Outrageous.

Brunswick: To put a nuclear plant (euphemistically called Brunswick Steam Electric Plant) at a location called Cape Fear, on the Cape Fear River is so macabre, a bunch of drunks must have decided on that location during a Halloween binge. This dump hauls in its millions of gallons of water via a three mile canal from the Cape Fear River; and then dumps to the ~~Atlantic~~ ~~Ocean~~ (the Atlantic Ocean where all the summer visitors come to swim and play while being irradiated by this monstrosity) via a six mile long canal. The water dumped to the ocean is contaminated and it is probable (as has been found elsewhere in the world) that the ocean spray itself is contaminated even with plutonium (and other contaminants) the huge wetlands/marshes estuary around the plant have been contaminated via airborne deposition too. An estimated 66% of fish in the Cape Fear estuary have been destroyed due to the plants (so EPA), which of course destroys fishermens livelihoods and ruins area ecology, not to mention deprives the nation and the world of food high in protein. The shorebirds will also have become contaminated feeding in marshes near the plant and those on the beaches likewise. The crustaceans will be highly contaminated due to their contact with contaminated sediment and water. The base of the discharge canal itself will be contaminated, and that contamination may well have seeped beneath it for miles. Then of course there is the cracked core shroud problem, circumferential and axial cracks. Intergranular stress corrosion cracking. Patching the mess and adding "stiffening braces" was among ideas floated. Pathetic. This is not great grandpas' Model - T car strung about with baling wire to hold it together, Brunswick is a nuclear power facility in case NRC hasn't noticed. Furthermore, there are major problems with the emergency diesel generators, in particular due to mispositioned relay covers and the fact that relay covers had been modified, to provide room for required wiring, and it appears the modification may have been done during plant construction, this all leads to the generators not working. All the degraded conditions were meant to be fixed by March 2005, but the fact remains, all maintainance personell (and each new worker from now until the plant melts down) must constantly be told of the problems and the modifications. If these modifications were made, what other ones were made no one knows about with critical safety importance? I mean, winding up with an emergency diesel generator not working during a hurricane (which happened) due to this mess, is dangerous. On top of this, sections of conduit were found to be not protected by

one hour fire wrap, plus a plant electrical raceway drawing was found to not correctly reflect the as-built conduit configuration. It may be anyone's guess as to how often the situation may exist in other areas no one can see or access easily. In particular as a similar occurrence had been identified elsewhere three years before, which affected safe shutdown capability from outside the Unit II control room. Not good.

This plant is in the middle of Hurricane Alley as it concerns the East Coast. Due to the age, the embrittlement of the plant and the nuclear lemon design, it is tempting fate to leave this dump operating and daily accumulating more deadly radioactive "spent" fuel on site. If a hurricane rips the roof off the spent fuel pool, besides sucking the pool water out, NRC knows as well as I do the staggering death toll from a spent fuel pool meltdown. In case NRC is suffering from amnesia, I would remind NRC that

1 * Browns Ferry Unit III began to head to water boil-off very slowly, as the temperature increased of water in the spent fuel pool over two days, the reasons and the event was not detected by the control room indicators because of a design flaw in the indicators. Good thing that wasn't happening during a hurricane. As it is, what guarantee (other than nuclear industry commitments:....) is there anyway that spent fuel pools at Brunswick, or any other reactor, are truly being checked/walked down and direct measurements also taken of temperature every shift? What additional protective clothing have fuel handlers been given anyway? In case of an earthquake, there is also the possibility at Boiling Water Reactors, that the bottom of the spent fuel pool will just drop out *2

Yes, truly do a "Farewell to the Children and all other living Beings within 500 miles" and if not that, the pool floor will crack and drain. (Am I the only one who reads the studies? Besides the guys who write them?) Time to shut Brunswick forever, guys.

Now we get to those ghastly nuclear behemoths called "ICE CONDENSERS", all of them to follow have the following flaw, a BIG flaw - If ice condensers have a so-called "station blackout" in which all offsite, incoming power to run the systems is lost and the emergency backup diesel generators fail, ice condensers don't just meltdown, THEY EXPLODE, all this detailed in page after page by the Containment Loads Working Group (in Nureg-1079) listed much earlier on in this 2.206 petition. Further, the system wouldn't work anyway. For readers who don't know anything about these pieces of junk, it is possible that whoever designed them came up with the idea after pouring various alcoholic beverages over innumerable glasses of crushed ice. The short form is, that hundreds upon hundreds of massive "baskets" of crushed ice with boron (you know, toxic sodium tetra borate - overexposure can lead to circulatory depression, persistent vomiting and diarrhea, shock) arranged a few floors high, are in the so-called "containment" area, if a pipe breaks in that containment building, the theory is the water against the ice will instantly flash to steam as it goes up through the ice baskets, which would cool it (i.e. cool the radioactive steam) to water supposedly to enable it to be recycled and reinjected. Hasn't occurred to them, that even if that would happen, which on a scale of one to one hundred has a likelihood of resting around one, the water would blow back out through the broken pipe ultimately and all the ice would have melted by then, due to the first go round, and that would be the end of that. At nuclear plants of the ice condenser "containment" type, giant hoses are used to spray crushed ice dusted with boron, at significant pressure into the ice baskets to keep them filled. Persons entering that area wear protective clothes against a) the radiation exposure from regular operations, and b) the cold. In essence, a bunch of crushed ice is meant to protect us from nuclear catastrophe. To look at the design of such an ice-condenser "containment" is frankly frightening, and it is no wonder that years ago, speaking of both ice-condensers and BWR's - so-called "pressure suppression containments" a top AEC/NRC official suggested banning them. One of the ~~many~~ reasons they were not banned had to do with the AEC's terrible practice of issuing and allowing construction permits before all safety issues and safety engineering features had been examined or even considered, so on this point alone, NRC should agree to shutdown of these reactors, if nothing else.

AEC had dished out all these permits before they grasped they had nuclear lemons on hand and then when they did understand the nightmare they didn't want to lose face or stop the nuclear behemoth from rolling ahead. Money, money, money, money, money, money, money. This is

all documented fact.. Now the Tennessee Valley Authority is over some of these ice-condensers. The same Tennessee Valley Authority whose chairman a couple of decades back, was reportedly told by NRC Region 2 Chief Inspector Grace: "If TVA and its nuclear plants were in Japan, you should have committed hara-kiri long ago". (Daniel Ford in "Meltdown - the Secret Papers of the Atomic Energy Commission" quoting a Tennessee newspaper.) Whilst I would not advocate hara kiri, it would seem little has changed when it comes to TVA and the nuclear programs and how plants operate and are run. Let us take the following, concerning the "ICE BABIES". From the report issued by the TVA Office of Inspector General, since prior to the abovementioned "hara-kiri" comment, with managements knowledge, reactor employees at Sequoyah Nuclear Plant (and Watts Bar nuclear plant) have been "initiating" newcomers, with knowledge even of the health physics people, by sending newcomers on a bogus assignment into the dangerous ice basket area, where the following happens: (you can vary sequences, or remove some steps, but it amounts to the same) the unsuspecting person is grabbed and tossed into an ice basket and has the ice hose trained on them so it either hits them in the stomach, is forced down inside their protective clothing, mashes them in the face, blew ice at them in general, and in some cases even covered them with a tarp while stuffed in the ice basket for a couple of minutes. They even sold T-shirts commemorating that people were "initiated" in that manner in the plant cafeteria. Persons so "initiated" were called "Icemen" or "Ice babies." When a woman was injured during her "initiation" - a woman who did not take kindly to being coated in toxic dust and ice, and bruised in the face, got sick, and filled a complaint, it all came out. What did the NRC's illustrious local inspector have to say? When asked if this outrageous behavior could have violated any NRC regulations, this twit told the OIG's office that it did not. He then added it could have been contrary to ALARA if the woman had picked up a dose in the containment. The document then states that the person did not receive a radiation dose that day. Plus the document/TVA did not address whether the woman covered in toxic dust could have obtained an over-exposure to the boron - an outrage in itself. 1) Where is the proof the woman received no exposure? Was her urine tested? Were blood tests taken? Was she examined for radiation exposure by a qualified physician? 2) Purely by being in the area with the ice baskets would have exposed her to radiation, which is why she/they put on so-called "protective suits" - of course the utility/TVA will say the levels were ALARA - but that is also one of those ABC/ NRC/ industry inventions meaning, that depending on the amount of money everyone wants to spend to keep exposure/emissions As Low As Reasonably Achievable (ALARA) the exposure is basically OK. Spend a dollar and douse someone with a radioactive and toxic brew then say something like, well, we spent a dollar on giving the employee a plastic garbage bag to hide under on the job and therefore we kept their exposure ALARA, and NRC is sure to say they did a great job. What the aforementioned "Ice Babies" situation shows is, that although this bizarre agency, the TVA, run by a board of presidential appointees, with no local oversight and no requirement to submit an annual budget to Congress from what I have read, seems to do what it wants, NRC is still in a position to pull the plug on them. And not just for allowing the "ice babies" situation for decades, but for the missing diagrams pertaining to the cables at Browns Ferry (also TVA), the missing/adequate quality control documents for some \$700 Million worth of equipment at SEQUOYAH (not only the stuff in decaying boxes somewhere in Cedar Bluffs Alabama) the lack of design verification of the reactors main coolant pumps at SEQUOYAH, the understrength concrete out of which the WATTS BAR reactor building was built, and the fact that there are insufficient decommissioning funds in the trust funds for SEQUOYAH, WATTS BAR AND BROWNS FERRY - funds meant to contain radioactive dangers and clean up the sites - according to the General Accounting Office. NRC can shut TVA reactors down considering the terrible, documented track record, which poses terrible risks to the public, the environment, even their own workers, some of whom TVA has a reported history of bullying to cover things up.

furthermore, regarding SEQUOYAH: In case of a meltdown, and explosion, the city of Chattanooga, Tennessee, the town of Cleveland Tennessee, the Lookout Mountain area of Georgia and the towns of Dalton Georgia and Ringold, Georgia are all targets, but the area would be far greater that would be affected, because first it would ruin Chickamauga Reservoir which it hauls cooling water from and dumps its radioactive and chemical crud to - now Chickamauga Reservoir is part of the Tennessee River, so it will ultimately screw the Tennessee River and everything downstream and any town relying on the river for water intake, will have to turn its intakes off. Depending on wind direction places like the Death Of the Earth (D.O.E) squads Oak Ridge Nuclear Reservation with all its nuclear pushers, as well as Knoxville TN, or Murfreesboro TN (wind shift), would be affected. Winds across that plateau and mountain area are unpredictable, as thirty year windroses show; further, Chernobyl taught us of the various plumes that can occur and the tendency of plutoniums to settle out closer in, i.e. within about 600 Km radius if I remember correctly, plus there would be a cesium-137 and strontium-90, Carbon-14, Technitium-99 etc. etc., ad nauseum, radioactive stew boiling in clouds for hundreds of miles and settling out probably as far afield as past the Cumberland Gap into Kentucky, over Ashville, North Carolina (not to mention the Biltmore Estate) down to Atlanta (wind shift) and Gainesville Georgia, and on and on. Sequoyahs lousy track record is on the Docket (oh, I forgot, NRC has a tendency not to read the Dockets, preferring instead to be practising how high to jump when the nuclear industry says jump) all that combined with the fact that TVA has insufficient decommissioning trust funds for Sequoyah indicates that an NRC and GAO audit should go with shutdown etc, of what TVA and its contractors and subcontractors spent the money on, instead of putting it into decommissioning funds. This dump is also designated as the backup facility to produce Tritium Producing Burnable Absorber Rods for the Death Of the Earth Squad (D.O.E.) (More on this below.) It is too unsafe and badly managed to have ever allowed that.

Regarding WATTS BAR: in addition to what I wrote earlier about whats gone on with Watts Bar, (such as the messing around in ice buckets) and the fact that it too can do the meltdown/explosion bit, Watts Bar would also affect a massive area similar to Sequoyah, due to its location on the Chickamauga Reservoir part of the Tennessee River, upstream from Sequoyah, including Johnson City, Tennessee, blanket the Great Smoky Mountains and Clingmans Dome, Drift over to Winston-Salem NC and so on. Now it is a very dangerous situation, due to the fact that the Death of the Earth squad (D.O.E.) and those who profit off the nuclear industry, and those responsible for insane nuclear policies, decided what the world needed now WASN'T love sweet love, but more tritium for more nuclear weapons and to replenish the tritium in current ones. For those reading who may not know the weapons bit - tritium is used to "boost the yield" of a hydrogen weapon. All modern nuclear weapons are the famous "H-Bomb" in some guise or another. The so-called "Thermonuclear weapons" - fission, fusion, fission etc. where in the second (of the four stages) stage, "the temperatures of equal heat are to be found only in such transient phenomena as exploding supernovae" (the late Dr. Henry Kendall of M.I.T.) the second stage being the bit that sets off the fusion reaction, otherwise known as the thermonuclear reaction, has the tritium entering the picture. I am being purposefully a little "fuzzy" - suffice to say, a one megaton nuclear bomb - sort of average by todays standards - will, for starters, obliterate everything within ten mile radius and create a firestorm of over one hundred square miles, winds within it reaching hurricane force -. But I digress, D.O.E. and the D.O.D. just love these weapons and everyone likes to do their bit creating them, as its the biggest cash cow in history to be in on it, and Watts Bar and the TVA with the help of the NRC signing off on planetary destruction, got to be the reactor to produce the TP-BARS - Tritium Producing Burnable Absorber Rods. This has not only resulted in far higher tritium contamination to the environment, but made the consequences of a meltdown/explosion scenario far worse than can be imagined. Also, the uranium in the fuel rods is enriched to a higher percent, due to all that, the original design this dump was meant to operate under, and the so-called safety features are wrong for what is being done at Watts Bar. Sort of like an old race car designed for

one type of gasoline, suddenly running on something more dangerous by far. Increases in the Curie quantities of tritium released to the environment absent an accident, to the water in particular are a disgrace, a vast body of work exists on the effects of tritium on the developing fetus/ embryo as it of course crosses the placenta, and because something radioactive exists until it has passed through its entire radioactive full hazardous life and nothing anyone does to it alters that FACT, anyone drinking water that comes from the Tennessee River Reservoirs who is pregnant, is going to be constantly exposed to higher amounts of tritium. Of course that also applies to children, animals etc. Allowing all this has put the population at high risk for genetic defects, -but I forgot, the nuclear industry and the TVA doesn't care. In documents, the DOE used old data, as usual, to get what they wanted. Further, the increase in tritium in the water will affect all aquatic species negatively. Over an eighteen month operating cycle, each TP-BAR will "contain" over 9, 640 Curies of tritium, with 3,400 TP-BARS irradiate in the core, if there were an accident with a melt/explosion as described in the aforementioned NUREG-1079 about the end of that 18 month cycle, a total of well over 32,776,000 CURIES of tritium could be released to the environment all at once. I say well over, because each TP-BAR generates a maximum of 1.2 grams of tritium and one gram equals 9,640 Curies. SUCH A SITUATION WOULD BE HORRIFIC. NRC must get this situation shutdown. DOE never looked at that. The only thing they ever footed around with, was the effect of failure of two TP-BARS over 40 years and that was disgusting enough. Remember that Watts Bar also has insufficient trust fund money for decommissioning/insufficient funds contributed. Then if NRC thinks this awful place is OK, let me remind it that in the age of terrorism, nothing is safe unfortunately, and Watts Bar seems to be its own worst enemy - control rods falling into the bottom of the core, rapid power drops, Reactor Coolant Pump failure, having to manually shutdown the reactor of course known as a SCRAM, short for "Security Control Rod Axe Man" - you didn't know? First nuclear pile test had one of the scientists holding an ax to cut the cord holding a "control rod" above the pile, in case all hell broke loose he was going to chop through the rope to stop the reaction, dying in the process - which is why I believe they drew straws on who got to be the SCRAM.) Amazing what a failed transistor can do isn't it? From the moment the main control room got the "Control Rod Urgent Failure" alarm it took 3 minutes 54 seconds for them to realize they better manually shut it down, too slow by far.

CATAWBA: pulling cooling water from -and dumping radioactive/chemical crud to-Lake Wylie in event of meltdown/explosion, Rock Hill SC and Charlotte North Carolina are ruined, plus the Catawba River and a set of lakes near Charleston, SC. a meltdown/explosion would be possibly worse due to the embrittlement issues around PWR's, in particular Catawba and McGuire, and the fact that there may be pressure temperature limits /embrittlement of reactor vessel beltline materials. NRC informed the plant (s) in 1988, that quote "AS PLANTS AGE, IT IS EXPECTED THAT THE OPERATING WINDOW WILL CONTINUE TO NARROW AND STARTUP OPERATIONS WILL BECOME MORE DIFFICULT, " speaking of Low-Temperature-Overpressure Protection set points - NRC seemed to be concerned about fracture prevention. Now there is potential for catastrophe sooner than imagined (at McGuire too) because a bill of goods has been sold to a gullible public concerning a huge scheme called MOX -MIXED OXIDE FUEL to be used in these reactors. A scheme involving millions of dollars and the Death of the Earth squad (the DOE) and the Russians and the French, and multi-nationals and some tricky hood-winking of many people. Mixed Oxide fuel is comprised of plutonium and uranium (I'm giving the short form here) the plutonium part of the fuel is supposedly going to "burn" up and that is how all that nasty plutonium will be done away with and we'll all live happily ever after and no more bombs, blah-blah-blah..... The fact is a) the plutonium atom is going to be split - it's not going to burn at all, just as the uranium atom is going to be split - but here is the big lie: plutonium is not going to disappear and no more bombs blah-blah-blah, - sure, the plutonium that is split will "disappear", but when the uranium atom is split, the uranium-238 is going to transmute to plutonium-239 SO MORE PLUTONIUM IS GOING TO BE CREATED. SO THE WHOLE SCHEME TO GET RID OF PLUTONIUM FOR NUCLEAR WEAPONS IS A CROCK. If the NRC doesn't know by now THAT PLUTONIUM IS CREATED IN NUCLEAR POWER PLANTS, OR NUCLEAR RESEARCH REACTORS, THEN YOU ALL SHOULD BE FIRED. That is why there IS nuclear weapons proliferation worldwide - anyone with a reactor and enough money and knowhow gets

to copy the moral and spiritual bankruptcy of the nations who already have "the Bomb." The sheer wickedness of persons who would create a weapon with the power to obliterate all life on earth ultimately, spits in the face of The Creator. To create plutonium is to do the same thing. To be any part of the nuclear fuel cycle, nuclear power or weapons cycle is to do the same thing. Catawba and McGuire were already part of the problem as they created plutonium anyway just via daily operations, as all plants do, but to be involved in this MOX scam is even worse, because these plants were never designed to use MOX fuel. To make matters even worse - as if screwing around with the lives of the staff of the plant and the public by going to participate in this outrageous and potentially deadly enterprise were not enough - Duke Energy Corporation by the look of it cannot be trusted to even submit complete and accurate information to the NRC concerning the exact composition of fuel to go in the core, and didn't even submit radiation dose evaluations based on the current plant design basis accident radiation doses, which resulted in providing the NRC with INNACURATE MOX DOSE EVALUATIONS. Furthermore the boys at Duke are getting exemptions they should not be getting - NRC has a terrible habit of giving out an exemption to just about anything, so the licensee winds up doing whatever they please a lot of the time and the exemption is often not what the original design specified. Furthermore, due to the high danger involving MOX and higher heat that will be generated I believe, design basis accidents alone are insufficient and the full Class 9, meltdown/explosion scenario is more in order. For NRC to have decided to let this multi-gazillion dollar company off the hook, instead of fining them the paltry \$60,000 as intended, -because NRC said the facility hadn't had escalated enforcement actions within the last two years, and for that and other sloppy reasons were given credit and not fined, -is beyond the pale. With that barely behind them, they had a reactor trip at Unit 1. THE SIXTH REACTOR TRIP WITHIN THE LAST THREE YEARS at Catawba I and II. With regard to the MOX assemblies to be used at Catawba, this whole idea of just revising the Technical Specifications to allow MOX use invites disaster, eventually, -the plant would need rebuilding for the fuel from the ground up - and that is another lead balloon that'll never fly. Revising Tech Specs to get what they want (and then screwing it up) is equivalent to suddenly saying one is going to put rocket fuel as opposed to regular gasoline in an old jalopy (Catawba) because fuel is fuel so just change the wording. If an area larger than Pennsylvania gets wiped out due to a meltdown and explosion at this dump of an embrittled lemon, no amount of saying they revised the Tech Specs is going to prevent the entire NRC from being horsewhipped down Pennsylvania Ave by an incensed public, for allowing MOX use and for even allowing it to stay open, absent MOX. It is my understanding that even some members of the Advisory Committee on Reactor Safeguards were worried about MOX being used in these awful ice-condensers. It is beyond insane, to allow Duke to use MOX in this aged, embrittled, dump of a nuclear facility for which it was never designed. As this MOX comes originally from weapons grade materials and contaminants in it must be removed via massively environmentally ruinous means at the Savannah River Nuclear Site - that 300 square mile radioactively contaminated blob from hell with radioactive and chemical plumes migrating underneath it and contaminants pouring into creeks and rivers since five and a half decades, ultimately going to the Atlantic- and knowing how badly the Death of the Earth squad (D.O.E.) and its contractors have run that festering, radioactive sore on the face of the planet, there is absolutely no telling what will wind up in the MOX fuel in the end. My God, as You are my witness, even the trees there weep tritium, yet NRC is going to give those planet murderers a license to create MOX to begin with. For shame.. So, having helped screw South Carolina even more with the pollution that will be generated by the MOX Fuel Facility at the Savannah River Nuclear Site (AKA The Bomb Plant) NRC does not need to give it the absolute kiss of death by enabling Duke Energy Corporation to use MOX Fuel in Catawba (or McGuire) which could meltdown and explode over the State. Furthermore, both Catawba and McGuire are considered river sites where a meltdown impact would be even more severe due to the cascade effect of contaminants from one lake and river system to another down about 275 miles as the crow flies to Charleston - beginning with Lake Norman on which McGuire sits in the event of a meltdown and explosion at McGuire, then on through lake Wylie etc. where Catawba is.

Sandia Labs/Congress/CRAJ 2/1982 estimated 42,000 dead per unit and 88,000 peak

early injuries per unit for Catawba in case of major accident. Population is more now. Catawba has insufficient decommissioning funds according to the GAO report also.

Catawba also causes damage to the environment (as do other ice-condensers) via ice damage to nearby trees from cooling tower drift. And speaking of ice, there is rumour that the same sort of idiot behavior as at Sequoyah of the messing around in ice nature may occur at Catawba and McGuire.

* McGUIRE: Everything mentioned about McGuire listed under "Catawba" above would apply. Furthermore, that would include the possible problems regarding pressure temperature limits/embrittlement of reactor vessel beltline materials, as well as all the problems surrounding the possible use of MOX in yet another aged, embrittled nuclear plant of the ice-condenser type. The meltdown/explosion scenario would be awful at McGuire, not only due to the proximity to Charlotte N.C. also, like Catawba is, but if there were a station blackout with subsequent meltdown/explosion caused by an earthquake, THERE IS THE POSSIBILITY THAT THE DAM ON LAKE NORMAN (which McGuire sits on) WOULD FAIL, AS IT IS NOT SEISMICALLY QUALIFIED, I.E. TO QUOTE DUKE POWER Lake Norman could be "LOST DUE TO ITS NON-SEISMIC DESIGN". McGuire supposedly has a so-called Standby Nuclear Service Water Pond which they maintain IS seismically designed to serve as a heat sink/cooling water reservoir which they would use if they loose Lake Norman as the heat sink full of radioactive crud. It is doubtful that this pond would be big enough or be able to be used for months if needed, if for example an earthquake destroyed Lake Norman, but left everything else standing - itself highly unlikely. Any earthquake which would destroy Lake Norman, would probably affect the "Pond". Further, Lake Norman would discharge in a massive wall of water that would wind up crashing into Lake Wylie causing major, potentially catastrophic effects to Catawbas intake and discharge structures on the lake, for starters, which could lead to a meltdown at Catawba. A domino effect. Airbornes from McGuire would of course reach what is often called the Research Triangle of North Carolina and wipe it out, along with famous American industries like the furniture produced in that area. McGuires discharge canal bottom will be contaminated and the contamination may have impacted groundwater and seep into Lake Norman as it is. There has been a decline in certain fish species also since operation started (gizzard shad, striped bass). On top of all this, somehow McGuire managed to squeeze an NPDES discharge permit out of someone that increased the limit from 95 degrees F. of discharge water, up to 99 degrees F. in summer. Not only does this affect fish, but it increases the likelihood of serious illness being caused to those who swim in the lake (not knowing they are swimming in radioactive and chemical discharges to begin with) such as fatal meningoencephalitis caused by Naegleria fowleri infection in turn caused by increased thermal temperatures in the lake which enhance these organisms. Children could die because of this, not just die from leukemia from the radioactive crud in the water. In addition, because McGuire doesn't seem to know what its doing anyway - for example it took them EIGHT DAYS to realize each Units Turbine Driven Auxiliary Feedwater Pump was inoperable - it should not get MOX fuel either, the world can't run the risk of a nuclear plant fueled with MOX it was never designed to hold, that takes eight days to realize theres a problem.

CHAC-2 1982 said McGuire would have 12,000 dead per unit and 21,000 peak early injuries. McGuire and Catawba = 108,000 dead and 218,000 injuries. Duke is evil to risk that.....

D.C. Cook: Another old, embrittled, age degraded dump of an ice-condenser with potential for the meltdown/explosion scenario. A dump whose Senior Reactor Operator running the show had had a heart attack and should not have been allowed to be a solo operator, but although the utility knew it for years, they did not tell the NRC. The NRC was meant to fine these idiots \$50,000 for potentially putting the operator himself, as well as the public - which would include Chicago, Ill., Gary, South Bend, Ind. Kalamazoo and Grand Rapids, MI - at risk of being killed if the operator had become totally incapacitated on the job, perhaps collapsing onto the control panel and causing the mother of all accidents. However NRC disgraced itself yet again by letting the utility off the hook with nothing but a lecture. Only saying significant future violations could result in a civil penalty. It would appear the dump needs to meltdown before that happens....

* FOR MORE ON MCGUIRE SEE P. 48

D.C. Cook suffers from age degradation so severe that a series of events led to a reactor trip just recently. A sort of domino effect caused not only because internal components failed on the power supply's input and output circuits, but delays in installing new 24 VDC power supplies. During this situation, a loss of the normal cooling pathway occurred. This is completely unacceptable. The licensee admits it all happened due to age-related failure of components. The fact of the matter is this : anything and everything can suddenly fail due to age related components - this dump has been going since the mid-1970's - and one day it will be catastrophic failure. The failure will ruin Lake Michigan for starters. The groundwater pathway from a melting/ exploding D.C. Cook is through the Pleistocene sands to the Grand Marais Embayment of Lake Michigan. Nothing like sticking a nuclear plant on sand in an ecologically sensitive area of unique wooded sand dunes in an area of great beauty (were they out of their minds to allow this) Bainting the bloody thing (except the "containment" building which wouldn't contain squat) to blend with the landscape is nothing to boast about - but a mark of misplaced priorities to say the least. The tragedy is, that the area, which is perhaps ideal for energy from wind combined with solar collectors, has come to rely on this potential death trap to generate money for the township in which it sits, from the property taxes it generates. I believe there is also a picnic area and pavilion the public can use next to it. Have they told their visitors they are receiving radioactive fallout from the plant and direct radiation also ? Getting large amounts of tax money is a bad trade-off for the fact that they are looking at a nuclear nightmare in their midst essentially forever; as even after shutdown, it remains a deadly, radioactive and chemical contaminated dump for thousands of years. But, given a choice between a shutdown radioactive dump and one that could wipe many cities off the face of the earth and ruin Lake Michigan , shutdown is better. Besides, I believe they are going to run out of spent fuel storage space shortly , and the last thing one would want would be an outside so-called ISFSI - Independant Spent Fuel Storage Installation - better known as the equivalent of a mini-Yucca Mountain on the banks of Lake Michigan, (but not under hundreds of feet of dirt in specially engineered overpacks with titanium drip-shields under the Nevada desert where DOE has been charged with trying to prevent them melting down for 10,000 years) - instead inside big cement modules and an attempt at praying they won't meltdown before the utilities can walk away from the plant and the ISFSI, and retire to Bermuda first. D.C. Cook is already a prime terrorist target, as all nuclear plants are, without an outside ISFSI a variety of weapons can penetrate. It is very vulnerable because it could come under attack from Lake Michigan, as well as from the major highway , simultaneously. If the cooling water intake cribs offshore were destroyed, that would be the end . The lake effect snow events which come off Lake Michigan also put extra stress on the structures as well as the intense winter cold - all this, combined with the age of this dump and the aging due to radioactive decay and exposure to the various chemicals also could cause the metal in the structure to have aged even more rapidly than the cement. Embrittlement could cause something critical to suddenly fail, something so critical meltdown could result. Furthermore, DC Cook is one of the reactors seriously affecting fish in Lake Michigan, due to entrainment, as well as affecting bottomfeeders by radioactively contaminating the lake floor sediment and aquatic life. As radiation affects fertility, among other things, fish are affected in their life cycle also. Nuclear Power Plants are among major reasons for the decline in fish in the great lakes. Not to mention their contamination. Fish catch would increase if plants were shutdown and dismantled and the spent fuel were also removed from the site. An offshore wind farm, not visible from land, could employ some of the displaced workers if the plant is shutdown, and solar collectors could be put onsite, requiring some local workforce. After all, solar collectors were put at Rancho Seco I believe after shutdown there, the result of a public referendum. Could be done at D.C. Cook.

SPECIAL CIRCUMSTANCE REACTORS: T.M.I. and Salem I and II have already been discussed so here follow the others. It is primarily their location which makes the potential for a meltdown at these aged nuclear dumps a major concern. Some would affect vast

ocean reaches and other nations in ways other than airborne radioactive contamination for example.

Grand Gulf: This plant, as NRC well knows, has had a controversial past to say the least. One can only hope all of that got sorted out. This plant has a major negative effect on area wells and water supplies, due to the fact that it uses a strange series of radial collector wells, so called Ranney Wells, which withdraw groundwater from Mississippi River alluvium at a rate of approx. 34 million gallons of water per day, for use as cooling tower make-up water. This is an outrageous use of groundwater which farmers in the area, and private people in general, rely on for catfish farming and irrigation among other things. The significance of the impacts of using groundwater, which would be better used for life supporting ventures instead of in the process of creating plutonium, planet killer personified in the ancient Lord of the Underworld, Plouton, instead of for farming, is obscene. It has been predicted that groundwater will be replaced by riverwater of a lower quality (containing the myriad chemicals and radioactive gunk and sewage coming down the Mississippi) by induced filtration, due to the use of the Ranney wells. Grand Gulf is essentially ruining area groundwater. The EPA's Toxix Release Inventory shows the millions upon millions of pounds of toxic chemicals alone that industry dumps to the Mississippi yearly, when the radioactive effluent from laboratories and hospitals which passes through sewage treatment plants to the river along with the radioactive discharges from other reactors to the north of Grand Gulf are even glanced at, one can see why one would not want this garbage infiltrating in -to groundwater, i.e. the groundwater from the alluvial aquifer. The NRC well knows, that the use of more than 100 gallons a minute can have a major impact on water quality and affect the groundwater of others of course. This dump is using 24,000 gallons a minute approx. (34 million gallons a day.) The cop-out reason put forward is that using the regular water intake systems - as used at other plants where they cream millions of fish and larvae etc.etc. - is very detrimental to aquatic creatures. Now this is patently a sham, put on to make people think Grand Gulf is terrific. The public doesn't understand that both systems are terrible. At least if Grand Gulf were shutdown, it would be using less water; although not until the entire thing is demolished and removed to a radioactive waste dump and the radioactive spent fuel is removed offsite, would water use come to a virtual halt, due to the fact that even a shutdown reactor requires some water flowing through the core and the spent fuel pool, or both will meltdown. Furthermore, Entergy can't be trusted anyway, since they did creative mathematics to make it look as if a minimum flow isolation valve was only closed (instead of open as it should have been) for 13.25 days, when in reality it was about a month from about March 6th 2004 to April 4th 2004 that it was closed. That was the Residual Heat Removal B line. In February 2004, they had already had a valve screw up rendering the Alternate Decay Heat Removal system inoperable because two important valves had no power for their motor operators and they were not closed either. They didn't even notice for nearly an hour and a half, then it was noticed after a shift change. -The radioactive and chemical discharges routinely made also further contribute to the degradation of the Mississippi and affect all downstream water users. - Because it is a Mark III boiling water reactor, it is also quite a lemon, like its cousins the Mark I and Mark II, but each has its own set of catastrophic scenarios - Grand Gulf could have standing diffusion flames located above the suppression pool, and a huge variety of scenarios, all frighteningly detailed in NUREG-1079, which also used "Grand Gulf" as its example for major problems with Mark III design. Any sane person reading NUREG 1079 would demand that ALL nuclear plants be shutdown as soon as possible, and that includes Grand Gulf. Furthermore, Grand Gulf is one of the reactors cited for lack of decommissioning money by the GAO. What a disgrace.

Calvert Cliffs, MD : Does NRC think the Department of Homeland Security would be particularly happy if NRC had to advise it that they had perhaps half an hour to evacuate Washington DC, and less for Annapolis MD ? Because in the event of a major accident at this piece of malfunctioning junk those are the cities to be affected, - along with Alexandria VA, Baltimore MD, Southwest NJ, Dover DE, Fredericksburg VA, Cambridge MD, Easton MD, Kent Island and Matapeake and Chester MD, — and lets not forget the MARINE CORPS BASE AT QANTICO, then there are all those little towns across the entire Chesapeake Bay area.

How in the name of all thats Holy were the nuclear maniacs allowed to build a nuclear plant in this MAGNIFICENT area?

N.B. Who has told the people that that gorgeous mist rolling up the Chesapeake does in fact contain airborne radioactive contaminants from this monster and that the Chesapeake itself is being polluted with radioactive and chemical crud, and that the bottom feeders in particular will be affected from the cobalt-60 for example in sediment ? The Patuxent River Naval Air Station will have to run for its life or fly through radioactive steam if this thing blows. The core melt would hit the Chesapeake Bay faster than you could say that "1,200,000 gallons a minute per reactor is the condenser flow rate" - and what a hissing, exploding, molten, ball of fire it would be BECAUSE THE CRIMINALS HAVE THE BASE OF THE REACTOR "CONTAINMENT" STRUCTURE MORE THAN TWENTY FEET BELOW SEA LEVEL, and the water table is maintained several feet above sea level. Add to that, the fools have a huge, outdoor, deadly radioactive "spent" fuel storage installation- an ISFSI. All of this vulnerable to a marine launched rocket attack by terrorists. This is truly an absolute nightmare. At the very least, the stupid utility should be forced to build an extra six foot thick cement Hangar - like an aircraft hangar- over the ISFSI with the usual air intakes for cooling and add HEPA filters where the radioactive decay heat exits at the top, immediately, for extra safety, and pay the workers -after disclosing to them the fact that the containers the spent fuel is in stream radiation - gamma and some neutron- and giving them protective suits and hazard pay - a huge extra salary for being so brave as to do it. Of course the surface runoff from the existing modules, as they so cutely call them, is radioactive and enters the Chesapeake, with extra shielding it would still be radioactive, but perhaps slightly less so, if all top owners of this dump were obliged to sacrifice themselves by covering the entire thing with their bodies to act as sponges to suck it all up - obviously I jest, but only just. It is a sickening situation. All this is made worse by the aging problems Calvert Cliffs has, not to mention Marx Brothers like domino failures of equipment leading to reactor trips, - in particular one whose origins began in 2002 and culminated in a reactor trip in 2004 - however two other trips had occurred prior to the second reactor trip in 2004 in March. Those events alone, taken together, show that this outfit barely knows what its doing, but when you toss in an event in Jan. of 2004, the 14th of January to be precise, with Unit 1, operating at 100% power, an unbraced scaffold was installed within 12 inches of vital safety-related equipment(14A 480V AC load center) and would have crashed into the load center cooling fins during a Safe Shutdown Earthquake, but was not discovered for nine days, and then, nine months later to the day, another event related to improperly erected scaffolding occurred (after a brouhaha about the first event), when you add all this up, plus the fact that it has taken them since plant startup in the 1970's to finally decide to post signage designating the Control Room as a trip sensitive area and develop monitoring plans for various trip sensitive components of things like feedwater controls, decay heat removal functions etc., take everything together and it is clear, monkeys from the Washington zoo would probably do a better job running a nuclear plant than Constellation Energy Group. NRC must never forget, that the Sandia Labs/Congress/CRAC-2 report from 1982, with 1982 population etc. ,

showed that in event of catastrophic accident/meltdown, within a 15 mile radius there would be 5,600 peak early fatalities PER UNIT (i.e. 11,200 dead) but that didn't include the spent fuel pool melt that would follow, where, according to Brookhaven National Labs Generic Assessment of Spent fuel pool accidents at a pressurized water reactor, if it was a full pool, with fire, in a distance of 0 to 500 miles would give 143,000 latent fatalities and cause 2,790 square miles to be condemned and forever uninhabitable, (from that alone), which means the ENTIRE NRC IN WASHINGTON WOULD BE OUT OF A JOB, and the White House....the Senate....etc. - oh, I forgot the 15,000 peak early injuries per unit from the reactor catastrophic accident, so, lets do a little adding up:

5,600 dead Unit one
 5,600 dead Unit two
 143,000 latent fatalities from spent fuel pool
 95 prompt fatalities " " " "

154,295 Dead with 1982 population figures

then of course the 30,000 total peak early injuries at 1982 population figures, oh, toss in the estimate of 23,000 cancer deaths Per Unit and that equals another 46, 000 dead, so the dead total becomes :

154,295
46,000
 200,295 DEAD with 1982 population figures

But all that wasn't calculated with effects to rivers, weather transporting the crud for thousands of miles and many other costs like genetic damage to the unborn whose parents are exposed but live, spontaneous abortions from radiation exposure, but hey - Constellation has been running TV ads about energy - so this is the new way to look at it: nuclear energy equals death. And I left out the dead from the spent fuel outdoors in the casks if under attack. So many ways to look at it all - not to forget the uranium miners who died from effects of mining the uranium for the fuel, and on and on. I admit the figures for some other reactors are far higher, but over a quarter of a million dead and injured (with 1982 population figures, don't forget) is bloody awful. That's why it is negligent in the extreme to allow nuclear plants to operate. Criminal negligence. Insane. Most of the people who work at these plants don't even know all the consequences have been calculated, hell, they don't even understand WHAT they are working with, if they did, they'd run and never look back. But NRC Knows, and NRC can shutdown this dump of a deadly, badly run facility on the shores of the Chesapeake forever, and it must. Read the Docket and you will see how bad it is. Furthermore, it has probably contaminated the Potomac river also with all the airborne deposition of cesium-137, strontium-90 and tritium (H_3) and the like, as the Potomac is in one of the windpaths for daily weather. The Patuxent River due to proximity, already affected by airborne contamination. Likewise the Marine Biological Lab, and of course the poor Calvert Cliffs State Park. Just what IS the level of tritium in the trees, plants, birds there? And Cesium-137?

Now, consider the problems with this dump : there are major problems regarding water chemistry, what with the hydrazine, chlorides, copper, iron, tritium and so forth, due to the boric acid the general corrosion rates are as high as 1.7 inches a year as measured in the lab it appears, of all sorts of reactor vessel components - but hey, just monitor every refueling outage, plus, reactor vessel internals made from CASS suffer embrittlement due to aging and that good old neutron irradiation, and some reactor vessel internals could also swell (i.e. components could) but hey NRC doesn't seem concerned.

The intake structure is a nightmare housing the saltwater pumps essential for safe shutdown of Calvert Cliffs, the foundation slab starts 26 feet below sea level, and the total effective load due to the structure is approx. 42,000 tons, with net soil pressure due to the structure approx 2,500 pounds per square inch - but never fear, the damn thing is placed on FILL and everyone seems to think its protected from weather and the water by a crappy waterproofing membrane of 40 mil, which doesn't seem to be working too well. They've slapped joint sealant between the containment floor slab and the liner plate, because its deteriorating due to water intrusion - they'll keep going to look at it to see its OK - there are cracks in the concrete basemat, but not big enough to worry about, they got leaks in the Spent Fuel Pool liner and leaks in the Unit 2 refueling pool, 32% of the vertical tendons in the containment have broken wires and corrosion, but just slap grease on those tendons to protect them; freeze/thaw is affecting the containment dome, but why worry, its all of 2½ to 3 feet thick, so if a terrorist smashes into this piece of junk it'll just crumble and the thing'll meltdown and explode into what they so cutely term "the ultimate heat sink" i.e. the Chesapeake. There's cracking on the containment exterior anyway, so a little push from an aircraft would have awful consequences - also the incredible amount of onsite fuel oil needed for those emergency back-up diesel generators would aid in the massive, radioactive fire. -But not to worry, they're just going to spray the charcoal filters in the iodine removal units with water in case of fire, as they say the maximum temperature would not cause the charcoal beds to ignite - which is of course ridiculous-. And their Post Accident sampling stinks, because they're just going to do grab sampling, and NRC staff were temporarily mentally incompetant because they said it was OK to eliminate many other methods. On top of all this, the licensee decided it would just leave the turbine building header out of the license renewal application in terms of it all being gone over, even though the loss of the turbine building header pressure boundary could result in failure of a string of safety related systems which provide cooling water to emergency diesel generators, spent fuel pool coolers and other things. The licensee also thinks it knows the Mind of God, as it has decided that certain portions of the service water system will survive a "design basis" earthquake -. ("design-basis" always means something invented to make things appear safe or unlikely, when they're not, but it looks good on paper), There are pages and pages of listed problems for this dump concerning everything from embrittlement, aging, radiation effects on sealants, sealing material, and cable insulation, cracking, weathering, corrosion - you name it, they've got it - yet, despite the fact that this dump was built before ASME Codes, despite the fact that they don't even know how to achieve certain things but are counting on industry to come up with something, despite the fact that many issues are only promised to be done, but not actually done, and despite the fact that these idiots have basically decided that they can do without control element assembly shroud bolts most of the time, (they'll only get a little nervous after all of the bolts are considered failed,) and despite the fact that they think they can defy the laws of physics and go outside the bounds of reason by managing the effects of thermal embrittlement" via an as yet to be developed program - despite all this, the NRC (after many cozy meetings with the utility) inanely states, that "there is reasonable assurance that actions have been or will be taken to manage effects of aging for a 20-year period of extended operation, such that the plant can continue to operate safely."

REASONABLE ASSURANCE ??? THIS IS A NUCLEAR PLANT, not an antique car where the axle might crack. An airline mechanic does not tell the company that there's reasonable assurance the plane, already sputtering on its last legs, might land safely if it takes off full of passengers. If he did, they'd fire him. Here, Washington DC and the Chesapeake Bay and millions of lives are at risk

SHUT THE DAMN THING DOWN BEFORE IT MELTS DOWN.

St. Lucie, Florida: This catastrophe waiting to happen, has just missed being meltdown city by the grace of God numerous times, most recently this past year when hurricane after hurricane battered Florida and caused major problems, including structural damage to some buildings, and what was euphemistically called unidentified reactor coolant system leakage at 2.5 gallons a minute then down to 0.75 gallons a minute - possibly reactor coolant pump seal leakage - everything probably a bit of blur considering the access to the mainland sort of got mangled - yes, it's on an island, Hutchinson Island with the intercoastal waterway on one side and the Atlantic on the other. The stupidity of such a location alone should be reason to pull the license. A wave the height of the one that hit the huge cruise ship a state north of here, offshore, the middle of April '05, (yes, this is very hard going for me, it's months since I began, interrupted by death of a close relative, a mini-stroke, various other ongoing illnesses etc.) a wave ten stories high that bashed the cruise ship about causing damage, would cause untold damage at this site. Furthermore, the location is vulnerable to tsunamis and offshore earthquakes, as there is much concern about the faultline running up the eastern seaboard in many quarters, Another Charleston earthquake, if it were severe could cause a tsunami which would affect the South Carolina, Georgia, and Florida coastline with bad luck, due to the fact that the last Charleston earthquake caused effects hundreds of miles away, and could therefore cause come type of underwater shift offshore in the ocean floor. And what happens if the Puerto Rico trench area shifts, or the mid-Atlantic Ridge has a big shift? Let me state quite clearly here, that according to renowned tsunami experts, a possible problem concerning tsunamis and nuclear power plants is that when the ocean recedes, of course the intakes for the plants cooling water is sucked out too, and there could be a cave-in effect due to the loss of hydrostatic pressure. Followed of course by the place being smashed to bits, spent fuel and all. This could conceivably happen. St. Lucie has an intake system that sticks 1,200 ft offshore, in a huge hurricane the thing could be pulverized. Or with a "small" tsunami. Let us not forget, that tsunamis do not consist of one wave only, but, as was seen so tragically in the Far East recently, come in a series. Ever larger. Furthermore, like at Turkey Point and some other plants, St. Lucie "eats" endangered species, SEA TURTLES to be precise, the odd manatee, and, once even a scuba diver got sucked into the intake. Unlike the injured scuba diver, who survived, the sea turtles most often don't. THERE IS A REASON THE SEA TURTLES ARE ENDANGERED, AROUND FLORIDA, ITS CALLED NUCLEAR POWER PLANTS. HUNDREDS HAVE BEEN KILLED AND INJURED OVER THE YEARS. AND THOSE WEASELY*SPINED GUTLESS WONDERS AT NATIONAL MARINE FISHERIES, AND THE EPA, AND EVERYONE ELSE WHO KNOWS THIS, WON'T GET OFF THEIR REAR ENDS AND COMPLAIN TOO LOUDLY BECAUSE THEY ARE ALL AFRAID OF THE NUCLEAR BOYS AND THE POWER THE INDUSTRY HAS. WELL, THIS MUST STOP. And there is only one way to reduce the killing, shut the damned plant down. Same goes for every other plant that sucks up these wonderful sea creatures. Create some type of strong mesh to be placed in a large arc round all these ocean intakes, anchored in the ocean bottom, marked at the top for swimmers, so the reduced intake to keep the spent fuel pools cool also does not affect these sea creatures. When I say "large arc", I mean at least half a mile around and away from the intake, this is because of the force of the intake suction. The NRC must take action also in regard to the obscene signage photographed at St. Lucie, calling itself a Sea Turtle Sanctuary. Such a lie should be subject to a penalty and the sign should be removed. The Island itself was/is habitat for nesting turtles for countless years. As everyone knows, turtles return to their birthplace to lay their eggs. So the poor creatures come back to a nuclear dump, to warm water warmed due to the radioactive contamination, the radioactive decay heat, (manatees also like the warmer water) where they are irradiated and/or killed. This exposure will also affect their fertility in the

long term. Further, the outrageous procedure whereby nuclear plants (often with NRC support) are allowed to "take" a certain amount of sea turtles a year - "take" being Orwellian Doublespeak for "KILL", - must cease at once. This killing of marine creatures is destroying the web of ocean life on which all life depends. After all, vast amounts of fish and aquatic organisms etc. are also destroyed. Nuclear power plants are contributing to a global, ecological catastrophe and the disruption of the food chain on which humans also depend. St. Lucie is violating the Endangered Species Act by killing the turtles on that list. St. Lucie also deposits its radioactive airborne crud across some of the most valuable citrus growing areas of the country. Plus it gets a huge amount of water from municipal sources too, purchasing about 1,4 MILLION gallons a day for the plant, so it is taking this huge amount of groundwater from a state that relies on rainfall to replenish its drinking water, depleting groundwater resources. In the event of a meltdown/catastrophic accident, the not only Hutchinson Island, but the towns of Fort Pierce, Vero Beach, Port St. Lucie, Palm Beach, Palm Beach Gardens, Sebastian, Palm Bay, would be running for their lives depending on if the plume was headed up or down coast, if it went inland across Florida, a chunk of the middle of the state, probably including Tampa, or, depending on its track, WALT DISNEY WORLD and Orlando, would be running for their lives. St. Lucie and its owners could become known world-wide as the outfit that killed Mickey Mouse. Not to mention thousands of children. Remember the spent fuel pool calculations under "Calvert Cliffs"? Transfer it roughly to Florida. Oh, and of course you could say farewell to that vast treasure, Lake Okeechobee, if the plume dipped. The area is no place for something this deadly with all its problems on the docket, in hurricane alley. St. Lucie is old, Unit one in particular. The cost of refurbishment and replacement of virtually the entire plant would run into the hundreds of millions of dollars; and that would be required, probably into the billions. The aging issues and piping and pump and valve issues, steam generator replacement, and on and on. I believe in 1988 dollars, the cost to cut up and ship a steam generator was estimated at \$20,980,000 - it's probably double that by now. And the radiation exposure to personnel is frightful. Of course all the costs get passed on to the ratepayers, poor suckers, but the fact is the workers should not be exposed to the high doses. Further, the salt atmosphere of an ocean location contributes to even more rapid degeneration and aging, effects of sun, salt and radioactive contaminants from the plant itself and chemicals from the plant on cement structures like containment domes, so that needs replacing - and that is nigh to impossible. The main thing is this dump should be shut. The water usage from the municipal sources also contributed to saltwater intrusion into groundwater beneath Florida as withdrawals are so large. Enough with this monster. Due to its location, the entire plant and all its spent fuel etc. must be completely removed as soon as it is possible to do so from a radiation health/safety standpoint, to leave any part of this nuclear nightmare on this island (i.e. what's left of it since the last hurricane) is simply not a consideration anyone in their right mind would entertain.

Turkey Point : In case anyone thinks St. Lucie is in a dangerous location, and none could be worse, let me assure them that Turkey Point is in an even more dangerous location. Stuck almost at the tip of Florida, this monstrosity doesn't just threaten Florida, and the beautiful Florida Keys, and the City of Miami and the Everglades, it threatens international shipping routes, Caribbean Islands, and the entire Gulf Stream - and via the Gulfstream carrying contamination, it would wipe out the Sargasso Sea and then get carried across the Atlantic and then back again, and again, and again until all the radioactive decay cycles had been gone through, lie for millions of years. As it is, it deposits airborne radioactive crud onto Biscayne Bay and Miami, onto the southern Everglades, and some of the Keys, and Biscayne

N.B. Bay State Park and Key Largo (no, Turkey Point didn't exist when Bogey and Bacall did the movie) and portions of the Miccosukee Indian Reservation, Big Cypress and Long Key are all in that 50 mile radius, which of course goes about to Ft. Lauderdale, that are in the airborne ingestion pathway. If Turkey Point goes, there goes the neighborhood of basically the lower third of Florida and the Keys. Some particular hater of humanity and of the natural environment not only placed it here, but put it over MANGROVE COVERED TIDAL FLATS ADJACENT TO BISCAYNE BAY, the mangrove swamps extend inland 3 to 4 miles, most of the undeveloped areas of the site remain under 1 to 3 inches of water even at low tide, THE GROUND ELEVATION AT THE SITE IS TYPICALLY LESS THAN ONE FOOT ABOVE MEAN SEA LEVEL. Site geology puts it within the Floridian Plateau a partly submerged peninsular of the continental shelf, the predominant surface feature around the site is a bedrock outcrop of Miami oolite, a deposit of permeable limestone extending to about 20 ft below sea level, overlain by organic swamp soils varying from approx. 4 to 8 ft thick, and pockets of silt and clay separate the organic soils and bedrock in some locations. I am not making this up, insane as it is, it's from their own rotten documents. Now, not only did these criminals put a nuclear plant - 2 nuclear plants and 2 coal fired plants to be precise, on top of tidal flats and mangrove swamp, the discharge/ recirculating intake cooling system is a 6700 acre (2 miles by 5 miles) system of canals dredged/cut into it - they periodically have to remove the "woody" vegetation i.e. mangroves - the canals are channels about 200 feet wide and one to three feet deep and there are 40 of them, 32 carrying warm water from ALL the plants, some of the warth is of course due to radioactive decay heat from either the usual pinhole leaks transfer, or the way THEY explain it so nicely "Radioactive fission products build up within the fuel as a consequence of the fission process." (My explanation is: due to splitting the atom (fission = to cleave, or split) approx. 80 different fission fragments are created which decay forming additional daughter products so the complex mixture of fission products so formed contains about 200 different isotopes of 36 elements. Hey, the military came up with it.) To continue: "These fission products are contained in the sealed fuel rods, but small quantities escape from the fuel rods and contaminate the reactor coolant. Neutron activation of the primary coolant system is also responsible for coolant contamination." Also, liquid radioactive waste from various sources - e.g. showers, floor drains, containment sumps, reactor coolant loop drains etc. etc. is eventually dumped in batches - and also there is the continuous liquid release. AN ALARM ONLY GOES OFF, WHEN THE LEVELS OF RADIOACTIVITY IN THIS RADIOACTIVE CRUD REACH TEN TIMES EFFLUENT CONCENTRATION LIMITS THESE JERKS WERE ALLOWED IN ORDER TO OPERATE THE PLANT. Also the airborne - the gaseous radioactive crud - dumps all across the canals/water etc. So you get your radioactive chemical cocktail - like at other plants - going out across the area with its strontium-90 and strontium-89, and the tritium and the cesium-137 and the radioactive iodines and the cobalt-60 and on and on. The canal system is UNLINED so there is an exchange of water between the cooling canal system and the groundwater beneath the canal and that groundwater will contribute (not MAY as they phrase it) to replenishing the evaporative losses from the canal along with rainfall, plant storm water runoff, and treated process wastewater which comes originally from that supplied from municipal sources. The sediment in the canal system is radioactive, not just very high in salt. Among many reasons, is that in 1988, after six essentially identical major failures of spent fuel pool recirculating pump 4A 1975-1981, there was a major radioactive liquid spill due to that pumps failure involving radioactive water all over the bloody place with water backing up from floor drains and water coming over the sill of the Unit 4 spent fuel pit/pool heat exchanger room, and workers passing that door had contaminated shoes, and drains in the auxiliary building were backing up.

It was a huge dog and pony show for the press caught wind of it I believe, but the situation was very serious, and the contamination had gone into the canal system and also into the plant storm drains, and out onto some gravel and had contaminated down to a depth of three feet, and they estimated they would need to remove 400 55-gallon drums of radioactive material from that area alone, but that it could be more than that. Contaminants of concern were the Cobalt-60 and cesium-137, in particular. It turned out the spent fuel pool cobalt-60 level had been far higher than normal, (not that there is a normal level of co-60) and for goodness knows how long, had been increasing and decreasing in a cyclical manner in the pool. They never could figure it out and it is not clear if it ever was figured out. It was also established that they had quote "weak operating or maintainance practices" as well as quote "weak maintainance and radiation control practices as illustrated" by the failure to recognize and remedy the long-standing recurrent problems of radioactive or potentially radioactive water backing-up from Auxiliary Building floor drains." as well as quote "Weak operating and radiochemistry control practises as illustrated by failure to identify and remedy the cyclic backup of cobalt-60 contamination to SFP water." You have to read it to believe it, but they had not even had the proper instructions and drawings for installation of the pump that failed. How many other things have been wrongly installed as that was? No w, every time the contaminated floor drains backed up, eventually that water will have been released to the canal also. Plant storm drains go into the canal too, remember, and that is all the time, and that water will be contaminated from plant contamination too. Now, here is the big problem: The plant also uses process, potable and fire-protection water they get from the Miami-Dade Water and Sewer Department Newton Water treatment plant, to the tune of approx. 46,656,000 cubic feet of water a year, - or about 349,920,000 gallons of water a year which comes from the Biscayne Aquifer, and ~~come~~ of that goes to the cooling canals eventually too as stated earlier, BUT the canal water is not just contaminated with the salts and the chemicals used around the plant and the radioactive crud, but also due to the incredible mess done by Hurricane Andrew (more on that in a bit) and the years of this into the unlined canals could be winding up in the Biscayne Aquifer from which Miami drinks, because in 1972 the Atomic Energy Commission was concerned about impacts of a flow from the canals to Card Sound via the Biscayne Aquifer of 150 cubic feet per second.

N.B.

There should be no man-made radioactive contaminants, no fission or activation products etc. in the Bay or Aquifer. The H₃ (tritium) should not be more than it was prior to the atomic age in Americas waters, namely 10 pCi/L (ten pico Curies per liter) in the drinking water - I am not interested in the EPA allowing their ridiculously high 20,000 pCi/L to placate the nuclear industry and the bomb makers. Furthermore, from another angle, although this polluting nuclear dump must be well aware that even NRC guidelines have changed for exposure to the public NRC allows -the famous allowable levels so industry can operate- these bastards are still allowing up to 500 mrem/year in radioactive gaseous effluent to the public to the whole body, up to 3000 mrem/ year to the skin due to noble gases and up to 1500 mrem/year to any organ due to iodine-131, iodine-133, tritium and for all radioactive materials in particulate form with half-lives greater than 8 days, at and beyond the site boundary. Then of course there are doses from liquid effluents and other doses. Where's NRC's 100 mrem/year? Or EPA's with 25mrem/year? The doses Turkey Points Offsite Dose Calculation Manual uses may mean that that is per reactor, which would knock the radioactive ball even further out of the park. They also appear to have some sort of "fitness!!!!!!" center (at a nuclear plant? be serious.) and possibly even a "child development center". This is nuts. Everyone in any medical field knows by now that children are particularly vulnerable to the effects of radiation at any level, as are pregnant and nursing women, babies, the elderly and those with immune system disorders - radiation of course affects the immune system response i.e. screws it, as well as the heart muscle, to name a few problems, - I can keep on tossing in more conditions like leukemia, Downs Syndrome

but I'm sure NRC is beginning to get the picture.

I want to add a word about the two coal fired units quickly : obviously they shouldn't be there either, even if so-called "clean coal" and scrubbers are used. The natural uranium in coal is also unhealthy. The difference between coal and nuclear, is that coal does not emit and/or create fission and activation products which are far more deadly - and if a coal plant has a problem, you close it and fix it, there is no potential for a meltdown, or an accident that would affect millions and cause farmers in the area to loose all their crops and cropland forever etc.. etc. of course there are other serious pollutants coming from coal plants, but I am not going into that here. The coal plants will also be contributing to a degraded marine environment in the area and the canals. How many solar collectors could be placed high above the canal system ? Just curious. I would think quite a number in an area two miles by five miles. With regard to the coal plant, a question to ask, is this : are the sludges and ash etc. kept onsite and are they leaching into the water (groundwater and canals) - 2. The combination of mercury and radioactive contaminants co-mingling is a bloody awful prospect.

The combination must be affecting all marine life and birds and mammals in the area, all plants, all children. Plus the onsite workers of course at both the types of plants. There are a huge variety of threatened and endangered species in the area, all would be affected. The so called Everglades Mitigation Bank - a farce if there ever was one, in that, in typical army thinking fashion, one area somewhere totally different is destroyed, and then the Corps of Engineers and everyone say its OK because in exchange they've saved some snippet somewhere else. Well, in this case, the snippet they're saving gets the airbornes from both the nuclear plants and both the coal plants dumped on it. The South Florida Regional Planning Council either temporarily went mad, when it supposedly stated renewal of Turkey Points licenses was generally consistant with goals and policies for the plans for South Florida including natural resources of regional significance and emergency preparedness, - or it hasn't a clue on the effects of nuclear plants or what would happen in a Class 9 accident. The Florida Dept. of Community Affairs must have likewise gone potty saying renewals for Turkey Point were consistent with Florida Coastal Management Program. Don't they grasp that when an evacuation occurs due to a nuclear accident, not only don't their insurance policies cover it, but they are never going back ? It's not like a hurricane, not even hurricane Andrew. There's no packing up the car and heading out with the family dog in a relatively calm manner with hours warning. At Chernobyl, people literally left their dinner half eaten on the table, stuffed a few things in a bag and boarded buses, never to return, only to get ill themselves, and lose relatives, and live with constant worry.

Now to what happened with Hurricane Andrew : they were lucky, as the tidal surge was highest over ten miles away if I remember correctly, and it was over 16 ft. In any event, Turkey Point looked like a giant egg beater had attacked it. The massive service water tower came down , there was total chaos, 105,000 gallons of fuel oil from the Blackstart diesel generators from the coal units was all over the place.. the security computer was out, all badging equipment for radiation monitoring was out/damaged. Some equipment for radiation monitoring was inoperable, outside communications were lost, both metereological towers which are crucial to establish which way and what radioactive crud is blowing where, were inoperable, most environmental radiation monitoring equipment was destroyed, the air sampling stations were destroyed, no anemometers for measuring wind survived at Turkey Point. 1,500 gallons of Bunker C fuel oil went onto the surface of the intake canal. The Spent Fuel pool, Unit 3, exhausts directly to atmosphere, with radiation monitors in it, it lost the system, some ductwork failed and it couldn't monitor diddly.

The fire protection system was a terrible mess. Local government radio systems communications were lost as antennas were down at various places in the state. The plant page system failed. The cell phone system basically failed as repeating stations were damaged offsite. This system is used to alert the population of a need to take protective action in event of a radiological emergency, along with the electronic siren system of 41 sirens. The sirens can broadcast vocal messages too in public address mode, its operated by Dade and Monroe County emergency response directors, but was installed, and is maintained by, the utility. Hurricane Andrew severely damaged the system causing it to loose all remote function. The hospitals needed fuel oil for their emergency generators, and a lot of people got very upset due to the hold-up because Turkey Point got first dibs - you have to keep those nuclear lemons from meltdown.....

N.B. SPENT FUEL POOL COOLING FOR EACH UNIT WAS LOST WHEN OFFSITE POWER WAS LOST, Unit 3 at 4.40 a.m. Unit 4 at 5.20 a.m. The Temperature in the spent fuel pools increased very slowly. Finally power was restored to the Spent Fuel Pool pumps by MANUALLY closing some breakers to resupply power from the emergency diesel generators. These pumps are cooling pumps to maintain Spent Fuel Pool water circulation so the spent fuel in the pool doesn't eventually meltdown. It took a little over five hours to do that - power was restored to the pumps at 9.45 a.m. The plants giant turbines are (wait for this one- located in the open air on TOP level of the turbine building, with huge canopies over them of steel and corrugated steel- everything was peeled off and tossed like so much junk. Many buildings on site were totally destroyed, cars were dumped upside down, trees were not only down, but leafless, the plant access road had to have over 2,500 trees which were down, removed, before help could get through. The Emergency Diesel Generators had to work for six and a half days to prevent a meltdown, and one EDG tripped on two instances during this time. People need to understand these are not itty bitty generators, they were eating ONE HUNDRED GALLONS OF FUEL OIL EACH, EVERY HOUR, as soon as trucks could get through, they kept replenishing the onsite available fuel, so in five days 11 truckloads of approx. 77,5000 gallons were brought in, to add to the onsite 50,000 gallons for Unit 3 and onsite 76,000 gallons for Unit 4. The fact of the matter was, no one really knew when offsite power could be restored, so it was wise to bring in more oil, to avoid a meltdown. All this is the short form of what went on. It was chaos. Prior to the Hurricane, Florida Power and Light was reminded that there was a need for Turkey Point to have offsite power and that that power HAD to be restored ASAP. Unknown to the public, prior to the arrival of the hurricane (any hurricane at any plant), the operators GET TO DUMP OUT THE MAXIMUM PERMISSIBLE AMOUNTS OF BOTH GASEOUS AND RADIOACTIVE LIQUID WASTES, to lower the amount onsite. This is awful. Furthermore, at Turkey Point, the drains (with all that contamination) were frequently subject to backflow so contamination must be more widespread. Afterwards the NRC sent one of their famous assesment teams in, BUT the review did NOT include : assesment of violations of NRC Rules and Requirements or, review of the design and licensing bases for the facility except as necessary to understand the significance of the event/experience, and most important did not even include assesment of offsite emergency response capabilities of state and local authorities (who were of course overwhelmed). This special team also included members of the Institute for Nuclear Power Operations, and they and the NRC signed off on not including the aforementioned. This is a bloody outrage. And that Institute got to be part of review and approval of the report. What was left out ? what would have been included if only NRC had made the report, as should have been the case ?

N.B. To add to everything about Turkey Point, there is a huge variety of threatened or endangered species of plants, birds, animals etc. and so on, in that area. Critical wintering habitat for the piping plover has been proposed both south and north of the site. Florida Panthers have been tracked with radio collars in the vicinity of the site at least as recently as the late 1980's. Poor wood storks come to the disgusting, contaminated cooling canal system in winter.

Their exposure to radioactive and chemical contaminants will further threaten them and their fertility and their future. The plant is within the boundaries of the designated critical habitat area for American crocodile and the West Indian Manatee and the crocodiles also go in the cooling canal system. They must be contaminated with both radioactive and chemical contaminants. I believe the Cape Sable seaside sparrow is now extinct, emissions from the plant will have played a role in any area extinction.

All a plant Radiological Environmental Monitoring Program does, is essentially say they are within what they are allowed to dump/discharge/contaminate/expose etc. etc. blah, blah, blah and that it's always all within the accepted, or allowable or appropriate, or some other garbage the nuclear pushers came up with in order for the place to operate to begin with. The fact is, cobalt -60 is NOT a natural constituent of ANYTHING except a nuclear bomb or a nuclear power or research reactor, same goes for a laundry list of man made radioactive crud at these facilities. Strontium-90 is NOT MEANT to be in the cooling canal system but it is. It is not a question of something being below regulatory limits, the limits were set to allow what's in a nuclear bomb to go out over the entire region, Everglades, wildlife, staff, people, so the nuclear industry could soak money out of the taxpayer by way of subsidies, and out of the ratepayers. And, lest we forget, so that all that deadly plutonium in the spent fuel rods (and pool), could be used to create weapons if needed.....

Finally, in the event of a Tsunami, the entire plant would be mangled, and the spent fuel pool/pit, and the Auxiliary building with radwaste in, EVERYTHING would be swept all across the peninsular one way or the other, and then as waters receded some onto the Keys. It has been well established by Devinder Sharma, a New Delhi, India based, food and agricultural policy analyst, that when mangroves are cut or otherwise interfered with, tidal waves and Tsunamis have a far more devastating effect on that area of a coastline, than on the areas with natural full mangrove cover. Mangroves are among the worlds most important ecosystems and serve as a "nursery" for numerous commercial fish species. Mangroves absorb more carbon dioxide per unit area than ocean phytoplankton according to Sharma, a critical factor in global warming. Mangroves help to protect offshore coral reefs by helping to filter out silt coming from the land flowing seaward. Areas in South India with dense mangroves suffered less economic and human casualties than areas without, in the recent Tsunami. Sharma states that the famed mangroves in Orissa (which also serve as breeding ground for olive-ridley turtles) reduced the impact in that area of the terrible super-cyclone that hit in 1999, which killed thousands and left millions homeless. Without the mangroves it would have been worse. Some of the effects of tsunamis have also been detailed by Russell Hoffman as they could affect nuclear plants. The fact is, Turkey Point is basically in the ocean if one reads the documents, it's in the mangrove swamps and the Everglades area. It is absolutely unconscionable to allow this facility to continue to operate. It must be shut down, and the whole damned thing carted off to a deep, dry, stable underground repository for burial. (I know, I know, there isn't one yet). I believe it is a Westinghouse PWR. The fact is, many overseas PWRs have found there is cracking of reactor vessel internal baffle former bolts. This is very serious and NRC warned PWR owners about this potential problem here also. Westinghouse, Babcock & Wilcox and Combustion Engineering Owners Groups after much discussion, have all basically decided not to lose sleep over it, and they'll all take a look at the problem one way or the other, they're analyzing it and so on. The first six PWR's operated by the EDF - Electricité de France - you know, the French nuclear pushers, have it, for example. The bolt cracking appears to be age related stress corrosion cracking (intergranular) influenced by bolt material, fluence, stress and temperature. Turkey Point is also subject to aging issues, and this could be one of them. This plant could never get a permit to be built at this location today - this is not 1967 when it got its permit to build at the height of the Atomic Energy Commissions lying about all things nuclear. It must be shutdown and not relicensed - shutdown at once.

Crystal River, Florida : As this is an ocean sited reactor like Turkey Point and St. Lucie, anything related also applies to Crystal River, from killing sea turtles, to vulnerability to hurricanes, tornadoes and tsunamis. Bad weather has repeatedly affected Crystal River, and that is on the Docket. Its located on swamps and marshland i.e. vital ecosystem for everything from migrating birds to fish and shellfish. The huge and lenthly intake structure has a major effect in killing/destroying vast quantities of seafood from the area, thus depleting fisheries, and the discharge canal to the Gulf of Mexico has not only contaminated the canal bottom, but damaged benthic invertebrate and seagrass communities in the so-called "mixing zone" i.e. the area where the hot, radioactive discharges mixed with chemicals used by the plant are "stirred around" where they meet the other waters and the radioactive crud gets spread around so it's happily irradiating all it comes in contact with. The so-called NPDES Discharge permits are always a joke, since they do not address the radioactive contaminants coming from the plant thanks to EPA helping out the nuclear boys and the NRC, only the heat is addressed, not the cause, the radioactive decay heat energy, and contaminants like cobalt-60, strontium-90, yttrium-90 (a known major hormone disrupter) and cesium-137, tritium, carbon-14, and a laundry list of further contaminants. Building any helper cooling towers, is not going to address the radioactive contaminants except possibly spread more airborne. Crystal River also deprives the County of approximately 1.4 million gallons of groundwater the plant draws PER DAY from wells in Citrus County. i.e. approx. five hundred and eleven millions gallons a year, better used for agriculture or human consumption in an age of global warming WHICH RADIOACTIVE DECAY HEAT FROM NUCLEAR PLANTS AND FACILITIES CONTRIBUTES TO ☿ along with from past bomb tests, radioactive waste dumping in the worlds oceans, such as by that foul Cogema off France, and by Windscale/Sellafield off Britian, and from Russian nuclear abandoned crud in the Arctic etc. etc.) Although the two other units, the coal fired units, are of course also responsible for pollution, the fact remains, that if a coal plant breaks down, you just fix it, whereas if a nuclear plant meltdowns millions of people will die and/or become ill and have their lives ruined forever. Crystal River is on the Gulf of Mexico, in event of a meltdown, its not just that the whole of Citrus County is lost, Crystal River town is lost, Crystal Bay, Waccasassa Bay, Homosassa Bay, Homosassa Springs, the Withlacoochee State Forest, Cedar Key, towns all the way past Ocala, the coast past Clearwater, depending on wind Direction Gainesville or Lakeland, but you loose the Gulf of Mexico and the radioactive crud is carried on the Gulf Stream to Europe. What fools put this in an area of countless springs, over limestone - travertine limestone, no less - ? Which money-grubbing jerks decided to put a nuclear plant of all things, at a place called Crystal River, and have the gall to call something containing the death of middle Florida after a multifaceted prism of beauty ? And which gutless wonders at the Atomic Energy Commission gave them a construction permit ? Their names, with the notation "Planet killers" should be on the front page of every newspaper. An earthquake and volcanic eruption in central America that triggers a tsunami - a shift of the Caribbean Plate - and its all over. Even a large hurricane hitting it head on, channelling storm surge ahead of it, would be a catastrophe at this problem plagued dump. They can't even keep their Emergency Diesel Generators operating in the best of times, but when check valves screw up which are meant to prevent backflow and maintain the pressure boundary of the fuel oil system for the Emergency Diesel Generators, it's not good. And the reactor trips, and the leaks and on and on.

Farley, Alabama: What can one say about a dump that spews radioactive iodine over Georgia and its own Alabama neighborhood, and didn't even suggest (to my knowledge) that all area milk should be impounded as a precaution? Sure, they spew it all the time, but the time I'm talking about, even the Dept. of Energy (aka the Death Of the Earth squad) got concerned. The fact that the States did nothing about it is no surprise, since in Georgia anyway there are no medical doctors who are radiation biologists or even similar on staff at the environmental divisions, and of course NRC only has that part-time doctor who in all likelihood didn't even know. Of course the noble gases went out big time as well. Workers were contaminated, but it all got brushed off.

The place is so old, that they might as well set the reactor trips and Steam Generator feedwater pump problems to music, they occur so often. - There's something called "aging" involved a lot of the time, and no matter that the cheapskates at Southern Company plead poverty to the US Army Corps of Engineers and insisted they were too poor to pay to bring the new steam generators in overland, so they demanded that the US Army Corps of Engineers release vitally needed water the length of the Chattahoochee River to enable them to float the steam generators up the river, amidst huge protests and environmental concerns, the new steam generators which will have cost millions and millions, are pretty useless if the support systems are so bloody old they all keep failing. Something is always failing, tripping, inoperable or some other condition than it should be. The place is a disaster waiting to happen in a big way. Of particular concern is the fact that the plant has contaminated the sediment in the Chattahoochee river to which it dumps its chemically and radioactively contaminated effluent with cobalt-60 and cesium-137 in particular and of course aquatic species are bio-accumulating it. Further, Seminole State Park is downstream from it with its huge lake and wetlands system, migrating species use, over which it dumps airborne radioactive contamination. To add to this, the fools located Farley OVER an aquifer, at the edge of a second and over it too, these are pretty major shallow and deep aquifers, Lisbon and Floridan, the joke is one could hit them with a shovel so close to the surface are they, and all this is a significant water recharge area. Hurricane and Cedar Creeks are affected. Years ago they found one of the so-called decontamination (read radioactive) drains had been hooked to a so-called non-rad drain to an on site drainage basin, so that'll be contaminated with goodness knows what and may well have gone into the aquifers. Further, every time the Chattahoochee floods (and boy does it flood down there) there's water all over the site washing all site radioactive contamination into the river and mixing into the the aquifers. Part of one aquifer goes over into Georgia. This could all have contaminated peoples wells in the area. Basically we are talking coastal plain sediments/sand/ limestone sinks in the area and down to Appalachicola and the Gulf of Mexico. There are springs all over the bloody place, reflected in the names of surrounding small towns, all of which could be contaminated, and would be heavily contaminated forever if the place had a meltdown, or even another type of major accident like a large loss of spent fuel pool water. Endangered Species in the area include the Gopher tortoise and the Florida Panther is within the 30 mile range. It's in the breeding range of the Yellow billed cuckoo from South America. and purple martins from the Amazon, also wood thrushes and red headed woodpecker, and its a cerulean warbler and Henslows sparrow overflight/rest area en route during migration. If the dam at Lake Walter F. George failed in an earthquake, or during flood stage on the Chattahoochee upstream from Farley, the effects on water intake and even the plant site would be horrendous.

In that area of Alabama, aquifers are susceptible to surface contamination quite easily. Also, across from Farley, at the Great Southern Paper Company, they had incredible levels of Beryllium-7 in their vegetation. 23,000 pCi/kg sure as hell isn't from cosmic rays, its from the plant, and so is the cesium-137 in their soil. Towns immediately affected in event of a major accident have probably

quadrupled in size since the dump was built, namely Bainbridge, Georgia, Cedar Springs, Donalsonville, Ga., Blakely, Georgia, Ft. Gaines, Georgia (a gorgeous historic town,) Albany, Ga., Moultrie and Americus Georgia, and of course to the north is Columbus, Georgia, with its huge military complex at Fort Benning where they too do their own environmental degradation, next to Phenix City, Alabama. Plus on the Alabama side, you've got Cosby, Ala., Columbia, Gordon, Crosby and Dothan Ala., Abbeville and Eufaula Ala., and Sneads, Chattahoochee, Quincy, Marianna and every town the length of the Apalachicola River to the Gulf in Florida whose water intake would be screwed. The folk in Florida Caverns State Park would be pretty upset too, just as the thousands at Kolomoki Indian Mounds State Park in Georgia would be too - the great temple mound, the burial mounds, the ceremonial mounds all from the 12th and 13th centuries, ruined forever with radioactive fallout. All this would be lost, as well as the Gulf of Mexico, the town of Apalachicola and the jewel of the Gulf, St. George Island, with its bird sanctuary and osprey.

Farley has so many problems , some are because design drawings are different from plant configurations (blaming the workers doesn't get it) however, people should know that in a nuclear plant the consequences of trying to do two tests at the same time just might lead to a major screw up, such as the one that lead to a Loss of Site Power in Unit One and loss of a residual heat removal pump.

The Docket is full of problems - I mean they are meant to know how much spent fuel can go at which location in the spent fuel pool. The penetration fire seals are meant to meet the 3-hour fire rating. They are not meant to mishandle safeguards information.. But that is typical Southern Company with its energy to screw the world, and with its track record, one day they'll mess up so badly, the nation will pay a heavy price.

Like all nuclear plants, Farley uses incredible amounts of water. It uses approx. 87 million gallons of water a day from the Chattahoochee River (to cool the reactor core so it doesn't meltdown and also the spent fuel pool) but it discharges only about 46 million gallons a day back to the Chattahoochee, the rest is lost to the atmosphere and in other ways. Further, it has a five year average use of more than 168,000 gallons of water a day WHICH IT WITHDRAWS FROM THE MAJOR DEEP AQUIFER. So, that's 61,320,000 gallons a year by which it depletes the aquifer, - water better used for agriculture and other human needs. The pond/lake into which the cooling water withdrawn from the Chattahoochee goes first, is also part of the area they will first use as a "heat sink" -in event of meltdown, the stuff hisses and bubbles there, then to the Chattahoochee, plus of course through to BOTH AQUIFERS. A LARGE PART OF THE SOUTHEAST RELIES ON THE FLORIDAN AQUIFER. But the executives of the Southern Company won't care, they'll be off the other side of the world sipping bottled water , while thanking the Cheney/Bush Administration for helping them push nuclear, energy and then for them all having the money to try and escape the problem.

San Onofre, Ca. : There is no need to send soldiers abroad where they may get killed, when they are being subjected to slow, quiet, unseen death via the radioactive emissions, the noble gases etc. from San Onofre being dumped on them at Camp Pendleton, which surrounds the place of death. Nothing like irradiating young men and women in the prime of their reproductive life, so when that prostate cancer surfaces, or that baby is born with a birth defect, those who keep the records may suspect why, but they won't tell the afflicted that's for sure. Or it may manifest as a thyroid nodule from the radioactive iodine discharges, even thyroid cancer, or perhaps leukemia, or bone cancer from the strontium-90 clumping to bone, who knows if the spontaneous abortion suffered by some young woman working at the base was caused by the plant - the World Health Organization made damned certain decades ago that those early miscarriages do not even have to be reported under 20 weeks gestation, they don't even show up in the statistics, your local state health reporting agency , when questioned, may well inform that its only reported by doctors after

twenty weeks. Did I hear someone at NRC express surprise ? Don't tell me NRC doesn't know about the deals that go on. Like the deal between the WHO and the nuclear pushers at the IAEA, from 1959. Or the US Public Health Service being hand in glove with the FDA and no one telling the public the food chain is radioactively contaminated until it gets so high we're all glowing in the dark, and those boys all relying on that bastion of lies and deception, the ICRP, to say what the "allowable" exposure levels will be this year. I'm sure the soldiers are all told the lies about radiation exposure being nothing much to worry about, they were initially told that about Depleted Uranium Munitions after all. I ~~BO~~ have the documents on that too. And the Armed Forces Radiobiology Lab up in Maryland labors under the delusion that about the only thing soldiers would have to worry about, quote : "...after reactor accidents and following the destruction of a reactor by hostile forces." would be the radioiodines. Do I hear even the NRC emitting a collective groan ? Obviously I did try and enlighten them, -doing my bit for humanity and all that - but they are the people who also believe that severely radioactively contaminated people quote "may requiredelayed evacuation from theater during nuclear war" - no, I'm not joking, they really do think they will survive and that after 5 weeks survivors may be able to return to light duty, - Bleeding, hair loss, diarrhea, ulceration, death of crypt cells, anorexia, fluid loss bacterial infections and death be damned - return to light duty men. (Excuse me a moment, I have to go outside and scream, so I don't scare the dog.) So the folk running Camp Pendleton may well think having a bunch of nuclear reactors on top of them is not a problem. Lets just hope none of the soldiers get drunk one night and decide on a little target practice with an M1A1 Abrams tank with its Depleted Uranium turret, and take out San Onofre.... Is Southern California Edison and the California State Legislature ready to explain to the world that the plume headed round the world (after obliterating Southern California) was the result of a few fellows having a bit of a party ? No one will believe the stupidity of the location of San Onofre The southern part of California, according to earthquake maps etc., is particularly vulnerable to earthquakes. Between the San Clemente fault offshore and the inland Elsinore fault, between which San Onofre sits, there is a veritable tangle of faults and areas denoting earthquake epicenters of 4.0 to 7.0 measured between 1964 and 1994 stretch hundreds of miles from the Gulf of California to the Agua Blanca Fault to the San Jacinto Fault (east of the Elsinore Fault) up the entire state of California with many grouped between Los Angeles, Santa Catalina Island the San Clemente fault and Tijuana, San Diego, the Elsinore and San Jacinto Faults and of course the south end of the San Andreas fault at the Salton Sea. Santa Catalina itself is made of rocks scraped off the Farallon Plate as it subducted under North America. Also, the Murray Fracture Zone and the Arguello Fracture Zone are out in the Pacific lined up as the crow flies east between Los Angeles and San Diego. I believe there was an 1812 Santa Barbara Earthquake and tsunami, and one scientist has been concerned about a repeat NRC earthquake monitoring instructions are, unfortunately, also followed by the D.O.E., basically they register/go off, when the walls will begin to cave in, at what amounts to between 6 and 7 on the Mercalli Modified scale. When I found out, I could not believe the stupidity. - What we have concerning San Onofre, is that the Pacific Plate carrying Baja California and Los Angeles runs into the big bend in the San Andreas Fault, which is what causes the the region to be shattered with hundreds of faults, according to the National Geographic Society. Further upcoast in the north, the 1700 earthquake and tsunami caused part of the coast to sink and be covered in seawater.. It doesn't matter what caused the earthquake, the point is that the results are and were so horrific, according to the National Geographic, the Native Yurok People remember it in their stories. An earthquake offshore, perhaps hundreds of miles out, could trigger a tsunami that would not only turn San Onofre into a bubbling, hissing radioactive and chemical cauldron of smashed spent fuel,

mixed with thousands of gallons of diesel fuel from the diesel generator stores, huge amounts of deadly chlorine used in "cleaning" out crud in reactor pipes etc. also huge quantities of equally deadly hydrazine - the whole lot probably exploding. As the deadly radioactive and chemical brew surges forward sweeping switchyards, trains on the nearby tracks, cars on the road and all the plant personnel along with (probably) parts of the reactor and core itself far inland, prior to retreating, it is likely it will be picked up by orbiting satellites, for future discussion at the trials of anyone still alive who had anything to do with locating, licensing, "regulating", owning etc. the hell-pit formerly known as San Onofre. The ridiculous "sea-wall" meant to protect San Onofre, the workers and the public from the might of a Pacific tsunami should be approximately 300 feet higher and 100 miles longer and have the depth of a football field if one compares some of what happened at recently ravaged areas in Southeast Asia. Somebody better start building now, because even if both Units are shutdown, one is still faced with the spent fuel onsite and the radioactive fuel in the core, and one can't move the most recent core offload into the pool OUT of the pool and into casks for transport offsite for many a year, even if there WERE someplace to store it deep below ground, which there is not.

A tsunami/earthquake would also destroy the intake structures for the cooling water (which extend about 3,400 feet into the ocean) located at a depth of about 30 feet, as well as the discharge diffuser port systems 3,800 to 8,500 ft from the shore, so even if the tsunami were smaller and the reactors located 300 feet higher than they are - which they are not of course - they'd be screwed. When Russell Hoffman has repeatedly raised the issue of the effects of tsunamis and earthquakes, he is perfectly correct of course, even supplying the press with excerpts of the Encyclopaedia Britannica concerning tsunamis, which mentioned coastal water can rise 30 Meters (about 90 feet) in ten to 15 minutes. So much for San Onofre's 30 foot sea wall.....

But to other issues, environmental and mechanical : San Onofre has caused massive damage to the kelp community, to the local populations of midwater fish species and to distant populations of fish in the area between Point Conception and Cabo Colnett in northern Baja California. Fish living near the bottom of the San Onofre kelp bed such as sheephead, barred sandbass and black surfperch, between 1975 and 1989, were estimated to be reduced by 70%, (roughly 200,000 fish weighing 28 tons) below the abundance expected in the absence of San Onofre's reactors. 13 species of snails and white sea urchin were estimated reduced between 30 to 90% depending. The reduction of the kelp bed area was estimated to cover 200 acres. By now it would be far greater. The reductions will not only have come from things like the noted increases in the flow and the nte of particles near the bottom and modification of currents near the plant, but because of the effects of radioactive decay heat and radioactive contamination and damage to the organisms themselves, such as reduced fertility. The ocean floor will be radioactive i.e. have radioactive contamination in the sediment, due to the discharges. Furthermore, based on the results elsewhere, it is possible that the salt spray that crashes ashore contains radioactive contaminants such as cobalt-60, plutoniums, uraniums, radioactive iron etc. etc. so it should be tested at shore line, and the sand tested also down to about ten feet cores. Fish may bioaccumulate it all. Due to San Onofre being located next to the ocean, salt also plays a role in aging and corrosion. Many piping systems not easily accessible may be severely corroded which could lead to unforeseen breakage. San Onofre has almost constant problems. Lets look at a few- you know, to give a flavor of how this dump operates :

Right now they're all in a fluff, because they are trying to get new steam generators, (instead of shutting this place down) but they can't even deal with what they have as, for example, they had a failure to follow procedure during postweld heat treatment phase of steam generator tube sleeve installation, plus steam generator tube end repair was performed on the WRONG tube, also a steam generator tube sleeve was not

even accessible for welding, plus post-torque calibration checks for plug installations in the steam generator hot leg side were outside limits specified in the procedure. On other issues, discrepancy was found between pipe support drawing, as found condition, and applicable stress calculation. Defects were identified on the inlet and outlet flange seating surfaces of spare pressurizer safety valves. On several occasions in Nov. 2000 the licensee permitted instrumentation and control technicians - NOT A LICENSED OPERATOR OR SENIOR REACTOR OPERATOR- to perform diagnostic testing ultimately manipulating the controls of the facility. THIS IS NOT ALLOWED, and they got a violation cited, but it got played down. It was stated that the issue had "no credible impact on safety". Let me see, unauthorized people move the control element assembly which has a direct effect on the reactivity of the reactor, against regulations, -does it take Bugs Bunny to be manipulating the controls before anyone gets worried? Does a meltdown have to occur before it's considered credible? Oh, I forgot, NRC has decided recently that meltdowns aren't credible, only design basis accidents are credible - sort of like telling a race car driver, that if he does have an accident, he must do it according to the design of the track and in front of the pit stop so they can help, and that they will not even consider him losing a front wheel at 120 miles an hour, and plowing into the crowd, killing himself and ten others, because it's not credible. Everything is credible when it comes to nuclear power plants - after all, San Onofre had an error in the CEFLASH computer code for small break loss of coolant accidents. Don't you just love that "small break" garbage, come on, you don't want a loss of coolant accident, that's how you can wind up with a meltdown. And why doesn't San Onofre (and other reactor sites) put it in plain English and call it a loss of WATER when water is the coolant. They have to constantly do repairs on this set of old dumps - if it's not a main steam safety valve that needs replacing, it's a pump, if it's not a pump, it's something else. They had an inoperable containment dome air circulator; they missed the inservice test for the safety injection tank nitrogen valves, they failed to include the safety injection tank nitrogen supply check valves in the inservice test program, so they were never tested, even though they have a safety function; they had a high pressure safety injection Pump inboard bearing oil leak; they had damaged/ missing insulation on low pressure safety injection pump 2P015 discharge piping; they had to do repairs on turbine-driven auxiliary feedwater pump 3P140 Trip-Throttle Valve 3HV4716; Normal Containment Chiller 2ME201 failed and they had to manually start containment emergency cooling units until the other normal chiller could be put into service.

There have been concerns noted about the circumstances affecting the financial viability of Southern California Edison Co. expressed by the NRC, and NRC's concerns quote: "...especially as they relate to your (i.e. SCE Co.) responsibility to safely operate the San Onofre reactors." For this reason alone they should shutdown. It costs less as they do not need more fuel. Indeed, the State of California and Southern California Edison initiated some sort of (unspecified) actions, according to NRC quote "...to address the impacts of these financial challenges." Is there enough hard cash in their so-called "decommissioning" funds? If not, why not? People should be concerned about company finances, because what do the people of California do if SCE declares bankruptcy, walks away from the catastrophic mess they and all nuclear plant owners have made? Leaving all the deadly radioactive spent fuel onsite, with very little oversight. NRC even intends to allow the industry to reduce insurance requirements after a minimum spent fuel pool cooling period has elapsed, itself a disgrace. Licensees may no longer be even required to have a formalized emergency planning zone or emergency operations facility (I believe that is the case already at some sites) another outrage which must be changed. About the only commitment from the industry, from the Nuclear Energy Institute to be precise, in the matter of spent fuel pools and decommissioning, is a pathetic letter from them, to the NRC, containing 10 points they say they'll do, including one (number 8) which shows they don't know what the hell they're talking about, as they aren't going to be able to fix a spent fuel pool catastrophically damaged (by earthquake, heavy load drop like when SONWG's crane -all 80,000 pounds of it - was dropped when a strap broke) because, to quote NRC "The dose rates in the pool

area before any zirconium fire (which would occur in a catastrophic pool failure - my addition) are tens of thousands of rems per hour..." As NRC mentions, "there is no possibility to mitigate the damage". (See "Technical study of spent fuel pool accident risk at decommissioning nuclear power plants" published Feb. 2001)

Of course someone could attack the spent fuel pool now. I believe San Onofre is projected to have over 3,500 spent fuel assemblies by 2011. Assuming (a word I usually dislike) that each assembly is comprised of 200 spent fuel rods - to use the NRC's words of how many rods are in a "typical" spent fuel assembly - that means we are talking 700,000 plus spent fuel rods next to the Pacific Ocean, in an earthquake zone, in a tsunami zone, in a tornado zone/hurricane zone, just down the way is San Diego and the Hotel Coronado, next door are all those young men and women at Camp Pendleton. Mr. Hoffman wishes that I remind the NRC, that in January of 2002, San Juan Capistrano police arrested a man who had threatened to shoot up the San Onofre Nuclear Power Station and his former coworkers at the plant. HE HAD AN ARSENAL OF ALMOST 300 WEAPONS, INCLUDING ILLEGAL ASSAULT RIFLES, 5,000 ROUNDS OF AMMUNITION, AN ANTITANK ROCKET LAUNCHER, FOUR LIVE HAND GRENADES, TEAR GAS, SURVIVALIST MATERIAL etc. etc..

(Don't anybody even THINK of responding 'well, at least they got him so it's not a problem!') The fellow could have taken out twenty spent fuel pools and started the damned zirconium fire, just for starters. I do not say this lightly - God was working a miracle that day to save Southern California. (And in case the soldiers at Camp Pendleton think one can go and shoot up a nuclear facility to get a criminal, the answer is NO - which is why no sane person even thinks of bombing any type of nuclear facility, the global consequences are too horrible to describe.) Now on March 6th, 2004, Unit 2 was in a refueling outage and operators were preparing to reload the core. Prior to moving irradiated fuel in the Fuel Handling Building, then, fuel movement starts, and after a while there's a screw-up concerning the Fuel Handling Building Post-Accident Cleanup Filter System, which exists to (try) filter airborne radioactive particulates and gases from the area of the spent fuel pool following a postulated fuel handling accident. Two trains of this PACU system must be operable during movement of irradiated fuel assemblies. If only one is operable, as was the case, then they can only operate if both Fuel Handling Isolation Signal channels are operable, including isolation logic circuits and associated Radiation Monitors. The screw up occurred when they removed one of the Radiation Monitors from service. Unfortunately people had failed to actually review the Operating Instruction that establishes the requirements for movement of irradiated fuel within the fuel handling building, even though they had discussed existing plant configurations. With nuclear plants, every last, tiny detail must be repeatedly read. On top of that, it turned out that there had been a similar event before, in Jan. 2001 at Unit 3, concerning transference of irradiated fuel from the fuel handling building to the containment. So, what is the upshot of all this? Well Southern California Edison asks for, and GETS, an Amendment to their facility Operating License ALLOWING THEM TO HAVE THE CONTAINMENT EQUIPMENT HATCH OPEN (repeat OPEN) DURING CORE ALTERATIONS AND MOVEMENT OF IRRADIATED FUEL INSIDE CONTAINMENT DURING REFUELING OPERATIONS..., as well as MISSILE SHIELD DOORS OPEN. But hey, don't worry, SCE is going to make sure the missile shield doors can be closed in thirty minutes - you sort of have to read it to believe it....See, it takes around 30 minutes to close the huge doors and hatch, and when they get that tornado warning (strike imminent) or that tsunami warning (doubtless from some fellow perched on top of a utility pole with a pair of binoculars, considering how this place operates) it's all going to work like a charm, with fellows sprinting over to help from "as far away as the opposite Unit equipment hatch ". Now, we are all adults, we all know what will happen if a spent fuel assembly is dropped onto a partially filled core - but these twits don't. They really do believe that fission products released from the damaged fuel are decontaminated by passage through the overlaying water in the

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reactor cavity. - Quick go phone the Death of the Earth Squad, the DOE and tell them SONGS has solved the unsolvable problem of what to do with spent fuel, break it up and toss them into water - to hell with Yucca Mountain, toss them in your neighbors kiddie pool.....- it appears (and I may be wrong) that they are only a bit worried about noble gases.. Now, first, they'll wind up allowing the control room operator to have such a dose it's outrageous, second, they did not use a thirty year wind rose, third, they only used two levels of wind speed and wind direction, and they did not provide any offsite and area meteorology as is common practise, because, someone tell them please, that it moves - you know, air, wind, plutonium, ruthenium, tritium, cesium, cerium, iodine, tellurium, strontium, carbon 14, and on and on. Fourth; fog, rain, humidity can all affect the way radioactive contaminants interact with the environment, as does time of day. Fifth, the radioactive plumes could be sucked into the air intakes of the other buildings. To use old references from the ICRP, namely ICRP-30 for dose conversion, from 1979 no less, is unforgivable. The whole thing is so outrageous no one can believe it was proposed, let alone that the NRC went along with it. It is absolute garbage that quote " There is reasonable assurance that the activities authorized by this amendment can be conducted without endangering the health and safety of the public...." or, quote " The issuance of this amendment will not be inimicable to the common defense and security or to the health and safety of the public;...." two of NRC's favorite slogans. With the hatch and missile shield open, a small plane or a variety of large and deadly weaponry with an extremely long range fired from a boat far offshore could go sailing in faster than Osama bin Laden can blink. And then, frankly, all hell will break loose.. THERE WAS A REASON THE TECHNICAL SPECIFICATIONS DID NOT PERMIT THE CONTAINMENT HATCH AND MISSILE SHIELD TO BE OPEN DURING CORE ALTERATIONS AND MOVEMENT OF IRRADIATED FUEL ASSEMBLIES INSIDE CONTAINMENT DURING REFUELING OUTAGES. ITS TOO BLOODY DANGEROUS AND IT INCREASES RADIOACTIVE EMISSIONS TO THE ATMOSPHERE EVEN WITHOUT AN ACCIDENT. This amendment should be immediately rescinded. One other thing concerning the spent fuel pool, during an earthquake, there will be extra stress on the transfer tunnel and the transfer tube could fail where it interacts with the pool structure, this could lead to drainage or siphoning off of spent fuel pool water. There should be a seismic fragility evaluation done of the spent fuel pool too. Plus the pool (and plants) should be required to do the Enhanced Seismic Checklist on pages A27B-7 through A2B-10 of the aforementioned spent fuel study published in Feb. 2001, Plus Out-of-Plane Flexural and Shear Failure Modes for Spent Fuel Pool Concrete walls and Floor as on Pages A2B-15.

Now, a quick by-pass to an issue concerning main feedwater pump turbines tripping on high discharge pressure when main feedwater regulating valve 2FV1111 and associated bypass valve 2HV1105 began closing, and it was determined that the valves began closing due to TWO CONCURRENT electrical grounds in the feedwater control system. It turns out that Ground 1 was caused by a pinched interconnect wire on one of the two feedwater regulating control systems AND THE WIRE HAD MOST LIKELY BEEN PINCHED SINCE PLANT STARTUP but the insulation had only just separated at the pinch point exposing the copper conductors. THEY NEVER COULD LOCATE THE SECOND GROUND. As "comfort", they conclude that because two grounds must be present to cause the aforementioned to close when a close signal is not present, as long as Ground 1 is repaired everything is fine..... Really? With regard to the feedwater control system, in 1999 a main feedwater controller card failed due to a manufacturing defect and age, on Unit 3, then in 2002 on Unit 2, a main feedwater controller card failed (had a shorted low limit operational amplifier) which was also believed to be an age related failure. The place is failing and aging, what's next to go? If you have a failure of the main feedwater system and the auxiliary feedwater system, ultimately the damned things will meltdown into the San Mateo Sandstone and the Gulf of Santa Catalina and the Pacific. Another issue that happened at San Onofre has potential implications in reverse: On 6/14/2004 the offsite power grid connected to San Onofre experienced a grid disturbance momentarily caused by a failed insulator on a 230 kV transmission line

outside Phoenix, Arizona. The failed insulator caused a 230 kV transmission line to fall into a transmission tower and short circuit. As we all know, nuclear plants are dependant on OFFSITE electrical power from the grid to keep vital functions going, and when it fails, the emergency diesel generators are meant to kick in and act as back-up. In this case that is presumably what happened according to the report, however, my concern is as follows : there would obviously be consequences to the grid, and by extension to other nuclear plants if an earthquake or tsunami cuts off power supplied by San Onofre, and no one could get through to San Onofre (assuming an earthquake minus tsunami some distance inland from San Onofre) because road and rails are rendered impassable, to deliver the approx. 100 gallons of diesel fuel an hour per diesel generator required to keep the plants systems going past the approx. onsite emergency supplies I believe for one week . I mean, you can't air drop diesel fuel easily, though I suppose helicopters could carry in 55 gallon drums one at a time. What I'm getting at, is not what are the consequences of not having San Onofre supply power to the grid as in when shutdown, but has anyone considered the consequences of sudden unplanned loss of power, and no way to replace such power, perhaps for months, due to widespread destruction off site , not just for San Onofres generators, but for example to areas San Onofre would supply with power, as well as other plants would supply with power, but ALL are incapable of power generation simultaneously. Say a major earthquake the length of the San Andreas, which could also affect that bloody awful dump, Diablo Canyon (appropriate name that - Devils Canyon), and all sorts of other electricity generators in California. Wouldn't it be better to shutdown San Onofre (and Diablo Canyon) now and replace them with a combination of wind, solar, wave, and other forms of renewables plus STRICT conservation, before the next earthquake ? Wouldn't it make sense to install a wind turbine or two and some solar collectors at San Onofre (and Diablo Canyon) as back-up power to the plant in case of earthquake, as even a shutdown plant requires the pumps etc. to work for core and spent fuel pool cooling etc. to help out the diesel generators. Both sites are big enough.

Speaking of earthquakes, the fiasco that ensued when on Feb. 1st 2001 a circuit breaker fire and subsequent partial loss of offsite power to Unit 3 occurred, should be enough to require shutdown. Murphy's Law, of everything that can go wrong, will, - was in full operation. It sort of went as follows : the Unit Auxiliary Transformer Circuit Breaker 3A0712 combusted at around the same time as a reactor trip and a loss of all control room annunciators occurred, the equipment failure in the Circuit Breaker resulted in a secondary switchgear fire, the main turbine generator tripped , the offsite power supply breaker likewise, the coastdown of the main turbine and motor loads continued to supply electrical energy to the ground fault (because of the Breaker problem) and the continued supply of electrical energy provided the heat source for the fire in Cubicle 3A0712, it all went on and on, in the middle of it all it was established that the turbine dc oil lube pump failed, as a result of its breaker tripping- and what is important is, that a) the fire occurred in Turbine Building Switchgear room T3-203 which is huge, 4,176 square feet , and contains no automatic fire suppression features- and b) chart recorders indicated a turbine thrust bearing temperature of 600 F at the same time as an operator found the load breaker for the dc lube oil pump tripped. What the licensee glossed over - actually it got left out of even NRC's report on the affair, is that the oil lubricates the turbine shaft in some way (as it was explained to me) and the 300 foot long turbine, rotating at incredible speed, -with no oil - wound up with the turbine shaft BENT. This put it out of service for ages requiring equipment to come in from almost the ends of the earth for repair. At the same time, because of offsite power being unavailable, feedwater and circulating water was lost resulting in a loss of condenser vacuum. The operators had to initiate emergency feedwater. To cut a long story short, while the fire was being battled (and argued over what should be used to put it out, because the plant personnel would not listen to the fire chief) the operators were using auxiliary feedwater to maintain steam generator level. This resulted

Of course, in lowering the level of water in one of two Condensate Storage tanks, which must be operable at all times and must contain a minimum volume of water, Condensate Storage Tank T121, the suction source for the three auxiliary feed-water pumps is designed to Seismic Category 1 requirements and enclosed in a Seismic Category 1 vault and this tank is REQUIRED to contain over 144,000 gallons of water. The other tank, Condensate Storage Tank T120 was NOT designed to Seismic Cat. 1 requirements, but is enclosed in a structure designed to retain water following an earthquake (remember you must have water) and there is a Seismic Cat. 1 makeup crosstie provided to CST T121 from both CST T120 and from its enclosure. So, the water level is lowered in CST T121 and the operators align the CST for automatic (water) makeup from the demineralized water storage tank... BUT, they didn't realize that when power was lost, the automatic level control valve had failed OPEN, so they fill the tank for an hour and the tank overflowed into the vault surrounding the tank with 12 feet of water, all this wound up rendering the 500,000 gallon CST 120 Tank inoperable, because its crosstie valves turned out to be closed, and under 12 feet of water - the valve is called Condensate Transfer Pump P049 suction valve. On top of that, two other valves in the vault were inaccessible while it was flooded. This is important because in the middle of a (literally) flaming disaster going on, they lost one alternate auxiliary feedwater source. This is an extremely condensed version of a major electrical messup, of stuff tripping all over the place, a fire that kept re-flashing, and a turbine situation where, had the turbine shaft snapped, the 300ft huge behemoth would've gone crashing through the facility rotating like a monster from a horror movie leaving catastrophic consequences in its wake. To add insult to injury, while all this was going on, goodness knows how much radioactive steam was released, as the operators relieved steam to the atmosphere using the atmospheric relief valves. Sort of radioactively gassing the community to save it. The facts of these matters are, as detailed in various reports, that both the situation with the CS Tank and the flooding, and the failure of the dc lube oil pump/turbine disaster situation could have been avoided had people done what they should have done in advance. The turbine situation could have been even worse, if the shift technical advisor had not advised the shift manager, that since the turbine thrust bearing temperature was at 600F, NOT to manually start the dc lube oil pump since the oil flash point was 347 F, and there could be another fire, so of course the shift manager kept the turbine dc lube oil pump secured. It later turned out that operators had received no training in firefighting techniques beyond the use of portable fire extinguishers, which shows Southern California Edison is not particularly interested in worker safety. Or the oceans purity of course. - Violating their already awful NPDES discharge Permit (which of course is not allowed to cover most radioactive contaminants as we know) seems to be enough to warrant going back to forcing San Onofre to submit its Radioactive Effluent Release Report Submittal Frequency to TWICE a year, instead of the ONCE a year they got: their Tech. Specs Amended to. In particular since the Violation is repetitive.

Then there is the issue the Union of Concerned Scientists raised concerning possibility of a meltdown at San Onofre, the risk due in part to design defects in the sump pump system, raising the potential for debris to clog the screen on the containment vessel sump pump, which could prevent water from being pumped through the reactor core.

Then there is the issue of electrical cable fires in general, such as occurred in 1968 at San Onofre Unit 1. Has all the lousy Thermolag insulation been replaced in Units 2 and three? If not, why not? Have they got the required proper cable separation? If not, why not? And how is "Rad Lumpy" getting along - you know, the 900 ton lump of a radioactive reactor pressure vessel from Unit One, that no one wants? Is it sitting near the beach waiting for its two brothers to join it? Did anyone have the grace to at least keep it under containment? - No, people from Georgia and South Carolina don't want this radioactive behemoth brought to the Chem-Nuclear radioactive monster dump from hell at Barnwell,

South Carolina, already located over the most significant groundwater recharge area in the Southeast with tritium bubbling up in water in the trenches since ages - and no, not to the Death Of the Earths(DOE) site next door, the massive radioactive and chemical blob from hell, the Savannah River Nuclear Site, all 300 square miles of it likewise over the recharge area - the runoff from both already result in radioactive fish in the Savannah River- though I admit not improved by the radioactive contributions from Oconnee's three nuclear plants and Vogtle's two. NRC and DOE have already designated the Savannah River Nuclear Site the radioactive pay toilet of the nation, along with the Barnwell dump. Hell, DOE wants to make the new plutonium pits for more nuclear weapons there (bunker-busters ring a bell ?) and the NRC has just defied common sense and decency, by allowing the nuclear cabal of Duke (Duke Project Services Group Inc.) COGEMA (COGEMA Inc.) and Stone and Webster called DCS together, to build that ghastly Mixed Oxide Fuel Fabrication Facility (MOX for short) where the bastards are going to turn surplus plutonium dioxide and surplus depleted uranium dioxide into reactor fuel for the aforementioned lemons, McGuire and Catawba. I admit when I pointed out that the huge facility was going to go in over areas of soft soil with a tendency to cave in,

the cabal/DOE moved the location they intended to put it over slightly, but maybe they missed one...and that earthquake factor.....for shame on you all. So, no, everyones old radioactive garbage from California to the radioactive DU contaminated tanks from the first Gulf War they buried in South Carolina, is not welcome. The women went through the first crops of dead babies already, due to the mess, and the epidemic of spina bifida is not only due to insufficient folic acid....but I digress, as usual - one has to educate the next generation so they don't believe the lies put out. NRC must stop allowing nuclear garbage to be brought to areas of high rainfall, major groundwater recharge, full of large creeks and countless springs, not to mention earthquake faults. And instead of colluding with the DOE, NRC should rescind that permit - just as NRC should act on this Petition.

Back to the issue of the Feb. 2001 fire briefly : It was considered so serious, in its consequences, that a so-called "NRC Information Notice" on the event and on a similar one that happened at a foreign (unnamed) PWR, as a warning to : "All holders of licenses for nuclear power plants." It was sent out Jan. 8th, 2002. The Notice said, that "These electrical events provide insight into possible Collateral damage and cascading failures resulting from a single electrical failure and consequent challenges to plant operation." The Notice was 4 pages with extra attachments. Obviously this sort of thing can happen again, anywhere.

A brief insert on McGuire* Unit 1 had improperly designed hangers in 1980. An inspection of anchor bolt and seismic load hangar analyses, showed the hangar loads used in the design of 1,071 hangers and supports were incorrect. The error appeared to be related to a failure to transcribe reanalyzed hangar loads onto design drawings. A reanalysis of the piping which produced the hangar loads was performed for Duke, by EDS, Inc., a California company. Region II was pursuing potential generic implications as EDS provided this type of service to other utilities. It was also determined that EDS (at McGuire) did not include the external axial loads generated during a Loss Of Coolant Accident in their reanalysis of the anchor arrangement for the piping bellows penetrations through the containment wall. 60 hangers may have been affected. How was this resolved ? Was it all ever resolved or is McGuire chugging along on a wing and a prayer more than usual ?

*FOR ADDITIONAL MCGUIRE BASE SEE PAGES 24/25

MORE
OVER →

And now, we go to two places of immense environmental ruin, illness, death and ongoing danger - wicked, evil places, for just like their British, French, Russian, Chinese, Israeli, Iranian, Pakistani, Indian, South African (former) and other counterparts, they help create the beginning of the end of Creation. They, and their global counterparts MUST be shutdown and as far as possible decontaminated and/or contained on site. Their workers MUST be compensated and guaranteed free medical care for themselves and their families for the next ten generations. The nearby residents likewise. Bottled water MUST be brought in to all concerned immediately. Due to radioactive contamination spreading to local produce, people should be warned not to plant in their yards unless the topsoil has been replaced to some depth. Every infant, child up to 18 and every woman of childbearing age and every man with prostate cancer in the area, plus all current and former workers should have blood and urine tests and tests to establish chromosome aberrations induced by radiation.

The first of the sites is :

NUCLEAR FUEL SERVICES, ERWIN, TENNESSEE. This hell hole, originally a subsidiary of W.R. Grace, started back in 1957 processing enriched uranium hexafluoride into various uranium oxides, and thorium into thorium dioxide and metal pellets. From 1965 to 1971, they made fuel pellets out of PLUTONIUM. Up to 1977 any radioactive waste they couldn't reclaim, according to documents, were first discharged to settling ponds, then were periodically discharged to Martin Creek, and from there into the Nolichucky River which people downstream draw their water from, and of course the fish hatchery was just downstream. Now in 1995 I filed a 2.206 against this hellhole, but didn't fully pursue it, as the NRC was obviously beginning to give me the runaround, brushing off the terrible contamination on the Docket with an attitude of "we know it all" such as the storage of the 119,000 cubic feet of radioactively contaminated soil from Clinchfield railroad being stored in the northwest corner of the site, the contaminated burial pits outside the boundary, the flash fire explosion in the high enriched uranium recovery facility and elevated contamination, the contamination of groundwater monitoring well, the airborne concentrations of radioactivity even in excess of NRC's own lousy high "allowable" concentrations, the fire in the HEU ventilation duct, worries about doses to infants, the uranium hexafluoride release, the Union alleging unsafe practices, failure to establish adequate nuclear criticality controls, on and on and on it went, the contamination of Banner Creek (where they just put a bit of fence around) but no one did a damn thing about this terrible record- NRC can get out that original 1995 letter, and add it to this, and by the way, it was/is "THE CAMBRIDGE FACTFINDER" that said 1,000 people had been contaminated - but I believe it is many more, based on its history. Now, since then, have the bastards who own this hell pit seen to it that things change? Let me see, let's look at it really closely, in particular since this cash cow is/was part of the Russian downblending taxpayer scam - bring their crud over here as NFS and Allied Signal teamed up with them (the Russian government) Russia pays \$3,300 to convert a kilo of highly enriched uranium to low enriched uranium - which is higher in plutonium if I remember correctly - which the Russians will then SELL to the US (taxpayer) government for a guaranteed price of \$23,400 - and, to quote the article this appeared in "There's 20 Billion in the deal for Russia after it pays the conversion costs - and a nice piece of business for the joint venture". It was meant to then be used in things like the Navy's terrible, terrible, awful, unneeded Trident nuclear submarines as they have nuclear reactors on board, Tridents carry a payload capable of obliterating 406 cities at one time and wiping out the northern hemisphere - if that isn't Sin, with a capital "S", -all those millions of children just so much burnt barbecue - then I don't know what is. Where's the President with one of his "sanctity of life" speeches? How can any sub Commander give the order to launch nuclear weapons? Lord Mountbatten, Commander of all British Naval Forces in WW II said that "nuclear weapons serve no useful purpose as they can never be

used", when talking of the need to abolish all nuclear weapons - but then, unlike many in power worldwide today (and I daresay many a sub Commander - they are so young it seems) Lord Mountbatten understood what nuclear weapons do. How many know, that since forty years, the Defense Department refers to the Hiroshima bomb as a "nominal weapon" -(just an itty-bitty thing guys.....) because all current weapons are hydrogen weapons (the H-bomb) and the sky's almost the limit with them, to paraphrase one scientist, their size limit depends upon the earth's capacity to absorb the blow. What do you all think we need all that tritium - that radioactive hydrogen produced in nuclear plants- for ? Rubber duckies ? It's to help kill everyone's children - the wind blows the fallout globally - see what I mean about SIN ? Anyway, back to Nuclear Fuel Services now : it's down in a sort of bowl in a valley area surrounded by mountains - the uranium dust from the plant has been dusting the roofs of the houses and the Appalachian Trail for decades. The schools are just across the way more or less. The amount of U-235 allowed on site is absolutely obscene (for security I shall not give the figure, even if it has long been public record). This site is famous for its fires; in April of 1996, they had one of their massive fires in the ventilation ducting, in the incinerator room which spread to the ducting on the roof and breached the ducting. You have to read the Augmented Inspection Team report to get the flavor, and of course that was played down, still, it was chaotic and of course NFS didn't have complete, or current records of the engineering design bases for the original system design and any subsequent changes, or for the current as-built design. Changes in personnel over 22 years that the system and its variants (in 1996) had been installed, and operated, resulted in a lack of knowledge about EVERYTHING to do with it, so the AIT had to base their understanding of it ON DISCUSSIONS WITH AVAILABLE PERSONNEL AND "STUDY OF SUCH DRAWINGS AND OTHER RECORDS AS COULD BE FOUND," and personal inspection of the equipment..... The dump of an incinerator etc. was incredible. The ductwork was a rabbit warren of a system across various building roofs - bear in mind that combustion gases left the incinerator at approximately 2000 Degrees Fahrenheit - with supposed and dare I say questionable scrubber components - well, you have to read it - anyway, over the years they burned everything they could lay their hands on, from radioactive shoe covers, mop heads and gloves to "considerable amounts of volatile organic solvents, and asphaltic roof material," which will have been dusted with uranium that the place was always giving off. As far as the ducting was concerned, a number of the joints lacked adequate fire retardant and were considered combustible. Among other components were a roof blower to blow approx. 2500 cubic feet per minute through the duct(s). The blower had been replaced the year before due to failures of an earlier design susceptible to erosion and corrosion by the exhaust fumes (in an "abrasive, chloride-enriched environment"). The OVERALL system controls were not integrated at one location. Basically the day the fire happened, everything was done the way they normally did it - but all hell broke loose, with black smoke pouring out all over the place..... There had also been a 1983 incinerator exhaust fire - the details of that are grim too - but most interesting was that NFS had put in their Long Term Corrective action section concerning the 1983 fire, that they were going to install a new incinerator in 1985... and that certain of their (planned) corrective actions were therefore not to be implemented....Guess which money-grubbing jerks did NOT install a new incinerator ? NFS didn't, thereby ignoring the risks to the lives of the workers, the local fire department and the town. The AIT found out, that disgusting, highly viscous sludge was plugging up certain vital lines which had had to be cleaned out three times in ten days (instead of once a year) and that that indicated considerable material was being discharged from the incinerator into the duct system. Plus, filters in the scrubber system recirculating water lines had been by-passed "possibly for years" and the filters were found to be filled with black sludge - so the workers and the community had had unfiltered radioactive and chemical crud blowing on them. It goes on and on like this, the whole system was a catastrophe waiting to happen, a filthy, useless mess of machinery bumbling along contaminating the area. The AIT noted how badly everything had been run mentioning that "The normal approach to

maintenance of the incinerator system had been to repair components after failure." Plus, even worse " There was no periodic inspection of the inside of the ducting for buildup of material. The ducting was opened and cleaned out only after NON-destructive Assay measurements (scanning) showed THE BUILDUP OF URANIUM ABOVE THE LICENSEES ACTION POINT. THE DUCTING HAD NOT BEEN CLEANED OUT, BASED ON MDA MEASUREMENTS FOR SEVERAL YEARS."

Now, this terrible, negligent licensee, afterwards gets trusted to do its own radioactive contamination surveys, saying on the roof the loose contamination was up to 240 disintegrations per minute per ¹⁰⁰square centimeters (the 1995 and 1994 surveys (i.e. absent a fire....) had shown up to 800 dpm per 100 square centimeters). You kind of have to read the awful, stupid way all the other tests were done of worker and offsite contamination - again, NPS got to do it. Its amazing how the onsite responders (who are allowed these through the roof worker allowable doses) had some "statistically positive" urine results, but the Erwin Fire Dept. (i.e. members of the public, not nuclear workers) amazingly had sample results "from 0 to less than 0.27 ~~4~~ 0.72 dpm/liter, as compared to NPS people who were "statistically positive" ???what the hell does that mean ??? or had "results below typical LDCs, which ranged from 7 to 10 dpm/liter." (In other words were contaminated internally just as the Erwin Fire Dept. people were. The entire thing was disgusting, we were talking here about uranium-235 - highly enriched, u-234 and u-238. Offsite vegetation was contaminated, but an error also occurred there because everyone (pretended ?) took background measurements against which to compare the samples, when in fact there is no longer any "background" area that has not been contaminated over the years, as the wind has blown this crud everywhere in the valley. On top of that although a Health Physicist said that 800 grams of total uranium, of which 781 grams were possibly an enrichment of 90% U-235, it suddenly got refined down to 200 grams. The 48 grams of U-235 in the waste material placed in the incinerator chamber before the fire in the ductwork was NOT included for release, although the incinerator chamber was blazing away - the whole explanations are patently absurd. BUT, then everyone can play down the amount of contamination and doses to the public and workers. Naturally, there were no air samples taken for chemicals during the fire (non-radioactive or otherwise) very conveniently. They even had the wind directions during the fire/releases wrong at first. Plus, although this is a dump that also handled plutonium, there was no mention of tests for plutonium. To bullshit around and make out that the contamination wasn't that big a deal is to be expected - I mean, this is the place that wouldn't recognize the truth if it came up and danced a jig in front of it, besides being incapable of telling the truth - this is the place that in 1977 alone dumped 15 pounds of Uranium -235, and 235 pounds of Uranium-238 and one and a half ounces of uranium-234 into the Nolichucky river, and state fish hatchery which had just stocked two million baby walleyes in the Nolichucky several hundred yards downstream of the plants discharge point, was not even TOLD. Besides which, the sediment contained about 50 PICOCURIES OF RADIUM-226 per ounce, plus they'd released about five pounds of enriched uranium out the stacks and some plutonium. Hell, their own maps showed uranium dumped from airbornes in a five mile radius. That radius will not have changed. This is the dump where air surveys showed 60,000 square feet of contamination, with U-238, U-235, U-234, thorium-232, Th-230 and Th-228, Plutonium-238, plutonium-239, -and what did they do ? Decided "no appreciable expenditure is justified" bloody left it and shoved a fence around. Everyone conveniently pretending that the so-called "missing uranium" the press had been running huge stories on was just this discrepancy in inventory and air overflights had not turned up anything. You want ONE BIG FAT LIE ? It was mainly all around the FORMER site of the Banner Spring Branch Stream bed, the bed was diverted in 1968. ANYONE CLEANED IT UP YET ? Then with this track record, in the 1990's, these jerks decide they won't take action on internal exposure - in-vivo lung count - until the results go above

either 40 MPC-hours or 200 MPC hours, same for airbornes and urinalysis and fecal analysis . Then they list that there is no need to treat certain exhaust gases, because everything is such low-level radioactive materials - then they decide they are going to revise the action level for the collection of air samples for plutonium to a far higher level - 25% of MPC - because quote " the reason for the higher limit for plutonium is the ability to detect concentrations at the action point". Really ? Ever heard of buying a decent air sampler ? I suppose contaminating workers is easier - if they die they don't have to be paid.- In '92 they had a chemical reaction and fire. Then they get to have all those contracts concerning the Russian material Project ~~Sapphire~~. Why? Doesn't anyone care about the children nearby ? NFS never could be trusted to run anything marginally better than a rural medieval pigsty. They have constant problems with criticality safety monitors, they fail to provide complete and accurate information to the NRC, workers were not wearing their lapel air monitors as required; they didn't follow operating procedures when pumping solution (not good guys); they obviously don't care enough about workers (despite countless lectures by NRC on controlling contamination during eating etc. over the years) as one of the operators was chewing tobacco inside a radiation controlled area so the danger of ingesting radioactive particles can't have been properly conveyed. (We won't take up the chewing tobacco issue here, except to say the area does grow tobacco, which has probably also been contaminated along with everything else.) Then there were problems concerning a diked area beneath certain tanks on site and raffinate rockets. Then it turns out that the majority of the licensees emergency brigade members HAD NOT EVEN RECIEVED TRAINING COMMENSURATE WITH EXPECTED DUTIES AND FUNCTIONS. Then more problems on the adequacy of criticality safety documentation, also the lid of one of the tanks was not locked to prevent unauthorized solution additions to the tank (we won't go into what's in them, NRC knows) and neither sampling nor taking measurements was occurring. (Are these bozos pushing the envelope, or what ?) . Then they didn't post operational limits for enrichment etc.etc. (Skating ever closer to the edge...is NRC waiting for the explosion from hell before it shuts this place down ?) Then -wait for this one - THERE WERE NO OPERATORS OR BUILDING SUPERVISION IN THE DOWNBLENDING EQUIPMENT AREA WHEN URANYL NITRATE SOLUTION WAS BEING FED THROUGH THE FURNACE..... for crying out loud SHUT THEM DOWN! It goes on and on and on like this. They ship out 50 containers of Special Nuclear Material improperly packaged.

N.B.

By 2002 there's plutonium in offsite wells (surprise, surprise) but the liars it seems, said they couldn't reach a definite conclusion on where it came from. Next thing they'll be inventing a plutonium fairy and saying it just left it one night. Let's get one thing straight, overflights in the 1960's already showed they had contaminated the hell out of the area - intensity levels coming off the bloody place over 100,000 counts per second sometimes. There was contamination on and off site. A flight in the 1970's likewise - hell spreads-, the middle of a plowed field was contaminated (did they tell the farmer ?) also. Increased gamma activity extended some distance past the plant boundaries . This place and environs is so contaminated you can probably pick the radioactive decay heat signature up from outer space. Their own plant records show that the plutonium contamination was offsite too. It was NRC's independant contractor analysis that found Plutonium-239, plutonium-238 and Ra- 228 in soil up to six inches down. Now, old documents and area maps show that not only was/is the area and the site full of springs but that both the plant itself as well as the town of Erwin got their water from underground springs. It is highly likely that the entire underground water system of the area is contaminated. Groundwater, surface water, springs, seeps, creeks, are all interconnected in some way. That is why the on and offsite wells(i.e. those that have been sunk) show radioactive contamination. It is bizarre to say the licensee monitors a background groundwater monitoring well,

as since the whole area (on and offsite) is contaminated, there is no "background"- a bottle of pure spring water from another continent should probably be used, how about the freshwater spring on Fraser Island, Australia ?

Further, one 2002 inspection report says that the Banner Spring Branch downstream sediment samples continued to be greater than the (licensees) action limit of 25 picocuries per gram -gross alpha 38-73 pCi/g now

A) is this the ORIGINAL Banner Spring that they moved, or the new Banner Spring ?

B) Why does NFS have this incredibly high "action level" - it translates into 25,000 picoCuries a kilo - this is an outrage. Martin Creeks contaminated sediment is no surprise, it exists also since decades. It probably fluctuates as heavy rain will increase streambed scouring and wash the contamination in surges downstream to the Nolichucky, etc. The licensee knows damn well they caused the contamination. IT WOULD BE A VERY GOOD IDEA FOR SOMEONE TO GET OFF THEIR REAR ENDS AND GO AND READ THE ENTIRE DOCKET. What the Licensee is allowed to do under the terms of the license will result in a special place in hell for both those that agreed to it and the licensee.

I would also remind the NRC, that Uranium, Thorium, Plutonium, Americium, and Technitium ARE NOT NATURAL CONSTITUENTS OF AIR . To allow this radioactive crap to be blown over the schools, the town, the workers, the (contaminated) vegetation, the wildlife, IS UNCONCIONABLE. I don't care that the Navy wants its fuel rods for its ghastly nuclear reactors on ships, which expose the crew and also contaminate the ocean during operation (besides, they also dump contaminated stuff at sea I have been told) - the Navy and the others who rely on this pigsty to keep their stuff running, are doing it at the expense of a whole towns' well being - they don't need nuclear reactors on submarines at all. Have they no shame ? Admiral Rickover certainly didn't when first told decades ago about the contamination at Nuclear Fuel Services. He just shoved it off on the Nuclear Regulatory Commission via a spokesman, who said in part that it wasn't the responsibility of Admiral Rickover but the NRC's.

But back to 2002. NFS can't be trusted - not years ago, not now. This is after the tradgedy of Sept. 11th, but this outfit jeopardizes the security of the town the state of Tennessee and the nation. They are meant to keep enriched uranium containers having above a certain amount of grams (I'm not listing the amount) controlled via tamper-safe devices, and in locked cages and PERSONALLY attended. Guess who didn't keep it locked or personally attended ?? Armed guards might be a good idea, but nooooo..... Furthermore, when this happened, as NRC said : "...the potential for diversion of material was increased due to construction activities in the immediate area." On top of which, NFS had failed to perform required criticality alarm system testing in March 2002.)h, they had a fire in the uranium recovery area.... FIRE is their specialty.

On top of that, they endanger their workers and the public across many states, with their terrible procedures and attitude towards shipping the most deadly materials, and as far as audits go, they don't even use someone who is formally trained or even qualified , let alone that there was no comprehensive implementing procedure for the scope and frequency of audits, and on and on. The shipping packages for all this stuff, including for fissile material, was a bloody nightmare. NFS is meant to only get packaging from vendors with an NRC approved quality assurance plan in accordance with 10 CFR Part 71 - but hey NFS didn't seem to think it applied to them. Next thing that'll happen, is that Dunkin' Donuts will be asked to supply packaging considering the way these negligent twits are doing things. NFS completely failed to adequately evaluate and qualify Century Industries for design testing and fabrication activities performed under PQQ303038655. NFS is in bed with AREVA (formerly FRAMATOME) for the Blended Low Enriched Uranium Project..... (Areva has been doing all those commercials pushing nuclear power as I'm sure you all know) What happened to the no foreign outfits meant to be involved in things like this ? For security reasons, not just that Framatome's history is enough to sicken even the most jaded.

N.B.

How can anyone trust a company with the morals of Frances Framatome, who not only built the Apartheid government of South Africa's Koeberg reactor, but helped with its uranium enrichment installation? AREVA did not supply NRC with three pages of the leakage testing appendix concerning packaging of uranium oxide related matters.

Uranyl nitrate solution is being shipped from the Death of the Earth (DOE) squads Savannah River Nuclear Site and instead of any shipments being made under the NRC Certificate of Compliance for the only two existing packagings, which would presumably give NRC more oversight over their condition, they are being used for the shipments for the BLEU (Blended Low Enriched Uranium) NFS/AREVA project under DOT authority (non-fissile) and are all of a sudden being considered DOT Industrial Package. Now a) the only thing the inspector could do it seems, was look it over a bit and say it had no signs of excessive corrosion (say what?) and b) when NFS stated that the tank trailers were evaluated and overhauled by a company that specializes in DOT specification tanks for hazardous cargo - I would point out, that it is not only hazardous (as in deadly) but RADIOACTIVE, and since NRC licenses NFS and the trailers what the hell is NFS doing using a different authority in particular, as it seems NFS DID NOT REPORT A "LEAKAGE INCIDENT" WITH THE TANK TRAILER. Leaking URANYL NITRATE? That is absolutely outrageous. Where did it leak? How much? When? Who cleaned up the contamination? The health problems are enormous. The way it was not properly reported looked like a cover-up by NFS.

And while on the subject of uranyl nitrate - NFS is unfit to handle anything as dangerous, as they jeopardize their workers health and that of the community as let us not forget, NFS had no operators or building supervision in their downblending equipment area when the uranyl nitrate solution was being fed through the furnace, back in '98. This again all shows a pattern of negligence and incompetence. Not even a year after that, fifty (out of a seventy-two container shipment) containers of Special Nuclear Material were improperly packaged and shipped.

Now in '98 also, the lid of T-3 tank was not locked to prevent unauthorized solution additions to the tank and neither sampling nor taking measurements was occurring. They also failed to document criticality safety analysis in sufficient detail etc. etc. Need I remind NRC of NFS and the nuclear criticality safety incident, as it was so cutely called, in 1990?

Shall we talk about the time there was an arson fire? Or when an "unauthorized weapon was introduced into a protected area"? Shall we remember this place is so bloody awful the workers actually struck - twice? There was no concern for the workers - just a lot of concern that they get back to work and how to handle them. Over the years there have been repeated fires, and repeated buildups of radioactive materials in the ducts helping to cause it, and other fires, almost all of which blew radioactive crud in the smoke etc. off-site. Conveniently, a fire in 1960 destroyed most of the 1958, 1959 and 1960 records, the sampling records, of radioactive concentrations.....

And then there is the question of illness, of cancer, of stillbirths. First, despite the fact that the CDC used the polluter (NFS) and the NRC's help; despite the fact that CDC did not calculate the proper five mile radius of deposition and only calculated approximately two and a half miles out in their calculations of contamination; despite the fact that CDC did not calculate or include plutonium in the estimates, even though it notes the plutonium fuel pellet manufacturing; despite the fact that CDC only got calculations of exposure done by a poor Tennessee official who complained mightily about the lack of data he had to work with, and the calculations were only done for six years, and they only chose those early years (three of which had no data) based on faulty assumptions; and despite the fact that CDC didn't bother to test all the local crops for plutonium, uranium, thorium etc., and despite

the fact that CDC only considered airborne pathways; and despite the fact that the CDC could have accessed a vast amount of information off the Docket from Washington, it didn't; and despite the fact that CDC did not even mention the massive uranium hexafluoride leak THAT OCCURRED WHILE THEY WERE WRITING THEIR REPORT; and despite the fact that CDC had the prevailing wind direction wrong; and despite the fact that CDC made other major errors and omissions too long to go into here, the CDC still found there were leukemia and respiratory deaths "in excess of expected" and that "Estimates of radiation exposure to workers in the period 1958-1963 based on conservative assumptions indicate levels that could potentially be harmful" (God knows what it would have been if records were not destroyed) and CDC admitted that the average yearly number of cancer deaths in Unicoi County (where NFS is) "has nearly doubled in the past 23 years from 16.2 to 31.7 deaths a year" then promptly sort of dismissed it by saying the number of cases did not "significantly" exceed what they expected, and the CDC was very worried because they have a hard time evaluating small populations (in particular when they missed half the data - which would mean it would have been worse) and CDC said : "The identification of index cancers related to radiation exposure (similar to mesothelioma and asbestos exposure) or a biologic indicator of radiation damage that is more sensitive than cancer mortality rates (E.g. chromosomal breaks in radiation exposed workers) could further help resolve this dilemma." Which of course clearly shows that CDC could do testing on all current and former workers and the population of Erwin, TN. In particular, since CDC recommended a great deal of follow up, monitoring of health of both workers and the surrounding community and a lot more besides. So everyone should be tested.

Second : Between 1988 and 1992 Unicoi County had 12 nervous system cancers, the rate was 11.6 per 100,000 population, ALMOST DOUBLE the rate for the State of Tennessee (itself contaminated from places like Oak Ridge) as a whole, which had a rate of 6.2 per 100,000.

Now Unicoi County has a small population, CDC estimated it in 1977 as being 16,285, and at the time of the CDC study (1979) they noted it had had a relatively stable population for 27 years. Even if that has changed somewhat, it is doubtful the population is huge. From 1985 to 1992, the number of STILLBIRTHS, though small, had a rate per one thousand live births that was ALWAYS HIGHER than the rate for Tennessee as a whole FOR 5 OUT OF THE SEVEN YEARS, in fact twice the rate was triple that of the State of Tennessee. In 1988 Unicoi county's 3 (three) stillbirths (babies dead at birth) gave a rate of 15.1 compared to Tennessee as a whole with a rate of 6.7, and in 1992 Unicoi's 3 stillbirths gave a rate of 17.2 as compared to the State rate of 5.4 . While Unicoi County had an increase in rate of stillbirths from 1985 through 1992, the State rate was DECREASING, and had been since 1973, according to the State of Tennessee. Now a small amount of dead babies may mean little to the folk in the corridors of power, but to the parents it is a shattering event. The fact remains, when one takes the State of Tennessee with its millions of people and in 1992 it had a TOTAL of 399 stillbirths with a rate per 1,000 live births of 5.4, and one puts it next to little Unicoi County with 3 stillbirths in 1992 translating to a rate of 17.2 , something is very, very wrong - and the fact is, radiation is particularly deadly , literally, to the child in the womb. This has been known for six decades as fact. In 1992, NFS had a fire with explosion of the disolver tray system of the HEU recovery facility. In 1992 the State of Tennessee got on their case because they dumped contaminated water to Banner Spring Branch. For all the years there wer major problems at NFS and in 1988 NFS had not performed adequate personnel contamination surveys, so crud could have been carried off-site, or to workers homes. And more besides.

Thirdly ; according to one analysis I had done by an eminent cancer researcher, the age adjusted breast cancer mortality rates for the four rural counties involved with the NFS radioactive discharges (i.e. all would have recieved airborne desposition, and thus onto crops, water food etc.) in Erwin TN, as these

counties are the most sensitive indicators of subsequent damage to the immune response, these counties, namely Carter, Greene, Unicoi, Washington, in 1950-1954 they all had rates far below the Tennessee rate, but by 1980 to 1984 and 1985-1989 the rates had risen far more sharply than the Tennessee rate :

	1950-54	1980-84	1985-89
Carter	8.83	20.77	13.89
Greene	6.80	21.36	18.27
Unicoi	12.81	18.74	18.67
Washing.	14.39	20.23	24.58
State of			
Tennessee	18.1	20.8	21.1

See how the Tennessee rate increases only a relatively small (though not to the victim) amount - but still inexcusable - compared with the big jump for the other counties. One must remember, it is likely some men who worked at NFS may have brought contamination home on their clothes and contaminated their womenfolk, and some women from the adjacent counties to Unicoi will have shopped or worked in or visited relatives in Unicoi. Some may have worked at NFS in office jobs, laboratory, etc. even janitorial. Washington County drew/draws its water from the Nolichucky, by '89 it's ahead of the State. Cancer would not be in clusters necessarily, due to the vast water, airborne, crop and skin deposition of the radioactive contaminants from NFS. This is true of any other nuclear installation. I would add, that back in '79, CDC did not look at cancer INCIDENCE, which it should have, as people do survive cancer. However, CDC did remark that while (at the time) the number of leukemia deaths was small THERE HAD BEEN AS MANY LEUKEMIA DEATHS (6) IN THE THREE YEAR PERIOD 1975-1977, AS THERE WERE IN EACH OF THE TWO PREVIOUS DECADES. I must comment, that what was pretty disgusting about the CDC report, was that EVERYONE SEEMED TO WANT TO KEEP IT QUIET.

Ah, silence is the voice of complicity. But, there's always a good person who will do the right thing when they see cover-up, or injustice. Also, I seem to recall seeing amongst the hundreds upon hundreds of pages I have read on NFS, that NIOSH is worrying whether the high kidney cancer in the workers at NFS is an NFS thing or somehow something that just happens in the area. NIOSH obviously hasn't read the NFS documents, not have they been told this place has spewed radioactive crud with half-lives into the thousands of years - in some cases millions - all over the area since the mid-1950's.

Also, I do not see why DOE is guaranteeing them ^{NFS} (i.e. the taxpayer) financially. All the companies, from W.R. Grace, Getty Oil, Nuclear Assurance Corp. and Alternative Energy Technology systems Inc (a subsidiary of Tennessee Chemical Co.) who were in the newspapers as part of NFS Services (i.e. general partners), Texaco who sold to NFS Services Ltd., Skelly Oil, and all the rotten outfits that ever made a fortune off this hell-hole can pay for clean-up, worker contamination, community contamination, and so on. If they want to declare bankruptcy, well the good people of Tennessee could turn the whole sorry lot into a bucket brigade, force the jerks to clean up themselves with buckets and shovels. Think of the coverage, there would be a lesson in that to all polluters.

I just located the NIOSH stuff, it seems NIOSH found kidney problems as they did a study of NFS Workers, and then the NRC were the twits who wanted to know if it was NFS worker specific, or a "characteristic of Erwin, Tennessee resident." As the young people say when someone asks a stupid and/or obvious question : "DUH !" Did NRC give NIOSH the Docket to read, and all internal memos etc.? Its Docket 70-143, it's NFS stupid ! If one placed the Violations and Non-cited Violations given to NFS by the NRC with their attached inspection reports, one could pave a path from NFS to Washington and all the current nuclear pushers. Despite the terrible record, guess who got to be allowed to deal with plutonium again in 1993, from plutonium contaminated equipment from other sites on down. Now, contrary to popular belief, you cannot burn, bury, dilute,

or dance the bloody tango on top of something radioactive and expect it to go away - to be decontaminated. The stuff in question can only be held up, contained or similar until it has gone through many half-lives and is no longer radioactive. So when NFS is "cleaning up" or "decontaminating" or whatever, unless they put everything in sealed containers to be put in a dry deep belowground repository away from all water intrusion, human and animal habitation and the like, for centuries to come, the whole thing is a charade. For NFS to be "decontaminating" plutonium contaminated material from elsewhere, is a bloody farce. Shut them down and force them to clean up and contain the vast, stinking, radioactive and chemically contaminated mess they've made - and make them supply proper protective gear to the workers doing it, and to pay all medical bills for past, current and future developing health problems.

And finally, how about NRC levying the Mother of all Fines ? Equally distributed across all the companies that were involved in this radioactive pigsty.

Let's not forget, it's already a Superfund site/RCRA site.

And everytime NRC gets nervous about what to do - just think of all those schoolchildren near the site, and remember that I have been informed that the local people do believe the place is responsible for their many ailments, but are afraid to speak out. Add to that, if NFS, God forbid, should have a massive fire and explosion or suffer a terrorist attack, as the NRC pointed out to me, there are no requirements in 10 CFR Part 70, Domestic Licensing of Special Nuclear Material FOR THE EVACUATION OF MEMBERS OF THE PUBLIC FOLLOWING AN EMERGENCY. Everyone in Erwin could die or be severely injured and that would be that. The tiny hospital can't deal with such a catastrophe, nor can the small fire department. Also, airbornes from a massive attack could reach Ashville, NC. NFS is in the Cherokee National Forest. It is partly (perhaps solely) responsible for the massive decline in breeding yellow-bellied sapsuckers, and in such sapsuckers period. These beautiful little birds used to breed in this precise area and are now very hard to find, if not totally absent. Due to how they feed, and the height they feed at (on tree trunks drilling holes to get at sap) they are at a good height for the denser part of an airborne plume, in addition, as trees bioaccumulate radioactive contaminants not only via their root systems but via deposition on bark and on leaves, and in the crowns of pine trees, the entire tree and the sap in particular would be contaminated at a level that would affect birds. Also, we know that when birds eggs become contaminated/are irradiated due to contamination, birds either die in the egg, or they fail to thrive properly and can have everything from stunted growth and feathers etc. They die. Or they are rendered otherwise incapacitated whether as chicks or adults when irradiated. Also, this precise area has also shown a marked decline in the beautiful Northern Harrier, also called the Marsh Hawk. As the name implies, it frequents and hunts in and around marshy areas, and of course the whole area NFS contaminated along and in the creek is a marshy area, plus any small creatures the Harrier would have targeted as prey were/are probably contaminated. So, there you have it. NFS is a catastrophe for humans and wild things alike. On top of all this, NFS is in an earthquake zone. If the leaking underground storage tanks have not been dug out and removed they should be checked for the size of the cracks or corrosion or whatever caused the problem as an earthquake could do huge extra damage. Furthermore, whoever allowed NFS all the exemptions in their Materials License (Amendment 9 in particular) should be in BIG trouble. All those exemptions should be rescinded and everything done the way it was meant to be done, or gone over again. How dare the licensee be allowed to determine process exhaust ventilation system inventory quantities - as opposed to the REQUIREMENT that the licensee measure and inventory all Special Nuclear Materials, for example. Why is the licensee exempt from including certain data normally required for all SNM shipments when its associated with waste burial shipments ? I mean, there are quite a few pages of exemptions and "Notwithstanding" i.e. Notwithstanding that the licensee should be doing such and such, under this and that regulation,

if they don't, well, screw it... And last but not least, just WHAT have they wound up dumping in the local landfill over time, and when will it be removed? On a slightly different tack, just HOW can a company this rotten and this polluting be allowed to act as a remediation/cleanup outfit for other contaminated sites? That is obscene.

And finally, to radioactive and chemical pigsty Number two : United States Enrichment Corps' Gaseous Diffusion Plant at Paducah, Kentucky. So bloody awful, not too long ago it made all major newspapers with its fake Mea Culpas to workers etc. The history of this uranium enrichment facility, is not just the history of the terrible Union Carbide company, but a story of killing the workers, the area, the environment, inch by inch - and it continues. Rather than repeat the history of this radioactive pigsty from hell, just take a pen, and draw a five mile circle around this dump, and you can safely say that everything within that circle is contaminated one way or the other, particularly via airbornes, but also water. Paducah's contaminant plumes contain a contaminant list from hell also, one of the larger plumes with Technetium-99 and TCE go to the Ohio River, to be drunk at the next water intake. To save myself time, I am putting my June 14th 2003 letter to NRC against Paducah to serve as part of this 2.206 against it, and I am adding a few more things here, such as : they've got approx. 12,000 drums which are "suspect", containing fissile material - waste drums - this is appalling. How many are leaking/bust/corroded or whatever? Why have they not all been put into special protective overpacks already? Also, another item, they are dealing with a facility that could wipe Kentucky and a part of Indiana, Illinois and Missouri more or less off the map one way or the other in event of a catastrophic accident, yet this outfit FAILED TO MAINTAIN OR ESTABLISH DOUBLE CONTINGENCY FOR THE ACCIDENT SCENARIO OF RECIRCULATING COOLING WATER IN-LEAKAGE TO THE ENRICHMENT CASCADE THROUGH THE PURGE AND EVACUATION COOLERS. Plus, this outfit has weaknesses regarding the completeness of Nuclear Criticality Safety Evaluations, and inadequate levels of detail and technical review of Nuclear Criticality Safety Evaluations ~~has~~ been documented by NRC - even if it is now perhaps fixed (which I doubt) IT SHOULD NEVER HAVE BEEN THE CASE. Plus, having safety equipment fail is also unacceptable.

Further, there is reason to believe that there could be a heavy buildup of materials in the 70 ft and 200 ft exhaust stacks (a bit like the buildup in ducts at Nuclear Fuel Services, TN and incinerator and the fire) and if there were a fire, larger particles could spew out the stacks.- Also, there could be potential for criticality. (Absent the fire.)

As this is a site where Depleted Uranium of course originates, and this DU is subsequently rendered into metallic form for use in deadly armour piercing weaponry that has contaminated the entire Gulf War area more or less and is contaminating the troops and making them ill, let alone responsible for huge increases in leukemias and various childhood illnesses in civilian populations which has been widely reported worldwide, NRC has a responsibility to protect the health and welfare of the public which also includes US servicemen and servicewomen, as well as civilians and little children, and as there is enough DU to contaminate the entire planet in existing stockpiles to satisfy even the most greedy Merchants of Death in the weapons trade, NRC has a moral responsibility to shut this dump down, besides one to protect health. I have had some opportunity to speak to people in the surrounding community, and they are either ill, or dying awful deaths, and entire families are affected. And they are all forced to breath the terrible fumes and acids and fluorides coming off the site. They have nowhere else to go and are too poor to move anyway. Here follows my June 14th 2003 letter to NRC, to now be considered part of this 2.206 Petition :

COPY OF CARBON COPY OF
ORIGINAL.

59.

Chief, Rules and Directives Branch,
Division of Administrative Services,
Office of Administration,
U.S. N.R.C.,
Washington, DC 20555

To be considered part of my
2.206 under 10 CFR CH. 20 against
Paducah.

June 14th, 2003

Re: The Paducah Gaseous Diffusion Plant and United States Enrichment
Corporation wishing to get a renewal of the certificate of compliance
to continue to operate another five years.

The issuance of a certificate of compliance would be inimical to the common
defense and security of the United States. A cursory look at the Docket for
Paducah GDP shows that Boze the Clown would do a better job operating this highly
contaminated, dangerous facility, in all probability, considering that United States
Enrichment Corporation was hauled into a pre-decisional enforcement conference
to discuss their apparent violations of NRC requirements FOR PROPER HANDLING OF
CLASSIFIED INFORMATION, ten months after the Sept. 11th catastrophe, and considering
that they have had buildup of uranyl oxyfluoride in one area that exceeded safe
mass by a few hundred pounds and did not verify, as required, that coolant pressure
was greater than the building recirculating cooling water pressure each shift
while the RCW was not drained, over a period of just under ten months, and
considering that they conducted operations involving unsafe volume drums for storing
seal parts, contaminated with uranium enriched to greater than 1.0 percent weight
percent in uranium-235, without a documented nuclear criticality safety evaluation,
or approval for the drums, for nine months, as just a few examples of what goes on.

Furthermore, thousands upon thousands of cylinders of (radioactive, obviously) uranium
hexafluoride are stored outside on-site, their deteriorating condition visible
to the eye in aerial photos of them in National Geographic Magazine fairly recently -
I suppose the DOE idea of slapping a coat of paint on them to make them look better
is not working too well - and allowing this dump to continue operating will increase
the amount of cylinders. The situation is a terrorists dream, and the consequences
of an attack using various types of weaponry widely available to persons of that
mindset would be horrendous. Worse, perhaps, would be some type of air assault,
by accident or design, which would not only cause cylinders to rupture etc. but cause
a major fireball, leading to a conflagration impossible to extinguish due to the
widespread chemical and other contamination on and off the site.
How can USEC justify putting their workers and the surrounding community - indeed
people for hundreds of miles who would be affected by contaminant plumes containing
Paducah Gaseous Diffusion Plants' contaminant list from hell - at such risk? There
is no justification other than out of sheer greed on their part, as was the case since
startup.

Speaking of greed, the money needs looking at. Under 76.35 (n) Certification of
Gaseous Diffusion Plant-s, there are meant to be funds set aside for ultimate disposal
of "waste and depleted uranium, decontamination and decommissioning..." etc. WHERE
IS THE MONEY? HOW MUCH IS IT? Considering that depleted uranium (i.e. uranium
~~enriched~~ depleted in U-235 - more precisely:

Depleted Uranium	Isotopic Abundance (Atom %)	U-234	U-235	U-236	U-238
		0.0008	0.2015	0.0030	99.7947

Source Leonard A. Dietz, Former scientist at Knolls Atomic Power Lab, in "Alpha-
Counting Method for Analyzing Depleted Uranium" Oct. 22, 1991, in Appendix 10
of "Uranium Battlefields Home and Abroad: Depleted Uranium Use by the U.S. Dept.
of Defense", by Citizen Alert & Rural Alliance for Military Accountability". Dietz
makes a notation that DU produced after 1983 might contain a different amount of
U-236 or possibly none at all. As far as UF6 is concerned it still contains 40%
of its original U-235.) Let me start again: Considering that Depleted uranium in

terms of the U-238 component, has a half-life of 4.5 BILLION years and the radioactive daughter products it gives off range from radon gas to radioactive lead and more, — and considering that over the life of Paducah Gaseous Diffusion Plant the area got saturated with airborne emissions containing among other things radioactively contaminated nickel (20 million pounds smelted and cast), airborne lead emissions from smelting etc. of more than one million pounds of lead, approximately 120,000 pounds of uranium to air, vast amounts of fluorides (which cause everything from osteoporosis, severe skin damage, ulceration of mucous membranes, and it acts as a protoplasmic poison, besides causing emphysema, lesions in renal tubules, and lung edema) were also released including of course uranium hexafluoride, — considering all this, and the numerous on-site and offsite landfills full of poisons, the three mile long plume of TCE and technetium-99 spewing into the Ohio River, to be drunk at the next water intake,

the plutonium-239 contamination on and off site, the deer with plutonium in them (NO, it's not from weapons testing), the contaminated ash piles contaminating creeks, considering all this, the question is, HOW MUCH MONEY HAVE THE BASTARDS THAT CREATED THIS NIGHTMARE PUT IN SPECIAL ACCOUNTS IN CASH, AND PERHAPS SOME IN GOLD IN CASE OF FUTURE PROBLEMS, to pay for containing and remediating the situation somewhat? The "PRES" meaning the Potentially Responsible Bastards, would include UNION CARBIDE, MARTIN MARIETTA/LOCKHEED MARTIN, AND UNITED STATES ENRICHMENT CORPORATION FOR ITS SHARE OF PROBLEMS AND VIOLATIONS. AND WHERE IS THE MONEY TO COMPENSATE THE SURROUNDING COMMUNITY FOR RUINING THEIR LIVES? WHERE IS THE MONEY FOR ALL THE SICK WORKERS?

What examination has there been of all underground piping and cable systems which the contaminants could have eaten away at?

Under 76.87 it appears the corporation was allowed to establish its own technical safety requirements. Since when does a polluter like USEC get to set its own standards? Why has NRC allowed this? There should be an Inspector General's investigation into how that got allowed. It is an outrage.

Are they still doing "midnight jetting/ midnight negative "releases out the vents on top of the buildings (of Uranium hexafluoride) illegally? How do we know they are not? Have these vents/jets been plugged? If not, why not?

Contamination will have affected the opposite banks of the Ohio River from where the major plumes are. where are tests for that? Is there a series of air monitors on that bank? If not, why not? There should be.

Has all the uranium etc. contaminated sediment been removed from the creeks and creek banks and river yet? If not, why not? Has the filthy, contaminated soil on site the poor workers have to trudge through, while they toil at that place of death, been removed? I doubt it.

Has the C-746-A septic system— i.e. the sinks, showers, toilets, floor drains been decontaminated/removed? if not, why not?

Have the various burial grounds been contained and contaminants removed to a proper radioactive/hazardous waste containment site where possible? If not, why not?

Has the C-747-C "land farm" area and "burial yard" been cleaned up and the petroleum products, PCB's, uranium, TCE and 1,1,1,-TCA been removed to a radioactive/hazardous waste containment site? Are those who allowed the spreading of such contaminants into the soil— where anyone would realize it would all go to the water supply— been prosecuted? If not, why not?

As the airborne lead emissions will have gone onto the surrounding neighborhoods and have affected children (adults, pets, wildlife etc.) have all area children been tested for levels of lead in their blood at company expense? The maximum level in children should not be more than 10 ug/dL of blood (ten micrograms per deciliter of blood). That is the blood lead level of concern in children from the CDC, 1991, i.e. above that, the level is considered elevated. Have area adults been tested? If not, why not? (That would include past and current workers). Have area residents been tested for radioactive contamination of their persons, their homes, their gardens? Have workers been tested? If not, why not? Do workers in the area, and the public understand — or have they been told — that the so-called "allowable levels" of radioactive contamination were set historically/are set in order to enable the nuclear industrial complex to operate, and have little to do with health?

Do they understand that the world has known since 1927 that ionizing radiation induces heritable mutations, due to the work of the great geneticist H.J. Muller? Are they aware that : " The proof exists, by any reasonable standard of biomedical proof, that there is no threshold-dose for radiation carcinogenesis. Thus, there is no dose-level or dose-rate for a population which is harmless." (Dr. John W. Gofman, Professor Emeritus of Molecular and Cell Biology, University of California at Berkeley. Ph.D in nuclear/physical chemistry with his dissertation on the discovery of Pa-232, U-232, Pa-233 and U-233, the proof that U-233 is fissionable by slow and fast neutrons, and discovery of the $4n + 1$ radioactive series. Glenn Seaborg - who became Chairman of the Atomic Energy Commission 1961 - '71 - Raymond Stoughton and John Gofman share Patent # 3,123,535 on the fissionability of U-233. He also shares two patents on two processes for separating plutonium. He is also a MEDICAL doctor. He established the first Biomedical Research division at the Atomic Energy Commission's Livermore National Lab at AEC's request, for evaluating health effects of all types of nuclear activity. By 1969, he and colleague Arthur Tamplin, at Livermore, had concluded that human exposure to ionizing radiation was much more serious than previously recognized, and spoke out publicly against two AEC (now DOE/NRC) programs, one being Project Plowshare, a program to explode hundreds of nuclear bombs under the Rocky Mountains in order to liberate (radioactive) natural gas and to use nuclear explosives to excavate harbors and canals - (déjà vu - the military wants nuclear bunker busting bombs now - idiocy repeating itself) and needless to say, the AEC was not pleased.)

I raise these issues because under 76.60 to have a Certification, under (a) The Corporation shall provide for adequate protection of the public health and safety....

- 1) Obviously neither the Corporation nor its predecessors have done that, and
- 2) it's impossible.

Under 76.85 Assessment of Accidents - there is nothing on God's green earth that can prevent the sort of catastrophe a new, major earthquake on the New Madrid Fault would cause. The last one, after all caused the Mississippi and the Ohio Rivers to temporarily flow backwards, and was felt from Boston to New Orleans. The ground rose and fell and in western Tennessee sank to form Reelfoot Lake, Geologic spitting distance from Paducah. Although the Paducah Gaseous Diffusion Plant disappearing into an abyss would probably mess up United States Enrichment Corporation's stock market value, about which most people would be delighted considering what they profit from - the tragedy would be effects to workers and the surrounding community whether or not it went into an abyss, as due to the age of the dump, and the problems on the Docket, plus the vast amounts of Uranium Hexafluoride on site, consequences would involve every disaster scenario imaginable. And nothing could be done about it as those approaching to help would die. Same applies to a terrorist attack on the site. There would be no possible help for ages.

For all these and many other reasons time and ill health does not permit me to go into, it would be sinful, wicked, to give this outfit USEC a Certificate of Compliance for Paducah Gaseous Diffusion Plant - or its "neighbor" plant the Portsmouth Gaseous Diffusion Plant in Ohio with similar concerns -. In the event of a catastrophic accident or terrorist attack, depending on weather and wind patterns and speeds at the time, people could be affected in many states, and Kentucky would be an utter ruin across a sizeable part of it. The contamination of the river would be truly disastrous. As it is, it defies belief that it is still operating, it defies belief that people are allowed to work there, it defies belief that the Western Kentucky Wildlife Management area is not totally fenced with no access allowed considering the vast contamination, and has not been cleaned up; and it is truly mindnumbing to find out that there are three schools near this radioactive, fluoride saturated and other chemical contaminated monster of a facility.

The year 2000 Toxic Release Inventory listed USEC had released 59,700 pounds of hydrochloric acid out the stack, and could hold up to almost 10 million pounds of dichlorotetrafluoroethane on site and released 379,000 pounds of it out to the air. Nothing like releasing crap that can cause cardiac arrest, asphyxiation and cardiac arrhythmia or pulmonary edema, eye, skin and throat burns and bone changes out over your neighborhood schools. This is certainly not protecting public health.

What is happening is the slow murder of workers and the surrounding community via radioactive contamination /damage to their gene pool and via chemical and other contamination. Such chemical releases probably kill birds, which would mean the plant violates the Migratory Bird Treaty Act - something all DOE facilities do. Birds also ingest radioactively contaminated foods and when they die, wherever they die, they leave a radioactive outline on the ground. It is not for nothing that the true name of the DOE is the Death Of the Earth Squad. It is time this facility ceased operation, compensated workers and the surrounding community, gave workers and their families health insurance for life, free, and contained the mess. A place this contaminated can never be "decommissioned" (a euphemism for "walking away from the problem") and must always have institutional controls in place, no public access in perpetuity, proper containment, cleanup and remediation done to lower dangers, and a 24 hour security system forever to guarantee people stay away. Also, the NRC must never grant a license or a Certificate to any other facility of this type in the future.

And the NRC needs to find out how long it will take to reach equilibrium after shutdown of the plant, due to accident, or because it must be closed. Is it two years? Finally, how much insurance do they carry? It would have to be in the billions. I doubt they can purchase it. Also, when was the last time they carried out an emergency evacuation of the plant and a ten mile radius of the site, as a drill? If it has not been done, why not? When will it be done? It should be as realistic as possible with no one able to come and help and everyone clogging the roads trying to get out. Even shutdown, the place will be dangerous for decades, so a drill is in order.

NRC will doubtless relieve pressure to keep this dump open. Were this plant in the former Soviet Union, everyone would be writing huge articles about how awful it is. Because it is over here, people do not want to believe this nightmare could have been allowed to happen. Well it did, and the NRC must not allow it to continue. For the sake of all those children nearby in particular, NRC must deny the Certificate and get that radioactive monstrosity shutdown. Not to do so would be wicked and malevolent in view of all the aforementioned.

Think of those children. Seize the day. Deny the Certificate. It's the right thing to do.

Thank you.

Pamela Elockey-O'Brien.

MORE →
OVER

63.

So there you have it - USEC's Paducah plant and site is truly awful - and it serves no purpose to pretend otherwise, except to help line the pockets of this awful corporation. CDC should also be REQUIRED to take tests for chromosomal breaks in all workers, all their wives and children, and all within 10 miles of the site.

In bringing this 2.206 Petition under 10 CFR Ch.20, I have a personal interest as well, as either an accident or terrorist attack at any of these sites would affect me, or family members, or friends or colleagues, who live within ~~an~~ area that Brookhaven scientists, so long ago in 1965, said would be contaminated in the event of the release of any substantial fraction of the radioactive inventory within a large nuclear plant, namely an area "equal to that of the state of Pennsylvania", or they/I are/am in the windpath of same. The same would apply to NFS and Paducah. Furthermore, as a woman, a mother and a grandmother, I consider all children, everywhere, to be deserving of such protection as I can help create for them, by trying to do something about the places which affect them and generations yet unborn. And that means also trying to protect the children of the owners of these obscene, dangerous, polluting facilities.

With regard to any accident or terrorist attack etc. I am also very worried about the disgraceful attempts by the ICRP (International Commission on Radiological Protection - a misnomer if there ever was one) to "fix it", that they would push for increased exposure levels to be allowed after such an event, like was done after Chernobyl, and the horrid IAEA is in bed with that scheme also, and NRC may agree. **THIS MUST NOT HAPPEN.** - In view of all the latest studies and information on the serious effects of internally deposited radioactive contaminants in particular, such a move would be criminal. I know the NRC tires of me quoting Dr. John Gofman, PhD, MD nuclear chemist, medical doctor, atomic scientist, first director and founder of the biomedical division at (now DOE) Lawrence Livermore Laboratory, who led the "Plutonium Group" that managed to isolate the FIRST MILLIGRAM OF PLUTONIUM for what became "The Manhattan Project" - only he didn't know at the time, - for Oppenheimer to be precise - but I'm going to quote him again:

"By any reasonable standard of biomedical proof, there is no safe dose, which means that just one decaying radioactive atom can produce permanent mutation in a cell's genetic molecules." 1999 Open Letter of Concern.

With regard to tritium (radioactive hydrogen) constantly coming off nuclear plants, and its effects, we now know that, relative to the atom-bomb gamma rays and at equal rad dose, tritium beta rays (average energy of 5.7 KeV) are about 5-fold more injurious than A-bomb gamma rays, concerning dose-responses for dicentric chromosomes induced by ionizing radiation in human lymphocytes (in vitro), evaluated at the first post irradiation cell division (Dr. Tore Straume 1995, discussed in "Radiation (Medical) in the Pathogenesis of Cancer and Ischemic Heart Disease" Gofman. Prof. Emeritus, Molecular and Cell Biology, University of California, Berkeley, 1999) Straume warned that the health consequences from xrays and tritium may be larger, by a factor of 4 to 5 than the harm from an equal dose of Hiroshima-Nagasaki gamma rays. Daniel Ford, former Executive Director of the Union of Concerned Scientists, noted in his book mentioned in this Petition, that a 1,000-megawatt nuclear plant "would routinely hold more long-lived radioactive material than would be produced by the detonation of a thousand Hiroshima-size nuclear bombs." Which both NRC and I know. And it includes huge Curie quantities of tritium.....

I urge NRC to grant this Petition, in full, on behalf of the nation's children in particular.

Pamela Blockey-O'Brien.

Pamela Blockey-O'Brien

cc: Russell Hoffman, PO Box 1936, The Animated Software Co., Carlsbad, CA 92018-1936
Ms. Kilpatrick & Ms. Barczack, S.A.C.E., 427 Moreland Ave, NE, S.100, Atlanta, GA 30307

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