6 pages total.

To be considered as a new 2,206 (along with attached cover letter and my letter of ang 18495)



Pamela Blockey-O'Brien D23 Golden Valley Douglasville, GA 30134

The Chairman, Atomic Safety and Licensing Board, Justice Bechoefer, Justice Dr. Lam and Justice Dr. Kiline.

The Executive Director of the NRC,

The Commissioners for the NRC,

and the entire service List on the NRC Response to my 2.206 Petition of July 31st, 1995 concerning the Georgia Tech Reactor, Docket 50-160, Washington, DC 20555

Aug. 20th, 199 5

To All the above cited persons: Greetings,

By the time you all get this , yourshould have recieved my Aug. 18th, 1995 response to the NRC's Partial Response to my 2.206 Petition as NRC should have distributed it to you I believe. Although I am so tired of arguing the obvious, I thought everyone should know the following

This information is from the NRC's own printout on the Georgia Tech Nuclear Reactor, showing problems, violations, non-compliance, over and over again. Sometimes the same problems repeat.

Tis is not everything listed.

1978 Failure to meet charcoal cartridge analysis surveillance interval and failure to complete and continuing problem with coolant flow anomaly

1979/reported 1980 During ECCS Tank TD-2 monthly flow rate verification flow rate observed to be 8gpm, caused by loose lock nuts which fix handle-to-ball operating shaft.

Low flow scram of flow recorder FRA-D1 resulted in reactor trip and subsequent SHUIDOWN. caused by broken Teflon gasket pieces restricting flow. Casket repaired and system refilled. (IASKED NRC TO RE INSPECT THE CASKETS AS THIS WAS A LONG TIME ACCO. THE NRC INSPECTORS SUPERIORS WOULD NOT LET 1990

Heavy water Temp recorder TRA-DI was not recallibrated after replacement of worm sliding contacts on scanner select switch. Cause not stated. Importance of recalibration emphazied to Non-compliance(on a variety of things)

1981 physical security systems not maintained per approved plan

1982 failure to perform heat balance calibration checks when reactor operated at or above 1 MW

1982 irradiated material removed from biol. shield penetration H-2 w/o health physics supervision. 1983 release of 70 uCI of Cobalt-60 to city sewer, caused by valve on closed filter loop of storage pool left open following maintainance act. (SOUND FAMILIAR ?)

1983 failure to label container of rad. material in waste storage bldg. (Late 1983 D.R KKARAM JOINS)

1985 (Concerning EXAMS for reactor operaors) Exam results: One Senior Reactor candidate passed, both reactor operator candidates failed, two reactor operator candidates withdrew applications. 1985 notices of violation and deviation

1985 order to show cause why licensee authority to possess HMD fuel should not be susp holed.

1985 Failure to adequately sample liquid waste during release (SOUND FAMILIAR?) failure to adhere

Gets time extension due to experimentation and data gathering to verify QUAVITTY OF AR-41

1986 Annual Report including operations summary, power generation shutdowns unscheduled maintainance on safety related sys and components and changes test and experiments w/o prior NRC approval.

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1987 Violations, failure to have operating procedures for sampling of liquid waste tanks (THAT DARNED LIQUID WASTE THAT ENDS UP DOWN THOSE SEWERS , PROBLEMS, PROBLEMS.... WHAT A SHAME THAT IN LIGHS, 1986 and 1987 GROGIA EPD RAN NO TESIS ON THE WATER THEY DIMP TO THE SEWERS _ However on 9/27/88 EPD measured tritium (H-3) at 68,200 pCi/1 (EPA drinking water standards (which this water ultimately becomes at the next "Clean Water " intake , which is not able to remove radioactive contamiants, is 20,000 pCi/1, which is also too high) and Cobalt-60 at 240 pCi/1 - PLEASE don't anyone tell me that there is a Cobalt-60 mine right next to the reactor, liscensed by the State of Georgia and not by the NRC, which is causing the Co-60 contamination and that it is all perfectly "acceptable".) Failure to follow health physics and surveillance procedures.

1987 Teleconference re: POINNIAL ROR RELEASE OF INSCLINE RADIOACTIVE PARTICLEARES IN LIQUID

WASIE TO SEWER. Violations.

1987 Violations, failure to provide or utilize procedures to control experiments per tech specs to perform weekly heat balance surv. and to comply with approved requal. prog.

1987 Violations, failure to label containers of radioactive material, failure to perform radiation surveys and failure to follow procedures.

1987 Under consideration for escalated ENFORCEMENT act . (In the real world, by now the dump would have been shutdown forever.)

1987 7 entries in health physics log which described POTENITAL SECURITY VIOLATIONS.

1987 Deviation, failure to implement corrective action commitment re procedulare for notifying of events including responsible individual and agencies needing notification for each type of emergency. 1987 Violations, appropriate labelling of containers with radioactive contents not performed, radiation hazard evaluations inadequate and listed procedural requirements not met. (ALL THIS IS BEGINNING TO GET OLD ISN'T IT?)

1987 Response to request for info re unaccounted for fission plate for ACN 201 training reactor

1987 Investigation of reported missing discrete item containing SM

All sorts of stuff keeps going on , violations, contamination, BLAH, BLAH until finally the NRC begins to awaken from its loo year nap and there is a brief period where it looks like SOMETHING may actually be done about the dump, but all that happens is that they get slapped with a \$5,000 fine and a few more things and the liscensed activities are suspended and a few folk seem to be running around like scalded cats, then it is back to BUSINESS AS USUAL. Fine is paid in '88 after lots of fuss.

1988 Inspection report. One area of particular interest involves personnel errors. Neely Nuclear

Research Center has not effectively established performance standards. (Now they tell

1988 summary of enforcement conference etc. concerns over lack of adherance to procedure, lack of diligence in recording info in operating logs and casual attitude noted.

(There is also lots of press coverage about all the above mess and who does what to whom- I have a lot

of it.)

1988 NRC gets letters expressing concerns about the dump of a reactor (Responds in the usual manner by the look of it....)

1988 Violation, personnel designated as assuming responsibilities of emergency director not trained as requires.

12/20/88 Fine finally paid.

1988 Violations Performance of calibration using AR-41 source for which concentration of radioactivity not accurately known and lack of procedure to implement tech spec 3,5.A (5).

1989 forwards rev 1 to 1986 annual report connecting several errors in section 7, environ. monit.

1989 Violations,weakness in physical security procedures.

1989 Violations, containment building leak-rate test not conducted and licensee failed to provide procedures to assure that shim rods withdrawn to at least five degrees.

1990 RENCIOR OPERATOR FAILED EXAM.

1990 Violation, two graphite stringers posted in high radiation area NOT equipped with control device to reduce radiation level below 100 mrem in one hour.

1991 Violations identified but not cited (appears to have had something to do with emergency preparedness or similar)

1991 corrections to annual reports, re fission and activation gasses.

1992 BK Revsin leaves employment. (this may be noteworthy, because I believe it is possible that this person was once an NRC inspector who inspected the facility and then got employed there. If this is true, isn't it a conflict of interest?)

1992 Violation, describes repeat of non-cited violation as noted in a prior inspection report. Somehow concerns notification (or lack thereof?) of State of Georgia and Atlanta-Fulton Co.

Emergency Management.

1993 some typ of computer software problem and graphics screens which can't be recovered

1993 Violation, Lisenose failed to comply with listed proceedures

1993 Concern expressed re adequacy and effectiveness of licensee current approach to scenario development

(there appears to have been concerns raised in 1993 about emergency responses)

1994 Reportable Occurrance, regarding W Downs (the guy mentioned in the Creative Loafing article in late 1994 - after this occurrance)

1994 10 violations noted, but not cited.

1994 Downs goes.

- 1994 Puts in for license renewal (for this catastrophe) for another 20 years
- 1994 Drift of temp trip setting of primary coolant occurred on 94/07/22. Suspect drift occurred since 94/05/22 due to failure of compressor that provides compressed air. New equipment ordered. (Did they ever get it? My question)

1994 Violation, Licensee failed to make proper evaluation of extent of neutron radiation present following survey performed 94/08/11

Phtrance of small, female person whose signature is at the bottom of this letter, sensibly requesting; LICENSE WITHERAND, SHUTOWN, REMOVAL OF RADIOACTIVE MADERIALS, CLEANLE OF SITE AND SURROUNDING AREA AND SEWER LINES AT THE NEELY NUCLEAR RESEARCH REACTOR AND SUPPORT FACILITIES LOCATED AT THE GEORGIA INSTITUTE OF TECHNOLOGY, ATLANDA, CHORGIA, ON THE CAMPUS OF GA. TECH AND, IN ADDITION THE REMOVATION OF ALL LISCENSES TO DIMP OR DISCHARGE RADIOACTIVE WASTES TO THE SEMERS AND WATERS OF THE US/OCEANS OF THE WORLD, AND REMOVATION OF "ALARA". Under 2.206 (and we all know what has happened since)

1994 One week later, CANE FILES ACAINST LICENSE RENEWAL. (actually 3 days later) and we all know what's going on there.

1995 Non-cited violations identified,

1995 , July 27th , NRC lists more violations and a bunch of problems (I detailed this in my aug. 18th letter) found in June by NRC, Atlanta, and obviously ignored in NRCs response to my 2.206 Petition.

July 31st, NRC issues a Partial Decision on my 2.206 as you all know, basically telling me , in "legalese", to go away and everything is fine, they say p.41 of their response, that they can only institute proceedings -- or to use their words "The institution of proceedings pursuant to Section 2.206 is appropriate only if substantial health and safety issues have been raised." Well, what on earth does NRC think I've been doing? Making fudge? I expected the NRC to do proper research, to read its own documents, to look at all the issues properly that I raised . Against the above background file information, which NRC has had all along, how can NRC deny most of my 2.206? (Dumb question I suppose, considering NRC pulled in INEL on some testing - INEL who gives money to the Georgia Tech Reactor in funding, and whose radioactive Waste has fouled the Snake River - dumb question since TMI is chapging along, dumb question since Browns Ferry is sputtering along) What the hell does Consolidated Edison and Washington Public Power Supply System have to do with the Tech Reactor? (Other than they are similar disasters, in which case my 2.206 should be granted in full) One of the things I said under 8 (page 31 NRC response) in my Petition was, that children should not be allowed to truck around inside nu clear reactors. It's no place for children, they are far more susceptible to to the effects of radiation and NRC knows this as well as I do(And by the way, Nuclear Merit Padges originated I believe when everyone thought the Russians were coming to the US in row boats at the height of CokD ward war, that is a joke.) Haven't you ever heard of the famous "Oxford Study" for one? Or the

Japanese studies? I told NRC, Dr. Karam said the activation analysis could be done elsewhere, Health physics and nuclear engineering can be taught without a reactor on campus, I do not consider plant irradiation a contribution to the community, besides, as I told NRC, I was told it was Vidalia onions. I told NRC that food irradiation is very dangerous and many scientists agree, as happened

when FDA wanted to allow it, letters poured in from around the world against it.

Of course, FDA more or less ignored them, hardly surprising considering things like Thalidomide, or Nutrasweet which detailed TV reports have shown causes seizures in people with epilepsy sometimes. As I testified to the DOE, May 31st, 1990 (against re-start etc. of K.L. and P Reactors at the Savannah River Nuclear Facility) one reason DOE was pushing chromosome changing food irradiation, was an attempt to create extra demand for cesium-137 (a by-product of plutonium extraction) so more cesium would be needed than perhaps available from (then) current military waste, and that Congress might then allow DOE to reprocess commercial spent fuel, in the name of helping the radiation technology industry, who would get their hoped for \$240 million a year plus profit, while DOE got to extract plutonium from commercial wastes for use in weapons. A sort of moneygrubbing nuclear merry-op-round. If food is prepared or processed in clean surroundings, by clean workers and packaged in clean containers, as everyone knows, there is little risk of contamination. As for the extended shelf-life argument, transportation and turnover is so fast there is little likelihood of something sitting on a shelf for decades, besides, I know of few women who would trade off that against chromosomal damage to future generations.

The Tech Reactor seems to make it a practice of using graduate students and other students as staff. See: NRC Inspection Report no 50-160/90-02 July 11 1990 and Notice of Wiolation) While such staffing

in NRC's words "appeared to be adequate to conduct routine and non-routine radiation protection activities for the facility." I find it totally irresponsible and dangerous. having students help run the show, with little life experience , training and the like is not only stupid, it puts the student in a potential position of having to deal with the gravest emergencies for which they have little training or knowledge in all probability, and is not fair to the student. During the above noted inspection, it turned out that materials giving off between 50 mr/hr and 200 mr/hour had been in an unlocked area for about a week. The Health Physics technician had not known that anything over 99 mr/hr. had to be kept in a locked area. It appears this person may have been a student. What doses had all the employees recieved? There was no roof over the area of high radiaition either. By the way, the report also notes how water from the co-60 storage source pool accumulated in the lower levels of the NO WONDER NO ONE WANTS TO GO AND TEST BELOW THE REACTOR BUILDING, THE SEWERS, THE reactor building. It was also noted that when airborne activity exceeded a particular FLOORS ETC. OR X-RAY ANYTHING. concentration, it was attributed to madon. I wonder where that little gem came from. (No, don't tell me it was naturally occurring, I'm one step ahead of you all at NRC on that one, nothing ever comes from the reactor does it ?) During the above inspection, it was also noted that someone had recieved an exposure to tritium during compaction of radioactive waste, however Maximum Permissible Concentration hours assigned to individuals were not tracked formally. But hey, who cares ? What's a little little contamination between friends. Doesn't seem to worry the NRC.

After the massive problems in the late 1980's, during which the NRC, contrary to its own guidelines, allowed a re-organization of staff making them report to the director of the Center, instead of allowing them to intervene in safety problems and have a direct line of sommunication with the University President , the Radiological Safety Office was put under the Director, Dr. Karam. This caused national -ally renowned health physicist Dr. Melvin Carter to not only call the plan tantamount to the "fox guarding the henhouse "but to resign in disgust. (See Atlanta Journal and Constitution Feb. 11th '88 and Feb. 12th 1988) all the reorganization was meant to work wonders, well, the list of problems

still persists as can be seen by reading the inspection reports since then.

The issue of SECURITY BOTH PRIOR TO, DURING AND AFTER THE OLYMPICS , THE ISSUES OF ACCIDENTS OR TERRORISM PRIOR TO, DURING OR AFTER THE OLYMPICS SHOULD HAVE BEEN ADDRESSED, AS I STATED, ALSO The removal by Tech (if that actually happens) of HEU does not render anything ABSENT THE OLYMPICS. MOOT at all, now does the removal of the cesium-137 (if that actually happens) as a) Tech wants to have the LEU brought in (back to business as usual and all the spent fuel that will accumulate etc.) and furthermore the wretched cohalt-60 is still there and is part of what goes on at the reactor facility and the water in the pool would be used as backup for reactor cooling, the stupidity of which I already went into in my Aug. 18th letter.

ACCORDING TO OFFICIALS WITH BOTH THE GRORGIA EMPROPICY MANAGEMENT ACROCY (GRMA) AND THE ATLANDA-FLETON COUNTY EMERGENCY MANAGEMENT AGENCY THERE IS NO EVACUATION PLAN FOR THE CITY NOT ONLY THAT, NEITHER AGENCY HAS ANY RADIATION PROTECTION SUITS. So, the State EPD radiation unit, CEMA and Atlanta-Pulton County Pinergency Management doesn't have the equipment. The Emergency Procedukores listed in the Liscence re-application are so appalling and so infantile, that I did not think most of it worth arguing as it is all so apparent, but NRC

persists in its view that the Emergency Planning Zone of 300 feet (100 meters) is acceptable (see pages 33/34 of the NRC Partial Response) and that the emergency classification this dump of a reactor is under specifies no general emergency classifications. The Tech documents, page 14, 4.5 General Emergency state: "No credible accidents attributable to the reactor or its operation are postulated which can cause emergency conditions beyond the operations boundary; therefore this emergency class is not addressed in this plan" (I added the emphasis). See what I mean? This is outrageous. NRC is addicating its responsibility to protect the health and safety of the public. NRC and everyone else can carry on their little fake emergency drills, in their little planning zones until they are blue in the face, but the FACT remains, that in a REAL EMERCENTY, SICH AS A CORE MELT, EXPLOSIONS, TERRORIST ATTROX, THE HOODY THING SHIPTING 30 ft DOWN A SINKPLE, A LONG DISLOWER MERIER ATTROX THROUGH THE WALL INIO THE ROLL SHIPTING THE COPALT EIG. EVERY PERSON IN YOUR FAMOUS 300 ft zone would be DYING OR DEAD AND THE RADIATION WOULD EXTEND WAY PAST YOUR SHIPLY LITTLE BUNDARY. Consider what happened with the plume from CHERNOEYL as just one example:

"The radioactive materials emerged under great heat and pressure from the damaged reactor building in the form of a continuous stream. What happened to this stream above and beyond the station depended on the weather. In the simplest terms, the stream produced concentrated radioactive clouds, which at certain atmospheric heights were blown away by the prevailing wind in the form of a plume. The maximum concentration of released radioactive matter was along the axis of the plume. As the plume passed over the earth, it left a radiation track or fallout on the ground. The fallout rate depended on the weight of the airborne particles. Gravity first pulled down the heavier particles like the plutonium. Rainfall washed out additional particles onto the ground, the greater the rainfall while the plume was overhead, the greater was the radioactive fallout. Tracking the direction and radioactive strength of Chemobyl's radiation clouds is fraught with difficulties because of the continually changing density of the ementing stream, the variable weather conditions above the station and the erratic direction of the winds far from the station. Added to these complications is the fact that the plumes (note plural, as more than one formed) dispersed not only horizontally but also vertically, while particles continually decayed and fell to earth".

[From: The Chemobyl Disaster, by V. Haynes and M. Bojoun Hogarth Press, Great Britain.)

It goes on further to say, that the first plume under slight wind and high atmospheric pressure rose to 2,000 meters (about 6000 feet) north and west, then wind changed and it went towards the south and west. The second plume was created by ascaping radioactive steam and by the fourth day wind was shifting these emissions to the east and they only went to a height of 200 to 400 meters (600 to 1,200 ft) It goes on and onultimately covering most of Great Britain, Scandinavia, Italy, the Balkans and to past the Urals before making its trek round the world. It had also covered Greece, Turkeyetc. In all an approximate distance of 3,600 miles east/west, west/east and of 2,100 miles In other words, if/when a large from north/south, south/north, before dumping across the world. nuclear power reactor blows in the US, in similar manner, it will basically blanket the country. Of course, the Tech reactor is far, far smaller, but my point is, on a smaller scale, the consequences of a major accident would probably affect the entire city, a city impossible to evacuate quickly, a city totally unprepared to deal with a major nuclear emergency. NOW it would be a catastrophe, and during the Olympics even more unbearable. Our emergency people would not only have to deal with trying to give instructions in English, but simultaneous translations in many languages for Olympic Athletes and visitors, hundreds of whom will not speak more than broken English. If the cobalt-60 stays and is hit in some type of terrorist attack, the water would steam from an explosion/fire in part and the cobalt would co-mingle with the radioactive water and goodness only

an explosion/fire in part and the cobalt would co-mingle with the radioactive water and goodness only knows what else would transpire, some would go down the severs and reach the treatment plant and the river, some would escape out the hole created by explosives and on and on. If it became unshielded due to the water draining for some reason (crack in the bottom of the pool for example) according to the NRC's own staff, as one could not enter the area (even with protective gear) as the levels would be approx 240,000,000 roentgen an hour ,(Three Mile Island had 30,000 roentgen/hour) about the only thing one could try, would be to bring in a crane, bash a hole in the roof and simultaneously dump a huge hose through the hole and keep flooding it with water. Of course some would escape out the hole in the process and probably kill the crane operator. Obbalt-60 has a half life of over 5 years, i.e a full hazardous life of about one hundred years. Among effects of high doses of cob it-60 are central nervous system dysfunction, internal bleeding and of course death.

The South/Atlanta, is known for its unstable weather, an accident /terrorist attack can not be predicted as to time etc. If for example something had happened in the night this past weekend May 25/26/

27th, everyone wo" .eve been scurrying around in the dark dealing with downpours for hours created

by the remnants of an offshore tropical storm. A week earlier, Atlanta was plagued with storms and downed trees and power outages. It's not like Washington .

Under Title 10, Chapter 1, CFR, Subpart A, General Provisions, part 20 Standards for Protection Against Radiation, , 20.1001 it says: "However, nothing in this part shall be construed as limiting actions that may be necessary to protect health and safety". Therefore, NRC can very easily act on my entire 2.206 Petition and grant it in full as there is enough in all that I have written to date to show that health and safety is not only at risk, it is not being properly protected, indeed cannot be protected with certainty.

With regard to NRC/Tech wanting to bring in LEU fuel, there are many problems I will not go into here, but how anyone in their right mind can allow this in view of the awful track record of this dump of a reactor is amazing. Truly amazing... Pasically, startup, after bringing in the LEU will let us all know if the experiment works. If it doesn't, COOLENE ATLANTA. HOW DARKE TROH AND THE NEC HAY SICH A CAME WITH THE LIVES OF TWO MILLION PROFIE? You all remind me of the scientists who made the atomic bomb and were'nt sure whether or not it would ignite the atmosphere, but they went ahead anyway, the results of which are global radioactive contamination from bomb tests worldwide, nuclear reactors, and the entire nuclear cycle and no one still knows how to render the waste harmless. Long term, slow death of the planet, instead of quick death.

By the way, according to a FEMA spokesperson, Fema also doesn't have radiation protection suits readily available, they are counting on State agencies and GEMA (who don't have them) and the military at sites up to an hour from downtown Atlanta , and the NRC, who are checking to see if they have any in Atlanta. I do not mean those silly little cloth/paper ones, I mean the type one has to use in a major emergency that have self-contained breathing apparatus and which people have to be taped into to seal all leaks. Such people have to be specially trained and in good physical condition to even get into one. However, FEMA assured me that they felt confident that they could handle any emergency (concerning radioactivity/nuclear problems) , which is of course an ENORMOUS relief, since this is the same agency that was advising people to fill out change of address forms after a nuclear bomb had been dropped on their city (a source of great amusement to cartoonists), and to hand them in at (nonexistant) post offices, and not to forget things like toilet paper and credit cards while evacuating. Good thing they weren't around to advise the burned and mutilated Hiroshima survivors, as a survivor might have used their remaining ounce of strength, to tell them where to go.

Again on the issue of attributing radioactive contaminants to nuclear weapons fallout, as NRC/EPD arqued, In "Man and Environment - A Health Perspective" (Anne Nadakavukaraen , Illinois State Univ.) points out : "according to a recent report by the National Council on Radiation Protection and Measure. ments (something the NRC probably approves of . My addition.) annual fallout exposure currently averages less than Imrem....nuclear weapons fallout need no longer be taken into account in calculating total human radiation exposure." I would disagree with the last part as I feel it should be taken into account of course, but the point is , even taking past aboveground testing into account, and below-ground testing (which does release to the air, but to a lesser extent) current additions from fallout are not so high if the aforementioned is true. How (p.6 NRC response to me) areas WITHIN the research reactor containment can be attributed to fallout from weapons tests is beyond belief. p.28 of the NRC response says something about the use (by the licensee) of incorrect names Please

read my 2.206. It is not a question of a wrong name, it doesn't exist since years.

The introduction to Ca. Techs Reliscensing Application, p.1. says "No safety problems have been encountered." etc. What a bad joke.

Nrc also says (p.39/40) I provided no specific information or basis on some issues. This is wrong. Regarding mail transportation of nuclear materials, see my letter of Dec. 4th. I told you I had the documents. NRC never bothered to ask what they were did they ? I did provide information under ALARA, , and NRC never asked me for more info. on storage and disposal of radioactive waste being inadequate did they ? Does NRC want me to provide a laundry list of something NRC is well aware of ? Indeed the whole world is well aware of? Speaking of nuclear waste, the U-235 in both the HEU and LEU has a half life of approx .710,000,000, yrs. After fissioning, the 'spent' fuel rods are so radioactive (think of all that plutonium -radioactive for thousands upon thousands of years) when you'all remove them, do me a favour and remember exposure to them means certain death. Good luck with keeping it shielded for millenia from all life forms, when not a single facility capable of doing that exists worldwide. My 2.206 should be granted in its entirety. (Plus all the heavy water onsite be removed.)

5. Please make sure that this letter Pamela Blockey-O'Brien.
(aw my ang. 18 m/9 5 letter) is sent to the entire Pamela Hockey-O'Brien.

In the list that got the NRC response to my 2, 206. Thank-you. P.S. Please make sure that this letter

Apt. Number

Zip Code

State





Pamela Blockey-O'Brien D23 Golden Valley Douglasville, GA 30134

