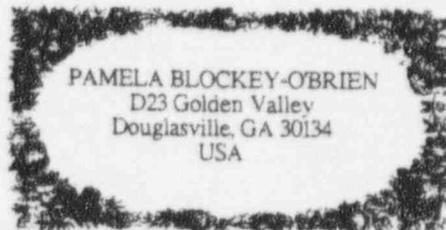


The Executive Director,
Nuclear Regulatory Commission

and

✓ Atomic Safety and Licensing
Board Judges, The Honorable Messrs:
Bechoefer, Kline and Lam,
Nuclear Regulatory Commission,

Washington, D.C. 20555



Jan. 27th 1996

This is in regard to my "2.206 Petition under 10 CFR" against the Georgia Tech Reactor on the campus of Georgia Tech in Atlanta, possible license problems and possible contamination problems.

When one compares the original license application and the safety and environmental information, a few things stand out: The "Xenon buildup after shutdown" illustration seems to have vanished, as well as detailed sections on wind roses, streamflow and such. Also things like experimental information on stuff like "irradiation tunnels"? Does this tunnel refer to "Crenshaws Mountain"? It seems the boys had a lot of fun torturing creatures, by zapping them with a 5 Curie co-60 source, encased in lead, in an underground maze/culvert system they constructed under the campus. I believe it still exists. If water has infiltrated, you could have a problem with lead contamination as well as cobalt-60 contamination. It would be in an area that suffers from water problems. Besides, some hapless student, or Olympic visitor, might crash through the "roof" if it has become unstable over time. I can see the headlines now if that happened, the tabloid press would love it: "Olympic athlete descends into atomic underworld, emerges with mutant monster resembling IZZY". (Izzy is the mascot for the Olympics - ugly and a shade of blue, though not cobalt blue - yet.) Or something equally tacky. As all this went on as a connected "side-line" to the reactor, I don't want to hear the sorry excuse that the State licenses the cobalt-60 from the NRC, and therefore no one has control over it. The federal government/AEC ultimately owns all things radioactive if I'm not mistaken, so it should be taken back along with the other co-60 in the pool, and the heavy water.

I think it is deceptive and shows poor judgement, that the current license renewal does not include all the information from the original license process too. I do not think Tech should have issued such a "revised" application. Many extra buildings have been added to the area around the reactor, this will affect wind patterns at low level. There are far more people in the area than there were in 1964 by day. Both State and NRC documents make light of the fact that there were very high readings off an area to the south, the State (in the first "Creative Loafing article") is dismissive of the fact that the stack releases MUST have affected the readings around the reactor, after all, a March 1977 Tech report to NRC says under total gross radioactivity released to air was: 446.87 Curies of Argon-41 for the

1976 Calender year and even though they say radioactive iodine was not detected, they also say the minimum detectable release is 400 uCi/yr. So trace amounts could have been going out daily undetect since years. By the way, that year there were thirty-four unscheduled shutdowns. (Reporting of problems and events seems to have been far better in the earlier years.) In that year, it is noted that the maximum cumulative radiation dose from direct radiation and gaseous effluent (apparently to the outside, but perhaps not) was 50 m/rem year and one occupational exposure was 1,330 m/rem (how is that persons health? ANY follow up done on that?) However, a 1971 report shows that an external monitoring station to the east, Station 13, had direct radiation readouts of 60 to 133 mrem year (which they admit is "an abnormally high dose rate") and Tech attributes it to the intermittent use of an isotope handling hood located in the southeast corner of the laboratory building.

1. If you read up on the archaic system for hood ventilation you will be quite shocked.
2. many of the isotopes handled in the lab are also connected to reactor use and what Tech is allowed to have in its inventory I believe, in other words, fairies and gnomes can't be blamed. This problem has probably continued to this day unless proof can be found that the problem was fixed. It is no wonder that in the 1995 NRC inspection reports it was established that a whoses records of radiation to unrestricted areas hadn't been done. The place is a dangerous dump. Contrary to the attitude of the State (radiation surveillance /EPD program, the head of which is Mr. Setzer) Tech docu clearly says that the stack emissions, argon-41 in particular, quote: "was the primary radionuclide responsible for the exposure at e of the stations" i.e. external monitoring stations. Even worse, that THE MINIMUM LEVEL OF SENSITIVITY OF THE MONITORING SYSTEMS IS 5 mrem Lif dosimeters, and 10 mrem for the film badges. SO CONSTANT EXP- OSURES OF SAY below 5mrem on the one, or below 10mrem on the others WOULD NOT EVEN BE TABULATED OR SHOW UP. The film badges back then - (God knows how often now) were changed every month, and the TLD's every 3 months. Back then there were 912 badges and 240 TLD's. There was a reason for that, the place is dangerous. NOW THERE ARE TLD's monitored by the State in only 14 LOCATIONS and health physics monitors at the reactor perimeter and the SAR (pages related t

Environment - Attachment 3 4.7) picks up 10 uroentgen/hour at peak reactor operations according to what is written. In that Attachment, is also written that approx. 10% of the radioactive wastes in the stc barn that gives off those staggering levels of radiation comes from t reactor,, not just from the crud licensed by the State of Georgia, as everyone is trying to make out.

With all the problems noted in the violations in the last 6 years and inspection reports, no one really knows what went out the stack down the drain or anywhere with certainty in terms of how much went out and of what isotope over and above what has been grudgingly admit to. Argon-41 is a beta emitter. Over the years, how many thousands of students and nearby residents in the poorer areas have inhaled, ingested or absorbed this beta emitter? What about students in the nearby fraternity house where some thoughtful soul put a monitor up, but no one had told the students why?

All this contamination for a lot of military/DOE contracts? It's called "killing ones own" And that other contamination over gemstones?

3.

And the stuff to the sewers, and all the radioactive crud they dump to the laboratory sinks ? The shame of it all. And the noble gases that will also have gone out the stack in small amounts? The shame of it.

The original license expired in 1980 according to the documents. The argument being given to me by NRC, is that via an amendment on a construction license when it went to 5 MW on May 2nd 1973, it was allowed to have a license for another 20 years. This is NOT a proper LICENSE RENEWAL PROCESS. NRC counsel in Reg. 2 has repeatedly told me that an amendment is not the same as a relicensing. Even though she is still doing more research and told me that it may be, that in the context of agency practice NRC may be giving renewals without relicensing., and that the agency may have leeway to do that. And even though Mr. Mendonca also said they do it all the time, I believe this is wrong. It does not have a license in the proper sense. The license expired in 1980. Period. What is the point of having license renewal proceedings like what is going on now, if they can just tack it on in some amendment ? If this was all correct, why didn't Tech just try and sneak another extension through by amendment this time ? No, there is something very wrong about all this. A license renewal and an amendment are two different things. Counsel told me that, and I know it myself. A construction permit with an amendment to the license is not the same thing. Even if it was put in the Federal Register (I don't have the copies yet Mr. Mendonca is sending) a) who would look under construction permits for notices of license renewal ? b) who can afford to get the Federal Register anyway, millions of people don't know what it is, have never seen it either. No, this is all a devious way to let something continue to operate. The license expired in 1980, Midnight June 13th 1980 to be exact, and that is what it says. and furthermore, under the terms of the original license it states that:

"Records showing radioactivity released or discharged into air or water beyond the effective control of Georgia Tech AS MEASURED AT THE POINT OF SUCH RELEASE OR DISCHARGE " (emphasis added) are to be kept, and the fact is, that means when it all leaves the facility, e.g. external to the stack - not inside- and the actual point of release to the sewers. And Dr. Karam said in the Creative Loafing article of Dec. 17, 1994 that there was no monitoring of what comes out the stack in terms of direct monitoring external to it and that the monitors outside (the stuff EPD has) monitors . So that shows that the permit has been violated anyway, and the State needs to stop pretending that nothing comes from the reactor except maybe, just maybe, teensy weensy, itty bitty amounts. Well, it only takes a teensy weensy radioactive zapping of a cell to cause problems, severe health problems down the line, if not immediately. The amount of information in the current relicensing application is lousy and there is no environmental or health impact statement or analysis of the type that should be done today. I repeat, the reactor and everything connected with it and the co-60 should go. And as far as my contentions under why ALARA should be revoked, apart from Dr. Gofmans testimonies on ALARA amounting to "planned deaths", what is in the National Academy

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of Sciences BEIR V report (1990) is also proof enough on the terrible effects of radiation even at lower levels, and the detailed reports on the problems with uptake and magnification of effects of radiation in soil and vegetation and in water in combination with chlorination as detailed (as one example,) in the studies done by Bernd Franke of IFEU Heidelberg, Im Sand 5, 6900 Heidelberg, Germany. Ocean fish and coral are contaminated with radiation in parts of the ocean and in rivers that receive radioactive effluents such as aquatic species in the river nr. Plant Farley, with Cs-137 ~~was~~ 150 pci/kg, and river sediment in the Savannah River due to Savannah River Site operations at 2,500 pci/kg

Cs-137, and 19,000 pci/kg Cs-137 in aquatic species in the Savannah River and 22,400 pci/kg tritium in aquatic species in the same river (all listed under the Savannah River Nuclear site and Georgia Power Co's Plant Vogtle listing (both are on the Savannah River)). But NRC knows what this is all causing, so why should I knock myself out trying to tell NRC that the people/companies who pay NRC salaries are part of the problem of the fouling of the world with radiation? People eat the fish in the rivers, and wildlife drink from the rivers, and microorganisms are affected. ALARA should be revoked in particular when it concerns releases to water and air, anything that contributes to this burden should not be allowed.

SEE MY 2.206 EARLY LETTERS

As to the exposures allowed to the brain and to the ovaries (and gonads) by NRC, the effects of radiation on the reproductive system are very well documented, I refer you to Dr. Bertells research, to Dr. Alice Steves research, to the BEIR V report, to the recommendations after Chernobyl that anyone who even thought they may be pregnant not carry the child to term if they were, to the fact that whereas men make sperm on an ongoing basis, a female child is born with all the eggs present for her lifetime in the ovaries, exposure to the ovaries is therefore of paramount importance. A genetic dose to sperm or ovum may be of no consequence to the stupid ICRP, but I can assure you, to the woman who bears a child with a genetic defect, or other radiation induced problem, if she could get her hands on those fat cat scientists with no conscience she'd probably strangle them with her bare hands. You need to change the law. NO doses to sperm, (gonads) ovaries, children, the brain, period. Consider that a demand for a change in the rules and stick it in the Federal Register. Then we can all watch how that one goes can't we? It would of course apply to all workers in industry (the nuclear industry) too. Consider it a 2.206 to change the rules, or a petition to change the rules. I asked NRC Atlanta to find out how its done for me some time ago, but never got the information. Let us see how the nuclear industry wants to continue to damage the offspring of the nation out of greed. Never let all this ever be construed as an anti-US attitude, this is a GLOBAL problem, and the NRC/AEC/ICRP etc. guidelines are more or less followed worldwide, so it affects the entire world. If NRC took a strong stance on the health issues, then the word would get out, and maybe we could get some global cleanup going, or at least attempts at it. There is a direct correlation between the lack of a strong message going out from NRC and other government agencies on the terrible effects of radiation to human health and the environment and to nations wanting to develop, or keep, nuclear weapons and/or the likelihood existing ones may be used, as people still do not understand the consequences of their use. Witness General Powell on TV recently speaking about how the US MIGHT have used nuclear weapons in the Gulf War had chemical warfare been released., large scale chemical use. As ghastly as chemical weapons are, that shows the enormous

SEE
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BOOKS

GRASPED
 difference between chemical and nuclear weapons is still not grasped by military forces. Agencies such as NRC and DOE and EPA and the CDC bear responsibility for not broadcasting the truth loud and clear. That needs to be changed. The nuclear industry can still make a ton of money focusing on clean-up and what to do with radioactive waste and how to render it harmless.

In closing, back to my 2.206 and the Tech license. You should grant my 2.206 in it's entirety, go back over it all, it is the only sensible thing to do, and take back authority over that cobalt-60 and for goodness sake, include "Crenshaw's Mountain" cleanup in all this. The name, refers to the 10 feet of dirt on top of the co-60 source under the ground. By the way, I understand it's within shouting distance of the President of Georgia Institute of Technology's house, that should really make his day.....
 Maybe NRC better ask if there are any more little nuclear surprises hidden on the campus of Georgia Tech.

Its only a few months before the Olympics, so you all better hurry and grant my "2.206", as I've said for ages, time is of the essence.

Pamela Blockey-O'Brien

Pamela Blockey-O'Brien.

sent me, P.S. In the exam for reactor operators NRC the answer to one of the questions concerning who one should call first, in the case of someone getting contaminated, is the Georgia Tech Police & this is ridiculous, the call should go to 911 to alert Grady Hospital's radiation crew. The Tech Police have no gear and are not doctors. The second call, if there is time, to the Tech Police. There should have been direct line - a hot line - hookup to both those places for emergencies that rings simultaneously. Also at every other nuclear facility the same - to doctors and to police.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of

GEORGIA INSTITUTE OF TECHNOLOGY
ATLANTA, GEORGIA

Docket No.(s) 50-160-REN

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing MEMO FM COMIEZ TO JULIAN W/ATT have been served upon the following persons by U.S. mail, first class, except as otherwise noted and in accordance with the requirements of 10 CFR Sec. 2.712.

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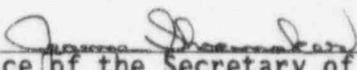
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Dated at Rockville, Md. this
5 day of February 1996


Office of the Secretary of the Commission