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To:

The Commissioners of the U.S. N.R.C., United States Nuclear Regulatory Commission, Washington, D.C. 20555-0001



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August 27th, 1998

Re: The Georgia Institute of Technology Neely Nuclear Research Reactor , the contaminated campus areas, the contaminated reactor building, the heavy water (contaminated with tritium), and the 200,000 Curies of Cobalt-60 stored in the adjacent building and in the pool that falls under NRC license (the pool is part of the reactor license, the co-60 got licensed by the State of Georgia) and the radioactive inventory etc. all a prime terrorist target in the middle of downtown Atlanta, on a campus used by thousands of young people. (See: Docket 50-160 and 50-160 REN and my "2.206 Petition Under 10 CFR Ch.20 to the NRC" Docket 50-160 and all my numerous letters to the NRC and to Judges Bechhofer, Kline and Lam of the ASLE, and my two testimonies before said judges on this issue.)

I hereby state for the record, that despite repeated demands over a period of time that a) the enormous Curie quantity of Co-60 be removed off the campus to a "National Sacrifice" area such as the highly contaminated Savannah River Nuclear Facility and 300 square mile site, where it can be better safeguarded, and b) that the campus be de-contaminated and cleaned up, and that the entire reactor, reactor building, useless containment dome, and the cement etc. on which it stands, plus other aread of contaminated flooring, hot cells, ventilation ducts and so forth be totally removed offsite also, this has not happened. The continued exposure to students and faculty from this radioactive medieval pig-pen of a facility , and the effects to the environment are a disgrace, and there are countless pages of documents to prove it, which NRC well knows; just as NRC knows the terrible consequences we would face were some insane person or terrorist group to attack the facility and the co-60 - after all, I did provide the NRC with a copy of the letter to me from Dr. Bertell(after she had analyzedit) which stated in part :" A terrorist attack would produce a disaster worse than Chernobyl " on a local level, however depending on a variety of factors it would be likely to cause many deaths also, and, as I was informed also by others as well, clean-up and retrieval of the sources would pose an extreme hazard and expense. For the NRC, DOD, DOE, President Clinton, the Governor of Georgia and indeed Georgia Tech - all of whom know about this situation - and the FBI too, to continue to stick their collective head in the sand on the aforementioned is negligent in the extreme, and I am sick and tired and disgusted at the fact that I have to constantly repeat the obvious, which is, get the Cobalt-60 out. Whatever it takes, get the President to order it out, the Governor, just get involved and get that disaster-waiting-to-happen out of downtown Atlanta. As I have said in the past, even absent an attack, an accident where we loose the shielding water (which has almost happened twicein the past) would also be a catastrophe. Apart from it being a matter of public record, thousands know about the cobalt and the reactor etc. having studied at Tech, or done business

with the reactor

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Just because Georgia is in essence a "nuclear State" and the local large newspaper and other press here is derelict in its duty in informing the public of the grave danger that exists so that the public can put up a major hue and cry to get it out of there, does not mean no one knows it's there. It is not my fault that they too stick their head in the sand and (with a few exceptions) have not bothered to educate themselves on the real dangers and health effects of radiation though we are 50 yeARS PLUS into the nuclear age - many of the NRC folk haven't either. Despite all the efforts to cover up the effects, the day WILL come when the public finally realizes that "DOSE" comes from "radiation energy absorbed dose" and that "measuring" (or calculating) the "dose" is purely an after (or before) the fact ATTEMPT to figure out the actual damage done (or about to be done) to their cells and DNA, as at the moment of exposure the damage is caused. When that day comes, as the saying goes, there will be hell to pay, and all the explanations of "allowable" dose are going to fall on deaf ears - it's just a pity that the massive, global damage to the global gene pool cannot be reversed and the consequences will continue forever. What a tradgedy that most people have no idea that radiation-exposure to ionizing radiation- can cause not only cancer, but everything from spontaneous abortion, reproductive problems, sterility, stillbirths, infant deaths, allergies, depressed immune systems of the worst kind, heart problems, mental retardation and on and on, diabetes, leukemia, thyroid problems, - add it allup, toss in exposure to toxic chemicals and pesticides to already damaged cells and it's just slow murder.

I will refrain from going into the ethics of exposing seriously ill people to ionizing radiation under the euphemism of "medical therapy", or purposefully irradiating breast tissue/cells with "mammograms" after Dr. Bross testified to the consequences years ago and told the National Cancer Institute (and lost his funding....), however, I will take this opportunity to point out that all major hospitals with large radiological programs etc. could also be targets for terrorism, as could any area where they use either co-60 or cs-137 sources to do that insane food irradiation. What security measures has NRC put in place for all that ? Probably none. It should be banned anyway.

I bring this to the attention of the NRC, because some published news reports show that some food irradiation plants have a couple of million Curies of Co-60 on hand, plus the people operating them , in some cases, have bad track records, or have made comments regarding their operation that indicate an attitude and knowledge base regarding what is being done comparable to sending a baboon into space as the next pilot for the space shuttle, according to reports. It is not even clear whether or not they even employ Radiation Safety Officers . Nor is it clear whether or not hospitals employ Radiation Safety Officers. If this lack of RSO's is true, it should be changed immediately, and any hospital, clinic or irradiation facility that does not have one should be required to hire one , FURTHERMORE, DUE TO PUBLISHED REPORTS ON THE LARGE AMOUNTS OF PEOPLE RECIEVING MEDICAL OVERDOSES OF RADIATION THAT HAVE RESULTED IN SEVERE DAMAGE, ILLNESS OR DEATH, THE NRC SHOULD MAKE IT A REQUIREMENT THAT ALL DOCTORS, RADIOLOGISTS, NUCLEAR MEDICINE TECHNICIANS OR ANYONE ADMINISTERING X-Rays , BE REQUIRED BY LAW TO TAKE A YEARLY FULL DAY REFRESHER COURSE ON THE LATEST MEDICAL AND BIOLOGICAL FINDINGS CONCERNING THE DAMAGE FROM RADIATION EXPOSURE AND SAFETY MEASURES AND PRECAUTIONS. THIS IS OF VITAL CONCERN IN

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LIGHT OF THE FACT THAT THE DANGERS OF LOW LEVEL RADIATION ARE NOW UNDISPUTED, HOWEVER THOUSANDS OF DOCTORS NEVER LEARNED THIS. IN PARTICULAR, FROM PUBLISHED REPORTS ON DOSES ADMINISTERED TO CHILD-REN THAT INDICATE THE DOSES WERE ENOUGH TO KILL AN OX, AND THAT IT IS NO WONDER THE CHILDREN WERE DYING LIKE FLIES UNDER A SWATTER, THE URGENCY OF RETRAINING CANNOT BE OVER-STRESSED. IN THE MEAN-WHILE, I WOULD SUGGEST THE NRC MAIL EVERY HOSPITAL AND CLINIC THAT USES RADIOACTIVE "medicine" (from scans to tracers to cancer "treatments") AN UPDATE ON THE LATEST FINDINGS AND THE SERIOUSNESS OF EXPOSURE TO INFANTS IN UTERO, INFANTS, CHILDREN AND PREGNANT, LACTATING OR MENSTRUATING FEMALES, THOSE WITH DEPRESSED IMMUNE SYSTEMS AND THE MEDICALLY FRAIL. IT SHOULD BE STRESSED THAT FEMALES SHOULD NOT BE IRRADIATED DURING THAT PORTION OF THEIR MONTHLY CYCLE WHERE THEY ARE ABOUT TO OVULATE AND THEREAFTER, IN CASE OF PREGNANCY (i.e. from approximately the tenth day of a 28 to 32 day cycle -a normal variation over a year - to the start of menstruation) UNTIL THE ONSET OF MENSTRUATION. This information is not new, it has been expounded upon by some of the most eminent health physicists and doctors in the world (Such as Dr. Karl Z. Morgan) but is often ignored, or not even known. The NRC is entirely too lax in policing the medical industry/hospitals etc.

Many States, including Georgia, have radiation protection programs they administer that are underfunded and ill-equipped, with outdated medical/biological information or training, or even a radiation biologist with a degree in medicine on full time staff or on staff period. This must change. All States should be reguired to hire such a person and should be sent the above-mentioned mailing. This is ov extreme importance because of all the socalled "de-commissioning" and other upcoming things going on regarding nuclear waste. States should also be required to hire someone also with qualifications in the area of the effects of radiation on and to the natural environment, including microOorganisms, animals, birds, etc. wildlife biologists with detailed knowledge and course work on the effects of radiation. As we are over fifty years into the nuclear age, this should not be too much to require. All State Emergency Management Agencies should be required to hire someone with a degree in medicine who is also a radiation biologist. Nuclear physicists and nuclear engineers just don't meet the medical qualifications. When someone has a heart attack, they do not go to their mechanic. Nuclear physicicts are rarely also medical doctors, and nuclear engineers certainly are not, yet it is frequently they who are making all these medical"calls" concerning radiation exposure. All RSO's should also be required to at least hold a degree in nursing, or have completed the "pre-med" phase of medical studies. Those who are currently RSO's should be required to take a biology course at a local community college with their employees footing the bill, if they never took biology. The same applies to health physics people with no biology back-All licensing, re-licensing, license amendment and deground. commissioning applications should be reviewed by NRC radiation biologists with a degree also in medicine (family practioners as they have "all round" qualifications, and if NRC doesn't have any a) it is a disgrace, b) they better hire a few dozen. No nuclear engineer or nuclear physicist or similar without a medical degree (and by that I do not mean in nuclear medicine) should be allowed to make a determination as to what are "allowable" exposures with out oversight from doctors, radiation biologists and pediatricians

and obstetricians. Among the list of main persons/agencies who worked on MARSSIM, I did not see a single person listed with medical credentials, unless someone had them but it was not listed. MARSSIM is going to be responsible for helping the nation continue to die off, it is literally a document to die by.

The terrible "standards" set for decommissioning and license termination will further damage the health of the nation and the environment as a whole. With regard to the "de-commissioning" of the GEORGIA TECH NEELY NUCLEAR RESEARCH REACTOR, it has been brought to my attention, that the possibility exists that Tech tried to get its "plan" in, before a certain date to try and avoid public participation. If this is correct, it is outrageous. The areas that have been contaminated are extensive. It is my understanding that historical files and similar are not in the best shape. There should be a requirement all of the files from the day of start-up (where the whole thing was leaking radiation every which way concievable) should be tracked down, this would include all the Nuclear Safeguards Committee Meetings, all the log books, all the early Radiation Safeguards meetings files, all the contamination logs, all violations, incidents, accidents repair and work order requests, plus logs of what they did with the waste and all the many incidents of contamination on site and across the campus , be retrieved and gone over with a fine toothed comb. Furthermore, THE ENTIRE BUILDING INCLUDING THE CEMENT SLAB ON WHICH IT SITS MUST BE REMOVED, IN PART DUE TO THE CONTAMINATION IN THE BASEMENT ETC. ETC. AND ALL THE LABS WHERE CONTAMINATION OCCURRED, AND HALLWAYS, ALSO. PLUS THE SO-CALLED "BARN" OUT BACK WHICH IS HIGHLY CONTAMINATED. ALSO THE ENTIRE REACTOR, WIRING, PIPING, HARDWARE, THE 4,0001bs of LEAD CONTINING THE CO-60 SOURCE THEY STUCK UNDER THE CONTAINMENT JUST PRIOR TO THE OLYMPICS, MUST GO, THE CONTAMINATION WHERE THE CS-137 IRRADIATOR WAS AT CHERRY EMERSON, THE ORIGINAL"ENGINEERING EXPERIMENT STATION", and not to be forgotten, also "CRENSHAW'S MOUNTAIN" WHERE THEY USED TO KILL OFF ANIMALS AND SUCH IN THAT UNDER-Because young people contantly traverse the campus, all the con-GROUND "MAZE". taminated top-soil should be removed on the campus and around the reactor, plus the contamination beneath it and the pool area. The pool that now contains the co-60 must also be dismantled and removed. It was used for spent-fuel storage also , and falls under the license. The same for the hot-cells. EVERYTHING OUT. EVERYTHING. Since the DepaRTMENT OF Defense helped fund this monster so-long, they and everyone else involved can chip in to pay for it. Tech's original estimates on de-commissioning were \$ 10,000,000 but I believe it will cost more by far.

It is extremely important that the entire complex be removed off-site as stated. NOTHING should be left there. It is a very high groundwater area, indeed, as I have stated until I am blue in the face, the original documents note that it was set on a <u>mud flap</u> (1960 Safety Analysis), and the cement in the bottom was to quote: "...provides ballast for the buoyant forces of the groundwater". Also the contaminated sewer lines must be removed. (See my "2.20@ Petition under 10 CFR ch.20" and all letters and documents submitted under it and correspondance with the ASLB JUDGES AND TESTIMONIES BEFORE SAID JUDGES INCLUDING THE OVER 500 PAGES OF BACK-UP DOCUMENTS.)

The NRC has a responsibility to the health and welfare of the public and so far, with regard to this dump of a reactor complex, it has shirked its responsibility and Tech has literally gotten away with murder and the records speak for themselves. It must be cleaned up properly and nothing must be allowed to remain on campus.And that includes all the vents from the hot cells and the roofof the building its's part of. Everyone should be ashamed that this situation was allowed to go on for so long. Probably hundreds of thousands have been affected by the fallout from this dump over the years. Now is the time to rectify some of it by doing proper clean-up. The health of future generations depends on it.

Pamela Blockey-O'Brien.

Copies to :

Atlanta Journal and Constitution

Time Magazine

Reuters