From: Pamela Blockey-O'Brien

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To: US NRC
License Renewal Application Section
Chief of Rules and Directives,
Division of Administrative Services
Office of Administrator, Mailstop T-6,
D-59, US NRC
Washington DC 20555

June 7th, 2000

Re: License Renewal Application by Southern Nuclear Operating Co and others for Nuclear Plant Hatch I and II, Georgia.
Extra ADDITIONAL supplemental statement and testimony to be attached to and made part of my May 10th, May 29th, and June 4th statements and testimony and considered by NRC.
THIS IS THE THIRD SUPPLEMENT TO MY MAY 10th 2000 TESTIMONY.

Last weekend, on T.V. fishermen who fish the Altamaha and coastal area, who were complaining about the state of part of their catch HELD UP DEFORMED, MUTATED CRAB AND ULCERATED SORE COVERED FISH protesting Altamaha pollution. While there are undoubtedly other sources of pollution more easy to control, as NRC well knows, effects of radioactive contamination from ionizing radiation include deformed offspring, mutations, reduced fertility, cancers, leukemia, massive suppression of the immune system response making vulnerability to other diseases and illness increase, spontaneous abortion, sterility, abnormal larvae (in fish), mutations in insects, skin burns from "hot" particles, and on and on. Over the years the following radioactive contaminants have been found in sediment which the applicant itself does not rule out came from Hatch ;or admits to doing: Cobalt-60 (admits) Cobalt-58 (admits), Zn-65 (admits), Ce-141 (not ruled out), Ce-144 (not ruled out), Cs-134 (not ruled out), Cs-137 (fudges the issue) Ru-103 (does not rule out, Zr-95 (does not rule out)
Here are some surface water samples collected by Georgia Power Co and one by Georgia EPD after the radioactive spent fuel pool spill at a location known as Deans Landing : Tritium 109,000 pCi/l, 88,000pCi/l 118,000 pCi/l, 77,000 pCi/l - all by GPC, 208,000 pCi/l (EPD).

Co-60 140 pCi/l GPC, 1600 pCi/L EPD.

Cs-134 2200 pCi/l, 420 pCi/l GPC. 2,100 pCi/l EPD.
CS-137 3,400 pCi.l, 570 pCi/l, 550pCi/l GPC. 3000 pCi/L EPD
RIVERS TRANSPORT SEDIMENT DOWNSTREAM.
Some sediment samples taken by GPC MONTHS after the spent fuel pol release and designated by EPD as "From Plant Hatch Spent Fuel Pool release" ; Picocuries per dry kilogram-pCi/kg

Cobalt 60 : 35,000 pCi/kg (thirty five thousand) Deans Landing
290 pCi/kg Estuary and US 17 Darien (at coast)

Zn-65 : 12,000 pCi/kg , down at the estuary it was 170 pCi/kg

Cs-134 : 36,000 pCi/kg - then down at estuary 2200 pCi/kg
Cs-137 67,000 pCi/kg , then down at the estuary 4,700 pCi/kg
Mn-54 7,300 pCi/kg - down at estuary 61 pCi/kg
It should be noted that of course this radioactive contamination could have been more extensive, as that is only what got published.
It is interesting that on the Cesium-137 from Hatch in sediment, in one of their anual reports they fudge the issue, but the EPD sys in one of Their reports it came from Hatch, and in another that is more recent that it may or may not have come from Hatch now.

Due to the almost incestuous relationships which exist down here when it comes to nuclear issues - some of which I detailed to the Atomic Safety and licensing Board Judges during the matter of the relicensing attemptof the Georgia Tech Nuclear Reactor by Tech which Georgia Power and the Atomic Energy Commission helped Tech bring here to begin with, and my attempts to get the staggering CURIE quantity of Cobalt-60 stuck in the Tech Reactor spent fuel pool out of downtown Atlanta which threatens the campus and downtown, to no avail - (I must admit, I didn't realize that the former Governor I appealed to for help sits on Georgia Powers board in the Applicants submission - though Tech reactor staff did tell me since then that Georgia Power still needs the Cobalt to do testing to see if co-60 degrades cement.....though I did know that the former NRC Regional Head, O'Reilly, went to Georgia Power.)- anyway, as I was saying, the contorted relationships make it imperative that INDEPENDANT, non-industry,non-government affiliated testing be done on all these issues I have raised, and others have, and by companies which have never held government contracts or nuclear industry contracts or their subsidiaries,affiliates, brothers, cousins,dogs or cats . That would eliminate companies like Death Of the Earth Squad (DOE) contract folk such as NUS, and SAIC, and Chem-Nuclear etc. And of course Law.

All the crab, clams, mussels, etc. and fish - including sturgeon and eggs if possible, and turtles,tortoises(land) frogs, aquatic plants etc. need to be tested. And those tests must PROHIBIT doing the sort of thing that sometimes goes on, like mixing up contaminated and non-contaminated stuff/fish, or hanging onto samples until some of the short lived contaminants decay before testing and similar.

It needs to be found out if everything is more contaminated than we already know - and that includes the groundwater,sediment and so forth.

It should also be noted, that the ODCM, which I already said was written in the Stone Age previously - allows things like Reporting Levels like 300 pCi/l for Co-60 in water and 10,000 pci/kg wet in fish for crying out loud, or Iodine 131 of 20 pCi/l if no drinking water pathway exists.... the thing should be thrown in the trash.

It's a wonder restaurants aren't asking customers if they'd like their cobalt-60 pan fried of just plain grilled, with a little radioactive iodine sauce on the side.

The Applicant has stated that in reference to the Georgia COastal Zone Management Act that "Based on the distance to the coastal zone, past HNP performance with xxxxxx respect to discharges and releases,and the fact that no major changes in operations are expected during the license renewal term , SNC believes that direct impacts to the coastal zone from HNP operations during the license renewal term are unlikely,"and they believe certification is inapplicable. Oh, really. What's the encore to the spent fuel pool spill, or loss of coolant ? A meltdown ? Due to the long full radioactive lives of the radioactive contaminants, the spill-and the other spills- are significant and cannot be disregarded. Deformed, mutated crab cannot be disregarded, neither can fish covered in sores.And now about that chlorine spill ? discharge ? And the chemicals used to dissolve radioactive crud buildup ? Combined with radioactive contaminants no wonder that dump of a plant is a blight, a plague on the land.

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May 11, 1999
LETTER OF CONCERN.

To Whom It May Concern:

During 1942, Robert E. Connick and I led the "Plutonium Group" at the University of California, Berkeley, which managed to isolate the first milligram of plutonium from irradiated uranium. (Plutonium-239 had previously been discovered by Glenn Seaborg and Edwin McMillan.) During subsequent decades, I have studied the biological effects of ionizing radiation --- including the alpha particles emitted by the radioactive decay of plutonium.

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. My own work showed this in 1990 for xrays, gamma rays, and beta particles (Gofman 1990: "Radiation-Induced Cancer from Low-Dose Exposure"). For alpha particles, the logic of no safe dose was confirmed experimentally in 1997 by Tom K. Hei and co-workers at Columbia University College of Physicians and Surgeons in New York (Proceedings of the National Academey of Sciences (USA) Vol.94, pp.3765-3770, April 1997, "Mutagenic Effects of a Single and an Exact Number of Alpha Particles in Mammalian Cells").

It follows from such evidence that citizens worldwide have a strong biological basis for opposing activities which produce an appreciable risk of exposing humans and others to plutonium and other radioactive pollution at any level. The fact that humans cannot escape exposure to ionizing radiation from various natural sources --- which may well account for a large share of humanity's inherited afflictions --- is no reason to let human activities INCREASE the exposure to ionizing radiation. The fact that ionizing radiation is a mutagen was first demonstrated in 1927 by Herman Joseph Muller, and subsequent evidence has shown it to be a mutagen of unique potency. Mutation is the basis not only for inherited afflictions, but also for cancer.

Very truly yours,

John W. Gofman

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