50-160

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

September 12, 1995

Ms. Pamela Blockey-O'Brien
D23 Golden Valley
Douglasville, Georgia 30134

Dear Ms. Blockey-O'Brien:

I am responding to your letters of August 18, and August 28, 1995, to Chairman Jackson, Commissioner Rogers, the Executive Director for Operations (EDO) for the U.S. Nuclear Regulatory Commission (NRC), the Atomic Safety and Licensing Board and other parties receiving the Partial Director's Decision dated July 31, 1995, on your 10 CFR 2.206 Petition regarding the Georgia Institute of Technology (Georgia Tech) Research Reactor. I am also responding to your letters of August 21, and August 31, 1995, to the EDO. In your letters, you expressed concerns about the Partial Director's Decision in response to your 10 CFR 2.206 Petition, and requested further review of the issues considered in that Decision. You also requested that the August 31, 1995, letter and the August 28, 1995, letter that you attached to it be considered a new 10 CFR 2.206 Petition request.

First, with regard to your concern about receiving copies of documents related to your 10 CFR 2.206 Petition, it is the policy of the NRC to try to ensure that 10 CFR 2.206 Petitioners receive copies of correspondence between the NRC and the licensee in response to 10 CFR 2.206 Petitions. We are aware of no correspondence, other than that which you acknowledged receiving, that was generated in response to your 10 CFR 2.206 Petition.

With regard to your request to be put on the "service list" for distribution of documents, the Office of Nuclear Reactor Regulation (NRR) has, for some time, had your name on the list to receive courtesy copies of NRR correspondence related to the Georgia Tech Research Reactor, as requested on your behalf by Ms. Glenn Carroll of Georgians Against Nuclear Energy (GANE) in a telephone conversation. The Atomic Safety and Licensing Board Panel has requested that your name be placed on the official service list for the Georgia Tech license renewal and Order Modifying License proceedings, and the NRC's Office of the Secretary placed it there.

With regard to your request for distribution and publication of your letters, your letters have been docketed under the Georgia Tech Research Reactor docket number in accordance with NRC policy, and no further distribution or publication is required or planned.

With regard to your recent communications with Dr. McLemore, the Georgia State Geologist, the NRC staff has also been in contact with him. Dr. McLemore indicated that his conclusions, as stated in his letter to the NRC staff of May 11, 1995, have not changed with regard to your references to Georgia Geologic Survey documents that were sent to him. The NRC staff has also received from Dr. McLemore a courtesy copy of his August 28, 1995, response to you, which indicates his conclusions have not changed regarding the geologic conditions with respect to the Georgia Tech Research Reactor based on his review of information that you have sent him on this topic.

With regard to your concerns on security and management issues, in accordance with my letter to you dated June 5, 1995, and the Partial Director's Decision dated July 31, 1995, these issues may be considered by the Atomic Safety and Licensing Board in its deliberation regarding the license renewal application for the Georgia Tech Research Reactor. To the extent appropriate, these issues will be addressed in a Final Director's Decision at an appropriate time after considering the decisions reached in the license renewal process.

With regard to your concerns and request for further evaluation of your 10 CFR 2.206 Petition on the remaining issues in your letters you presented no new or previously unconsidered information that is relevant to the conclusions of the Partial Director's Decision on your 10 CFR 2.206 Petition. Furthermore, by letter dated August 29, 1995, from Andrew L. Bates, Acting Secretary of the Commission, you were informed that, in accordance with the provisions of 10 CFR 2.206 the Commission has decided not to review the Partial Director's Decision and that the Partial Director's Decision became final agency action on the issues addressed to date on August 25, 1995.

With regard to your request that your letters of August 28, and August 31, 1995, be considered a new 10 CFR 2.206 Petition, the information you submitted does not provide adequate bases to warrant consideration as a new 10 CFR 2.206 Petition, in that, as previously stated, it is a reiteration of issues that were considered by the NRC staff in the Partial Director's Decision dated July 31, 1995. These issues still do not raise a substantial health and safety concern warranting the actions you requested.

We have also recently received, after the issuance of the July 31, 1995, Partial Director's Decision, a "Petition to the U.S. Nuclear Regulatory Commission and the Agency for Toxic Substances and Disease Registry" from a number of individuals in support of your 10 CFR 2.206 Petition. No new information was submitted by these individuals which would alter the staff's conclusion in the Partial Director's Decision. The concerns raised by these individuals were addressed in the Partial Director's Decision. The "petition" from these individuals indicated that you have also received a copy of this "petition." We have included these individuals on the courtesy copy list for this letter, and will send them a copy of the 2.206 Partial Director's Decision, dated July 31, 1995.

The NRC appreciates your interest in these important matters.

Sincerely,

William T. Russell, Director
Office of Nuclear Reactor Regulation

cc: See next page

Georgia Institute of Technology

Docket No. 50-160

cc:

Mr. Charles H. Badger
Office of Planning and Budget
Room 608
270 Washington Street, S.W.
Atlanta, Georgia 30334

Mayor of City of Atlanta
55 Trinity Avenue, S.W.
Suite 2400
Atlanta, Georgia 30303

Dr. G. Poehlein
Vice President for Interdisciplinary
Programs
Georgia Institute of Technology
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Atlanta, Georgia 30332

Dr. William Vernetson
Director of Nuclear Facilities
Department of Nuclear Engineering
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University of Florida
202 Nuclear Sciences Center
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Mr. Pedro B. Perez, Associate Director
Nuclear Reactor Program
North Carolina State University
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Raleigh, North Carolina 27695-7909

Dr. R. U. Mulder, Director
Reactor Facility
University of Virginia
Charlottesville, Virginia 22901

Joe D. Tanner, Commissioner
Department of Natural Resources
47 Trinity Avenue
Atlanta, Georgia 30334

Dr. Rodney Ice, MORS
Neely Nuclear Research Center
Georgia Institute of Technology
900 Atlantic Drive
Atlanta, Georgia 30332-0425

Ms. Pamela Blockey-O'Brien
D23 Golden Valley
Douglasville, Georgia 30134

Mr. E. F. Cobb
Southern Nuclear Company
42 Inverness Center
Birmingham, Alabama 35242

Dr. G. Wayne Clough, President
Georgia Institute of Technology
Carnegie Building
Atlanta, Georgia 30332-0325

Ms. Glenn Carroll
139 Kings Highway
Decatur, Georgia 30030

Charles Bechhoefer, Chairman
Atomic Safety and
Licensing Board Panel
U.S. NRC
Washington, D.C. 20555

Dr. Jerry R. Kline
Atomic Safety and
Licensing Board Panel
U.S. NRC
Washington, D.C. 20555

Dr. Peter S. Lam
Atomic Safety and
Licensing Board Panel
U.S. NRC
Washington, D.C. 20555

Mr. James C. Hardeman, Jr.
Manager Environmental
Radiation Program
Environmental Protection
Division
Dept. of Natural Resources
State of Georgia
4244 International Parkway
Suite 114
Atlanta, Georgia 30354

Mr. William H. McLemore
State Geologist
Georgia Geologic Survey
Room 400
19 Martin Luther King, Jr., Dr.,
S.W.
Atlanta, Georgia 30334

Ms. Pamela Blockey-O'Brien

cc w/copy of July 31, 1995, Partial Director's Decision

Karla Jennings
955 N. Carter Rd
Decatur, GA 30030

Chris Harrell
P.O. 310
Clearfield, KY 40313

Karen Keenan
3292 Landtree Pl.
Orlando, FL 32812

Lynn Padhajsky
415 Lakepointe Dr., Apt 107
Altamonte Springs, FL 32701

William and Courtney Cogswell
15 Park Ave
Brevard, NC 28412

D. Richard Schmitz
429 Moore's Mill Rd. #16
Auburn, AL 36839

M. Ruthie Tanner
1544 Sile Cove Dr.
Powder Springs, GA 30073

Kelly Lanelrin
c/o 325685 GT Station
Atlanta, GA 30332-1070

B. J. Hill
939 Piedmont Ave., N.E. #6
Atlanta, GA 30309

Alan Daveltt
Rt. 20 Box 1161
Macon, GA 31211

We have also recently received, after the issuance of the July 31, 1995, Partial Director's Decision, a "Petition to the U.S. Nuclear Regulatory Commission and the Agency for Toxic Substances and Disease Registry" from a number of individuals in support of your 10 CFR 2.206 Petition. No new information was submitted by these individuals which would alter the staff's conclusion in the Partial Director's Decision. The concerns raised by these individuals were addressed in the Partial Director's Decision. The "petition" from these individuals indicated that you have also received a copy of this "petition." We have included these individuals on the courtesy copy list for this letter, and will send them a copy of the 2.206 Partial Director's Decision, dated July 31, 1995.

The NRC appreciates your interest in these important matters.

Sincerely,

Original Signed By
WILLIAM T. RUSSELL

William T. Russell, Director
Office of Nuclear Reactor Regulation

cc: See next page

DISTRIBUTION:
Docket File 50-160 (w/incoming)
PUBLIC w/coming
EDO #606
JTaylor
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PDND r/f
MStein
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*TECH EDITOR CONCURRED

SWeiss
OGC
OPA
OCA
KDCyrr, OGC
NRR Mail Rm (GT606- 012-G18)
RZimmerman
JLindsay (GT606)
MMendonca (w/incoming)
EHylton (w/incoming)
Region II
SLewis
AThadani, NRR
FGillespie, NRR
BSweeney, (GT606)

*See previous concurrence
NLO with comments Steve Lewis 9/8/95 per Marv

PDND/LA/PM	OGC*	PDND:D*	DRPM:D*	DONRR
EHylton/MMendonca	NLO for JRG	SWeiss	DCrutchfield	WRussell
9/12/95	8/28/95	9/11/95	9/11/95	9/12/95

OFFICIAL RECORD COPY DOCUMENT NAME: G:\SECY\ACTN_ITM\GT606.MMM

2 pages, plus 6 pages, 8 total.

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

Aug. 31st, 1995

The Executive Director of the NRC
Nuclear Regulatory Commission,
Washington, DC 20555

Dear Sir,

Re: Docket 50-160 . Attached to this page is a letter to you dated Aug. 28th, 1995 of 6 pages. Due to what is listed in that letter (and what is in my letter to NRC of Aug. 21st, 1995-written by hand- and my letter of Aug. 18th, 1995) , and due to the violations, non-compliance, problems over the years at the Georgia Tech Neely Nuclear Research Reactor, on the Campus of the Georgia Institute of Technology, Atlanta , Ga., the lack of NRC's fully looking into many prior issues raised (such as performing X-rays etc. mentioned in my Aug. 18th letter), due to lack of emergency evacuation plans for the city of Atlanta; the probable exposure of children who toured the reactor and the vulnerability of children to any exposure to ionizing radiation; lack of real knowledge of what a radioactive plume(s) from the reactor would do based on what happened at Chernoby1; the fact that the liscencees documents under re-liscensing application state, (p.208,C2,"Shielding by reactor containment building" quote: "The roof of the building, which consists primarily of a 5/8-inch thick steel plate would provide very little shielding." i.e. in case of accident and radioactive releases, due to the lack of radiation protection gear by agencies who would be responding to any accident or, God forbid, terrorist attack; due to the fact that Tech wishes to bring in dangerous LEU fuel , due to the fact that hundreds of thousands of curies of Cobalt-60 are to remain on-site although water from the pool would be needed to help cool the reactor perhaps in an emergency as listed in the Aug. 18th letter; due to the fact that to my knowledge the HEu is still on site at the reactor and the 6,000 Curies of Cesium 137 are still stashed on campus under a nearby building; due to the fact that the NRC in the interests of public health and safety should be able to guarantee in writing everything I asked for them and Georgia Tech to guarantee in my Aug 21st. 1995 letter (and so should Georgia Tech/Neely Nuclear Research Center/ Reactor) , due to the fact that there WAS a sinkhole next to the reactor years ago and that another might happen as one already happened, and due to all other bases listed in the attached letter and letter of Aug. 18th, 1995,

I hereby request UNDER SECTION 2.206 of 10 CFR THAT THERE BE LISCENSE WITHDRAWAL, SHUTDOWN, REMOVAL OF ALL RADIOACTIVE MATERIALS, INCLUDING HEAVY WATER, CLEANUP OF SITE, SURROUNDING AREA AND SEWER LINES AT THE Georgia Tech Neely Nuclear Research Reactor, Atlanta, AND THE REVOCATION OF ALL LISCENSES ENABLING DUMPING OR DISCHARGE OF RADIOACTIVE WASTES TO THE SEWERS OR WATERS OF THE UNITED STATES AND/OR OCEANS OF THE WORLD, AND REVOCATION OF "ALARA", AND A PROHIBITION ON SCHOOL CHILDREN OF ANY AGE TOURING OR GOING INSIDE ANY NUCLEAR FACILITY (INCLUDING THE TECH REACTOR?FACILITY) AT ANY TIME UNDER ANY CIRCUMSTANCES FOR HEALTH AND SAFETY REASONS (BASED IN PART ON DR. STEWARTS "OXFORD STUDY" SHOWING VULNERABILITY TO RADIATION AND IN PART ON JAPANESE STUDIES, AND IN PART ON UKRAINIAN DOCTORS REPORTING THE MASSIVE INCREASE IN THYROID AND OTHER CANCERS AMONG CHILDREN AND MORE THAN 125,000 DEATHS OF PEOPLE, INCLUDING CHILDREN, AMONG THOSE FIGURES HAVING DIED AS A RESULT OF EXPOSURE TO RADIATION FROM CHERNOBYL BY 1994, and in part on what I wrote in my Aug. 18th letter on the subject of dangers of radiation exposure and NRC admitting there was no safe level, AS WELL AS OTHER REPORTS TOO NUMEROUS TO MENTION HERE) XRAYS OFF ALL TECH REACTOR WELDS AND SUPPORTS OF THE REACTOR , THE FLOOR, THE POOL HOLDING THE COBALT-60, THE HOT CELL, THE FUEL STORAGE AREAS, GEOLOGIC PROBES TO BE SUNK BELOW THE REACTOR AS WELL AS X-RAYS TO BE MADE BELOW THE ENTIRE STRUCTURE, ALSO OF THE FILL MATERIAL AND GEOLOGIC PROBES TO BE TAKEN OF SAME TO DETERMINE CONTENT AND EROSION BELOW THE REACTOR/CONTAINMENT, X-RAYS RUN ON ALL SEWER AND PIPE LINES BOTH INSIDE AND BELOW THE REACTOR AND CONTAINEMENT BUILDING AND ATTACHED CENTER AND TESTING OF SAID LINES FOR RADIOACTIVE CONTAMINATION TO WHERE SAID LINES JOIN AND OR MEET THE ORME ST. TRUNK LINES AND TESTING OF SOIL OVERBURDEN OF SAID LINES TO THE SAME DISTANCE AS WELL AS GROUNDWATER AND SOIL ADJACENT TO AND BELOW THE REACTOR/CONTAINEMENT WITH PARTICULAR ATTENTION TO AREAS TO THE WEST OF THE REACTOR/CONTAINMENT IN A DEPRESSION THAT IS ALMOST ALWAYS DAMP AND SOGGY WHERE EPD ONCE FOUND TRITIUM WHICH PROBABLY CAME FROM THE REACTOR: AND TESTING DONE OF LEAK-TIGHT-

50-160-2023

NESS OF CONTAINEMENT. ALL TESTS TO BE DONE BY REPUTABLE AGENCIES NOT AFFILIATED IN ANY WAY WITH GA. TECH OR ITS BOARD OF REGENTS OR AGENCIES OR COMPANIES GIVING MONEY TO GEORGIA TECH OR THE NUCLEAR PROGRAMS OR REACTOR.. THAT SAID TESTS NOT BE PAID FOR OUT OF TAXPAYERS MONEY, BUT BY THOSE WHO HAVE USED THE REACTOR SUCH AS OTHER UNIVERSITIES AND NO COMPANY EVER FINED BY EPA OR REPRIMANDED BY EPA OR FINED BY OR REPRIMANDED BY THE STATE OF GEORGIA EPD OR EPD RADIATION PROTECTION DIVISION BE USED. THAT THE ENTIRE TEXT OF THIS LETTER AND THE ATTACHED LETTER OF AUG.28th AND MY LETTER OF AUG. @1st and AUG. 18th'95 BE PUBLISHED IN THE FEDERAL REGISTER AND THAT THOSE ON THE SERVICE LIST OF NRC'S JULY 27th '95 letter TO ME BE SERVICED AND THAT AT ALSO BE SENT TO THE PUBLIC DOCUMENT ROOM AND DOCKETED.

FURTHERMORE, THAT UNDER THIS 2.206 PETITION, THE ISSUE OF TERRORISM?ACCIDENT BEFORE,DURING OR AFTER THE OLYMPICS BE ADDRESSED , AS WELL AS SABOTAGE (INCLUDING INSIDER SABOTAGE) AND THAT NRC SHOULD NOT MAKE DISTINCTIONS BETWEEN ACTS OF VANDALISM AND SABOTAGE SUCH AS HAPPENED ACCORDING TO UCS at BEAVER VALLEY UNIT 1L PLANT IN PENNSYLVANIA IN 1981. VANDALISM SHOULD BE TREATED AS SABOTAGE WHEN IT OCCURS INSIDE ANY NUCLEAR FACILITY, AND COULD HAVE AN EFFECT ON HEALTH AND SAFETY.

I ALSO BELIEVE THAT IT APPEARS THAT UNDER SECTION 2,202, ORDERS, THAT THE ENTIRE DOCKET FOR THE NEELY NUCLEAR RESEARCH REACTOR SHOWS SUFFICIENT CAUSE (such as violations,non-compliance, uncited violation other problems) shows the "....POTENTIALLY HAZARDOUS CONDITIONS OR OTHER FACTS DEEMED TO BE SUFFICIENTGROUN THAT THE COMMISSION CAN INSTITUTE A PROCEEDING TO REVOKE THE LISCENSE AND TAKE THE ACTIONS I HAVE ASKED FOR UNDER 2.206 WITH RESPECT TO THE REACTOR, AND THAT THE COMMISSION UNDER 2.202 CAN FIND "...THAT THE PUBLIC HEALTH,SAFETY OR INTEREST SO REQUIRES ..." THAT AN <u>IMMEDIATELY</u> EFFECTIVE ORDER CAN BE ISSUED.

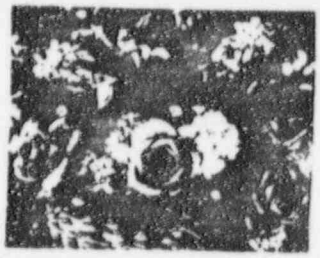
However, as NRC knows, I am not a lawyer, but I do feel that the Commission can and should take action.

The new information contained in both the attached letter and other letter(Aug. 18th'95) mentioned is definitely sufficient grounds to admit my/this 2.206, and consider what I have said under 2.202. This definitely should be granted in the interests of public health and safety. I've said before and I'll say it again, the place is a dump, would never get liscensed under current laws,has a history of problems the paperwork of which would probably reach the top of Stone Mountain, Georgia ,and has no place in the midst of thousands of students in the middle of a major city which can't be evacuated in a hurry in events of accident or terrorism.
PLEASE grant this 2.206 and shut the thing down forever and demand it be cleaned up properly.
At present it's like a pus filled sore on the face of the city waiting to erupt.

Pamela Blockey-O'Brien.

Pamela Blockey-O'Brien.

6 pages total.
To be considered as a new 2.206
(along with attached cover
letter and my letter of Aug 18th 95)



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

To:
The Chairman, Atomic Safety and
Licensing Board, Justice Bechhoefer,
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,
U.S. NRC,
Washington, DC 20555

Aug. 28th, 1995

To All the above cited persons: Greetings,

By the time you all get this , you should 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 information:

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 document rod worth surveillance.

1980 ....continuing problem with coolant flow anomoly

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.

1980 Low flow scram of flow recorder FRA-D1 resulted in reactor trip and subsequent SHUTDOWN. caused by broken Teflon gasket pieces restricting flow. Gasket repaired and system refilled. (IASKED NRC TO RE_INSPECT THE GASKETS AS THIS WAS A LONG TIME AGO. THE NRC INSPECTORS SUPERIORS WOULD NOT LET IT BE DONE)

1980 Heavy water Temp recorder TRA-D1 was not recalibrated after replacement of worn sliding contacts on scanner select switch. Cause not stated. Importance of recalibratior emphazied to personnel.

1981 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)

1984 non-comliance, 2 procedkures,

1985 (Concerning EXAMS for reactor operacors) Exam results: One Senior Reactor candidate passed, both reactor operator candidates failed, two reactor operator candidates withdrew applications.

1985 violations, failure to follow procedures etc.

1985 notices of violation and deviation

1985 order to show cause why licensee authority to possess HEU fuel should not be susp hded.

1985 Failure to adequately sample liquid waste during release (SOUND FAMILIAR ?) failure to adhere to Tech Spec requirements for monitoring set points.

1985 Gets time extension due to experimentation and data gathering to verify QUANTITY OF AR-41 ESCAPING FROM CONTAINMENT BUILDING.

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.

9509130234 6pp.

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 1985,1986 and 1987 GEORGIA EPD RAN NO TESTS ON THE WATER THEY DUMP TO THE SEWERS** _ However on 9/27/88 EPD measured tritium (H-3) at 68,200 pCi/l (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/l, which is also too high) and Cobalt-60 at 240 pCi/l - PLEASE don't anyone tell me that there is a Cobalt-6o 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: **POTENTIAL FOR RELEASE OF INSOLUBLE RADIOACTIVE PARTICULATES IN LIQUID WASTE 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 POTENTIAL SECURITY VIOLATIONS.
1987 Deviation, failure to implement corrective action commitment re procedukre 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 dismantled/AGN 201 training reactor

1987 Investigation of reported missing discrete item containing SNM
All sorts of stuff keeps going on , violations, contamination, BLAH, BLAH until finally the NRC begins to awaken from its 1oo 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 us.... WOW! .....went on line in the 60's ... good work guys, better late than never)**
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 correcting 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 **REACTOR 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 B K 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 type of computer software problem and graphics screens which can't be recovered

1993 Violation, Lisencee 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

1994 Entrance of small, female persun whose signature is at the bottom of this letter , sensibly requesting: LICENSE WITHDRAWAL, SHUTDOWN, REMOVAL OF RADIOACTIVE MATERIALS,CLEANUP OF SITE AND SURROUNDING AREA AND SEWER LINES AT THE NEELY NUCLEAR RESEARCH REACTOR AND SUPPORT FACILITIES LOCATED AT THE GEORGIA INSTITUTE OF TECHNOLOGY, ATLANTA, GEORGIA , ON THE CAMPUS OF GA. TECH AND, IN ADDITION THE REVOCATION OF ALL LISCENSES TO DUMP OR DISCHARGE RADIOACTIVE WASTES TO THE SEWERS AND WATERS OF THE US/OCEANS OF THE WORLD, AND REVOCATION OF "ALARA". under 2.206 (and we all know what has happened since)

1994 One week later, GANE FILES AGAINST 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 chugging 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 the effects of radiation and NRC knows this as well as I do(And by the way, Nuclear Merit Badges originated I believe when everyone thought the Russians were coming to the US in row boats at the height of the cold 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 irradiaition 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, F D A 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 money-grubbing nuclear merry-go-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 Violation) 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 reactor building. NO WONDER NO ONE WANTS TO GO ANY TEST BELOW THE REACTOR BUILDING, THE SEWERS, THE FLOORS ETC. OR X-RAY ANYTHING. It was also noted that when airborne activity exceeded a particular concentration, it was attributed to Radon. 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 received 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 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 communication with the University President , the Radiological Safety Office was put under the Director, Dr. Karam. This caused nationally 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 COnstitiution 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 ABSENT THE OLYMPICS. The removal by Tech (if that actually happens) of HEU **does not render anything MOOT at all, nor 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 cobalt-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 GEORGIA EMERGENCY MANAGEMENT AGENCY (GEMA) AND THE ATLANTA-FULTON 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-Fulton County Emergency Management doesn't have the equipment. The Emergency Procedures 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 abdicating 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 EMERGENCY, SUCH AS A CORE MELT, EXPLOSIONS, TERRORIST ATTACK, THE BLOODY THING SHIFTING 30 ft DOWN A SINKHOLE, A LONG DISTANCE MORTAR ATTACK THROUGH THE WALL INTO THE POOL SHIELDING THE COBALT ETC. ETC. EVERY PERSON IN YOUR FAMOUS 300 ft zone would be DYING OR DEAD AND THE RADIATION WOULD EXTEND WAY PAST YOUR SILLY LITTLE BOUNDARY.** Consider what happened with the plume from CHERNOBYL 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 p...cles 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 Chernobyl's radiation clouds is fraught with difficulties because of **the continually changing densityof the emanating 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 continualy decayed and fell to earth".**

(From: The Chernobyl Disaster, by V. Haynes and M. Bojcun, 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 escaping 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 4oo meters (600 to 1,200 ft) It goes on and on ultimately 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, Turkey etc. **In all an approximate distance of 3,600 miles east/west, west/east and of 2,100 miles from north/south, south/north, before dumping across the world.** In other words, if/when a large 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 knows what else would transpire, some would go down the sewers 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. Cobalt-60 has a half life of over 5 years, i.e a hazardous life of about one hundred years. Among effects of high doses of cobalt-6o 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 ~~A~~ug 25/26/ 27th, everyone would have 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...Basically, startup , after bringing in the LEU will let us all know if the experiment works. If it doesn't, **GOODBYE ATLANTA. HOW DARE TECH AND THE NRC PLAY SUCH A GAME WITH THE LIVES OF TWO MILLION PEOPLE ?** 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 <u>also</u> 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 confidant 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 (non-existant) 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 argued, 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 Measurements (something the NRC probably approves of . My addition.) annual fallout exposure currently averages less than 1mrem....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 Ga. Techs Relicensing 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, <u>when not a single facility capable of doing that exists worldwide.</u> My 2.206 should be granted in its entirety. (Plus all the heavy water onsite be removed.)

Pamela Blockey-O'Brien .

Pamela Blockey-O'Brien

P.S. Please make sure that this letter (and my Aug. 18th '95 letter) is sent to the entire [illegible] to my 2.206. Thank-you.

* FOR A STATE AGENCY.

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

To:The Executive Director of the NRC and
Commissioners for the NRC
Atomic Safety and Licensing Board Justices
Bachhoefer, Kline and Lam,
and the entire Service list on the response to my 2.206 Petition dated July 31st, 1995 concerning
the Georgia Tech Reactor, Docket 50-160 and other issues I raised,
U.S. NRC,
Washington, D.C. 20555

Aug 18th, 1995

To All the above cited persons : Greetings,

By now you will have all recieved the NRC response to my petition. I find this response a DISGRACE, in particular since the NRC appears to have either not read, misread and/or ignored many issues I raised and also did not bother to address some of them. Before I list them, I wish to make a statement:

I was, I believe, meant to have been put on the "Service list" by NRC (see Feb. 24th letter from the NRC of this year to Ms. Glenn Carroll of GANE) . I even asked NRC twice at least to be sent any responses to my petition that came in, as I understood that was my right under the law. The only time I got a copy of what was going on from NRC was an attachment to the above letter to Ms. Carroll. Other than a couple of petition acknowledgements people had sent in and a few general letters from NRC, I got NOTHING. The only reason I could argue a few points back, was because I got copies of some documents via another route weeks later. The points I argued back werer then ignored by NRC by the look of it. Indeed, a member of NRC's own staff agreed they knew there were items or issues I had (under the 2.206) which were not addressed. If one actually reads my 2.206, one can see that.

Now to the NRC's response to my 2.206 Petition : FIRST, PLEASE READ MY ENTIRE 2.206 PETITION, WHICH INCLUDES MY LETTERS ALSO OF NOVEMBER 12, Dec. 4th 1994 and Feb. 21st, Feb. 23rd, March 6th, March 28th, April 19th, May 18th, June 27th, and July 18th, 1995.

NRC Points Numbers 1, 4, 6, 7.

Please read my Feb. 22nd/23rd letter detailing my conversation with the engineer Mr. Chambers from the DPW (Division of Public Works, city of Atlanta) the "natural drainage area" was a creek. (Even if it was seasonal, water still would come through it.) A person who lived in the area before the reactor was there told me this week that water DID drain and collect in that area due to the terrain (which has not changed basically.) Further that there was a creek about 500 yards from where the reactor now is and that a large culvert was put under State St. which helped take the big dip there was out of State St.. The culvert usually had about 2 to 2 inches of water in it . (Unless it rained heavily of course). The drawings in the license renewal application for this reactor show how the drainage (creek/seasonal creek the water for crying out loud) was channeled UNDER the reactor building complex. The surface drainage path NRC speaks of is a concrete lined channel as they say, but neglect to mention how the water rushes down this in heavy rains and also overflows it and how the area next to it is usually soggy frequently with standing water . Had NRC payed attention, NRC would have seen that I quoted a REPORT DONE FOR GEORGIA TECH, A STUDY , in my Oct. 23rd. 1994 letter beginning the 2.206 process, where their OWN STUDY WARNED OF CAVE-INS THEIR OWN STUDY OF THE GEORGIA TECH CAMPUS ON WHICH THIS REACTOR IS LOCATED SAID SEWER LINES ON CAMPUS WERE INVITING COLLAPSE, THAT THERE HAD BEEN PUFF-UPS AND SMALL SINKHOLES , FLOODING, MANHOLE COVERS BLOWN EIGHT FEET ETC.ETC. many times on the campus, in particular in areas not far from the reactor and the report went into details (as did the huge article in the Atlanta Paper I referenced) as t how the powerful leaks in that huge sewer (the Orme St. trunk built in 1892) erode soil from around the sewer (read it yourselves please) iviting the cave -in of the earth overburden and in some cases the sewer itself. I called the authors of the study for Tech, because the former radiological Safety Offic had told me that he had seen the reactor basement flood and the parking lot fill on more than one occaission with about three feet of water when all the lines/storm drains (feeding to the trunk line etc back up and had seen it (parking lot) under water) . The author of the study for Tech had not only not been told there was a reactor on the campus, he had not checked the lines under it. As I told NRC in my 2.206 Petition , Dr. Karam himself agreed with me (by phone, July 30th, 1993) that the area FLOODS. and that the concrete slab the reactor sits on had never been X-Rayed (to see if there were cracks) all tha

considering NRC's response on this part of my 2.206, the thought does cross ones mind, that if a manhole cover blew off and hit the NRC officials responsible for the response to my 2.206 petition square between the eyes, all one might hear would be an echo. (I couldn't resist that one !)

The "physical examinations" (p.4) of the reactor facility and site was ridiculous as NRC never examined either below ground, never sank probes, never dug test wells, never did X-Rays, never even ran remote TV equipment down the lines, the sewers, examined the fill etc. etc. The substantial health and safety issues still remain. The containment foundation has not been X-rayed, the pool holding the hundreds of thousands of curies of cobalt-60 has not been X-rayed or checked to see if it is sinking, the reactor and what it stands on has not been checked to see if it has sunk or is sinking. (And its weight is staggering, for one thing, there is a 90 ton crane in there). Page 20, concerning the ability of the containment building steel structure to control radiation releases : Tech/NRC's OWN data (which I think you should read) agrees with me that what is over the top, i.e. the bit of steel containment dome, is basically useless. **SEE p.208, C 2 "Shielding by Reactor Containment Building" QUOTE : "The roof of the building, which consists primarily of a 5/8-inch thick steel plate would provide very little shielding." I told NRC that over and over. NRC ignored it.**

The June 21st 1995 NRC Inspection Report (which I did not recieve until a few days before I got the response to my 2.206 - the inspection report was mailed to me July 27th, the answer by NRC to my 2.206 is dated 4 days later on July 31st) Lists Violations by the Ga. Tech Neely Nuclear Research Reactor, (NRC Inspection Report No 50-160/95-01.) which NRC's response conveniently ignored.

Repeatedly, over a period of years inaccurate data or no data on certain concentrations of radioactive releases were noted by NRC. For example, for 1988,1989, 1990, 1991, 1992, 1993 there was NO listing of the maximum concentration of gross radioactivity released to the unrestricted area. For approx. eleven years identical windrose diagrams had been used , apparently based on historical data but neither data collection period nor location could be determined, furthermore even though the April 1994 indicated that special, continuous , automatic measurement and recording equipment for wind speed and direction (vital in case of accident, and releases) had been installed, IT DIDN'T EXIST.. It also appears that there were a h ost of other problems concerning limits and isolation set point for H-3, (tritium) NO routine sampling for particulate radioactive material released through the exhaust gas system, the licensee (TEch Reactor etc.) had reported releases of particulate radioactive material as not detectable in Annual Operating Reports , however even though the lisencee has the capability to rou sample and analyze for potential particulate radioactive material , the particulate filter was NOT being analyzed. **SO ON THAT ISSUE WE DON'T KNOW WHAT THE HELL WENT OUT THE EXHAUST STACK.**

Under "Provisions for Insuring Leak Tightness" 4.3.2. SAR p. 49 (page 20 NRC Response) it says the building was tested annually since it was accepted by Georgia Tech (back in the 60's presumably). But under Summary of Containment Building Test Results p.174 of the SAR, it shows only nine tests, which include those done prior to acceptance. The first test showed o.8% of the building volume leaking from the containment vessel and the test was conducted by CHICAGO BRIDGE AND IRON. who also ran a second te after that, it was done by Georgia Tech Research Reactor personbel four times listing some names and then from 1967 to 1991 no tests are listed , and the three which follow just says GTRR Staff. What qualifications do these staff have to run such complicated tests ? The last t4st showed a leakage rate of 0.63% of building volume. Is all this credible ?

My arguments with NRC on the famous shielding in case of accident etc. speak for themselves, the stupidity of pretending that a darn piece of wall is going to shield the public if the damned reac blows (or anything else happens e.g. with the cobalt-60) spewing radioactive crud over the area is beyond belief. I kept telling NRC the data is OLD, let alone stupid, let alone based on idiotic stuff : how tall someone is or rubbish like if someone waS STANDING CLOSE TO IT THE RADIATION FROM THE TOP COU NOT BE SEEN so someone would not have much to worry about in essence. See pages 210 ,211, 212, It is positively Orwellian. If this sort of rubbish worked, why didn't Tech call up the people trying to manage the CHERNOBYL disaster and tell them they'd be fine if they were short people and just hunkered next to the exploding reactor wall. NRC would have to be completely asleep at the wheel, so to speak, not understand what I was getting at. The "runaway chain reaction"(p.21 of NRC response to my 2,206) referred to the spent fuel rods on site (see my letter of Nov. 12th 1994, p. 2. and my maintaining t quote " **IF THE WHOLE BUILDING/REACTOR WERE DESTABILIZED (E.G. EARTHQUAKE, FLOODING, TERRORISTS BLASTIN A MISSILE THROUGH THE ROOF) AND DEBRIS SQUISHED ALL THE SPENT FUEL RODS IN THERE TOGETHER, YOU'D HAVE**

FUEL MELTING FROM THE RUNAWAY CHAIN REACTION. NEED I SAY MORE...."
NRC ignored that TRUE STATEMENT. NRC then goes into raptures about the HEU/LEU. HOW MANY MORE TIMES DO I HAVE TO REPEAT THAT TECH/NRC's OWN DOCUMENT SAR p. 134) STATE :" ....DATA FROM ANALYSES OF THE HEU CORE BY GEORGIA TECH WERE NOT AVAILABLE..... SO YOU'ALL BASICALLY MADE IT ALL UP BASED ON ENGINEERING UNCERTAINTY FACTORS ETC.
The emergency cooling in case of a disaster stinks, as I inferred. but NRC wouldn't listen.
There are 300 gallons(in a tank) of D_2O which, at 8 gallons per minute would cool the reactor for 30 minutes. In the reactor vessel there are 1,100 gallons which presumably would be draining, have drained or whatever. The long term supplies NRC referes to are
1) the hook up to city water would take place by going and getting down in the LABORATORY BUILDING PIPE TUNNEL WHICH IS BELOW THE REACTOR (p.67) and doing a manual hook-up
HOWEVER
THE PIPE TUNNEL HAS NO SHIELDING AND,QUOTE: " ACCESS TO THE PIPE TUNNEL , THEREFORE, IS NOT PERMITTED DURING REACTOR OPERATION. ENTRY TO THE PIPE TUNNEL IS THROUGH THE PROCESS EQUIPMENT ROOM ONLY; THE DOORS TO THIS ROOM ARE LOCKED DURING RACTOR OPERATION...." p.67
So, while all hell is breaking loose, some poor sucker is sent down to go into the pipe tunnel to hook up the water - either he/she gets irradiated and dies AFTER searching the neighborhood for a sledge hammer to bash the door in (it's locked, remember) if no one can find the key, OR, if they have the key they'll get irradiated and die while trying to hook up manually to city water with the famous "quick connect spool piece". PROVIDED it all works , which I very much doubt considering the chaos that would be going on and the questions of it not appearing to have ever been tested (is it even possible ? coupled with the problems one can have of trying to run water through lines long in disuse, one person would probably die. If the system fails (and considering the sorry state of Atlanta water lines it might we get to back-up system number two, using the radioactive water in the pool that shields the cobalt-60 and (if there at the time) spent fuel rods :
2) after talking to the State of Georgias Radiation Surveillance staff (who liscense the cobalt-60) they have to keep the cobalt shielded of course, therefore, one could only use about 12,000 gallons which would last about 20 hours coming in at 8 gallons a minute - if the water was draining out of the reactor shielding system simultaneously ,that is how long you'd have to try and figure out back-up system three, which doesn't exist. NRC is wrong in stating there would be no radiation exposure making the above connections, and there is NO long term water supply from the pool available at all. To make up water being used from the pool, (if that could be done at the time) they have to use a garden hose I believe. I mean, this is like a bad cartoon. NRC saying (p.24) the "connections are made outside the containment structure" are decieving in that NRC implies everything is OK and does not say HOW it all happens. There could be major safety problems
p.26 of NRC's response and p. 24 concerning how the cooling etc. would all work are really a joke as the Atomic Energy Commissions own staff were aware from back in the 1960's and later, the massive reports by George Brockett ("Brockett Report") and Phillip Rittenhouse's work were in essence shoved under the rug. Loss-of-coolant accidents, even in this type of research reactor , are almost impossible to figure out in advance, and the problems ghastly, ranging from flow blockage to China syndrome. However, what is truly disgraceful, is NRC's trying to maintain that in the event of core burnout plutonium etc. would not be released, nor cesium, when this would be the case as NRC well knows and admits a couple of lines further down. IF THE NRC DOESN'T KNOW BY NOW WHAT HAPPENS GOD HELP US ALL. I told NRC that the references and data used in the SAR were almost 40 years out of date and for those reasons alone should be junked. To ignore what I said and to disregard it puts puts the public at continued high risk from that facility. The SAR should be thrown in the trash where it belongs. On. p. 28, again NRC is ignoring its own inspectors reports of violations.
p. 29. I provided a lot of new earthquake information and told NRC of new studies by phone. To say not present any new seismic information for the region is a lie. Just because NRC has stupidly decided that if an earthquake fault hasn't moved in 30,000 years it is not "capable" does not invalidate my concerns. , the potential for a damaging earthquake is NOT remote. I told NRc an active earthquake zone has been identified in east Tennessee in particular in an area called the Ocoee block, and who to contact about the new studies by phone. The Atlanta Newspaper story on it had a headline :"Lo y

The fact is, one of the main concerns of my 2.206 - namely that everything almost about that dump of a reactor such as the SAR is old, outdated and would never be allowed nowadays - has been ignored by NRC and NRC just parrotted back SAR information which I was questioning to begin with.

Furthermore, I asked for all additional letters I sent in under my 2.206 Petition to be placed in the Federal Register too, as they were part of it. To my knowledge this was not done and I hereby request again that this be done, **plus that this entire response be placed in the Federal Register so people can see what NRC has done, as well as sent to the entire Service List that the NRC response to my 2.206 was sent to.**

p. 27 I gave NRC a great deal of data on the geological problems and referenced the attached article (1992 Study Warned of Cave Ins , sewer under Tech campus inadequate city was told") in my first letter to NRC under the Petition. I also maintained that in the SAR, the actual geology is not site specific, plus it shows it was put in an unstable location over an old drainage path on fill (SAR pages 17,22,23.)

p.28 NRC response. I don't care HOW the NRC comes up with its fancy footwork for restricted areas, exclusion areas and population zones THE FACT REMAINS THAT THIS REACTOR IS IN THE MIDDLE OF A CITY OF TWO MILLION, ON A UNIVERSITY CAMPUS, SURROUNDED BY OLYMPIC HOUSING ETC. AND NOT IN A LOW POPULATION ZONE.

The radiation exposure calculational technique and data used to figure out exposure are still a joke and totally unacceptable (re-read what I have written in this letter at the bottom of page three, last paragraph) as the SAR stuff is junk to begin with . If the reactor had not been used for a great length of time, then perhaps one would be talking about 5,000 curies , (bad enough) but if it had been in use, each fuel element would be about 1, 000,000 curies per element. and that would be a bloody catastrophe, apart from the fact that you have the cobalt-60 in the nearby pool etc. etc.

With regard to the wind rose situation and Dr. Karams famous letter, you better all read the "Meteorological Monitoring Program bit on page 7 of the July 27th 1995 NRC inspection Report, and the violation of 10 CFR 50.9 (VIO 50-160/95-01-01) . there were no actual measurements, <u>the equipment no longer existed</u>, seems someone may have lied.

p. 29 NRC says it finds no reason to conclude that the radioactive contaminants would be spread by any credible eventor condition at the Georgia Tech Research Reactor and that I provided no facts to conclude otherwise. Lets see, I raised everything from the sinkhole next to the reactor, the fact that if one opened u p beneath it all hell would break loose, loss of coolant, steam explosions, the complex being hit by everything from Depleted Uranium tipped projectiles to hand held rocket launchers and the NRC has the gall to say that.... Let me tell you something up there in Washington in your ivor tower, NRC does not have a great track record (if NRC wants me to cite examples. I'll be glad to, ju set aside a few days) to say the least, nor did the AEC. I hope to goodness that this dump of a reactor does not wind up ever being yet another of NRC's major embarressments, but, if anything I have ever raised happens,resulting in any type of catastrophe , IT'LL BE ON THE NRC'S HEAD, NOT ON MINE. I AT LEAST TRIED TO PREVENT ANY CATASTROPHE. The NRC is sticking it's collective head in a sinkhole.

p.31 I NEVER referred to a study of seismic hazards performed by Tech in my Petition. I didn't I di not know it even existed. When I read what NRC wrote, I called up Law Engineering. . I was told it w overall study for the campus and that they DID NOT STUDY THE REACTOR OR AS IT APPLIED TO THE REACTO So NRC has that wrong too.

Section 2. of the NRC response. First, radioactive material is not tagged with little color coded labels indicating <u>this</u> particular cesium-137 came from Chernoby1 and <u>that</u> over there,from Tech. EPD monitors around radioactive sites in Georgia because it can be safely assumed that much of what they find comes from the facility they monitor, they do not set up monitors around ice cream stalls. NRC says some of the isotopes are naturally occurring , however all listed could also have come from the reactor. The BE-7 could also be an activation product, it could also have come from the irradiat procedures in the past. EPD may "indicate" that the radioisotopes listed on p.6. came from other sources, but they all could have equally come from the reactor and most likely did. The RA 226 is al the U-238.

Let's do a little comparing:
In 1986 there was a massive release of contaminated water from Georgia Powers Plant Hatch of approx. 141,000 gallons contaminated with "byproduct materials " including Cesium-137 and "concentrations of radioactive materials in these samples were greatly elevated as compared to routine environmental samples" according to Ga. EPD, p. age on Special Monitoring, p.15, Environmental Radiation Surveillance report 1985-1987 (Epd does go on to say all this massive contamination "did not pose an immediate threat to the public health" - that is because it is a long term threat - the good old "no immediate danger" rubbish nuclear agencies worldwide put out - as all exposure bio-accumulates, besides, you won't get the cancer or other illness the day it happens, you get it later, not immediately.)
From 1978 to 1994, twenty seven measurements of cesium-137 in soil around the Tech reactor offsite had higher levels of cesium-137 than the LOWEST level from the spill from the spent fuel pool at Plant Hatch as measured by GPC of 470 pCi/dry kg. At Hatch the lowest GPC measurement for cesium-137 in vegetation after the spill was 73 pCi/dry kg, at Tech cesium-137 in vegetation has has ranged up to 300 pCi/dry kg. Measurements at Hatch by GPC i.e. Georgia Power Co. At Tech by EPD.
H-3 in surface water from the Hatch spent fuel pool release had a highest measurement of 208,000 pCi/liter . Waste water released from Tech - which goes ultimately to the Chattahoochee River after going through the sewer treatment plant from which it can't be removed - which ultimately becomes surface water had an H-3 amount of 2,800,000 pCi/l on 11/05/79 and an H-3 amount of 1,100,000 pCi/l on 1/15/91 . (EPA's lousy drinking water standards are 20,000pCi/l)
Why are Plant Hatch measurements considered "greatly elevated" and the cesium-137 at Hatch considered "byproduct materials" by EPD, but when it comes to the Tech Reactor measurements all of a sudden its from fallout fromweapons tests and everything is fine ? What a joke!
Lockheed left a massive radioactively contaminated site up in Dawson County, now known as the "Dawson Wildlife Management Area" (The latest fashion is to call contaminated sites by some environmental name - they've done it at the Savannah River Nuclear Site and want to do it out in Nevada at the weapons test site on Native American Indian land) Anyway, the Dawson site is so contaminated that eve EPD has restricted access to the public to areas of the site.
Dawson Forest s overall AVERAGE Direct Radiation Measurement in M/Year for measurements taken in 1985 and 1986 was 98 +/- 12 M/Yr. with the highest measurement of 302 +/- 32 Mr/Yr.
The hot cell area s had direct radiation measurements of from 83± 9 to 102 ± 11 Mr/Year 1985/86
The cooling off areas had direct radiation measurements from 69± 8 to 302 ± 32 Mr/Year

Tech Reactor Measurements in 1985 HOWEVER for direct radiation range from 78± 7 to 997± 36 Mr/Year in 1986 from 78± 10 to 376+ 39Mr/year, in 1990 from 68± 8 to 424 ± 45 Mr/Year and in 1993 to 1994 from a low measurement at one location of 57±7 to 133± 21 Mr/Year. WHY ISN'T THE AREA AROUND THE TECH REACTOR CLOSED TO THE PUBLIC ? (Can't worry all those Olympic visitors can we now ? Or those students whose parents a paying through the nose to send them to Tech. - And I don't want to hear from NRC or EPD that some of the high measurements at Tech are from a location at the reactor where radioactive waste is stored and therefore not from the reactor. The damned waste is also partl from the reactor and is part of the complex and the remaining waste comes from sites on campus which are handled via the Broad/General Liscense the Nuclear Center has.)
With regard to what else is written on p.6 and 7 of the NRC response to my Petition : due to the m spills from the reactor into the sewers (and don't give me that rubbish about it all coming from t pool which holds the Cobalt-60 and as the cobalt is liscensed by the State the reactor has nothing with it, when in fact the pool can be used for storage of spent fuel and Dr. Karam says he needs al that cobalt and the reactor depends on the water in the pool as cited for back-up cooling - God For I asked for everything under the reactor/lines etc. to be tested as stated, which was never done. I mentioned inspection reports it says after a spill EPD did a survey of the sewer. Well, EPD told me recently that the famous survey was done in a blinding rainstorm, they had no sewerline maps and probably went down the wrong hole to take a grab sample. So much for that. The tests NRC ran at t

RM Clayton sewage treatment plant, because I raised so much stink PROVE what I said, namely that there is contamination and some of it came from the reactor. Consider : Inspection report of June 21st 1995 50-160/95-01 shows U-238 and H-3 was found in liquid waste from the reactor (NRC somehow forgot to run tests for I-131) in tests run on the cooling tower TH-232 was detected and H-3 (again, NRC forgot i-131 - amazing, I wonder why....) furthermore, past tests in EPD documents show Strontium-90 was dumped which has a half-life of approx. 30 years. It is rubbish for NRC to say the Strontium-90 in the sewer release water which goes underground is all the result of prior weapons test fallout. You found in the sludges/feed cake/ash cesium-137 (which you did not test for out the cooling tower or in the water when those special samples were taken) U-238, Th-232 and a lot more besides including I-131 While some of the I-131 could have come from medical waste you all know darn well its at the reactor and would go out as a major contaminant in case of accident (read the SAR and relicensing application) NRC maintains its all tiny amounts, well, you found that in one gram, the sewage treatment plant processes thousands of pounds of sludges, when you multiply what is in one gram by what has been processed at that treatment plant over 30 years, you will find there is one helluva problem, in all probability. Besides, that was one test, one in 30 years of dumping, and, in one spill an unknown amount of cobalt-60 went to the sewers (see :"Ramblin' Reactor -Checking out the Hottest Spot on Campus" by Greg Land, Creative Loafing, Dec. 17th,1994)

"The values and variations of all monitored locations around the Georgia Tech Research Reactor were typical of environmental monitoring results at other locations" says the NRC on p.7 The other locations are all around nuclear facilities which all contaminate the environment under ALARA just as Tech's Reactor does, which brings me to section B. of the NRC response (I'm going to move around a bit here ar go back later)

To all of what was listed under "B", the NRC either never asked me for details, or it knows the answers anyway, just as I do. However, I did provide information in general terms which you should have paid attention to. Here are a few specifics:

1)ALARA : I detailed in my 2.206 that "as Low As Reasonably Achievable" equals "planned deaths" according Dr. John Gofman because it allows the continuous release of radiation at all stages of the nuclear cycle as long as releases are kept As Low As Reasonably Achievable /ALARA depending on how much money etc is spent on containing releases. Dr. John Gofman , as the NRC well knows, holds patents on the discovery of the fissionability of U-233 and two processes for isolation of plutonium, he was the medical director the Lawrence Livermore Lab and has credentials as long as my arm- but NRC knows all this, he is also a major critic of the nuclear situation and the medical effects, which NRC doesn't like. On September t 11th 1978, the Nuclear Regulatory Commission , in the persons of Robert B. Minogue, Director, Office of Standards Development and Karl Goller, of the same office wrote to Dr. Gofman.They are discussing a newsp article, including the genetic effects of radiation exposure and many things. Here is an excerpt: "The evidence mounts that, within the range of exposure levels encountered by radiation workers, there is no threshold, i.e. a level which can be assumed as safe in an absolute sense. We have found in discussions with people in both the power industry and in the nuclear medicine field that many people in th fields honestly believe that the low levels of exposure permitted are without risk, which reflects that somehow the wrong message has been delivered.....we felt it should be made to clear to workers there is some risk...." NRC can go and look up the letter. In fact, the NRCcan , in this context, go and read a book I wish to have entered into this record in full, as it concerns a very famous case against the NRC, and it's time you all read and re-read it. It's called "SHUTDOWN _ NUCLEAR POWER ON TRIAL, EXPERTS TESTIFY IN FEDERAL COURT". It is available from THE BOOK PUBLISHING COMPANY, 156 Drakes Lane, Summertown, TN 38483, send them $5.000 . Or the NRC (and everyone else) can read the same 2.206 petition filed by Ms. Honicker way back in 1978 on which the book is based, also denied by NRC, just as mine is. Nothing has changed has it ? NRC knows the GAO* issued a damning report on how NRC and EPA had dropped the ball with regard to effects of sewer dumping. NRC knows it all and doesn't act.

It's hot, I only have a small air conditioner in one room and its not the one I work in. I'm tired of the NRC playing games, I don't want to completely ruin my health over NRC's irresponsibility. I shall stop this response now. I raised the terrorism issue before I filed my petition with NRC. Tech is removing some of the stuff because of all this fuss, we all know it. I will argue the rest in front of the NRC Commissioners if need be, if I have to walk to Washington to do so., even though it is probably utterly useless. In the meantime, remember I filed a timely response against the LEU being brought in. I re-iterate: the place is a dump and should be shutdown forever and cleaned up. NRC is not protecting the public health and welfare.

* GAO = General Accounting Office.

Perhaps if NRC and EPD did not recieve money from those it regulates for the liscensing, it would be more responsive. Unfortunately NRC and the Atomic Energy Commission before it has compunded mistake upon mistake. I fear greatly that because of NRC's inaction on important health and safety issues over the years, and because of the absolute lack of a deep examination of the entire nuclear issue, from weapons to power reactors and total lack of understanding on these issues by the press, the general public and many within the NRC and the government as a whole, in this country and elsewhere, we have many more Chernobyls in our future and even the use of nuclear weapons by some criminal minds.

I hope that everyone who got NRC's response to my 2.206 Petition requests a copy of my Petition from NRC(and the letters I sent in to be added to it.)

In closing, a few quotes for the record:

""there is no known tolerance level for radiation" R.M. Sievert the famous radiologist after whom certain radioactive measurements are called. ("Tolerance Levels and Swedish Radiation-protection Work" Proceedings of the Health Physics Society, June 1956, p. 181) A tolerance level being a level below which there is no damage (sometimes called a threshold) A safety level is ordinarily a fraction of the tolerance level. Quoted in "To Immediate Danger - Prognosis for a Radioactive Earth" Dr. Rosalie Bertell.

"The bomb survivor data now shows without doubt that there is no safe dose of radiation, and, furthermore, that the lowest doses have caused the greatest cancer increases per unit of radiation." From: "Hazardous Waste News " June 13th, 1990, by the Environmental Research Foundation, editor Dr. Peter Montague. (Ph.D.)

"....the measurements by EPD of other isotopes(i.e. cesium-137, cerium-141, cerium-144, ruthenium-103, zirconium-95, and niobium-95) were not from the Georgia Tech Research Reactor. Rather, EPD indicated that the radioisotopes were from other sources, such as fallout from nuclear weapons testing around the world." p. 6 NRC response. ——— Among contaminants released from the Chernobyl nuclear reactor were : Cesium—137, cerium -141, ruthenium-103, I-131, strontium-90, zirconium-95, niobium-95. I suppose next the story will be that Chernobyl caused the years of contamination found .

'We began to discover effluent reconcentration in the sewers 10 years ago....Re-concentration is a known phenomenon, a known problem." NRC's Robert Berrera, quoted in Science News, p.218 Vol.146, Oct. 1,1994 'Senator Glenn still expresses concern that facility operators need to be notified about the possibility of radioactive contamination says an aide.' Source : same.

"The problem is breaks and leakage in Atlanta's antiquated sewer pipes, which annually dump unknown thousands of gallons of raw sewage into area creeks and streams...little of the money in the city's 1994 bond package is earmarked to repair sewer lines such as the one that collapsed." (i.e. Orme St. trunk) Atlanta Business Chronicle, Feb.10-16, 1995 ,"Questions remain about Atlanta's aging sewer lines." by Julie Hairston.

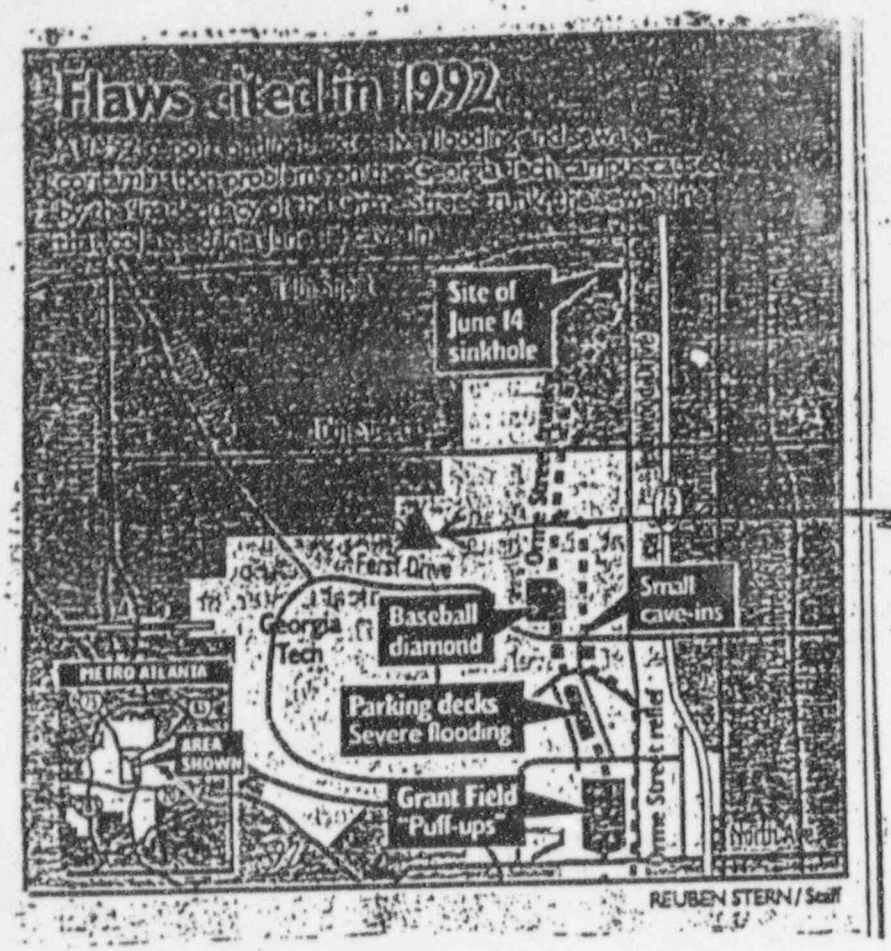
"In the event of a nuclear excursion, an observer downwind from a slow leak in the containment building would be exposed to radiation from an airborne fission cloud. Also, radioactivity could be inhaled." From the Tech Reactors documents , p.L87 filed under the reliscensing application.

Approximate reactor vessel weight : 2,000 lbs. Total (coolant) weight flow entering core 982,000 lbs/hour. Source: Same Tech reactor documents. (all this on top of fill material and water etc.)

Irradiated fuel assemblies are moved from the core to the storage area using a shielded transfer cask. There must be a 12 hour wait after reactor shutdown before this can be done. "This ensures that sufficient fission product decay heat has been removed from the assembly and that the surface temperature of the fuel plates will not reach 450 degrees Centigrade when the assembly is moved into the cask." Same source as above, p.144 If a mistake is made "some or all of the fuel plates within the assembly could then melt..."

Campus police have no radiation protection gear, nor do firemen, nor does Ga. EPD Radiation Surveillance Division.

My petition should be granted in full. Pamela Blockey-O'
(1 enclosure.)



▲ APPROX IMAGE, REACTOR LOCATION (I ADDED THE TRIANGLE)

OVER PLEASE FOR ARTICLE

The Atlanta Journal / The Atlanta Constitution ..... Saturday, June 26, 1993 B9

1992 study warned of cave-ins

Sewer under Tech campus inadequate, city was told

By Douglas A. Blackmon
STAFF WRITER

A study prepared for Georgia Tech in 1992 and shared with city officials seven months ago — warned that the sewer line that caused last week's deadly Midtown sinkhole was deteriorating and "inviting" collapse.

"The potential exists for an intense summer storm during the 1996 Olympics Games with serious consequences and embarrassing adverse worldwide publicity," said the study, a copy of which was reviewed by The Atlanta Journal-Constitution.

The report outlined extensive drainage and sewage contamination problems on the Georgia Tech campus, all of them caused by the age and inadequacy of the Orme Street trunk, the sewer line that failed in the June 14 cave-in. Two hotel workers died when they plunged into the pit formed by the collapse.

The engineer who co-authored the study wasn't surprised.

"It catches one off guard, but it was no surprise, because we had just looked at it," said Birdel F. Jackson III, an engineer with B & E Jackson and Associates.

In recent years, the study found, the campus periodically experienced severe flooding in streets and a parking deck, small sinkholes in playing fields where Olympic athletes will practice and cave-ins smaller but similar to the one

Please see REPORT, B9 ▶

Report: Cave-in danger noted in '92

▶ Continued from B1

last week.

Mr. Jackson said he shared his findings with former Public Works Commissioner Michael Pack before Christmas and was told Atlanta was about to address the problem.

"They indicated they were right on top of things," Mr. Jackson said.

Acting Public Works Commissioner Doug Hooker said this week that he is not familiar with the report. But Mr. Pack, now the acting aviation commissioner, said in an interview Friday that he recalled Mr. Jackson's findings. They only confirmed problems the city was already aware of, he said.

Since the cave-in 12 days ago, city officials have denied they moved too slowly to correct the problems, but the city has known for at least a decade that the Orme Street trunk was deteriorating. A 1981 study conducted for the city also detailed problems in the line, and the Public Works Department has requested funding the past two years to begin work on a new sewer line to relieve the pressure from the Orme Street trunk.

The portion of the sewer line under Georgia Tech, most of which was constructed in 1892, runs down the center of Grant Field, under Peter's Parking Deck and beneath the university's baseball and track fields.

The detailed examination of the Orme Street trunk found that the sewer is only half the size necessary to carry away all the sewage and storm water generated in the area it serves.

The report said a combination of measures aimed at preventing flooding — from the Georgia Department of Transportation building oversized sewers under the Downtown Connector to welding down manholes on the Georgia Tech campus — were actually overwhelming the sewer line and exacerbating other problems.

The result is high-pressure flows during heavy rain which create "jet-like leaks through the defective mortar joints and cracks," the study said.

The powerful leaks erode soil from around the sewer, and "over long periods of time, a significant and continuous void is created around the sewer, inviting ultimate cave-in of the earth overburden, and in some cases, the sewer itself," said the report.

What triggered last week's cave-in, at the Courtyard by Marriott hotel on 14th Street, has not been determined, but most engineers agree it was probably due to erosion around a leak in the sewer line.

The Tech study said the overburdened sewer line sometimes causes the football field to bubble into "puff-ups," the largest of which was 5 feet high and 50 feet across.

Surging storm water and raw sewage have repeatedly blown manhole covers as far as eight feet away, allowing open flooding into streets.

Earlier this year, the city requested proposals for designing the relief sewer project, and the Public Works Department will name a consultant soon to do the design work, Mr. Hooker said.

However, the city still has no money to pay $500,000 for the design work, much less the estimated $9.5 million in construction to follow, until it sells about $200 million in water and sewer revenue bonds approved by the City Council last week.

OVER FOR MAP →

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

7 pages total

Aug. 21st '95

Rif DO 105 Russell

Pamela Blockey-O'Brien

RE: My 2.206 Petition under Docket 50-160

TO: The Executive Director, NRC.

I hereby request that the NRC and Georgia Institute of Technology guarantee IN WRITING the following.

1) That the reactor is totally safe, has never had a single violation or problem, is not built on top of fill material and all "drainage area" has never had any security problems or violations, that the containment dome, the reactor and

fuel rods, plus the Co-60 and pool holding it, are impossible to damage via accident, design or terrorist attack or earthquake or sinkholes; that the entire reactor facility including containment, reactor, hot cell, pool holding Cobalt 60 the floor of same, the reactor vessel support and the wastewater holding tanks and floor (cement) on which everything sits, has been X-Rayed and tested and found to be safe and defect free;

3/

Pamela Blockey-O'Brien

that all sewer and drain lines have been X-rayed for defects and found free of any and all radioactive contaminants to a distance of where all lines join the Orrue St. Trunk - and found to be in excellent repair (this includes the Granite section and the RCP sections); that all nuts, bolts, flanges, airlock gaskets and the like used in construction of the reactor, piping, containement and entire complex are in excellent

condition and are free of radioactive contamination; that the area in which the reactor/reactor containment and entire complex sits never floods; that only Argon-41 and no other radioactive contaminant/isotope (or daughter product of any radioactive isotope/contaminant has ever gone out of the stack, or been released to the sewers, or contaminated any area of the reactor complex/hot cell etc. and that Argon 41 released was always as stated.

2) that the soil and ground and surface water beneath the reactor + slab and adjacent to it to a distance of 300 feet is not, nor ever has been, contaminated with radioactive isotope(s) in any amount, nor have/ the sewers, nor are/have the leaves in trees and bushes to the same distance, nor any person, past and present who works in the Neely Nuclear Research Center and Reactor/Reactor Containment area/Hot cell area/Co-60 area etc.

3) That the

6/

Pamela Blockey-O'Brien

NRC and Georgia Tech also guarantee in writing that the campus and the city to a distance of a 2 mile (from ~~rad~~) radius could be evacuated totally within 30 minutes prior to, during and after the Olympics and that such an evacuation plan a) exists b) has been tested. 4) that there is no effect on health (DNA, genetic damage, birth defects, internal and external organs) to humans, animals, fish, insects, plants, aquatic

7/

Pamela Blockey-O'Brien

Species, due to the ALARA
policy and dumping of any
amount of
radioactive contaminants to
sewers / waters of the US / oceans
of the world, or air, from
radioactive contaminants /
isotopes now, in the past,
or the future and no long
term or cumulative effects
of same on all humans
and other species listed,
from this (Tech) reactor or
any other reactor nation-
wide or the nuclear fuel
cycle from mining to
reactors to bombs.
I expect an answer by
return post.

Pamela Blockey-O'Br

[illegible] St

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

aug. 18th
1995

Pamela Blockey-O'Brien

TO: Ms. Shirley Jackson,
Chairwoman of the U.S. N.R.C.

Honorable Madam,
Please be so kind as to read my entire 2.206 Petition and additional letters I added as part of my petition, plus N.R.C.'s response to me and my enclosed response to them. I did raise substantial health and safety issues. They should have granted it all. It's not right. I believe the Commissioner(s) and

9508250152 2pp.

2/ Commission Chair are my only hope, which is why I am sending this to you. I don't know what else to do. How can they say it's O.K. when they won't test below and around the reactor, won't X-Ray it and the floor etc.? This is all awful.

Thank you for your attention to this,

Sincerely,

Pamela Blockey-O'Brien

For Barrett Continued