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10/3/85-Raleigh, N.C. 27611
August 12, 1985Carolina Power & Light
411 Fayetteville St.
Raleigh, N.C. 27602

APPL Ex 13

Dear Mr. M.H. McDuffie

I am totally disgusted with the discrimination I have received while trying to work in the E&RC group at the Shearon Harris Plant. This is reverse racial discrimination, sexual discrimination, and harassment. Another discriminatory event in the chain of many of these events has provoked this letter and the decision I am making.

If I experience anymore accusations based on gossip, on the job harassment, and discrimination with its double standards I will quit and leave the nuclear industry. Now, it may be the intent of Jim McDuffie or Gex Supp to force me to quit or fire me; but I want you to know my intent.

If forced to quit or fired; I have nothing to loose. Therefore, if I must leave commercial nuclear power due to this type of discriminatory situation or feeling that as a woman I am not being allowed to participate as men do at Shearon Harris; then I will put my intelligence to use stopping a male chauvinistic enterprise. I will use my knowledge as a means of intervention.

I haven't asked much of Carolina Power & Light and I have been a dedicated and loyal employee. It was my intent to simply work peacefully as a health physics technician at the Harris Plant and gain field experience. I also had hoped that the harassment I experienced in the ELRC group would be stopped in-house. Enclosed is my resume and twenty pages accounting for some of what I have been put through at the Harris Plant. I like CP&L in general and would like to contribute to it.

Sincerely,
Lathy S. Muir

((Resume of Patty S. Miriello))

Current Address: P.O. Box 28071, Raleigh, N.C., N.C. 27611

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Office Phone: (919) 362-8881 Ext. 4679,
and extensions 4680, 4681

Date of Birth: August 12, 1955.

Marital Status: Single - Previously married and currently divorced.

Appearance: Five feet and seven inches tall, brown hair, blue eyes, 125 lb.

Education:

B.A. in Science: (1978) from the Pennsylvania State University. An emphasis was placed on biology.

B.S. in Ceramic Engineering: (1981) from the Pennsylvania State University. No humanities were taken. An emphasis was placed on ceramic and nuclear engineering and also on nuclear materials.

M.S. in Ceramic Science: (1981 to the present) at the Pennsylvania State University. Funding for this degree was provided by a Department of Energy Nuclear Waste Management Traineeship. Emphasis was placed on crystal chemistry, health physics, nuclear chemistry, nuclear waste, nuclear materials, and both ceramic and nuclear engineering. The thesis for this degree is concerned with nuclear waste glass, fracture mechanics, and radiation effects in materials. Please Note: The thesis has been handed in and is in review. Not much else is required to obtain the degree except for approval of the thesis so it can be typed and defended.

M.S. in Nuclear Engineering: Currently being initiated at the North Carolina State University. Admission is being requested for spring term 1986 as a part time graduate student.

Professional achievements:

- Second place in the American Ceramic Society National Student Speaking Contest of 1981 which was held in Washington, D.C. Twelve universities were represented.
- Presented a paper entitled: 'The Effects of ^{60}Co Gamma Radiation on the Strength Distributions of a Lead-borosilicate Glass in H_2O and in Liquid N_2 ' at the 1982 Glass Division Fall Meeting of the American Ceramic Society.

Undergraduate thesis: 'The Grain Boundary Diffusion of ^{51}Cr in Chromium Doped MgO ' (B.S. Ceramic Engineering)

Graduate thesis: 'The Effects of ^{60}Co Gamma Radiation on the Strengths of Soda-lime-silica, Pyrex, Lead-Pyrex, and Simulated Nuclear Waste Glasses' (M.S. Ceramic Science/DOE Nuclear Waste Management Traineeship)

Hobbies and Interests:

- Professional equestrian: Seventeen years of riding experience which includes show jumper and hunter training and also experience in all phases of western riding. Approximately 750 ribbons have been accumulated in horse shows in limited showing.
- Arc welder: Approximately 60 hours or 15 weeks of laboratory experience have been accumulated using 7018 rod in and out of position.
- SCUBA Diver: Certified. Currently working on advanced certification.
- Combat Pistol Competitor: Using a 9mm. combat auto.
- Snorkel about 100 laps a week.

Company: Carolina Power & Light at the Shearon Harris Nuclear Power Plant,
New Hill, N.C.

Position/Title: Technician - Dosimetry Section under Health Physics.

Duties: Qualified to procedures in TLD badging, reading, and maintaining dosimetry records. Qualified user of the health physics computer information system called RIMS or the Radiological Information Management System. This system is Carolina Power & Light's means of dose tracking, radiological work permit tracking, and ALARA report compilation. Other training included: operating a whole body counter and being familiar with its NaI detectors, MCA, and fortran compiler.

Period of Employment: March 1985 until June 1985.

Position/Title: Technician - Radwaste Shipping Section under Health Physics.

Duties: Responsible for the receipt/shipping of all radioactive materials to/from the Shearon Harris Nuclear Power Plant as far as performing the proper surveys and completing the proper shipping records in conjunction with other radwaste technicians. Responsible for knowledge of all health physics procedures concerning plant monitoring, decontamination, radioactive material accountability, and emergency preparedness. Knowledge of NRC and DOT regulations is also required in the areas of radiation and radwaste shipping.

Period of Employment: June 1985 to the present.

Company: Nuclear Energy Services (NES) of Danbury, Conn. while at the Shearon Harris Nuclear Power Plant, New Hill, N.C. which is being constructed by Carolina Power & Light (CP&L).

Position/Title: Data Controller, Engineer Level 1.

Duties: Control all nondestructive examination (NDE) data for the ASME code preservice inspection on piping welds at the Shearon Harris Nuclear Power Plant for the preservice NDE contractor which is NES. This includes ultrasonic (UT), magnetic particle (MT), and liquid penetrant (PT) data on the approximately 3000 welds being inspected. All total, approximately 7000 data sheets will be generated due to both surface and volumetric exams per many of the welds and due to re-examinations. The data is a permanent plant record and it is auditable by the NRC, NES, and CP&L. Both NRC and NES audits have recently confirmed proper data control.

The first responsibility of the data controller was to design and implement a document control system to meet the requirements of both NES and CP&L. This involved tracking data from the examiners through a review cycle consisting of technical, customer (CP&L), and third party (Authorized Nuclear Inservice Inspector) reviews and also a review by data control.

Engineering duties in this position involve the writing of nonconformance reports (NCR) for weld conditions which are unacceptable to the site piping specification and are required by the NRC to be reported. This also includes maintaining a tracking and filing system for the nonconformances to the site piping specification and for the nonconformances written by the inservice inspection project specialist to report indications found during preservice inspection. Included in this position is field verification of the nonconformance when necessary.

Period of Employment: April 1984 to March 1985.

Previous Employment: Three Mile Island Nuclear Power Plant

Company: EG&G of Idaho; Idaho Falls, Idaho while at the Three Mile Island Nuclear Power Plant, Middletown, Pa. which was operated by General Public Utilities (GPU). EG&G operated the Department of Energy Technical Information and Operations Office at Three Mile Island.

Position/Title: Engineer Level 1.

Duties/Projects:

Determination of Reactor Coolant Leakage Pathways: Specifically, looked into the self powered neutron detectors (SPND) to determine if they provided a pathway for a significant release of fission products and fuel into the Three Mile Island Unit 2 (TMI-2) containment. This included determining the maximum amount of release possible in the worst scenario of SPND pressure boundary failure and whether that had occurred. Dose rates and deposition data at the SPND seal table along with core conditions at the time of the TMI-2 accident were used in calculating the quantity of reactor coolant released.

Provided Detailed Information Describing the TMI-2 containment to Sandia Laboratory: The information included approximately 200 engineering drawings, two videotapes from early containment entrances, site specifications, surface area calculations of structures in containment, and data describing the surface conditions. The information was used as input into the HECTRE hydrogen burn computer code. Every piece of equipment and structure of any significant surface area was detailed. Sandia laboratory was interested in modeling hydrogen burns in nuclear plant containments in relation to plant safety.

Completed Dose Rate and Shielding Calculations: Assisted a project engineer in acquiring radioactive samples by completing quick dose rate calculations to give an idea of shielding requirements and possible damage to equipment such as cameras.

Assisted in making thermoluminescent dosimeter trees (TLD trees) and in solving problems related to the positioning of the TLD trees in the TMI-2 containment basement so that dose rates could be determined for that inaccessible area.

Period of Employment : Summer of 1983. A permanent position offer at TMI was made by EG&G.

Graduate Studies at the Pennsylvania State University funded by a
Department of Energy Nuclear Waste Management Traineeship

Courses included both ceramic and nuclear engineering, graduate level thermodynamics and mathematics, advanced programming such as numerical analysis, and nuclear waste classwork and seminars. Research was done on simulated defense and commercial nuclear waste glasses. The defense composition was provided by the Savannah River Laboratory in Aiken, S.C. and the commercial reprocessing composition was provided by the Pacific Northwest Laboratory in Richland, Washington.

Hands on experience with radionuclides was gained in radiochemistry laboratory work and in nuclear engineering laboratories. The nuclear engineering laboratories or reactor engineering laboratories dealt with sub-critical graphite piles and also with a TRIGA research reactor. Health Physics and shielding credits were also acquired.

Ceramic and materials engineering courses along with crystal chemistry provided state of the art knowledge on storage of nuclear waste, especially high level. A nuclear engineering course termed radioactive waste control dealt with low, medium, and high level wastes and the associated problems of storage, transportation, and permanent disposal.

Period of Study: Fall 1981 to Spring 1983.

Nuclear Engineering Courses Completed :

	credits		
Nuc.E. 401 Introduction to Nuclear Engineering	3	A	12.0
Nuc.E. 405 Applied Nuclear and Radiochemistry	3	A	12.0
Nuc.E. 408 Radiation Shielding	3	B	9.0
Nuc.E. 420 Radiological Safety (Health Physics)	3	B	9.0
Nuc.E. 428 Radioactive Waste Control	3	B	9.0
Nuc.E. 502a & 502b Reactor Engineering Laboratory	1 each	C	6.0
	17 credits		57.0
			3.35 average

EXPERIENCE WITH ENGINEERING, ANALYTICAL, OR OTHER TECHNICAL EQUIPMENT

Materials Engineering

X-ray diffractometer
Metallurgical reflected light microscope
Transmission electron microscope
Scanning electron microscope
High temperature furnaces - Tungsten resistance, carbon resistance, gas fired
Infrared Spectrometer - Fourier transform
Atomic absorption and atomic emission

Nuclear Engineering

Single and multichannel analyzers for gamma and beta spectroscopy
GeLi and NaI solid state detectors (used in neutron activation analysis/gamma spectroscopy)
Liquid scintillation counter
BF₃ neutron detector, Geiger counters, gas flow counters
TRIGA research reactor (limited laboratory work in reactor control)
50,000 Ci. ⁶⁰Co source (shielding calculation and thesis work)
Subcritical pile construction (to practice neutron counting)
Whole body counter - consists of 3 NaI detectors, GAR, ADC, amplifiers, etc.
Thermoluminescent Dosimeter Reader (TLD reader)

Other

IBM 360 computer (FORTRAN programming and thesis data analysis)