

To DCS 10/13/82
Return to L. Jagan 396-SS

OCT 8 1982

Department of Natural Resources and
Community Development
ATTN: Mr. C. Wakild
Regional Supervisor
Division of Environmental Management
7225 Wrightsville Avenue
Wilmington, North Carolina 28403

Dear Mr. Wakild:

This is to confirm our discussions with you and Mr. Shaver in your office on September 8, 1982 concerning effluent and environmental non-radiological monitoring requirements, that NRC proposed to include as conditions for the renewal of the Special Nuclear Material License issued to General Electric Co. The draft license conditions, as identified in Enclosure 1, involve primarily the non-radiological monitoring requirements for ground water, surface water and gaseous effluents.

License Condition No. 22 in Enclosure 1 involves stack monitoring of total fluoride released from GE's operation. It is our understanding that the State does not have fluoride standards at the present time. Therefore, during the interim period, the NRC under the National Environmental Policy Act (NEPA) will take the responsibility to impose such monitoring requirements on GE.

License Condition No. 23 in Enclosure 1 concerns ground water monitoring on non-radiological parameters. It is agreed that the important non-radiological parameters should only include nitrate, fluoride and total dissolved solids (TDS) and the monitoring at the sanitary treatment facility is not necessary. It is also agreed that PL wells Nos. 1, 3, 5, 8 and 11 surrounding the final lagoons are adequate for ground water monitoring.

The action level on nitrate concentration in the monitoring wells will be developed upon discussion with GE. For the above ground water monitoring, it is our understanding that the State eventually will have the authority and responsibility to impose such requirements on GE. Therefore, it is agreed that during the interim period the NRC will take the responsibility under NEPA to impose these conditions on GE until the State informs NRC in writing that they have resumed the responsibility for ground water monitoring, and NRC will delete those conditions accordingly.

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Mr. C. Wakild

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In license Condition No. 24 in Enclosure 1, it is agreed that the non-radiological parameters should be deleted since the State's NPDES permit has covered those non-radiological parameters monitoring requirements and it is under the State's regulatory authority. However, the licensee will be required to notify the NRC if the conditions in the permit are violated.

License Conditions No. 25 and No. 27 in Enclosure 1 will be deleted since the State has regulating authority for potable water and GE's sanitary waste treatment plant.

License Condition No. 26 in Enclosure 1 will be deleted since MW 3, 4 and 5 wells are substantially located up gradient of the ground water flow and the other MW wells can be replaced by other monitoring wells.

Per our discussion, draft license conditions originally proposed in Enclosure 1 have been revised and modified as shown in Enclosure 2. However, subsequent to our meeting on September 8, 1982, the State informed NRC by letter dated September 15, 1982 that the State is preparing to impose ground water monitoring on General Electric Company and the program will be implemented on or before November 1, 1982. Therefore, it is our understanding that the State will be responsible for ground water monitoring and, accordingly, license Condition No. 23 in Enclosure 2 will be deleted. Please review the revised conditions as identified in Enclosure 2 and inform me as soon as possible if our understanding is not correct.

GE has some objections to revised draft Condition No. 22. If it is agreeable to the state, the NRC is willing to drop the condition in its entirety. We will, of course, need to know the source terms for our Environmental Impact Appraisal which will be initiated in the next year.

Sincerely,

Original Signed By:
W. T. Crow

William T. Crow, Section Leader
Uranium Process Licensing Section
Uranium Fuel Licensing Branch
Division of Fuel Cycle and
Material Safety, NMSS

Enclosures:

1. Original License Conditions
2. Revised License Conditions

Distribution:

Docket File 70-1113

NMSS r/f	GHBidinger	PDR
FCUF r/f	LTyson	Region II
EYShum	WTCrow	

OFFICE	FCUF <i>EYShum</i>	FCUF <i>GHB</i>	FCUF <i>LT</i>	FCUF <i>WTC</i>			
SURNAME	EYShum	GHBidinger	LTyson	WTCrow			
DATE	10/2/82	10/7/82	10/8/82	10/8/82			

ENCLOSURE 1

21. The licensee shall conduct an effluent and environmental radiological monitoring program as specified in the licensee's letter dated September 1, 1981, with the following modifications:
 - a. The detection limit of gross alpha in liquid effluent or well water samples shall be 5×10^{-9} $\mu\text{Ci/ml}$ (5 pCi/l), or lower. If the concentration of liquid or water exceeds 15 pCi/l, isotopic analysis shall be performed to identify the major alpha emitting nuclides.
 - b. The detection limit of gross beta in liquid effluent or well water samples shall be 2×10^{-6} $\mu\text{Ci/ml}$ (20 pCi/l), or lower. If the concentration of liquid or water exceeds 50 pCi/l, isotopic analysis shall be performed to identify the major beta emitting nuclides.
 - c. Water samples from all of the existing monitoring wells around the waste treatment facility, (WT1, WT2, WT3, WT4, WT5, WT6, WT7 and WT9) as identified in Exhibit 4 of the licensee's letter dated March 31, 1982, shall be sampled monthly and analyzed for gross alpha and gross beta, with action levels as specified for WT wells in the licensee's letter dated September 1, 1981.
 - d. Water samples from all of the existing monitoring wells around the final discharge lagoons, (PL1, PL2, PL3, PL4, PL5, PL6, PL7, PL8, PL9, PL10, PL11 and PL12), as identified in Exhibit 4 of the licensee's letter dated March 31, 1982, shall be sampled quarterly and analyzed for gross alpha and gross beta with action levels as specified for PL wells in the licensee's letter dated September 1, 1981.
 - e. Water samples from the four wells around the calcium fluoride filter cake area; the six wells around the zirconium sludge area and the four wells around the sanitary treatment facility, as identified in Exhibit 4 of the licensee's letter dated March 31, 1982, shall be collected from these wells on a quarterly basis and analyzed for gross alpha and gross beta, with action levels as specified in the licensee's letter dated September 1, 1981, for wells around the waste treatment facility and final discharge lagoons.
22. The licensee shall evaluate the stack monitoring systems for measuring total fluoride release and shall make appropriate modifications, if necessary. The monitoring techniques shall be submitted to the State or U. S. EPA for approval by December 1, 1982. The systems, if modified, shall be installed and in operation within 60 days of the State approval.
23. The licensee shall include the analysis of non-radiological parameters, i.e., pH, NH_3 , NO_3^- , NO_2^- and F^- in items 21(c), 21(d) and 21(e) above. Remedial action shall be taken by the licensee within 30 days if the total nitrate, nitrite concentration (as N), exceeds mg/l.
24. The licensee shall include the analysis of Cr, Cu, Ni, pH, NH_3 , NO_3^- , NO_2^- , F^- and Tc-99 in the liquid discharges from chemical lagoons as identified in item (2), figure 3 of the licensee's letter dated September 1, 1981.

25. The licensee shall collect and analyze water samples for each of the potable water wells on a monthly basis for Cl, PO₄, NH₃, NO₃, NO₂, total suspended solids, alkalinity, BOD₅, COD, total solids, total dissolved solids. Remedial action shall be taken if the total NO₃, NO₂ concentration exceeds 10 mg/l (as N).
26. The licensee shall collect water and analyze samples for each set of the existing deep MW wells on a monthly basis for NH₃, NO₃, NO₂ and fluoride. Remedial action shall be taken if the total NO₃, NO₂ concentration exceeds 10 mg/l (as N).
27. The licensee shall conduct the nonradiological monitoring on the sanitary waste treatment plant, the V113 source, the offsite treatment facility as specified in the licensee's letter dated December 21, 1979.

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21. The licensee shall conduct an effluent and environmental radiological monitoring program as specified in the licensee's letter dated September 1, 1981, with the following modifications:
- The detection limit of gross alpha in well water samples shall be 5×10^{-9} $\mu\text{Ci/ml}$ (5 pCi/l), or lower. If the concentration of water exceeds 15 pCi/l, isotopic analysis shall be performed to identify the major alpha emitting nuclides.
 - The detection limit of gross beta in well water samples shall be 2×10^{-6} $\mu\text{Ci/ml}$ (20 pCi/l), or lower. If the concentration of water exceeds 50 pCi/l, isotopic analysis shall be performed to identify the major beta emitting nuclides.
 - Water samples from all of the existing monitoring wells around the waste treatment facility (WT1, WT2, WT3, WT4, WT5, WT6, WT7 and WT9) as identified in Exhibit 4 of the licensee's letter dated March 31, 1982, shall be sampled monthly and analyzed for gross alpha and gross beta, with action levels as specified for WT wells in the licensee's letter dated September 1, 1981.
 - Water samples from all of the existing monitoring wells around the final discharge lagoons (PL1, and PL11), as identified in Exhibit 4 of the licensee's letter dated March 31, 1982, shall be sampled quarterly and analyzed for gross alpha and gross beta with action levels as specified for PL wells in the licensee's letter dated September 1, 1981.
 - Water samples from the four wells around the calcium fluoride filter cake area and the six wells around the zirconium sludge area, as identified in Exhibit 4 of the licensee's letter dated March 31, 1982, shall be collected from these wells on a quarterly basis and analyzed for gross alpha and gross beta, with action levels as specified in the licensee's letter dated September 1, 1981, for wells around the waste treatment facility and final discharge lagoons.
22. The licensee shall evaluate the stack monitoring systems for measuring total fluoride release and shall make appropriate modifications, if necessary. The monitoring techniques shall be submitted to the NRC for approval within 60 days of the date of this license. The systems, if modified, shall be installed and in operation within 60 days of the NRC approval.
23. The licensee shall include the analysis of TDS, NO_3^- and F^- in items 21(c), 21(d) and 21(e) above. Investigative and corrective action shall be taken by the licensee if the total nitrate concentration exceeds mg/l . The licensee shall report the results of the investigative/corrective actions to the Regional Administrator, Region II, within 90 days of the sampling time. (Condition to be deleted based on State's letter to NRC dated September 15, 1982.)

24. The licensee shall include the analysis of Tc-99 in the liquid discharges from chemical lagoons as identified in item (2), figure 3 of the licensee's letter dated September 1, 1981.

25. Deleted.

26. Deleted.

27. Deleted.

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25. The licensee shall notify the NRC Regional Administrator within 10 days of any violation of the NPDES permit.