



UNITED STATES
ATOMIC ENERGY COMMISSION
REGION I
631 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

DR Central File

JUN 13 1974

Niagara Mohawk Power Corporation
Attention: Mr. R. R. Schneider
Vice President, Operations
300 Erie Boulevard, West
Syracuse, New York 13202

License Nos. DPR-17/CPFR-70
Inspection Nos. 50-220/74-06
50-333/74-17

Reference: Your letter dated May 30, 1974
-In response to our letter dated May 15, 1974

Gentlemen:

Thank you for informing us of the corrective and preventive actions you documented in response to our correspondence. These actions will be examined during our next inspection of your licensed program.

Your cooperation with us is appreciated.

Sincerely,

Paul R. Nelson, Chief
Radiological and Environmental
Protection Branch

cc: T. J. Perkins, Station Superintendent
Mr. A.Z. Roisman, Counsel for Citizens
Committee for Protection of the
Environment
Berlin, Roisman and Kessler
1712 N Street, Northwest
Washington, D.C. 20036

bcc: RO Chief, FS&EB

RO:HQ (4)

DL (4)

Ro Files

DR Central Files

RS (3)

PDR

Local PDR

NSIC

DTIE

State of New York

OGC

Mr. M. S. Terpilak, EPA: Region II

Mr. D. T. Oakley, EPA:HQ

Anthony Z. Roisman, Counsel for Citizens Committee for Protection of the Environment

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OFFICE

CRESS

NIAGARA MOHAWK POWER CORPORATION

NIAGARA  MOHAWK

300 ERIE BOULEVARD WEST
SYRACUSE, N. Y. 13202

May 30, 1974

Mr. Paul R. Nelson, Chief
Radiological and Environmental
Protection Branch
United States Atomic Energy Commission
Region 1
631 Park Avenue
King of Prussia, Pennsylvania 19406

Dear Mr. Nelson:

Following a thorough review of your May 15, 1974 letter, regarding the inspection conducted by Mr. Bores of your office on April 22-26, 1974 at Nine Mile Point Nuclear Station Unit 1 and James A. FitzPatrick Nuclear Power Plant, we conclude that there is no information in the report to be withheld from public disclosure.

Concerning the alleged violations of AEC requirements as numerated in your report the following information pursuant to provision of Section 2.201 of the AEC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations is submitted:

1. Section 4.6.1 and Table 4.6.1B of the Technical Specifications require that air particulates be sampled on a weekly basis at five on-site and six off-site stations.

Contrary to this requirement, air particulates were not sampled at one of these stations, D1 On-Site, for 31 of 47 sampling periods from November 9, 1972 through September 29, 1973.

RESPONDS

It should be pointed out that during this period sampling was required for only 23 of the 47 periods because of the fact that we were in Grade A of the environmental program (i.e., stack release rate $<1/30Q$).

An investigation of the operation of D₁ on-site air sampler shows the following:

History on Station D₁ On-Site:

<u>Dates</u>	<u>Land Program Grade</u>	<u>No of Samples Required From D₁ On-Site</u>	<u>No of Sample Collected</u>
4/1/72 → 11/1/72	A	None	27
11/1/72 → 3/1/73	B	17	8
3/1/73 → 4/15/73	C	7	3
4/15/73 → 11/1/73	A	None	12
11/1/73 → 4/1/74	B	<u>20</u>	<u>20</u>

Total samples required from Sample Station	44
Total samples collected as required	31
Required samples missing	13

Along with this sampler we also operated 10 other samplers as part of the survey program. During the year 1973 a total of 544 environmental air samples were collected while 28 were reported as missing samples. This is an overall recovery rate of approximately 95%.

The required samples were not collected because of malfunctions of the sampling equipment. These included:

1. Burned out motor in sample pump.
2. Faulty fan on housing cooling system resulting in overheated motor and blown fuses.
3. Pump motor - faulty switch.
4. Pump piston freeze up.
5. Faulty thermostat on housing resulting in improper fan operation and subsequent overheating of pump motor.

The major problem was discovered to be a faulty thermostat (see item 5. above); once this was replaced, November 14, 1973, the sampler operated satisfactorily.

The new Environmental Technical Specification which will go into effect when the commission issues the NMP-1 permanent operating license will allow an air sample station to be taken out of service on occasion (i.e., at least 10 out of 15 samplers shall be operated). This specification recognizes the fact that these sample stations are not continuously attended and that if a pump trips while a technician is not in attendance a whole week's sample is lost.

In the future we will make every effort to maintain the environmental sampling equipment so that required samples are collected. With the increased work load due to the new ETS requirements we have recently added to the site staff who will be responsible for the implementation of the environmental survey program.

2. Section 4.6.1 and Table 4.6.1B of the Technical Specifications require that air particulate samples be analyzed monthly from five on-site and six off-site stations.

Contrary to this requirement, the weekly air particulate filters were composited prior to analysis. In some instances, the five on-site samples were composited into one sample and the six off-site samples were composited as a second sample prior to analysis. At other times all of the filters were composited into a single sample prior to gamma spectral analysis.

RESPONDS

A beta count was performed on each environmental air particulate sample on a low background beta counter. This is the most meaningful way to count these samples. Gamma spectral analysis using our present equipment is not sensitive enough to measure the low level of activity encountered in environmental samples.

The particulate air samples were composited to be counted on a 3 x 3 NaI gamma ray analyzer crystal because of the low activity of the individual samples, the high background inherent in an in-plant NaI system and the low sensitivity of an in-plant NaI system.

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meaningful, however, the samples would have to be sent to a contractor for special analysis. On-site and off-site samples at Nine Mile Point do not show any significant differences. A review of the gross beta data of air particulates for the second half of 1973 shows that the on-site samples averaged .042 pci/m³ while the off-site samples averaged 0.045 pci/m³. Even during periods of high off-gas activity (i.e., when release rates are greater than 1/10Q) the on-site and off-site samples do not show significant differences.

The new Environmental Technical Specifications will allow compositing of the on-site samples and the off-site samples. Until these specifications take effect we will perform a gamma spectral analysis on each air particulate sample individually. We will also perform some of the analysis at the James A. FitzPatrick laboratory in an attempt to see if greater sensitivity can be obtained using the Geli counting system there.

3. Section 4.6.1 and Table 4.6.1A of the Technical Specifications require that fish, clams and gammarus be sampled at two locations each Spring and Fall and analyzed for gross beta activity.

Contrary to this requirement, gross beta analyzes were not performed on the above media since 1971.

RESPONDS

When our environmental lake program was first instituted because of the complexity of the analysis we were required to send all of our aquatic biota samples to a contractor for analysis. We requested that he run gross beta analysis, gamma scans and specific radiochemical analysis on Co⁶⁰, Zn⁶⁵, Sr⁹⁰ and Cs¹³⁷. After a few years of analyzing the samples in this manner we realized that gross beta analysis was not meaningful (it only accounted for natural K⁴⁰ activity), that gamma scans were not meaningful (all samples were reported as "not detectable") and of the 4 isotopes which were being radiochemically analyzed only Co⁶⁰ was significant.

In 1972 we felt that the state of the art had advanced such that gross beta counts should be discarded in favor of a more sensitive method of analysis. We felt that by performing analysis using a Geli system and also by performing a Sr⁸⁹ and Sr⁹⁰ analysis we would get much more meaningful isotopes information while at the same time accounting for all the significant beta emitters.

Mr. Paul R. Nelson,
Atomic Energy Commission

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May 30, 1974

The new Environmental Technical Specifications list GeLi analysis and Sr^{89} , Sr^{90} as the method of analysis for aquatic biota. Until these new specifications go into effect we will request that in addition our contractor perform a gross beta analysis on all biota samples.

Very truly yours,

Original Signed by R.R. Schneider

R.R. Schneider
Vice President - Electric Operations

RRS/bar

