



RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) REQUEST

2018-000325

1

RESPONSE TYPE INTERIM FINAL

REQUESTER:

Peter Melzer

DATE:

04/19/2018

DESCRIPTION OF REQUESTED RECORDS:

Access to AEC inspection report 70-903, written with respect to the Gulf-United Nuclear Corp's mixed oxide fuel facility on Nuclear Lake in Pawling, NY.

PART I. -- INFORMATION RELEASED

- The NRC has made some, or all, of the requested records publicly available through one or more of the following means: (1) <https://www.nrc.gov>; (2) public ADAMS, <https://www.nrc.gov/reading-rm/adams.html>; (3) microfiche available in the NRC Public Document Room; or FOIA Online, <https://foiaonline.regulations.gov/foia/action/public/home>.
- Agency records subject to the request are enclosed.
- Records subject to the request that contain information originated by or of interest to another Federal agency have been referred to that agency (See Part I.D -- Comments) for a disclosure determination and direct response to you.
- We are continuing to process your request.
- See Part I.D -- Comments.

PART I.A -- FEES

AMOUNT
\$0.00

- You will be billed by NRC for the amount indicated.
- You will receive a refund for the amount indicated.
- Fees waived.
- Since the minimum fee threshold was not met, you will not be charged fees.
- Due to our delayed response, you will not be charged fees.

PART I.B -- INFORMATION NOT LOCATED OR WITHHELD FROM DISCLOSURE

- We did not locate any agency records responsive to your request. *Note:* Agencies may treat three discrete categories of law enforcement and national security records as not subject to the FOIA ("exclusions"). See 5 U.S.C. 552(c). This is a standard notification given to all requesters; it should not be taken to mean that any excluded records do, or do not, exist.
- We have withheld certain information pursuant to the FOIA exemptions described, and for the reasons stated, in Part II.
- Because this is an interim response to your request, you may not appeal at this time. We will notify you of your right to appeal any of the responses we have issued in response to your request when we issue our final determination.
- You may appeal this final determination within 90 calendar days of the date of this response. If you submit an appeal by mail, address it to the FOIA Officer, at U.S. Nuclear Regulatory Commission, Mail Stop T-2 F43, Washington, D.C. 20555-0001. You may submit an appeal by e-mail to FOIA_resource@nrc.gov. You may fax an appeal to (301) 415-5130. Or you may submit an appeal through FOIA Online, <https://foiaonline.regulations.gov/foia/action/public/home>. Please be sure to include on your submission that it is a "FOIA Appeal."

PART I.C -- REFERENCES AND POINTS OF CONTACT

You have the right to seek assistance from the NRC's FOIA Public Liaison by submitting your inquiry at <https://www.nrc.gov/reading-rm/foia/contact-foia.html>, or by calling the FOIA Public Liaison at (301) 415-1276.

If we have denied your request, you have the right to seek dispute resolution services from the NRC's Public Liaison or the Office of Government Information Services (OGIS). To seek dispute resolution services from OGIS, you may e-mail OGIS at ogis@nara.gov, send a fax to (202) 741-5789, or send a letter to: Office of Government Information Services, National Archives and Records Administration, 8601 Adelphi Road, College Park, MD 20740-6001. For additional information about OGIS, please visit the OGIS website at <https://www.archives.gov/ogis>.



**RESPONSE TO FREEDOM OF
INFORMATION ACT (FOIA) REQUEST**

2018-000325

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RESPONSE
TYPE

INTERIM

FINAL

PART I.D -- COMMENTS

The records, in accordance with your request, are enclosed. They are only recorded on aging microfiche, which can produce a lesser quality. However, we have provided you with the best copies we could find.

Signature - Freedom of Information Act Officer or Designee

Stephanie A. Blaney

Digitally signed by Stephanie A. Blaney
Date: 2018.04.19 11:48:13 -04'00'



POOR ORIGINAL

APR 24 1974

Gulf Nuclear Fuels Company
Attention: Mr. Peter Loysen
Manager
Regulatory Administration
Grasslands Road
Elmford, New York 10523

License Nos. SM-871
R-49
CX-25
Inspection Nos. 70 903/74-01
50 101/74 02
50 290/74 02

Gentlemen:

This refers to the inspection conducted by Mr. Jerman of this office on April 9-11 and 15-16, 1974 at Pauling, New York of activities authorized by AEC License Nos. SM-871, R-49 and CX-25 and to the discussions of our findings held by Mr. Jerman with Mr. Andersen of your staff at the conclusion of the inspection, and to subsequent telephone discussions between Mr. Jerman and Mr. Andersen on April 17, 1974.

Areas examined during this inspection are described in the Regulatory Operations Inspection Report which is enclosed with this letter. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, measurements made by the inspectors, and observations by the inspectors.

The effort of this inspection was to establish the validity of the survey reports submitted with letters from F. Loysen dated March 11 and March 13, 1974. These letters stated that, based on the reports, buildings and facilities formerly housing two test reactors and a fuels fabrication operation, had been decontaminated to levels specified by the Directorate of Licensing as acceptable for unrestricted use. Many random checks made by the inspectors confirmed the validity of these reports.

In accordance with Section 2.790 of the AEC's 'Rules of Practice', Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the AEC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must include a full statement of the reasons on the basis of which it is claimed that the information is proprietary, and should be prepared so that proprietary information identified in the application is contained in a

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separate part of the document. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

No reply to this letter is required, however, should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

Paul R. Holson, Chief
Radiological and Environmental
Protection Branch

Enclosure:

RO Inspection Report Nos. 70-903/74-01
50-101/74-02
50-290/74-02

cc: Mr. F. G. Stengel, Vice President
Manufacturing

bcc: (w/encls)
RO Chief, FS&EB
RO:HQ (5)
DL (4) plus 9 add'l cys of report
RO Files
L:D/D for Fuels and Mat's
DR Central Files
ES (3)
PDR
Local PDR
NSIC
DTIE
State of New York

POOR ORIGINAL

12 11 242

Jerman

APR 24 1974

To: File

Gulf Nuclear Fuels Co.
Pawling, N.Y.

License Nos. SRH-871
R-49
CX-25

Docket Nos. 70-903
50-101
50-290

The Critical Facility housing the two test reactors was surveyed on 4/10/74. The reactors had been completely removed. The control equipment was still in place. No evidence of contamination was observed in the facility.

The lower levels of the Plutonium Facility and its supporting buildings were surveyed 4/9-11/74. The only contamination found above the release criteria levels was measurable contamination inside three sections of conduit in the wall between the Pilot Area and the Weld and Load Area. The wipe showed 200dpm alpha.

The upper levels of the Plutonium Facility were surveyed 4/15-16/74. One section of the east wall of the Gas House showed fixed contamination levels exceeding 500dpm alpha per 10M². The wall was cleaned by the licensee's contractor personnel to an average of less than 500dpm alpha per 10M² and a maximum of about 1000dpm as surveyed by the AEC inspectors. It was noted that the three sections of conduit had been removed from the wall between the Pilot Area and the Weld and Load area. It was also noted that two additional sections of conduit penetrated this wall. They were wiped and the wipe showed 235dpm. A licensee representative phoned RO:I on 4/17/74 and stated that these two sections of conduit had been removed from the wall.

On 4/18/74 P. J. Knapp notified R. J. Dube, Fuel Facility Licensing, HQ by phone that Plutonium Facility met the release criteria. He also notified P. E. Erickson, Reactor Licensing, HQ, that the Critical Facility met the release criteria.

Phillip C. Jerman
Radiation Specialist

POOR ORIGINAL

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~~SECRET~~

APR 24 1974

P. J. Knapp, Senior. Facility Radiological Protection Section

INSPECTOR EVALUATION

Gulf Nuclear Fuels Company

Pawling, New York

License Nos. SKN-871 R-49, CX 25

This was a close out survey. It appeared that a good job was done by Gulf and by Atcor, Inc. in decontaminating the Plutonium Facility. The facility was grossly contaminated by an explosion in a Pu glove box in December, 1972. The decontamination was a major job requiring removal and replacement of inside and outside walls.

There was no indication of any contamination above background in the Critical Facility which housed the two test reactors.

Phillip C. Jerman
Radiation Specialist

POOR ORIGINAL



U. S. ATOMIC ENERGY COMMISSION

DIRECTORATE OF REGULATORY OPERATIONS

REGION I

RO Inspection Report No: 70-903/74-01 Docket No: 70-903
50-101/74-02 50-101
50-290/74-02 50-290
Licensee: Gulf Nuclear Fuels Corporation License No: SNM 871
Grassland Road R-49
Elmsford, New York 10523 Priority: 1
Category: (A 1) G

Location: Pawling, New York

Type of Licensee: Fuel Fabrication and Research and Test Reactor Operation
Type of Inspection: Announced Close Out Inspection
Dates of Inspection: April 9-11 and 15-16, 1974
Dates of Previous Inspection: November 26-28, 1973

Reporting Inspector: [Signature] P. 4-24-74
Phillip C. Jerman, Radiation Specialist Date
Accompanying Inspectors: [Signature] 4-24-74
April 15 & 16, 1974 P. J. Knapp, Senior, Facilities Date
Radiological Protection Branch

Date

Date

Date

Other Accompanying Personnel: None _____
Date

Reviewed By: [Signature] 4-24-74
P.J. Knapp, Senior Date
Facilities Radiological Protection Section

SUMMARY OF FINDINGS

Enforcement Action

A. Violations

None

B. Safety Items

None

License Action on Previously Identified Enforcement Items

Not applicable

Unusual Occurrences

None

Other Significant Findings

A. Current Findings

Atcor, Incorporated, Peekskill, N.Y. under contract with the licensee, surveyed the licensee's entire Pawling, N.Y. plant and carried out all work necessary to reduce contamination levels to below those specified in the, "Guidelines for Decontamination of Facilities and Equipment Prior To Release For Unrestricted Use or Termination of License for Byproduct, Source or Special Nuclear Material," issued by the Directorate of Licensing. Atcor, Inc. holds AEC Byproduct Material License No. 31-11640-01 under which the work was done. The inspection consisted of a radiation survey to verify contamination levels at the plant facilities as reported by the licensee to the AEC in letters dated March 11 and 13, 1974.

The existing contamination levels appeared to meet the Directorate of Licensing guidelines for termination of License Nos. SNM-871, R-49 and CX-25.

B. Status of Previously Reported Unresolved Items

None

Management Interview

The following individuals attended the management interview at the conclusion of the inspection on April 16, 1974.

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Gulf

J. E. Anderson, Plant Manager

Atcor

J. Swiger, President
R. Levesque, Radiation Protection Officer

AEC

P. J. Knapp
P. C. Jerman

The inspectors informed the Gulf and Atcor representatives that all instrument surveys and resurveys following necessary decontamination indicated that contamination levels met the Directorate of Licensing guidelines for release of the facilities and that wipes taken would have to be counted at RO:I. On April 17, 1974, P. C. Jerman informed J. E. Anderson that two wipes taken inside small diameter pipes which penetrated the wall between two rooms, showed excessive alpha contamination. Later that day, J. E. Anderson informed RO:I that the contaminated items had been removed for disposal.

10-11-247

REPORT DETAILS

1. Persons Contacted

J. E. Anderson, Gulf, Plant Manager
P. Loysen, Gulf, Manager, Regulatory Administration
E. C. Holman, Atcor, Vice President, Operations
O. Sullivan, Atcor, Project Manager
R. Levesque, Atcor, Radiation Protection Officer

2. Material Possessed and Processed under the Licenses

- a. The Pawling Plutonium Facility operated from 1961 to 1965 under AEC contract. Since 1965, under AEC license the facility had used Pu and U for fuel development work. Early in the period, the facility included a Gamma Laboratory for studying irradiated fuel material. In December, 1972, an explosion occurred in a Pu glove box which caused significant contamination within the facility. The facility did not resume the manufacture of fuel following the explosion.
- b. The Critical Facility had housed the Pawling Lattice Test Rig since 1960 and the Proof Test Facility since 1967. At the time of this inspection the reactors had been completely dismantled and removed from the facility.

3. Instrumentation

a. Survey meters

- 1) For the alpha surveys, an Eberline PAC1SA, (Serial No. 720) was used. It was calibrated by Brookhaven National Laboratory on March 23, 1974. An Eberline Pu source (Serial No. 6786) which is certified to be 1285 cpm, 2Pi, was used to check the instrument.
- 2) For beta-gamma surveys two Eberline Model E-120 GM Meters, with end window probes containing about 2 milligrams/cm² of absorber, were used. The serial numbers were 1269 and 3174. The two meters were calibrated against Co-60 gamma radiation by Brookhaven National Laboratory on January 22, 1974. This calibration would be accurate for most beta-gamma measurements, but would not be accurate for measuring beta radiation from uranium. An instrument of the same model was calibrated with beta radiation from natural uranium. In this case it was found that the mR/hr reading had to be multiplied by a factor of six or slightly more to obtain true mrad/hr readings from uranium.

Surveys made with the E-120 s during this inspection showed no more than 0.05 mR/hr.

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b. Counting Instruments

Wipes taken over 100cm² surface area were counted for alpha in an Eberline Model SAC-4. Calibration was accomplished through the use of a certified Pu-239 source. The wipes were also counted in an Eberline Model LCS-1 with an RD-14 Beta Detector. The instrument was calibrated through the use of a certified Sr-90 source.

4. Facilities Surveyed

Figure 1 shows the location of the buildings at the Pawling site. Detailed surveys were conducted in the Critical Facility which housed the test reactors, the Plutonium Facility where uranium and plutonium fuels were manufactured and the waste pit which reportedly was never used. The two facilities had contained AEC licensed material. cursory surveys were conducted in the Remote Assembly Building, Storage Building, Lodge Engineering Building, Mock-up Building and Multiple Failure Building. A license representative stated that these buildings normally did not contain AEC licensed material. However, the Mock-up Building was used for storage of drums containing contaminated waste resulting from the clean-up of the Plutonium Facility. Also, the employee whose person was contaminated with plutonium during the December, 1973 explosion was decontaminated in the Remote Assembly Building.

5. Survey Results

- a. The Directorate of Licensing guidelines for release of licensed facilities specify that plutonium total contamination levels may not exceed an average of 500dpm or a maximum of 2500dpm alpha/100 cm². They also specify that total beta-gamma contamination may not exceed 0.4 mrad/hr at 1cm and removable beta-gamma contamination may not exceed 1000dpm/100cm².
- b. All surveys conducted by the AEC inspectors showed no contamination levels exceeding the guidelines except as follows:
 - 1) One section of the upper level of the east wall in the Gas House of the Plutonium Facility showed an average of about 800dpm/100cm² over 10 square meters. The maximum was 2000dpm. The wall was cleaned by the licensee's contractor personnel to an average of less than 500dpm alpha and a maximum of about 1000dpm as measured by the AEC inspectors.
 - 2) Wipes taken inside five sections of 1.5 inch conduit in the wall between the Pilot Area and the Weld and Load Area in the Plutonium Facility showed 200 to 235dpm alpha/100cm². On April 15, 1974 the inspectors observed that three sections had been removed from the wall. A licensee representative informed RO:I by phone on April 17, 1974 that the other two sections had been removed for disposal.

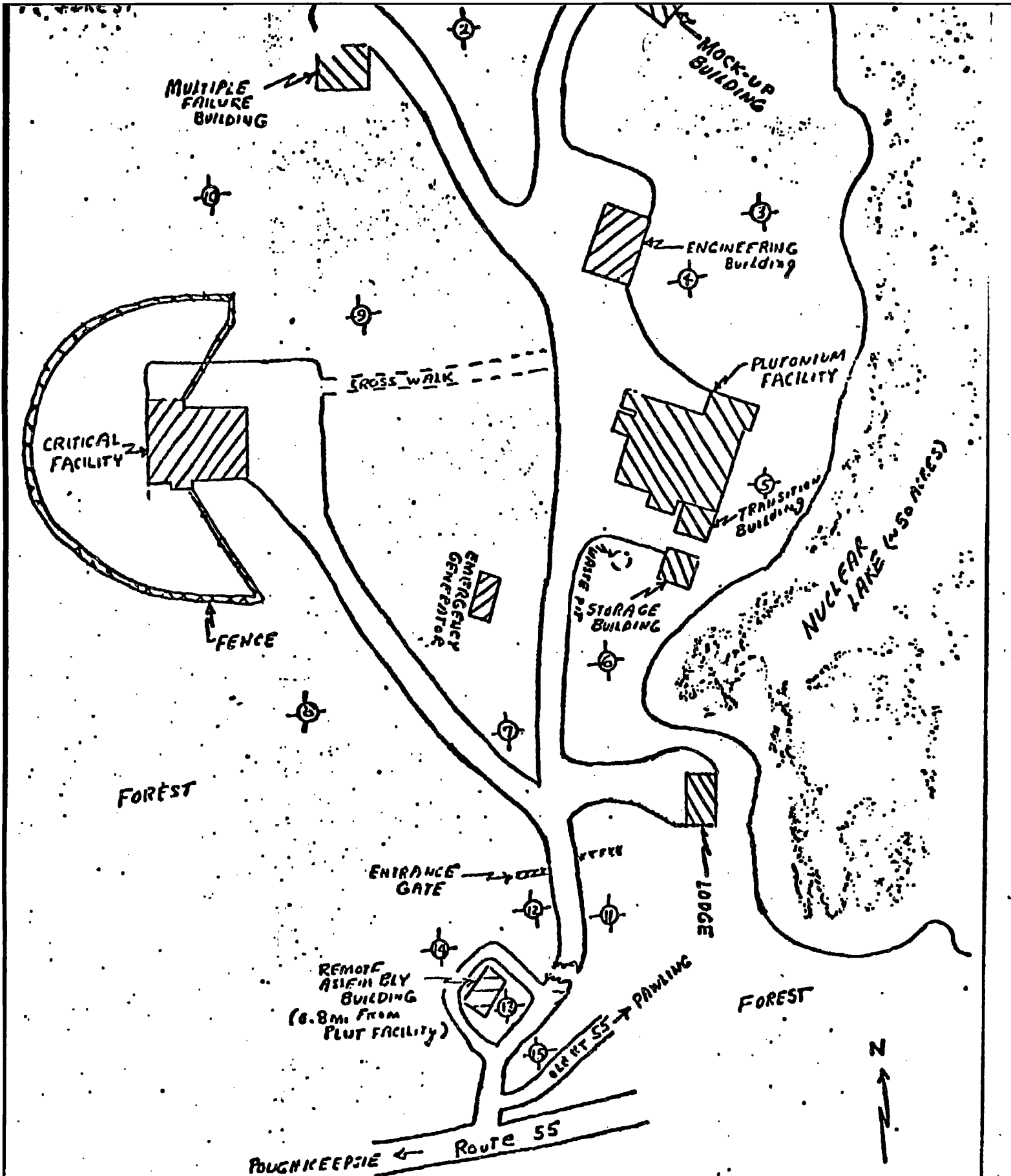


Figure 1

Sketch of Pawling Plant Layout.

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U. S. ATOMIC ENERGY COMMISSION

DIRECTORATE OF REGULATORY OPERATIONS

REGION I

RO Inspection Report No: 70-903/74-01 Docket No: 70-903
50-101/74-02 50-101
50-290/74-02 License No: 50-290
SNM 871
Licensee: Gulf Nuclear Fuels Corporation License No: R-49
Grassland Road Priority: 1
Elmsford, New York 10523 Category: (A 1) G


Location: Pawling, New York

Type of Licensee: Fuel Fabrication and Research and Test Reactor Operation

Type of Inspection: Announced Close Out Inspection

Dates of Inspection: April 9-11 and 15-16, 1974

Dates of Previous Inspection: November 26-28, 1973

Reporting Inspector: 
Phillip C. Jerman, Radiation Specialist

4-24-74
Date

Accompanying Inspectors: 
April 15 & 16, 1974 P. J. Knapp, Senior, Facilities
Radiological Protection Branch

4-24-74
Date


Date

Date

Date

Other Accompanying Personnel: None

Date

Reviewed By: 
P.J. Knapp, Senior
Facilities Radiological Protection Section

4-24-74
Date

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SUMMARY OF FINDINGS

Enforcement Action

A. Violations

None

B. Safety Items

None

License Action on Previously Identified Enforcement Items

Not applicable

Unusual Occurrences

None

Other Significant Findings

A. Current Findings

Atcor, Incorporated, Peekskill, N.Y. under contract with the licensee, surveyed the licensee's entire Pawling, N.Y. plant and carried out all work necessary to reduce contamination levels to below those specified in the, "Guidelines for Decontamination of Facilities and Equipment Prior To Release For Unrestricted Use or Termination of License for Byproduct, Source or Special Nuclear Material," issued by the Directorate of Licensing. Atcor, Inc. holds AEC Byproduct Material License No. 31-11640-01 under which the work was done. The inspection consisted of a radiation survey to verify contamination levels at the plant facilities as reported by the licensee to the AEC in letters dated March 11 and 13, 1974.

The existing contamination levels appeared to meet the Directorate of Licensing guidelines for termination of License Nos. SNM-871, R-49 and CX-25.

B. Status of Previously Reported Unresolved Items

None

Management Interview

The following individuals attended the management interview at the conclusion of the inspection on April 16, 1974.

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Gulf

J. E. Anderson, Plant Manager

Atcor

J. Swiger, President

R. Levesque, Radiation Protection Officer

AEC

P. J. Knapp

P. C. Jerman

The inspectors informed the Gulf and Atcor representatives that all instrument surveys and resurveys following necessary decontamination indicated that contamination levels met the Directorate of Licensing guidelines for release of the facilities and that wipes taken would have to be counted at RO:I. On April 17, 1974, P. C. Jerman informed J. E. Anderson that two wipes taken inside small diameter pipes which penetrated the wall between two rooms, showed excessive alpha contamination. Later that day, J. E. Anderson informed RO:I that the contaminated items had been removed for disposal.

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REPORT DETAILS

1. Persons Contacted

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P. Loysen, Gulf, Manager, Regulatory Administration
E. C. Holman, Atcor, Vice President, Operations
O. Sullivan, Atcor, Project Manager
R. Levesque, Atcor, Radiation Protection Officer

2. Material Possessed and Processed under the Licenses

- a. The Pawling Plutonium Facility operated from 1961 to 1965 under AEC contract. Since 1965, under AEC license the facility had used Pu and U for fuel development work. Early in the period, the facility included a Gamma Laboratory for studying irradiated fuel material. In December, 1972, an explosion occurred in a Pu glove box which caused significant contamination within the facility. The facility did not resume the manufacture of fuel following the explosion.
- b. The Critical Facility had housed the Pawling Lattice Test Rig since 1960 and the Proof Test Facility since 1967. At the time of this inspection the reactors had been completely dismantled and removed from the facility.

3. Instrumentation

a. Survey meters

- 1) For the alpha surveys, an Eberline PAC1SA, (Serial No. 720) was used. It was calibrated by Brookhaven National Laboratory on March 23, 1974. An Eberline Pu source (Serial No. 6786) which is certified to be 1285 cpm, 2Pi, was used to check the instrument.
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Surveys made with the E-120 s during this inspection showed no more than 0.05 mR/hr.

1211 243

b. Counting Instruments

Wipes taken over 100cm² surface area were counted for alpha in an Eberline Model SAC-4. Calibration was accomplished through the use of a certified Pu-239 source. The wipes were also counted in an Eberline Model LCS-1 with an RD-14 Beta Detector. The instrument was calibrated through the use of a certified Sr-90 source.

4. Facilities Surveyed

Figure 1 shows the location of the buildings at the Pawling site. Detailed surveys were conducted in the Critical Facility which housed the test reactors, the Plutonium Facility where uranium and plutonium fuels were manufactured and the waste pit which reportedly was never used. The two facilities had contained AEC licensed material. cursory surveys were conducted in the Remote Assembly Building, Storage Building, Lodge Engineering Building, Mock-up Building and Multiple Failure Building. A license representative stated that these buildings normally did not contain AEC licensed material. However, the Mock-up Building was used for storage of drums containing contaminated waste resulting from the clean-up of the Plutonium Facility. Also, the employee whose person was contaminated with plutonium during the December, 1973 explosion was decontaminated in the Remote Assembly Building.

5. Survey Results

- a. The Directorate of Licensing guidelines for release of licensed facilities specify that plutonium total contamination levels may not exceed an average of 500dpm or a maximum of 2500dpm alpha/100 cm². They also specify that total beta-gamma contamination may not exceed 0.4 mrad/hr at 1cm and removable beta-gamma contamination may not exceed 1000dpm/100cm².
- b. All surveys conducted by the AEC inspectors showed no contamination levels exceeding the guidelines except as follows:
 - 1) One section of the upper level of the east wall in the Gas House of the Plutonium Facility showed an average of about 800dpm/100cm² over 10 square meters. The maximum was 2000dpm. The wall was cleaned by the licensee's contractor personnel to an average of less than 500dpm alpha and a maximum of about 1000dpm as measured by the AEC inspectors.
 - 2) Wipes taken inside five sections of 1.5 inch conduit in the wall between the Pilot Area and the Weld and Load Area in the Plutonium Facility showed 200 to 235dpm alpha/100cm². On April 15, 1974 the inspectors observed that three sections had been removed from the wall. A licensee representative informed RO:I by phone on April 17, 1974 that the other two sections had been removed for disposal.

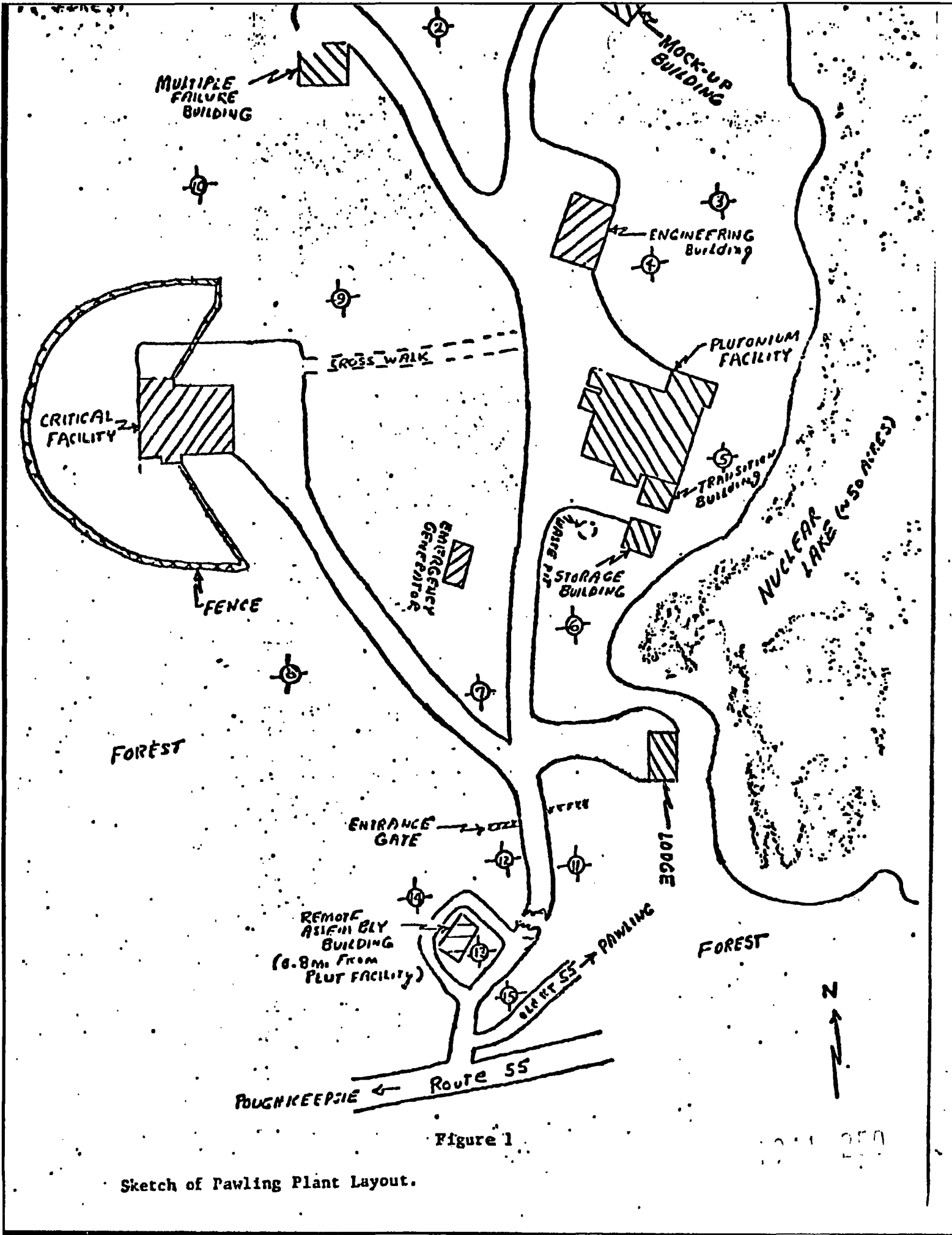


Figure 1

Sketch of Pawling Plant Layout.

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U.S. ATOMIC ENERGY COMMISSION
DIRECTORATE OF REGULATORY OPERATIONS
REGION I

POOR ORIGINAL

RO Inspection Report No.: 70-903/74-17

Docket No.: 70-903

Licensee: General Atomic Co. (GA)

License No.: SNM-871

P. O. Box 605

Priority: I

New Haven, Conn. C6503

Category: A(1)

Location: Pawling, New York

Type of Licensee: Fuel Fabrication

Type of Inspection: Announced Close Out/Environmental Independent Measurements Inspection

Dates of Inspection: September 5, 1974

Dates of Previous Inspection: September 5-6, 1974

Reporting Inspector: J.P. Stohr
fn C. Gallina, Radiation Specialist

9/19/74
Date

Accompanying Inspectors: None

Date
Date
Date
Date

Other Accompanying Personnel: _____

Date

Reviewed by: J.P. Stohr
J. P. Stohr, Senior Environmental Scientist

9/19/74
Date

P. Knapp, Senior Radiation Specialist

9/19/74
Date

SUMMARY OF FINDINGS

Enforcement Action

A. Violations

None

B. Safety Items

None

Licensee Action on Previously Identified Enforcement Action

Not applicable

Unusual Occurrences

None

Other Significant Findings

A. Current Findings

A previous inspection (RO Report No. 70-903/74-01) reviewed the decontamination of the licensee's Pawling, New York facilities by Atcor Incorporated of Peekskill, New York. Part of the Atcor report sent to the State of New York (NYS) included questionable information on soil analyses for Pu-238 and Pu-239. Subsequent to discussions with NYS personnel this area was reviewed and independent soil sampling was performed by RO:I personnel. AEC analyses were performed by Idaho Health Services Laboratory (IHSL).

Subsequent to the licensee's removing some soil immediately adjacent to the Plutonium Facility, certain areas were resampled. Results were forwarded to the AEC Directorate of Licensing.

B. Status of Previously Reported Unresolved Items

None

Management Interview

On June 14, 1974 J. P. Stohr and P. Knapp (RO:I) informed P. Loysen (GA) and J. Swiger (Atcor) that:

1. The survey assistance provided to New York State personnel had indicated no results differing from the previous surveys of AEC licensed activities on April 9-11 and 15-16, 1974. (RO Inspection Report No. 70-903/74-01)
2. The results of soil analyses provided Gulf by Atcor and sent to the State of New York had raised questions as to the accuracy of the measurements.
3. Results from the samples obtained by RO:I on June 14, 1974 would be evaluated and the information would be provided to the Directorate of Licensing for their decision as to the acceptability of the site for license termination and release for unrestricted use. (Details, Paragraph 3)

On June 28, 1974 J. P. Stohr (RO:I) telephoned P. Loysen (GA) and asked that a split of four of the original soil samples taken by Atcor be sent to INSL for their analysis. (Details, Paragraph 3)

On July 25, 1974 J. P. Stohr (RO:I) telephoned P. Loysen (GA) and informed him of the results of the soil samples obtained by the RO:I inspectors on June 14, 1974. (Details, Paragraph 3)

On August 1, 1974 J. P. Stohr (RO:I) telephoned P. Loysen (GA) and informed him of the results of the soil samples taken originally by Atcor and subsequently analyzed as a split sample by INSL. (Details, Paragraph 3)

On August 8, 1974 P. Knapp (RO:I) and G. Hamada (AEC, Directorate of Regulatory Standards) met with P. Loysen (GA) at the Pawling site and discussed the results of the soil sample analyses and the concept of as-low-as-practicable as might be applied to the Pawling site. The licensee stated that this matter would be evaluated and that a letter would be submitted to the Directorate of Licensing, AEC proposing certain actions to satisfy this concept as it applied to plutonium concentrations in soil at the Pawling site. (Details, Paragraph 4)

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DETAILS

1. Persons Contacted

P. Loysen, (GA), Manager, Regulatory Administration
P. Clemens (former Gulf employee)
J. Swiger, Atcor President
F. Strnisa, New York State Senior Industrial Scientist
H. Clow, (GA)
E. C. Holman, Vice President, Operations, Atcor
F. O. Bold, Manager, Health Physics Services, General Atomic Company,
San Diego, California

2. Atcor Soil Samples

In conjunction with their decontamination of the Pawling facilities completed early in calendar year 1974 for (GA) United Nuclear, Atcor had taken soil samples around the site and had them analyzed by Controls for Environmental Pollution, Inc., Sante Fe, New Mexico (CEP). These samples were taken in January 1974. The results of these samples were submitted by the licensee to the State of New York (NYS). (These results ranged from normal background levels to a high of 4.47 dpm/gm Pu-238 and 2.57 dpm/gm Pu-239.)

A representative of NYS telephoned RO:I on June 3, 1974 and indicated that the Atcor/CEP results raised some question as to the acceptability of the site for release. In addition NYS personnel stated that they planned to be at the site for a contamination survey on June 14, 1974. It was agreed between RO:I and NYS personnel that RO:I would also go to the Pawling site to:

- a. Assist NYS in survey activities;
- b. Review the Atcor/CEP soil sample analyses with the licensee;
- c. Take independent soil samples.

3. AEC Onsite Activity on June 14, 1974

On June 14, 1974 J. P. Stohr and P. Knapp (RO:I) assisted the NYS personnel with their surveys. No differences from the previous RO:I inspection (RO Report No. 70-903/74-01) attributable to AEC licensed activities were found.

In addition PO:I inspectors discussed with the licensee and Atcor representatives the results of the Atcor/CEP soil sample analyses. The RO:I inspectors stated that these results had been forwarded to the AEC Directorate of Licensing and that there was some question as to the validity of the results (especially for Pu-238) and also the acceptability of the site for release for unrestricted use.

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The inspectors obtained independent topsoil samples for analysis by IHSL. The results of these samples are included as Attachment 1. (These results were communicated to the licensee on July 25, 1974.)

In addition the licensee agreed to contact CEP to determine if portions of the original Atcor soil samples were still available so that aliquots could be sent to IHSL for AEC analysis. This was to be done to help determine the validity of the CEP analyses. (This was later done, and the results of these split samples are included as Attachment 2. This information was subsequently telephoned to the licensee on August 1, 1974.)

4. August 8, 1974 Meeting at Pawling Site

On August 8, 1974 the following persons met at the Pawling site to review the results of all analyses and discuss possible courses of action by the licensee to satisfy the as-low-as-practicable concept as applied to plutonium soil concentrations at the Pawling site.

P. Knapp
G. Hamada, AEC, Directorate of Regulatory Standards
P. Loysen
P. Clemens (former GA employee)
E. C. Holman, Vice President, Operations, Atcor
Frank Bold, Manager, Health Physics Services, General Atomic Company,
San Diego, California

Subsequent to this review, the licensee agreed to evaluate the matter and to submit to the Directorate of Licensing a proposed course of action to satisfy the as-low-as-practicable concept for plutonium in soil concentrations at the Pawling site.

5. AEC Onsite Activity on September 5, 1974

The licensee submitted a letter dated August 12, 1974 from P. Loysen to the Directorate of Licensing describing actions to be taken to reduce plutonium concentrations in certain areas. The actions described included soil removal.

On September 5, 1974 C. Gallina, accompanied by K. Abraham (both RO:I), went to the Pawling site to review the actions taken by the licensee and to obtain additional soil samples in the effected areas. The inspector found the actions by the licensee were as described in the aforementioned letter of August 12. Additional soil samples were obtained. Their results are included as Attachment 3.

ATTACHMENT 1

RESULTS OF AEC (RO:I) SOIL SAMPLING*

ON JUNE 14, 1974

<u>AEC</u> <u>Sample #</u>	<u>Location</u>	<u>Results in dpm/gm dry soil</u>	
		<u>Pu-238</u>	<u>Pu-239</u>
1.	Driveway to Gas House of Pu Facility	0.76±0.02	12.2±.03
2.	NE of Multiple Failure Bldg	0.028±0.004	0.30±0.01
3	North of Gas House Entrance & Pu Facility	0.001±0.003	0.11±0.01
4	Between Pu Facility and Lake	0.34±0.02	5.3±0.1

* Analyses by Idaho Health Services Laboratory

NOTE: Background levels in this area are reported to be approximately
0.04 dpm (Pu-239)/gm of soil and 0.001 dpm (Pu-238)/gm of soil.

ATTACHMENT 1

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ATTACHMENT 2

RESULTS OF AEC ANALYSES* OF SAMPLES SPLIT
WITH CONTROLS FOR ENVIRONMENTAL POLLUTION, INC.

CEP Sample #	CEP Analysis		AEC Analysis	
	Pu-238	Pu-239	Pu-238	Pu-239
1273	0.07±0.05	1.01±0.07	0.029±0.004	0.67±0.02
1282	3.40±0.14	1.35±0.09	0.023±0.004	0.45±0.02
1283	2.29±0.11	0.56±0.06	0.015±0.003	0.21±0.01
1284	4.05±0.15	0.49±0.04	0.023±0.004	0.42±0.02

* Analyses done by Idaho Health Services Laboratory
Units in dpm/gm of soil.

ATTACHMENT 2

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ATTACHMENT 3

Information on results of soil samples taken by RO:I on
September 5, 1974 will be supplied when available.

ATTACHMENT 3

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