



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

Sum-871

SEP 13 1974

H. E. Book, Chief
 Radiological and Environmental
 Protection Branch
 Directorate of Regulatory Operations
 Region V

DRAFT INSPECTION REPORT AND ENCLOSURES FOR
 GENERAL ATOMIC COMPANY INSPECTION

Enclosed is the report of the inspection in draft form as Mr. Cooley requested. Hopefully, he can easily incorporate the information into the complete inspection report. Also enclosed are the enclosures to the enforcement letter giving the violations and the safety items noted during the inspection.

/s/

W. W. Kinney
 Fuel Facilities Inspector
 Region I

Enclosures:

1. Description of Violations
2. Description of Safety Item
3. Draft of RO Inspection Report No. 70-734/74-G2

9103180481 910125
 PDR FOIA
 NORRIS90-406 PDR

12/52

OFFICE	RO: I, MSPPB	<i>[Signature]</i>	<i>[Signature]</i>		
SURNAME	Kinney	Crooker	Martin		
DATE	9/13/74	9/13	9/13		



UNITED STATES
 ATOMIC ENERGY COMMISSION
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 REGION 1
 631 PARK AVENUE
 KING OF PRUSSIA, PENNSYLVANIA 19406

Gulf Nuclear Fuel
 SEP 26 1974

General Atomic Company
 Attention: Mr. Peter Loysen
 Manager - Regulatory
 Administration
 P.O. Box 605
 New Haven, Connecticut 06503

License No. SNM-871
 Insp. No. 70-903/74-17

Gentlemen:

This refers to the inspection conducted by Dr. Gallina of this office on September 5, 1974 at the Pawling site of activities authorized by AEC License No. SNM-871 and to the discussions of our findings held by Mr. Stohr of this office with Mr. Loysen as indicated in the enclosure to this letter.

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 representative records, interviews with personnel, measurements made by the inspector, and observations by the inspector.

Within the scope of this inspection, no violations or safety items were observed.

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 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.

B/S3

OFFICE	CRESS				
SURNAME	Gallina/lc	Stohr	Knapp	Nelson	Crocker
DATE	9-23-74	9-24-74	9-24-74	9-26-74	9-25-84

8002110300

Gulf Nuclear Fuels Company

-2-

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. Nelson, Chief
Radiological and Environmental
Protection Branch

Enclosure:

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

cc: F. C. Stengel, Vice President Manufacturing

bcc (w/encls):

RO Chief, FS&EB (2)

RO:HQ (4)

L:D/D for Fuels and Mat'l

PDR

Local PDR

NSIC

RO Files

DR Central Files

State of New York

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

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. 06503

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
C. Gallico, Radiation Specialist

9/19/74
Date

Accompanying Inspectors: None

Date

Date

Date

Date

Other Accompanying Personnel: _____

Date

Reviewed by: J.P. Stohr

9/19/74
Date

J. P. Stohr, Senior Environmental Scientist

P. Knapp

P. Knapp, Senior Radiation Specialist

9/19/74
Date

8002110365

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 Inter:

On June 14, 1974 J. P. Stohr and P. Knapp (RO:I) informed E. 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 IHSL 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 IHSL. (Details, Paragraph 3)

On August 8, 1974 P. Knapp (RO:I) and C. 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)

DETAILS

1. Persons Contacted

P. Loysen, (GA), Manager, Regulatory Administration
P. Clemens (former Gulf employee)
J. Swiger, Atcor President
Y. 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 questions 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, W. F. 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 RO: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.

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:1), 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:1) 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 \pm 0.02	12.2 \pm .03
2.	NE of Multiple Failure Bldg	0.028 \pm 0.004	0.30 \pm 0.01
3	North of Gas House Entrance & Pu Facility	0.001 \pm 0.003	0.11 \pm 0.01
4	Between Pu Facility and Lake	0.34 \pm 0.02	5.3 \pm 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

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 Idal. Health Services Laboratory
Units in dpm/gm of soil.

ATTACHMENT 2

ATTACHMENT 3

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

ATTACHMENT 3