

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: SNN 871
Grassland Road Priority: J
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: [Signature] P. 4-24-74
Date

Accompanying Inspectors: [Signature] 4-24-74
Date

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

Date

Date

Date

Other Accompanying Personnel: None Date

Reviewed By: [Signature] 4-24-74
Date

P.J. Knapp, Senior
Facilities Radiological Protection Section

9202100019 910621
PDR FOIA
NORRIS90-406 PDR

3288

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.

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:1. 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:1 that the contaminated items had been removed for disposal.

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.

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, 1971 explosion was decontaminated in the Remote Assembly Building.

2

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:1 by phone on April 17, 1974 that the other two sections had been removed for disposal.

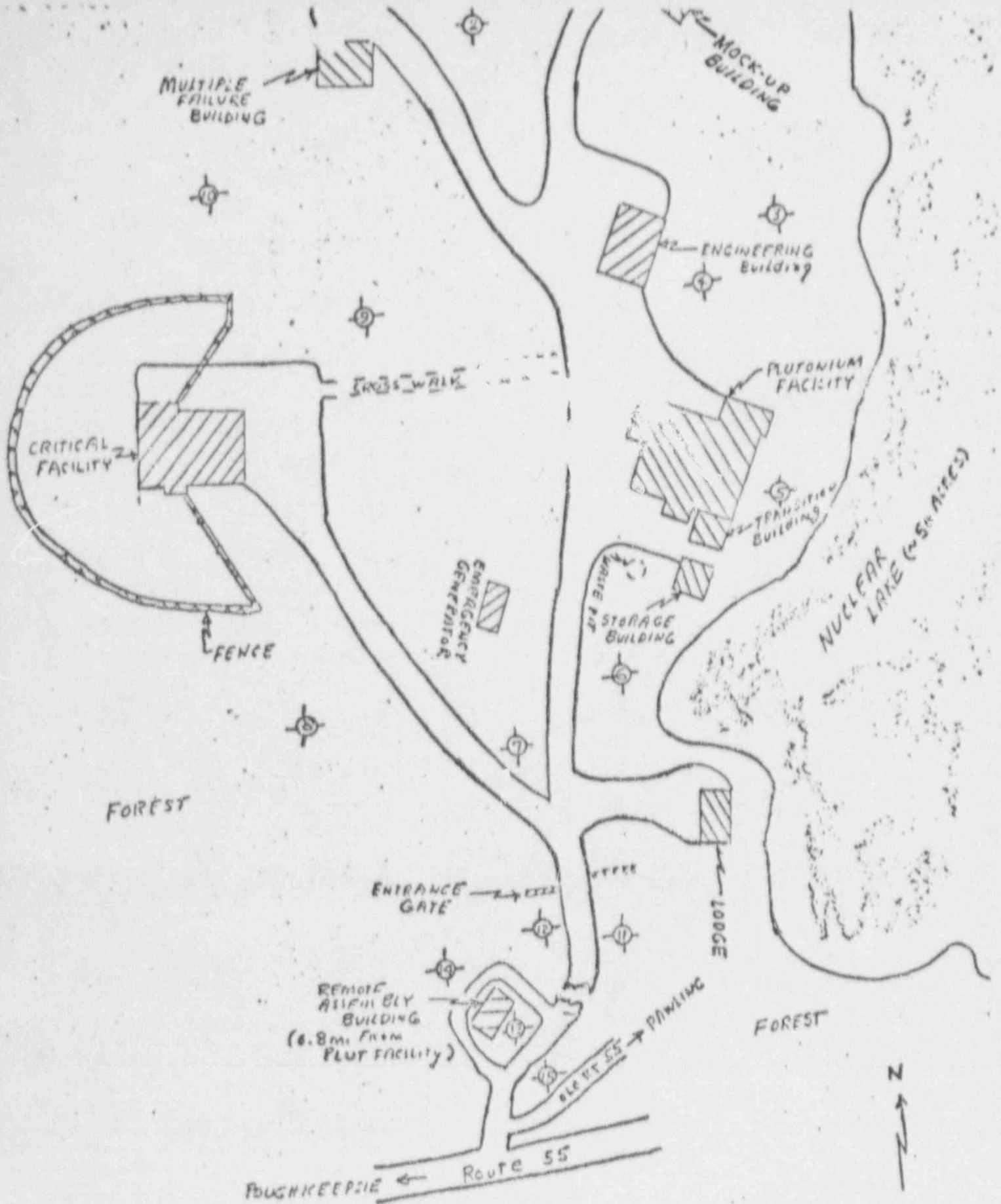
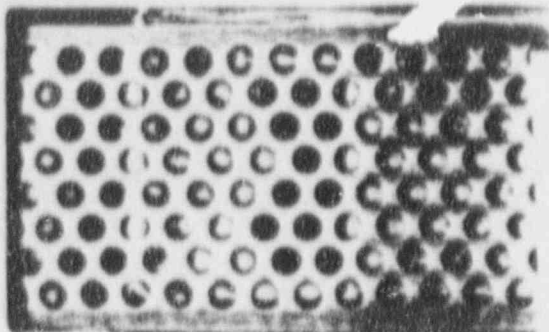


Figure 1

Sketch of Fawling Plant Layout.

Release

State Trans Energy Corp
ny 518-474-7754



518-472-4411

4⁴⁴ PM 3 June

Told him firm
he will set up

OF CALL

TO: Pete

YOU WERE CALLED BY— Fred Struis YOU WERE VISITED BY—

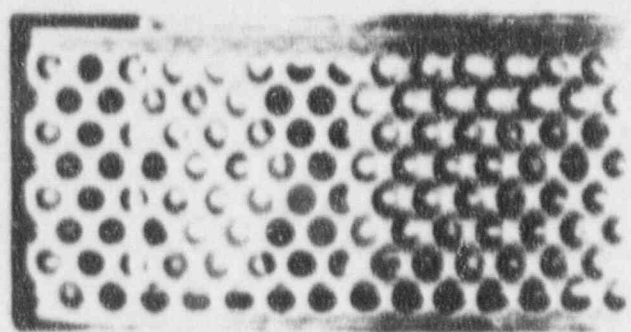
OF (Organization) N.Y. Atomic Energy Council

PLEASE CALL → PHONE NO. CODE/EXT. _____

WILL CALL AGAIN IS WAITING TO SEE YOU

RETURNED YOUR CALL WISHES AN APPOINTMENT

MESSAGE _____



518-474-7754
55

| | | |
|-------------|------|-------|
| RECEIVED BY | DATE | TIME |
| | 6/5 | 10:30 |

F/58

3 June 73

2³⁴₁₁

Went Down last week -
Soil & water samples

Piece of cement twice size of a cinder
block had spots of white paint 5" dia
NE of Multiple Failure Bldg

Near place where cables to # 1-2 Sample
#

Fiddler to 16KV were checking soil
under 5" diam hot crystal -
~ 106 dpm

Single isolated hole of concrete
Several

Concrete 6' x 8' thick
Several piles
Cement slabs
over 6' x 8' x 6 to 8" thick

Part of a hot cell disassembled
to pieces into small pieces
Piles ~ 5' high

Might
v. Low level
abuse
Shirwood Davies

As a result -

Director ^A Ben Paves Health (Stock Health Dept)
How does AEC know

inside & outside of other Buildings
how would AEC feel about
Surveying inside & outside
Buildings

Davis also raised questions
on Down limits
for Soil

P²³⁸

4000/gm of Soil

Wed 12th



FRIDAY 14th ← ← A Publd 9⁰⁰ AM

Plan ON 14th -
Rep from STATE Health -
Bernie Hold With Fiddler
Stranisa

- ① HOT CELL
- ② Soil Samples
- ③ Fidler Survey of Facil

Percy Clemmons GOLF
Joe Sweiger ATCOR

GOLF FRED Stengel

ATCOR REPORT

LAST 20 PAGES ←

Soil Sam
CONTROLS FOR
ENV POLLUTION
ON ONE PAGE
Pu 238 ← 4.5 dpm/gm
Pu 239 ← 25 dpm/gm

Clemmons ← Disassembled
Another Golf Employee ← prior to Pu work

Guinness as what should be done with

Fitzoy Clemmons - 13th /
P. Bldg - 9⁰⁰ AM -

UNITED

Have Rec'd Back
Analysing Po-

50 Release



CHAIRMAN
NEAL L. MOYLAN
COMMISSIONER OF COMMERCE

State of New York
ATOMIC ENERGY COUNCIL
Department of Commerce
99 Washington Avenue
Albany, New York 12210

STAFF COORDINATOR
DR WILLIAM E. SEYMOUR
DEPUTY COMMISSIONER
DIV. OF INDUSTRIAL SCIENCES
AND TECHNOLOGIES

June 7, 1974

MEMORANDUM

TO: Peter Knapp - Region I, U. S. AEC
FROM: Fred V. Strnisa *Fred*
SUBJECT: Gulf-United Nuclear Fuels, Pawling, New York

Enclosed per our discussion is a copy of Section 7.0 of the report prepared by Atcor, Inc., entitled "Final Survey Results After Decontamination, Gulf-United Nuclear Fuels Corporation Plutonium Facility, Pawling, New York.

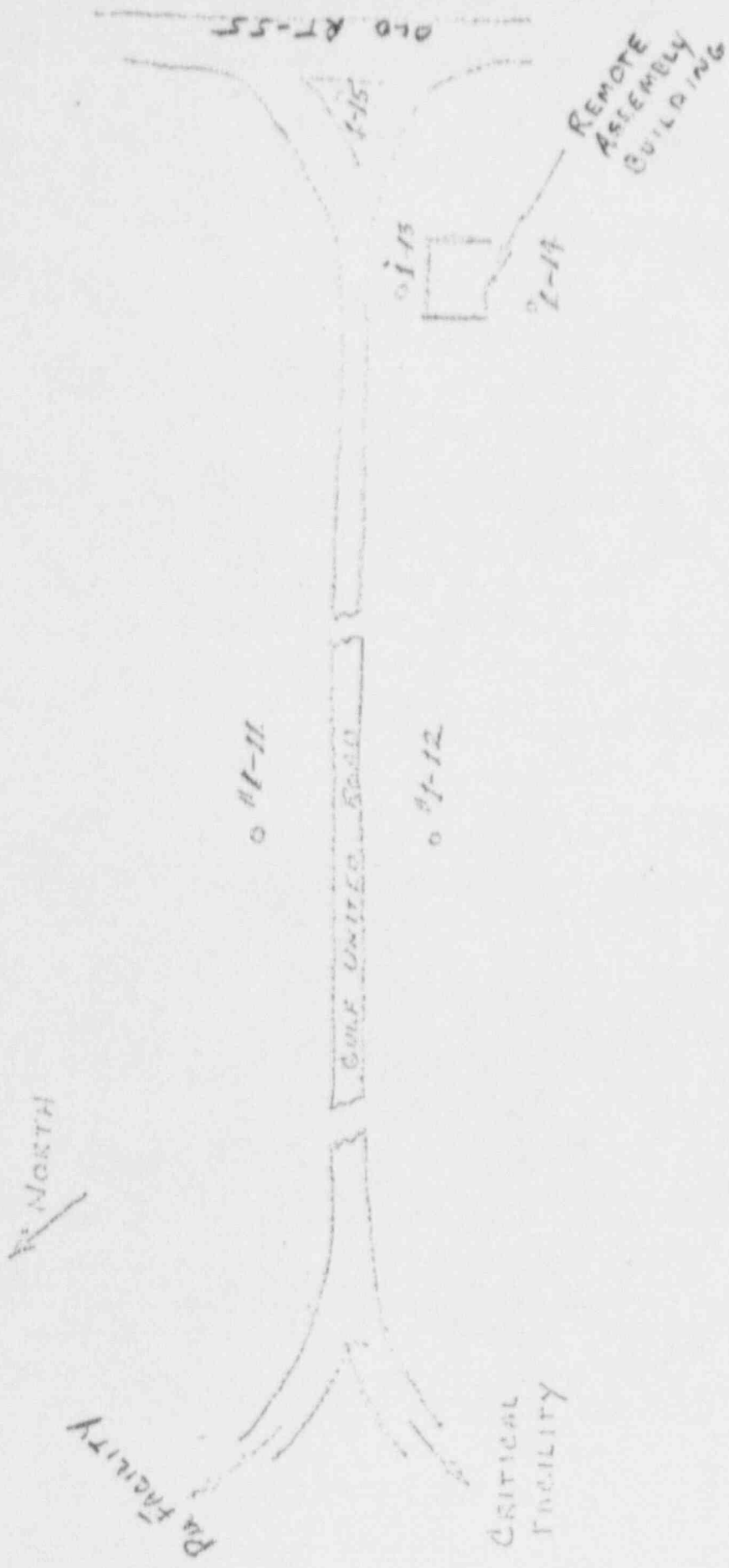
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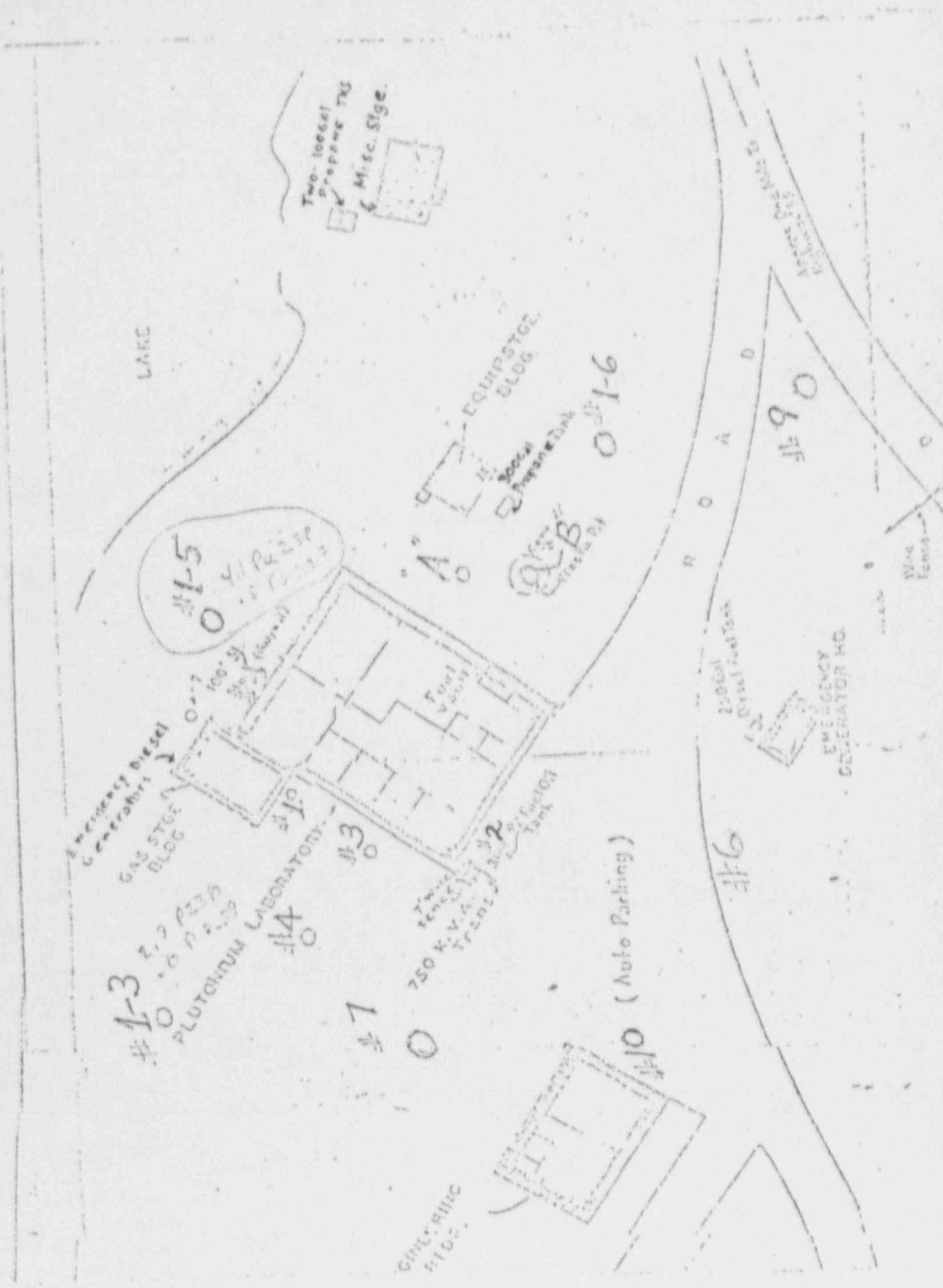
F/59

Section 7.0

Environmental Sampling

| <u>Sample Number</u> | <u>Location</u> |
|----------------------|---|
| 1. | Front of Gas House |
| 2. | Entrance to Pu Facility |
| 3. / | Driveway to Gas House |
| 4. | North of E-Spac Lab |
| 5. | Rear of Research Lab |
| 6. | Foot Path to Critical Facility |
| 7. | Between Engineering and Pu Facility |
| 8. | Front of Mock-up Door |
| 9. | Junction of Critical & Pu Facility |
| 10. | Front of Engineering Building |
| 1-1 | North-East of Mock-up Entrance |
| 1-2 / | North-East of Multiple Failure Building |
| 1-3 / | North of Gas House Entrance |
| 1-5 / | Between Pu Facility and Lake |
| 1-6 | South of Pu Facility Building |
| 1-8 | South-East of Critical Facility Parking Lot |
| (wind) 1-9 | North-East of Critical Facility Parking Lot |
| 1-10 | North-West of Critical Facility Parking Lot |
| 1-11 | 50' from road 1/2 way to RAA (Northside) |
| 1-12 | 50' from road 1/2 way to RAA (Southside) |
| 1-13 | Front Lawn Remote Assembly Building |
| 1-14 | Back Lawn Remote Assembly Building |
| 1-15 | Near GUNFC Sign (Old Rt. 119) |





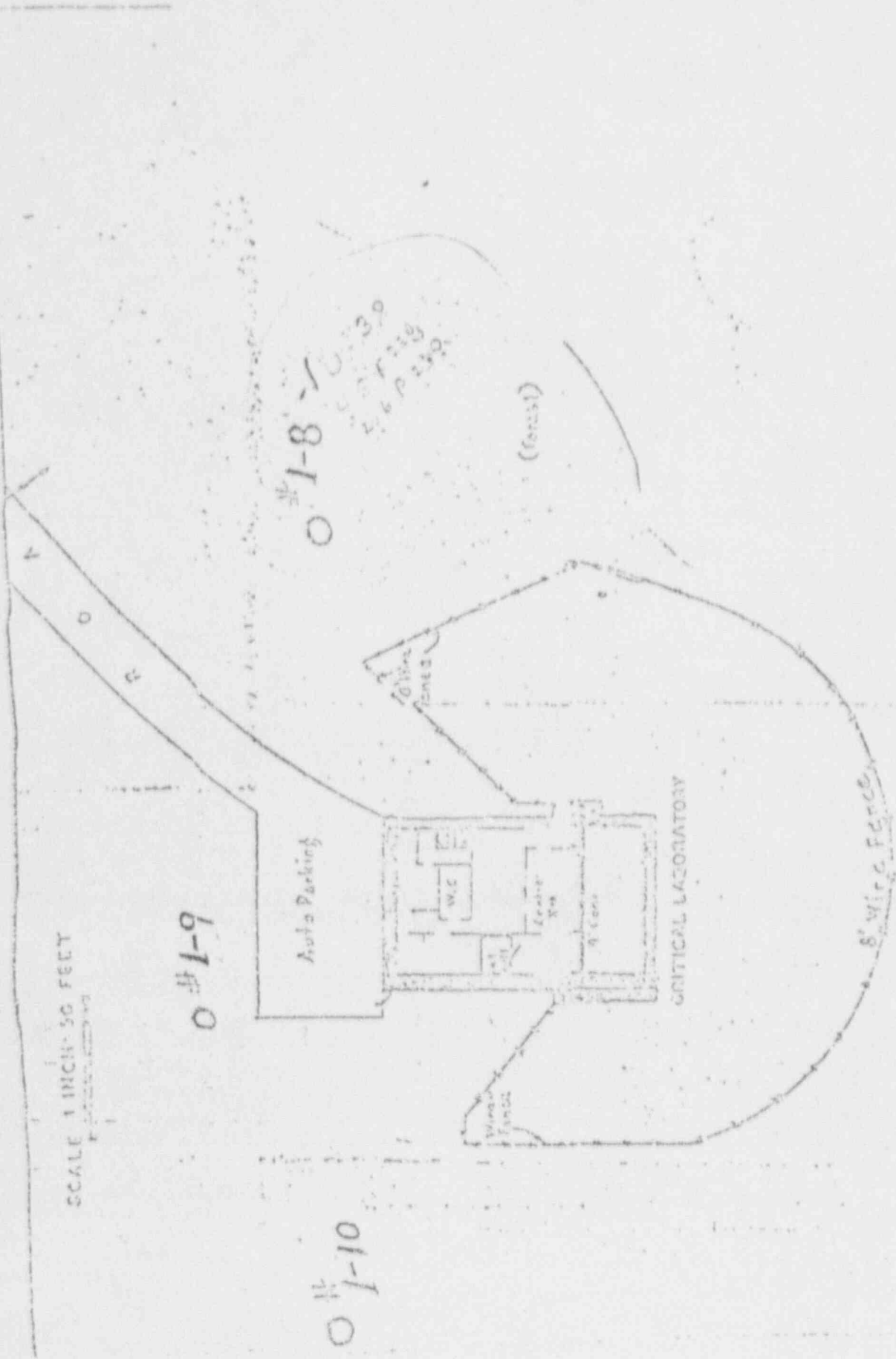
SCALE 1 INCH = 50 FEET

O #1-9

O #1-10

O #1-8

5.6 P. 219
5.6 P. 220



191238
191239
#1-1
#1-0
#1-8
#1-0



80

(Insects)

Et.

R O A D

#1-20



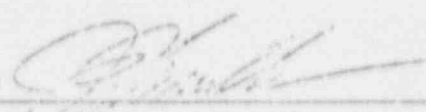
CUSTOMER Atcor, Inc.
 ATTENTION R. Lovesque
 ADDRESS Park Mall
 CITY Peekskill, New York 10566
 N. SIDE NO. 402115

Key in lab
2/23/74
See note in file
7500
 REPORT OF ANALYSIS
 2/23/74

SAMPLES RECEIVED January 29, 1974 CUSTOMER ORDER NUMBER

TYPE OF ANALYSIS Septic Tank for Isotopic Plutonium Analysis - 1 Sample

| Sample Identification | SAMPLE # | dpm/l | |
|-----------------------|----------|-------------------|------------------------|
| | | Pu238 | Pu239 |
| Septic Tank Box B-A | A | 68 [±] 2 | 0.56 [±] 0.17 |

APPROVED BY 
 James J. Mueller, President

2-10-74 PAGE 1 OF 1 PAGE

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 FEB 11 1974
 CONTROL FOR ENVIRONMENTAL POLLUTION, INC.

Controls for Environmental Pollution, Inc.

1525 Rockwood • P. O. Box 8351 • Santa Fe, New Mexico 87501 • Telephone 505 835-2547

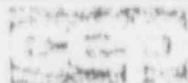
CUSTOMER Atcor, inc.
 ATTENTION R. Levesque 982 A
 ADDRESS Park Mall
 CITY Peekskill, New York 10566
 INVOICE NO. 402104

RL
 2/23/74

REPORT OF
 ANALYSIS

| | | | | |
|---|---------------|------------------------|-----------------------|------------------------|
| SAMPLES RECEIVED <u>January 28, 1974</u> | | CUSTOMER ORDER NUMBER | | |
| TYPE OF ANALYSIS <u>Septic Tank for Isotopic Uranium - 1 Sample</u> | | | | |
| <u>Sample Identification</u> | <u>SAMPLE</u> | <u>dpm/l</u> | | |
| | | <u>U 234</u> | <u>U235</u> | <u>U 238</u> |
| Septic Tank Box B-A | <i>A</i> | 0.00 [±] 0.05 | 0.0 [±] 0.05 | 0.00 [±] 0.05 |

APPROVED BY *[Signature]*
 James J. Mueller, President
 2-19-74 PAGE 1 OF 1 PAGE




Controls for Environmental Pollution, Inc.

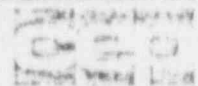
1825 Roshe • P. O. Box 5351 • Santa Fe, New Mexico 87501 • Telephone 505-938-9041

CUSTOMER Atcor, Inc.
 ATTENTION R. Levesque
 ADDRESS Park Mall
 CITY Poughkeepsie, New York 10,
 PHONE NO 402115

REPORT OF
 ANALYSIS

| | | | |
|---|---------------|-----------------------|------------|
| SAMPLES RECEIVED 1/28/74 | | CUSTOMER ORDER NUMBER | |
| TYPE OF ANALYSIS Septic Tank for Isotopic Plutonium Analysis - 1 Sample | | | |
| <u>Sample Identification</u> | | Pu-238 | Pu-239 |
| | <u>SAMPLE</u> | <u>dpm/l</u> | |
| Septic Tank Box B-A | A | 0.45±0.05* | 0.82±0.07* |
| *Rerun Analysis | | | |

APPROVED BY 
 James J. Moeller, President
 3/18/74 PAGE 1 OF 1 PAGE




Controls for Environmental Pollution, Inc.

Controls for
 R. Levesque
 Park Hall,
 Peekskill, New York 10566
 914-339-0700

DEPT. OF
 ENVIRONMENTAL
 CONSERVATION

| SAMPLE RECEIVED 1/28/74 | | CUSTOMER ORDER NUMBER | |
|--|-------------------|-----------------------|---------------------|
| TYPE OF ANALYSIS Soil for Isotopic Uranium - 5 Samples | | | |
| <u>Sample Identification</u> | <u>Sample No.</u> | <u>Analysis</u> | <u>dpm/gm (dry)</u> |
| Box B Soil | B | U-234 | 0.87±0.07 |
| | | U-235 | 0.09±0.01 |
| | | U-238 | 0.31±0.04 |
| Box B Soil | 1 | U-234 | 0.19±0.03 |
| | | U-235 | 0.14±0.02 |
| | | U-238 | 0.17±0.03 |
| Box B Soil | 2 | U-234 | 0.75±0.06 |
| | | U-235 | 0.00±0.05 |
| | | U-238 | 0.33±0.04 |
| Box B Soil | 3 | U-234 | 0.00±0.05 |
| | | U-235 | 0.00±0.05 |
| | | U-238 | 0.00±0.05 |
| Box B Soil | 4 | U-234 | 0.16±0.05 |
| | | U-235 | 0.00±0.05 |
| | | U-238 | 0.63±0.05 |

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 3/18/74 PAGE 1 OF 1 PAGES

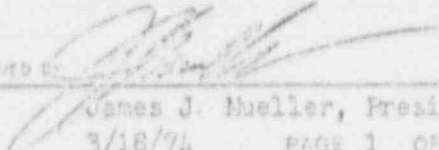
CONTROL FOR ENVIRONMENTAL
 POLLUTION, INC.
 INDUSTRIAL DIV.

Controls for Environmental Pollution, Inc.

CUSTOMER Atcor, Inc.
ATTENTION R. Levesque
ADDRESS Park Hill
CITY Peeksville, New York 10566
PHONE NO. 403065

REPORT OF
ANALYSIS

| | | | |
|---|-------------------|-----------------------|---------------------|
| SAMPLE RECEIVED 1/28/74 | | CUSTOMER ORDER NUMBER | |
| TYPE OF ANALYSIS Soil for Isotopic Plutonium Analysis - 5 Samples | | | |
| <u>Sample Identification</u> | <u>Sample No.</u> | <u>Analysis</u> | <u>dpm/gm (dry)</u> |
| Box B Soil | B | Pu-238 | 0.79±0.07 |
| | | Pu-239 | 0.05±0.01 |
| Box B Soil | 1 | Pu-238 | 0.34±0.04 |
| | | Pu-239 | 0.87±0.07 |
| Box B Soil | 2 | Pu-238 | 0.00±0.05 |
| | | Pu-239 | 0.93±0.06 |
| Box B Soil | 3 | Pu-238 | 0.07±0.05 |
| | | Pu-239 | 1.01±0.07 |
| Box B Soil | 4 | Pu-238 | 0.00±0.05 |
| | | Pu-239 | 0.18±0.02 |

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3/18/74 PAGE 1 OF 1 PAGE


CONTROLLED DOCUMENT
COPY 03
EXPIRES 1974

Controls for Environmental Pollution, Inc.

CUSTOMER Atcor, Inc.
 ATTENTION R. Levesque
 ADDRESS Park Hall
 CITY Peeksville, New York 10566
 PHONE NO. 403072

REPORT OF
 ANALYSIS

| SAMPLES RECEIVED 1/28/74 | | CUSTOMER ORDER NO. 388 | |
|--|-------------------|------------------------|---------------------|
| TYPE OF ANALYSIS Soil for Isotopic Uranium - 6 Samples | | | |
| <u>Sample Identification</u> | <u>Sample No.</u> | <u>Analysis</u> | <u>dpm/gm (dry)</u> |
| Box C Soil | 5 | U-234 | 0.16±0.10 |
| | | U-235 | 0.00±0.05 |
| | | U-238 | 0.00±0.05 |
| Box C Soil | 6 | U-234 | 0.21±0.15 |
| | | U-235 | 0.00±0.05 |
| | | U-238 | 0.00±0.05 |
| Box C Soil | 7 | U-234 | 0.34±0.25 |
| | | U-235 | 0.00±0.05 |
| | | U-238 | 0.00±0.05 |
| Box C Soil | 8 | U-234 | 0.00±0.05 |
| | | U-235 | 0.00±0.05 |
| | | U-238 | 0.00±0.05 |
| Box C Soil | 9 | U-234 | 0.18±0.09 |
| | | U-235 | 0.00±0.05 |
| | | U-238 | 0.16±0.09 |
| Box C Soil | 10 | U-234 | 0.75±0.10 |
| | | U-235 | 0.00±0.05 |
| | | U-238 | 0.45±0.31 |

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 3/18/74 PAGE 1 OF 1 PAGE

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 CONTROL


Control: for Environmental Pollution, Inc.

1525 Polaris • P. O. Box 5351 • Santa Fe, New Mexico 87501 • Telephone 505 832-8841

COMPANY Aloor, Inc.
 ATTENTION R. Levesque
 ADDRESS Park Mall
 CITY Peekskill, New York 10566
 PHONE NO 403066

DEPT OF
 ANALYSIS

| | | | |
|---|-------------------|-----------------------|---------------------|
| SAMPLES RECEIVED 1/28/74 | | CUSTOMER ORDER NUMBER | |
| TYPE OF ANALYSIS Soil for Isotopic Plutonium Analysis - 6 Samples | | | |
| <u>Sample Identification</u> | <u>Sample No.</u> | <u>Analysis</u> | <u>dpm/cm (dry)</u> |
| Box C Soil | 5 | Pu-238 | 0.06±0.02 |
| | | Pu-239 | 0.05±0.02 |
| Box C Soil | 6 | Pu-238 | 0.45±0.05 |
| | | Pu-239 | 0.27±0.03 |
| Box C Soil | 7 | Pu-238 | 0.00±0.05 |
| | | Pu-239 | 0.00±0.05 |
| Box C Soil | 8 | Pu-238 | 0.00±0.05 |
| | | Pu-239 | 0.00±0.05 |
| Box C Soil | 9 | Pu-238 | 0.05±0.02 |
| | | Pu-239 | 0.03±0.01 |
| Box C Soil | 10 | Pu-238 | 0.00±0.05 |
| | | Pu-239 | 0.00±0.05 |

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 3/18/74 PAGE 1 OF 1 PAGE


CONTROL FOR ENVIRONMENTAL POLLUTION, INC.
 1225 PEARSON • P. O. BOX 5551 • SANTA FE, NEW MEXICO 87501 • TELEPHONE 505 922-2211

Controls for Environmental Pollution, Inc.

CUSTOMER Atcor, Inc.
 ATTENTION R. Loverque
 ADDRESS Park Mall
 CITY Peekskill, New York 10566
 INVOICE NO. 403073

REPORT OF
 ANALYSIS

| | | | |
|--|-----------------|-----------------------|---------------------|
| SAMPLES RECEIVED 1/28/74 | | CUSTOMER ORDER NUMBER | |
| TYPE OF ANALYSIS Soil for Isotopic Uranium - 4 Samples | | | |
| <u>Sample Identification</u> | <u>SAMPLE #</u> | <u>Analysis</u> | <u>dbm/gm (dry)</u> |
| Box D Soil | 1/1/74 | U-234 | 0.00±0.05 |
| | | U-235 | 0.00±0.05 |
| | | U-238 | 0.00±0.05 |
| Box D Soil | 1/2/74 | U-234 | 0.00±0.05 |
| | | U-235 | 0.00±0.05 |
| | | U-238 | 0.00±0.05 |
| Box D Soil | 1/3/74 | U-234 | 0.18±0.10 |
| | | U-235 | 0.00±0.05 |
| | | U-238 | 0.00±0.05 |
| Box D Soil | 1/5/74 | U-234 | 0.00±0.05 |
| | | U-235 | 0.00±0.05 |
| | | U-238 | 0.00±0.05 |

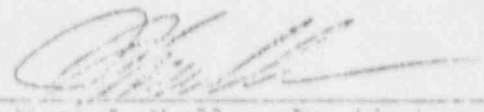
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 3/18/74 PAGE 1 OF 1 PAGE

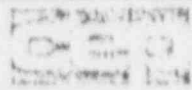
CONTROL FOR ENVIRONMENTAL POLLUTION, INC.
 1025 RIVERSIDE
 SANTA FE, N.M.

Controls for Environmental Pollution, Inc.

CUSTOMER Atcor, Inc.
 ANALYST R. Levesque
 ADDRESS Park Mall
 CITY Peekskill, New York 10566
 PHONE NO. 403068

| | | | |
|---|--|-----------------------|--------------------|
| SAMPLES RECEIVED 1/28/74 | | CUSTOMER ORDER NUMBER | |
| TYPE OF ANALYSIS Soil for Isotopic Plutonium Analysis - 4 Samples | | | |
| <u>Sample Identification</u> | <u>SAMPLE #</u> <u>Date Collected</u> | <u>Analysis</u> | <u>dm/gm (dry)</u> |
| Box D Soil | 1/1/74 | Pu-238 | 1.92±0.10 |
| | | Pu-239 | 0.43±0.05 |
| Box D Soil | 1/2/74 | Pu-238 | 3.40±0.14 |
| | | Pu-239 | 1.35±0.09 |
| Box D Soil | 1/3/74 | Pu-238 | 2.29±0.11 |
| | | Pu-239 | 0.56±0.06 |
| Box D Soil | 1/5/74 | Pu-238 | 4.05±0.15 |
| | | Pu-239 | 0.49±0.04 |

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 3/18/74 PAGE 1 OF 1 PAGE




Controls for Environmental Pollution, Inc.

1888 Pecos • P. O. Box 5331 • Santa Fe, New Mexico 87501 • Telephone 505 938-9241

CUSTOMER Atour, Inc.
 ATTENTION R. Levesque
 ADDRESS Park Mall
 CITY Peekskill, New York 10566
 PHONE NO. 433274

REPORT OF
 ANALYSIS

| SAMPLES RECEIVED 1/23/74 | | CUSTOMER ORDER NUMBER | |
|---|--|-----------------------------|---|
| TYPE OF ANALYSIS Isotopic Uranium in Soil - 8 Samples | | | |
| <u>Sample Identification</u> | <u>SAMPLE #</u> <u>Date Collected</u> | <u>Analysis</u> | <u>grs/g (dry)</u> |
| Box E Soil | 1/06/74 | U-234 | 0.2±0.1 |
| | | U-235 | 0.0±0.1 |
| | | U-238 | 0.1±0.1 |
| Box E Soil | 1/08/74 | U-234 | 0.1±0.1 |
| | | U-235 | 0.0±0.1 |
| | | U-238 | 0.0±0.1 |
| Box E Soil | 1/09/74 | U-234 | 0.1±0.1 |
| | | U-235 | 0.1±0.1 |
| | | U-238 | 0.1±0.1 |
| Box E Soil | 1/10/74 | U-234 | 0.2±0.1 |
| | | U-235 | 0.1±0.1 |
| | | U-238 | 0.1±0.1 |
| Box E Soil | 1/11/74 | U-234 | 0.1±0.1 |
| | | U-235 | 0.0±0.1 |
| | | U-238 | 0.1±0.1 |
| Box E Soil | 1/12/74 | U-234 | 0.0±0.1 |
| | | U-235 | 0.0±0.1 |
| | | U-238 | 0.0±0.1 |
| Box E Soil | 1/13/74 | U-234 | 0.9±0.1 |
| | | U-235 | 0.0±0.1 |
| | | U-238 | 0.5±0.1 |
| Box E Soil | 1/14/74 | U-234 | 1.7±0.1 |
| | | U-235 | 0.3±0.1 |
| | | U-238 | 0.1±0.1 |
| | | APPROVED BY |  |
| | | James J. Mueller, President | |
| | | 3/18/74 | PAGE 1 OF 1 PAGE |

PROPERTY
 OF
 CONTROLS INC.

Controls for Environmental Pollution, Inc.

CUSTOMER Atcor, Inc.
 ATTENTION R. Levesque
 ADDRESS Park Hall
 CITY Peckeville, New York 10566
 INVOICE NO. 403069

REPORT OF
 ANALYSIS

| SAMPLES RECEIVED 1/28/74 | | CUSTOMER ORDER NUMBER | |
|---|----------|-----------------------|--------------|
| TYPE OF ANALYSIS Soil for Isotopic Plutonium Analysis - G Samples | | | |
| Sample Identification | SAMPLE # | Analysis | dpn/gm (dry) |
| Box E Soil | 1/06/74 | Pu-238 | 0.68±0.06 |
| | | Pu-239 | 0.37±0.04 |
| Box E Soil | 1/08/74 | Pu-238 | 4.47±0.16 |
| | | Pu-239 | 2.57±0.12 |
| Box E Soil | 1/09/74 | Pu-238 | 0.68±0.06 |
| | | Pu-239 | 0.16±0.02 |
| Box E Soil | 1/10/74 | Pu-238 | 1.82±0.10 |
| | | Pu-239 | 0.59±0.06 |
| Box E Soil | 1/11/74 | Pu-238 | 0.81±0.07 |
| | | Pu-239 | 0.41±0.05 |
| Box E Soil | 1/12/74 | Pu-238 | 1.46±0.10 |
| | | Pu-239 | 0.44±0.05 |
| Box E Soil | 1/13/74 | Pu-238 | 0.19±0.09 |
| | | Pu-239 | 0.03±0.05 |
| Box E Soil | 1/14/74 | Pu-238 | 0.36±0.04 |
| | | Pu-239 | 0.08±0.02 |


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APPROVED BY *[Signature]*
 James J. Mueller, President
 3/18/74 PAGE 1 OF 1 PAGE

Controls for Environmental Pollution, Inc.
 1925 Picara • P. O. Box 8081 • Santa Fe, New Mexico 87501 • Telephone 803 862-6141

LAWRENCE ATOR, Inc.
 Attention: R. Lovesque
 Address: Park Mall
 City: Parkville, New York 10566
 PAT. OR. NO. 403071

REPORT OF
 ANALYSIS

| | | | |
|--|--|-----------------------|---------------------|
| SAMPLES RECEIVED 1/28/74 | | CUSTOMER ORDER NUMBER | |
| TYPE OF ANALYSIS Soil for Isotopic Uranium - 1 Sample | | | |
| <u>Sample Identification</u> | <u>SAMPLE #</u> Soil <i>JK</i> | <u>Analysis</u> | <u>dpm/gm (dry)</u> |
| Box E Soil | 1/15/74 | U-234 | 0.00±0.05 |
| | | U-235 | 0.00±0.05 |
| | | U-238 | 0.27±0.03 |
| APPROVED BY  James C. Mueller, President 3/18/74 | | | |
| PAGE 1 OF 1 PAGE | | | |

RECEIVED
 3/18/74


Controls for Environmental Pollution, Inc.

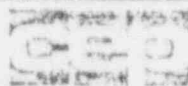
328 Route 6 • P. O. Box 5331 • Santa Fe, New Mexico 87501 • Telephone: 505 992-8541

CUSTOMER Atcor, Inc.
ATTENTION R. Levesque
ADDRESS Park Mall
CITY Peeksville, New York 10566
RMS DE NO. 403067

REPORT OF
ANALYSIS

| | | | |
|--|-----------------------|-----------------------|---------------------|
| SAMPLES RECEIVED 1/28/74 | | CUSTOMER ORDER NUMBER | |
| TYPE OF ANALYSIS Soil for Isotopic Plutonium Analysis - 1 Sample | | | |
| <u>Sample Identification</u> | <u>Date Collected</u> | <u>Analysis</u> | <u>dpm/gm (dry)</u> |
| Box E Soil | 1/15/74 | Pu-238 | 0.00±0.05 |
| | | Pu-239 | 0.00±0.05 |

APPROVED BY 
James J. Mueller, President
3/18/74 PAGE 1 OF 1 PAGE



Controls for Environmental Pollution, Inc.

2223 Rosino • P. O. Box 5351 • Santa Fe, New Mexico 87501 • Telephone: 303 982-2241

ROUTINE SPECIAL

U.S. ATOMIC ENERGY COMMISSION
IDAHO OPERATIONS OFFICE
ANALYTICAL CHEMISTRY BRANCH
SAMPLE RECORD SHEET

HEALTH SERVICES
LABORATORY
50255

SERIAL NO. 2

SAMPLE FROM: RO: I KOF
COLLECTED BY: J.P. STDRR

DATE SUBMITTED: 6/17/74
ANALYSIS COMPLETED: 7/9/74

ANALYZED BY: Sto

| NO. | DATE | HOUR | SAMPLE DESCRIPTION | ANAL. FOR | INST. USED | -35 Mesh QUANT. USED | TIME CNTD. | COUNT TIME | TOTAL COUNT | GROSS COUNT C/ | BKGD. C/40 | NET COUNT C/ | RESULTS D/m/g |
|-----|------|------|--------------------|-------------|------------|----------------------|------------|------------|-------------|----------------|------------|--------------|----------------|
| | | | | | | | | | | | | | |
| 1 | 6/14 | | SOIL | | 1 | g | 190 | 1000 | 2089 | 3 | 0 | 2720 | 0.76 ± 0.02 |
| 1 | 6/14 | | FRDW | | 1 | | 190 | 1000 | 33436 | 0 | 0 | 2720 | 12.2 ± 0.3 |
| 2 | 6/14 | | SOIL | DRWLK, N.Y. | 3 | | 190 | 900 | 61 | 3 | 3 | 2053 | 0.028 ± 0.001 |
| 2 | 6/14 | | SOIL | | 3 | | 190 | 900 | 612 | 0 | 0 | 2053 | 0.30 ± 0.01 |
| 3 | 6/14 | | SOIL | | 4 | | 190 | 1002 | 23 | 22 | 22 | 2278 | 0.001 ± 0.0003 |
| 3 | 6/14 | | SOIL | | 4 | | 190 | 1002 | 247 | 3 | 3 | 2278 | 0.107 ± 0.0007 |
| 4 | 6/14 | | SOIL | | 2 | | 190 | 1084 | 761 | 1 | 1 | 2234 | 0.34 ± 0.02 |
| 4 | 6/14 | | SOIL | | 2 | | 190 | 1084 | 11885 | 1 | 1 | 2234 | 5.3 ± 0.1 |
| 1 | | | Dry Weight, g | | | | | | | | | | |
| | | | -35 Mesh | | | | | | | | | | |
| | | | +35 Mesh | | | | | | | | | | |
| 1 | | | 257 | | | | | | | | | | |
| 2 | | | 373 | | | | | | | | | | |
| 3 | | | 510 | | | | | | | | | | |
| 4 | | | 327 | | | | | | | | | | |

NOTIFIED: J.P. Storr TIME: 6:15, 7/9/74 RESAMPLING: 8 YES: NO:
RECOMMENDED: APPROVED: D.R. [Signature] SECTION CHIEF