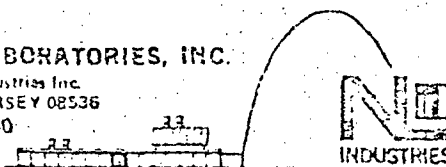


INDUSTRIAL REACTOR LABORATORIES, INC.

Subsidiary of N. L. Industries Inc.  
PLAINSBORO, NEW JERSEY 08536  
609-799-1800



4447

November 28, 1977

Mr. James A. Jones  
United States  
Nuclear Regulatory Commission  
Radioisotopes Licensing Branch  
Division of Fuel Cycle and  
Material Safety  
Washington, D.C. 20555

Mr. John White  
USNRC - Region 1  
Office of Inspection  
and Enforcement  
631 Park Avenue  
King of Prussia, PA 19406

Subject: Report of IRL Site Restoration and  
Follow-up Radiological Survey

Reference: By-Product Materials License #29-03686-02

Gentlemen:

Please find enclosed detailed information of IRL site restoration and subsequent follow-up surveys. The November 22nd letter from ATCOR indicates a drum containing cement chips and non-contaminated items having radiation warning labels. The drum containing chips has been transported to NL Industries Wilmington site and will be retained under the Wilmington license until transported for burial. All non-contaminated items having radiation warning labels and any other indications of the presence of radiological material have been removed.

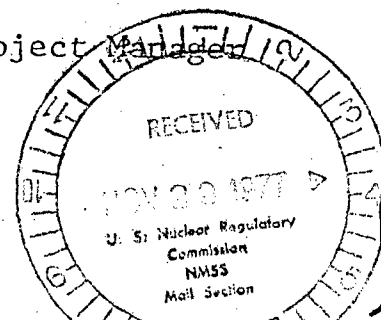
In consideration of the foregoing, we respectfully request final survey by Inspections and Enforcement and continuation of the release proceedings of the By-Product Materials License. If you have any questions regarding this information, please feel free to contact me.

Very truly yours,

David W. Leigh  
Decommissioning Project Manager

DWL/ljl

Enclosure





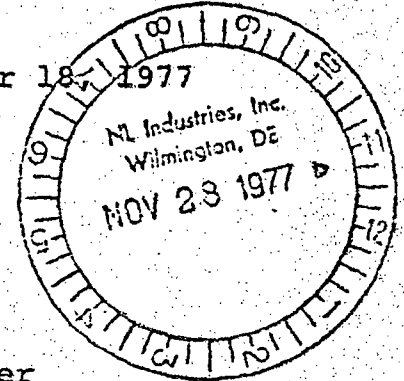
OPS 1010  
Job 2149

4447

PARK MALL, PEEKSKILL, NEW YORK 10566 TEL: 914-739-9000 TELEX: 969535

November 18, 1977

NL Industries, Inc.  
Nuclear Division  
Foot of West Street  
Wilmington, Delaware 19081



Attention: Mr. David W. Leigh  
IRL Decommissioning Project Manager

Subject: IRL Site Restoration and Follow-up  
Radiological Survey


Gentlemen:

ATCOR has completed the site restoration project. During the performance of this project, various surveys were conducted. Enclosure 1, which is a memo from Mr. George Williams to the undersigned describes the effort and documents the results of surveys conducted.

One drum of radioactive waste containing cement chips and noncontaminated items having radiation warning labels has been stored in the reactor dome. ATCOR will make arrangements for transportation and burial of this container.

I will inspect the IRL site restoration, recheck the reported radiation levels, and load the previously described waste before November 28, 1977.

Very truly yours,

  
Robert G. Levesque  
Radiation Safety Officer

RGL:nd

Enclosure

cc: T. Holman  
O. Sullivan

14 November 1977

4447

To: R. G. Levesque  
From: G. Williams

## IRL Site Restoration

Tuesday 11-1-77

1. Identified spots as defined in NRC Rpt. Para 5.2 South Corridor which were in HLL Counting room. Areas E, F and G were removed and now read 0.1 m/hr, 0.1 m/hr and 0.08 m/hr respectively as measured at 1 cm.
2. Don Holmans crew, Robert Smith and Sydney Marble commenced filling in excavated areas around HVT Storage Tank and Pump Room.
3. Two piles of clean rubble in frst. shop shoveled into excavation.

Wednesday 11-2-77

1. Don Holmans crew bringing in fill for SYC. Cannot fit small diesel bucket around Pool Area into West Air lock. Wheel barrows were being used. Small Diesel bucket used to start on Orion Pad area, prototype gardens

Thursday 11-3-77

Isotope garden. Tamped. Hot cell corridor area done  
2. Continued to fill SYC

Friday 11-4-77

1. Don Holman crew hauling in fill.
2. Continued wheel barreling fill to SYC after one new section of sewage pipe installed and fill tamped. Upon day completion two pipe sections re installed and fill tamped.

Monday 11-7-77

1. Received three men to work
2. Tried to split crew up to work SYC, East Corridor and 10K Tank area simultaneously. However due to excessive rain D. Holman could not haul fill and would not run Dozer to fill 10K area.
3. Continued filling SYC and commenced filling excavation in HLL.

Tuesday 11-8-77

1. Continuing to fill, Tamp SYC and HLL counting room
2. Holman will still not use Dozer in 10K or Waste Evap area due to mud.
3. Hauling in clean fill

Tamped, HLL excavation completed and Tamped. Now can get to instrument shop and East Corridor

Thursday 11-10-77

1. Instrument shop completed and Tamped. Filling and Tamping East Corridor
2. Holman pumping water out of 10K Basin with mud Hog
3. Hauling fill to door of East Corridor
4. Started filling excavation as defined in NRC report Figure 6

Friday 11-11-77

1. All inside excavations completed and Tamped
2. Remainder of rubble into 10K Basin
3. Continued filling Waste Process. area
4. Remainder of fill in Dome and by East Corridor placed in 10K Basin
5. Area defined in NRC Report Figure 7 scrapped and placed in 10K Basin

all levels are in mass/hr at 1 cm from fill after  
Tamping.

Figure 2 South Corridor Excavation

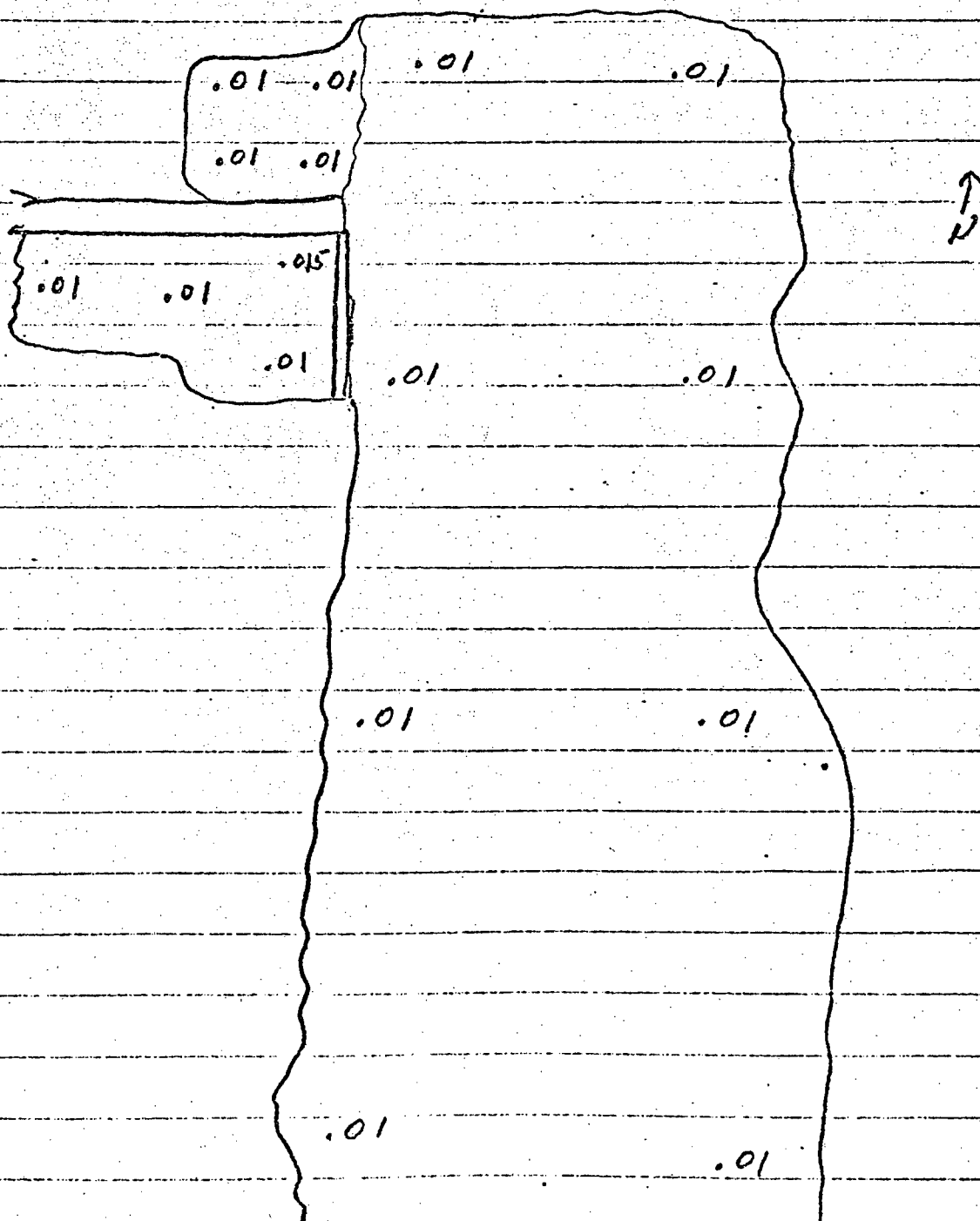


Figure 3 East Corridor Excavation

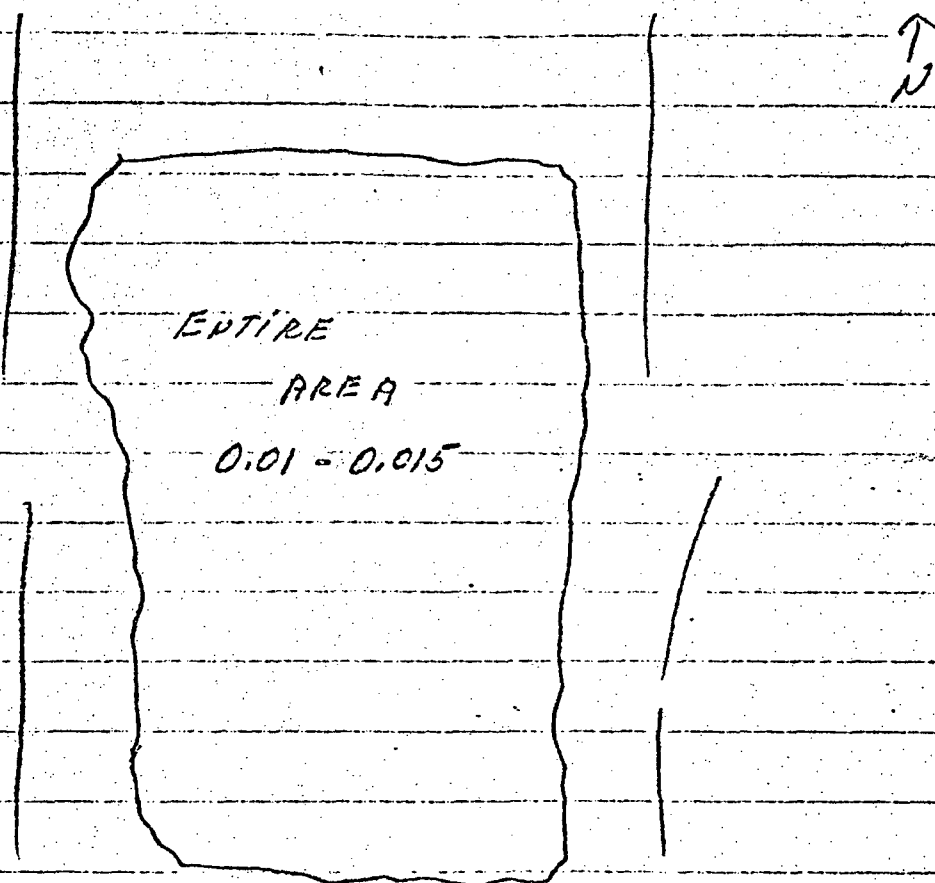


Figure 4 Hot Cell Corridor

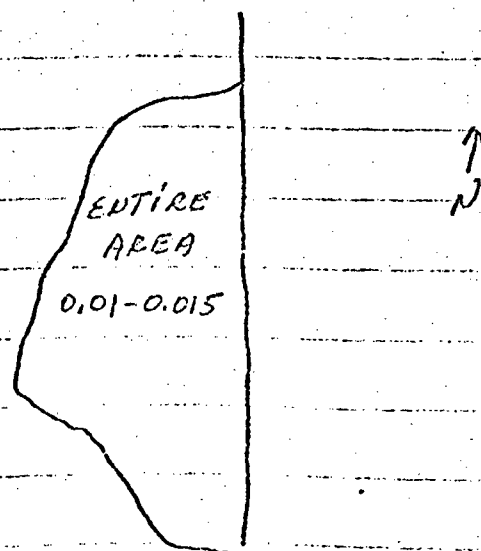


Figure 5 Decon Pan Area

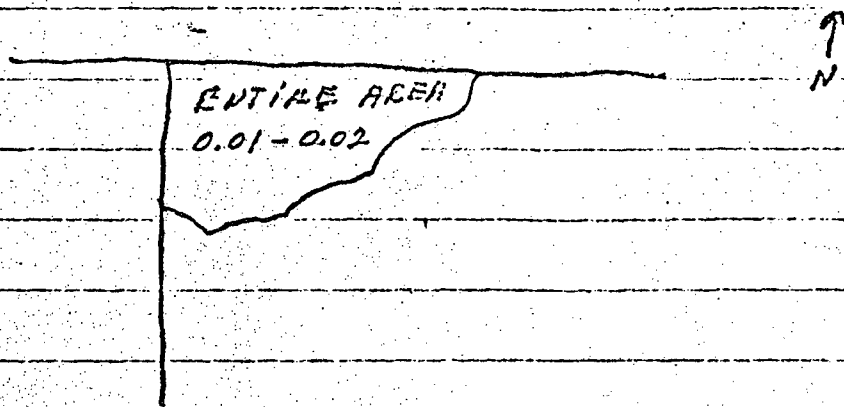
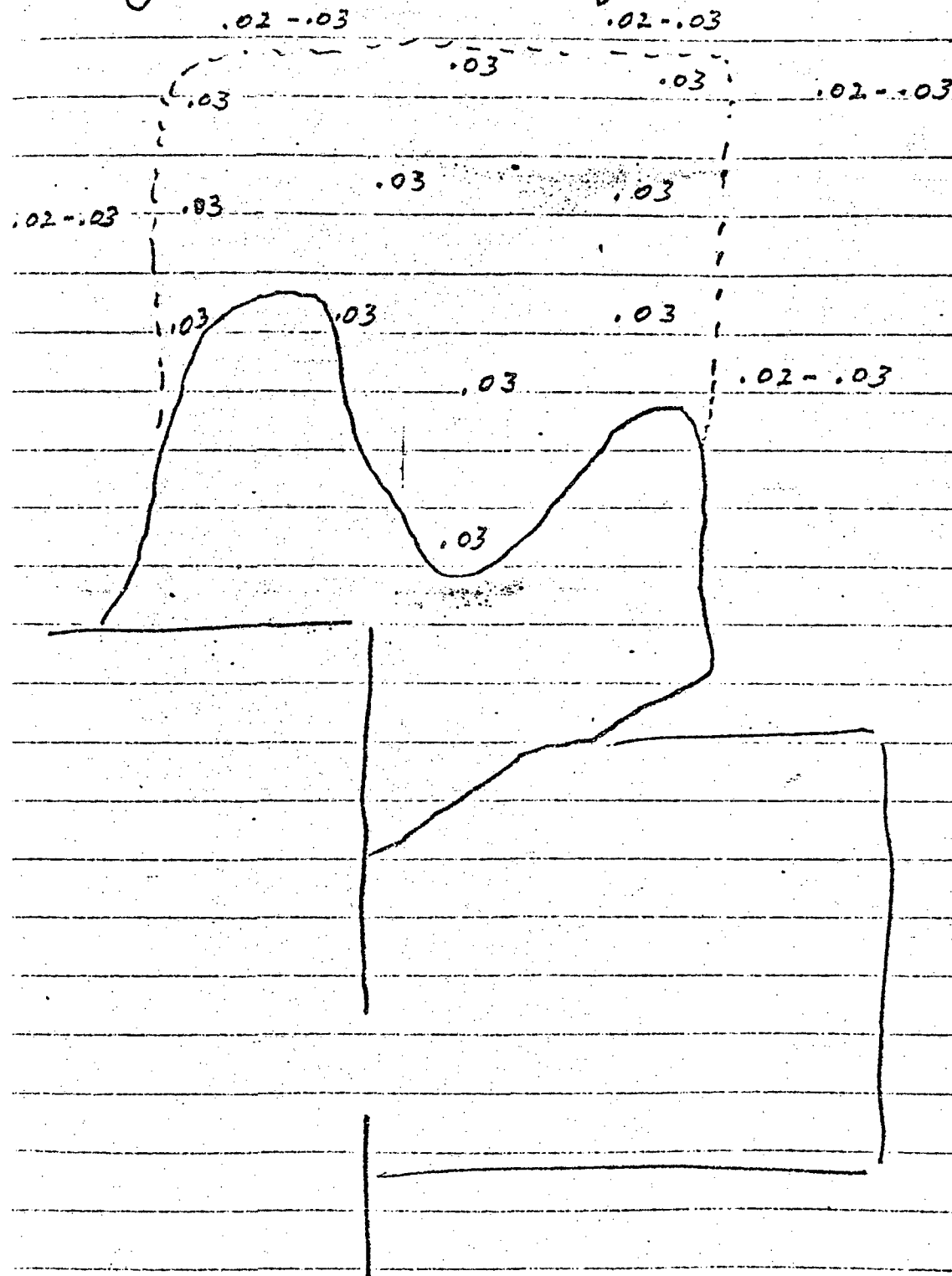


Figure 7 Outside areas after scraping

Grass area front of containment 0.02  
" " South side of access road 0.02  
" " West side of paved area 0.02-0.03



Figure 6 Waste Evaporator Section

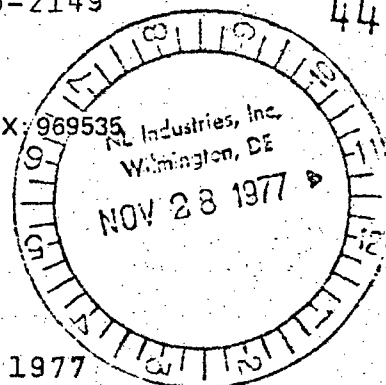


DOTTED LINE SECTION IS THE AREA AFTER DIRT PLACED INTO THE EXCAVATION.



OPS-1014  
Job-2149

PARK MALL, PEEKSKILL, NEW YORK 10566 TEL: 914-739-9000 TELEX: 969535



November 22, 1977

NL Industries, Inc.  
Nuclear Division  
Foot of West Street  
Wilmington, Delaware 19081

Attention: Mr. David W. Leigh  
IRL Decommissioning Project Manager

Subject: IRL Site Restoration and Follow-up  
Radiological Survey

Gentlemen:

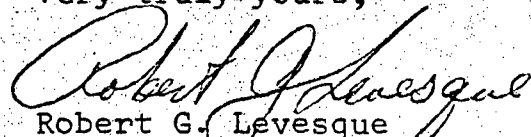
Today, Mr. O. J. Sullivan performed a radiological audit survey and pointed out to the NL employees working at the site, the drum containing cement chips and noncontaminated items having radiation warning labels. Results of the audit are as follows:

<u>Area</u>	<u>Dose Rate (mRem/hr.*)</u>
East Corridor	0.02
Locker Room	0.06
Ground area adjacent to pavement near Rx dome parking area	0.06
South Corridor	0.02
Instrumentation Shop	0.04
High Level Laboratory Counting Room	0.02
Isotope Garden	0.01
Decontamination Pan	0.18
Hot Cell Corridor	0.02
Hot Cell Access Area	0.30**
Waste Evaporation maximum	0.1
Waste Evaporator typical	0.03
10 K Catch Basin	0.03

\*Listed levels were taken on contact with floor or ground  
and unless specified represent highest noted dose rate.  
\*\*Area was confined to about 2 square inches.

If you have any questions concerning the above, please do not hesitate to call me.

Very truly yours,

  
Robert G. Levesque  
Radiation Safety Officer

RGL:rk

ATCOR