

RECEIVED



2450

M 7 08

November 4, 1980

U. S. Nuclear Regulatory Commission  
Division of Material and Fuel Cycle  
Facility Licensing  
Washington, DC 20555

Gentlemen:

Re:

*15364*  
29-05364-01

In accordance with the terms of our license, we are enclosing a radiation level survey report. On October 7, 1980, we increased the cobalt-60 curie content of the irradiator to approximately 1,390,000 curies. Readings were taken with an Eberline Meter, Model E-130G, calibrated June 17, 1980.

Very truly yours,

ISOMEDIX, INC.

*George R. Dietz*  
George R. Dietz  
Radiation Protection Officer

GRD:of  
Enclosures

cc: U. S. Nuclear Regulatory Commission  
Region I  
Office of Inspection and Enforcement  
631 Park Avenue  
King of Prussia, PA 19406

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INSPECTION AND ENFORCEMENT

*801211#211*

ISOMEDIX INC.

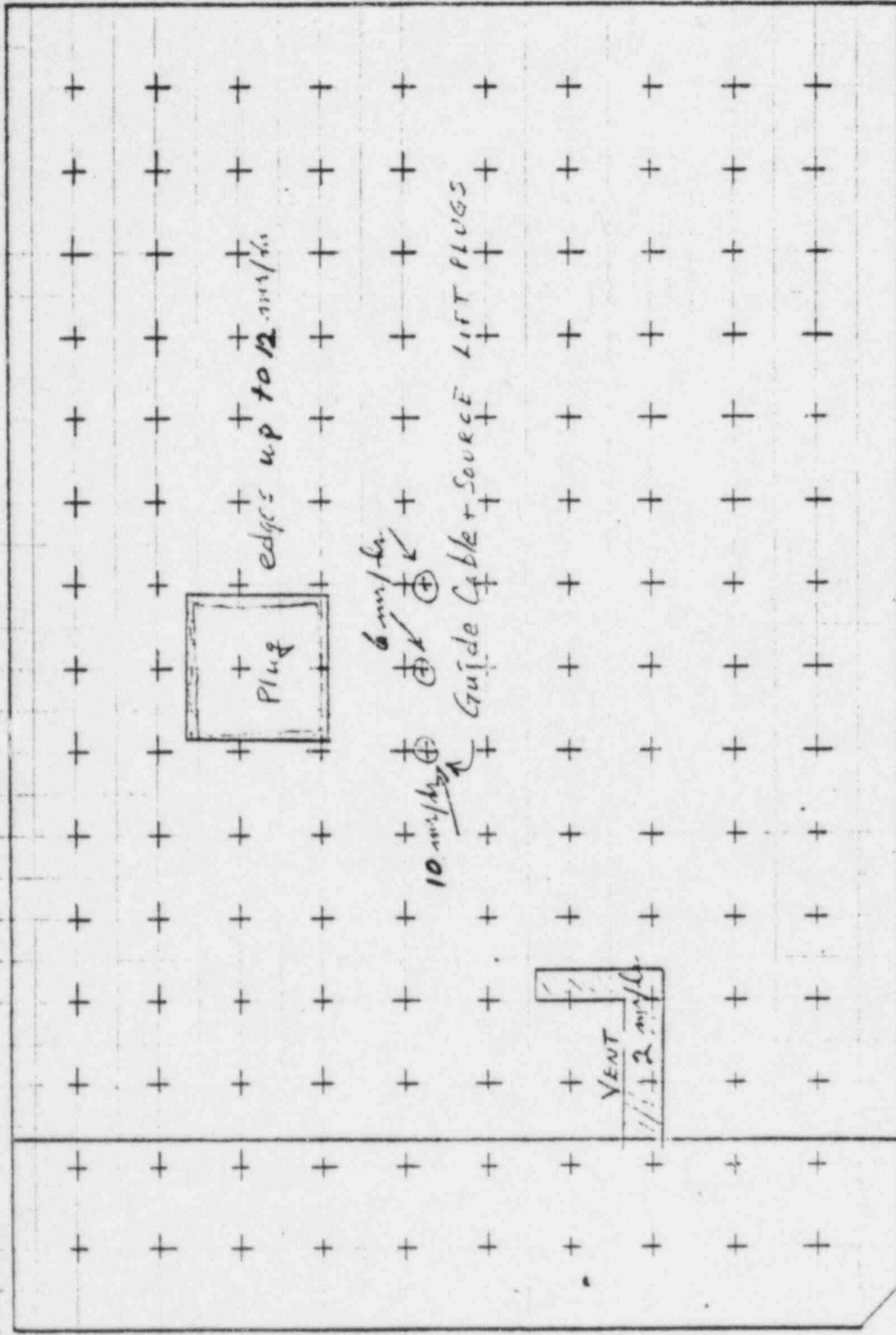
CORPORATE OFFICES • 80 SOUTH JEFFERSON ROAD, WHIPPANY, NEW JERSEY 07981 • (201) 887-4700

*210 Copy*

TOP  
(Roof)

ISOMEDIX

← NORTH



1,390,000 ci. CO-60

10-7-80

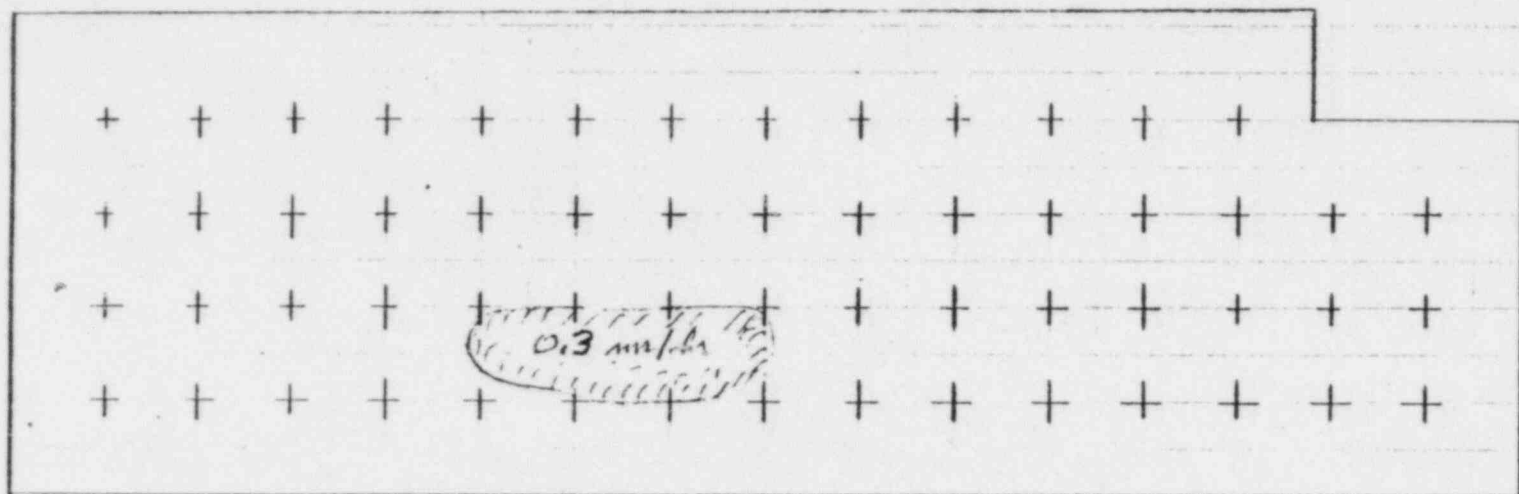
247

All readings less than 1.0 mR/hr except as noted.

EAST WALL

$\frac{1}{4}" = 1.5'$

ISOMEDIC

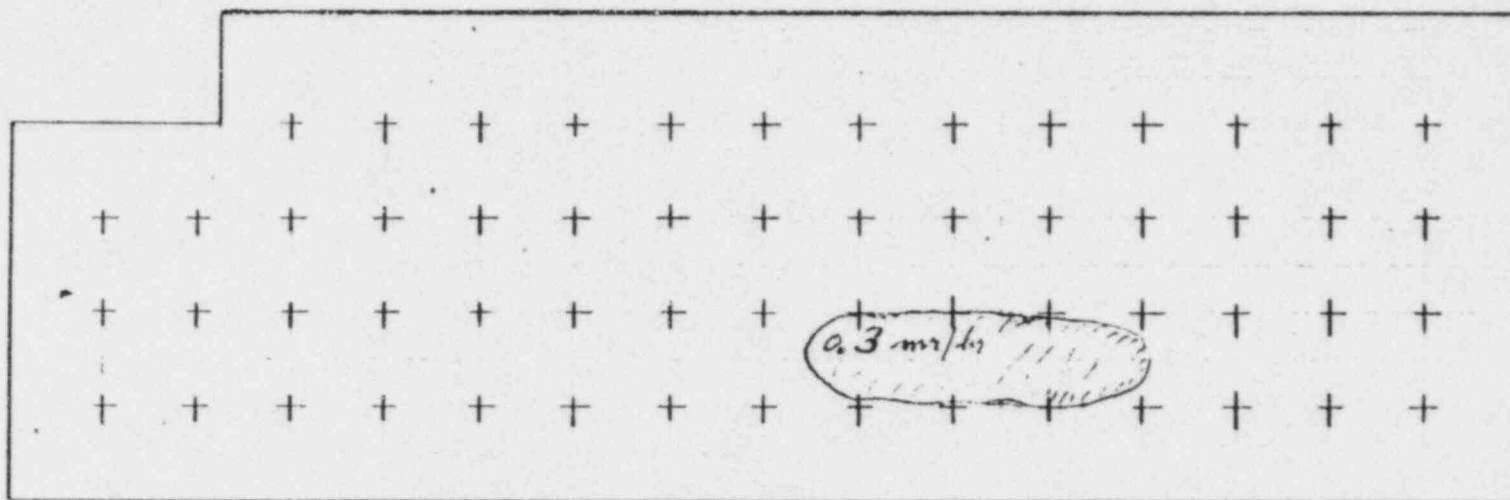


All readings less than 0.1 m/hr

1,390,000 ci CO-60  
10-7-80

West Wall  
1/4" = 1.5'

Isomedix



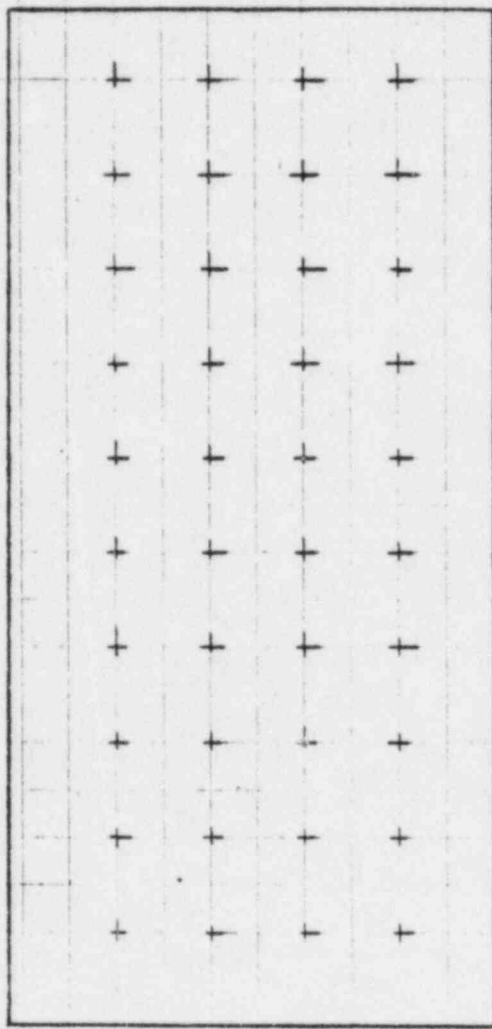
All readings less than .1 m/hr  
except as noted

139,000 ci Co-60  
10-7-80

South Wall

$\frac{1}{4}'' = 1.5'$

Isomeric



All readings less than .1 m/hr

1790,000 ci CO-60  
10-7-80

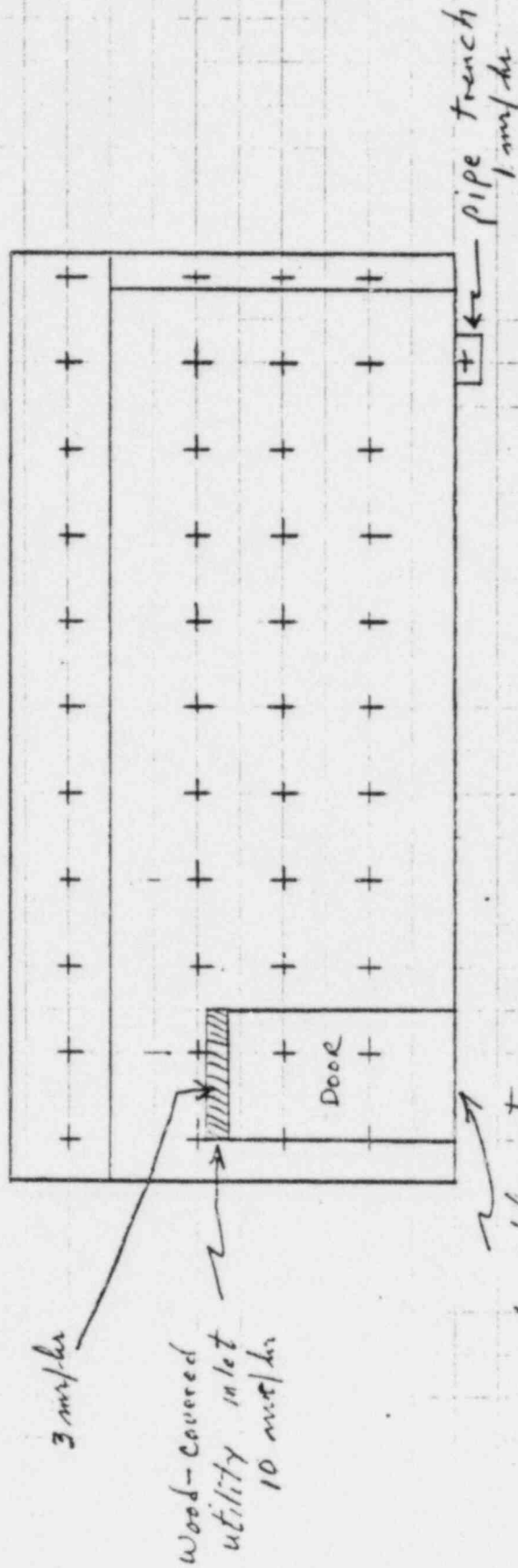
05819



NORTH WALL

$\frac{1}{4}'' = 1.5'$

ISOMEDIX



All readings, less than 1 mph except as noted.

05819

2450

1390,000 c  
10-7-80

20-60

D

D 12-17-80

Memorandum to File

Sicomex Inc.

License No. 27-15364-01

Inspection on December 10, 1980 was conducted on request of licensee and in response to inquiry about activities conducted by Sicomex from reports in area.

Licensee revealed during course of inspection that he had experienced labor problems during month of November 1980 resulting from an attempt by certain employees to organize Union at the facility.

Licensee stated that Supervisory Inspection had initiated action to organize Union representation in employees. He stated that NLRB procedures had been followed and the vote by employees was not to be represented by Union. They resulted in a strike by some employees who were organized and have not been hired. He stated that incidents of vandalism to cars and property had occurred and killing still exist with persons involved. This may result in additional litigation against the company.

Robert Thomas

12-17-80

-8507130389

211 Copy

Docket No. 30-08985

January 7, 1981

Isomedix, Incorporated  
ATTN: Mr. George Dietz  
President  
80 South Jefferson Road  
Whippany, New Jersey 07981

Gentlemen:

Subject: Inspection 30-08985/80-03

This refers to the special safety inspection conducted by Mr. C. Rowe of this office on December 10, 1980 at 25 Eastmans Road, Parsippany, New Jersey of activities authorized by NRC License No. 29-15364-01 and to the discussions of our findings held by Mr. Rowe with yourself at the conclusion of the inspection.

The inspection was an examination of activities conducted under your license as they relate to radiation safety and to compliance with the Commission's rules and regulations and the conditions of your license. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, measurements made by the inspector, and observations by the inspector.

In addition, our inspector took wipe samples of floors and equipment located in your facility, and took a water sample from your source storage pool. These samples were analyzed in our Regional Office Laboratory. The basic purpose of these independent measurements was to verify your capability for identifying and evaluating radioactive contaminants in your facility. The results of our analysis were in agreement with your analysis.

Within the scope of this inspection, no items of noncompliance were observed.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title Title 10, Code of Federal Regulations, a copy of this letter 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,

John D. Kinneman, Chief  
Materials Radiological Protection  
Section

810205 0359 12 PD

212 Copy

OFFICE	PFMS	PFMS				
SURNAME	Rowe: mm	Kinneman				
DATE	1/5/81	1-5-81				



Isomedix, Incorporated

January 7, 1981

TO:

IF Mail & Files (For Appropriate Distribution)

Central Files

Public Document Room (PDR)

Nuclear Safety Information Center (NSIC)

REG-1 Reading Room

State of New Jersey

Licenses Fee Management Branch (via airtel)

OFFICE OF

STATE OF NEW JERSEY

DATE

U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT  
REGION I  
IRRADIATOR INSPECTION

(Field Notes)

Licensee <i>Isomedix, Inc. 25 Eastmans Road Parsippany, New Jersey</i>	Facility <i>Irradiator used for sterilizing materials</i>
License No. <i>29-15364-01</i>	Inspection Date <i>December 10, 1980</i>
Principal Inspector <i>C. Rowe</i>	Other Accompanying Persons <i>N/A</i>
Individuals Interviewed a. <i>D. R. Dietz, President, RSC</i> b. <i>C. Rowe, Assist. R.S.O.</i> c. <i>Second employee</i> d. <i>of licensee</i> Titles e. f. g. h.	Date of Interview <i>12/10/80</i> Place of Interview <i>Isomedix Inc. 25 Eastmans Road Parsippany, N.J.</i>
Name of RSO <i>George R. Dietz</i>	Telephone No. of RSO <i>201-987-4760</i>

Enforcement Action(s)

*Clear Inspection*

*Stennin 12/23/80*

A. Scope of Program

1. Number of individuals occupationally exposed 8.
2. Type of Irradiator (eg. Pool, Pit, etc.) pool.
3. Number of Curies 1,390,000 of Co-60.
4. Frequency of use: 3 shifts (2+hr) ~~times~~ per day.

B. Exposure Evaluation

1. Personnel

- a. Film Badge ✓
- b. Dosimeter ✓
- c. Other N/A

2. Facility

- a. Independent area radiation monitor YES
- b. Survey meter when enter HRA YES

C. Surveys

1. Radiation levels in unrestricted areas weekly
2. Contamination smears in restricted area weekly
3. Leak Tests
  - a. Frequency 6 months
  - b. Method adequate yes
4. Interlocks into HRA
  - a. Frequency of Testing weekly
  - b. Functional at time of inspection YES

c. Are they intentionally bypassed or deleted. Yes

No

(1) Procedure if yes

d. In accordance with license?

e. Adequate?

5. Routine maintenance of Hot cell equipment adequate.

Yes

No

D. Instrumentation

1. Adequate type and number: Yes No

2. Calibration as required: Yes No

E. Evaluation of Effluent

1. Liquid OK

2. Airborne OK

F. Training

1. Std. Procedures YES

2. Emergency Procedures YES

3. NRC Regulations YES

G. Signs/Posting

1. CRM YES

2. CHRA YES

3. 19.11 YES



H. Evaluation of Incoming Packages (20.205)

Reviewed records of shipment received on Oct. 7, 1980  
D.K.

I. Disposal

None since last inspection

J. Evaluation of Outgoing Shipments - (DOT)

N/A

K. Unusual Occurrences or Events

None per R.S.O.

L. Independent Measurements (Van, Inspector)

Independent measurements made in restricted and  
non restricted areas. Wipe samples taken in  
exposure room. Pool water sample taken and  
analyzed.

For irradiations not completely self-shielded containing:

379 Ci cobalt-60

1042 Ci iridium-192

1515 Ci cesium-137 or more, the following must be determined:

M. Control Devices

1. What control device will prevent entry of individuals into the irradiator when the source is exposed?

*Access door is locked.*

2. What control device will retract the source if an individual attempts entry?

*Access door is interlocked to automatically lower source to stored position if ~~unlocked~~ with source exposed or opened.*

3. What control device prevents operation of the source if an individual is present in the irradiator?

*An cell safety switch ~~is~~ located in irradiation room must be operated and door locked and key inserted in console within 90 seconds. Audible and visible lights in room to warn source will be raised. Emergency cable runs length of wall in cell which prevents raising source if pulled.*

4. Do any of the above control devices prevent egress from the irradiator?

*NO*

N. If the Entry Control Devices Fails:

1. What control device will retract the source?

*Stop pushbutton located on console automatically lowers source to stored position. Indicator lights on console will alert operator if door was unlocked or opened.*

2. Are visible and audible alarm signals generated to warn individuals entering of the hazard, and to alert another knowledgeable individual? *yes.*

0. If there is credible probability, the physical radiation barriers can fail:

1. What control device will cause the source to retract?

*Low pool water level causes source to return to stored position*

2. Are visible and audible alarms signals generated to warn individuals entering of the hazard, and to alert another knowledgeable individual? *yes*

P. If the Source Is Stored In A Liquid Shield:

1. Is loss of liquid level adequately signaled for immediate action? *yes*

Q. Exposing the Source

1. What device will automatically generate visible and audible alarm signals to alert individuals before exposing the source?

*Activation of in-cell safety switch by insertion of key.*

2. What clearly identified device can be activated from inside the irradiator which will prevent the source from becoming exposed?

*Emergency cable which runs around the interior wall of the irradiation room.*

3. Is there a procedure to assure that the area is clear of individuals prior to exposing the source?

*yes, operator must key the in cell safety switch which is located in furthest point in cell which ensures he will visibly inspect the cell for any individuals in area.*

R. Physical Radiation Measurements

1. Is a physical radiation measurement made upon entry to the irradiator after source operation? *yes*

S. Tests of Entry Control Devices

1. Are tests of the entry control devices conducted each day prior to initial operation of the source? (Note: These tests are not required if operations are uninterruptedly continued from the previous day.) *yes*

2. Are records of these tests maintained?

*yes*

T. Control of Portals Into Irradiator

1. What safety devices and administrative procedures are used to prevent entry by individuals through portals that convey materials, in and out?

*N/A*

*No conveyor system at facility. Materials are hand loaded through entrance door for each irradiation*

2. Are exit portals equipped to detect and signal presence of loose radiation sources and to automatically prevent them from being carried out?

*N/A*

U. Independent Measurements

1. Take water sample and split with licensee.

a. Licensee results

b. IE:I Results



2. Planchet or bottle source standard.

a. Value

b. Licensee's results

3. Results of interlock checks

*Working*

4. Is water continuously circulating through demineralizer?

*yes*

5. Results of surveys around demineralizer.

*No detectable levels above Bkg.*

6. Demineralized conductivity measurement

*Not made by inspector*

7. Results of PH check with litmus paper

*Not made by inspector*

8. Restricted area survey results with meter

*Radiation level over pool was 0.3 mR/hr*  
*General area Bkg. 0.05 mR/hr*

9. Restricted area survey results with wipes

10. Unrestricted area survey results

*0.02 mK/hr*

11. Results of check of liquid level indicator

*Operational*

## APPENDIX C - SUPPLEMENTARY INFO

Licensee: \_\_\_\_\_

License no: \_\_\_\_\_

- ☐ Uncorrected/repeated noncompliance  
☐ Unusual occurrence, conditions, etc  
☐ Basis for change of Category or Priority

- ☐ Unresolved items  
☒ Inspector's comments

Licensee has recently experienced labor relations problem. See Memo to file.  
Presently has four qualified operators for facility.  
Reviewed following records during inspection

Exposure - minimal

Training - OK

Survey results - OK

Leak test - OK

Source Receipt - OK

Licensee increased irradiator load by 393,840 Ci on  
10/7/80.

Licensee radiation level survey report and receipt  
results by independent measurements.

Overall Impression: Good Progress