

INTERNATIONAL NUTRONICS, INC.



November 15, 1983

U.S. Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

Attn: Dr. John Glenn

RE: LICENSE NO. 29-13848-01
OLD CELL ENCLOSURE FABRICATION PROCEDURE

Dear Dr. Glenn:

Attached is our procedure for the old cell enclosure fabrication.

I submit this procedure for your review, comment and Radiation
Work Permit.

Sincerely,

James A. Welsh
Radiation Safety Officer

JAW/bt
Attachment

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PDR FOIA
TERPILAB4--763 PDR

OLD CELL ENCLOSUREFABRICATION PROCEDURE

The enclosure will be built in sections of 2x4 construction for the sides and top surfaces. (Refer to the attached diagram.) The enclosure will be built by International Nutronics, Inc. personnel.

Side Surface:

There will be 11 prefabricated sections with a 5x8' double door on the North surface (refer to diagram).

Each section will be covered with 5 mill plastic, two layers on the outside and one layer on the inside of each section. Each section will be fastened and sealed together and then overlaid with 4x8' ($\frac{1}{4}$ ") plywood laid horizontally on all side surfaces at the bottom to protect and insure the integrity of the plastic.

Four spring closing louvered vents will be provided to allow air entry into the enclosure (refer to attached diagram for position). The sections as mentioned will be prefabricated and placed in position, outside the present curtain area, one foot from the wall of the old cell and anchored to the floor.

Plywood $\frac{1}{4}$ " will be used, as necessary, on the side surface as a support for exhaust ventilation ducts, louvers, etc.

Top Surface:

This surface will be prefabricated and installed as soon as the planned facility ventilation system is operational, at which time the present curtain will be removed.

The prefabricated top surface will consist of three sections with cross members in each section spaced 7' apart (refer to attached diagram). These cross members will be used to support the plastic covering to prevent sag. The plastic covering will be the same thickness and configuration as that stated for the side walls.

OLD CELL ENCLOSURE
FABRICATION PROCEDURE

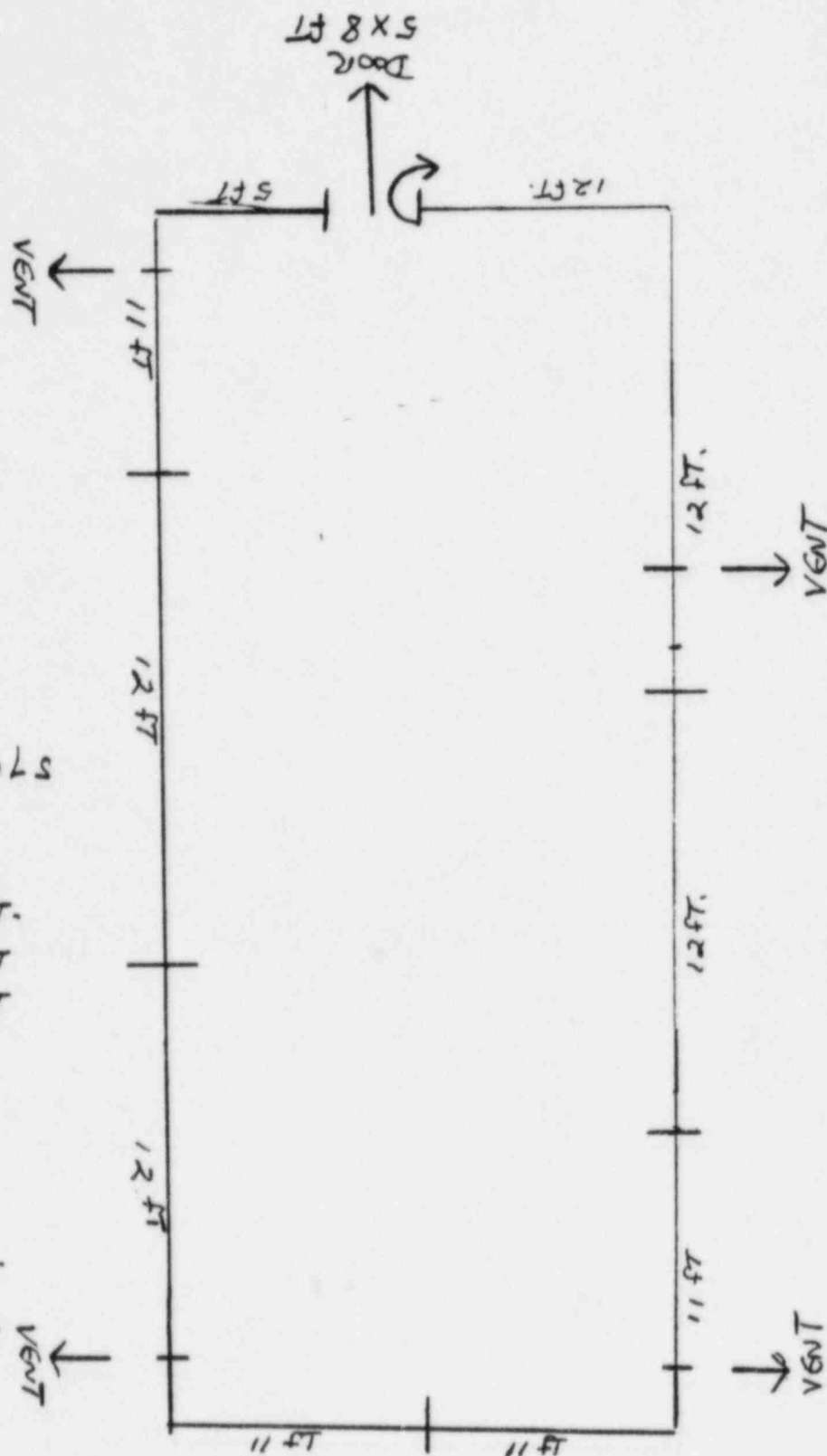
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Health Physics Program:

- 1.) Employees will wear protective clothing with foot and head covering.
- 2.) The air will be monitored before and during construction for assessment purposes. Samples will be analyzed at the end of each day.
- 3.) One person will wear a breathing zone monitor during this operation.
- 4.) As an added measure, respiratory protective equipment will be used when we remove the present curtain.

fig A I

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NOTE SIDE PANELS

THERE WILL BE

- 4 PANELS 11 X 12 FT.
- 5 PANELS 12 X 12 FT
- 1 PANEL 5 X 12 FT
- 1 DOOR 5 X 8 FT

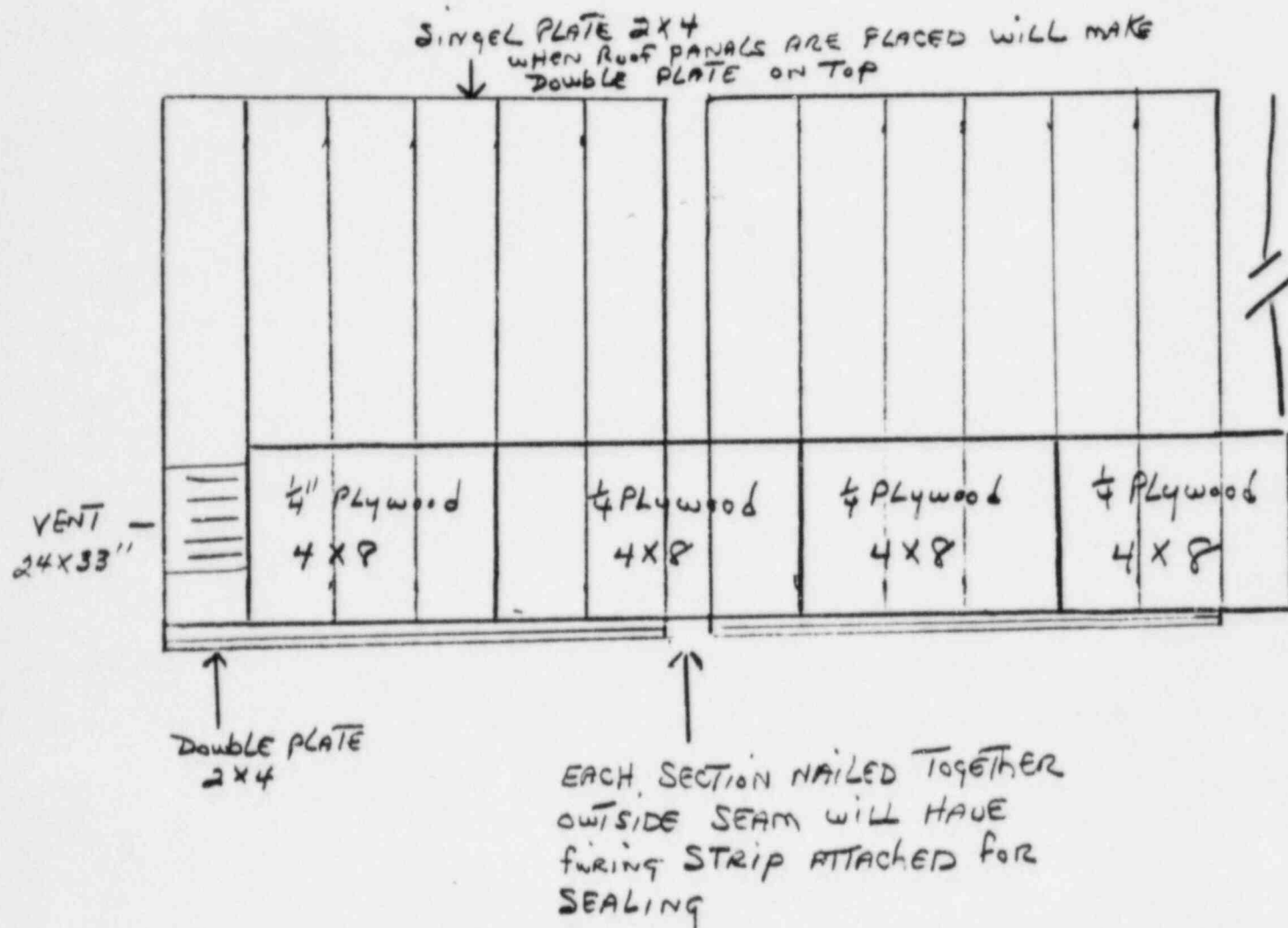
ROOF PANELS

- 2 PANELS 12 X 22 FT
- 1 PANEL 11 X 22 FT.

4 VENTS
24 X 33 IN.

S

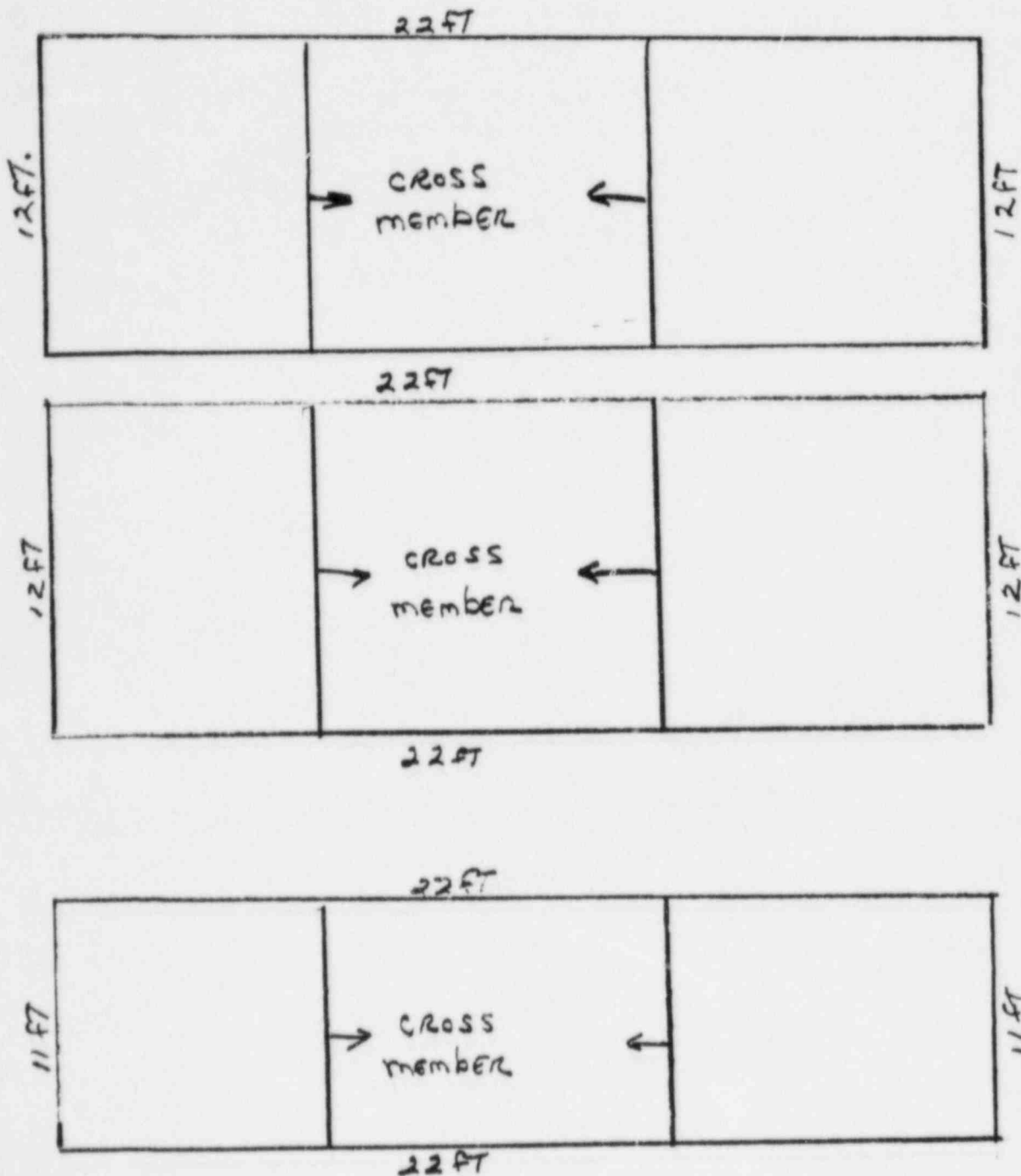
NOTE Fig (A.) PART II
SIDE VIEW of PANELS



NOTE.

WHEN ALL PANELS ARE PLACED TOGETHER, THEN
1/4" PLYWOOD 4x8 SHEETS WILL BE PLACED ON BOTTOM

Fig (A) Part III Roof PANELS



NOTE Roof PANELS WILL BE PLACED ON TOP OF FRAME
 NAILED TO TOP PLATE, WITH LURING STRIPS PLACED
 OVER SEAMS

To Dr. John Kew

12/1/83

Dr. Friedman reviewed this procedure and indicated that there was no reference as to what type of heater the Modine was.

It is a gas heater (space) & its venting is by thermal well not forced.

James A. Webb

INTER... TRONICS, INC.



procedure #11

PROCEDURE FOR TESTING AIRBORNE ACTIVITY RESULTING FROM ACTIVATING ONE MODINE HEATER IN THE IRRADIATOR FACILITY BUILDING:

PURPOSE OF TEST:

Convenience heat is required to prevent water pipe damage in the winter months. The Modine heater is a forced air system that will produce air currents that will probably cause an airborne activity situation.

STEP -

- 1) Two samplers will be employed and positioned at different points to provide overall evaluation.
- 2) The units will run for two hours with the Modine ^{gas} heater off to determine a static base line. The filters will be assayed at this point and results recorded.
- 3) The samplers will then be reloaded with new filters and turned on at the same time the Modine heater is turned on and set at 65°. The heater and sampler will run for two hours. After the run, the filters will be assayed and recorded.

NOTE: Loading and retrieval of the filters as well as turning off and on of the heater will be done by one person, and that person will wear respiratory protective equipment as well as protective clothing.

- 4) If the results of this testing indicate that concentration have not exceeded 50% of m.p.c. for unrestricted areas, an eight (8) hour test will be performed, and then a 24 hour test will follow if results are favorable.
- 5) The final decision on whether or not the one Modine heater is operated on a 24 hour basis will be determined by the results of the 24 hour test. We feel a concentration in the facility of less than 50% of m.p.c. for unrestricted areas at 65°, will not cause greater than this value to be released to the atmosphere via the thermal venting of the heater.