

6/30/83  
2D

# GENERAL ELECTRIC

RE-ENTRY SYSTEMS OPERATIONS  
GENERAL ELECTRIC COMPANY • P.O. BOX 7722 • 89 MAR 28 AM 11:12  
PHILADELPHIA PENNSYLVANIA 19101 • (215) 823-2000

13

22061

March 25, 1983

U.S.N.R.C.  
Material Licensing Branch  
Division of Fuel Cycle & Material Safety  
Washington, D.C. 20555

ATTENTION: Dr. D. Howe  
Mail Control No. 01121

83  
MAR 28  
AM 11:12

Gentlemen:

This refers to your letter dated March 9, 1983, requesting additional information and clarification concerning GE/RSO's application for amendment to License No. SUB-831 (Docket or Reference No. 040-07344).

The following numbered paragraphs correspond to those in your letter of March 9, 1983.

1. The third use location (Bldg. 100, Goddard Blvd., King of Prussia, Pa.) cited in the application should be deleted. Activities involving thoriated magnesium and covered by License No. SUB-831 will not be conducted at that facility.

A floor plan of the track level of 3198 Chestnut Street is attached. The milling and drilling machine to be used is located between columns D8, D9, C8, and C9. A network of outside air supply ducts provide make-up air to a semi-closed air conditioning/ventilation system on this track level (approximately 0.5 room air change per hour). As stated in the application, our intention is to perform air monitoring during initial processing per Attachment 9.C.1 of that application. To further clarify our plan, please consider the following:

- No special contaminated-air-control engineering controls are in place presently or in the planning stage.
- Air (area and personnel) sampling will be performed during a pilot program and airborne concentrations will be quantified.
- If the results of the air sampling confirm the expected outcome that full-time processing will generate airborne concentrations less than the levels specified in 10 CFR 20.203(d), there will be no routine air sampling program for purposes of personnel protection; subsequent monitoring will be performed when the nature or frequency of the material processing changes to one which could increase the generation of airborne contamination.

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FREE EXPANDED  
RD 1 ST W/P

~~SECRET~~

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Mail Control No. 01121

- During the pilot study and until airborne monitoring results are available (two to four days), half-face respirators with hepa-type filter cartridges will be worn by all personnel in the immediate vicinity of the machine. This is considered non-routine and qualitative respirator usage and no allowance in estimating personnel exposure will be made.
- If the results of the air sampling indicate that full-time processing could generate airborne concentrations equal to or greater than the levels specified in 10 CFR 20.203(d), engineering controls will be implemented to reduce airborne concentrations to less than those specified in 10 CFR 20.203(d).
- Until completion of the implementation of engineering controls (if required per previous paragraph), the following actions will be taken:
  - routine air sampling for purposes of occupational exposure control
  - bioassay measurements
  - continued use of respirators without making allowance in estimating personnel exposure
- If the results of the air sampling indicate that full-time processing could generate airborne concentrations equal to or greater than the levels specified in 10 CFR 20.103(a)(1), engineering controls will be installed to reduce the airborne concentrations to less than those specified in 10 CFR 20.203(d), and no production work will be started until pilot studies indicate that sufficient engineering or administrative controls have been put in place to reduce levels below those specified in 10 CFR 20.103(a)(1).
- The maximum work activity contemplated at this time is six panels per year.

A layout of the warehouse facility on Hunting Park Avenue is attached. GE/RSO's portion of the facility consists of approximately 5000 square feet of floor space with a 20-foot high ceiling. The normal ventilation system provides approximately 1 room air change per hour. Literature from the vendor of the thoriated magnesium alloy states that indoor storage of sheets and plate does not result in unsafe airborne concentrations of thoron and decay products if alloys are stored in accordance with the recommendations for fire safety by the National Fire Protection Association.

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2. The maximum rate of panel processing contemplated at this time is one panel every two months. Each panel will require approximately 360 man-hours to process. Three types of processing activity are identified as (a) set-up (attachment and removal of panel to machining fixture, measurements, etc.), (b) machining and drilling and (c) hand work (mechanical filing, abrading, and buffing). The relative time (and average separation distance) for these activities are 1 (one foot), 4 (seven feet), and 1 (one foot), respectively. Operator attendance during machining and drilling is 100 percent.

A chip conveyor is available and is to be used. Chips are drawn to the end and rear of the machine via a continuous paddle link chain where they are elevated to a discharge height of fifty-two inches. The chips will fall into a wheeled chip cart (volume equivalent to three 55-gal. drums). Chips will be transferred manually from the cart to 55-gal. drums. Chips which are not caught by the chip conveyor will be collected manually and placed in 55-gal. drums.

3. As stated previously, the following are not expected to be necessary or required: (a) routine air sampling for purposes of occupational exposure control, (b) bioassay measurements, or (c) routine use of respiratory protection devices and allowance for such use in estimating personnel exposure.

If the air monitoring results from the pilot program prove otherwise, routine air samplings bioassay measurements, and qualitative use of respirators will be implemented as per NRC guidelines until engineering controls preclude their necessity or requirement.

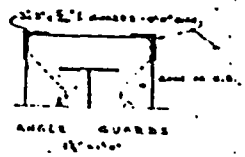
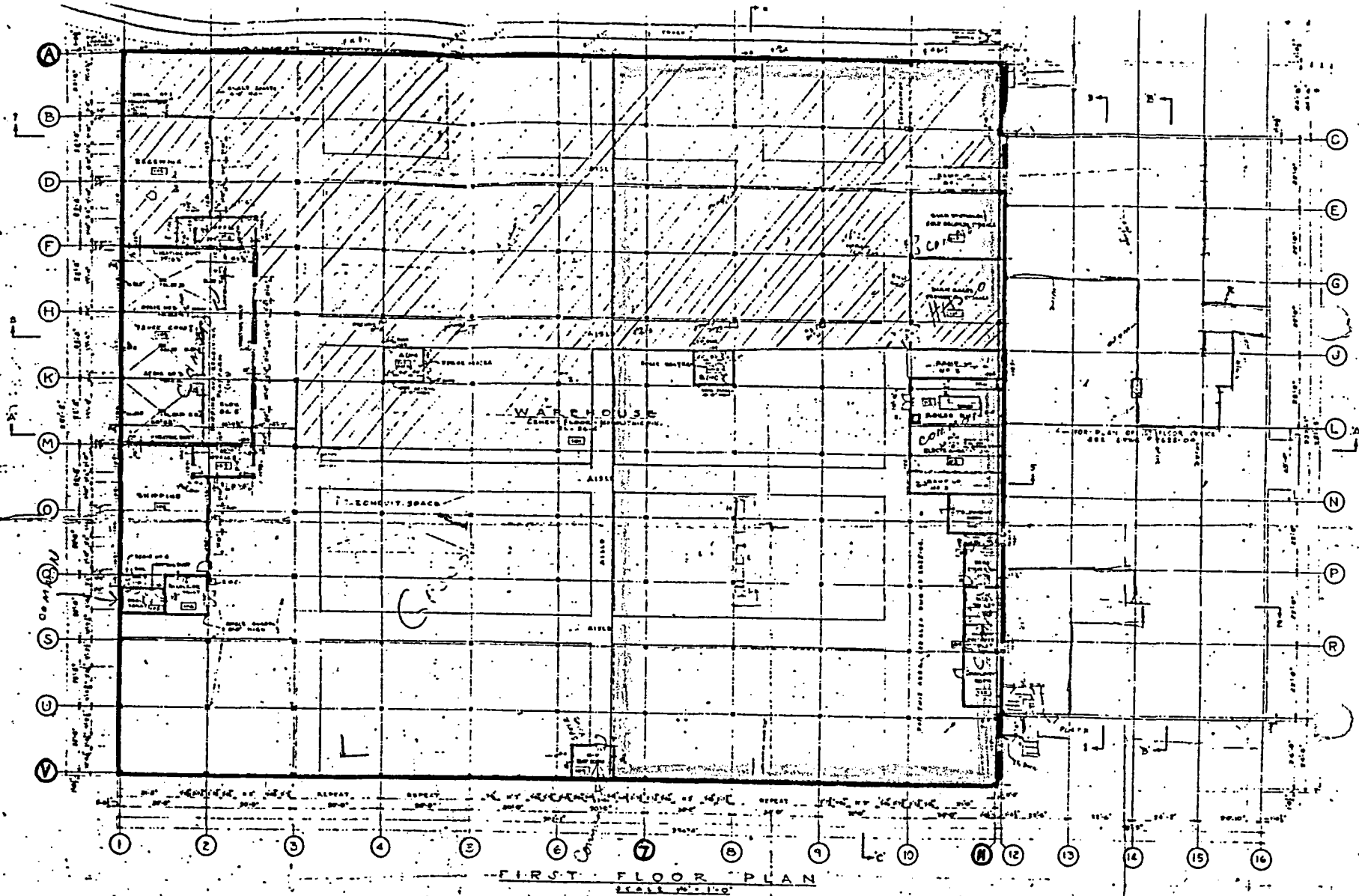
4. Room T470 and the outside covered ramp are within a single security perimeter and all entrances are either manned by Security personnel or secured by alarm. The security alarm control center is manned around the clock by members of the Security staff.

If further information or changes in our proposed procedures are required, please contact the undersigned as soon as possible since the proposed start date for the pilot program is imminent.

*Jack McFadden*

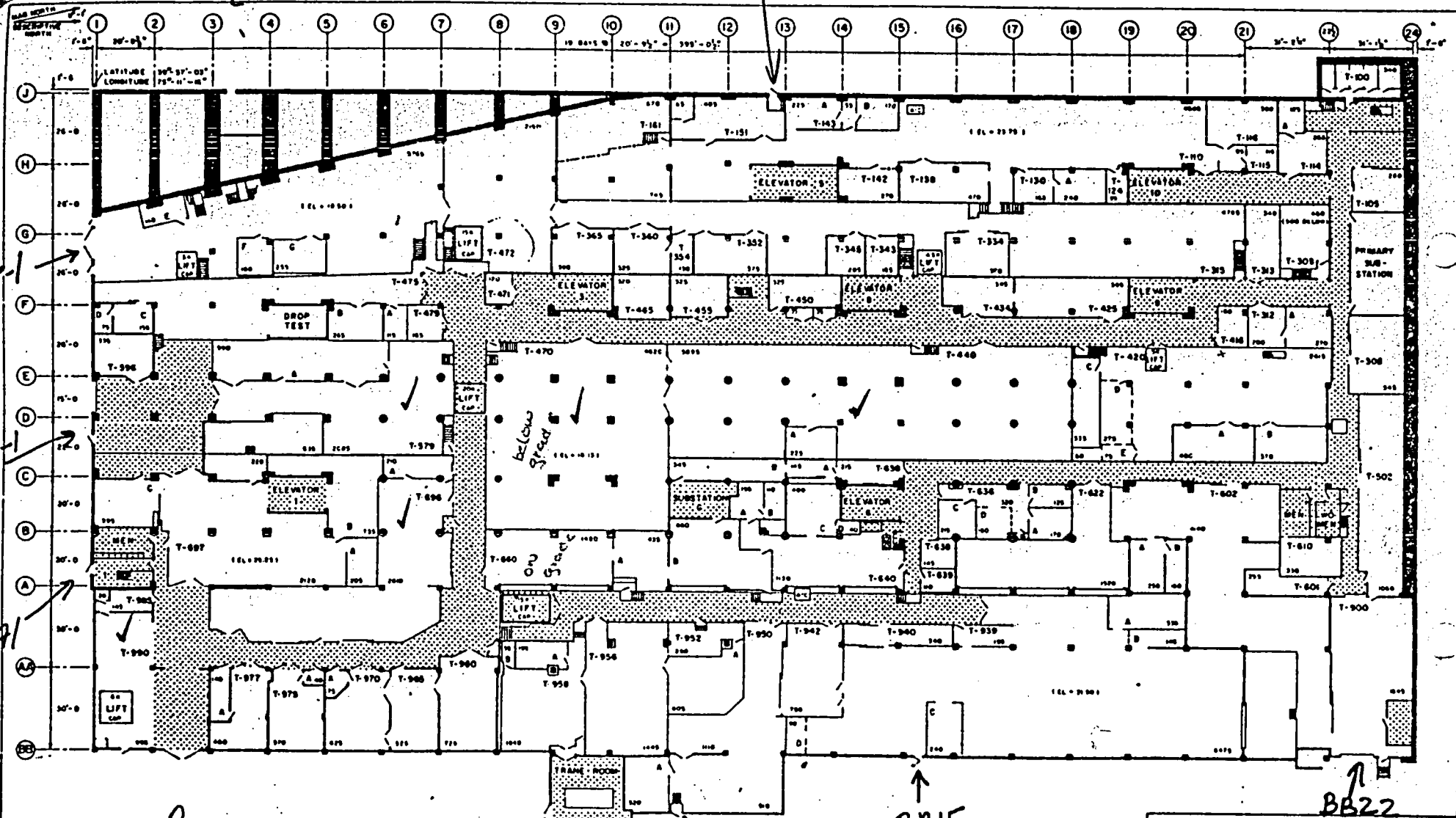
J. McFadden  
Health Physicist  
Room 3026  
(215) 823-3745

encl.



FLOOR PLAN OF GESCO WAREHOUSE, 401 EAST HUNTING PARK AVE., PHILA., PA  
 (PORTION OF WAREHOUSE BETWEEN COLUMNS A7, V7, VII, & ALL IS OCCUPIED BY GE/RSO)

GE SUPPLY Co. - PHILA., Pa.



FIN FLOOR ELEVATION AS NOTED IEL + 1

AREA		SQ FT	GENERAL ELECTRIC	
USABLE FLOOR SPACE		89,390	RE-ENTRY SYSTEMS DIVISION	
BUILDING SERVICES		22,939	308 CHESTNUT ST. PHILADELPHIA, PA.	
TOTAL		112,329	TRACK LEVEL PLAN	
DRAWN:		FACILITIES		DATE:
SCALE:		1" = 20'		MAY 1960

TRACK LEVEL PLAN OF GE/RSO BUILDING, 3198 CHESTNUT ST., PHILA., PA 19101