

DOCKET NO.

70-139  
File 4

**ENGELHARD INDUSTRIES, INC.**

D. E. MAKEPEACE DIVISION  
PINE & DUNHAM STREETS  
ATTLEBORO, MASS.  
ATTLEBORO 1-0090

December 15, 1959

UNITED STATES ATOMIC ENERGY COMMISSION  
Germantown, Maryland

Att: Division of Licensing and Regulation  
Mr. Lyall Johnson

Reference: License SNM - 185 Docket 70-139

Gentlemen:

In connection with our fuel fabrication activities we generate organic waste which contains small amounts of normal and/or enriched uranium. It is desired to concentrate such material by burning prior to disposition. We have a facility for the conduct of this operation which has been used with non licensed material and it is now our wish to extend its use to licensed material.

D. E. Makepeace Division hereby makes application for permission to incinerate combustible low-level radioactive waste material generated under SNM License No. 185 and amendments.

The material to be incinerated will consist of uranium contaminated wood, papers, absorbent material rags, etc. which show a reading of less than 20 mr/hr. on a beta-gamma survey meter. This material is presently generated at the rate of approximately 200 lbs. per day and will require an average of two hours daily burning time.

*no clean  
m 24  
12/22/59*

1.

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Our incinerator (sketch enclosed) is located in the rear yard of our plant at a distance of approximately 60 feet from the main building. It is situated adjacent to a lake which borders on our property. The lake water is not used for drinking purposes. The prevailing winds in this location are westerly in direction. The nearest down wind dwelling would be approximately 300 feet from the incinerator.

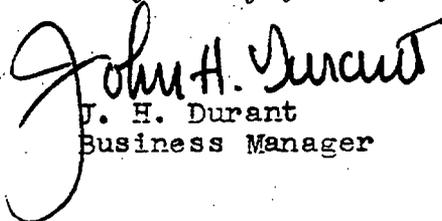
Air monitoring of the incinerator stack and of down wind locations will be done whenever burning is in progress. Samples will be counted for alpha activity on gas flow proportional counters to assure that maximum permissible limits of  $1.7 \times 10^{-12}$  microcuries per milliliter of air as established in Title 10, Part 20, Appendix B, table II. were not exceeded.

The general area in the rear yard of our plant is not occupied by plant personnel except on infrequent occasions when material is removed from or placed in the yard. The only person who would be in the area for considerable periods of time would be the incinerator operator. He would be subject to our regular radiation safety program which includes frequent and periodic urinalyses as well as film badge monitoring. There is a steel fence surrounding our entire plant (including the incinerator) which will prevent the access of any unauthorized person. In addition, a 24 hour security guard system is maintained.

After each lot of waste material has been burned, the ashes will be removed and placed in steel drums for storage until eventually disposed of by burial at sea. A maximum of 100 drums of ashes will be allowed to accumulate before being disposed. Each lot of material before being burned, will be monitored and tagged by Health-Physics personnel as to the level of radioactivity. No Uranium material reading in excess of 20 mr/hr. will be burned.

We will look forward to your response to our request and trust that our licenses may be amended.

Very truly yours,

  
J. H. Durant  
Business Manager

JHD/jet

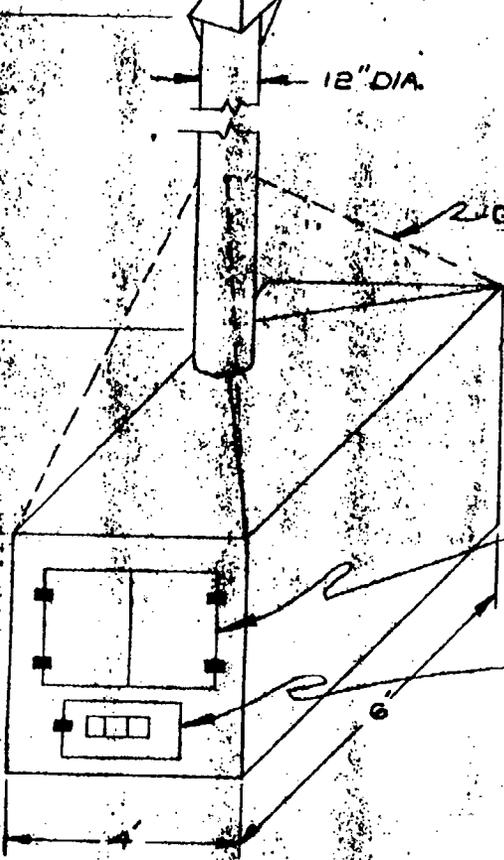
Enclosure: *Dwgs. 50013 &*  
*50016*

DRAWING NO.

20-139

(Transferred from 20-139 of 12/18/59)

STACK



12" DIA.

2 GUY WIRES

INCINERATOR DOOR  
35 1/2" HIGH

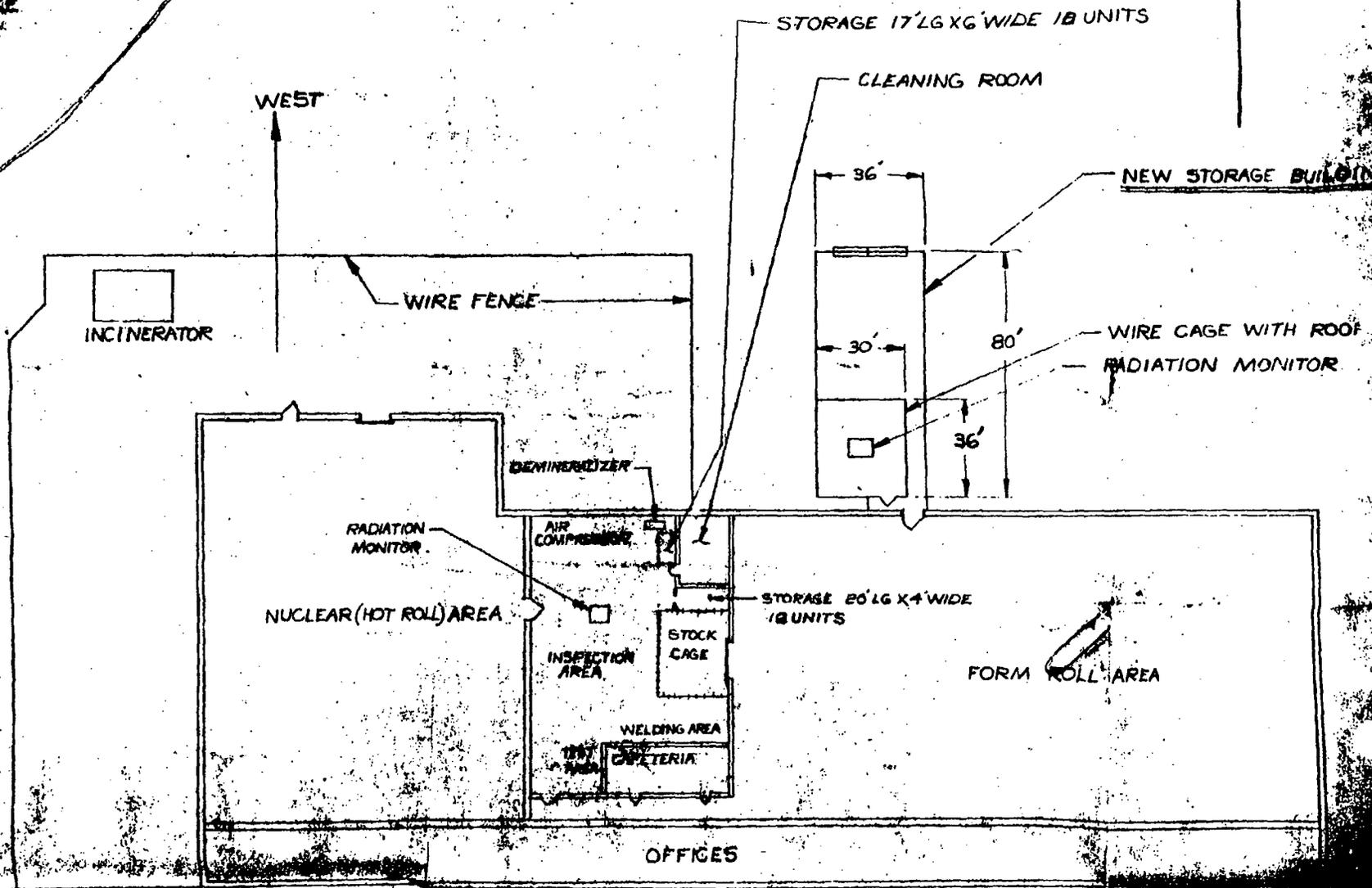
ASH CLEAN OUT DOOR  
23 1/2" HIGH

NOTE

1. GRATES TO BE 24" WIDE X 6" LG  
2. BASE TO BE CONCRETE



QTY	U.I.	ITEM NO.	DRAWING NO.	DESCRIPTION	PROJECT NO.	ISSUED BY
TOLERANCES UNLESS OTHERWISE SPECIFIED						
DECIMAL	± .005					
FRACTIONAL	± 1/100"					
ANGULAR	± 1/2°					
BREAK ALL SHARP EDGES REMOVE ALL BURRS						
APPROVED		DATE	MATERIAL SPECIFICATION		TITLE	
DRAWN		12-3-59	3/16 SHEET STEEL		WASTE INCINERATOR FOR LOW LEVEL URANIUM CONTAMINATED WASTES	
CHECKED						
APPROVED		12-3-59				
ENGELHARD INDUSTRIES, INC. D. E. MAKEPEACE DIVISION ATTLEBORO, MASS.				SCALE	SIZE	DRAWING NO.
					B	50013



Date Drawn 12-4-59  
 Scale  $\frac{1}{32} = 1'$

10-139  
 D.E. Makepeace Co.  
 Plainville, Mass.

Drawing No.  
 50016