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UNITED NUCLEAR
CORPORATION

P. O. BOX 1883
365 WINCHESTER AVENUE
NEW HAVEN, CONN. 06508
777-5361

NLS-40

December 14, 1964

RECEIVED
1964 DEC 21 AM 10 55
U.S. ATOMIC ENERGY COMM.
REGULATORY
MAIL SECTION

Mr. Donald A. Nussbaumer, Chief
Source & Special Nuclear Materials Branch
Division of Materials Licensing
U. S. Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Nussbaumer:

Your review and approval of the attached sketch and nuclear safety calculations for an additional permanent storage area in the Fuels Recovery Plant is requested. Provision has been made for the storage of 5 1-gallon jars on the west wall of the column room. These jars are on 16" horizontal centers 40" above the floor. Above the end jars (positions 1 & 5) will be storage space for a 1-liter beaker 56" from the floor. These jars will be used to collect solutions that have been drawn off at sample points from the extraction columns.

Also attached is a sketch showing the proposed replacement of the present 10" diam. Raschig Ring filled separators with a 5" diam. section.

Since these are intended to be permanent rather than temporary changes, in the event an amendment is not deemed necessary please consider this as information updating SNM 777.

Very truly yours,

D. F. Cronin

DFC:tc

D. F. Cronin
Director of Licensing

attachments

12/22/64 - RRL

Luke

ACKNOWLEDGED

5701

DOCKET NO 70-820

UNITED NUCLEAR CORPORATION
Fuels Recovery Plant, Wood River Junction, Rhode Island

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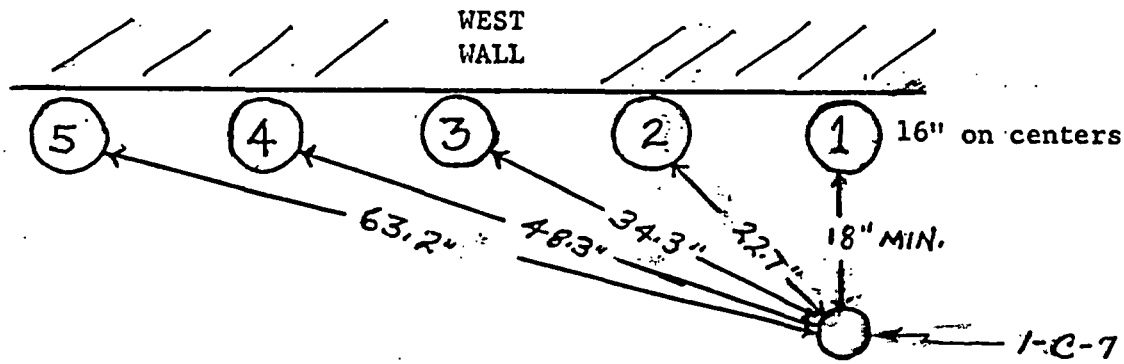
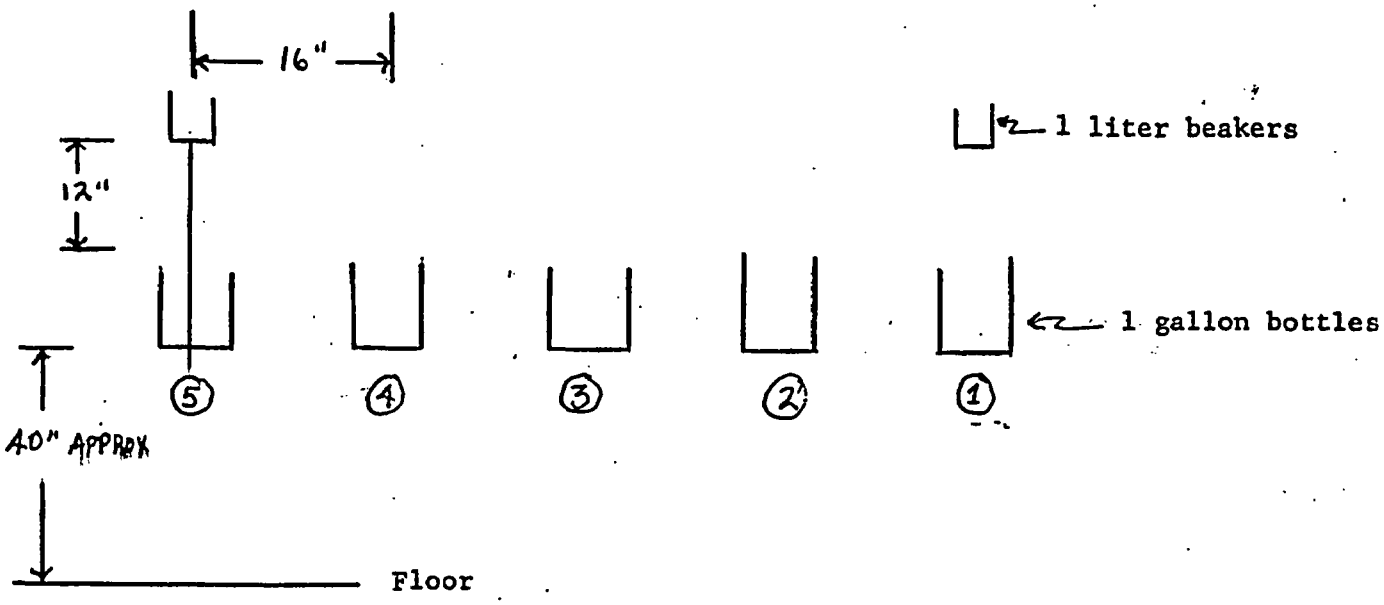
AMENDMENT TO SPECIAL NUCLEAR MATERIAL LICENSE 777

TOWER 1st FLOOR

PLAN VIEW



ELEVATION



Array is less reactive than approved bunker storage. Conservatively assuming each combination of bottle and beaker is 6" diameter cylinder 30" high, Ω contribution at most reactive column (1-C-7) is:

Cylinder #	Surf to 1-C-7	σ	λ	Ωfract (K-1478 fig 111-3)	
1	18"	3	5	.022	
2	22.7"	3.78	↓	.017	
3	34.3"	5.72		.0088	
4	48.3"	8.05		.0048	
5	63.2"	10.5		.0032	= .0558 = 0.7 Steradians contribution to 1-C-7

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Fuels Recovery Plant, Wood River Junction, Rhode Island

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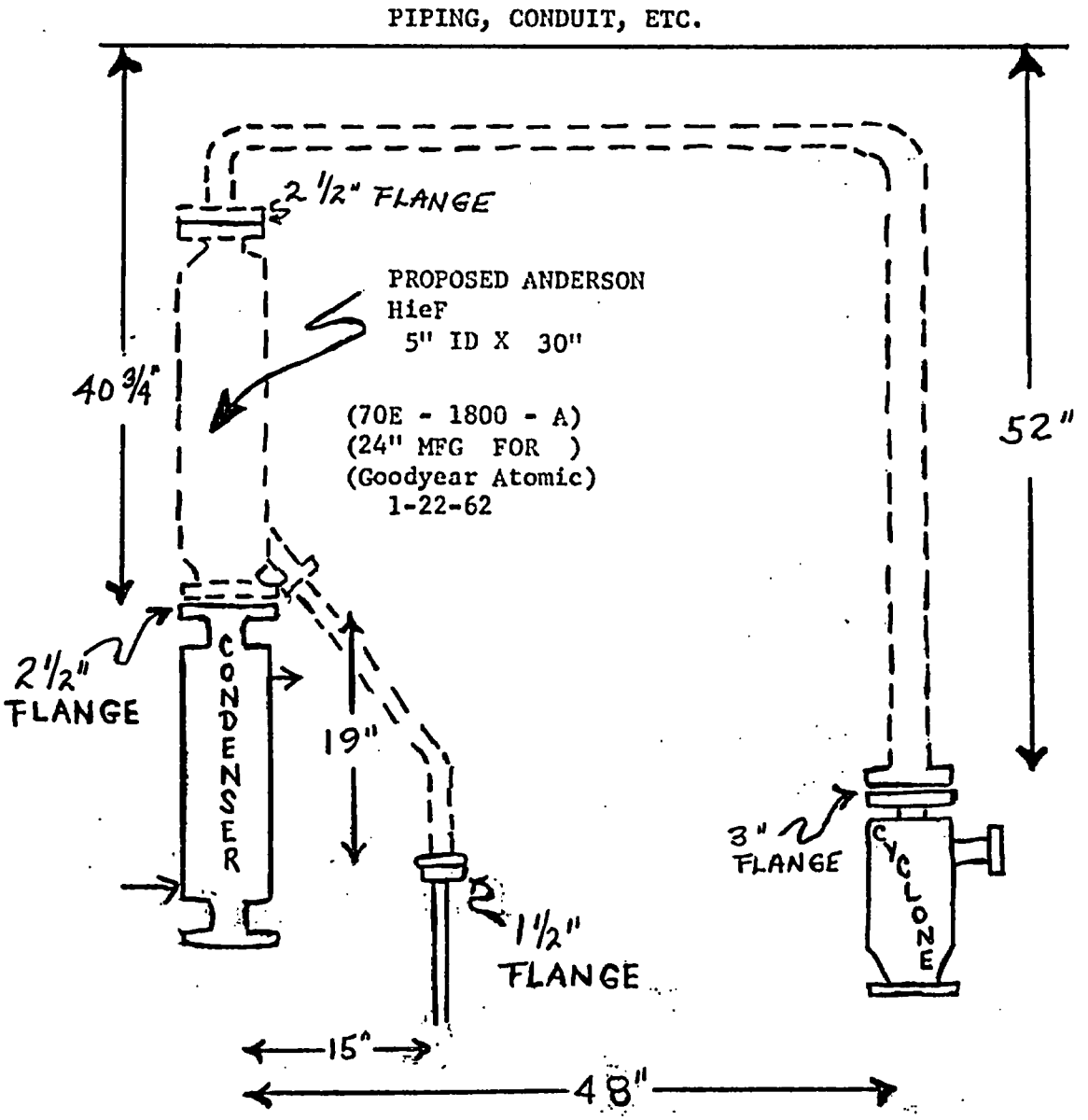

ALL DIMENSIONS ARE CLOSE ESTIMATES.

SOLID LINES DENOTE EXISTING SKETCH

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