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HOLMES & NARVER, INC.
Engineers-Constructors

#1666
DLNJr:eas
3-26-53

To: Project Engineering File

From: David L. Narver, Jr.

Re: Assembly Area Buildings - Parry

Date: March 26, 1953

ACTION: R.A. Williamson, N. Cohen
F.A. Blackburn, E. W. Hom, B. E. Sharp

The following is quoted from Mr. Robert H. Campbell's letter No. J-16606 to Field Manager, Eniwetok Field Office, dated March 20, 1953:

"The following criteria apply to the design of the Parry Assembly Building:

1. Main portion of building to be 40' x 80' and of sufficient height to permit crane hook to be operated 25' above the finished floor.
2. Main portion of building to be served by bridge crane of 10 ton capacity, pendant controlled, with hoists speeds from a low of 3FPM to a high of 10 to 15 FPM and comparable trolley and bridge speeds." (Load revised to 25 ton on 3/25/53).
3. Floor of main portion of building must extend approximately 50' outside the building on one end (40' x 50' pad). The floor loading has not been determined but will be quite similar to that encountered in a B-29 hangar.
4. A door, 12' wide by 15' high, will be required on each end and a door 10' wide by 12' high will be required on one long side of the main portion of the building (total 3 large doors). Based on Station 1 experience on IVY we would prefer not having roll-up type doors as they have exhibited a tendency to stick under the wind loading encountered at Eniwetok.
5. A dehumidified (50%R.H. -80°F) lean-to will be required outside one long side of the building for the storage of leak detectors and other measuring equipment. Size: 20' x 30' with 8' clear of obstruction above finished floor.
6. Latrine facilities for approximately 50 men will be required. (To include fresh water lavatories for use by personnel handling nuclear components).

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"7. No E.P. or V.P. fixtures or equipment is required but convenience outlets should be of the 3-prong type with one prong grounded and a supply of matching plugs be stocked by Holmes & Narver. Note: This requirement for 3-prong outlets will not be uncommon in the forthcoming operation and it is suggested that all such outlets be standardized at the outset.

8. Discussions with Roy Reider of the hazards inherent in the operations conducted at this building can be summarized by saying that it should be located at least 800' from the nearest inhabited structure." (Changed 3/25/53 to 500' from fuel storage for Building 339).

"9. The desired general arrangement of facilities within the assembly area is shown in J-6 SK-E-155 (H&N #AEC-18), three copies of which are enclosed." (Revised on 3/25/53 by Mr. Campbell - see our dwgs. F.S. 587, H&N #HNA-4, and F.S. 588, H&N #HNA-5).

During conversations with LASL and UCRL representatives on March 25, 1953, the following additional requirements were developed and approved by Mr. Paul W. Spain as design criteria:

Assembly Building:

a. Building to be designed for a wind loading of 30 psf and provision made for guying, whenever required, to sustain additional dynamic load of the same magnitude as assumed in the design of Building 341.

b. Siding and roof to be flameproof type Galbestos, or equivalent, protected corrugated metal sheeting.

c. Bridge crane to have 5-ton light load hook, also pendant controlled.

d. Pendant controls for both the 25-ton and 5-ton hooks on the bridge crane are desired which can be operated with one hand. One suggested type was General Electric pull station, Type CR-2942, as shown by General Electric Bulletin GEA 4705.

e. The outside storage area adjacent to the building must be suitably stablized or surfaced for the operation of fork lift trucks.

f. Doors rolling horizontally on overhead track, or barn-type doors, are preferable to the roll-up type door.

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High Explosives Building

a. A 5-ton bridge crane with 12-foot hook height is desired for this building.

b. Pendant controls, the same as requested for the Assembly Building, are desired.

c. Crane motors, controls, and entire electrical system are required to be explosion proof, Class I, Group D.

d. Lighting and required convenience outlets to be explosion proof, Class I, Group D.

e. Structural requirements and type of construction to be same as Assembly Building.

Magazine:

a. The magazine required will be 20' x 20' with concrete floor. Standard bldg. 14' x 20'. Ok

b. Concrete or plate steel construction is satisfactory. Standard U. S. Navy and other magazines should be investigated. The 5000-pound Navy standard steel plate magazine was suggested.

c. If the magazine is shaded or buried, there is no requirement for ventilation or temperature control.

d. The magazine floor is desired at grade to facilitate handling containers by by dollies.

Building numbers for structures associated with the assembly operation will be:

Barge Slip	- Bldg. No.	141
Assembly Building	- Bldg. No.	411
High Explosive Bldg.	- Bldg. No.	412
Magazine	- Bldg. No.	413

David L. Narver, Jr.
Chief Project Engineer

cc: Paul W. Spain, AEC
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