

U.S. NAVAL BASE, PEARL HARBOR, SCRAP METAL PACKAGING
FACILITY
(U.S. Naval Base, Pearl Harbor, Naval Shipyard, Facility No. 1170)
Seventh Street between Facility Nos. 6 & 247
Pearl Harbor
Honolulu County
Hawaii

HABS HI-505

HI-505

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HI-505

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN BUILDINGS SURVEY
PACIFIC GREAT BASIN SUPPORT OFFICE

National Park Service

U.S. Department of the Interior

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Oakland, CA 94607

HISTORIC AMERICAN BUILDINGS SURVEY

U.S. NAVAL BASE, PEARL HARBOR, SCRAP METAL PACKAGING FACILITY (U.S. Naval Base, Pearl Harbor, Naval Shipyard) (Facility No. 1170)

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Location: Along Seventh Street between Facilities 6 and 247
Pearl Harbor Naval Base
City and County of Honolulu, Hawaii

This building falls within the UTM coordinates of the Pearl Harbor Naval Shipyard as defined in the location section of the overview report HABS No. HI-483. This building's UTM coordinates are: Zone 4 608140E 2361160N.

Significance: Facility No.1170 is located within the Pearl Harbor National Historic Landmark. Completed in 1942, this facility is of a distinctive type and period of construction. Its function as a scrap metal breaking and packaging facility is directly associated with the function of the adjacent Foundry (Facility 6). It is also associated with the scrap metal drives of World War II in which metals and other materials were recycled to aid in wartime production; in this case in particular for military production.

Description: This is a one-story, semi-permanent, utilitarian structure. The main section of the building is nearly square and enclosed on all four sides by reinforced concrete walls that extend to a height of 8'-6". These walls are lined on the interior with wood boards and then faced with steel sheets. The roof structure is in the shape of a truncated pyramid that is open at the top. It is comprised of horizontal wood boards that are held together with steel bolts and reinforced in each corner for structural support with steel plates. This main section was erected on a slab-on-grade concrete foundation with steel reinforcing bars at ground level that radiate from the center of the floor out to the surrounding walls. On the exterior of the building along the south wall is a cantilevered steel arched crane that rises approximately 30' to 35' in the air and extends to just over the roof opening of Facility 1170. With a maximum capacity of 2,000 lbs., this crane supported a 1-ton round steel breaking-ball used to crack cast iron and other metals. The metals were placed on a grid-like steel platform that is secured with steel bolts to the floor in the center of the space.

The entry door is part of a small vestibule at the southwest corner of the facility. It is a 3'-10" x 6'-10" sheet steel door with wood boards bolted along its interior. The vestibule is secured by 8'-6" walls of concrete and a steel roof above. It serves as an area of protection from the actions of the breaking-ball. A rectangular, wood-framed

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screened opening with expanded metal mesh and steel reinforcing bars is located along the west wall. With no windows in the building, the screened opening functioned as a visual aid for personnel to observe the activity at the interior.

A steel-framed lean-to was added to the north and south sides of the facility. The first was constructed in 1945 the second came in the years to follow. The lean-tos cover miscellaneous equipment associated with the function of the building. The two distinguishable pieces of equipment at the north side of the building are a shear and punching machine and a 30,000 lb. platform scale consisting of a 3'-0" x 9'-0" weighing platform and weight dial indicator that is secured inside an expanded metal mesh enclosure. A smaller lean-to is located at the west side of the building. It is unknown when this was added to the original structure. Other notable features include a steel ladder that is fixed to the exterior west wall and a small steel enclosed shed that has been added off the southwest corner of the building.

When the building was operational, metal scraps were collected and either before or after crushing were stored in designated scrap bins at the east and west sides of the building. The bins are large rectangular areas that are partially enclosed on three sides by partial height concrete walls. These bins are very much intact today.

Historical Context:

This building was constructed as a scrap metal breaking and packaging facility for the Naval Station at Pearl Harbor. It is adjacent and functionally related to the Foundry (Facility 6) in the Shipyard. The Navy Data Base indicates that the construction of Facility 1170 was completed in 1942. However, there are only two drawings on record for this building, both which date back to 1945. As discussed above, the building has had a few alterations to its original floor plan over the years.

Demand outpaced the supply of building materials in the early 1940s. Urgent military building needs combined with military requirements, and the cutoff of foreign supplies put a strain on the stocks of traditional materials here at home. World War II meant that the highest priorities for construction were directed to defense manufacture, which made everything from nails to piping to insulation extremely scarce. All of this created shortages in critical materials such as iron, steel, copper, aluminum, and later wood. Adjustments and alternatives were sought to aid wartime production. Thus, rationing, conservation (including scrap recycling) and the substitution of critical materials became necessary.

Facility 1170 at Pearl Harbor is directly associated with the scrap recycling efforts that took place at Pearl Harbor in 1942 and the remaining years of the war. Collected scrap metals were taken to this facility where they were broken down by the overhead crane and one-ton crusher ball. It is understood that these pieces were then brought

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to the adjacent Foundry (Facility 6) where they were cast or melted down to produce parts and supplies for the Pacific Fleet at Pearl Harbor. The function of this facility played a role in the wartime production effort.

Material conservation like the scrap recycling at Facility 1170 in Pearl Harbor took place all across the country in 1942 and the years to follow. In that year wartime construction exceeded the record high level of 1941 by thirty-seven percent, totaling more than \$6.2 billion. Of this, less than one-quarter was spent for housing (including military), \$2 billion was spent on military construction (excluding housing), and the remainder was devoted to building factories and other industrial structures (Albrecht, 63).

Facility 1170 was used for more than 45 years before the Navy ceased utilization nearly 15 years ago due to crane certification problems. While in operation it was only used as a scrap metal and packaging facility.

For an overview of the Naval Shipyard see HABS No. HI-483.

Sources:

The drawings for this building are on microfilm at NAVFAC PAC Plan Files, under Y&D drawing numbers I-N05-1344 and I-N05-1458.

Albrecht, Donald, editor. *World War II and The American Dream, How Wartime Building Changed A Nation*. National Building Museum, Washington, DC. The MIT Press, Cambridge, MA, 1995.

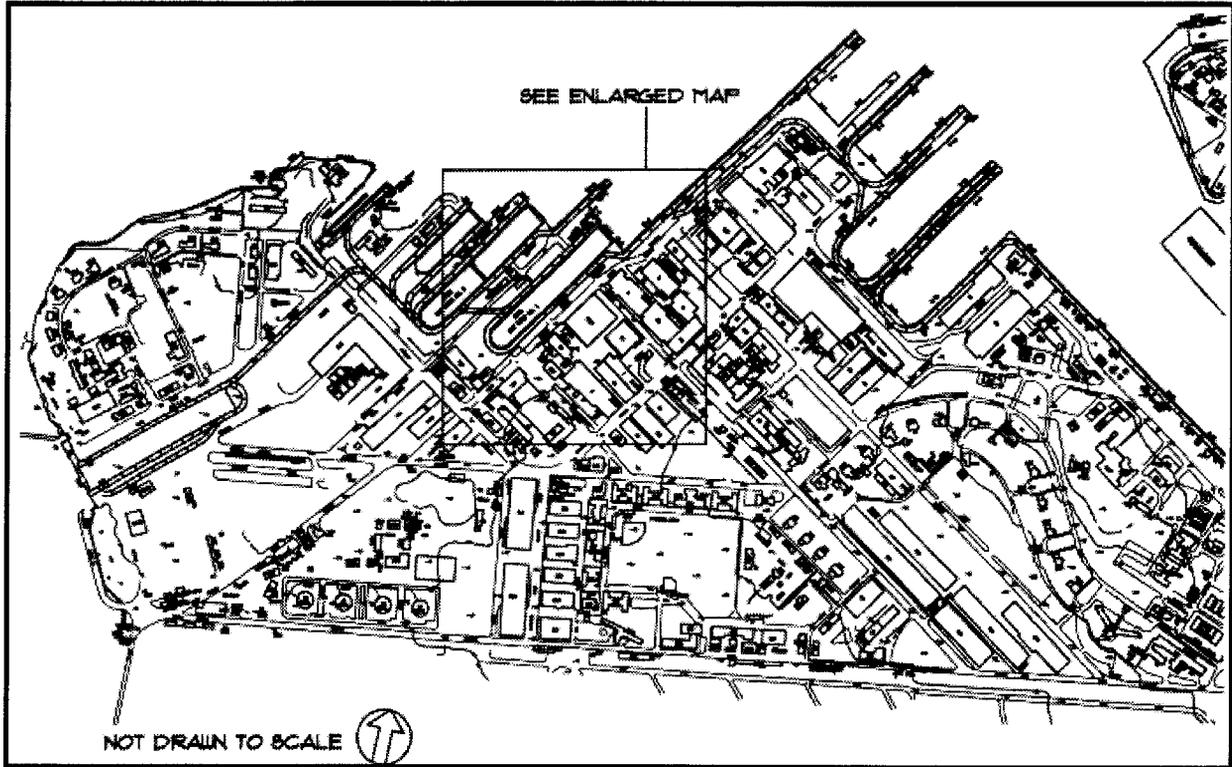
Nakahara, Kenneth. Historic Resources Inventory Form for Bldg #1170, 1980. Prepared by Pearl Harbor Naval Shipyard, Facilities Planning & Programming for State Historic Preservation Office.

Project Information:

Photo documentation and recordation of this facility by the Navy has been done in anticipation of future alterations or potential demolition of the structure. Photo documentation of historic facilities by the Navy assists in expediting planned undertakings by having the documentation prepared prior to taking actions. Also, photo documentation assists the Navy in gaining more information about its historic facilities to assist in making proactive management decisions. This project is being supervised by Jeffrey Dodge, Historical Architect, NAVFAC Hawaii. The photographic documentation was undertaken by David Franzen, photographer. Joanmarie N. Orłowski, Architectural Historian, of Mason Architects, Inc. prepared the written documentation. The field work and research was conducted for this report between July 2001 and December 2001.

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Shipyard Map



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Enlarged Area Map (reduced, not to scale)

