

DOUGLAS AIRCRAFT COMPANY LONG BEACH PLANT,  
AIRCRAFT PARTS SUB-ASSEMBLY BUILDING  
(Building No. 4)  
3855 Lakewood Boulevard  
Long Beach  
Los Angeles County  
California

HAER CA-315-D  
CA-315-D

HAER  
CA-315-D

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD  
PACIFIC GREAT BASIN SUPPORT OFFICE  
National Park Service  
U.S. Department of the Interior  
600 Harrison Street  
San Francisco, CA 94103

## HISTORIC AMERICAN BUILDINGS SURVEY

### DOUGLAS AIRCRAFT COMPANY LONG BEACH PLANT, AIRCRAFT PARTS SUB ASSEMBLY PLANT (Building No. 4)

HAER No. CA-315-D

**Location:** 3855 North Lakewood Boulevard, Long Beach, Los Angeles County, California. Building No. 4 is located in the northeastern portion of the Boeing facility, with Building No. 6 to the north, Building No. 12 to the west, Building No. 3 to the east, and Building No. 2 to the south.

Long Beach, California 7.5-minute USGS Quadrangle,  
Universal Transverse Mercator (UTM) Coordinates:  
Zone 11, Easting 394050, Northing 3743674

**Present Owner:** McDonnell Douglas Corporation, a Maryland corporation  
c/o Boeing Realty Corporation  
15480 Laguna Canyon Road, #200  
Irvine, California 92618

**Original Use:** Manufacturing and assembly of aircraft parts

**Present Use:** The building is currently vacant.

#### **Significance Summary:**

Building No. 4 is one of 18 contributing buildings and two features to the Douglas Aircraft Company Long Beach Plant historic district. Activities associated with the district significantly contributed to the history of the aviation industry in southern California, the war (World War II) effort and the movement to utilize women workers on the Home Front, and to the development and growth of Long Beach and Lakewood.

#### **A. General Statement:**

##### **1. Summarized History:**

Building No. 4 was constructed in 1941, at a cost of \$499,000. The building is categorized as a manufacturing/processing building that historically was used primarily for machining,

**DOUGLAS AIRCRAFT COMPANY – LONG BEACH PLANT  
BUILDING NO. 4 (FACTORY & SUB-ASSEMBLY)**

HAER. No. CA-315-D

(PAGE 2)

chemical etching, and painting. Building No. 4 is similar to Building No. 3 in design and size.

**2. Architectural Character:**

Both the exterior and interior of this industrial building exhibit minimal architectural styling qualities. The design and features are straightforward, utilitarian in character with little, if any, architectural detailing. Most of the contributing properties within the historic district are of similar design, scale, volume, massing, workmanship, type, and material.

**3. Condition of Fabric:**

Good.

**4. Summary Description:**

Building No. 4 was constructed as a single-story, high bay structure with a ground floor and mezzanine. This steel-framed, corrugated steel clad building is capped with a slightly angled (flat) roof. The north and south elevations appear to be the primary facades and are defined by two principle bays each containing large hangar doors (Ferguson Vertical-lift hangar doors). The interior retains the openness of the original design, and includes a concrete covered floor, a mezzanine covered with vinyl asphalt tile flooring, and seaweed insulated walls. Based on the date of construction, asbestos containing materials and lead-based paint may be present within the building.

**B. Description of Exterior:**

**1. Overall Dimensions:**

Building No. 4 is a high-bay, 215,150 square-foot structure at the Boeing facility. The building measures approximately 650 feet long, 331 feet wide, and 22 feet high.

**2. Foundation(s):**

The building has a continuous-poured concrete slab foundation.

**3. Wall Construction:**

The building has a structural steel framing system and is clad with large corrugated steel panels insulated with seaweed and asphalt asbestos protected metal on the steel.

**4. Structural System, Framing:**

The structural system is steel frame with stitch rivets.

**DOUGLAS AIRCRAFT COMPANY – LONG BEACH PLANT  
BUILDING NO. 4 (FACTORY & SUB-ASSEMBLY)**

HAER. No. CA-315-D

(PAGE 3)

**5. Porches, Balconies, Stairs:**

Steel framed stairtowers with landings are located along the east and west elevations.

**6. Openings:**

**a. Doorways and Doors:**

North and south elevations are punctuated by large Ferguson Vertical-lift hangar doors. East and west elevations contain a number of sliding-pocket hangar doors and individual pilot doors.

**b. Windows:**

There are no windows along any of the elevations.

**7. Roof:**

**a. Shape, Covering:**

Building No. 4 has a flat (slightly angled), composition roof on 1¾ inch plank with a Thermax lined roof covering.

**b. Dormers, Cupolas, Towers:**

None.

**8. Other Exterior Features:**

Other exterior features identified with Building No. 4 include aboveground cryogenic tanks, compressed gas storage areas, a former air compressor area, a dry trash storage area, an emergency generator, and a high voltage transformer area. Two cryogenic tanks are located at the southeast corner of Building No. 4. One tank contained cryogenic argon and the other tank contained nitrogen. Both tanks are set on a concrete foundation enclosed within a chain link fence. The compressed gas storage area is located along the southeast wall of Building No. 4. Compressed argon and compressed oxygen were stored at this location. Two aboveground foundations are located along the central wall of the east elevation of Building No. 4. Historical drawings indicate that air compressors may have been present at this location. An enclosed dry trash storage area is located along the northwest wall of Building No. 4. The area is covered by an aluminum roof and was used to store recyclable trash. The emergency generator is located on a concrete foundation along the northwest wall of Building No. 4. A high-voltage transformer is located outside the west elevation wall of Building No. 4. The transformer, contemporary in nature, measures approximately twelve feet by 5 feet. It is located on a concrete foundation and located inside a fenced area.

**DOUGLAS AIRCRAFT COMPANY – LONG BEACH PLANT  
BUILDING NO. 4 (FACTORY & SUB-ASSEMBLY)**

HAER. No. CA-315-D

(PAGE 4)

**C. Description of Interior:**

**1. Floor Plans:**

Building No. 4 consists of a ground floor and a mezzanine level, which was used primarily for office space. Although portions of the interior space have been remodeled, the overall basic floor plan is still intact. See attached floor plan sketch.

**2. Stairways, Catwalks:**

A series of metal/wood framed catwalks are located throughout the truss system of the building. Access to the catwalks is via the exterior stairtowers.

**3. Flooring:**

Concrete flooring is present throughout most of the building, with the mezzanine level covered by a vinyl asphalt tile flooring (offices).

**4. Wall and Ceiling Finish:**

The interior walls are roughly finished with the seaweed insulation exposed. The ceiling is open with exposed metal truss-work.

**5. Openings:**

**a. Doorways and Doors:**

Interior doors include a limited number of standard, single-panel doors located primarily in the office areas, laboratories, and restrooms.

**b. Windows:**

There are no windows in Building No. 4.

**6. Mechanical Equipment:**

**a. Heating, Air Conditioning, Ventilation:**

Heating: One large boiler located within Building No. 4 was used to heat the structure. The boiler room contains a contemporary sump and utilized diesel/fuel oil.

Air Conditioning: Available information reveals the interior of the building was initially air-conditioned. The A/C was designed to provide a minimum of four air changes per hour.

Ventilation: Ventilation throughout the building was originally provided by an air-

**DOUGLAS AIRCRAFT COMPANY – LONG BEACH PLANT  
BUILDING NO. 4 (FACTORY & SUB-ASSEMBLY)**

HAER. No. CA-315-D

(PAGE 5)

conditioning system and attic vents. Opened doors also provided ventilation into the building.

**b. Lighting:**

Electrical transformers, which supply some power to the building, are located within the structure. Original electric lighting was Mercury vapor and incandescent, which was provided by large, industrial type suspended light fixtures. There are some contemporary fluorescent light fixtures located in the various office spaces within the building.

**c. Plumbing:**

Employee restrooms are located within the interior, on either side of the east/west walls. All original plumbing fixtures have been replaced. The entire interior area of the building was initially equipped with an automatic fire sprinkler system. This system is still in place.

**Prepared by:** Janet Ostashay, Director of Cultural Resources Management  
PCR Services Corporation  
233 Wilshire Boulevard, Suite 130  
Santa Monica, California 90401

**Date:** May 2006

**DOUGLAS AIRCRAFT COMPANY – LONG BEACH PLANT  
BUILDING NO. 4 (FACTORY & SUB-ASSEMBLY)**

HAER. No. CA-315-D

(PAGE 6)

**BUILDING NO. 4: CURRENT FLOOR PLAN SKETCH**

