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CONSTRUCTION

HANFORD ENGINEER WORKS

U. S. CONTRACT NO. W-7412-ENG-1

DU PONT PROJECT 9536

HISTORY OF THE PROJECT

VOLUME I

START MARCH 22, 1943

COMPLETE MARCH 31, 1945

E. I. DU PONT DE NEMOURS & COMPANY, INC.
WILMINGTON, DELAWARE

AUGUST 9, 1945

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I Preconstruction Period

A Foreward

Prior to the entry of the United States into World War II it was found that military facilities were inadequate to meet the demands so suddenly imposed. Immediately, through executive and congressional action, laws were established through which emergency facilities could be created to meet the heavily-increased requirements for arms, ammunition and other war material and equipment. Acts were approved to expedite the building for national defense, to appropriate funds for the acquisition of lands, to contract for war material and to expedite the prosecution of the war effort.

Huge war plants sprung up throughout America. One of the largest and most unique of war projects was the Hanford Engineer Works. Located in the south central portion of the State of Washington, it lay on an undulating tableland, composed chiefly of a desolate region of sand, sagebrush, and dried water courses.

This plant was erected for the United States Government by E. I. du Pont de Nemours and Company, Inc. under a contract negotiated with the Corps of Engineers, Army Service Forces. Construction was started March 22, 1943 and was essentially completed by March 31, 1945.

C Land Acquisition

The Second War Powers Act, authorizing the Secretary of War to acquire lands by purchase, as needed for military or other war purposes, together with Public Law 649, authorizing the necessary funds, were the initial authorities invoked to acquire the site for the construction of the Hanford Engineer Works.

On February 8, 1943, a directive was issued by the Secretary of War authorizing the acquisition of the necessary land. Direct responsibility for selection and acquisition of the site was vested in the Engineer Corps, United States Army.

Immediately following the issuance of the directive, quarters were secured at Prosser for the Real Estate Division of the Engineer Corps. This unit, headed by a Field Project Manager, instigated immediate action toward acquiring that portion of the land to be first evacuated.

The site was divided into five areas, designated as A, B, C, D and E. The first to be acquired was Area A, situated in the center of the Project Site. A petition for condemnation under the Second War Powers Act was filed in the United States District Court for the Eastern District of Washington on March 27, 1942. Possession of 176,000 acres of land was awarded on February 23, 1943. This method of acquiring land by condemnation was decided upon in order to obtain immediate possession of the entire acreage with a minimum of delay and inconvenience to all concerned. It did not indicate that the owners were in disagreement as to value, nor did it mean that titles were faulty. The United States District Court merely awarded the Government the right to occupy immediately the area within the perimeter description. The War Department then proceeded to appraise, negotiate and obtain options on the component tracts. As each tract was closed and paid for, the condemnation proceeding was dismissed.

Four mediums of acquiring the 428,849.51 acres of land were employed: fee simple, lease, transfer of Government-owned and War Restriction Agreement. The latter form of agreement enabled the owners to remain in possession, subject to certain rules and regulations promulgated by the Government.

Area A contained a total of 123,984.03 acres, Area B, 238,943.73 acres, Area C, 43,226.45 acres, Area D, 16,099.87 acres, and Area E, 6,595.43 acres. Following are acreage totals by area and by method of procurement:

	<u>Area A</u>	<u>Area B</u>	<u>Area C</u>	<u>Area D</u>	<u>Area E</u>
Fee Simple	99,784.03	9,719.83	1,356.08	14,928.02	1,728.98
Leased		182,112.78			4,546.45
Government-owned	24,200.00	45,231.90	7,352.29	1,171.85	320.00
War Restriction Agreement		1,879.22	34,518.08		
Totals	<u>123,984.03</u>	<u>238,943.73</u>	<u>43,226.45</u>	<u>16,099.87</u>	<u>6,595.43</u>

A land acquisition policy to cover known contingencies, prepared by the Office of the Chief of Engineers, was designed for the guidance of the Real Estate Division in acquiring the acreage comprising what was then referred to by the War Department as the Gable Project. The policy covered twenty-three known instances that were encountered:

1. Allard Pumping Station
2. Irrigation Pumps
3. Priest Rapids Irrigation District
4. Vernita Switching Station
5. Private Telephone Lines
6. Electric Power Lines
7. Roads
8. Richland Irrigation District
9. Schools
10. Railroads
11. Minerals
12. Ferries
13. Gas Station Pumps
14. Gasoline Storage Tanks
15. Hanford Water Plant
16. Cemeteries
17. Removal of Buildings
18. Islands
19. Priority of Acquisition
20. Interest to be acquired
21. Orchards
22. Indian Fishing Rights
23. Water Taxes and Liens

The most important areas were vacated not later than April 28, 1943, due to military necessity. These areas were described in public meetings held at Richland and White Bluffs on March 26, 1943. Business houses, business men and their families, and school teachers and their families were allowed to remain until so notified. Owners and occupants in Area A vacated on or before May 31, 1943, although merchants and business men were allowed to remain in operation. Owners and occupants in Area D were allowed to remain until the end of the current crop year to harvest their crops. Buildings or fixtures were not permitted to be moved following the appraisal date as recorded in the land office. The United States Department of Agriculture War Board, consisting of several Federal and State agencies with offices at Kennewick, Washington, offered certain types of assistance to persons required to vacate the area.

A small branch Real Estate Project Office was established on October 25, 1943, in the Miller Building, Yakima, immediately adjacent to the offices of the Lands Division, Department of Justice, for the purpose of cooperating with that agency to expedite and facilitate payment to land owners whose cases were in "Declaration of Taking".

Immediately following the completion of a test trial, which began on October 7, 1943, a vigorous program for negotiation of stipulations was instituted. The majority of the work consisted of obtaining information and curative documents and material permitting disbursement of funds from deposits in the Registry of the Court. The acquisition program as planned was a matter of eliminating, one-by-one, the tracts and each of the problems peculiar to the tracts, requiring in nearly every case special handling, either in coordination with the Division Office, the Office of the Chief of Engineers, or the Department of Justice. Experience in the negotiation of War Restriction Agreements indicated that permitting the owners ample time to consider fully the provisions of the Agreement, resulted in obtaining numerous agreements that otherwise might have resulted in definite refusals necessitating condemnation.

D Preliminary Description of the Plant

Design for the permanent plant of the Hanford Engineer Works included seven process areas, five service areas, and a village area as follows:

<u>Process</u>		<u>Service</u>	<u>Village</u>
100-B	500	O.S. Electric Lines	1100
100-D	600	General Facilities and Service	
100-F	700	Administration	
200-E	800	Overhead Lines	
200-W	900	Underground Lines	
200-N			
300			

In order to visualize the general plant layout, it first must be understood that the seven process areas, the 700 Area, and the 1100 Area, refer to portions of the Project property set apart, each for its individual purpose, while the 500, 600, 800 and 900 Areas are groupings of area and inter area work and do not necessarily denote physical separation.

The 1100 Area, known as Richland, which contained within its commercial district the 700 (Administration) Area, was located in the southeastern corner of the Project. The process areas were located north and west of the town. A tabulation of road mileages from Richland to the process areas follows:

<u>Area</u>	<u>Mileage to Richland</u>
100-B	38.0
100-D	37.4
100-F	30.2
200-E	28.7
200-W	30.5
200-N	31.0
300	7.4
Hanford Camp	23.2

Reference to the map of the Project found in the 600 Area Section, sub-heading (5) Construction, will serve to orient the areas with respect to Richland.

Each 100 Area contained one 105 Building with its attendant process and service buildings, and a water supply system designed to assist in providing water for the 200 Areas. The 200-W Area contained two 221 Buildings and a 231 Building (which served the whole plant) with their attendant process and service installations. The 200-E Area contained one 221 Building, plus necessary process and service buildings and facilities. The 200-N Area provided storage for the partially-processed product in transit from the 100 Areas to the 200 Areas, plus storage for the plant end-product. The 300 Area furnished testing, fabrication and laboratory service for the other process areas.

The 700 Area was located in Richland and was composed of the plant

Administration office and the buildings auxiliary either to it or to parts of the surrounding 1100 Area. The latter area contained residential and commercial Richland, and its services and facilities.

The buildings and facilities included in the other four areas are listed below.

500 Area (O.S. Electric Lines)

Fence Lighting	Electric Lines
Fire Alarm	Telephone
Substations	

600 Area (General Facilities & Services)

Standard Gauge Track & Scale Houses	Standard Gauge Rolling Stock
Roads & Walks	Auto, Tractors, Trailers
Fences & Guard Towers	Settling Tanks
Open Drainage Ditches	Parking Areas
General Monitoring Stations	Road Mix Preparation
Emergency Gas Generator Stations	Meteorological Tower
Radio Transmitter	Distribution & Secondary
Rifle & Pistol Range	Substations
Water Treatment Building	Change Houses
Locomotive House	Elevated Tank & Valve Pit

800 Area (Overhead Lines)

Pipe Supports	Steam Lines
Air Lines	Ventilation Ducts
Process Lines	

900 Area (Underground Lines)

Water Lines	Fire Lines
Sanitary Sewers	Process Sewers
Wells & Pumps	Ventilation Ducts

The foregoing deals entirely with the permanent plant. In order to accomplish this construction, many temporary buildings, facilities and services had to be provided. The largest of these items was Hanford Camp, where living quarters were provided for the large majority of the Construction force. All of the temporary plant buildings, facilities and services were charged into one of four major accounts; HC - Hanford Commercial Contracts and Facilities; GC - General Commercial Contracts and Facilities; XC - Commercial Contracts and Facilities for the 3000 Area Camp; or TC - Temporary Construction; and each of these was broken down into sub-accounts, etc.

As each Area and all temporary work is described and detailed in the following sections of the History, no further description will be attempted here. This section is intended to present an overall picture of the Project sufficient to enable the reader to fit the succeeding sections in their proper relationship.