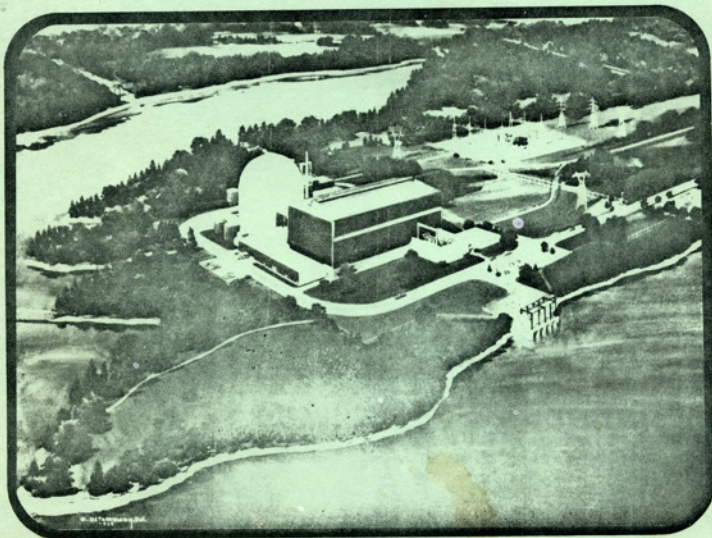


# MAINE YANKEE FACTS



Artist's concept of the Maine Yankee Atomic Power Company plant, Bailey Point, Wiscasset, Maine.

## MAINE YANKEE FACTS

[Illustration]

Artist's concept of the Maine Yankee Atomic Power Company plant, Bailey Point, Wiscasset, Maine.

Contributed to Maine Memory Network by Maine Historical Society  
(Pamphlet 755)

MMN #29361

Date: ca. 1967

Description: Maine Yankee nuclear power plant pamphlet

MAINE YANKEE FACTS

General Information

Owner-Operator: Maine Yankee Atomic Power Company  
9 Green Street, Augusta, Maine 04330

Plant Output: 855,000 kilowatts, scheduled for  
commercial operation mid 1972.

Architect, Engineer,  
& Constructor: Stone and Webster Engineering Corp.

Location

- A. A 790 acre salt water site at Wiscasset, Maine, 4 miles south of the village.
- B. Site preferred on basis of:
  - 1. Nearness to electrical load center of Maine
  - 2. Proximity to ocean, rail and highway routes
  - 3. Excellent foundation conditions (bedrock)
  - 4. Proximity of transmission lines
  - 5. Favorable geologic, hydrologic, seismologic and meteorological characteristics
  - 6. Adequate supply of fresh water
  - 7. Sufficient land area

MAINE YANKEE SPONSORS

	percentage owned
Central Maine Power Company	38
New England Power Company	20
The Connecticut Light and Power Company	8
Bangor Hydro-Electric Company	7
Maine Public Service Company	5
Public Service Company of New Hampshire	5
Cambridge Electric Light Company	4
Montaup Electric Company	4
The Hartford Electric Light Company	4
Western Massachusetts Electric Company	3
Central Vermont Public Service Corporation	2

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-2-

Reactor

- A. Pressurized water type
- B. Supplied by: Combustion Engineering Inc.
- C. Weight and dimensions: 470 tons; 41 feet high; 17 feet diameter; 10 inch steel walls

Reactor Containment

- A. Height above grade 150 feet, inside diameter 135 feet
- B. Wall thickness,  $4\frac{1}{2}$  feet steel reinforced concrete
- C. Dome thickness,  $2\frac{1}{2}$  feet steel reinforced concrete
- D. Founded on solid rock and based on 10 feet steel reinforced concrete mat
- E. Lined with carbon steel  $\frac{3}{8}$  inch thick on sides;  $\frac{1}{2}$  inch on dome

Fuel

- A. Slightly enriched uranium dioxide
- B. Core consists of 217 assemblies each consisting of 176 fuel rods, 12 feet long
- C. Total number of fuel rods 38,192

Turbogenerator

- A. Initial capacity: 855,000 kilowatts
- B. Length: 175 feet
- C. Supplied by Westinghouse Electric Corp.
- D. Height of turbine building: 109 feet

Plant Operating Staff

70 permanent employees

Construction Force

Nearly 1200 at peak construction periods

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Turbogenerator

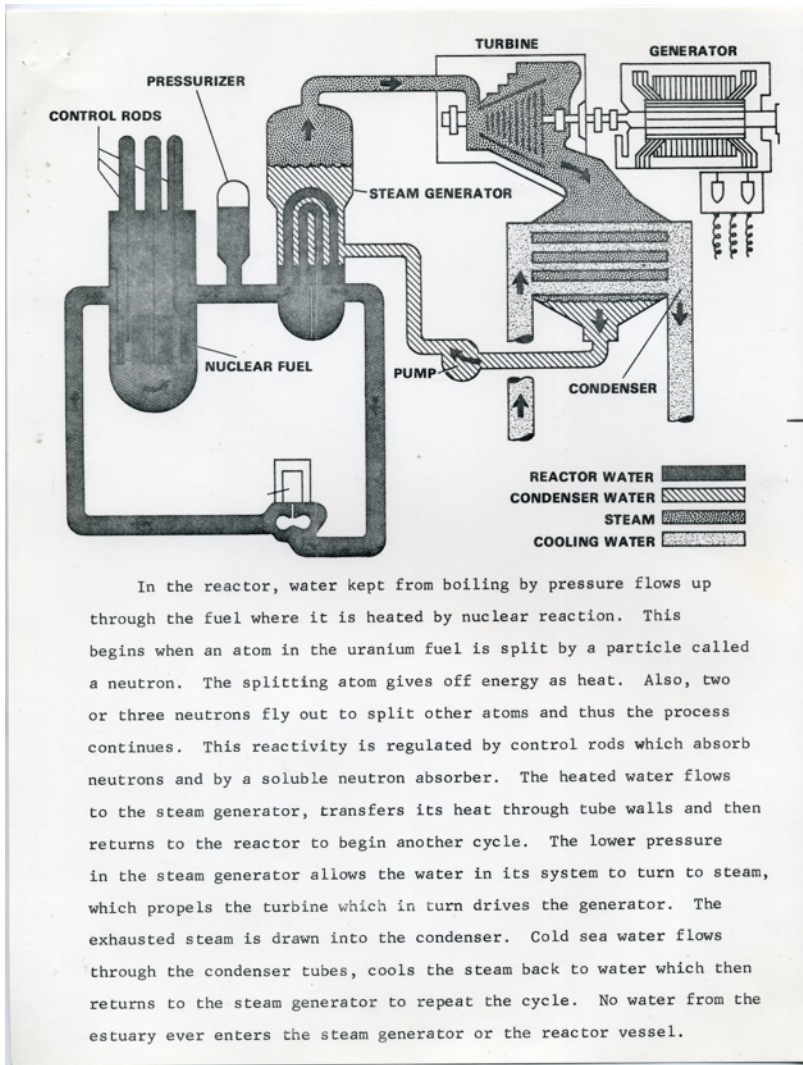
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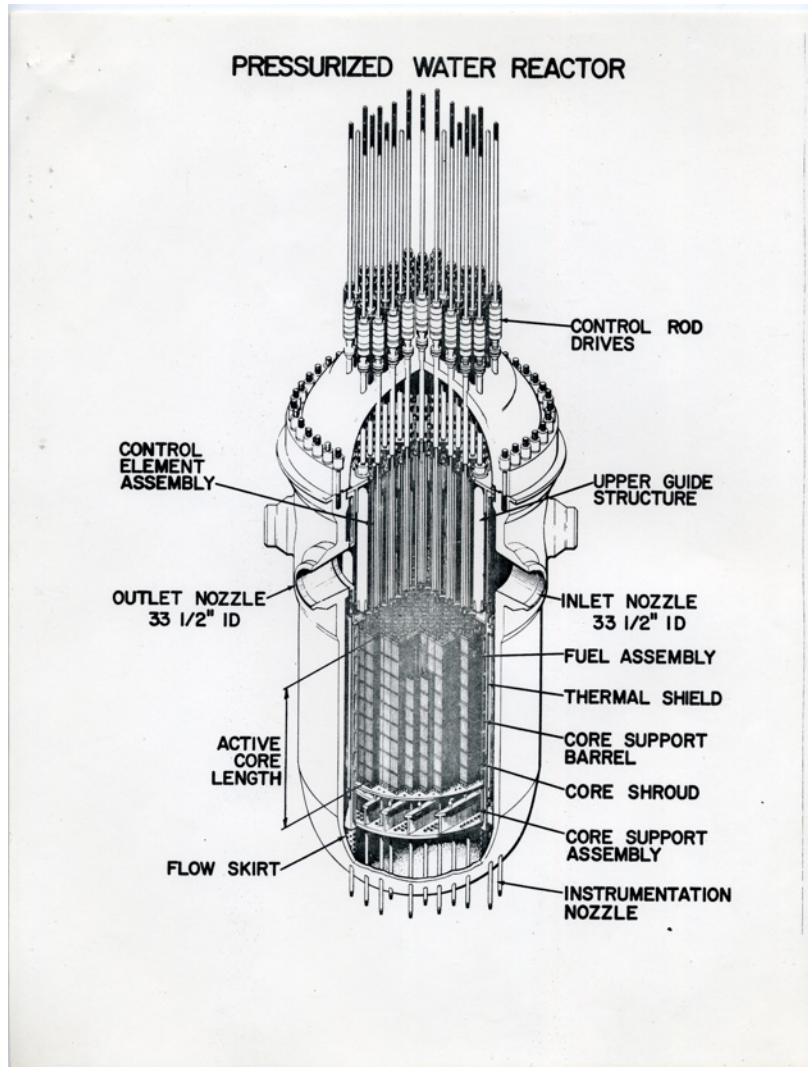
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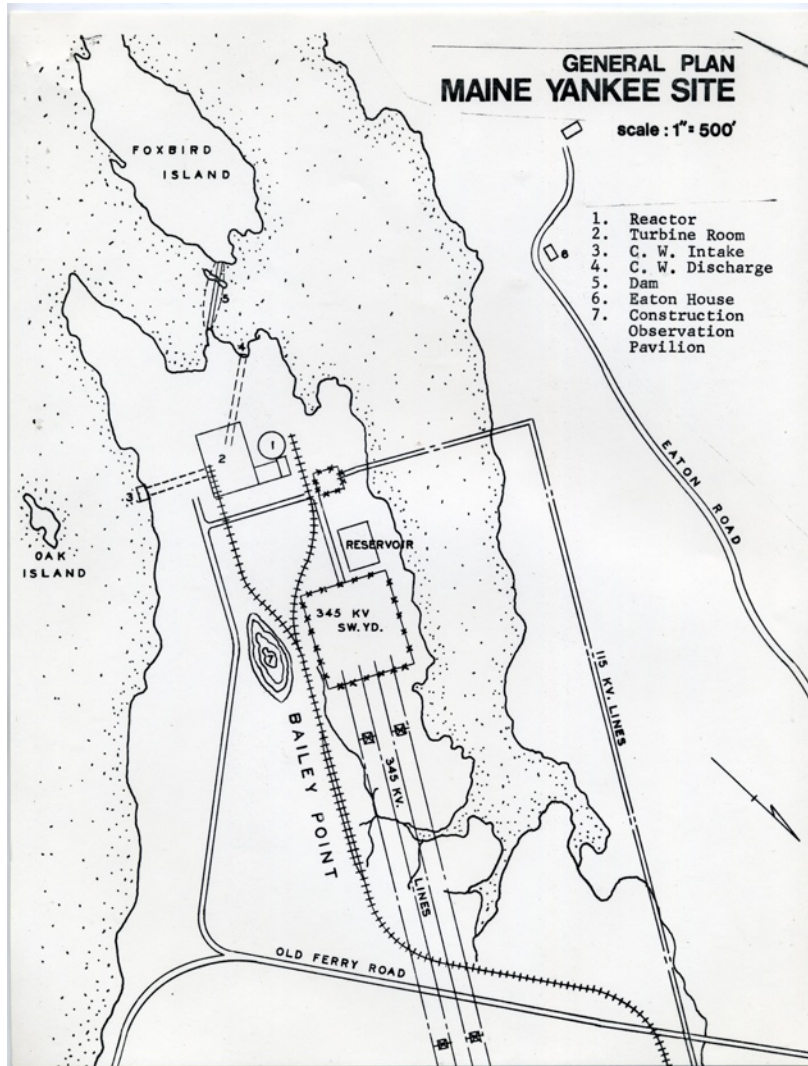
[diagram]

In the reactor, water kept from boiling by pressure flows up through the fuel where it is heated by nuclear reaction. This begins when an atom in the uranium fuel is split by a particle called a neutron. The splitting atom gives off energy as heat. Also, two or three neutrons fly out to split other atoms and thus the process continues. This reactivity is regulated by control rods which absorb neutrons and by a soluble neutron absorber. The heated water flows to the steam generator, transfers its heat through tube walls and then returns to the reactor to begin another cycle. The lower pressure in the steam generator allows the water in its system to turn to steam, which propels the turbine which in turn drives the generator. The exhausted steam is drawn into the condenser. Cold sea water flows through the condenser tubes, cools the steam back to water which then returns to the steam generator to repeat the cycle. No water from the estuary ever enters the steam generator or the reactor vessel.



PRESSURIZED WATER REACTOR

[diagram of reactor]



[map of site]

GENERAL PLAN  
MAINE YANKEE SITE