

# HONORING OUR HERITAGE

## Uranium Enrichment 1954-1986

TIMELINE



**1954** Even before construction is complete, the first production cells go "on-stream" in the X-330 building. The Portsmouth plant's mission is to enrich uranium for national defense purposes.

Through a cutting edge and secretive process called 'gaseous diffusion' the plant is capable of producing very highly enriched (VHE) uranium with an assay of 97.65 percent uranium-235 (U-235).

**1964** Production of enriched uranium for weapons ends. Plant begins producing enriched uranium to power U.S. Naval submarines and use in commercial nuclear power plants throughout the United States and World.

**1972** Cascade upgrade begins. It is expected to improve production by 63 percent and cost approximately \$257 million.

**1975** U.S. Energy Research and Development Agency (ERDA) assumes responsibility of uranium enrichment from Atomic Energy Commission (AEC).

**1976** The "Add-on" project is announced which will result in the construction of an additional process building at the site and cost nearly \$4.4 billion. The move will make the Portsmouth plant the largest gaseous diffusion plant in the world.

**1977** US Government transfers ERDA functions to newly created Department of Energy (DOE). President Carter cancels "Add-on" plant and announces construction of the Gas Centrifuge Enrichment Plant (GCEP) with full production scheduled to begin in 1988.

**1986** Goodyear operating contract comes to an end.



1954 X-330 first cell to go "on-stream"



1950s Cashier's department



1950s Aerial view of the plant

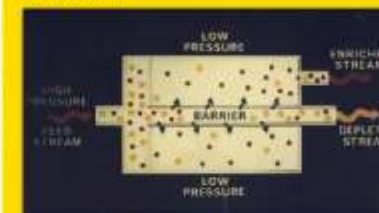


1954 X-530 Switchyard



1954 X-330 cell floor

### The Gaseous Diffusion Process



Gaseous diffusion stage



Stage arrangement



1960 Phone switchboard operations



1981 Early computer systems utilized to track uranium inventory



1970s Cascade upgrade project employed numerous welders



1967 Goodyear sign erected on US Route 23



1982 Cascade upgrade project comes to an end

