



# 207-A South Retention Basin Closure Plan

**RICHLAND**  
**OPERATIONS OFFICE**  
United States Department of Energy

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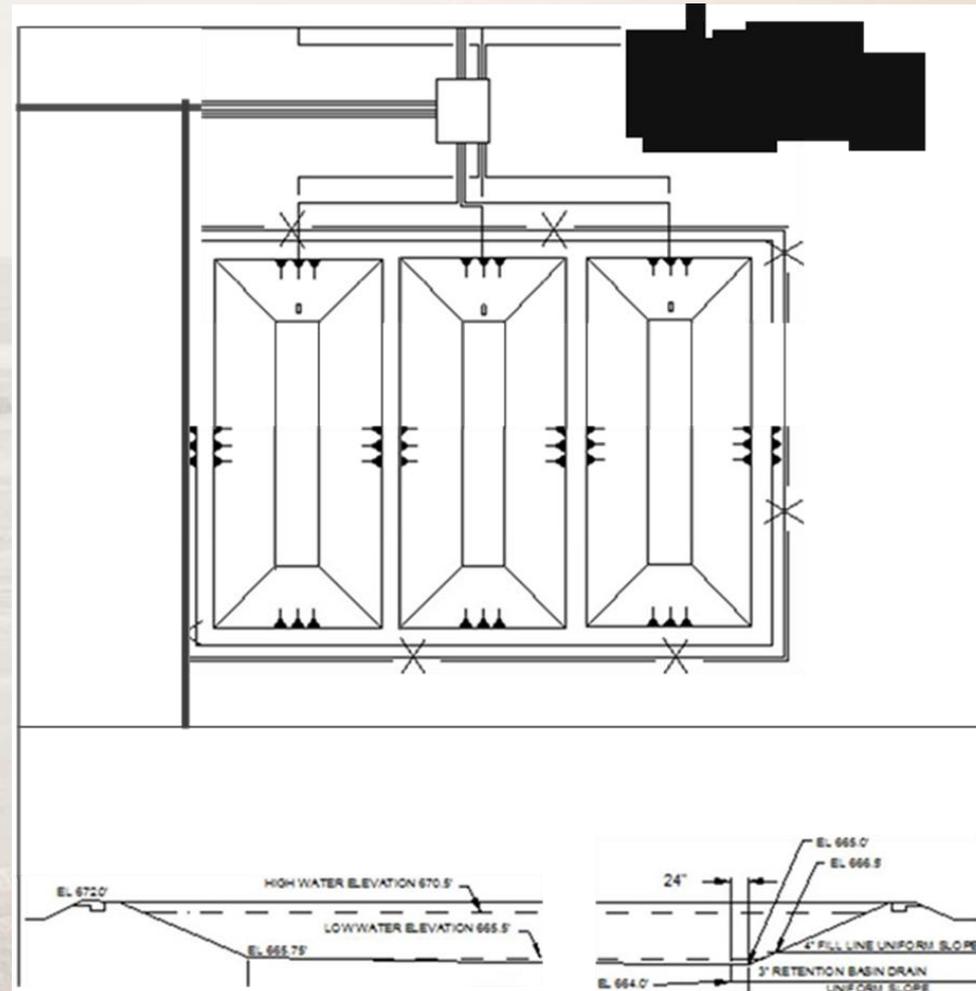
# Agenda

- Introductions
- Basin Description and History
- Proposed Closure Plan
- Permit Modification



# The 207-A South Retention Basin

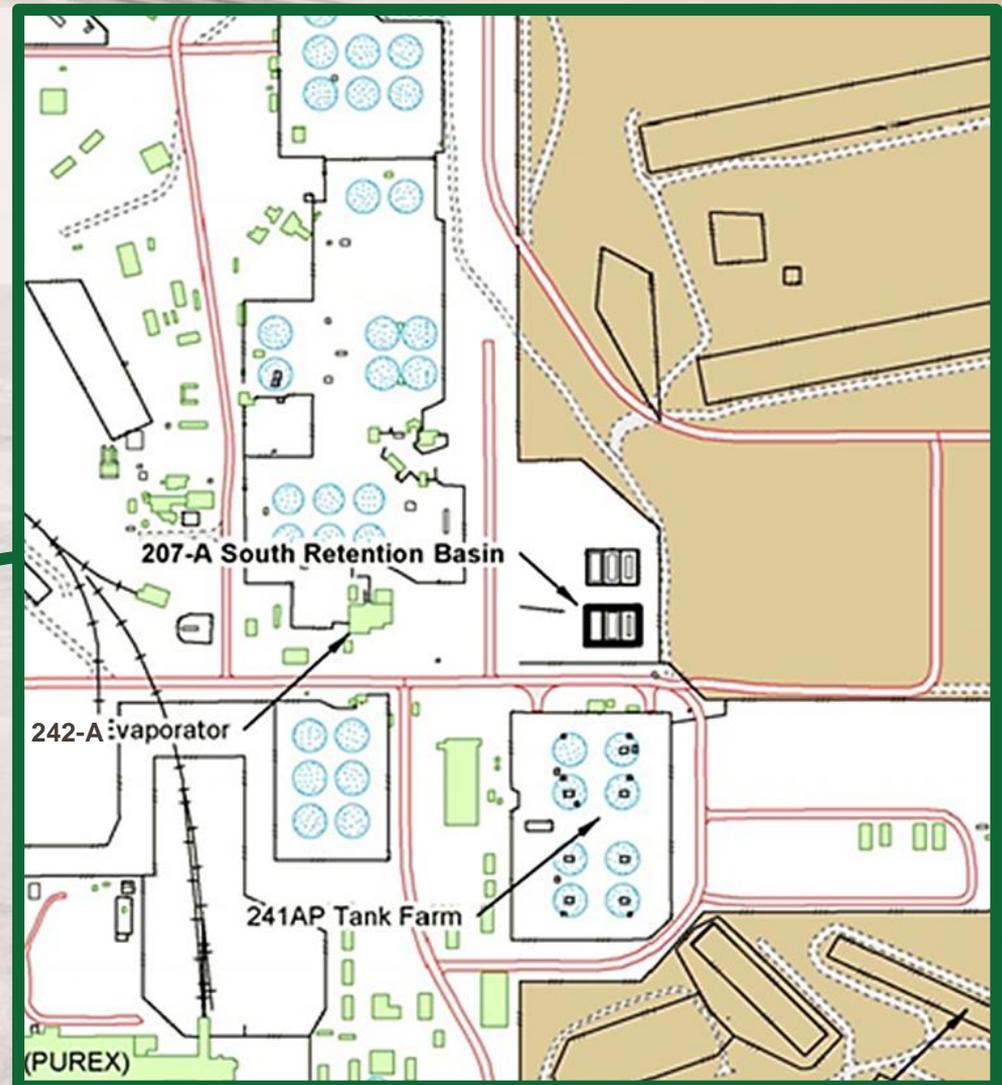
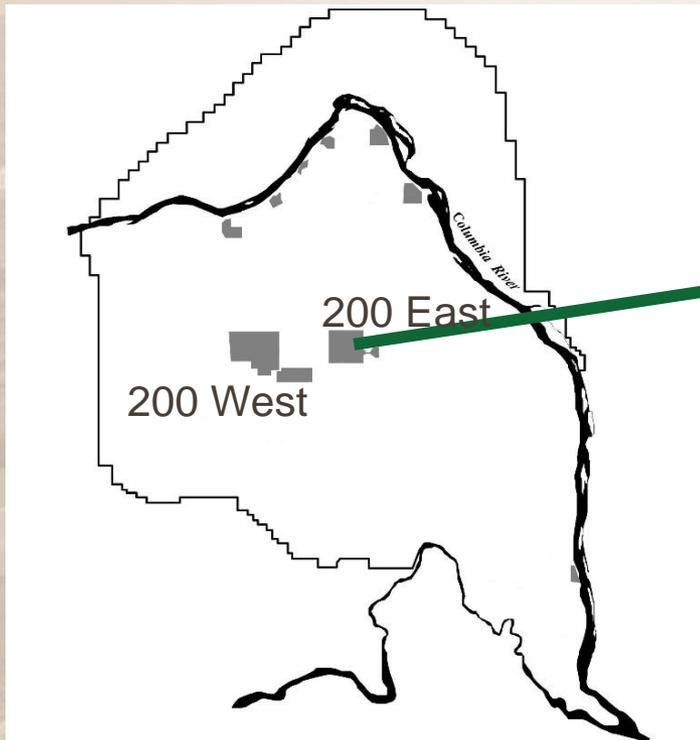
- Inactive surface impoundment used for storage of 242-A Evaporator process condensate
  - Condensate is condensed vapor from the evaporation process
- Sampling and analysis of condensate from the basin before condensate was discharged to the 216-A-37-1 Crib
- Three cells, each one:
  - 70,000-gallon design capacity
  - 55 feet long and 10 feet wide at the bottom
  - 7 feet deep





# Where is it?

200 East Area, directly east of the 242-A Evaporator





# History

- Used to store 242-A Evaporator condensate (a waste solution containing trace amounts of radioactive ions)
- Began operations in March 1977
- Designated as a dangerous waste, because it was derived from waste containing spent solvents
- The condensate also contained ammonia



*The 242-A Evaporator accepts waste from the double-shell tanks and boils it to extract water and concentrate the waste, which goes back to the double-shell tanks. The condensate goes to LERF-ETF for treatment.*



# History

- Discharge to the basin ended on April 12, 1989, and the basin has been empty and inactive since
- The cells were coated to prevent waste from penetrating the concrete
- The concrete structures have remained intact
- No leaks have been reported from the basin during inspections



*The 207-A South Retention Basin*



# Proposed Closure Plan

- Removal of basin storage cells and up to 3 feet of soil
- Disposal at Hanford's Environmental Restoration Disposal Facility
- Cleanup levels will meet unrestricted use standards under Model Toxics Control Act (MTCA) and consider:
  - Carcinogens
  - Non-carcinogens
  - Groundwater protection
  - Ecological indicator values
- To allow the work to be completed in this fiscal year, DOE submitted a Temporary Authorization request to Ecology, which was approved on July 24, 2015



# Proposed Closure Plan

- Closure of the 207-A South Retention Basin will include:
  - Basin demolition and disposal
  - Soil removal as needed
  - Waste management activities
  - Air emission controls
  - Health and safety requirements
  - Cultural and ecological resource reviews
  - Soil verification sampling and analysis



*207-A South Retention Basin with the 242-A Evaporator in the background.*

# Proposed Permit Modifications



- Ecology determined that a Class 3 permit modification was appropriate to add 207-A South Retention Basin to Section V (Closure Units) of the Hanford Facility Permit
- The closure plan and any conditions deemed appropriate by Ecology will be incorporated into the Hanford Facility Permit
- This action will document the closure requirements and allow the 207-A South Retention Basin to be formally closed and retired from the permit, when the closure requirements have been met.



# Questions?