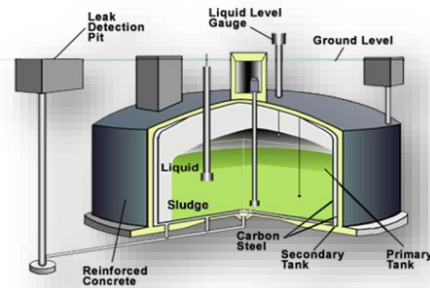


# The Hanford Tank AY-102 Recovery Project

**Sebastien GUILLOT**

Project manager



For  
PMI Columbia River Basin Chapter  
2017 Award for Project Excellence

February 23, 2017





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# Hanford Tank AY-102 Recovery Project

## Context and Background



1940s-1980s: Construction & Plutonium Production



1940s-1980s: Creation of Tank Waste



Present: Waste Treatment Plant Construction



Present: Stabilization & Safe Storage

## Hanford Site History – World War II to Cleanup

# Hanford Tank AY-102 Recovery Project

## Tank History - Project Mission and Scope

1969

1972

2012

2013

2017

...

**Tank Construction**

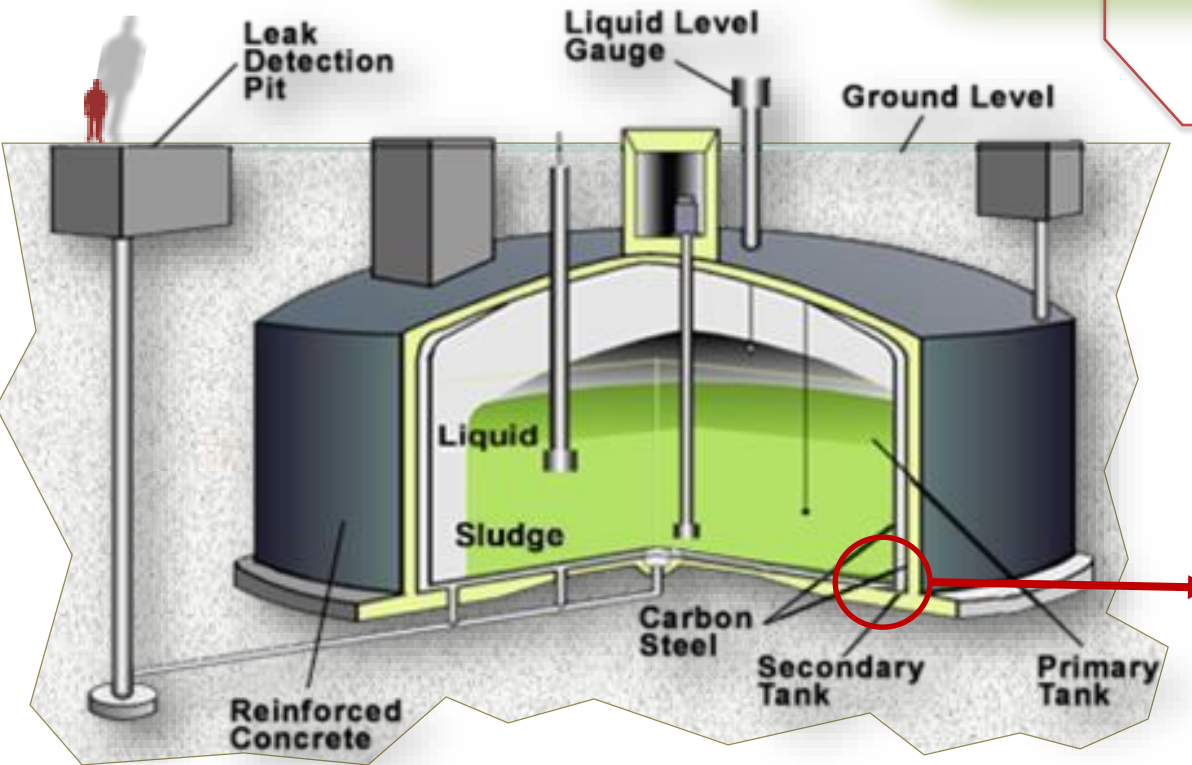
*Tank Operations*

*Tank Declared Leaker*

**Recovery Actions:**  
Remove the waste to enable inspection

*Tank inspection*

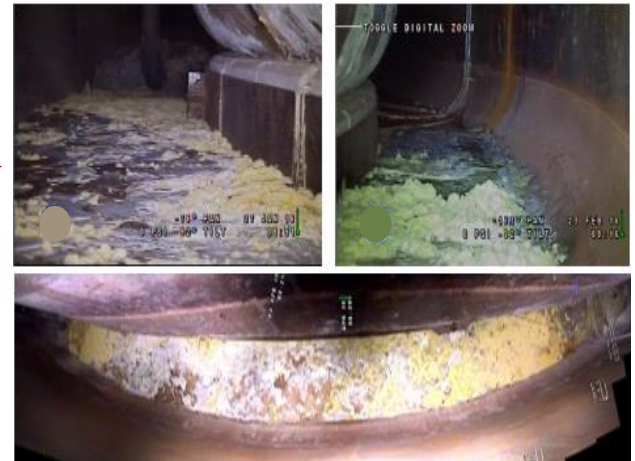
*Repair or Closure*



October 2014  
Settlement Agreement between WRPS, DOE/ORP, and the State of Washington:

- Start waste removal by March 4, 2016,
- Complete within 12 months

Evidence of leaked waste on the secondary tank floor in the annulus space

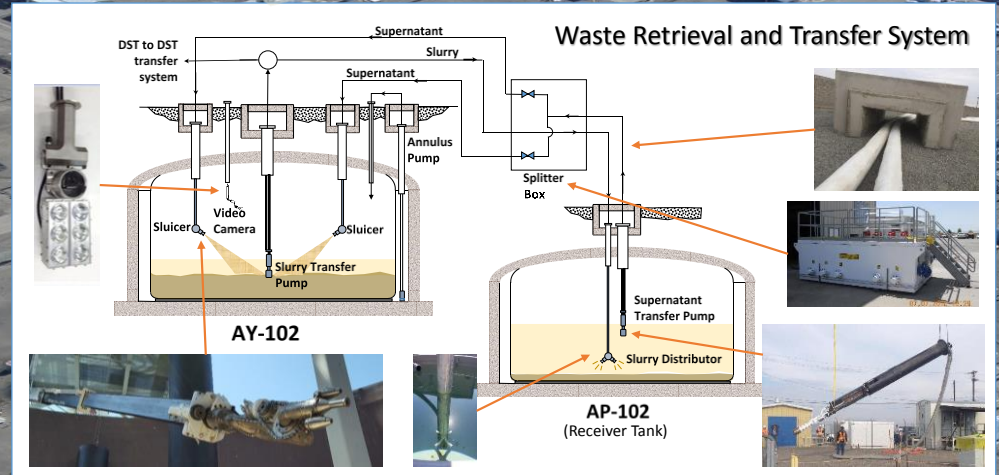
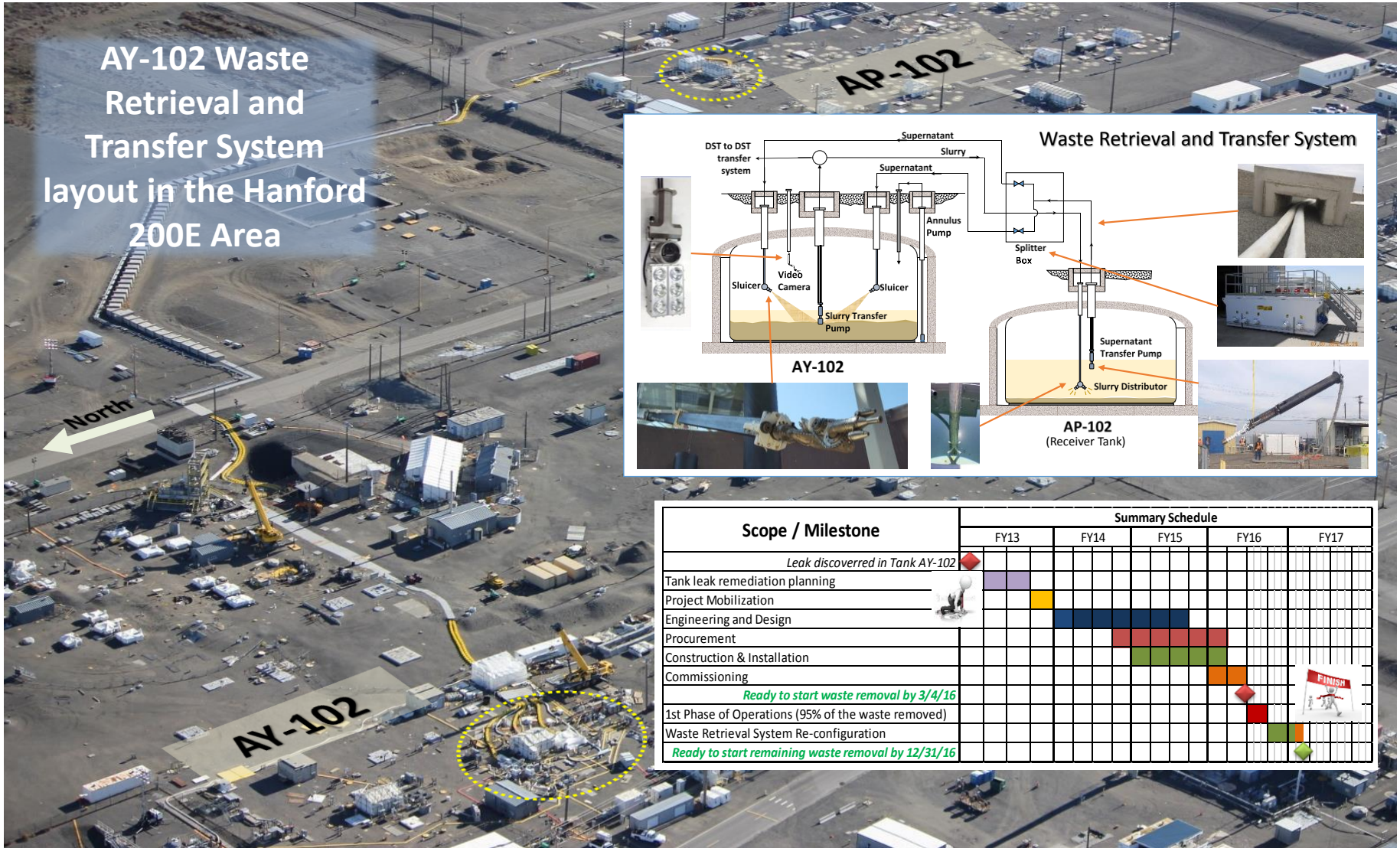


**75 feet wide x 30 feet high, 15 feet below grade**  
**800,000 gallons of radioactive chemical waste**  
**700,000 Ci of <sup>90</sup>Sr and <sup>137</sup>Cs ⇔ 100,000 BTU**

# Hanford Tank AY-102 Recovery Project

## Solution: Waste Retrieval and Transfer System

AY-102 Waste Retrieval and Transfer System layout in the Hanford 200E Area



Scope / Milestone	Summary Schedule				
	FY13	FY14	FY15	FY16	FY17
Leak discovered in Tank AY-102					
Tank leak remediation planning					
Project Mobilization					
Engineering and Design					
Procurement					
Construction & Installation					
Commissioning					
<i>Ready to start waste removal by 3/4/16</i>					
1st Phase of Operations (95% of the waste removed)					
Waste Retrieval System Re-configuration					
<i>Ready to start remaining waste removal by 12/31/16</i>					



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# Hanford Tank AY-102 Recovery Project

## The 1<sup>st</sup> of a kind Double Shell Tank retrieval



January 2017

**Removed 97% of the AY-102 waste**

Removed over 725,000 gallons of waste

- 590,000 gallons of supernate
- 135,000 gallons of sludge

Estimate 18,000 gallons of total waste remaining



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# Hanford Tank AY-102 Recovery Project

## Challenges and Key Ingredients for Success



**Safety**



**Risk Management**



**Scope definition**



**Communications**



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# Hanford Tank AY-102 Recovery Project

## Conclusion & Acknowledgements

"Coming together is a beginning.  
Keeping together is progress.  
Working together is success."

*Henry Ford*

