PFP: The Lay of the Land

- Plutonium Reclamation Facility 236-Z
- Ventilation Building/Stack 291-Z
- "McCluskey Room" 242-Z
- Americium Recovery Facility
- Plutonium Finishing Plant 234-5Z
PFP: Path toward Demolition

- All pencil tanks removed
- Work underway:
  - Canyon decontamination
  - Gallery glove box preparation
  - Process and chemical line removal
PFP: Plutonium Reclamation Facility Canyon
PFP: Path toward Demolition

- All glove boxes/hoods taken off ventilation
- In-situ glove box size reduction complete
- Work underway:
  - Ventilation duct removal
PFP: In-Situ Glove Box Size Reduction

HA-9A Before

HA-9A After
Inside 234-5

Time Lapse Video of HA-9A Size Reduction
PFP: Ventilation Duct Progress: 2014

8,882 total feet of E4 ventilation duct to remove/prepare for removal

Employees modifying the ventilation system to support duct removal
PFP: Ventilation Duct Progress: 2016
PFP: Path toward Demolition

- Three remaining glove boxes removed
- Work underway:
  - Preparing to remove chemical tanks during demolition
# PFP Progress, Removing Hazards

<table>
<thead>
<tr>
<th>Item</th>
<th>Original</th>
<th>Remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processing Equipment (e.g., glove boxes) Removed or Ready for Removal during Demolition</td>
<td>238</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(98 Percent Complete)</td>
</tr>
<tr>
<td>Pencil Tank Sections Sealed Out</td>
<td>196</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(100 Percent Complete)</td>
</tr>
<tr>
<td>Feet of Ventilation Ducts Removed or Ready for Removal during Demolition</td>
<td>8,882</td>
<td>3,349</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(62 Percent Complete)</td>
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<tr>
<td>Buildings Demolished</td>
<td>81</td>
<td>15</td>
</tr>
<tr>
<td></td>
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<td>(81 Percent Complete)</td>
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PFP: Highest-Hazard Work at DOE

Release Limits
<20 DPM/100 cm²
Removable Contamination

20 DPM/100 cm²
.2 DAC

2,000 DPM/100 cm²
.2 DAC

25 million DPM/cm²
206,000 DAC

Increased contamination levels and safety equipment required
PFP: Improving Safety Performance

CHPRC improved the process of doffing/removing Level B PremAire suits after several skin and clothing contaminations, including the use of additional fixative outside of the suit and additional protective clothing under the suit.

Red circles on the exhaust hose (left) and vortex cooler (right) indicate where contamination was discovered. Following discovery, CHPRC strengthened release processes.

Other Actions:

- PFP Leadership Change
- External and Internal Audits of Procedures
- Additional Management and Safety Oversight
- Resequencing of Work to Focus on Safe Performance
# PFP Timeline and Sequence

## Demolition Sequence and Duration

<table>
<thead>
<tr>
<th></th>
<th>Facility</th>
<th>Duration</th>
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<tbody>
<tr>
<td>1</td>
<td>236-Z Plutonium Reclamation Facility</td>
<td>10 weeks</td>
</tr>
<tr>
<td>2</td>
<td>242-Z Americium Recovery Facility</td>
<td>2 weeks</td>
</tr>
<tr>
<td>3</td>
<td>234-5Z Plutonium Finishing Plant</td>
<td>17 weeks</td>
</tr>
<tr>
<td>4</td>
<td>291-Z Ventilation Stack and Fan House</td>
<td>9 weeks</td>
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</tbody>
</table>
• Final remediation of remaining sites including buried piping will be conducted as part of 200-WA-1, 200-IS-1, and 200-PW-1/3/6/200-CW-5 operable units
• Characterization to support demolition will provide valuable information about the contamination that will remain after demolition, for future cleanup
• Slab on grade:
  – Above-grade structures removed; slabs and foundations left in place
  – Accessible below-grade transuranic waste removed
  – Piping exiting slabs belowground plugged or grouted
  – Below-grade void spaces filled/covered for contamination control and to prevent subsidence
• Contamination control cap applied where needed to facilitate surveillance and maintenance