

## ITP with Enhanced Safety Features

The conceptual process is similar to the current ITP process. The modifications would compensate for Authorization Basis safety issues with Engineered Safety Features

For example, increased ventilation would increase the benzene generation rates that could be accepted during ITP and subsequent processing. This option would require upgrades to the safety systems and/or strategies for the following systems and equipment: Tank 48, Tank 49, Tank 50, ITP Filter Cell leak detection and ventilation, ITP Filtrate Hold Tanks, Salt Solution Hold Tank in Saltstone, Late Wash Filter Cell leak detection and ventilation, Late Wash Process Vessel Vent System, and the Late Wash Precipitate Tank, Late Wash Hold Tank, and Low Point Pump Pit Precipitate Tank. Late Wash Hold Tank and Low Point Pump Pit Precipitate Tank chillers would have to be added to reduce benzene emissions.

Variations:

- 1) Can be combined with reduced temperature and/or catalyst removal ITP
- 2) Air dilution while operating at positive pressure

Merits:

- 1) Minimal impact on current DWPF process and waste form

