1.0 SCOPE

This supplement provides requirements in addition to RPP-14541, *Jumper Fabrication and Testing Specification for Tank Farms* to support the jumper fabrication for this contact.

General Requirements:

2.0 Jumper Jig:

When fabricating rigid jumper assemblies a jumper jig shall be used to ensure proper jumper dimensions and functionality. The jig shall be constructed of sufficient rigidity to create an immovable object (i.e.: thick steel plate, engineered supported surfaces). The completed jig shall be of sufficient weight or secured to the floor as to not move during on/off testing. When fixtures are used to support PUREX nozzles they shall be constructed to provide equal rigidity to that of the jig base plate/table (i.e.: supported columns, large beams). The jumper jig shall be constructed in a manner that it can be used to support the hydrostatic pressure test and valve seat leakage tests as required. Variance to these requirements shall be approval by TOC engineering. Kick plates shall be used in conjunction with jig nozzles.

3.0 Government Furnished Equipment (GFE):

The items listed below may be provided upon request to support jumper fabrication but are not guaranteed to always be available. These items should be returned upon completion in a state that allows them to be re-used for future fabrications (i.e.: do not cut nozzle off at the kick plate). Modifications to jig nozzles that benefit fabrication shall remain with the jig nozzle and be returned to TOC (i.e.: blanking off the back of the nozzle and adding threaded test ports, welded on fixturing).

- Jig Nozzle
- Kick Plate
- Jig-use gasket
- Jig-use PUREX connector assembly (all sizes and configurations)

4.0 Gaskets:

Gaskets that have been used during fabrication shall not be the gaskets used for testing and final shipment. Jig use gaskets may be requested and shall be identified to maintain separation from the final use gasket(s). Variance to this requirement shall be approval by TOC engineering.

5.0 Dimensional Inspections:

When performing dimensional inspections for the jumper and jumper jig, (Section 4.2.3.6 of RPP-14541) the method used for dimensional inspection shall remain consistent for all recorded inspections. All critical dimensions shall be measured to include valve locations as applicable. *The method used for dimensional inspection shall be reviewed and approved by TOC engineering prior to conducting inspections.*

6.0 Ball Valves:
Note: The ball valve internal components are very susceptible to damage, ensure that all valving components remain protected from dust, dirt, shavings, etc. throughout fabrication. Valve port covers shall be used whenever possible.

Disassembly and assembly shall be completed using the manufacturer’s instructions. A copy of the instructions are available upon request.

For jumpers with valves - once the valve funnel is installed, valve manipulations shall be performed by using the square female drive in the funnel.

If debris or damage are found in the valve assembly during disassembly, notify TOC engineering, document and clean as required/directed.

7.0 PUREX Connector Parts and Assembly:

Care shall be taken to ensure critical surfaces and components are not damaged during storage and fabrication. Sealing surfaces can be damaged and made unusable by scratches and dings.

The fabricator shall be prepared to deburr (sand and/or file) interfacing parts when directed by TOC engineering while assembling PUREX connectors to ensure smooth operation.

The following are guidelines for setting the gasket and gasket retainer for PUREX connector heads (vertical and horizontal). Each assembly is unique and may require deviation from these guidelines to ensure proper gasket seating. The end state for the connector assembly is to have the sealing face (nozzle side) of the gasket protrude proud of the gasket retainer at a minimum of where it can be caught with a finger nail.

If Leakage occurs during the initial hydrostatic pressure test/valve seat leakage tests, reassembly of the connector head(s) maybe required and is the responsibility of the fabricator.

1. Assemble connector leaving the tie-rods loose and without the gasket/retainer.

2. Using wire or shims, shim the bottom of the block from the skirt between 0.030” and 0.035”, snug up tie-rods.

3. Install the gasket/retainer and hand tighten using spanner wrench or plate. Do not pound on gasket retainer with chisel.

4. Remove shim material and tighten (hand tool) tie-rods using an opposing pattern technique. The block and skirt should be making contact once complete.

5. Torque Tie-Rods as follows (lubricated):

   3” Connectors – 85 ft-lbs. ±5.

   2” Connectors – 43 ft-lbs. ±3.