RECORD

PROCEDURE VERIFIED CURRENT AND CHECKED FOR TEMPORARY CHANGES. IF FIELD COPIES REQUIRED, USE PBF-0026 IAW NP 1.2.4 AND DO NOT COMPLETE THIS BLOCK.

BY: _____ DATE: _____

1.0 PURPOSE

To provide instructions for sampling of water treatment resins.

2.0 REFERENCES

IR 96-006, NRC Inspection Report; NRC Commitment for Operations procedures PMT/QC reviews.

3.0 PRECAUTIONS AND LIMITATIONS

3.1 Take particular care not to damage the vessel lining, resin retention elements, or other internal piping when taking resin samples or during other resin vessel entries.

3.2 If the internal piping of a vessel must be adjusted or removed to allow personnel entry to a vessel, ensure proper realignment or installation prior to vessel closure.

3.3 If entry into a resin vessel is required, follow the procedure for confined spaces entry.

3.4 Resins regenerated with strong acid and strong caustic solutions are hazardous. Refer to CHES 1721 for specific caustic precautions and CHES 1712 for specific acid precautions.

3.5 Resins drawn with the "grain thief" (has discrete compartments along its length) are collected in one sample bottle by dumping the "grain thief" into a clean poly bag. The bag contents are then poured into the sample bottle (flush only with DI water).

4.0 INITIAL CONDITIONS

4.1 The resin bed to be sampled has been recently regenerated and is in the condition which would allow it to be placed in normal service if desired.

4.2 Water usage is sufficiently low to allow taking individual resin vessels out of service.

4.3 One-liter wide-mouth sample bottles available for the resin.

4.4 The "grain-thief" sampler is available for use. Stored on hooks north of RK-36, across from U-14A.

4.5 O-RF-220(225).1 or .3 is required to be completed, or other resin sampling is required.

5.0 PROCEDURE

NOTE: The procedure lists valve numbers for the anion vessels since their sampling is routinely required. If other resin vessel sampling is required, it can be accomplished in a similar manner as outlined here in except partial dewatering is accomplished via the rinse outlet valve.

5.1 Lower the water level in the vessel until it is just above the resin bed. Open 9261A/B/C, collector drain valve and pressurize via 9256A/B/C, anion air inlet. Close 9261A/B/C when the desired level is reached.

5.2 Vent the vessel by opening 9255A/B/C, backwash outlet.

5.3 Open the vessel manway.

***CAUTION* DO NOT DAMAGE THE RESIN RETENTION ELEMENTS FOR EITHER THE COLLECTOR OR OUTLET LATERALS, AND AVOID CONTACTING THE RUBBER LINING WITH TOOL POINTS.**

5.4 Take resin samples (three-one liter containers) through as near the full depth of the bed as is possible using the "grain thief" sampler or pipe and stopper sampler. Label the resin container with the following information : vessel ID, O-RF-220 (225).1 or .3, date, and cycle information such as "regenerated" or "regenerated after brining."

5.5 Examine the manway gasket and re-use if it remains resilient, clean, and un-cut.

5.6 Clean the sealing surfaces of the gasket and vessel, then replace and tighten the manway taking care to center the gasket on the seating surface.

5.7 Gag 9259A/B/C collector backwash inlet near shut in preparation for filling and venting the vessel.

5.8 Fill and vent the vessel by overriding 9259A/B/C open, collector backwash inlet, and venting via 9255A/B/C, backwash outlet.

5.9 When water issues from the backwash outlet, close 9255A/B/C.

5.10 Complete final venting of the resin vessel via the manual vent valve WT-424A/B/C.

PMT

5.11 Verify no leakage exists, and if required, tighten the manway while the vessel is pressurized.

5.12 Clean and store all tools. The "grain thief" is stored on hooks north of RK-36.

5.13 Indicate the resin sampling progress on O-RF-220(225).1 or .3, as required.

5.14 Inform the DSS that the U-____A/B/C resin bed has been sampled.

5.15 Deliver the resin samples to the Chemistry lab and inform the lab supervisor.