

NUCLEAR POWER BUSINESS UNIT  
OPERATING INSTRUCTIONS

OI 22H  
MINOR  
Revision 5  
January 25, 1997

CHANGING BORIC ACID CONCENTRATES  
FILTERS (F-5A&B)

Unit \_\_\_\_\_  
Date \_\_\_\_\_  
DSS \_\_\_\_\_

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 detailed instructions for changing the boric acid concentrates filters, F-5A&B.

2.0 REFERENCES

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

3.0 PRECAUTIONS AND LIMITATIONS

Review precautions and limitations of OI-22.

4.0 INITIAL CONDITIONS

INITIALS

In addition to the initial conditions of OI-22, ensure the following:

4.1 A 15/16" wrench and/or socket is available

4.2 A 1/2" banding kit is available

5.0 PROCEDURE

5.1 Flush the filters with reactor makeup water or demineralized water to the concentrates tank until there is a level increase of greater than 20%.

5.1.1 Reactor makeup water can be used by filling the appropriate boric acid evaporator feed tank and pumping same through the filters.

5.1.2 Demineralized water is available from a connection in the Unit 2 sample room. Remove the inlet pressure gauge on the filters. Rig a hose from the inlet pressure gauge connection to the demineralized water connection in the Unit 2 sample room.

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**NOTE:** *Removal of the heater control fuse might blow the fuse. Check that the fuse is good after replacing it.*

5.2 Deenergize the heat tracing circuits by removing the fuse in the heater control box. \_\_\_\_\_

5.3 Shut the filters inlet and outlet valves. \_\_\_\_\_

5.4 Drain the filter vessel to a floor drain. \_\_\_\_\_

**NOTE:** *Filter vessel insulation and heat tracing comes off in two sections.*

5.5 Remove filter vessel insulation and heat tracing. \_\_\_\_\_

5.6 Loosen four (4) top flange bolts and remove the top flange. \_\_\_\_\_

5.7 Manually lift out the old filter and dispose of per HP instructions. \_\_\_\_\_

5.8 Inspect and clean the vessel, top flange and seating surface. \_\_\_\_\_

5.9 Wet new O-ring with DI water, install new filter element and re-secure top flange. \_\_\_\_\_

5.10 Shut the vessel drain valve. \_\_\_\_\_

**PMT**

5.11 Fill and vent. Leak test the top flange with either boric acid evaporator feed tank pump discharge pressure or demineralized water header pressure. \_\_\_\_\_

5.12 When tested satisfactory, valve in for normal operation. \_\_\_\_\_

5.13 Reinstall the filter vessel insulation and heat tracing. \_\_\_\_\_

5.14 Energize heat tracing circuits by replacing the fuse in the heater control box. \_\_\_\_\_

5.15 Inform PAB Auxiliary Operator and control room of filter status. \_\_\_\_\_

5.16 Pump flush water in boric acid concentrate tank back to a holdup tank. \_\_\_\_\_

5.17 Ensure the area is cleaned up and checked for contamination. \_\_\_\_\_

5.18 Decontaminate and return tools to storage location. \_\_\_\_\_