

Table 4.2-1

ANO-1 CAPSULE ASSEMBLY WITHDRAWAL SCHEDULE AT DAVIS-BESSE 1

| <u>CAPSULE</u> | <u>INSERTION/WITHDRAWAL</u>                                                                      |
|----------------|--------------------------------------------------------------------------------------------------|
| ANI-E          | Has been withdrawn for testing                                                                   |
| ANI-B          | Withdraw following 1st cycle at Davis-Besse 1                                                    |
| ANI-A          | Withdraw following 3rd cycle at Davis-Besse 1                                                    |
| ANI-C          | Withdraw following 7th cycle at Davis-Besse 1                                                    |
| ANI-D          | Insert in location YZ (upper) prior to 4th cycle at Davis-Besse 1; withdraw following 12th cycle |
| ANI-F          | Insert in location YX (upper) prior to 5th cycle at Davis-Besse; withdraw following 11th cycle   |

Bases

The surveillance program has been developed to comply with the applicable edition of Section XI and addenda of the ASME Boiler and Pressure Vessel Code, Inservice Inspection of Nuclear Reactor Coolant Systems, as required by 10 CFR 50.55a, to the extent practicable within limitations of design, geometry and materials of construction.

The number of reactor vessel specimens and the frequencies for removing and testing these specimens are provided to assure compliance with the requirements of Appendix H to 10 CFR Part 50.

For the purpose of Technical Specification 4.2.8, the definition of Regulatory Guide 1.16, Revision 4 (August 1975) applies for the term "commercial operation". Cumulative reactor utilization factor is defined as:  $[(\text{cumulative thermal megawatt hours since attainment of commercial operation at 100\% power}) \times 100] \div [(\text{licensed thermal power}) \times (\text{cumulative hours since attainment of commercial operation at 100\% power})]$ .

## BASIS FOR CHANGE

B&W, under the auspices of the B&W Owner's Group Materials Committee, has conducted a review of the Integrated Reactor Vessel Surveillance Program (RVSP) Withdrawal Schedule. One of the recommendations resulting from this review is to delay the withdrawal of the Owner's Group research capsule designated DB-LG1 so that it can accumulate neutron fluence for one additional cycle in the Davis-Besse reactor. When DB-LG1 is removed from the reactor prior to the 5th cycle at Davis-Besse, it is expected that it will have accumulated neutron fluence approximately equivalent to the fluence achieved at the 1/4T location in a typical 177FA plant at the end of life ( $\sim 7.8 \times 10^{18} \text{ n/cm}^2 \text{ E} > 1 \text{ MEV}$ ).

As a result of this, it is necessary that Arkansas Power and Light's capsule designated ANI-F not be inserted in the Davis-Besse reactor until DB-LG1 is removed. The delay in inserting ANI-F will have no adverse affect on the ANO-1 Reactor Vessel Surveillance Program because it contains only base and heat affected zone material (no weld metal) which are not expected to affect the operating limits of the plant. ANI-F will be irradiated to a level approximately equivalent to the expected peak fluence at the End of Life at the inside surface of the ANO-1 reactor and then held as a standby capsule as specified by 10CFR50 Appendix H and ASTM E-185.

In addition to the delay in inserting ANI-F, the holder tube locations of ANI-D and ANI-F will be modified slightly to facilitate efficient handling on site. These changes in capsule locations will have no affect on the ANO-1 Reactor Vessel Surveillance Program as the recommended locations are in the same relative positions to the core as those in the currently approved withdrawal schedule.

## AFFECT ON PLANT OPERATION

This proposed change will have no adverse affect on plant operations. The samples contained in ANI-F contains no weld metal and is therefore not expected to affect plant operating limits. The surveillance capsule will be inserted the following cycle and, after irradiation, will be held as a standby capsule for the ANO-1 reactor vessel surveillance program.