ATTACHMENT A

<u>Marked-Up_Pages</u>

Dresden Station		Quad Cities Station	
DPR-19	DPR-25	DPR-29	DPR-30
3/4.3-11	3/4.3-11	3.3/4.3-6 3.3/4.3-7	3.3/4.3-4 3.3/4.3-5

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| P    |        | PDR      |

### 3.3 <u>LIMITING CONDITION FOR OPERATION</u> (Cont'd.)

 The maximum scram insertion time for 90% insertion of any operable control rod shall not exceed 7.00 seconds. DRESDEN II DPR-19 Amendment No. 110

#### 4.3 <u>SURVEILLANCE REQUIREMENT</u> (Cont'd.)

- 2. At 16 week intervals. at least 50% of the control rod drives shall be tested as in 4.3.C.1 so that every 32 weeks all of the control rods shall have been tested. Whenever 50% or more of the control rod drives have been tested, an evaluation shall be made to provide reasonable assurance that proper control rod drive performance is being maintained.
- 3. Following completion of each set of scram testing as described above, the results will be compared against the average scram speed distribution used in the transient analysis to verify the applicability of the current MCPR Operating Limit. Refer to Specification 3.5.L.

D. Control Rod Accumulators

Once a shift check the status of the pressure and level alarms for each accumulator.

D. Control Rod Accumulators

At all reactor operating pressures, a rod accumulator may be inoperable provided that no other control rod in the nine-rod square array around this rod has a:

- 1. Inoperable accumulator,
- Directional control valve electrically disarmed while in a non-fully inserted position.

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- 3.3 <u>LIMITING CONDITION FOR OPERATION</u> (Cont'd.)
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- D. Control Rod Accumulators
  - At all reactor operating pressures, a rod accumulator may be inoperable provided that no other control rod in the nine-rod square array around this rod has a:
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  - Directional control valve electrically disarmed while in a non-fully inserted position.

DRESDEN III DPR-25 Amendment No. 105

- 4.3 <u>SURVEILLANCE REQUIREMENT</u> (Cont<sup>1</sup>d.)
  - 2. / At 16 week intervals, at least 50% of the control rod drives shall be tested as in 4.3.C.1 so that every 32 weeks all of the control rods shall have been tested. Whenever 50% or more of the control rod drives have been tested, an evaluation shall be made to provide reasonable assurance that proper control rod drive performance is being maintained.
  - 3. Following completion of each set of scram testing as described above, the results will be compared against the average scram speed distribution used in the transient analysis to verify the applicability of the current MCPR Operating Limit. Refer to Specification 3.5.L.
  - D. Control Rod Accumulators

Once a shift check the status of the pressure and level alarms for each accumulator.

- C. Scram Insertion Times
  - The average scram insertion time, based on the deenergization of the scram pilot valve solenoids at time zero, of all operable control rods in the reactor power operation condition shall be no greater than:

| % Inserted From | Average Scram<br>Insertion |
|-----------------|----------------------------|
| Fully Withdrawn | Times (sec)                |
| 5               | 0.375                      |
| 20              | 0.900                      |
| 50 .            | 2.00                       |
| 90              | 3.50                       |

The average of the scram insertion times for the three fastest control rods of all groups of four control rods in a two by two array shall be no greater than:

| % Inserted From     | Average Scram |
|---------------------|---------------|
| i u i iy wi churawn | limes (sec)   |
| 5                   | 0.398         |
| 20                  | 0.954         |
| 50                  | 2.12          |
| 90                  | 3.80          |

2.

The maximum scram insertion time for 90% of any operable control rod shall not exceed 7 seconds.

- Close within 30 seconds after receipt of a signal for control rods to scram, and
- Open when the scram signal is reset.
- C. Scram Insertion Times
  - After refueling outage and prior to operation above 30% power, with reactor pressure above 800 psig, all control rods shall be subject to scram-time measurements from the fully withdrawn position. The scram times for single rod scram testing shall be measured without reliance on the control rod drive pumps.

All control rod drives shall have experienced scram test measurements each year. Also, 50% of the control rod drives in each quadrant of the reactor core shall be measured for the scram times specified in Specification 3.3.C during the



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2.



3.

interval not more frequently than 16 weeks nor less frequently than 32 weeks. These tests shall be performed with a reactor pressure above 800 psig and may be measured during a reactor scram. Whenever all of the control rod drive scram times have been measured, an evaluation shall be made to provide reasonable assurance that proper control rod drive performance is being maintained. The results of measurements performed on the control rod drives shall be submitted in the annual operating report to the NRC.

The cycle cumulative mean scram time for 20% insertion will be determined immediately following the testing required in Specifications 4.3.C.1 and 4.3.C.2 and the MCPR operating limit adjusted, if necessary, as required by Specification 3.5.K.

D. Control Rod Accumulators

Once a shift, check the status of the pressure and level alarms for each accumulator.

- If Specification 3.3.C.1 cannot be met, the reactor shall not be made supercritical; if operating, the reactor shall be shut down immediately upon determination that average scram time is deficient.
- If Specification 3.3.C.2 cannot be met, the deficient control rod shall be considered inoperable, fully inserted into the core, and electrically disarmed.
- 5. If the overall average of the 20% insertion scram time data generated to date in the current cycle exceeds the limit specified in the CORE OPERATING LIMITS REPORT, the MCPR operating limit must be modified as required by Specification 3.5.K.

D. Control Rod Accumulators

At all reactor operating pressures, a rod accumulator may be inoperable provided that no other control rod in the nine-rod square array around that rod has:

1. an inoperable accumulator,

3.3/4.3-7

c. the operating power level shall be limited so that the MCPR will remain above the MCPR fuel clauding integrity safety limit assuming a single error that results in complete withdrawal of any single operable control rod

### C. Scram Insertion Times

 The average scram insertion time, based on the deenergization of the scram pilot valve solenoids at time zero, of all operable control rods in the reactor power operation condition shall be no greater than:

| % Inserted From<br>Fully Withdrawn | Average Scran<br>Insertion<br>Times (sec) |  |
|------------------------------------|-------------------------------------------|--|
| 5                                  | 0.375                                     |  |
| 20                                 | 0.900                                     |  |
| 50                                 | 2.00                                      |  |
| 90                                 | 3.50                                      |  |

The average of the scram insertion times for the three fustest control rods of all groups of four control rods in a two by two array shall be no greater than:

| % Inserted From | Averuge Scram |  |
|-----------------|---------------|--|
| Fully Withdrawn | Times (scc)   |  |
| 5               | 0.398         |  |

| 2  |   |       |  |
|----|---|-------|--|
| 20 | • | 0.954 |  |
| 50 |   | 2.12  |  |
| 90 |   | 3.80  |  |
|    |   |       |  |

- The maximum screm insertion time for 90% insertion of any operable control rods shall not exceed 7 seconds.
- If Specification 3.3.C.1 cannot be met, the reactor shall not be made supercritical; if operating, the reactor shall be shut down immediately upon determination that average scram time is deficient.
  - If Specification 3.3.C.2 cannot be met, the deficient control rod shall be con-

### C. Scram Insertion Times

 After refueling outage and prior to operation above 30% power, with reactor pressure above 800 psig, all control rods shall be subject to scram-time measurements from the fully withdrawn position. The scram times for single rod scram testing shall be measured without reliance on the control rod drive pumps.



3.3/4.3-4

2.

All control rod drives shall have experienced scram test measurements each year. Also, 50% of the control rod drives in each quadrant of the reactor core shall be measured for the scram times specified in Specification 3.3.C during the interval not more frequently than 16 weeks nor less frequently than 32 weeks. These tests shall be performed with a reactor pressure above 800 psig and may be measured during a reactor scram. Whenever all of the control rod drive scram times have been measured, an evaluation shall be made to

sidered inoperable. Jy inserted into the core, and electrically disarmed.

- 5. If the overall average of the 20% insertion scram time data generated to date in the current cycle exceeds the limit specified in the CORE OPERATING LIMITS REPORT, the MCPR operating limit must be modified as required by Specification 3.5.K.
- D. Control Rod Accumulators

At all reactor operating pressures, a rod accumulator may be inoperable provided that no other control rod in the nine-rod square array around that rod has:

- 1. An inoperable accumulator,
- A directional control valve electrically disarmed while in a nonfully inserted position, or
- A scram insertion greater than maximum permissible insertion time.

If a control rod with an inoperable accumulator is inserted full-in and its directional control valves are electrically disarmed, it shall not be considered to have an inoperable accumulator, and the rod block associated with that inoperable accumulator may be bypassed.

E. Reactivity Anomalies

The reactivity equivalent of the difference between the actual critical rod configuration and the expected configuration during power operation shall not exceed 1%  $\Delta$  k. If this limit is exceeded, the reactor shall be shutdown until the cause has been determined and corrective actions have been taken. In accordance with Specification 6.6, the NRC shall be notified of this reportable occurrence within 24 hours.

F. Economic Generation Control System

Operation of the unit with the economic generation control system with automatic flow control shall be permissible only in the range of 65% to 100% of rated core flow, with reactor power above 20%.

ble assurance provide rea that proper control rod drive performance is being maintained. The results of measurements performed on the control rod drives shall be submitted in the annual operating report to the NRC.

5. The cycle cumulative mean scram, time for 20% insertion will be determined immediately following the testing required in Specifications 4.3.C.1 and 4:3.C.2 and the MCPR operating limit adjusted, if necessary, as required by Specification 3.5.K.

D. Control Rod Accumulators

Once a shift, check: the status of the pressure and level alarms for each accumulator.

#### E. Reactivity Anomalies

During the startup test program and startups following refueling outages, the critical rod configurations will be compared to the expected configurations at selected operating conditions. These comparisons will be used as base data-for reactivity monitoring during subsequent power operation throughout the fuel cycle. At specific power operating conditions, the critical rod configuration will be compared to the configuration expected based upon appropriately corrected past data. This comparison will be made at least every equivalent full power month.

F. Economic Generation Control System

Prior to entering EGC and once per shift while operating in EGC, the EGC operating parameters will be reviewed for acceptability.

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The maximum scram insertion time of the control rods shall be demonstrated through measurement with reactor coolant pressure greater than 800 psig and, during single control rod scram time tests, with the control rod drive pumps isolated from the accumulators, for at least 10% of the control rods, on a rotating basis, at least once per 120 days of power operation.

### ATTACHMENT B

# Revised Technical Specification Pages

| Dresden Station |          | Quad Cities Station    |                        |
|-----------------|----------|------------------------|------------------------|
| DPR-19          | DPR-25   | DPR-29                 | DPR-30                 |
| 3/4.3-11        | 3/4.3-11 | 3.3/4.3-6<br>3.3/4.3-7 | 3.3/4.3-4<br>3.3/4.3-5 |

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### 3.3 <u>LIMITING CONDITION FOR OPERATION</u> (Cont'd)

2. The maximum scram insertion time for 90 insertion of any operable control rod shall not exceed 7.00 seconds.

### 4.3 <u>SURVEILLANCE REQUIREMENT</u> (Cont'd)

- 2. The maximum scram insertion time of the control rods shall be demonstrated through measurement with reactor coolant pressure greater than 800 psig and, during single control rod scram time tests, with the control rod drive pumps isolated from the accumulators, for at least 10% of the control rods, on a rotating basis, at least once per 120 days of power operation.
- 3. Following completion of each set of scram testing as described above, the results shall be compared against the average scram speed distribution used in the transient analysis to verify applicability of the current MCPR Operating Limit. Refer to Specification 3.5.L

**D. Control Rod Accumulators** 

At all reactor operating pressures, a rod accumulator may be inoperable provided that no other control rod in the nine-rod square array around this rod has a:

- 1. Inoperable accumulator,
- 2. Directional control valve electrically disarmed while in a non-fully Inserted position.

**D.** Control Rod Accumulators

Once a shift check the status of the pressure and level alarms for each accumulator.

### 3.3 <u>LIMITING CONDITION FOR OPERATION</u> (Cont'd)

2. The maximum scram insertion time for 90 insertion of any operable control rod shall not exceed 7.00 seconds.

### 4.3 <u>SURVEILLANCE REQUIREMENT</u> (Cont'd)

- 2. The maximum scram insertion time of the control rods shall be demonstrated through measurement with reactor coolant pressure greater than 800 psig and, during single control rod scram time tests, with the control rod drive pumps isolated from the accumulators, for at least 10% of the control rods, on a rotating basis, at least once per 120 days of power operation.
- 3. Following completion of each set of scram testing as described above, the results shall be compared against the average scram speed distribution used in the transient analysis to verify applicability of the current MCPR Operating Limit. Refer to Specification 3.5.L

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- 1. Inoperable accumulator,
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**D.** Control Rod Accumulators

Once a shift check the status of the pressure and level alarms for each accumulator.



- a. Close within 30 seconds after receipt of a signal for control rods to scram, and
- b. Open when the scram signal is reset.

### C. Scram Insertion Times

 The average scram insertion time, based on the deenergization of the scram pilot valve solenoids at time zero, of all operable control rods in the reactor power operation condition shall be no greater than:

|                 | Average Scram |
|-----------------|---------------|
| % Inserted From | Insertion     |
| Fully Withdrawn | Times (sec)   |
| 5               | 0.375         |
| 20              | 0.900         |
| 50              | 2.00          |
| 90              | 3.50          |

The average of the scram insertion times for the three fastest control rods of all groups of four control rods in a two by two array shall be no greater than:

| % Inserted From | Average Scram |  |
|-----------------|---------------|--|
| Fully Withdrawn | Times (sec)   |  |
| 5               | 0.398         |  |
| 20              | 0.954         |  |
| 50              | 2.12          |  |
| 90              | 3.80          |  |

2. The maximum scram insertion time for 90% of any operable control rod shall not exceed 7 seconds.

- C. Scram Insertion Times
  - After refueling outage and prior to operation above 30% power, with reactor pressure above 800 psig, all control rods shall be subject to scram-time measurements from the fully withdrawn position. The scram times for single rod scram testing shall be measured without reliance on the control rod drive pumps.

2. The maximum scram insertion time of the control rods shall be demonstrated through measurement with reactor coolant pressure greater than 800 psig and, during single control rod scram time tests, with the control rod drive pumps isolated from the accumulators, for at least 10% of the control rods, on a rotating basis, at least once per 120 days of power operation.

- 3. If Specification 3.3.C.1 cannot be met, the reactor shall not be made supercritical; if operating, the reactor shall be shut down immediately upon determination that average scram time is deficient.
- 4. If Specification 3.3.C.2 cannot be met, the deficient control rod shall be considered inoperable, fully inserted into the core, and electrically disarmed.
- 5. If the overall average of the 20% insertion scram time data generated to date in the current cycle exceeds the limit specified in the CORE OPERATING LIMITS REPORT, the MCPR operating limit must be modified as required by Specification 3.5.K.
- D. Control Rod Accumulators

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