

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

| ESFA SYSTEM FUNCTIONAL UNIT | CHANNEL CHECK | CHANNEL CALIBRATION | CHANNEL FUNCTIONAL TEST | MODES FOR WHICH SURVEILLANCE IS REQUIRED |
|---|---------------|---------------------|-------------------------|--|
| VI. AUXILIARY FEEDWATER (SG-1)(AFAS-1) (Continued) | | | | |
| B. ESFA System Logic | | | | |
| 1. Matrix Logic | NA | NA | M | 1, 2, 3, 4 |
| 2. Initiation Logic | NA | NA | M | 1, 2, 3, 4 |
| 3. Manual AFAS | NA | NA | M | 1, 2, 3, 4 |
| <i>insert</i> C. Automatic Actuation Logic | NA | NA | M(1)(2)(3) | 1, 2, 3, 4 |
| VII. AUXILIARY FEEDWATER (SG-2)(AFAS-2) | | | | |
| A. Sensor/Trip Units | | | | |
| 1. Steam Generator #2 Level - Low | S | R | M | 1, 2, 3 |
| 2. Steam Generator Δ Pressure SG1 > SG2 | S | R | M | 1, 2, 3 |
| B. ESFA System Logic | | | | |
| 1. Matrix Logic | NA | NA | M | 1, 2, 3, 4 |
| 2. Initiation Logic | NA | NA | M | 1, 2, 3, 4 |
| 3. Manual AFAS | NA | NA | M | 1, 2, 3, 4 |
| <i>insert</i> C. Automatic Actuation Logic | NA | NA | M(1)(2)(3) | 1, 2, 3, 4 |
| VIII. LOSS OF POWER (LOV) | | | | |
| A. 4.16 kV Emergency Bus Under-voltage (Loss of Voltage) | | | | |
| | S | R | R | 1, 2, 3, 4 |
| B. 4.16 kV Emergency Bus Under-voltage (Degraded Voltage) | | | | |
| | S | R | R | 1, 2, 3, 4 |
| (except subgroup relays) | NA | NA | Q(2) | 1, 2, 3, 4 |
| Actuation Subgroup Relays | NA | NA | M(1)(3) | 1, 2, 3, 4 |

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

| ESFA SYSTEM FUNCTIONAL UNIT | CHANNEL CHECK | CHANNEL CALIBRATION | CHANNEL FUNCTIONAL TEST | MODES FOR WHICH SURVEILLANCE IS REQUIRED |
|---|-----------------|---------------------|-------------------------|--|
| VI. AUXILIARY FEEDWATER (SG-1)(AFAS-1) (Continued) | | | | |
| B. ESFA System Logic | | | | |
| 1. Matrix Logic | N.A. | N.A. | M | 1, 2, 3, 4 |
| 2. Initiation Logic | N.A. | N.A. | M | 1, 2, 3, 4 |
| 3. Manual AFAS | N.A. | N.A. | M | 1, 2, 3, 4 |
| <i>insert</i> C. Automatic Actuation Logic | N.A. | N.A. | M(1) (2) (3) | 1, 2, 3, 4 |
| VII. AUXILIARY FEEDWATER (SG-2)(AFAS-2) | | | | |
| A. Sensor/Trip Units | | | | |
| 1. Steam Generator #2 Level - Low | S | R | M | 1, 2, 3 |
| 2. Steam Generator Δ Pressure SG1 > SG2 | S | R | M | 1, 2, 3 |
| B. ESFA System Logic | | | | |
| 1. Matrix Logic | N.A. | N.A. | M | 1, 2, 3, 4 |
| 2. Initiation Logic | N.A. | N.A. | M | 1, 2, 3, 4 |
| 3. Manual AFAS | N.A. | N.A. | M | 1, 2, 3, 4 |
| <i>insert</i> C. Automatic Actuation Logic | N.A. | N.A. | M(1) (2) (3) | 1, 2, 3, 4 |
| VIII. LOSS OF POWER (LOV) | | | | |
| A. 4.16 kV Emergency Bus Under-voltage (Loss of Voltage) | S | R | R | 1, 2, 3, 4 |
| B. 4.16 kV Emergency Bus Under-voltage (Degraded Voltage) | S | R | R | 1, 2, 3, 4 |
| (except subgroup relays) | NA | NA | Q(2) | 1, 2, 3, 4 |
| Actuation Subgroup Relays | NA | NA | M(1)(3) | 1, 2, 3, 4 |

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TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

| ESFA SYSTEM FUNCTIONAL UNIT | CHANNEL CHECK | CHANNEL CALIBRATION | CHANNEL FUNCTIONAL TEST | MODES FOR WHICH SURVEILLANCE IS REQUIRED |
|---|---------------|---------------------|-------------------------|--|
| VI. AUXILIARY FEEDWATER (SG-1)(AFAS-1) (Continued) | | | | |
| B. ESFA System Logic | | | | |
| 1. Matrix Logic | N.A. | N.A. | M | 1, 2, 3, 4 |
| 2. Initiation Logic | N.A. | N.A. | M | 1, 2, 3, 4 |
| 3. Manual AFAS | N.A. | N.A. | M | 1, 2, 3, 4 |
| C. Automatic Actuation Logic | N.A. | N.A. | M(1) (2) (3) | 1, 2, 3, 4 |
| VII. AUXILIARY FEEDWATER (SG-2)(AFAS-2) | | | | |
| A. Sensor/Trip Units | | | | |
| 1. Steam Generator #2 Level - Low | S | R | M | 1, 2, 3 |
| 2. Steam Generator Δ Pressure SG1 > SG2 | S | R | M | 1, 2, 3 |
| B. ESFA System Logic | | | | |
| 1. Matrix Logic | N.A. | N.A. | M | 1, 2, 3, 4 |
| 2. Initiation Logic | N.A. | N.A. | M | 1, 2, 3, 4 |
| 3. Manual AFAS | N.A. | N.A. | M | 1, 2, 3, 4 |
| C. Automatic Actuation Logic | N.A. | N.A. | M(1) (2) (3) | 1, 2, 3, 4 |
| VIII. LOSS OF POWER (LOV) | | | | |
| A. 4.16 kV Emergency Bus Under-voltage (Loss of Voltage) | S | R | R | 1, 2, 3, 4 |
| B. 4.16 kV Emergency Bus Under-voltage (Degraded Voltage) | S | R | R | 1, 2, 3, 4 |
| (except subgroup relays) | NA | NA | Q(2) | 1, 2, 3, 4 |
| Actuation Subgroup Relays | NA | NA | M(1) (2) (3) | 1, 2, 3, 4 |