

TABLE 1: REGULATORY GUIDE VARIABLE CROSS REFERENCE TO VARIABLE NUMBER

TYPE A Variables

DOCKETED
USNRC

| REGULATORY GUIDE VARIABLES | | | ALABAMA POWER COMPANY'S POSITION | | |
|----------------------------|----------|--|----------------------------------|---------------------------------------|----------|
| Variable | Category | Purpose | Variable No. | Variable Description | Category |
| Plant Specific | 1 | Information required for operator action | 1 | RCS Pressure (Wide Range) | 1 |
| | | | 2 | RCS Hot Leg Temperature (Wide Range) | 1 |
| | | | 3 | RCS Cold Leg Temperature (Wide Range) | 1 |
| | | | 4 | Steam Generator Level (Wide Range) | 1 |
| | | | 5 | Steam Generator Level (Narrow Range) | 1 |
| | | | 6 | Pressurizer Level | 1 |
| | | | 7 | Containment Pressure (Normal Range) | 1 |
| | | | 8 | Main Steam Line Pressure | 1 |
| | | | 9 | Refueling Water Storage Tank Level | 1 |
| | | | 10 | Containment Water Level | 1 |
| | | | 11 | Condensate Storage Tank Level | 1 |
| | | | 12 | Auxiliary Feedwater Flow | 1 |
| | | | 15 | Core Exit Temperature | 1 |
| | | | 132 | Core Subcooling Monitor | 2 |

TABLE 1-1

 208030127 220518
 PDR ADDCK 0509034B
 PDR

TABLE 1 (CONTINUED)

TYPE B Variables

| REGULATORY GUIDE VARIABLES | | | ALABAMA POWER COMPANY'S POSITION | | |
|---|----------|--|----------------------------------|---------------------------------------|----------|
| Variable | Category | Purpose | Variable No. | Variable Description | Category |
| <u>REACTIVITY CONTROL</u> | | | | | |
| Neutron Flux | 1 | Function detection; accomplishment of mitigation | 17 | Neutron Flux (Intermediate Range) | 1 |
| Control Rod Position | 3 | Verification | 1009 | Control Rod Position | 3 |
| RCS Soluble Boron Concentration | 3 | Verification | 1017 | Post Accident Sample | 3 |
| RCS Cold Leg Water Temperature | 3 | Verification | 3 | RCS Cold Leg Temperature (Wide Range) | 1 |
| <u>CORE COOLING</u> | | | | | |
| RCS Hot Leg Water Temperature | 1 | Function detection; accomplishment of mitigation; verification; long-term surveillance | 2 | RCS Hot Leg Temperature (Wide Range) | 1 |
| RCS Cold Leg Water Temperature | 1 | Function detection; accomplishment of mitigation; verification; long-term surveillance | 3 | RCS Cold Leg Temperature (Wide Range) | 1 |
| RCS Pressure | 1 | Function detection; accomplishment of mitigation; verification; long-term surveillance | 1 | RCS Pressure (Wide Range) | 1 |
| Core Exit Temperature | 3 | Verification | 15 | Core Exit Temperature | 1 |
| Coolant Inventory | 1 | Verification, accomplishment of mitigation | 18 | Reactor Water Level | 1 |
| Degrees of Subcooling | 2 | Verification and analysis of plant conditions | 132 | Core Subcooling Monitor | 2 |
| <u>MAINTAINING REACTOR COOLANT SYSTEM INTEGRITY</u> | | | | | |
| RCS Pressure | 1 | Function detection; accomplishment of mitigation | 1 | RCS Pressure (Wide Range) | 1 |

TABLE 1-2

TABLE 1 (CONTINUED)

TYPE B Variables

| REGULATOR'S USE VARIABLES | | | ALABAMA POWER COMPANY'S POSITION | | |
|---|----------|--|----------------------------------|--------------------------------------|----------|
| Variable | Category | Purpose | Variable No. | Variable Description | Category |
| Containment Sump Water Level (Narrow Range) | 2 | Function detection; accomplishment of mitigation; verification | 111 | Reactor Cavity Sump Level | 2 |
| Containment Sump Water Level (Wide Range) | 1 | Function detection; accomplishment of mitigation; verification | 10 | Containment Water Level | 1 |
| Containment Pressure | 1 | Function detection; accomplishment of mitigation; verification | 7 | Containment Pressure (Normal Range) | 1 |
| <u>MAINTAINING CONTAINMENT INTEGRITY</u> | | | | | |
| Containment Isolation Valve Position (excluding check valves) | 1 | Accomplishment of isolation | 19 | Containment Isolation Valve Position | 1 |
| Containment Pressure | 1 | Function detection; accomplishment of mitigation; verification | 7 | Containment Pressure (Normal Range) | 1 |

TABLE 1 (CONTINUED)

TYPE C Variables

| REGULATORY GUIDE VARIABLES | | | ALABAMA POWER COMPANY'S POSITION | | |
|---|----------|---|----------------------------------|--|----------|
| Variable | Category | Purpose | Variable No. | Variable Description | Category |
| <u>FUEL CLADDING</u> | | | | | |
| Core Exit Temperature | 1 | Detection of potential for breach; accomplishment of mitigation; long-term surveillance | 15 | Core Exit Temperature | 1 |
| Radioactivity Concentration or Radiation Level in Circulating Primary Coolant | 1 | Detection of breach | 14 | Primary Coolant Radioactivity Concentration. | 1 |
| Analysis of Primary Coolant (Gamma Spectrum) | 3 | Detail analysis; accomplishment of mitigation; verification; long-term surveillance | 1017 | Post Accident Sample | 3 |
| <u>REACTOR COOLANT PRESSURE BOUNDARY</u> | | | | | |
| RCS Pressure | 1 | Detection of potential for or actual breach; accomplishment of mitigation; long-term surveillance | 1 | RCS Pressure (Wide Range) | 1 |
| Containment Pressure | 1 | Detection of breach; accomplishment of mitigation; verification; long-term surveillance | 7 | Containment Pressure (Normal Range) | 1 |
| Containment Sump Water Level (Narrow Range) | 2 | Detection of breach; accomplishment of mitigation; verification; long-term surveillance | 111 | Reactor Cavity Sump Level | 2 |
| Containment Sump Water Level (Wide Range) | 1 | Detection of breach; accomplishment of mitigation; verification; long-term surveillance | 10 | Containment Water Level | 1 |
| Containment Area Radiation | 3 | Detection of breach; verification | 13 | Containment Radiation (High Range) | 1 |
| Effluent Radioactivity - Noble Gas Effluent from Condenser Air Removal System Exhaust | 3 | Detection of breach; verification | 120 | Condenser SJAE Radiation | 2 |

TABLE 1-4

TABLE 1 (CONTINUED)

TYPE C Variables

| REGULATORY GUIDE VARIABLES | | | ALABAMA POWER COMPANY'S POSITION | | |
|--|----------|---|----------------------------------|---------------------------------------|----------|
| Variable | Category | Purpose | Variable No. | Variable Description | Category |
| <u>CONTAINMENT</u> | | | | | |
| RCS Pressure | 1 | Detection of potential for breach; accomplishment of mitigation | 1 | RCS Pressure (Wide Range) | 1 |
| Containment Hydrogen Concentration | 1 | Detection of potential for breach; accomplishment of mitigation; long-term surveillance | 1006 | Containment Hydrogen Concentration | 3* |
| Containment Pressure | 1 | Detection of potential for or actual breach; accomplishment of mitigation | 16 | Containment Pressure (Extended Range) | 1 |
| Containment Effluent Radio-Activity-Noble Gases from Identified Release Points | 2 | Detection of breach; accomplishment of mitigation; verification | 121 | Plant Vent Effluent Radiation | 2 |
| Effluent Radioactivity - Noble Gases (from buildings or areas where penetrations and hatches are located, e.g., secondary containment and auxiliary buildings and fuel handling buildings that are in direct contact with primary containment) | 2 | Indication of breach | 121 | Plant Vent Effluent Radiation | 2 |

*The category downgrade from the Regulatory Guide Category is justified in a discussion provided on the Compliance Report checklist.

TABLE 1 (CONTINUED)

TYPE D Variables

| REGULATORY GUIDE VARIABLES | | | ALABAMA POWER COMPANY'S POSITION | | |
|---|----------|--|----------------------------------|--|----------|
| Variable | Category | Purpose | Variable No. | Variable Description | Category |
| <u>RESIDUAL HEAT REMOVAL (RHR) OR DECAY HEAT REMOVAL SYSTEM</u> | | | | | |
| RHR System Flow | 2 | To monitor operation | 101 | RHR/LHSI Flow | 2 |
| RHR Heat Exchanger Outlet Temperature | 2 | To monitor operation and for analysis | 114 | RHR HX Discharge Temperature | 2 |
| <u>SAFETY INJECTION SYSTEMS</u> | | | | | |
| Accumulator Tank Level and Pressure | 2 | To monitor operation | 125 101B | Accumulator Tank Pressure Accumulator Tank Level | 2 3* |
| Accumulator Isolation Valve Position | 2 | Operation status | 126 | Accumulator Tank Isolation Valve Position | 2 |
| Boric Acid Charging Flow | 2 | To monitor operation | 102 | Boric Acid Flow | 2 |
| Flow in HPI System | 2 | To monitor operation | 103 | HHSI Flow | 2 |
| Flow in LPI System | 2 | To monitor operation | 101 | RHR/LHSI Flow | 2 |
| Refueling Water Storage Tank Level | 2 | To monitor operation | 9 | Refueling Water Storage Tank Level | 1 |
| <u>PRIMARY COOLANT SYSTEM</u> | | | | | |
| Reactor Coolant Pump Status | 3 | To monitor operation | 1011 | RCP Motor Current | 3 |
| Primary System Safety Relief Valve Positions (including PORV and code valves) or Flow Through or Pressure in Relief Valve Lines | 2 | Operation status; to monitor for loss of coolant | 127 128 | Pressurizer PORV Position Pressurizer Safety Valve Position | 2 2 |

*The category downgrade from the Regulatory Guide Category is justified in a discussion provided on the Compliance Report checklist.

TABLE 1 (CONTINUED)

TYPE D Variables

| REGULATORY GUIDE VARIABLES | | | ALABAMA POWER COMPANY'S POSITION | | |
|--|----------|--|----------------------------------|---|----------|
| Variable | Category | Purpose | VARIABLE No. | Variable Description | Category |
| Pressurizer Level | 1 | To ensure proper operation of pressurizer | 6 | Pressurizer Level | 1 |
| Pressurizer Heater Status | 2 | To determine operating status | 130 112 | Pressurizer Heater Breaker Position Pressurizer Pressure | 2 2 |
| Quench Tank Level | 3 | To monitor operation | 1002 | Pressurizer Relief Tank Level | 3 |
| Quench Tank Temperature | 3 | To monitor operation | 1004 | Pressurizer Relief Tank Temperature | 3 |
| Quench Tank Pressure | 3 | To monitor operation | 1007 | Pressurizer Relief Tank Pressure | 3 |
| <u>SECONDARY SYSTEM (STEAM GENERATOR)</u> | | | | | |
| Steam Generator Level | 1 | To monitor operation | 4 | Steam Generator Level (Wide Range) | 1 |
| Steam Generator Pressure | 2 | To monitor operation | 8 | Main Steam Line Pressure | 1 |
| Safety/Relief Valve Positions or Main Steam Flow | 2 | To monitor operation | 104 | Main Steam Flow | 2 |
| Main Feedwater Flow | 3 | To monitor operation | 1001 | Main Feedwater Flow | 3 |
| <u>AUXILIARY FEEDWATER OR EMERGENCY FEEDWATER SYSTEM</u> | | | | | |
| Auxiliary or Emergency Feedwater Flow | 2 | To monitor operation | 12 | Auxiliary Feedwater Flow | 1 |
| Condensate Storage Tank Water Level | 1 | To ensure water supply for auxiliary feedwater (Can be Category 3 if not primary source of AFW. Then whatever is primary source of AFW should be listed and should be Category 1). | 11 | Condensate Storage Tank Level | 1 |

TABLE 1-7

TABLE 1 (CONTINUED)

TYPE D Variables

| REGULATORY GUIDE VARIABLES | | | ALABAMA POWER COMPANY'S POSITION | | |
|---|----------|---------------------------------------|----------------------------------|--|----------|
| Variable | Category | Purpose | Variable No. | Variable Description | Category |
| <u>CONTAINMENT COOLING SYSTEMS</u> | | | | | |
| Containment Spray Flow | 2 | To monitor operation | 105 | Containment Spray Flow | 2 |
| Heat Removal by the Containment Fan | 2 | To monitor operation | 115 | Temperature of Service Water to Aux. Bldg. | 2 |
| Heat Removal System | | | 116 | CTMT Cooler Service Water Outlet Temperature | 2 |
| | | | 133 | Service Water Flow to CTMT Coolers | 2 |
| Containment Atmosphere Temperature | 2 | To indicate accomplishment of cooling | 117 | Containment Atmosphere Temperature | 2 |
| Containment Sump Water Temperature | 2 | To monitor operation | 118 | RHR HX Inlet Temperature | 2 |
| <u>CHEMICAL AND VOLUME CONTROL SYSTEM</u> | | | | | |
| Makeup Flow - In | 2 | To monitor operation | 106 | Charging Line Flow | 2 |
| | | | 119 | RCP Seal Injection Flow | 2 |
| Letdown Flow - Out | 2 | To monitor operation | 107 | Letdown Flow | 2 |
| Volume Control Tank Level | 2 | To monitor operation | 113 | Volume Control Tank Level | 2 |
| <u>COOLING WATER SYSTEM</u> | | | | | |
| Component Cooling Water Temperature to ESF System | 2 | To monitor operation | 119 | Component Cooling Water Heat Exchanger Discharge Temperature | 2 |
| Component Cooling Water Flow to ESF System | 2 | To monitor operation | 108 | CCW HX Inlet Flow | 2 |
| <u>RADWASTE SYSTEMS</u> | | | | | |
| High-Level Radioactive Liquid Tank Level | 3 | To indicate storage volume | 1003 | Radioactive Liquid Tank Levels | 3 |

TABLE 1 (CONTINUED)

TYPE D Variables

| REGULATORY GUIDE VARIABLES | | | ALABAMA POWER COMPANY'S POSITION | | |
|---|----------|------------------------------|----------------------------------|--------------------------------|----------|
| Variable | Category | Purpose | Variable No. | Variable Description | Category |
| Radioactive Gas Holdup Tank Pressure | 3 | To indicate storage capacity | 1008 | Waste Gas Decay Tank Pressure | 3 |
| <u>VENTILATION SYSTEMS</u> | | | | | |
| Emergency Ventilation Damper Position | 2 | To indicate damper status | 129 | HYAC Emergency Damper Position | 2 |
| <u>POWER SUPPLIES</u> | | | | | |
| Status of Standby Power and Other Energy Sources Important to Safety (electric, hydraulic, pneumatic) (voltages, currents, pressures) | 2 | To indicate system status | 131 | Emergency Power Status | 2 |

TABLE 1 (CONTINUED)

TYPE E Variables

| REGULATORY GUIDE VARIABLES | | | ALABAMA POWER COMPANY'S POSITION | | |
|---|----------|---|----------------------------------|--|----------|
| Variable | Category | Purpose | Variable No. | Variable Description | Category |
| <u>CONTAINMENT RADIATION</u> | | | | | |
| Containment Area Radiation - High Range | 1 | Detection of significant releases; release assessment; long-term surveillance, emergency plan actuation | 13 | Containment Radiation (High Range) | 1 |
| <u>AREA RADIATION</u> | | | | | |
| Radiation Exposure Rate (inside buildings or areas where access is required to service equipment important to safety) | 3 | Detection of significant releases; release assessment; long-term surveillance | 122 | Accessible Area Radiation | 2 |
| | | | 1005 | Portable Plant/Enviroms Radiation | 3 |
| <u>AIRBORNE RADIOACTIVE MATERIALS RELEASED FROM PLANT</u> | | | | | |
| Noble Gases and Vent Flow Rate | | | | | |
| - Containment or Purge Effluent | 2 | Detection of significant releases; release assessment | | Not Applicable, see Common Plant Vent | |
| - Reactor Shield Building Annulus (if in design) | 2 | Detection of significant releases; release assessment | | Not Applicable, not in design | |
| - Auxiliary Building (including any building containing primary system gases, e.g., waste gas decay tank) | 2 | Detection of significant releases; release assessment; long-term surveillance | | Not Applicable, see Common Plant Vent | |
| - Condenser Air Removal System Exhaust | 2 | Detection of significant releases; release assessment | 120 | Condenser S/AE Radiation | 2 |
| - Common Plant Vent or Multi-purpose Vent Discharging Any of Above Releases (if containment purge is included) | 2 | Detection of significant release; release assessment; long-term surveillance | 121 109 | Plant Vent Effluent Radiation Plant Vent Stack Flow | 2 2 |

TABLE 1 (CONTINUED)

TYPE E Variables

| REGULATORY GUIDE VARIABLES | | | ALABAMA POWER COMPANY'S POSITION | | |
|---|----------|---|----------------------------------|--|-------------|
| Variable | Category | Purpose | Variable No. | Variable Description | Category |
| - Vent From Steam Generator Safety Relief Valves or Atmospheric Dump Valves | 2 | Detection of significant releases; release assessment | 104 123 124 | Main Steam Flow Main Steam Effluent Radiation TBAFW Effluent Radiation | 2 2 2 |
| - All Other Identified Release Points | 2 | Detection of significant release; release assessment; long-term surveillance | | Not Applicable | |
| <u>PARTICULATES AND HALOGENS</u> | | | | | |
| - All Identified Plant Release Points (except steam generator safety relief valves or atmospheric steam dump valves and condenser air removal system exhaust). Sampling with Onsite Analysis Capability | 3 | Detection of significant releases; release assessment; long-term surveillance | 1012 | Particulates and Halogens Sampling (Vent Stack) | 3 |
| <u>ENVIRONS RADIATION AND RADIOACTIVITY</u> | | | | | |
| Airborne Radiohalogens and Particulates (portable sampling with onsite analysis capability) | 3 | Release assessment; analysis | 1013 | Airborne Radio-Halogens and Particulates (Environs) | 3 |
| Plant and Environs Radiation (portable instrumentation) | 3 | Release assessment; analysis | 1005 | Portable Plant/Environs Radiation | 3 |
| Plant and Environs Radioactivity (portable instrumentation) | 3 | Release assessment; analysis | 1019 | Portable Plant/Environs Radioactivity (Gamma-Ray Spectrometer) | 3 |
| <u>METEOROLOGY</u> | | | | | |
| Wind Direction | 3 | Release assessment | 1014 | Wind Direction | 3 |

TABLE 1 (CONTINUED)

TYPE E Variables

| REGULATORY GUIDE VARIABLES | | | ALABAMA POWER COMPANY'S POSITION | | |
|--|----------|--|----------------------------------|-------------------------------------|----------|
| Variable | Category | Purpose | Variable No. | Variable Description | Category |
| Wind Speed | 3 | Release assessment | 1015 | Wind Speed | 3 |
| Estimation of Atmospheric Stability | 3 | Release assessment | 1016 | Estimation of Atmospheric Stability | 3 |
| ACCIDENT SAMPLING CAPABILITY (ANALYSIS CAPABILITY ON SITE) | | | | | |
| Primary Coolant and Sump | 3 | Release assessment; verification; analysis | 1017 | Post Accident Sample | 3 |
| <ul style="list-style-type: none"> - Gross Activity - Gamma Spectrum - Boron Content - Chloride Content - Dissolved Hydrogen or Total Gas - Dissolved Oxygen - pH | | | | | |
| Containment Air | 3 | Release assessment; verification; analysis | 1018 | Post Accident Sample - CTMT AIR | 3 |
| <ul style="list-style-type: none"> - Hydrogen Content - Oxygen Content - Gamma Spectrum | | | | | |