

## Summary of Observations

### Temporary Instruction 2515/184, "Availability and Readiness Inspection of Severe Accident Management Guidelines (SAMGs)"

#### **Summary of Observations:**

The SAMGs were implemented as a voluntary industry initiative in the 1990s and are not part of the agency's routine Reactor Oversight Program. On March 30, 2011, the Executive Director for Operations chartered a task force to conduct an evaluation of the need for agency actions following the events in Japan. The task force will evaluate the current status of SAMGs at operating power reactors and determine the need for any further agency actions.

The following are some general observations made during the performance of TI 2515/184. While individually, none of these observations posed a significant safety issue, they indicate that while the SAMG procedures are available at every site, there appears to be an inconsistent implementation of some aspects of this voluntary SAMG program.

SAMGs are typically available in plant locations critical to combating a potentially severe accident. However in some cases the procedures were either not available in all expected areas or not properly controlled. In addition, while SAMGs appear to be updated to reflect design changes at a facility, there does not appear to be a consistent approach to conducting periodic reviews. Finally, while personnel do appear to be properly trained and knowledgeable on SAMGs, exercises on SAMGs do not appear to be periodically conducted at all sites. This summary is being provided to the Near Term Task Force for use during its review of agency regulatory requirements in light of the Japan Fukushima event.

#### **Matrix of Observations by Facility:**

The attached matrix is a per-site summary of observations associated with TI 2515/184. The matrix was developed to provide NRC and external stakeholders with a quick method to review the observations; however, the matrix is not an in-depth assessment of the findings. As noted above, NRC is evaluating the current status of SAMGs at operating power reactors in order to determine the need for any further agency actions.

#### **Using the Matrix:**

The matrix provides basic answers in a way to help guide the user to information regarding a facility that they may be interested in. The first column under Item 03.01(a) indicates that all licensees have SAMG procedures. The inspection reports should be reviewed for additional information on when the SAMGs were last updated. Specific answers to training questions associated with Inspection Item 03.01(e) are not included in the matrix; however an overview of the training program is included in the matrix under Item 03.01(f). The inspection reports should be reviewed for additional information on the observations.

Summary of Inspection Results for TI 2515/184, "Availability and Readiness Inspection of Severe Accident Management Guidelines (SAMGs)"

| Plant / Site      | Region | Does the licensee have SAMG procedures? (see footnote 1) | Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N) | Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N) | Are controlled copies of the SAMG located in the control room? (Y/N) | Are SAMGs covered by the licensee's procedure control and document management system, including the requirements for periodic review and revision? (Y/N) | Does the licensee's change management systems (e.g., 10CFR30.59 process) cause the licensee to update SAMGs to reflect design changes? (Y/N/Partially) | Are the SAMGs consistent with the owners group guidance (if any) having been incorporated? (Y/N) | Did personnel receive initial training on the SAMGs? (Y/N) | Did personnel receive periodic training on the SAMGs and how they relate to their assigned duties? (Y/N) | Can personnel articulate their responsibilities with respect to the use of SAMGs? (Y/N) | Have there been periodic exercises on the use of SAMGs by individuals who would implement them during an emergency? (Y/N) |
|-------------------|--------|--|--|---|--|--|--|--|--|--|---|---|
| Beaver Valley     | I      | Y  | Y  | N   | Y  | Y  | Y  | Y  | Y  | N  | N   | N   |
| Calvert Cliffs    | I      | Y  | Y  | Y   | Y  | Y  | Y  | Y  | Y  | N  | N   | Y   |
| Fitzpatrick       | I      | Y  | Y  | Y   | Y  | N  | Y  | Y  | Y  | N  | N   | N   |
| Gima              | I      | Y  | Y  | N   | Y  | Y  | N  | Y  | Y  | Y  | Y   | N   |
| Hope Creek        | I      | Y  | Y  | N   | Y  | Y  | Y  | Y  | Y  | Y  | Y   | Y   |
| Indian Point 2    | I      | Y  | Y  | N   | Y  | N  | Y  | Y  | Y  | Y  | Y   | Y   |
| Indian Point 3    | I      | Y  | Y  | N   | Y  | N  | Y  | Y  | Y  | Y  | Y   | Y   |
| Limerick          | I      | Y  | Y  | Y   | Y  | Y  | Y  | Y  | Y  | Y  | Y   | Y   |
| Millstone         | I      | Y  | Y  | Y   | Y  | Y  | Y  | Y  | Y  | Y  | Y   | Y   |
| Nine Mile Point   | I      | Y  | Y  | Y   | Y  | Y  | Y  | Y  | N  | N  | Y   | N   |
| Oyster Creek      | I      | Y  | Y  | N   | Y  | N  | Y  | Y  | Y  | Y  | Y   | Y   |
| Peach Bottom      | I      | Y  | Y  | Y   | Y  | N  | Y  | Y  | Y  | Y  | N   | Y   |
| Pilgrim           | I      | Y  | Y  | Y   | Y  | Y  | Y  | Y  | Y  | Y  | Y   | Y   |
| Salem             | I      | Y  | Y  | N   | Y  | Y  | Y  | Y  | Y  | Y  | Y   | Y   |
| Seabrook          | I      | Y  | Y  | Y   | Y  | Y  | Y  | Y  | Y  | Y  | Y   | Y   |
| Susquehanna       | I      | Y  | Y  | Y   | N  | Y  | N  | Y  | Y  | N  | Y   | N   |
| Three Mile Island | I      | Y  | Y  | Y   | Y  | Y  | Y  | Y  | Y  | Y  | Y   | N   |
| Vermont Yankee    | I      | Y  | Y  | Y   | Y  | N  | Y  | Y  | Y  | Y  | Y   | Y   |
| Browns Ferry      | II     | Y  | Y  | Y   | Y  | N  | Y  | Y  | Y  | Y  | Y   | Y   |
| Brunswick         | II     | Y  | Y  | Y   | Y  | Y  | Y  | Y  | Y  | Y  | Y   | Y   |
| Catawba           | II     | Y  | Y  | Y   | Y  | N  | N  | Y  | Y  | Y  | Y   | Y   |
| Crystal River     | II     | Y  | Y  | Y   | Y  | N  | Y  | Y  | Y  | Y  | Y   | N   |
| Farley            | II     | Y  | Y  | N   | Y  | Y  | Y  | Y  | Y  | Y  | Y   | Y   |
| Harris            | II     | Y  | Y  | N   | Y  | Y  | Y  | Y  | Y  | Y  | Y   | N   |
| Hatch             | II     | Y  | Y  | N   | Y  | Y  | Y  | Y  | Y  | Y  | Y   | N   |
| McGuire           | II     | Y  | Y  | Y   | Y  | N  | N  | Y  | Y  | Y  | Y   | Y   |
| North Anna        | II     | Y  | Y  | Y   | Y  | N  | N  | Y  | Y  | Y  | Y   | N   |
| Oconee            | II     | Y  | Y  | N   | Y  | N  | N  | Y  | Y  | Y  | Y   | N   |
| Robinson          | II     | Y  | Y  | Y   | Y  | N  | Y  | Y  | Y  | Y  | Y   | Y   |
| Sequoyah          | II     | Y  | Y  | Y   | Y  | N  | Y  | Y  | Y  | Y  | Y   | Y   |
| St. Lucie         | II     | Y  | Y  | Y   | Y  | N  | Y  | Y  | Y  | Y  | Y   | Y   |
| Summer            | II     | Y  | Y  | Y   | Y  | Y  | N  | N  | Y  | Y  | Y   | N   |
| Surry             | II     | Y  | Y  | Y   | Y  | N  | Y  | Y  | Y  | Y  | Y   | Y   |
| Turkey Point      | II     | Y  | Y  | Y   | Y  | N  | N  | Y  | Y  | Y  | Y   | N   |
| Vogtle            | II     | Y  | Y  | N   | Y  | Y  | Y  | Y  | Y  | Y  | Y   | Y   |
| Watts Bar         | II     | Y  | Y  | N   | Y  | Y  | Y  | Y  | Y  | Y  | Y   | Y   |
| Braidwood         | III    | Y  | Y  | N   | Y  | N  | Y  | N  | Y  | Y  | Y   | Y   |
| Byron             | III    | Y  | Y  | N   | Y  | N  | Y  | N  | Y  | Y  | Y   | N   |
| Clinton           | III    | Y  | Y  | N   | Y  | N  | Y  | Y  | Y  | Y  | Y   | Y   |
| D.C. Cook         | III    | Y  | Y  | N   | Y  | N  | N  | Y  | Y  | Y  | Y   | N   |
| Davis-Besse       | III    | Y  | Y  | N   | Y  | Y  | N  | Y  | Y  | Y  | Y   | N   |
| Dresden           | III    | Y  | Y  | N   | Y  | N  | Y  | Y  | Y  | Y  | Y   | N   |
| Duane Arnold      | III    | Y  | Y  | Y   | Y  | Y  | Y  | Y  | Y  | Y  | Y   | Y   |
| Fermi             | III    | Y  | Y  | N   | Y  | N  | Y  | Y  | Y  | N  | N   | N   |

Summary of Inspection Results for TI 2515/184, "Availability and Readiness Inspection of Severe Accident Management Guidelines (SAMGs)"

| Plant / Site     | Region | 03.01(a)   |  |   |  | 03.01(b) | 03.01(c)  | 03.01(d) | 03.01(f) (see footnote 2)                                  |  | 03.01(g) |
|------------------|--------|--|--|---|--|----------|-----------|----------|--|--|----------|
|                  |        | Does the licensee have SAMG procedures? (see footnote 1) | Are controlled copies of the SAMG located in the technical support center (TSC)? (Y/N) | Are controlled copies of the SAMG located in the emergency operations facility (EOF)? (Y/N) | Are controlled copies of the SAMG located in the control room? (Y/N) |          |           |          | Did personnel receive initial training on the SAMGs? (Y/N) | Did personnel receive periodic training on the SAMGs and how they relate to their assigned duties? (Y/N) |          |
| Kewaunee         | III    | Y  | Y  | Y   | Y  | N        | Y         | N        | Y  | N  | N        |
| LaSalle          | III    | Y  | Y  | Y   | Y  | Y        | Y         | Y        | Y  | Y  | Y        |
| Monticello       | III    | Y  | Y  | Y   | Y  | N        | Y         | Y        | N  | N  | N        |
| Palisades        | III    | Y  | Y  | Y   | N  | N        | N         | N        | N  | N  | N        |
| Perry            | III    | Y  | Y  | Y   | Y  | Y        | N         | Y        | Y  | Y  | N        |
| Point Beach      | III    | Y  | Y  | Y   | Y  | Y        | Y         | Y        | Y  | Y  | Y        |
| Prairie Island   | III    | Y  | Y  | Y   | Y  | N        | Y         | N        | Y  | Y  | Y        |
| Quad Cities      | III    | Y  | Y  | Y   | Y  | N        | Y         | Y        | Y  | Y  | Y        |
| Arkansas Nuclear | IV     | Y  | Y  | Y   | Y  | N        | Partially | Y        | Y  | Y  | Y        |
| Callaway         | IV     | Y  | Y  | Y   | N  | N        | N         | Y        | Y  | Y  | N        |
| Columbia         | IV     | Y  | Y  | N   | Y  | Y        | Y         | Y        | Y  | Y  | Y        |
| Comanche Peak    | IV     | Y  | N  | N   | N  | N        | Y         | N        | Y  | Y  | N        |
| Cooper           | IV     | Y  | Y  | Y   | Y  | Y        | Y         | Y        | Y  | Y  | Y        |
| Diablo Canyon    | IV     | Y  | Y  | Y   | Y  | Y        | Partially | Y        | Y  | Y  | Y        |
| Fort Calhoun     | IV     | Y  | Y  | Y   | Y  | N        | N         | Y        | Y  | Y  | Y        |
| Grand Gulf       | IV     | Y  | Y  | Y   | Y  | Y        | Y         | Y        | Y  | Y  | Y        |
| Palo Verde       | IV     | Y  | Y  | Y   | Y  | Y        | Y         | Y        | Y  | Y  | N        |
| River Bend       | IV     | Y  | Y  | Y   | Y  | Y        | Y         | Y        | Y  | Y  | Y        |
| San Onofre       | IV     | Y  | Y  | Y   | Y  | Y        | N         | Y        | Y  | N  | Y        |
| South Texas      | IV     | Y  | Y  | Y   | Y  | Y        | Y         | Y        | Y  | Y  | N        |
| Waterford        | IV     | Y  | N  | N   | N  | N        | Partially | Y        | Y  | Y  | Y        |
| Wolf Creek       | IV     | Y  | Y  | Y   | Y  | Y        | Y         | Y        | Y  | Y  | Y        |

(1) See the individual plant data sheets regarding information on "when the SAMGs were last updated" as referred to in TI 2515/184 Section 03.01(a).

(2) Specific answers to training questions associated with Inspection Item 03.01(e) are not included in the matrix, however, an overview of the training program is included in the matrix under Item 03.01(f). The