

DETROIT EDISON - FERMI 2  
AUTOMATED RECORD MANAGEMENT  
DISTRIBUTION CONTROL LIST  
01/29/02

To: 00935

PAGE 1

US NRC  
GENERAL INFORMATION DESK

WASHINGTON, DC 20555

Media: 8 1/2 X 11

DTC	Doc. Serial Number	Page	Rev	Number Copies	Cnt Lvl	Issue Date	Sec Status
TPEPT	EP-301-01			15	1	ST 01/29/02	AFC

Please destroy or mark all revised, superseded, or cancelled documents as such. CONTROLLED stamps must be voided by lining through and initialing.

=====  
Detroit Edison EF2, C/O Info Mgmt 140 NOC, 6400 North Dixie Highway,  
Newport MI 48166. (734) 586-4338 OR (734) 586-4061 for questions or concerns.

Ref: ca6622

A045

**TECHNICAL SUPPORT CENTER**

**Revision Summary**

- 1) Clarified steps 4.2.3.1 and 4.2.4.1.
- 2) Added note before step 4.2.4 to specify the intent of dose assessment status check.
- 3) Deleted redundant step 4.4.2.3
- 4) Added new steps 4.4.3.2 and 4.4.5.9.
- 5) Replaced term Clerical Staff with Administrative Support personnel in step 4.4.7.6.
- 6) Updated title of Manager – Nuclear Security in step 4.4.8.5.
- 7) Changed Status Board Clerks to Emergency Status Engineers in step 4.4.10.2.b.
- 8) Added personnel to contact for action statements in Attachment 1.
- 9) Updated TSC Floor Plan in Enclosure A.
- 10) Added a note to Enclosure A to identify conditions that may alter seating arrangements of TSC personnel.
- 11) Updated Enclosure B, TSC Organization Chart.
- 12) Made editorial changes throughout text. No revision bars have been used to mark these changes.

**Implementation Plan**

- 1) This procedure goes into effect upon issuance.

**Attachments**

1 010802 TSC Immediate Action Checklist

**Enclosures**

A 010802 Typical TSC Floor Plan  
B 010802 TSC Organization Chart

Information and Procedures				
DSN EP-301-01	Revision 15	DCR # 01-2034	DTC TPEPT	File # 1703.10
IP Code I	Date Approved 01/24/02	Released By T. Barror/s/	Date Issued 01/29/02	Recipient 935

**CONTROLLED**

## **1.0 PURPOSE**

To prescribe the methods by which the Technical Support Center (TSC) is activated and functions during an emergency.

## **2.0 USE REFERENCES**

- 2.1 23.410.01, Office Building Annex, Computer and Document Control Rooms, and Technical Support Center HVACs
- 2.2 EP-201-03, Variances from Routine Radiological Practice and Procedures During an Emergency
- 2.3 EP-220, Personnel Monitoring and Radiological Emergency Teams
- 2.4 EP-290, Emergency Notifications
- 2.5 EP-530, Assembly and Accountability and Onsite Protective Actions
- 2.6 EP-545, Protective Action Recommendations

## **3.0 ENTRY CONDITIONS**

- 3.1 Alert, Site Area Emergency, or General Emergency is declared.
- 3.2 Emergency Director has ordered the TSC activated.

## **4.0 GENERAL INFORMATION**

- 4.1 The TSC is activated upon declaration of an Alert or higher emergency classification, or earlier at the discretion of the Emergency Director.
  - 4.1.1 Activation indicates that the facility staff have been ordered to the TSC for the purpose of making it functional.

**4.2 The TSC is declared functional at the discretion of the Emergency Director when the following conditions are met and documented on Attachment 1.**

**4.2.1 The Emergency Director has been briefed on Emergency Status.**

1. The Emergency Director must determine the following related to offsite notifications:
  - a. What information has been communicated to offsite authorities
  - b. Number of the last communication made from the Control Room
  - c. Which offsite agency has communications responsibility

**4.2.2 TSC personnel have an understanding of radiological conditions as can best be determined from available resources.**

**4.2.3 TSC is determined to be radiologically habitable.**

1. Determination of TSC habitability may be made based on review of radiation monitor indications, survey results, or knowledge of current conditions.

**NOTE:** Dose assessment does not have to be initiated – only available.

**4.2.4 Radiation Protection personnel in the TSC have determined the status of dose assessment operations.**

1. Dose assessment should be initiated when any of the following exist:
  - a. Declared loss or potential loss of clad
  - b. Effluent radiation monitors exceed 2 times ODCM control values
  - c. As directed

**4.2.5 TSC Minimum Staffing to be declared functional, consisting of an Emergency Director, a Radiation Protection Advisor, and a Communicator, is achieved.**

1. Minimum staffing positions **may** be activated at the discretion of the Emergency Director upon declaration of an Unusual Event.
2. Minimum staffing positions should be present in the TSC within 30 minutes of an Alert being declared.

3. **Additional staffing** of 1 Technical Engineer **or** 1 Nuclear Safety Advisor, 1 Support Engineer, and 1 Communicator (for a total of 2) should be present within 60 minutes of TSC activation.

4.2.6 TSC personnel are briefed on emergency status.

- 4.3 Once declared functional, the TSC provides plant management and technical support to the Control Room, and relieves the reactor operators of peripheral duties not directly related to reactor system manipulations.

4.3.1 The following are among the TSC responsibilities:

1. Accident assessment
2. Emergency classification
3. Radiological assessment
4. Corrective action development and implementation
5. Direction and control of onsite activities
6. Onsite protective actions
7. Site access control
8. Severe Accident Guideline implementation

4.3.2 In addition to these responsibilities, the TSC is also responsible for the following until relieved by the EOF:

1. Emergency communications and notifications
2. Offsite protective action recommendations
3. Direction and control of offsite emergency teams (utility personnel)
4. Meteorological and dose assessment

4.4 Responsibilities of key functional positions in the TSC follow.

4.4.1 The Emergency Director:

1. Classifies emergency conditions.
2. Coordinates implementation of immediate onsite corrective and protective actions to control the emergency and mitigate its effects.
3. Provides initial notifications, periodic status updates, and protective action recommendations to offsite authorities until relieved of this responsibility by the EOF.
4. Interfaces with offsite authorities as required.
5. Authorizes emergency radiation exposure limits in excess of 10 CFR 20 limits for plant or other emergency workers if conditions warrant.
6. Ensures that public information release is prompt, accurate, and made through proper channels until relieved of this responsibility by the EOF.
7. Ensures Detroit Edison personnel are called in as required to support emergency operations.
8. Obtains assistance of offsite support organizations as necessary.
9. Provides TSC personnel with periodic briefings on plant and emergency status.
10. Ensures safety of onsite personnel.
11. Oversees implementation of Severe Accident Guidelines.

4.4.2 The Technical Engineer:

1. Maintains overall perspective of plant operations and changing plant conditions.
2. Provides recommendations to the Emergency Director on plant technical matters.
3. Advises the Emergency Director in matters related to emergency classification and protective actions.
4. Serves as Severe Accident Guideline decision maker.

4.4.3 The Operations Liaison:

1. Assists the Technical Engineer.
2. Maintains cognizance of Control Room activities as they relate to plant operations.
3. Evaluates Severe Accident Guidelines.

4.4.4 The Nuclear Safety Advisor:

1. Maintains overall perspective of plant conditions and the status of plant systems and ongoing repair activities.
2. Advises the Emergency Director on plant engineering matters.
3. Provides work assignments to support engineers.

4.4.5 The Radiation Protection Advisor:

1. Maintains overall perspective of plant radiological conditions.
2. Maintains cognizance of the location and status of emergency responders in the plant.
3. Establishes radiation protection requirements for plant activities.
4. Advises the Emergency Director on onsite protective actions and offsite protective action recommendations.
5. Ensures facility habitability is monitored and maintained.
6. Provides work direction for radiation protection and dose assessment personnel.
7. Directs dispatch and control of onsite RETs.
8. Directs dispatch and control of offsite RETs until the EOF is functional.
9. Authorizes dose extensions in excess of Fermi 2 Administrative Guidelines, not to exceed 10 CFR 20 limits for emergency response personnel, as needed.

4.4.6 The Radchem Advisor:

1. Advises the Emergency Director on radiochemistry issues.
2. Advises the Emergency Director on radwaste issues.
3. Directs inplant sampling and radiochemistry laboratory analysis activities.
4. Evaluates status of damage to reactor core.

4.4.7 The TSC Administrators:

1. Ensure that all offsite notifications and communications are complete and made in a timely manner.
2. Maintain and control documentation concerning the emergency.
3. Advise the Emergency Director on matters related to personnel or equipment.
4. Coordinate logistical support for onsite emergency personnel.
5. Coordinate replacement or additional TSC personnel or equipment as necessary.
6. Supervise TSC Communicators and Administrative Support personnel.

4.4.8 The Security Advisor:

1. Ensures that site security is maintained and appropriate contingency measures are implemented.
2. Ensures that security and traffic control measures are in effect, including traffic direction during evacuation.
3. Ensures personnel accountability procedures are implemented in the event of a radiological emergency or the need for plant/site evacuation.
4. Maintains security of the TSC.
5. Advises the Manager - Nuclear Security and Emergency Director on matters related to security.



4.4.9 TSC Communicators:

1. Establish and maintain communication with the state and counties when required.
2. Contact additional or replacement TSC staff as directed.

4.4.10 Technical Communicators:

1. Two Technical Communicator positions are staffed.
2. The TSC Technical Communicator:
  - a. Provides the communication link for technical information and emergency team dispatch with the Control Room, OSC, and EOF.
  - b. Provides information updates to and supervision of Emergency Status Engineers.
3. The NRC Technical Communicator relieves the Main Control Room of NRC notifications responsibility as directed by the Emergency Director.

4.4.11 Dose Assessors:

1. Perform offsite dose assessment calculations and report results to Radiation Protection Advisor.
2. Assess meteorological conditions and projections.

4.4.12 Support Engineers:

1. Use ERIS SPDS and other available information to trend key plant parameters and develop technical recommendations.
2. Advise Nuclear Safety Advisor on plant engineering matters.
3. Evaluate Severe Accident Guidelines.

#### 4.5 TSC Equipment Storage and Maintenance

- 4.5.1 The General Supervisor, Radiation Protection Operations, ensures all radiation protection emergency protection equipment stored in the TSC is maintained in accordance with 67.000.405.
- 4.5.2 Documentation stored in the TSC is maintained by Information and Procedures.

### 5.0 IMMEDIATE ACTIONS

- 5.1 Upon activation, complete Attachment 1, TSC Immediate Action Checklist, to make the TSC Functional.
  - 5.1.1 Document completed steps in space provided.
  - 5.1.2 Emergency Director sign and date completed form.

### 6.0 PROCEDURE

**NOTE:** The following actions are evaluated and performed only as appropriate, and in any order, to support the function of the TSC.

- 6.1 The Emergency Director shall:
  - 6.1.1 Monitor emergency status and upgrade emergency classifications.
  - 6.1.2 Implement onsite protective actions in accordance with EP-530.
  - 6.1.3 Recommend offsite protective actions in accordance with EP-545.
  - 6.1.4 Provide periodic briefings on emergency status and priorities for the organization.
  - 6.1.5 Support the Main Control Room in implementation of required procedures.
  - 6.1.6 Relieve the Main Control Room of NRC notifications when the NRC Technical Communicator is available and knowledgeable of plant and emergency status.
  - 6.1.7 Review and approve all emergency notifications in accordance with EP-290.

- 6.1.8 Brief the State Emergency Director on the status of the emergency and associated response efforts.
  - 6.1.9 Review and approve the formation and dispatch of required emergency response teams.
  - 6.1.10 Authorize variances from routine radiological practices and procedures in accordance with EP-201-03.
  - 6.1.11 Complete each event classification checklist in accordance with EP-102, EP-103, EP-104, and EP-105.
  - 6.1.12 Implement Severe Accident Guidelines.
- 6.2 The Radiation Protection Advisor shall:
- 6.2.1 Initiate dose assessment.
  - 6.2.2 Distribute dosimetry to TSC personnel.
  - 6.2.3 Perform periodic facility habitability surveys.
  - 6.2.4 Establish a contamination control point at TSC entrance.
  - 6.2.5 Place TSC HVAC in the Emergency Makeup Mode in accordance with 23.410.01 when a radiological release is detected.
  - 6.2.6 Activate the airlock function at the entrances to the TSC when a radiological release is detected.
  - 6.2.7 Staff the Health Physics Network, when directed by the NRC, by a person who is knowledgeable of plant and radiological conditions.
  - 6.2.8 Determine Off-site Assembly area location based on current and forecast weather conditions.
  - 6.2.9 Activate the Off-site RET in accordance with EP-220.
  - 6.2.10 Establish appropriate radiological controls for on-site activities.

- 6.2.11 Assist the Emergency Director in developing on-site protective actions in accordance with EP-530.
- 6.2.12 Assist the Emergency Director in developing off-site protective action recommendations in accordance with EP-545.
- 6.3 The TSC Administrators shall:
  - 6.3.1 Ensure full TSC staffing is achieved.
  - 6.3.2 Assist with all required emergency notifications.

## **7.0 FOLLOW-UP ACTIONS**

- 7.1 TSC Administrator shall ensure that a second shift for TSC personnel is placed on standby 8 hours into the emergency, or after 8 hours are worked as directed.
- 7.2 Second shift should be briefed and in place at their emergency assignments 12 hours into the emergency, or after 12 hours are worked.
- 7.3 In the event that environmental conditions in the TSC hinder routine operation, the Emergency Director may direct any or all of the following actions to alleviate the condition:
  - 7.3.1 Reduce lighting and other electrical loads to the minimum necessary to accomplish TSC functions.
  - 7.3.2 Dismiss or reassign unnecessary personnel to an alternate location to reduce the heat load.
  - 7.3.3 Rotate personnel on a more frequent basis to ensure that personnel fatigue does not affect TSC operation.

CM

- 7.4 If airborne radioactivity levels in the TSC exceed established limits at any time during the emergency, the Emergency Director shall determine whether to transfer the TSC functions to alternate locations.

7.4.1 If the Emergency Director does decide to transfer the TSC functions, some functions may be transferred to the Control Room but most would be transferred to the EOF.

- 7.5 If area radiation level exceeds the established limits, TSC functions may be similarly transferred at the direction of the Emergency Director.

CM

- 7.6 Radiation Protection Advisor shall return TSC HVAC to Normal Mode in accordance with 23.410.01 when Emergency Makeup Mode is no longer required.

- 7.7 All forms and records generated in the TSC as a result of the emergency shall be retained by TSC Administrator and turned over to Supervisor, RERP at the conclusion of the event for disposition and storage.

## **8.0 RECORDS**

- 8.1 Attachment 1, TSC Immediate Action Checklist, is a required record.
- 8.2 Required records generated from this and other procedures used concurrently with this procedure shall be dispositioned as specified in Section 7.7 and in accordance with the requirements defined in the governing procedure.

**END OF TEXT**

## TSC IMMEDIATE ACTION CHECKLIST

A. The following items shall be completed in any order prior to declaring the TSC functional.

- \_\_\_\_\_ 1. Receive Briefing on Emergency Status.
  - ☐ a. Understand plant conditions.
  - ☐ b. Understand emergency classification.
  - ☐ c. Determine status of repair activities.
  - ☐ d. Determine location and status of any emergency teams.
  - ☐ e. Determine status of onsite and offsite protective actions.
  - ☐ f. Determine status of offsite notifications.
  - ☐ g. Determine status of emergency action checklists (agree on turnover items).
- \_\_\_\_\_ 2. Understand radiological conditions. Consult with Radiation Protection Advisor (RPA).
- \_\_\_\_\_ 3. Verify TSC habitability with RPA.
- \_\_\_\_\_ 4. Determine status of Dose Assessment operations. Consult with RPA.
- \_\_\_\_\_ 5. Verify minimum staffing.
- \_\_\_\_\_ 6. Brief TSC personnel on emergency status.

B. The following items shall be completed in any order when ready to declare the TSC functional.

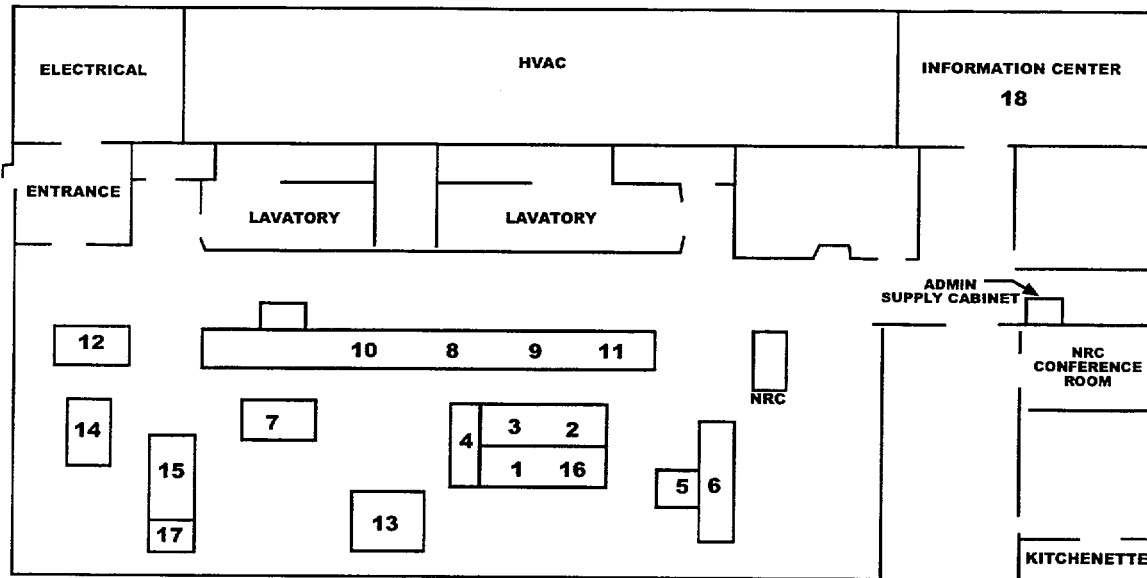
- \_\_\_\_\_ 1. Declare the TSC functional. Time: \_\_\_\_\_
- \_\_\_\_\_ 2. Relieve Control Room of Emergency Director duties.
- \_\_\_\_\_ 3. Assume communications responsibilities.

C. Announce that TSC is functional and the name of Emergency Director.

- \_\_\_\_\_ 1. Make announcement to TSC staff.
- \_\_\_\_\_ 2. Have sitewide Hi-Com announcement made.
- \_\_\_\_\_ 3. Inform Offsite Authorities.
- \_\_\_\_\_ 4. Contact the State Emergency Director.

Emergency Director/Date: \_\_\_\_\_/\_\_\_\_\_

### TYPICAL TSC FLOOR PLAN

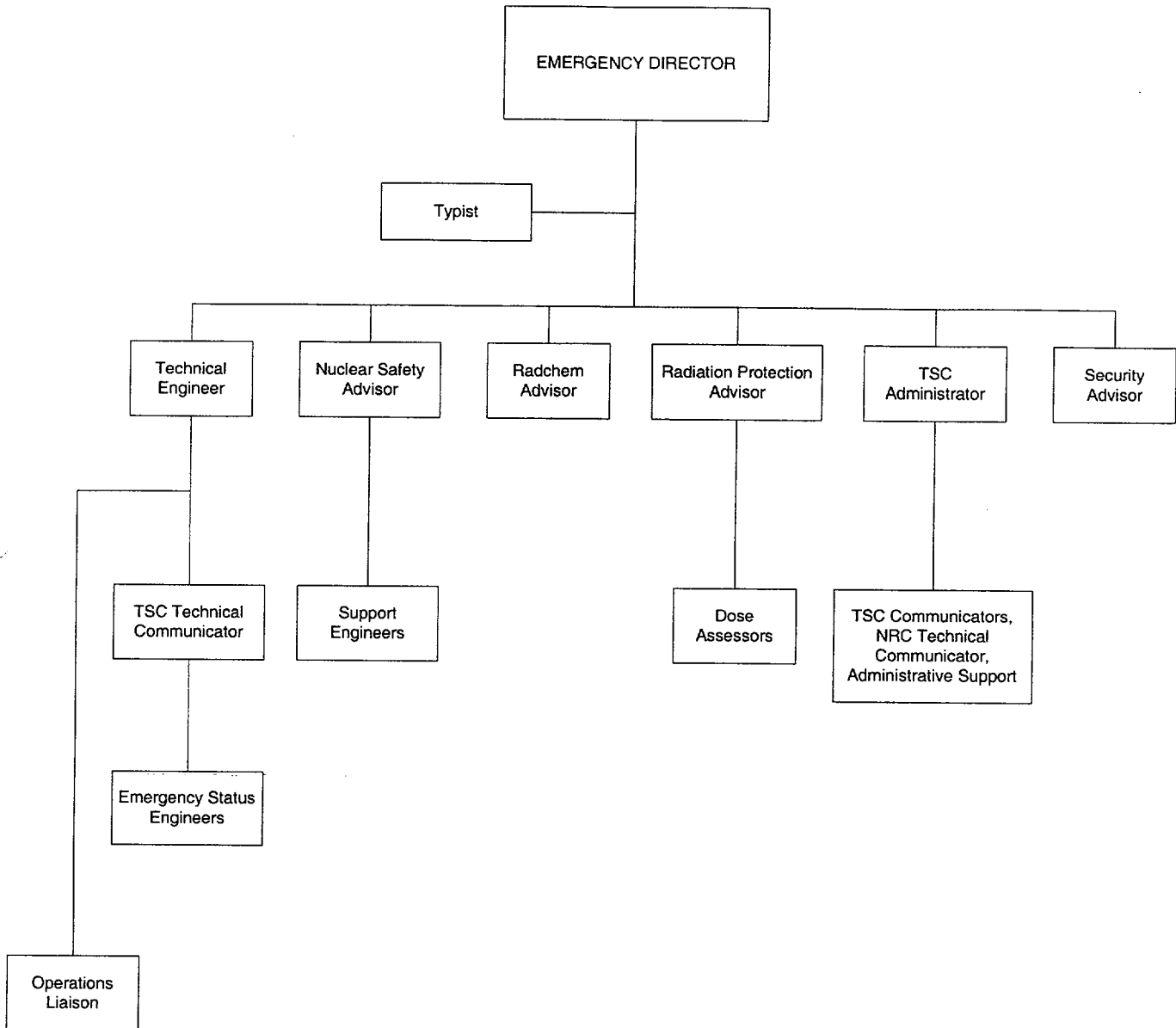


**NOTE:** Physical location of TSC personnel may be modified depending on equipment availability, physical or radiological conditions or other reasons as determined by the Emergency Director.

- |   |                            |    |                               |
|---|----------------------------|----|-------------------------------|
| 1 | EMERGENCY DIRECTOR         | 10 | DOSE ASSESSOR                 |
| 2 | TECHNICAL ENGINEER         | 11 | RADCHEM ADVISOR               |
| 3 | TSC TECHNICAL COMMUNICATOR | 12 | SECURITY ADVISOR              |
| 4 | TYPIST                     | 13 | EMERGENCY STATUS ENGINEERS    |
| 5 | NUCLEAR SAFETY ADVISOR     | 14 | ADMINISTRATIVE SUPPORT        |
| 6 | ENGINEERING SUPPORT        | 15 | TSC COMMUNICATORS             |
| 7 | TSC ADMINISTRATOR          | 16 | OPERATIONS LIAISON            |
| 8 | RAD PROTECTION ADVISOR     | 17 | NRC TECHNICAL COMMUNICATOR    |
| 9 | ASSISTANT RPA (OPTIONAL)   | 18 | INFORMATION CENTER SPECIALIST |

**NORTH** →

### TSC ORGANIZATION CHART



**END**