NO. 2 SWITCHING CONTROL CENTER SYSTEM
EMERGENCY ACTION PROCEDURES FOR
NO. 3 ELECTRONIC SWITCHING SYSTEM APPLICATION

CONTENTS PAGE

1. GENERAL

1.01 This section describes the emergency action procedures used by a No. 2 Switching Control Center System (SCCS) to recover a No. 3 Electronic Switching System (ESS) from critical hardware and software failures.

1.02 This section is being reissued to update the Emergency Action Flowchart (Fig. 1) and include a Caution to follow local escalation procedures. Revision arrows are used to emphasize the more significant changes. Equipment Test Lists are not affected.

1.03 The following acronyms are used in this section:

ACRONYM	TITLE
CIP	Critical Indicator Panel
CO	Central Office
CRT	Cathode-Ray Tube
CU	Control Unit
ESS	Electronic Switching System
NWC	Network Controller
PPD	Peripheral Pulse Distributor
SC	Scanner Controller
SCCS	Switching Control Center System
SSP	System Status Panel
SYC	System Control
TTY	Teletypewriter.

2. DESCRIPTION

2.01 Manual emergency action procedures may be performed from a No. 2 SCCS by using the SCCS Control Console and a work station cathode-ray tube (CRT) terminal. The SCCS Control Console is effectively a remote system status panel (SSP) providing alarm display and control functions. The work station CRT terminal is used in lieu of a remote maintenance teletypewriter (TTY).

2.02 No. 3 ESS faults may be either hardware (equipment) or software (program) oriented. Automatic system maintenance (fault recognition) programs remove faulty units from service. However, if one of the two system controls (SYC 0 or SYC 1) is made unavailable, it indicates that one of its components, the control unit (CU), peripheral pulse distributor (PPD), scanner controller (SC), or network controller (NWC) has been made unavailable; eg,

power has been removed. This restricts call processing capability to one SYC (a major alarm condition), and the control console will display the most serious condition.

2.03 No. 2 SCCS personnel are alerted to system problems by audible and video alarms. Upon hearing an alarm, the alarm video monitor should be checked. The alarm video monitor displays the alarm condition and the most recent alarm message. The monitor also indicates whether a work station has a CRT terminal connected on-line to the office. The critical indicator panel (CIP) also displays the alarm condition and indicates whether a work station has a control console connected on-line. A lighted CRITICAL lamp on the CIP indicates that a severe system fault is being experienced by the No. 3 ESS office. The critical condition may be a result of a panel time-out, the known fault list full, multiple faults in common equipment, or a building fire alarm. When needed, additional maintenance TTY messages provide the basic information for efficient emergency manual action to be taken.

Caution: Manual emergency action procedures should be used only when the No. 3 ESS fails to automatically recover from a fault condition.

2.04 The levels of initialization, execution times, probable causes of critical alarms, TTY output information, and other related information is contained in Section 233-100-010.

2.05 Detailed procedures to be used for emergency action recovery are shown in Fig. 1. The basic plan of emergency action recovery is outlined in Table A.

3. PRELIMINARY PROCEDURES AND PRECAUTIONS

3.01 Procedures in this section require that the CRT terminal and the control console be used to remotely control the No. 3 ESS. The system should be placed in the monitor mode for the CRT terminal to be used and then, in the full access mode for the control console to be made active. The monitor mode is entered before the full access mode to allow the user to observe CO TTY messages before connecting the control console. The procedures for entering both modes are given in the PA-5P158 document.

Caution 1: In monitor mode, the work station CRT terminal is effectively a remote maintenance TTY. Use messages from the No. 3 ESS Input Message Manual and not from the SCCS Input Message Manual.

Caution 2: In the full access mode, the control console is effectively a remote

TABLE A

EMERGENCY ACTION RECOVERY PLAN

ITEM	ACTION TO BE TAKEN
1.	Check telemetry. TELEM lamp on CIP should be off.
2.	If trouble is a result of PANEL TIME OUT, test for capability of the office to process calls.
3.	If FAULT LIST is full, browse, analyze, and clear trouble in scanners or peripheral decoders.
4.	If a MULTIPLE FAULT exists, determine if cause is processor, peripheral equipment or power trouble.
5.	For multiple power troubles, dispatch personnel to the failed office.
6.	If system has had ample time to restore automatically and trouble is in processor or peripheral equipment, initialize the system starting at transient calls, then initialize stable calls.
7.	If system is not restored, force CUs to switch and repeat step 6.
8.	For a system still in a failed condition, perform a MEMORY RELOAD and if necessary, reload memory from PAST OFFICE DATA and/or BACK DATE OFFICE DATA.
9.	If system does not recover, dispatch personnel to the central office (CO).

SSP and its operation controls the selected No. 3 ESS office.

3.02 If emergency action procedures are used, it is suggested that personnel be dispatched to the central office upon initiation.

Caution: While performing emergency action procedures, the local escalation procedures should be followed.

4. EMERGENCY ACTION PROCEDURES

4.01 When an alarm is received, it can be retired by typing R! on the work station CRT terminal. To perform emergency action procedures, perform the steps in the detailed flowchart, Fig. 1.

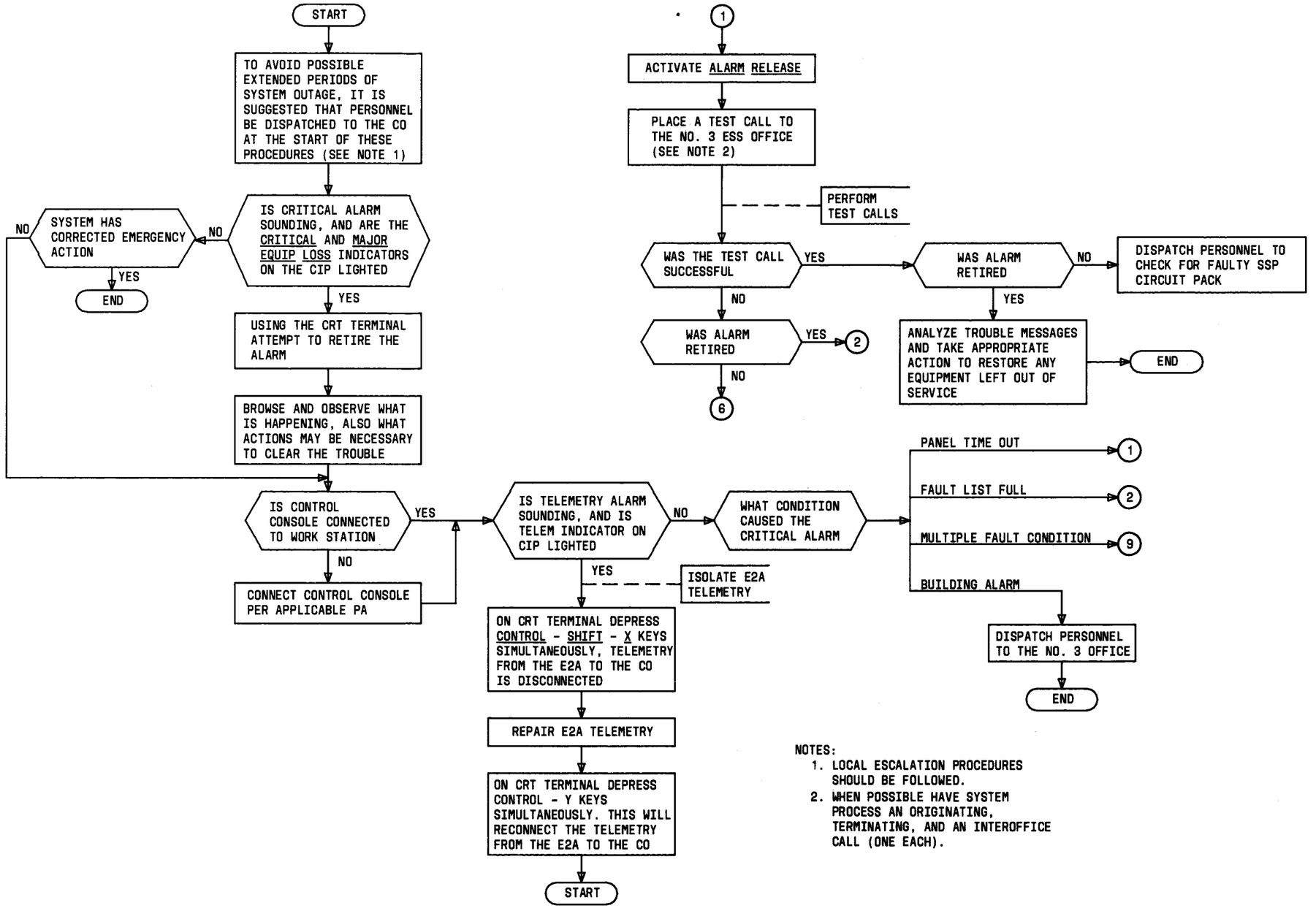
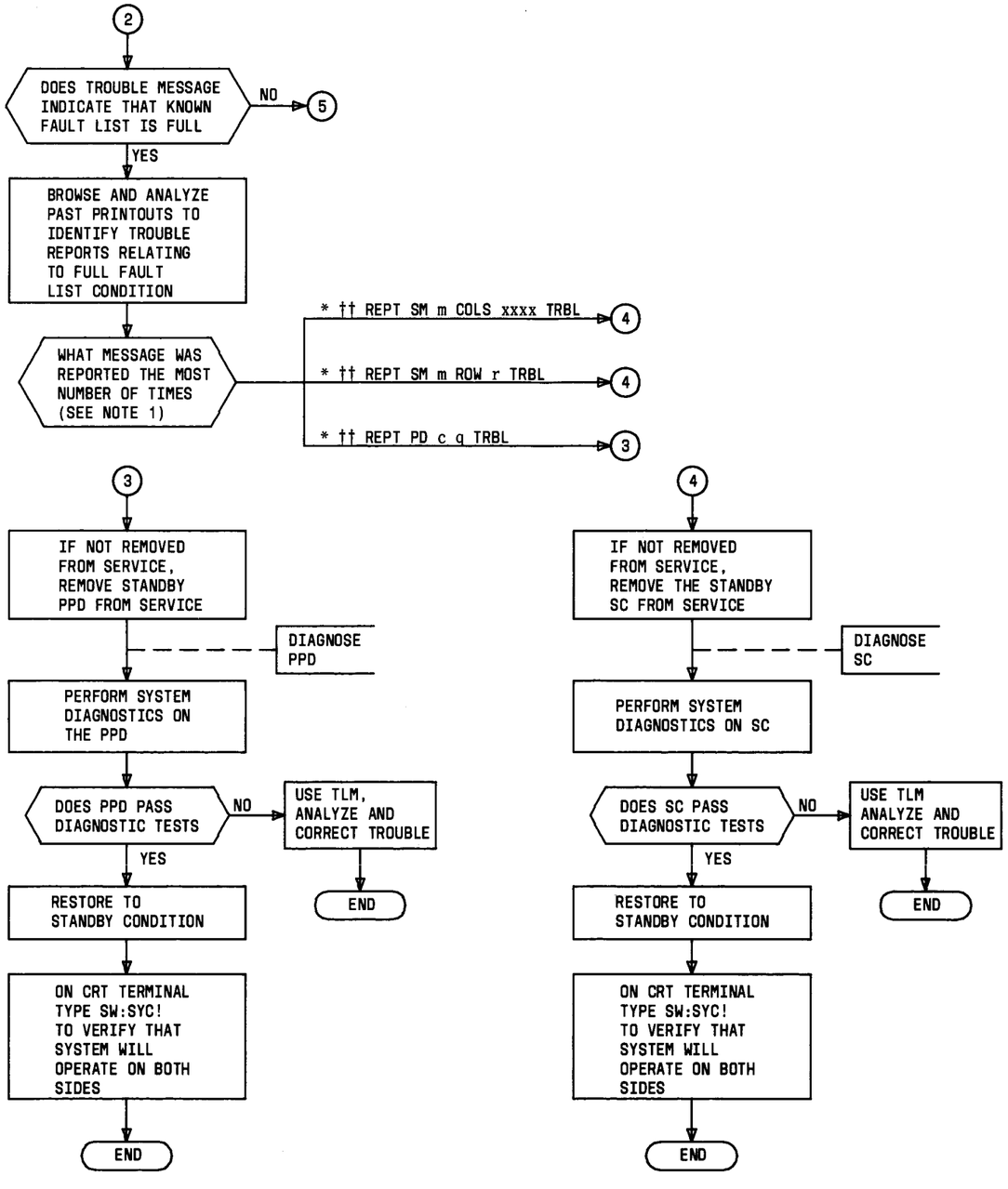


Fig. 1—Emergency Action Flowchart (Sheet 1 of 3)



NOTES:
1. MESSAGE FIELD VARIABLE
   m = SCAN MATRIX 0 OR 1
   r = BIT CODE. EACH BIT CORRESPONDS TO FAILING ROW OR COLUMN
   c = PERIPHERAL CONTROL 0 OR 1
   q = NUMBER OF FAILED CROSSPOINT 0-255
   s = SYSTEM CONTROL 0 OR 1
2. THE SYSTEM WILL AUTOMATICALLY ATTEMPT TO RECOVER FROM CRITICAL ALARM CONDITION. BEFORE INTERVENING MANUALLY TO ACTIVATE RECOVERY. ALLOW SUFFICIENT TIME FOR AUTOMATIC PROCESS TO FUNCTION (APPROXIMATELY 5 MINUTES. CRT TERMINAL BELL WILL SILENCE AND SYSTEM COUNTER WILL START)
3. ACTIVATE SELECT 0 OR SELECT 1 BEST SIDE. ACTIVATE FORCE. IF BEST SIDE IS ALREADY ON-LINE. DEPRESS LOCK.

Fig. 1—Emergency Action Flowchart (Sheet 2 of 3)

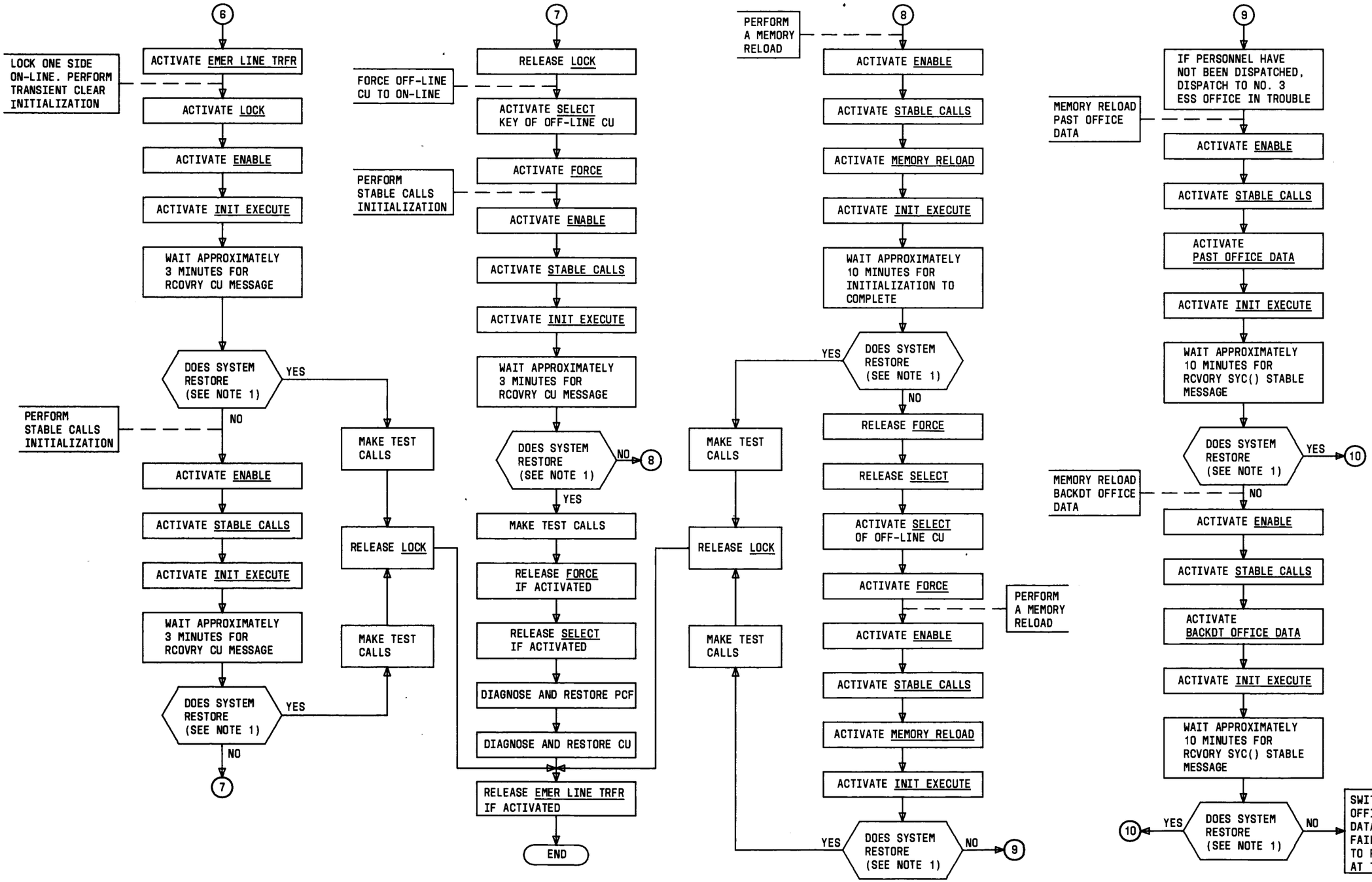


Fig. 1—Emergency Action Flowchart (Sheet 3 of 3)