Lucent Technologies
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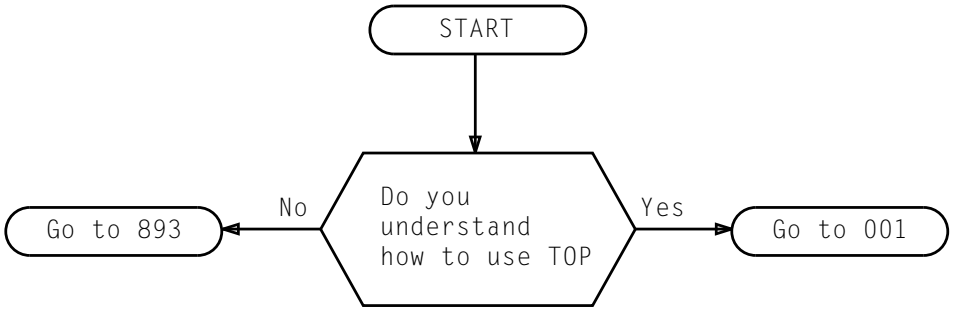
Task Oriented Practice (TOP)

4ESS™ Switch
With 1B Processor
Maintenance Operations Center



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TITLE PAGE	000

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Lucent Technologies ***4ESS***™ Customer Training and Information Products (CTIP)
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How Are We Doing?

Document Title: ***4ESS***™ Switch With 1B Processor - Maintenance Operations Center

Document No.: 234-351-002 Issue Number: 7 Date: Jun 2000

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FIND YOUR JOB IN THE LIST BELOW	THEN GO TO
1B Processor System Recovery — Perform	TAP-113
3B Computer Backup RTO/ and DB Tapes — Write	NTP-005
3B Computer Partitions 2, 4, 13, and 16 — Copy	DLP-558
3B Computer Processes — Restart	DLP-537
3B Computer System Reinitialization (SR) — Recover System by Performing	TAP-110
3B Computer System Recovery — Perform	TAP-112
3B Computer and 1B Processor Quarterly Release Update (1B BIG GULP) — Perform	NTP-006
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Backup Database — Boot to	DLP-539
Backup Database — Update	DLP-538
Boot to Backup Database	DLP-539

FIND YOUR JOB IN THE LIST BELOW	THEN GO TO
Broadcast Warning Message — Access Scans Network and Obtain Hardcopy	NTP-003
Broadcast Warning Message; Installation — Perform	DLP-588
Broadcast Warning Messages (BWMs); Access SCANS Network and Check for Current Generic Issue Overwrites	NTP-007
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Clear ICDR Teleprocessing System Problem	TAP-108
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Diagnostics; Input/Output Processor (IOP) Demand — Perform	DLP-526
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Diagnostics; Moving Head Disk (MHD) Demand — Perform	DLP-524
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ICDR Teleprocessing System Problem — Clear TAP-108
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Load Error Analysis Program (ERAP) DLP-578
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Load Long Term Storage (LTS) Data From Tape DLP-554
Load Network Management (NWM) DLP-583
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Mount Tape on 3B Computer Tape Unit DLP-527

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Overwrites; Critical Generic — Insert Into Update File DLP-544

FIND YOUR JOB IN THE LIST BELOW	THEN GO TO
Partial Update; Generic — Perform Using 3B Compuer Tape Units	NTP-006
Partial Update; Generic Big GULP — Perform Using 3B Computer Tape Units	NTP-006
Partitions 2, 4, 13, and 16; 3B Computer — Copy	DLP-558
Perform 1B Processor System Recovery	TAP-113
Perform Attached Processor System (APS) Recovery	TAP-112
Perform Attached Processor System (APS) Recovery — Minimum Configurations	DLP-566
Perform Broadcast Warning Message Installation	DLP-588
Perform Control Unit Demand Diagnostics	DLP-522
Perform Control Unit Diagnostics	DLP-521
Perform Input/Output Processor (IOP) Demand Diagnostics	DLP-526
Perform Input/Output Processor (IOP) Diagnostics	DLP-525
Perform Moving Head Disk (MHD) Demand Diagnostics	DLP-524
Perform Moving Head Disk (MHD) Diagnostics	DLP-523
Perform Recent Change to Change Functional Word of TGR Terminal Unit Loop Data	DLP-509
Perform Recent Change to Change Office Status Translator to Post-Cutover State	DLP-508
Perform *4ESS*™ Switch Emergency Recovery Trouble Isolation/Recovery Procedure	TAP-111
Recent Change — Perform To Change Functional Word of TGR Terminal Unit Loop Data	DLP-509
Recent Change — Perform to Change Office Status Translator to Post-Cutover State	DLP-508
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Recover System Using Emergency Mode	TAP-101
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Restore System Conditions Following Phase 3 or 4	DLP-505

FIND YOUR JOB IN THE LIST BELOW	THEN GO TO
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SCANS Network — Access and Check Broadcast Warning Messages (BWMs) for Current Generic Issue Overwrites	NTP-007
SCANS Network — Access and Obtain Hardcopy of Broadcast Warning Message (BWM)	NTP-003
Save Primary AMA Data on Tape	DLP-549
Set Start and Stop Time for Automatic AMA Record Output (Tape or Teleprocessing)	DLP-518
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Tape; Demount on 3B Computer Tape Unit	DLP-528
Tape; Error Analysis Program (ERAT) — Write	DLP-577
Tape; Generic — Audit (SAST)	NTP-010
Tape; Generic — Write	DLP-540
Tape; Library Backup Tape — Write	DLP-575
Tape; Long-Term Storage (LTS) — Write	DLP-543
Tape; Mount on 3B Computer Tape Unit	DLP-527
Tape; Network Management (NWM) — Write	DLP-550
Tape; Office Data Assembly (ODA) — Audit SAST	NTP-011
Tape; Office Data Assembly (ODA) — Write	DLP-541
Tape; Tape; Tape Only Program (TOP) — Write	DLP-590
Tape; Traffic and Plant Management (TPM) — Write	DLP-576
Tape; Trunk Out-Of-Service List (TOSL) — Write	DLP-542
Tapes; 3B Computer Backup RTO/ and DB — Write	NTP-005

FIND YOUR JOB IN THE LIST BELOW . . . . . THEN GO TO

Teleprocessing Capability — Test for DLP-519
Test for Teleprocessing Capability DLP-519
Transfer Buffer Overflow Problem — Correct DLP-529
TGR Terminal Unit Loop Data — Perform Recent Change to Change Functional Word of DLP-509

Update Backup Database DLP-538

Write Automatic Message Accounting (AMA) Tape DLP-516
Write Error Analysis Program (ERAP) Tape DLP-577
Write Generic Tapes DLP-540
Write Library (LIB) Backup Tape DLP-575
Write Long-Term Storage (LTS) Tape DLP-543
Write Network Management (NWM) Tape DLP-550
Write Office Data Assembly (ODA) Tape DLP-541
Write Tape Only Program (TOP) Tape DLP-590
Write Traffic and Plant Measurement (TPM) Tape DLP-576
Write Trunk Out-Of-Service List (TOSL) Tape DLP-542

Acceptance of the system maintenance tasks is part of system evaluation, readiness, and verification tasks completed in Volumes 234-355-001, 234-355-005, and 234-355-010. Readiness of individual frames, which are the responsibility of the 4ESS Switch Maintenance Operations Center (MOC), to become a part of the working system was established by successful completion of Installation Handbook test procedures.

ACCEPTANCE

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO
1	If Broadcast Warning Messages (BWMs) Are Stored on Support Organization's System, Do Not Perform This Procedure	–
2	Connect Terminal Equipment as Required to Access SCANS Network and Print Hardcopy of BWMs	–
3	If Applicable, at EIA Switch, Depress Key **1** Pushbutton	–
4	Set Up System to Receive SCANS Messages	DLP-510
5	If SCANS Sequence Number of Desired BWM Is Not Known, Print SCANS Summary List of BWMs	DLP-511
6	Print Hard Copy of SCANS BWM	DLP-512
7	Enter **STA UPD** To Update SCANS Status File	–
8	Enter **K/F** To Log Off SCANS	–

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO
1	At APS MCRT Terminal, Enter **OP:OOS!**	—
2	Using **OP:OOS** Response, Identify All APS Units That Are Out-of-Service	—
3	Enter **RST:**a b! for All Out-of-Service Units (a = Unit Type; b = Unit Member Number)	—
4	Verify **RST:**a b **COMPLETED** Message Is Received for All Restored Units	—
5	Perform APS CU 0 Diagnostics	DLP-521
6	Perform APS CU 0 Demand Diagnostics	DLP-522
7	At APS MCRT Terminal, Enter **OP:OOS!**	—
8	Using **OP:OOS** Response, Identify All APS Units That Are Out-of-Service	—
9	At APS MCRT Terminal, Enter **RST:**a b! for All Out-of-Service Units (a = Unit Type; b = Unit Member Number)	—
10	Perform APS Disk File Controller (DFC) 0 Diagnostics	DLP-523
11	Perform APS DFC 0 Demand Diagnostics	DLP-524
12	At APS MCRT Terminal, Enter **OP:OOS!**	—
13	Using **OP:OOS** Response, Identify All APS Units That Are Out-of-Service	—
14	At APS MCRT Terminal, Enter **RST:**a b! for All Out-of-Service Units (a = Unit Type; b = Unit Member Number)	—
15	Perform APS Input/Output Processor (IOP) 0 Diagnostics	DLP-525
16	Perform APS IOP 0 Demand Diagnostics	DLP-526
17	At APS MCRT Terminal, Enter **OP:OOS!**	—
18	Using **OP:OOS** Response, Identify All APS Units That Are Out-of-Service	—
19	At APS MCRT Terminal, Enter **RST:**a b! for All Out-of-Service Units (a = Unit Type; b = Unit Member Number)	—
20	Perform APS CU 1 Diagnostics	DLP-521
21	Perform APS CU 1 Demand Diagnostics	DLP-522
22	At APS MCRT Terminal, Enter **OP:OOS!**	—

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO		
23	Using **OP:OOS** Response, Identify All APS Units That Are Out-of-Service	—
24	At APS MCRT Terminal, Enter **RST:**a b! for All Out-of-Service Units (a = Unit Type; b = Unit Member Number)	—
25	Perform APS Disk File Controller (DFC) 1 Diagnostics	DLP-523
26	Perform APS DFC 1 Demand Diagnostics	DLP-524
27	At APS MCRT Terminal, Enter **OP:OOS**!	—
28	Using **OP:OOS** Response, Identify All APS Units That Are Out-of-Service	—
29	At APS MCRT Terminal, Enter **RST:**a b! for All Out-of-Service Units (a = Unit Type; b = Unit Member Number)	—
30	Perform APS Input/Output Processor (IOP) 1 Diagnostics	DLP-525
31	Perform APS IOP 1 Demand Diagnostics	DLP-526
32	At APS MCRT Terminal, Enter **OP:OOS**!	—
33	Using **OP:OOS** Response, Identify All APS Units That Are Out-of-Service	—
34	At APS MCRT Terminal, Enter **RST:**a b! for All Out-of-Service Units (a = Unit Type; b = Unit Member Number)	—

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO
1	If Tapes Are Being Written in an AT&T Office, Perform Items 2 Through 5; Otherwise Go To Item 6	–
2	At APS MCRT, Enter Message **INH:ADB,APP IBGTT!** To Inhibit Automated Database Backup *Response:* On APS ROP, **INH ADB COMPLETED, FOR IBGTT**	–
3	At APS MCRT, Enter Message **INH:DCC!** To Inhibit Data Consistency Checks *Response:* On APS ROP, **INH DCC IN PROGRESS** **APPDB DCC COMPLETED, FOR IBGTT** **INH DCC COMPETE**	–
4	At APS MCRT, Enter Message **INH:RCV:APPDB,APP ALL!** To Inhibit Application Data Base Recent Changes *Response:* On APS ROP, **INH RCV APPDB APP ALL COMPLETED**	–
5	At APS MCRT, Enter Message **INH:FTA;APP ALL!** To Inhibit File Transfer *Response:* On APS ROP, **INH FTA APP ALL IN PROGESS** **FTA IS INHIBITED FOR IBGTT** **INH FTA APP ALL IN PROGRESS** **FTA IS INHIBITED FOR OBGTT** **INH FTA APP ALL IN PROGRESS** **FTA IS INHIBITED FOR CORE** **INH FTA APP ALL COMPLETE**	–
6	Update APS Backup Database	DLP-538
7	Select Available APS Tape Unit	–
8	Write Backup Tapes	DLP-587
9	If Tapes Are Being Written in an AT&T Office, Perform Items 10 Through 13; Otherwise Go To Item 14	–
10	At APS MCRT, Enter Message **ALW:RCV:APPDB, APP ALL!** To Allow Application Data Base Recent Changes *Response:* On APS ROP, **ALW:RCV:APPDB ALL COMPLETED**	–

WRITE ATTACHED PROCESSOR SYSTEM (APS) BACKUP RT0/ AND DB TAPES

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO		
11	At APS MCRT, Enter Message **ALW:DCC!** To Allow Data Consistency Checks *Response:* On APS ROP, **ALW DCC IN PROGRESS** **APPDB DCC IS ALLOWED FOR IBGTT** **ALW DCC COMPETE**	–
12	At APS MCRT, Enter Message **ALW:ADB, APP IBGTT!** To Allow Automated Database Backup *Response:* On APS ROP, **ALW ADB COMPLETED, FOR IBGTT**	–
13	At APS MCRT, Enter Message **ALW:FTA;APP ALL!** To Allow File Transfer *Response:* On APS ROP, **ALW FTA APP ALL IN PROGRESS** **FTA IS ALLOWED FOR IBGTT** **ALW FTA APP ALL IN PROGRESS** **FTA IS ALLOWED FOR OBGTT** **ALW FTA APP ALL IN PROGRESS** **FTA IS ALLOWED FOR CORE** **ALW FTA APP ALL COMPLETE**	–
14	Verify APS Backup Tapes	DLP-551
15	Store APS Backup Tapes Per Local Procedure	–

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO

			DATE	TIME	SIGNATURE
	NOTES: 1. If a Received response does not match the given response in this document, contact next higher support group for resolution 2. If there is any question concerning a step in this procedure, contact next higher support group for clarification				
1	Remove This Procedure and Reproduce All Pages	—			
2	Using Reproduced Pages, Enter Date, Time, and Signature or Place Check Mark Beside Each Item or Subitem When Completed, or If Not Required	—			
3	Notify Network Management That Generic 3B Update is to be Performed. This Information Is Used to Baseline Office for Final Handling Code Traps and IMA (Call Processing). This Information Will Be Used Later in This Procedure	—			
4	Notify Recent Change Groups (MAC and Routing) That Recent Change Activity Will be Restricted to the MOC	—			
5	Contact Support Organization for Any BWMs That Need to be Applied (3B-BWM, 1B-BWM, Additional 1B Software Change Package (SCPs)	—			
6	Copy APS ROOT to BROOT or BROOT to ROOT	DLP-558			
7	Install 3B Computer BWM (Quarterly Release)	DLP-574			
8	If Craft Init (Entering 15) Was Not Performed as Part of Special Instructions in Item 7, Perform Items 9 Through 14; Otherwise, go to Item 14	—			
9	At APS MCRT Terminal, Enter **INH:RCV:APPDB,APP ALL!**	—			
10	Wait one minute	—			
11	At APS MCRT, Enter **15** in Command Mode on EAI Page to Reinitialization Craft Interface Processes	—			
12	Wait for **REPT CFTSHL TERMINAL IN SERVICE** Message	—			
13	At APS MCRT Terminal, Enter **ALW:RCV:APPDB,APP ALL!**	—			
14	At APS MCRT Terminal, Enter **CHG:GEN!** to Reflect Correct Generic on the CNI Reports	—			
15	Install BIG GULP BWM (Quarterly Release)	DLP-574			

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO

			DATE	TIME	SIGNATURE
16	Safe Stop Point (following local procedure)	_			
17	At 1B Processor MTC Terminal, Enter **INH: MACLI,CLASS MTCE;REX!**				
18	Notify Network Management That Generic Big GULP Update is to be Performed. This Information Is Used to Baseline Office for Final Handling Code Traps and IMA (Call Processing). This Information Will Be Used Later in This Procedure	_			
19	Notify Recent Change Groups (MAC and Routing) That Recent Change Activity Will be Restricted to the MOC	_			
20	Record Active Units by Using 1B Processor Status Pages (Page **109** and **118**) and Verify Poke Command Values	DLP-589			
21	At 1B Processor MTC Terminal, Enter **STOP:OVRWRT!** To Stop Any Overwrites in Progress	_			
	NOTE: DO NOT ENTER Any 1B Overwrites, Until This Procedure is complete				
22	At 1B Processor MCC Terminal, Enter Poke Command **108** to Obtain SYSTEM STATUS Page	_			
23	On 1B Processor MCC Terminal SYSTEM STATUS Page, Enter Poke Command **801 (RESTRICT RC)** *Response:* Under **SYSTEM CONTROLS, RESTRICT RC** Text Lights Black on White	_			
24	At 1B Processor MTC Terminal, Enter **UPD:COMMIT;NORMFILE!**	_			
25	Using **UPD** Output Response (UPD:COMMIT COMPLETED to NORMFILE), Verify That Status of APS 1AFILES is Normal	_			
	(Continued on Page 3)				

			DATE	TIME	SIGNATURE
	CAUTION: The layout of some Recent Change forms can change on a Quarterly Release boundary. Item 28 saves the buffered Recent Change data and converts it to the format used by the new Quarterly Release. This step requires logical channel (LCHAN) 110 (octal) 72 (decimal) to exist (MAC3) This LCHAN may need to be grown first. A channel can be defined by XAPP according to the procedures in TOP 234-153-010. Next higher support organization must determine course of action. The following error messages are printed if the LCHAN is not grown and Item 28 is executed: REPT PSDIO1ASH ERROR - CHANNEL 72, CODE 104 START RCBUFGET DATA COMPLETE CANNOT CONNECT TO 1B PROCESSOR REPT:LCHAN CONTROL ERR AT nnnnnnnn *If the office does not have buffered Recent Changes that it wants to perserve, the* START:RCBUFGET *command can be skipped. If this command is to be skipped, then Recent Changes in the buffer need to be activated or deleted per office procedures.*				
26	If Office Does Not Have Buffered Recent Changes That it Wants to Preserve, and/or Does Not Have LCHAN Per Above CAUTION, Then go to Item 29. If Item 28 is Not Performed, Any Recent Changes in the Buffer Need to be Activated or Deleted Per Office Procedures Before Continuing	_			
27	At 1B Processor MTC Terminal, Enter **OP:LCHAN!** and Verify if MAC3 Logical Channel Exists. If Channel Does Not Exist, Add Logical Channel Per TOP 234-153-010	_			
	(Continued on Page 4)				

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO

			DATE	TIME	SIGNATURE
	NOTE: START RCBUFGET command may cause INH:APPDB and ALW:APPDB Error Messages in some offices, THIS IS EXPECTED, AND PROCEDURE CAN BE CONTINUED	–			
28	At 3B MTCE Terminal, Enter **START:RCBUFGET,DATA!** This Process Captures the 1B Recent Change Buffered Messages. Each ORDER Number Processed Will Print a a Status Message. When all ORDER Numbers Have Been Processed Successfully, Proceed. If Errors in Above CAUTION Occur, LCHAN in CAUTION Needs to be Grown. If Other Errors Occur, Seek Technical Assistance	–			
	NOTE: Audits will take approximately 30-40 minutes to complete				
29	At 1B Processor MTC Terminal, Enter **AUD:NUM (43,44,45,66,72)!** (Do **NOT** Proceed If Any of the Audits Fail) *Response:* **AUD:NUM xx COMPLETE 0 ERRORS DETECTED** for Each Audit Being Performed	–			
30	At 1B Processor MTC Terminal, Enter **INH:AUD:NUM (43,44,45,66,72)!**	–			
31	At 1B Processor MTC Terminal, Enter **STOP:OVRWRT!** to Stop Any Overwrites in Progress	–			
32	At 3B MTCE Terminal, Enter **COPY:APPFILE NORM!** Copy the Normal File to Update File *Response:* **COPY APPFILE COMPLETE** Message Is Received (Approximately 4 to 10 Minutes)				
33	At 1B Processor MCC Terminal, Depress **EA DISP** Key to Obtain EAI Page				
34	On 1B Processor MCC Terminal EAI Page, Enter Poke Command **61 (NORM FILE)** to Request Memory be Pumped From Normal 1AFILE *Response:* Under **FILE SELECT, NORM FILE** Text Lights Purple on White	–			
	NOTE: DO NOT ENTER Any 1B Overwrites, Until This Procedure is Complete				
35	Load Generic Big GULP Update Data on Disk (Approximately 10 to 15 Minutes)	DLP-547			
36	If Critical Overwrites are Required, Insert Critical 1B Processor Generic Overwrites Into the Update File and Save Printouts	DLP-544			
37	Verify 1AFILE Hashed Area for Zero Errors **(VER:APPFILE UPD!)**	DLP-545			
	(Continued on Page 5)				

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO

			DATE	TIME	SIGNATURE
38	If Item 28 Was Not Performed, go to Item 40. The **START:RCBUFPUT** Command in Item 39 is Only Required When the **START:RCBUFGET** Command is Entered in Item 28	_			
	NOTES: 1. **START:RCBUFPUT** command may cause **INH:APPDB** and **ALW:APPDB** Error Error Messages in some offices. THIS IS EXPECTED, AND PROCEDURE CAN BE CONTINUED 2. **START:RCBUFGET** command reloads the Reconfigured Recent Changes Into Buffer. The following Error Message will print if **RCBUFPUT** is unable to reconfigure a Recent Change against new Recent Change Form Layouts: **START:RCBUFGET DATA IN PROGRESS** **ERROR BUFFERING ORDER 16 - ORNU xxxxxx -** **SKIPPING** A Non-Update Message will not be put back into buffer. Associated Recent Change of a skipped order number must be reapplied to the buffer using standard Recent Change Procedure. Reload skipped Recent Changes after the BIG GULP Procedure is completed. THIS IS EXPECTED, AND PROCEDURE CAN BE CONTINUED				
39	At APS MCRT Terminal, Enter **START:RCBUFPUT,DATA!** This Process Reinstalls the Recent Change Buffered Messages Captured in Item 28. If Errors Occur, Seek Technical Assistance	_			
40	Determine 1B Processor Main-Memory Generic Differences Between Normal File and **Update File (LOAD:UPDATE:DIFF!)**	DLP-546			
41	If Problems Occur From Item 41 To End Of This Procedure, Perform Backout Procedures, if Required	NTP-008			
42	At 1B Processor MTC Terminal, Enter **UPD:CORE!** During the Window of 4-13 Minutes Past the Quarter Hour *Response:* System Responds With Error Stop Message, and an Audit, and **UPDATE IN PROG** Text On 1B Processor MCC Terminal EAI Page Goes Off	_			
43	At 1B Processor MTC Terminal, Enter **SW:MUP!** New Generic Release Should be Shown at Top of 1B MCC Screen	_			

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO

			DATE	TIME	SIGNATURE
	NOTE: Audits will take approximately 30-40 minutes to complete				
44	At 1B Processor MTC Terminal, Enter **ALW:AUD:NUM (43,44,45,66,72)!**	—			
45	At 1B Processor MTC Terminal, Enter **AUD:NUM (43,44,45,66,72)!**	—			
46	Request Appropriate Support Organization (NSC Provisioning or TOC) To Initiate Sample Trunk Testing at Each Test Position				
47	Notify Network Management Center to Begin Comparing Information (Items 3 and 18) That is Used to Baseline Office for Final Handling Code Traps and IMA (Call Processing). This Information Will Be Used Later in This Procedure				
48	Compare Count of Ineffective Machine Attempts With Preupdate Level				
49	Upon Completion of Audits, Verify No Errors Exist. If Errors Exist, Contact Technical Assistance	—			
50	At 1B Processor MTC Terminal, Enter **UPD:COMMIT;UPDFILE!** *Response:* **UPD COMMIT COMPLETED TO UPDFILE** Message Received	—			
51	At 1B Processor MCC, Depress **EA DISP** Key to Obtain EAI Page	—			
52	On 1B Processor MCC Terminal EAI Page, Enter Poke Command **61** (NORM FILE) to Release Normal 1AFILE *Response:* Under **FILE SELECT, NORM FILE** Text Lights White On Black	—			
53	At 1B Processor MCC Terminal, Enter Poke Command **108** To Obtain SYSTEM STATUS Page	—			
54	On 1B Processor MCC Terminal SYSTEM STATUS Page Under **SYSTEM CONTROLS**, Enter Poke Command **801 (RESTRICT RC)** *Response:* **RESTRICT RC** Text Goes Off	—			
55	At 1B Processor MTC Terminal, Enter **ALW:MACLI,CLASS MTCE!**	—			
	(Continued on Page 7)				

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO

			DATE	TIME	SIGNATURE
56	Soak Period Begins to Ensure No Errors Are Encountered (Length Is Determined by Following Local Procedure)				
57	Copy APS ROOT to BROOT or BROOT to ROOT	DLP-558			
58	Write 1B Processor Generic Tapes	DLP-540			
59	Write 1B Processor Office Data Assembly (ODA) Tape	DLP-541			

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO
1	If BMW Overwrites Are Stored on Support Organization's System, Do Not Perform This Procedure	–
2	Connect Terminal Equipment as Required To Access SCANS Network and Print Hard Copy of SCANS Broadcast Warning Messages (BWMs)	–
3	At EIA Switch (If Provided), Depress Key **1**	–
4	Set Up System To Receive SCANS Messages	DLP-510
5	Print SCANS Summary List of BWMs	DLP-511
6	If SCANS Summary List Contains BWMs With Overwrites Required, Print Hardcopy of SCANS BWMs With Overwrites	DLP-512
7	Enter **K/F** To Log Off SCANS	–
8	Restore Terminal Equipment Used for This Process to Normal Configuration	–

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO

			DATE	TIME	SIGNATURE
	NOTE: Contact Next Higher Support Organization Before Doing this Procedure Procedure. To go back to the old load after NTP-006, Item 41 UPD:CORE is COMPLETED in the event of problems encountered with the new load, return to the original data base in the following manner				
1	Remove This Procedure and Reproduce All Pages	—			
2	Using Reproduced Pages, Enter Date, Time, and Signature or Place Check Mark Beside Each Item or Subitem When Completed				
3	At 1B Processor MCC Terminal, Depress **EAI DISP** Key To Obtain EAI Page	—			
4	On 1B Processor MCC Terminal, Enter Poke Command 99 (Clears Configuration)	—			
5	Using Information Provided in NTP-006, Item 19, Enter Poke Command For Each Of The Active Units CC, PSB, CSB, PS and Enter Poke Command For One Of The Active Units Of The IFB and AUB	DLP-589			
	NOTE: The following Item Is Dependent Upon Occurrence of Problem, Read Entire Item Prior to Execution				
6	Enter One Of The Following Poke Commands if Statement Is True:				
	A. Problem Occurred Before NTP-006, Item 49 — Enter Poke Command 61 (NORM FILE)	—			
	B. Problem Occurred After NTP-006, Item 49 — Enter Poke Command 62 (UPDATE FILE)	—			
7	On 1B Processor MCC Terminal, Enter Poke Command 84 To Select Modify Recovery	—			
8	If **DISABLE AUTO PC** Is Highlighted (Black On Purple) Do Not Perform Item, Continue With Item 9 On 1B Processor MCC Terminal, Enter Poke Command 70 (DISABLE AUTO PC)	—			
9	Enter Poke Command 402 To Reset All DDI Keys to Zero (No Data In Contents Area)	—			
10	Enter Poke Command 401,17 To Set DDI Key 17 to One (Data In Contents Area)	—			
	(Continued on Page 2)				

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO

			DATE	TIME	SIGNATURE
11	Enter Poke Command **01 (Hard A)** To Select Override In Effect Function. Wait for Recovery to Take Place. Ensure That **86-CODE** Field Is Incrementing (Boot Is Completed Successfully When PC Progression **COMPL** Is Black On Green)	—			
12	If PCRV Boots Successfully, Go To Item 26, Otherwise If PCRV Boot Fail (First Time) Continue With Item 13	—			
13	On 1B Processor MCC Terminal, Enter Poke Command For Selected Highlighted CC	—			
14	On 1B Processor MCC Terminal, Enter Poke Command **99** To Clear Forced Configuration	—			
15	Using Information Provided in NTP-006, Item 19; Enter Poke Command For Each of the Units that Were **Not** Selected as Active (Item 5)	DLP-589			
	NOTE: The following Item Is Dependent Upon Occurrence of Problem, Read Entire Item Prior to Execution				
16	Enter One of the Following Poke Commands If Statement Is True:	—			
	A. Problem Occurred Before NTP-006, Item 49 — Enter Poke Command **61** (NORM FILE)	—			
	B. Problem Occurred After NTP-006, Item 49 — Enter Poke Command **62** (UPDATE FILE)	—			
17	On 1B Processor MCC Terminal, Enter Poke Command **84** To Select Modify Recovery	—			
18	If **DISABLE AUTO PC** Is Highlighted (Black On Purple) Do Not Perform Item, Continue With Item 19. On 1B Processor MCC Terminal, Enter Poke Command **70** (DISABLE AUTO PC)	—			
19	Enter Poke Command **402** To Reset All DDI Keys to Zero (No Data In Contents Area)	—			
20	Enter Poke Command **401,17** To Set DDI Key 17 to One (Data In Contents Area)	—			
21	Enter Poke Command **01** (Hard A) To Select Override In Effect Function. Wait for Recovery to Take Place. Ensure that **86-CODE** Field Is Incrementing (Boot Is Completed Successfully When **PC Progression COMPL** Is Black On Green)	—			

DO THE ITEMS BELOW IN THE ORDER LISTED . . . . . FOR DETAILS, GO TO

			DATE	TIME	SIGNATURE
22	If PCRV Boots Successfully, Go To Item 26, Otherwise If PCRV Boot Fails (Second Time) Continue With Item 23	_			
23	On 1B Processor MCC Terminal, Enter Poke Command For Selected Highlighted CC	—			
24	If **DISABLE AUTO PC** Is Highlighted (White on Black), On 1B Processor MCC Terminal, Enter Poke Command **70** (DISABLE AUTO PC) Wait for Recovery to Take Place Ensure that **86-CODE** Field Is Incrementing (Boot Is Completed Successfully When **PC Progression COMPL** Is Black On Green)	_			
25	If PCRV Boots Successfully, Go To Item 26, Otherwise If PCRV Boot Fails (Third Time) Stop This Procedure and Contact Next Higher Support Organization	—			
	NOTE: The following Item Is Dependent Upon Occurrence, Read Entire Item Prior to Execution				
26	Enter One Of The Following Messages At 1B Processor MTC Terminal:	—			
	A. If Item 6A Performed — Enter **UPD:COMMIT;NORMFILE!**	—			
	B. If Item 6B Performed — Enter **UPD:COMMIT;UPDFILE!**	—			
27	On 1B Processor MCC Terminal, Enter Poke Command For Selected Highlighted CC	—			
28	On 1B Processor MCC Terminal, Enter Poke Command **99** To Clear Forced Configuration	—			
29	On 1B Processor MCC Terminal, Enter Poke Command **402** To Reset DDI Keys	—			
30	On 1B Processor MCC Terminal, Enter Poke Command **70** To Enable Auto PC	—			

DO THE ITEMS BELOW IN THE ORDER LISTED	FOR DETAILS, GO TO
NOTE: It is recommended that this procedure be performed during an office low-traffic period and while diagnostic routine exercises (REXs) are not active. Office personnel should contact applicable support group to verify overwrites before proceeding.	—
1 Review Documentation That Accompanied Overwrite for Description of Problems to be Corrected and Any Special Instructions Required for Installation	—
2 Notify MOC Supervisor That Overwrites Are Ready for Installation	—
3 Notify Network Management and Recent Change Areas (MAC and Routing Groups) That Any Activities Involving Hash Sum Operations Will Be Suspended During Overwrite Installation Period	—
4 Set System Conditions for Installing Overwrites Manually	DLP-507
5 Check Manual Overwrites for Special Instructions and Needed Authorization	DLP-514
6 Install Manual Overwrites Using Verbal Instructions or Paper Copy as Source	DLP-513
7 At 1B Processor MCC Terminal, Enter Poke Command **108** to Obtain SYSTEM STATUS Page	—
8 On 1B Processor MCC Terminal **SYSTEM STATUS** Page, Enter Poke Command **801 (RESTRICT RC)** *Response:* Under **SYSTEM CONTROLS, RESTRICT RC** Text Lights Black on White	—
9 Notify Network Management and RC Areas That System is Available for Hash Sum Activities	—
10 Notify MOC Supervisor That Overwrite Installation is Completed	—
11 Obtain Latest Backup Copy of 1B Processor Generic Tape	—
12 At 3B MCRT, Enter Poke Command **137** to Obtain Current Status of Tape Unit	—
13 Using Response from Previous Item, Select Available Tape Unit	—
14 If Tape is Mounted on Tape Unit, Demount Tape	DLP-528
15 Mount Latest Backup Copy of 1B Processor Generic Tape on Tape Unit	DLP-527
16 Perform Generic System Audit of Stores (SAST)	DLP-586
17 Demount Latest Backup Copy of 1B Processor Generic Tape on Tape Unit and Store per Local Procedures	DLP-528

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO
1	Obtain Latest Copy Of 1B Processor Generic Tape	–
2	At 3B MCRT, Enter Poke Command 137 to Obtain Current Status of Tape Unit	–
3	Using Response From Previous Step, Select Available Tape Unit	–
4	If Tape Is Mounted on Tape Unit, Demount Tape	DLP-528
5	Mount 1B Processor Generic Tape on Tape Unit	DLP-527
6	Perform 1B Processor Generic System Audit Of Stores (SAST)	DLP-586
7	Demount 1B Processor Generic Tape on Tape Unit	DLP-528

DO THE ITEMS BELOW IN THE ORDER LISTED		FOR DETAILS, GO TO
1	Obtain Latest Copy Of 1B Processor Office Data Assembly (ODA) Tape	—
2	At 3B MCRT Enter Poke Command 137 to Obtain Current Status of Tape Unit	—
3	Using Response of Previons Item, Select Available Tape Unit	—
4	If Tape Is Mounted on Tape Unit, Demount Tape	DLP-528
5	Mount 1B Processor ODA Tape on Tape Unit	DLP-527
6	Perform 1B Processor ODA System Audit Of Stores (SAST)	DLP-585
7	Demount 1B Processor ODA Tape on Tape Unit	DLP-528

GENERAL

In the event of serious service-affecting trouble, time is of essence and office personnel should follow system recovery guidelines provided to each office. Trouble analysis procedures (TAPs) and detailed level procedures (DLPs) are intended to be used as "backup" to system recovery guidelines.

IXL PHILOSOPHY

The IXL is an alphabetized permuted index that lists all directly accessible NTPs, TAPs, and DLPs. All other procedures in the volume are indirectly accessible. These procedures are written to support the direct accessible procedures and are not intended to be used alone to accomplish a task. Therefore, entrance into the volume on a hunt-and-find basis is a threat to system operations.

TAP PHILOSOPHY

Before an attempt is made to recover the system with trouble analysis procedures (TAPs), it is assumed that:

- Thorough analysis of a situation has been made
- An attempt has been made to contact appropriate support groups
- No specific recovery action is obvious.

Access to the appropriate TAPs is via the IXL. The IXL identifies TAPs that troubleshoot serious system conditions (for example, repeated PC, rolling or repeating phases, etc.). Referenced TAPs provide an orderly sequence for approaching system recovery by using decision-action logic to restore the system to normal operation.

EXAMPLE

Decision has to be made:
Is recent change activity suspected?

If recent change activity is suspected, take the following action:

(1) Have MAC check recent changes for errors

(2) Have MAC reenter recent changes suspected of being in error

(3) If reentering recent changes does not recover system, perform one of rollback options

(4) Allow sufficient time for system to recover.

If action taken does not recover system, another decision has to be made as to the next action to be taken.

This technique is continued until all logical possibilities have been attempted. Final attempt made to recover the system is the performance of a complete system reinitialization (SR).

DOCUMENTATION

TABLE A is a list of the appropriate documentation to clear diagnostics or frame/cabinet failures:

TABLE A

UNIT TYPE	TROUBLE-CLEARING VOLUME	UNIT TYPE	TROUBLE-CLEARING VOLUME
1B Processor	234-351-004	MFS	234-151-041
3B20D Model 1	254-301-812	MISC A, B, C	234-151-043
	254-301-813	NCLK	234-151-013
3B20D Model 2/3	254-302-812	PCDF J5A007B	234-351-025
3B21D	254-303-107	PCDF J5A007C	234-351-026
ADS (TUC and DUS)	234-351-010	PUBB	234-351-015
API	234-351-016	SCS	234-151-077
AUB	234-351-010	SP1	234-151-031
CNI	234-151-120	SP2	234-151-032
DIF	234-151-055	TGR	234-151-033
DT	234-151-045	TMS	234-151-011
EST	234-151-050	TSI	234-151-012
IO J5A006A	234-351-020	VIF	234-151-025
IO J5A006C	234-351-021	XTSI	234-351-011
IO J5A006D	234-351-022		

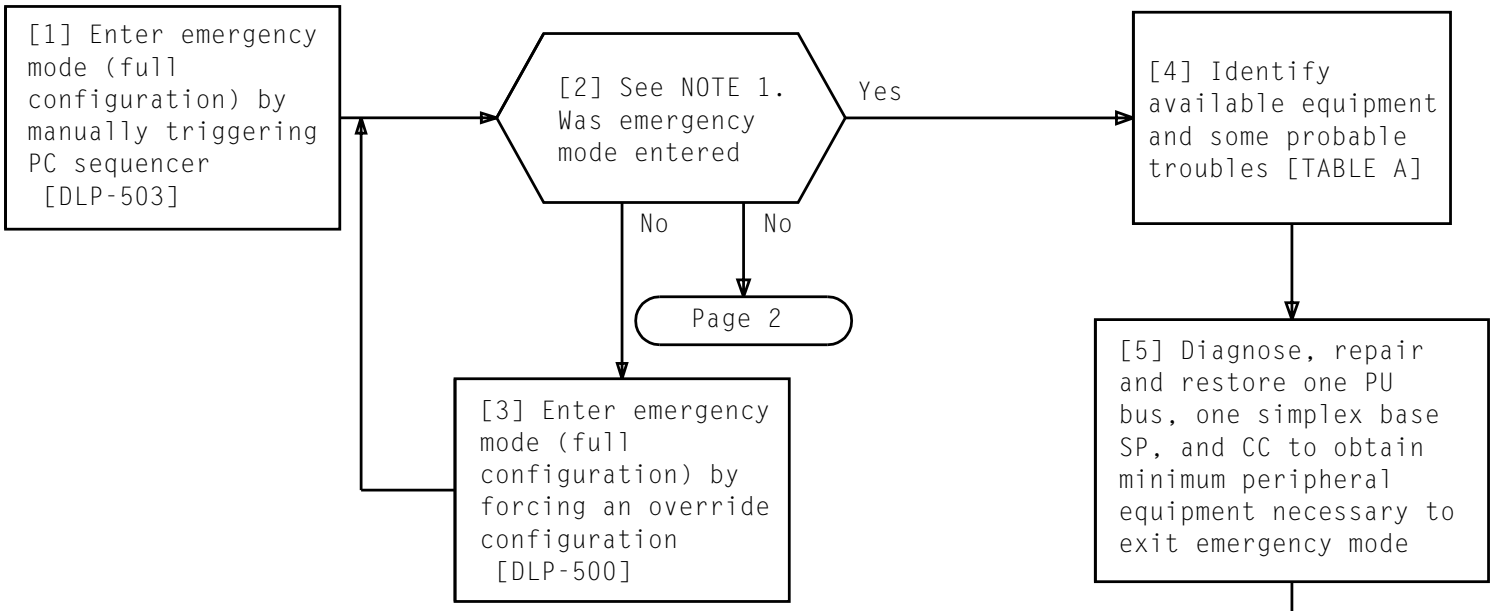


TABLE A
EMERGENCY MODE — FULL CONFIGURATION

EQUIPMENT AVAILABLE	PROBABLE TROUBLE
One CC Simplex PS community Simplex CS community One API One IFB One AUI One MUP One AU bus PS bus CS bus One tape unit and controller 4E21 and earlier If EM entered by performing SR 1B Processor MTC terminal	PU bus access problems Duplex SP failure Recent change errors CC cannot process peripheral orders Duplex PU bus failure

NOTE 1
Indications that emergency mode has been entered are:
A. On 1B Processor MCC terminal EAI page under **EMER CFG, FULL** or **MIN** text lighted BLACK on PURPLE
B. **REPT:TROUBLE-EMERGENCY MODE ENTERED{FULL |MIN} PROCESSOR CONFIG** message is received

RECOVER 1B PROCESSOR AND PERIPHERAL UNIT BUS USING EMERGENCY MODE

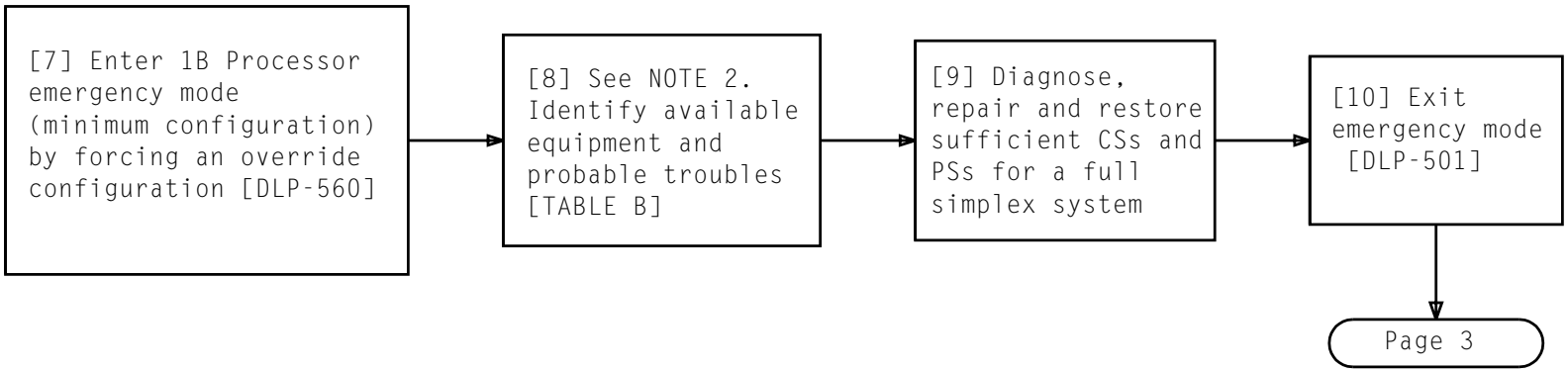
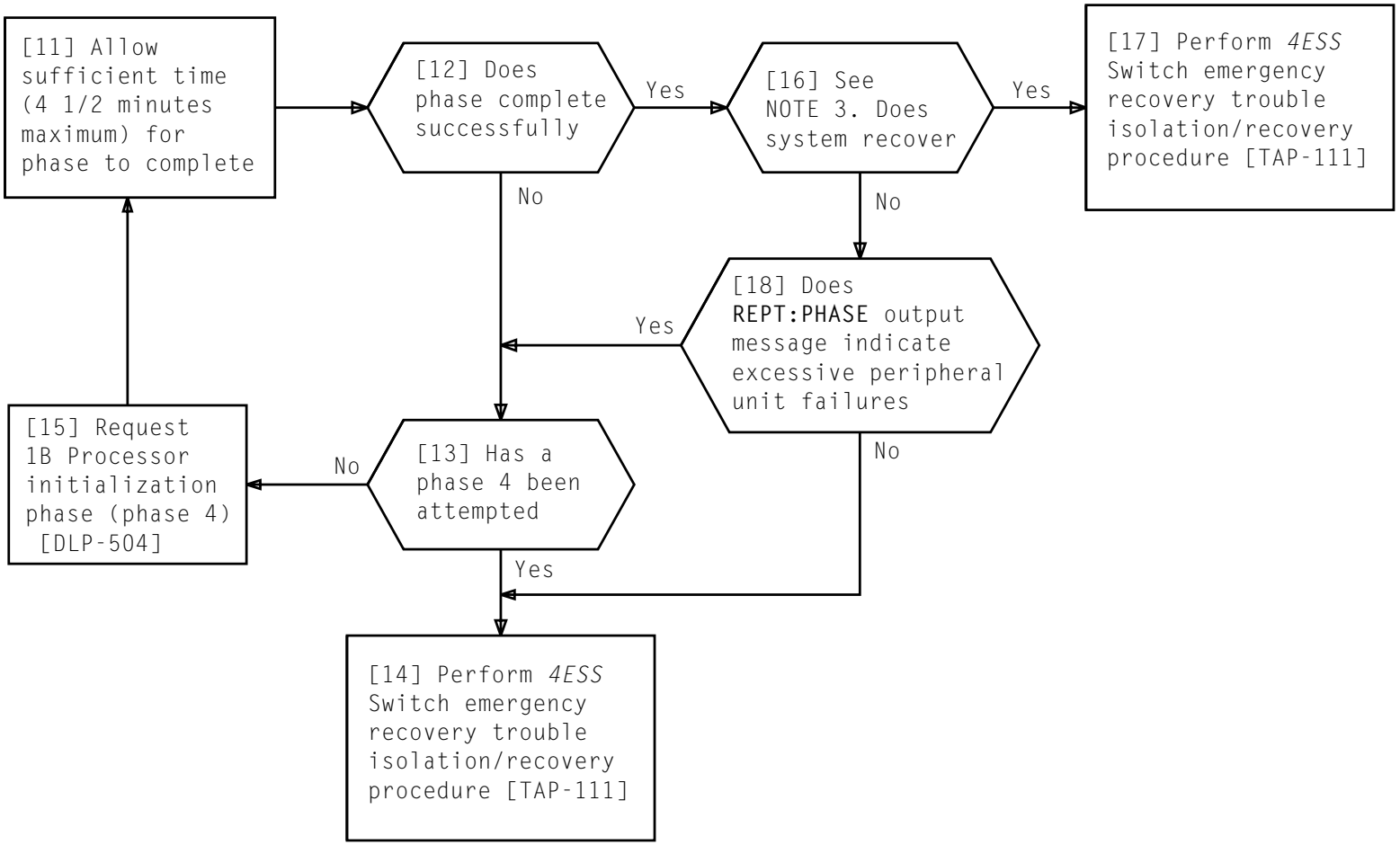


TABLE B
EMERGENCY MODE — MINIMUM CONFIGURATION

EQUIPMENT AVAILABLE	PROBABLE TROUBLE
One CC One AUI One IFB One MUP PS0 or PS1 Two CSs	Insufficient program stores and/or call stores to do call processing
One API One AU bus PS bus CS bus 1B Processor MTCE terminal	Insufficient program stores and/or call stores to enter full configuration emergency mode

NOTE 2
Minimum configuration (MIN CFG) mode was entered because insufficient CSs and/or PSs are available. MIN CFG is not as stable as FULL CFG and some manual actions performed in MIN mode may cause loss of sanity. If sanity is lost, the only way to reenter MIN CFG is to perform another SR.

RECOVER 1B PROCESSOR AND PERIPHERAL UNIT BUS USING EMERGENCY MODE

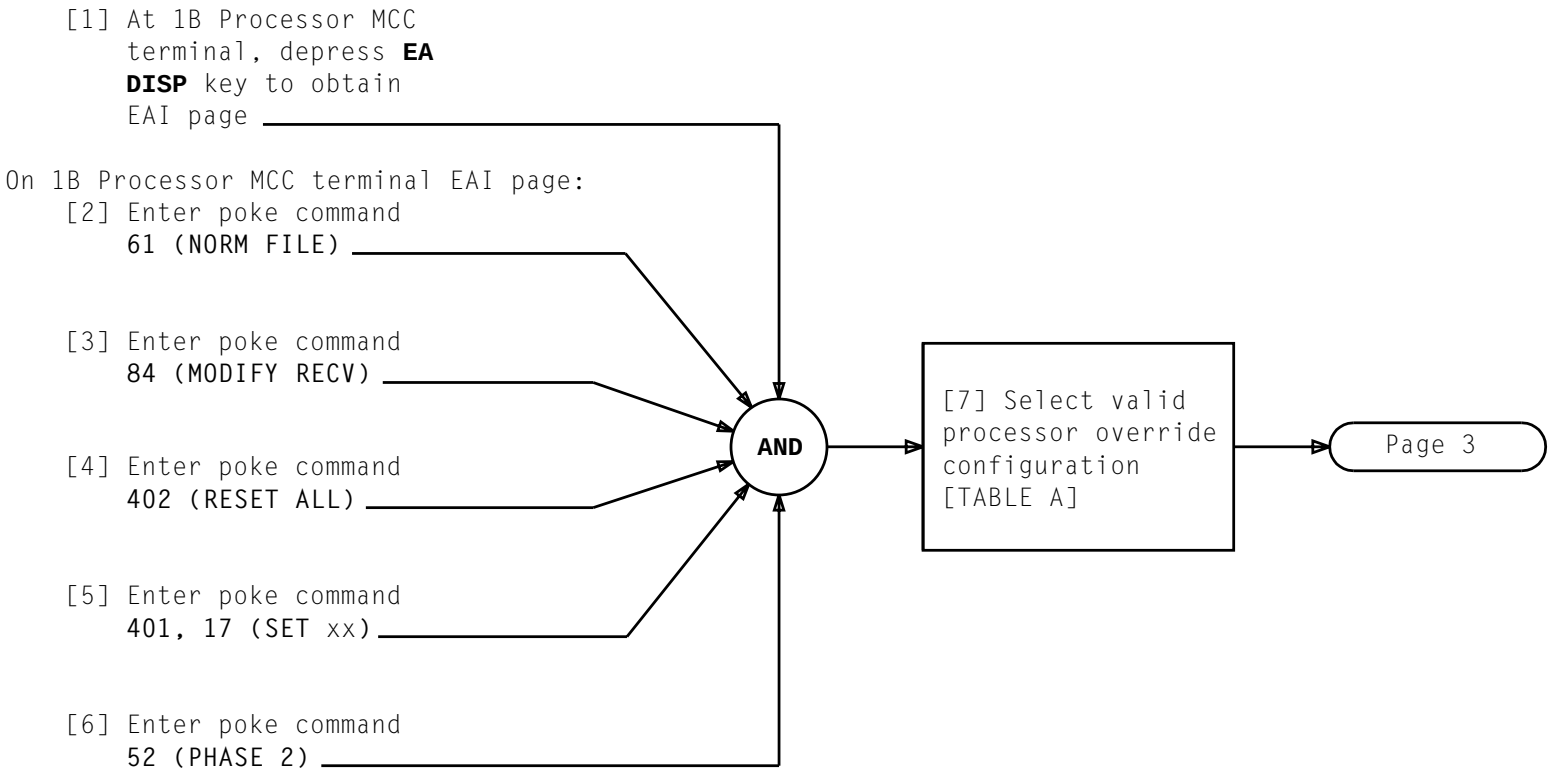


NOTE 3

System has recovered if following conditions have been met:

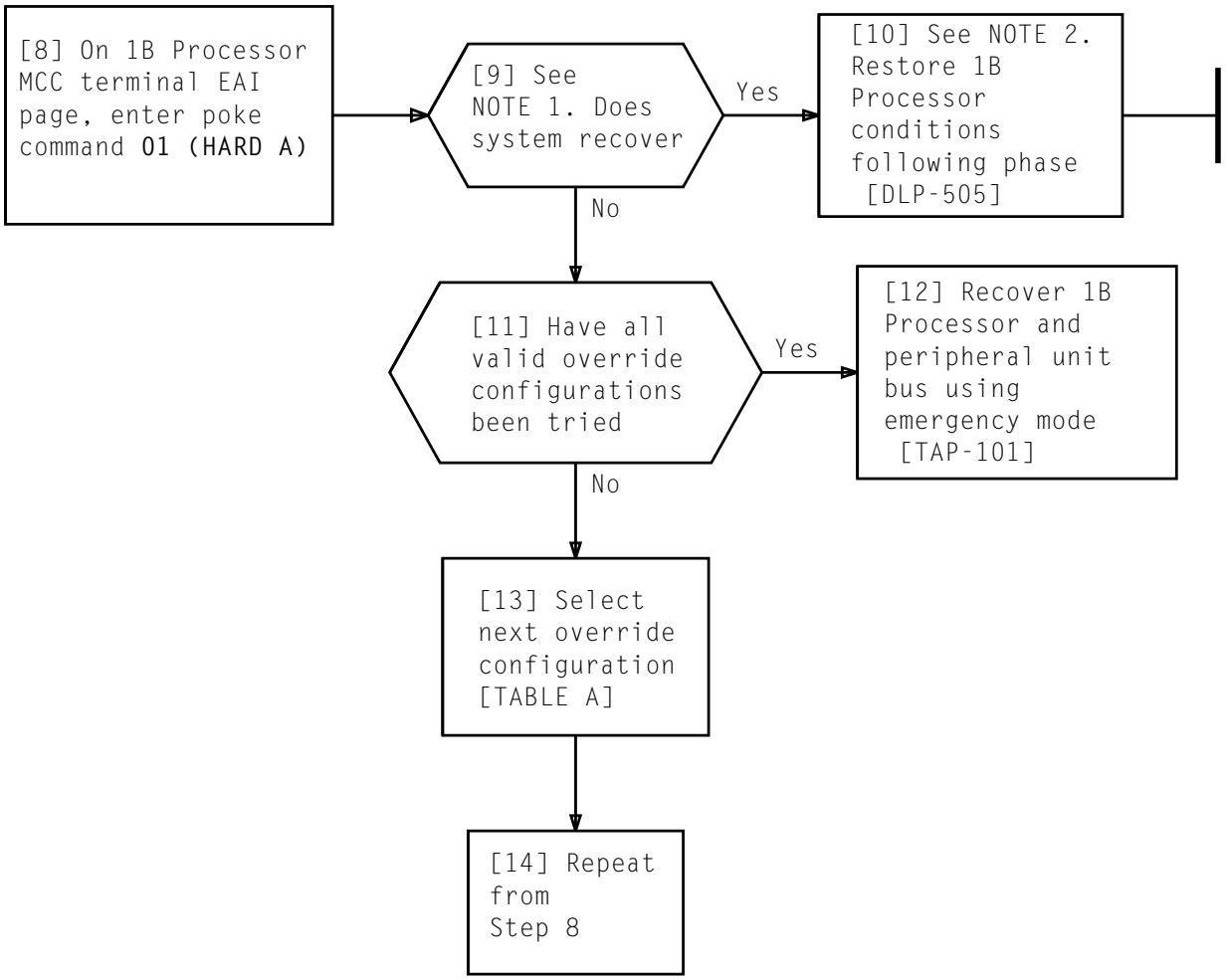
A. On 1B Processor MCC terminal EAI page under **PC PROGRESSION, CMPL** text is lighted BLACK on GREEN
B. On 1B Processor MCC terminal EAI page, **PHASE IN PROG** text has not lighted in last few minutes
C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY,** displayed data is normal for time of day (takes 3 minutes for data to be updated)

RECOVER 1B PROCESSOR AND PERIPHERAL UNIT BUS USING EMERGENCY MODE



RECOVER 1B PROCESSOR FOLLOWING PARTIAL UPDATE

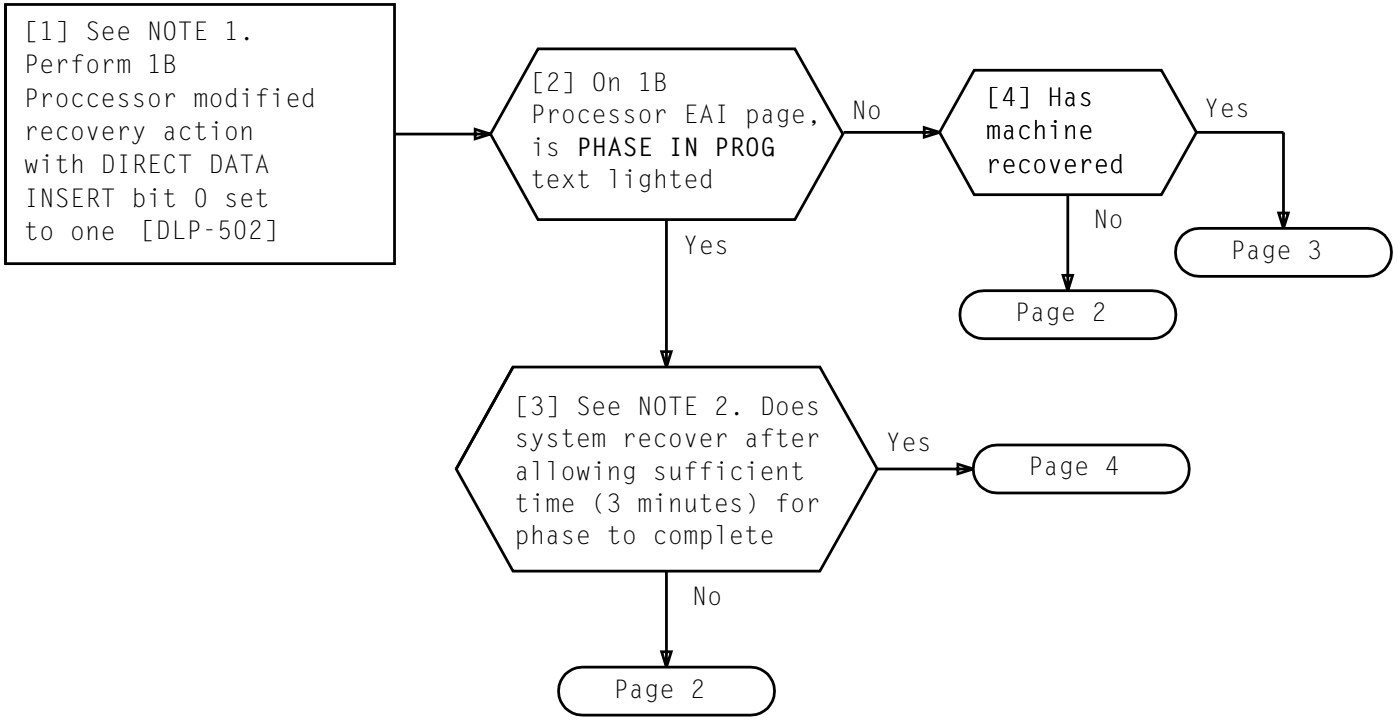
TABLE A 1B PROCESSOR MANUAL CONFIGURATIONS AND ASSOCIATED POKE COMMANDS												
MANUAL CONFIG SEQUENCE	OVERRIDE CONTROL SELECTIONS											
	CC0	CC1	PS0	PS1	PSB0	PSB1	CSB0	CSB1	IFB0	IFB1	AUB0	AUB1
1	10		20		22		30		40		42	
2		11		21		23		31		41		43
3		11	20			23	30			41	42	
4		11		21	22			31	40			43
5		11	20			23		31	40			43
6	10		20		22		30			41	42	
7	10			21		23		31	40			43
8	10			21	22		30			41	42	
9	10			21	22		30			41	42	
10		11	20		22			31	40			43
11		11	20		22			31		41		43
12		11		21	22		30		40		42	
13	10		20			23		31		41		43
14	10			21		23	30		40		42	
15	10			21	22			31		41		43
16		11	20			23	30		40		42	



NOTES

1. System has recovered if following conditions have been met:
   A. On 1B Processor MCC terminal EAI page under **PC PROGRESSION**, **CMPL** text is lighted BLACK on GREEN
   B. On 1B Processor MCC terminal EAI page, **PHASE IN PROG** text has not lighted in last few minutes
   C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY**, displayed data is normal for time of day (takes 3 minutes for data to be updated)
2. Contact technical support group and determine safe time when system is stable and seems to be operating properly before restoring conditions following a phase

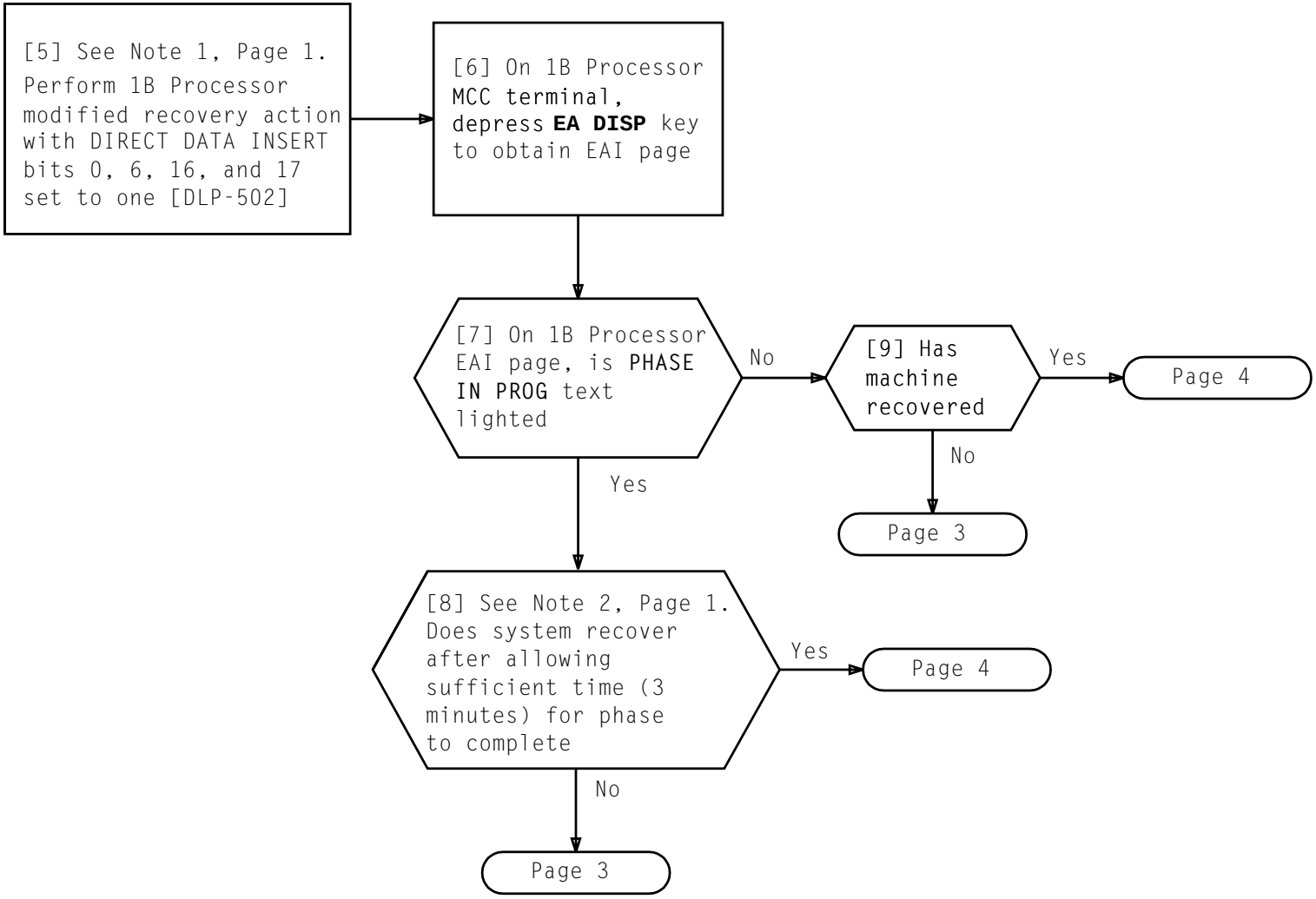
RECOVER 1B PROCESSOR FOLLOWING PARTIAL UPDATE



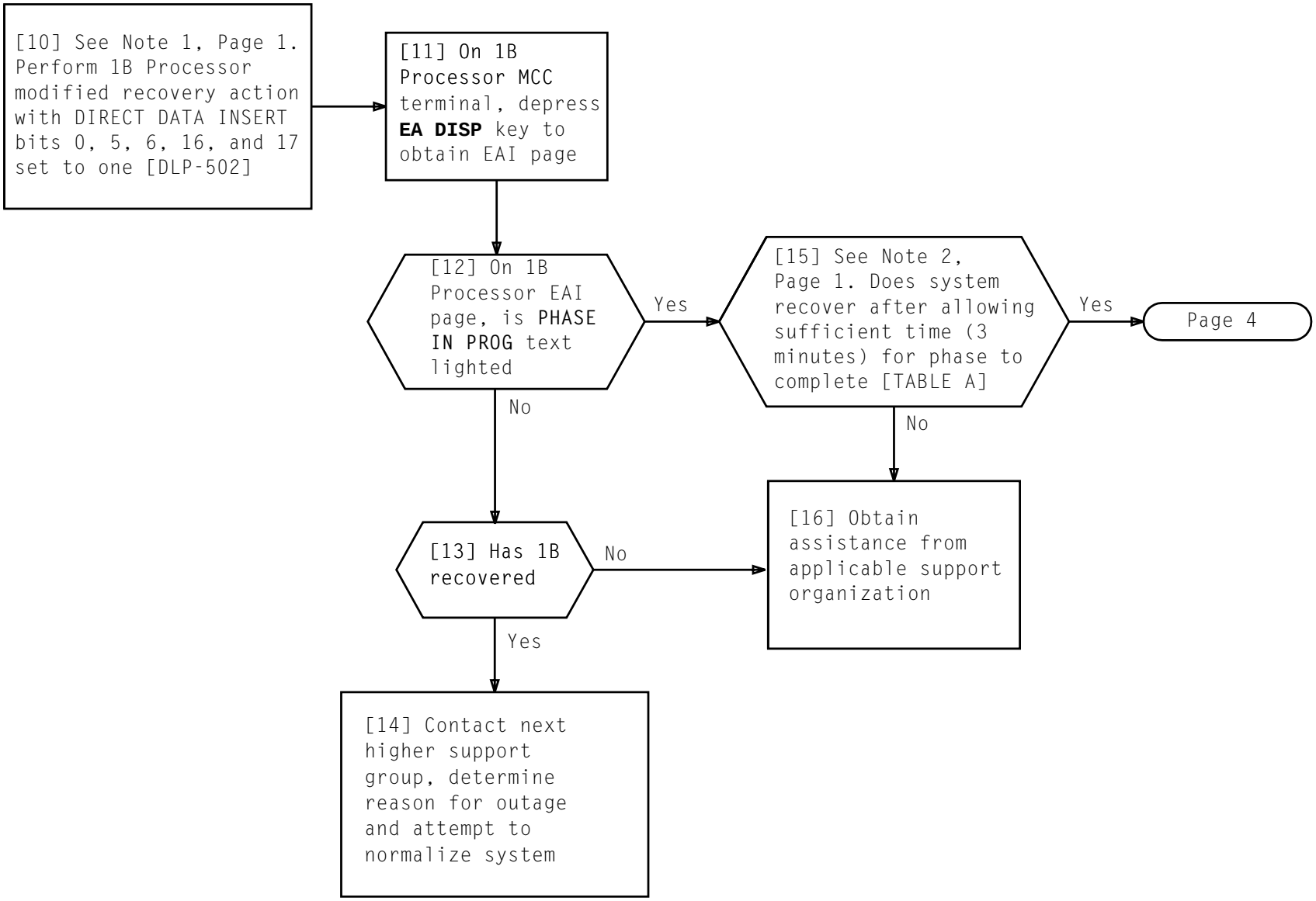
NOTES

1. Functions of DIRECT DATA INSERT bits are:
   - **00** – Inhibits interrupts
   - **05** – Zeroes disk area specified by system integrity program
   - **06** – Removes any network management controls in effect
   - **16** – Zeroes all CS and PS memory not backed up on disk
   - **17** – Skips hashsum calculations.
2. System has recovered if following conditions have been met:
   - A. On 1B Processor MCC terminal EAI page under **PC PROGRESSION**, **CMPL** text is lighted BLACK on GREEN
   - B. On 1B Processor MCC terminal EAI page, **PHASE IN PROG** text has not lighted in last few minutes
   - C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY**, displayed data is normal for time of day (takes 3 minutes for data to be updated)

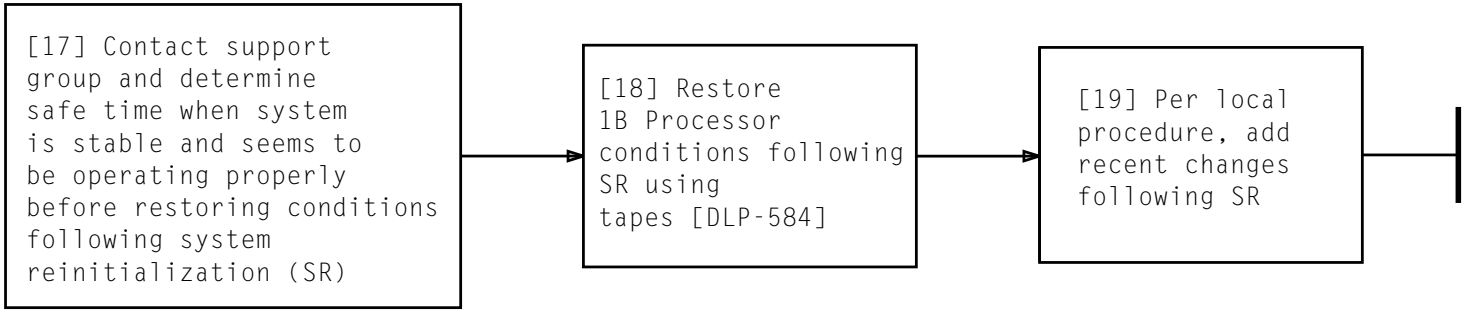
ATTEMPT 1B PROCESSOR MODIFIED RECOVERY ACTION PHASES FOLLOWING SYSTEM REINITIALIZATION (SR)



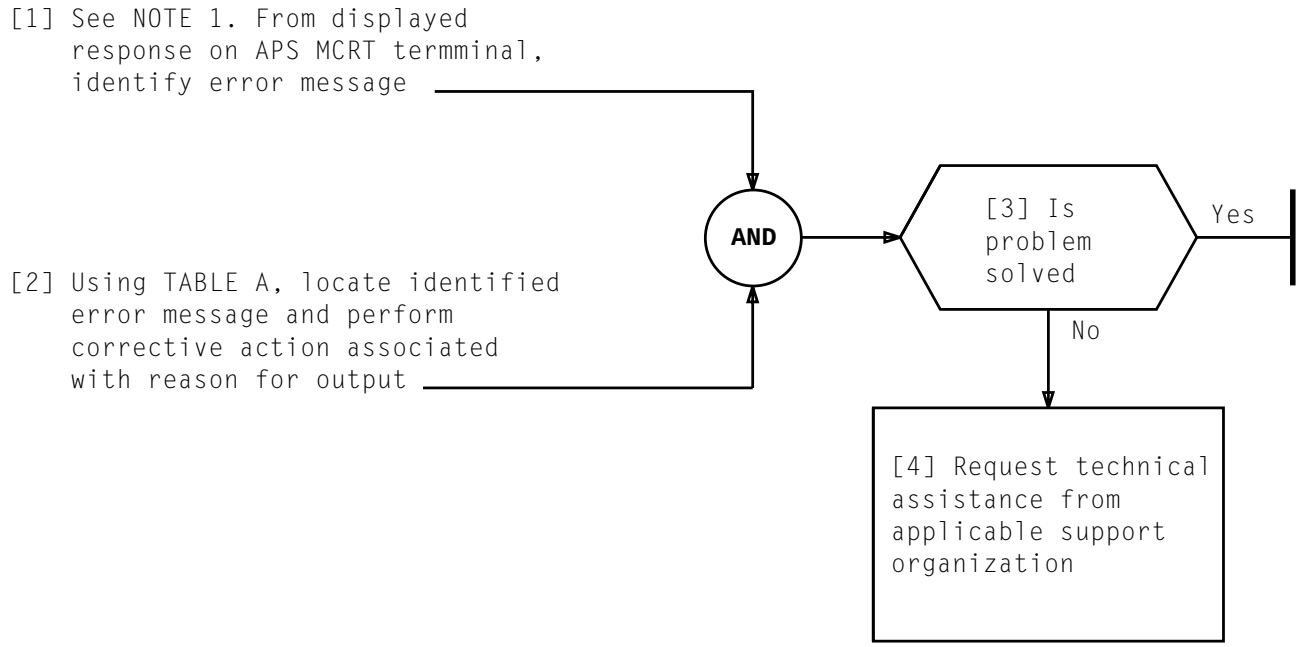
ATTEMPT 1B PROCESSOR MODIFIED RECOVERY ACTION PHASES FOLLOWING SYSTEM REINITIALIZATION (SR)



ATTEMPT 1B PROCESSOR MODIFIED RECOVERY ACTION PHASES FOLLOWING SYSTEM REINITIALIZATION (SR)



ATTEMPT 1B PROCESSOR MODIFIED RECOVERY ACTION PHASES FOLLOWING SYSTEM REINITIALIZATION (SR)



NOTE 1
When dealing with teleprocessing problems, close coordination should be maintained with HOC/RAO

IDENTIFY AUTOMATIC MESSAGE ACCOUNTING (AMA) ERROR MESSAGE AND PERFORM CORRECTIVE ACTION

TABLE A		
ERROR MESSAGE	**REASON**	**CORRECTIVE ACTION**
AIMCHECK a a = AMdwriter, IC or OC pathname	FAILED TO CREATE PROCESS	Contact local support organization.
AMA CONTROL FILE AUDIT	COULD NOT ATTACH TO PAS	Contact local support organization.
	CONTROL FILE AUDIT FAILED	Use the **OP:STATUS:LISTDIR** message to see if /amafiles/ic.file or /amafiles/oc.file is there. If it is not there, contact local support organization. If it is there, use the **OP:AMA;CONTROLFILE** message to check the contents of the file. If any fields need changing, use **SET:AMA;CONTROL, ALW:AMA**, or **INH:AMA** input message to make appropriate changes.
AMA DISK READER a a = Variable text phrase	—	Save printouts for analysis. Contact local support organization.
AMA DISK READER FOR [IC/OC] STREAM	END OF SESSION UPDATING OF DISK MAPS FAILED	Send tape to RAO for reissue. Tape should not be read by RAO. Mount and verify another tape. When good tape is ready to be written, use completion message printout to rewrite data as secondary. Use **COPY:AMATAPE** message specifying SECONDARY as type of data, setting SBLK as START BLOCK, and EBLK as END BLOCK. When writing is complete, send tape to RAO with indication that data is secondary.

(Continued on Page 3)

TABLE A (Contd)		
ERROR MESSAGE	**REASON**	**CORRECTIVE ACTION**
AMA DISK WRITER	• TERMINATION CODE a a = Termination code number • FAULT CODE a a = Fault code number (Hex)	Do not worry about intermittent cases. If problem persists, contact local support organization.
AMA FORMATTER [IC/OC] RECORD LOST — CALL CODE a AT x'b	-	Dump data using input message DUMP:UID 1573,ADDR x'b,L 128! Contact local support organization.
AMA FORMATTER [IC/OC] RECORDER RECEIVED — CALL CODE a	**NOTE:** Stream indicator does not allow record stream; record is buffered in the shared segment	Use the OP:AMA;STREAM message to determine the stream indicator setting. If stream value is invalid, use the SET:AMA;STREAM message to correct the value. Equip partition for stream. If problem persists, contact local support organization.
AMA FORMATTER [IC/OC] SDS FULL	**NOTE:** Disk writer for stream is not running or occupancy is 100 percent full	Use the OP:STATUS;ALLKERNS input message to check if the stream's AMDwriter process is running. If it is not running, it must be restarted. If stream's disk occupancy is 100 percent full, reduce AMA disk storage occupancy [DLP-520]
AMA FORMATTER [IC/OC] SDS PTRS ERROR LOAD a UNLOAD b	**NOTE:** Shared Data Segment (SDS) load or unload pointer out-of-range	Contact local support organization.
AMA FORMATTER [IC/OC] SDS SAVE ERROR AMA FORMATTER [LOAD/UNLOAD] PTR ERROR PAS a OFFSET b	**NOTE:** Invalid AMA data some process overwritten the formatted AMA data	Contact local support organization.
AMA FORMATTER NO DF PARTITIONS EQUIPPED, DF CANNOT BE INITIALIZED	**NOTE:** The switch is administered for deferred formatting capability but no deferred formatting disk partitions have been equipped	Use the SET:AMA:CONFIG input message to equip a DF partition.
(Continued on Page 4)		

TABLE A (Contd)

ERROR MESSAGE	REASON	CORRECTIVE ACTION
DF BUFFER OVERFLOWED	—	Contact local support organization
AMA FORMATTER PROCESS	COULD NOT CONNECT TO ITS PORT	Contact local support organization
AMA FORMATTER NO DISK MODE (DM) PARTITIONS EQUIPPED, DM CANNOT BE INITIALIZED	NOTE: NO DISK MADE PARTITIONS HAVE BEEN EQUIPPED	If the Switch is in Call Detail Recording Platform (CDRP) or Transition Recording Mode, use the **SET:AMA;CONFIG** input message to equip a DM partition. Otherwise, this message can be ignored
AMA FORMATTER SCSI LINKS ARE NOW SIMPLEX FAILED	NOTE: A SCSI LINK HAS GONE OUT OF SERVICE	Restore the SIN Node with **RST:LNxx y!** input message. If the link does not come up, restore the link with **CHG:SLK(xx,y);ARST.** If the link still does not come up, contact the National AMA Control Center (NAMACC) to restore the link from the CDRP
AMA FORMATTER SCSI LINKS ARE NOW DUPLEX FAILED		
AMA MONITOR	CANNOT CREATE AMA MAINTENANCE FILE	Contact local support organization
	• MAINTENANCE FILE INITIALIZED • SOME AMA MTC RECORDS UNREADABLE	Contact local support organization if this happens once a day for 2 or 3 days consecutively. Save printouts for analysis
AMA MONITOR FOR [IC/OC] STREAM INIT FAILED	• COULD NOT ATTACH TO PROTECTED APPLICATION SEGMENT • COULD NOT INITIALIZE STREAM FILE	Contact local support organization
AMA MONITOR AMA SESSION ABORTED	SANITY TIMER RUNOUT (TELEPROCESSING)	Use **OP:AMA;DISK** message and obtain disk space occupancy for HOC/RAO. Call HOC/RAO and request poll
	SANITY TIMER RUNOUT (TAPE)	Send tape to HOC/RAO for reissue. Tape should not be read by RAO. Mount, verify, and write another tape

(Continued on Page 5)

TABLE A (Contd)		
ERROR MESSAGE	**REASON**	**CORRECTIVE ACTION**
AMA MONITOR AMA SESSION ABORTED (CONTD)	CONTROL FILE WAS AUDITED (TELEPROCESSING)	Use **OP:AMA,DISK** message and obtain disk space occupancy for HOC/RAO. Enter **OP:AMA;CONTROL FILE** message to examine all field entries. Correct any errors using **SET:AMA;CONTROL** message. Call HOC/RAO and request poll
	CONTROL FILE WAS AUDITED (TAPE)	Send tape to HOC/RAO for reissue. Tape should not be read by RAO. Mount, verify, and write new tape
AMA MONITOR SANITY CHECK FAILURE	• RECVW CALL FAILED • BAD PROCESS TYPE PARAMETER IN AM_START PROC • BAD TIMER INDEX PARAMETER IN AMSET_TIMER • BAD TIMER DURATION PARAMETER IN AMSET_TIMER • BAD TIME PARAMETER IN AMTIME_UNTIL	If teleprocess session was in progress: Use **OP:AMA;DISK** message and obtain disk space occupancy for HOC/RAO. Call HOC/RAO and request poll. If tape session was in progress: Send tape to HOC/RAO for reissue. Tape should not be read by RAO. Mount, verify, and write another tape.
	INTERNAL INCONSISTENCY FOLLOWING CONTROL FILE AUDIT	Enter **OP:AMA;CONTROLFILE** message and examine all field entries. Correct any errors using **SET:AMA;CONTROL**, **INH:AMA**, or **ALW:AMA** message. If teleprocessing session was in progress: Use **OP:AMA;DISK** to identify monitor disk space occupancy for HOC/RAO. Call HOC/RAO and request poll. If tape session was in progress: Send tape to HOC/RAO for reissue. Tape should not be read by RAO. Mount, verify, and write another tape.

TABLE A (Contd)		
ERROR MESSAGE	**REASON**	**CORRECTIVE ACTION**
AMA/ICDR FORMATTER	• DEFERRED FORMATTING DISK STATUS IS NOT AVAILABLE. CANNOT ACTIVATE DEFERRED FORMATTING • COULD NOT DEVELOP RECEIVE BUFFER, PROCESS TERMINATING AND RESTARTING • RECEIVE BUFFER POINTER OUT OF RANGE, PROCESS TERMINATING AND RESTARTING • COULD NOT ATTACH TO MESSAGE HANDLER, PROCESS TERMINATING AND RESTARTING • FAULT THRESHOLD REACHED, PROCESS TERMINATING AND RESTARTING	Contact local support organization.
AMA SESSION TERMINATED	ABNORMAL SESSION TERMINATION	Call HOC/RAO and request another poll. Monitor disk space occupancy to avoid overwrite. Give HOC/RAO disk occupancy and reported reason for termination. Make sure AMdwriter is running. Follow HOC/RAO operator instruction, or obtain technical assistance.
(Continued on Page 7)		

TABLE A (Contd)		
ERROR MESSAGE	**REASON**	**CORRECTIVE ACTION**
AMA SESSION CONNECT FAILED	INVALID SESSION CONNECT MESSAGE UNRECOGNIZABLE MESSAGE RECEIVED HIGHER LEVEL FAILURE	Use **OP:OOS** message to identify out-of-service units. If AMA data link or its controller is OOS, using **RST:SDL** or **RST:SDLC** message, call HOC/RAO and request another poll. Monitor disk space occupancy to avoid overwrite. If session still cannot be established, test for teleprocessing capability [DLP-519].
	INCORRECT PASSWORD	Use **OP:AMA;CONTROLFILE** message to check HOC password. If incorrect, use **SET:AMA;CONTROL** message to correct. Keep HOC/RAO informed about disk space occupancy and results of corrective action. **IMPORTANT:** Check with HOC/RAO and make sure they attempted poll. If not, notify security. If so, try another poll.
	AMA STREAM UNAVAILABLE	Use **OP:AMA;CONTROLFILE** message to determine polling window. If wrong, correct with **SET:AMA;CONTROL** message. Monitor disk space occupancy to avoid overwrite. Request poll from HOC/RAO.
AMA STREAM INDICATOR IS INVALID	-	Use **SET:AMA;STREAM** message to correct.
AMA TAPE ERROR	• AMA PARTITION UNAVAILABLE FOR [IC/OC] STREAM • COULD NOT ATTACH TO PAS FOR [IC/OC] STREAM • COULD NOT ATTACH TO PORT FOR [IC/OC] STREAM	Send tape to RAO for reissue. Contact local support organization.
AMA TAPE COMPLETE FOR [IC/OC] STREAM (Continued on Page 8)	NEXT AMA PARTITION UNAVAILABLE	Send tape to RAO for processing and obtain technical assistance.

TABLE A (Contd)

ERROR MESSAGE	REASON	CORRECTIVE ACTION
AMA TAPE VERIFY	TAPE COULD NOT BE OPENED	Make sure tape is properly loaded and reload if necessary. Diagnose tape drive and proceed according to result. Select another drive if necessary. Mount and verify tape. If error persists in more than one tape, have tape unit diagnosed. If error affects only one tape, return tape to HOC/RAO for reissue.
	TAPE COULD NOT BE CLOSED	Check tape drive and move to another if necessary. If verification fails again, return tape to HOC/RAO for reissue.
	TAPE COULD NOT BE READ	Return tape to HOC/RAO and describe fault on transmittal form. RAO should not read tape but reissue it. Mount and verify another tape. If error persists on more than one tape, have tape unit diagnosed.
	TAPE COULD NOT BE WRITTEN	Remove tape from tape drive, and make sure write-enable ring is installed. Install ring if necessary. Diagnose tape drive and if not usable, move to another. Mount and verify tape. If error persists in more than one tape, have tape unit diagnosed. Otherwise, send tape to RAO for reissue.
	NONSTANDARD TAPE LABELS	Return tape with explanation to RAO for erasure and relabeling. Mount, verify, and write new AMA tape.
	COULD NOT MARK BLOCKS SECONDARY	Enter OP:STATUS;PROCESS,ALLKERNS! message to ensure that AMdwriter is running. If so, send tape to RAO for erasure and relabeling. If not, obtain technical assistance. Mount, verify, and write new AMA tape.

(Continued on Page 9)

TABLE A (Contd)

ERROR MESSAGE	REASON	CORRECTIVE ACTION
AMA TAPE VERIFY (Contd)	TAPE HAS NOT EXPIRED	Enter **VER:AMATAPE!** message. If verify is successful, try writing tape again. If error persists, send tape to RAO for erasure and relabeling. If error does not recur, write is successful. If verify is not successful, act according to error indication. Mount, verify, and write new AMA tape.
	TAPE ABORTED BY OPERATOR	Return tape to RAO for erasure and relabeling. Find out why session was aborted, then decide if new tape should be written. If yes, mount, verify, and write new AMA tape.
	DATA IS NOT RETRIEVABLE	Determine if tape write session deals with primary or secondary data. If primary, save tape for reuse. Enter **OP:AMA;DISK!** to obtain disk occupancy. Obtain technical assistance immediately. If data is secondary on disk and session is secondary, do following: • Check that block numbers requested by RAO were entered correctly. If not, reenter **COPY:AMATAPE** message using correct block numbers. If block numbers were entered correctly, inform RAO that blocks requested are no longer available. • Give RAO sequence number of first available block of data; and if requested to do so by RAO, write another tape.
AMA TAPE VERIFY FOR [IC/OC] STREAM (Continued on Page 10)	COULD NOT ATTACH TO PAS	Try to verify tape again and if problem persists, obtain technical assistance.

TABLE A (Contd)

ERROR MESSAGE	REASON	CORRECTIVE ACTION
AMA TELEPROCESSING	• FAILED TO CREATE TEST FILE • FAILED TO WRITE ENTIRE TEST FILE • ERROR DURING OPEN OF AMA TEST FILE	To resolve problems in this area, refer to TOP 254-301-812.
	• CANNOT CREATE MAINTENANCE FILE • ERROR DURING WRITE OF AMA MTC FILE	Obtain technical assistance.
	• MAINTENANCE FILE INITIALIZED • SOME AMA MTC RECORDS UNREADABLE	If this happens once a day for 2 or 3 days consecutively, obtain technical assistance. Save printouts for analysis.
AMA TELEPROCESSING FOR [IC/OC] STREAM	FAILED TO ATTACH TO PAS	Obtain technical assistance.
	AMA DATA UNREADABLE — NEXT PARTITION OOS	Send tape to RAO for processing, and obtain technical assistance.
AMA TELEPROCESSING HOC REJECTED SESSION	CHECK AMAT PASSWORD	Use **OP:AMA;CONTROLFILE** message to identify AMAT password. If wrong, correct with **SET:AMA;CONTROL** message. Monitor disk space occupancy to avoid overwrite. Call HOC/RAO and request poll.
AMA/ICDR TRANSFER BUFFER ALARM BUFFER IS a% FULL	**NOTE:** AMformat process not running	Use **OP:STATUS;ALLKERNS** message to check if AMformat process is running. If not, it must be restarted. If process is running, obtain technical assistance.
SDL a (FORMATS 1, 2, 3) a = AMA data link member number		Call HOC/RAO and ask if they had just tried to poll the office. If so, inform them of problems with the AMA data links. If not, inform security.

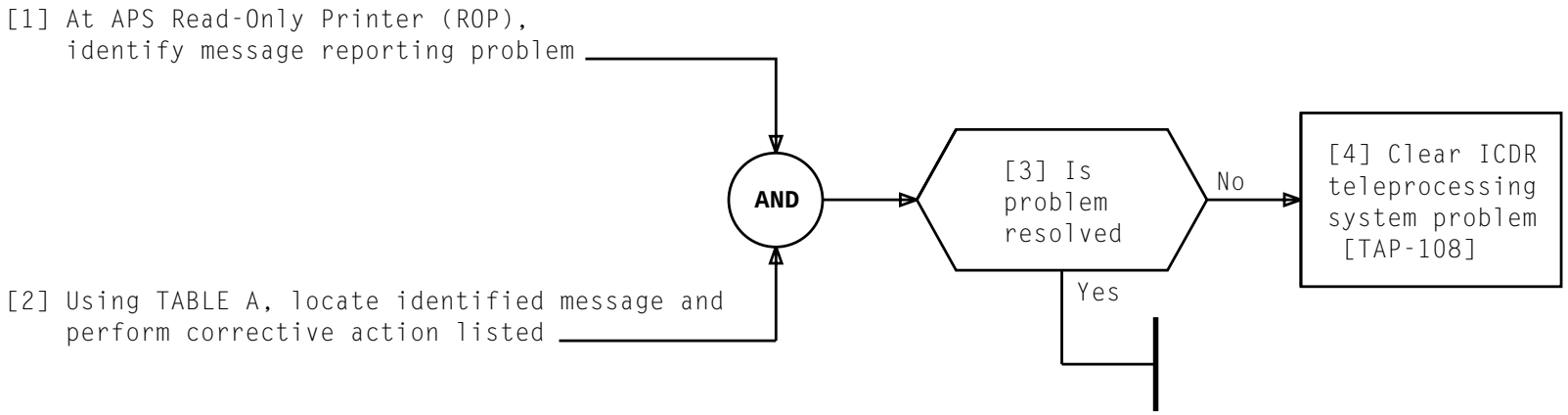


TABLE A

MESSAGE	CORRECTIVE ACTION
REPT ICDR DISK STORAGE IS (70-89) PERCENT FULL REPT ICDR DISK STORAGE IS (90-99) PERCENT FULL	1. Call the processing center, and request that a polling session be started as soon as possible. 2. Polling session should continue at least long enough to allow the occupancy to drop to the 87% level or, preferably, until the data level has reached a level that is normal for this time of day for this office.
REPT ICDR DISK STORAGE IS 100 PERCENT FULL	1. Call the processing center and request that a polling session be started IMMEDIATELY. The oldest 1000 blocks of primary ICDR data will be overwritten when the occupancy reaches the 100% full level. 2. Polling session should continue at least long enough to allow the occupancy to drop to the 87% level or, preferably, until the data level has reached a level that is normal for this time of day for this office.
REPT ICDR MAJOR ALARM DOWNGRADED TO A MINOR ALARM REPT ICDR MINOR ALARM HAS BEEN RETIRED	1. Continue polling until the occupancy level has reached a level that is "normal" for this time of day for this office.

CLEAR ICDR PROBLEM

TABLE A (Contd)	
MESSAGE	**CORRECTIVE ACTION**
REPT ICDR SESSION TERMINATED (FORMAT 1) - ABNORMAL SESSION TERMINATION	1. Call processing center and set up another poll. 2. Continue monitoring the ICDR disk space occupancy using the OP:ICDR;DISK input message. 3. Be prepared to give the following information to processing center personnel: Current disk space occupancy Abnormal termination reason from printout. 4. Use the OP:STATUS:PROCESS,ALLKERNS input message to make sure INdwriter is running. (In the UTID column of the printout, INdwriter is 0x671.) If INdwriter is not running, seek technical assistance.
REPT ICDR UNABLE TO ESTABLISH SESSION	1. Use the OP:OOS input message to see what units are out of service. 2. If the ICDR data link or the data link controller is out of service, restore it using the RST:SDL or RST:SDLC input messages, respectively. 3. Call processing center and set up another poll. 4. Continue monitoring disk space occupancy by using OP:ICDR;DISK input message. Be prepared to relate the current disk space occupancy to processing center personnel. 5. If the session still cannot be established, clear ICDR teleprocessing system problems [TAP-108]
REPT ICDR SESSION CONNECT FAILED REASON AMAT PORT UNAVAILABLE	1. Use the OP:ICDR;CONTROLFILE input message to see what the polling window is set to. If it is wrong, use the SET:ICDR;CONTROL input message to correct it. In either case, continue to Step 2. 2. Using the data obtained from Step 1 above, make sure that ICDR sessions are allowed, not inhibited. The ALW:ICDR;SESSION input message can be used to allow ICDR sessions. 3. Enter the OP:ICDR;DISK input message to obtain current ICDR disk space occupancy. 4. Call processing center and request a poll. Be prepared to give the processing center personnel the information obtained from the above steps.

TABLE A (Contd)	
MESSAGE	**CORRECTIVE ACTION**
REPT AMA/ICDR TRANSFER BUFFER ALARM 3B BUFFER IS x% FULL	1. Investigate any disk alarms that accompany this message. 2. Otherwise, use the **OP:STATUS:PROCESS,ALLKERNS** input message to make sure AMformat is running. (In the UTID column of the printout, AMformat is 0x625.) If not, restart APS processes [DLP-537]. 3. Use the same message to see if it is running. If it is running, watch for a message of alarm downgrade and eventually a message of alarm retiring. If it is not running, go to Step 4. 4. Boot to APS backup database [DLP-539]. 5. Check again to see that AMformat is running. If so, no further actions are required. Otherwise, seek technical assistance.
REPT ICDR MONITOR SANITY CHECK FAILURE INTERNAL INCONSISTENCY FOLLOWING CONTROL FILE AUDIT	1. Enter the **OP:ICDR;CONTROLFILE** input message. 2. Examine the fields and their values. Change any that are not correct by using the **SET:ICDR;CONTROL** and/or the **ALW:ICDR;SESSION** input message(s).
REPT ICDR CONTROL FILE AUDIT (FORMAT 2)	1. Use the **OP:STATUS:LISTDIR** input message to see if /amafiles/infile exists and has a nonzero length. If these conditions are met, proceed to Step 4. If these conditions are not met, proceed to Step 2. 2. Use the **OP:STATUS:PROCESS,ALL** input message to obtain the process id for /ama/INmon. (In the UTID column of the printout, INmon is 0x674.) 3. Kill INmon unconditionally using the **STOP:EXC:ANY,PID** a**,UCL** input message and the process id from Step 2. After the **REPT ICDR MONITOR INIT COMPLETE** message appears, go to Step 4. 4. Enter the **OP:ICDR;CONTROLFILE** input message to dump the contents of the control file. 5. Check the contents of the file. If any fields are incorrect, change them using the **SET:ICDR;CONTROL, ALW:ICDR;SESSION**, or **INH:ICDR;SESSION** input messages.

TABLE A (Contd)	
MESSAGE	**CORRECTIVE ACTION**
REPT AMA FORMATTER ICDR SDS FULL	1. Use the **OP:STATUS:PROCESS,ALLKERNS** input message to make sure /ama/INdwriter is running. (In the UTID column of the printout, INdwriter is 0x671.) If it is running, go to Step 3. If it is not running, restart processes [DLP-537] and then go to Step 2. 2. Check to make sure that INdwriter is now running. If it is, go to Step 3. If it is still not running, seek technical assistance immediately. 3. Use the **OP:ICDR;DISK** input message to determine the ICDR disk space occupancy. If it is above the 70% level, use procedure in this TABLE associated with the output message received.
REPT AIMCHECK a FAILED TO CREATE PROCESS a = INmon, INdwriter or AMformat pathname	1. Verify character position 3 of the SYSTYPE field on the EAI page of the APS MCRT is set to "I" by verifying SYSTYPE field data [DLP-531]. In either case, go to the next step. 2. Enter message to make process executable **ALW:FILESYS:ACCESS "06755", FN "a"!** a = full pathname of file or directory 3. Restart APS processes [DLP-537]. 4. Use the **OP:STATUS:PROCESS,ALLKERNS** input message to see if INdwriter and AMformat are now running. Use the **OP:STATUS:PROCESS,ALL** message to see if INmon is running. (In the UTID column of the printout, INdwriter is 0x671, AMformat is 0x625 and INmon is 0x674.) If they are all running, no further actions are required. If any of them are not running, go to Step 5. 5. Boot to APS backup database [DLP-539]. 6. Check to see if INdwriter and AMformat are running now using **OP:STATUS:PROCESS,ALLKERNS** message. Use the **OP:STATUS:PROCESS,ALL** message to see if INmon is running. If they are all running, no further actions are required. If any of them are still not running, seek technical assistance.

TABLE A (Contd)

MESSAGE	CORRECTIVE ACTION
REPT ICDR DISK WRITER TERMINATION CODE a a = Reason for termination	Term Code — Consequences/Actions To Be Taken 1 — Use the **OP:STATUS:PROCESS,ALLKERNS** input message to make sure INdwriter is running. (In the UTID column of the printout, INdwriter is 0x671.) If INdwriter is not running, seek technical assistance. 9 — Verify that all the AMA partition device files have the correct LDIN. Use the **OP:ICDR;CONFIG** message to verify that all the partition sizes are correct in the configuration file. If they are incorrect, restore the configuration file from the backup copy using **COPY:FILESYS:FILE SCR "/amabfiles/config.in", DEST "/amafiles config.in"!** message. If they are still incorrect, verify that the VTOC on the AMA disks is correct. 22 — Both copies of the configuration file are unusable, so the INdwriter does not know what partitions are equipped. Seek technical assistance to initialize the configuration file and reequip the partitions. NOTE: It may take several minutes after a boot for the AMA file systems to be mounted, during which time, the configuration files are inaccessible. This will cause one or more sets of error 18 and termination 22 messages before the boot is finished. These messages can be ignored unless they continue well past the completion of the boot.
REPT ICDR DISK WRITER FAULT CODE a a = Fault code number (Hex)	Do not be concerned about intermittent cases. If the problem persists, seek technical assistance.

TABLE A (Contd)

MESSAGE	CORRECTIVE ACTION
REPT ICDR DISK WRITER ERROR CODE a a = Error code number	Error Code — Consequences/Actions To Be Taken **6** — Both copies of a partition's disk map were invalid (this message will always be preceded by an error code 4). Both disk maps are intialized as a result, so any primary data that may have been on the partition is lost. Use the **OP:ICDR;CONFIG** message to verify that the partition's file name and size are correct. If incorrect, restore the primary copy of the configuration file from the backup copy using **COPY:FILESYS:FILE SCR "/amabfiles/config.in", DEST "/amafiles/config.in"!** message or use the **SET:ICDR;CONFIG** message to unequip the partition, then reequip the partition with the **"NOINIT"** option. The "lost" data on the partition will probably reappear since the partition size is used to determine the location of the disk map backup copy which would not have been initialized after the original error 6. **9 to 13** — These indicate possible problems in the ECD. When the INdwriter is accessing ECD to obtain the local time zone, errors 9, 11, or 12 are possible and may result in incorrect time stamps in the ICDR block headers. Errors 9, 11, and 13 are possible when the INdwriter has received an IOBADMSG response from the disk driver and is checking whether that response is due to a duplex disk failure. In this context, error 9 or 13 will be followed by a termination message with termination code 9. Error 11 may cause the disk pair to appear out-of-service to the INdwriter even though the disk may actually be active. This will in turn cause an error 15, 16, or 17. Error 10 can occur in either of the above contexts but has no adverse effect on the operation of the INdwriter.

TABLE A (Contd)

MESSAGE	CORRECTIVE ACTION
REPT ICDR DISK WRITER ERROR CODE a a = Error code number	Error Code — Consequences/Actions To Be Taken 9 to 13 (Contd) Error 13 may also be caused by an invalid device file for one of the AMA partititons (eg, pointing to a nonexistent disk). Verify that all the AMA partition device file LDINs are correct. 14 Use the OP:ICDR;CONFIG message to verify that the partition name is correct. If incorrect, restore the configuration file from the backup copy. If correct, use OP:STATUS:LISTDIR,FN "/dev"! message to verify that the partition's device file exists in the /dev directory. 15 to 17 If not preceded by an error code 11, the disk pair containing the partition is probably duplex failed. For error code 15, it is also possible that the partition's device file is incorrect. Error 16 may cause an ICDR session in progress to be aborted if the INdwriter was attempting to update the disk map for the disk reader. Error 17 may result in a small sequence gap when the disk pair is restored to service and the ICDR data is transmitted. 18 to 20 These error codes indicate a problem with ICDR configuration file or one of the AMA file systems. The INdwriter will automatically attempt to use the backup copy of the configuration file if the primary copy is unusable. If both are unusable, the writer will terminate with termination code 22.

TABLE A (Contd)

MESSAGE	CORRECTIVE ACTION
REPT ICDR DISK WRITER ERROR CODE a a = Error code number	Error Code — Consequences/Actions To Be Taken 18 to 20 (Contd): If the problem is with the primary copy, restore the primary copy from the backup copy. If the problem is with the backup copy, then both copies must be initialized and all partitions reequipped from scratch (be sure to use the "NOINIT" option so the partitions disk maps are not initialized). Seek technical assistance for this procedure. If the primary copy cannot be opened or read, the disk reader will probably be unable to access it also, which will prevent ICDR sessions from starting up (the disk reader does not access the backup copy). NOTE: It may take several minutes after a boot for the AMA file systems to be mounted, during which time, the configuration files are inaccessible. This will cause one or more sets of error 18 and termination 22 messages before the boot is finished. These messages can be ignored unless they continue well past the completion of the boot. 21 to 26: These errors indicate a problem with the ICDR global map or one of the AMA file systems. The INdwriter always opens both copies, but only reads the backup copy if there is a problem with the primary copy. Both copies are updated whenever the INdwriter updates the global map. If the opening of either copy fails (error code 21), the INdwriter will try to recreate it. If the create also fails, it will reattempt the create the next time it updates the global map.

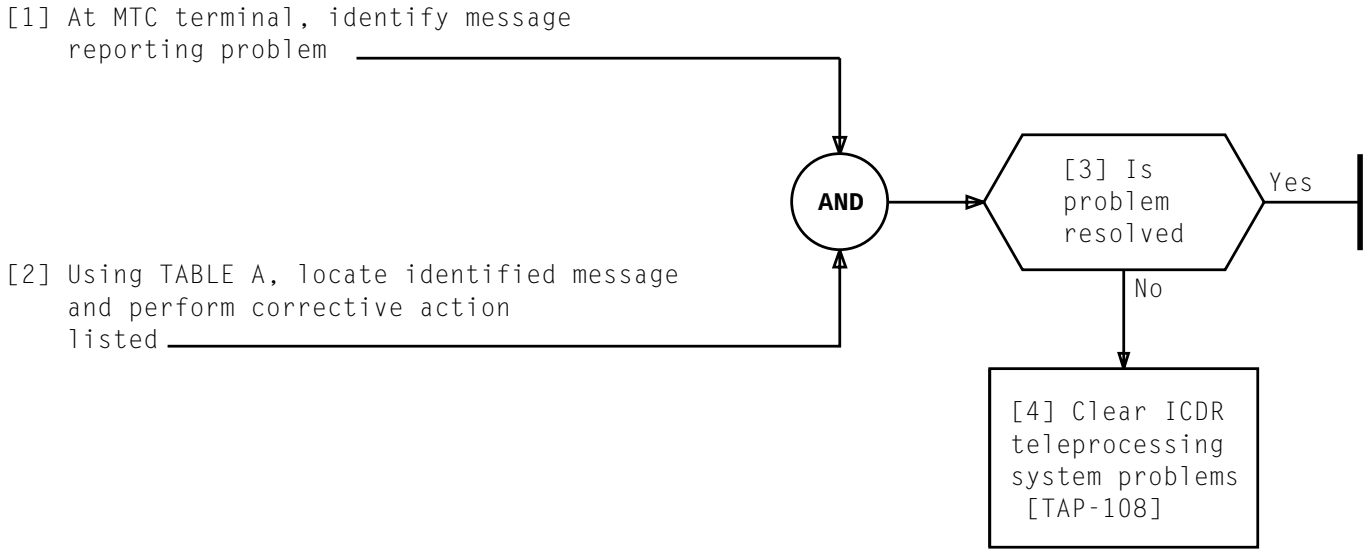
TABLE A (Contd)

MESSAGE	CORRECTIVE ACTION
REPT ICDR DISKWRITER ERROR CODE a a = Error code number	Error Code — Consequences/Actions To Be Taken 21 to 26 (Contd) — If a create or write fails for the primary copy of the global map, the disk reader will probably be unable to access it which will prevent ICDR sessions from starting up (the disk reader does not access the backup copy). If error 26 appears, neither copy of the global map was usable, so the INdwriter reconstructs the global map by looking at the individual disk maps to determine where reading and writing left off. The probability of the reconstructed map being right depends on how many partitions are in service. If all are in service, the rebuild map will probably be correct. The more that are out of service, the lower the probability. An incorrect global map may result in data being transmitted out of order, sequence number gaps or duplication, and an unexpected change in the disk occupancy value. 27 — This error indicates that the configuration file was initialized (that is, the partition equipage information was zeroed). Restore the configuration file from the backup copy using **COPY:FILESYS:FILE SCR "/amabfiles/config.in", DEST "amafiles/config.in"!** message. If the error still occurs, the partitions must be reequipped from scratch. Using the **SET:ICDR;CONFIG** message with the NOINIT option specified.
REPT ICDR DISK READER a a = Text phrase	1. Seek technical assistance. 2. Save printouts for analysis and information purposes.
REPT ICDR TELEPROCESSING SUMMARY (Format 2)	1. Use the **OP:ICDR;TELEPROCESSING** input message to print out the summary information

TABLE A (Contd)	
MESSAGE	**CORRECTIVE ACTION**
REPT ICDR TELEPROCESSING FAILED TO ATTACH TO PAS	1. Contact technical support group and request a backup copy of /ama/INftp be moved from broot to root.
REPT ICDR TELEPROCESSING ICDR DATA UNREADABLE NEXT PARTITION OOS	1. Check to see if the disk pair being read is duplex failed. If so, the duplex fail condition must be resolved before teleprocessing can continue. 2. If the disk pair is not duplex failed, the special device file name for the next partition does not exist. In this case, enter the OP:ICDR;MAPS input message to determine the current read partition. Then, enter the OP:ICDR;CONFIG input message; and look for the read partition in the output. The printout also gives the special device file name for the partition. This name should be used to recreate the special device file.
REPT AMA FORMATTER ICDR SDS PTRS ERROR LOAD a UNLOAD b REPT AMA FORMATTER ICDR SDS SAVE ERROR	1. If this problem persists, contact technical support group and request a backup copy of /ama/AMformat be moved from the broot partition to the root partition. 2. Use the OP;STATUS;PROCESS,ALLKERNS input message to get the process id of /ama/AMformat. (In the UTID column of the printout, AMformat is 0x625.) 3. Use the process id from Step 2 to kill AMformat unconditionally using the STOP:EXC:ANY,PID a,UCL message. 4. If the problem still persists, boot to APS backup database [DLP-539].
REPT ICDR CONFIG FILE a a = Text phase	If text phrase "a" is one of the following: OC CONFIG FILE COULD NOT BE OPENED/READ/WRITTEN IC CONFIG FILE COULD NOT BE OPENED/READ/WRITTEN ICDR CONFIG FILE COULD NOT BE OPENED/READ/WRITTEN CONFIG FILE COULD NOT BE OPENED/READ/WRITTEN Perform the following action: Restore the specified configuration file from the backup copy. If the message does not specify which stream's configuration file caused the problem, restore the configuration of the stream (ICDR, OC, or IC) named in the first line of the output message.

TABLE A (Contd)	
MESSAGE	**CORRECTIVE ACTION**
REPT ICDR CONFIG FILE a a = Text phase	If text phrase "a" is one of the following: COULD NOT ATTACH TO ECD DATABASE COULD NOT RETRIEVE ECD ORIGIN RECORD COULD NOT RELEASE ECD DATABASE COULD NOT OBTAIN INFORMATION ABOUT THE PARTITION INVALID SPECIAL DEVICE TYPE DEVICE DOES NOT HAVE MAJOR/MINOR NUMBERS COULD NOT RETRIEVE MDCT RECORD COULD NOT RETRIEVE UCB RECORD NO UCB FOR THE DEVICE Perform the following action: These indicate problems in the ECD or an invalid device file for the partition being equipped. Seek technical assistance to check the device files and to verify that the ECD information for the AMA disks is correct. If text phrase "a" is one of the following: INVALID ERROR CODE RECEIVED VTOC FILE COULD NOT BE OPENED VTOC FILE COULD NOT BE READ Perform the following action: Seek technical assistance.
REPT ICDR DISK MAPS a a = Text phrase	If text phrase "a" is one of the following: TEMPORARY FILE COULD NOT BE CREATED Perform the following action: Seek technical assistance to remove any unnecessary files under the /tmp directory.

TABLE A (Contd)	
MESSAGE	**CORRECTIVE ACTION**
REPT ICDR DISK MAPS a a = Text phrase	If text phrase "a" is one of the following: COULD NOT OPEN CONFIG FILE COULD NOT READ CONFIG FILE Perform the following action: Restore the ICDR configuration file from the backup copy. If text phrase "a" is one of the following: GLOBAL MAP NOT AVAILABLE GLOBAL MAP NOT READABLE Perform the following action: Restore the ICDR global map from the backup copy. If text phrase "a" is one of the following: DISK MAP UNAVAILABLE DISK MAP NOT READABLE Perform the following action: No action is required since the INdwriter will attempt to correct this situation the next time it reads the disk map.



CLEAR ICDR TELEPROCESSING PROBLEM DISPLAYED AT 1B PROCESSOR MAINTENANCE TERMINAL AND PRINTER

TABLE A

MESSAGE	CORRECTIVE ACTION
REPT AMA/ICDR TRANSFER TO 3B HALTED DATA MAY SOON BE LOST REPT AMA/ICDR 1B TRANSFER BUFFER OVERFLOW AMA/ICDR INFORMATION RECORDING HALTED	1. Check to see if any of the following conditions are present: - 3B duplex failed - 3B AMA disks are duplex failed - APIs are duplex failed - AU bus is duplex failed - ICDR disk partition is 100% full. If any of the above conditions are present, follow existing procedures to clear the problem. 2. If the above conditions are not present, use the **OP:STATUS:PROCESS,ALLKERNS** input message to get the process id of /ama/AMformat and /ama/INdwriter. (In the UTID column of the printout, AMarcvr is 0x624, AMformat is 0x625, and INdwriter is 0x671.) 3. Verify character position 3 of the SYSTYP field on the EAIOPT page of the 3B Computer MCRT is set to **"I"** by verifying SYSTYPE field data [DLP-531]. In either case, go to the next step. 4. Enter the **STOP:EXC:ANY** input message to kill /ama/INdwriter and /ama/AMformat. 5. Use the **OP:STATUS:PROCESS,ALLKERNS** input message to make sure both processes are running. If any of the processes are not running, restart 3B computer processes [DLP-537]. Obtain technical assistance immediately if any processes are still not running. If both processes are running, no further actions are necessary. NOTE: When data begins moving through the system again, the **REPT AMA/ICDR RECORDING RESTARTED** message will be printed.
1B audit message with the following phrase: AMA/ICDR INTERFACE REINITIALIZED	1. If this happens more than once in a few minutes, seek technical assistance immediately. 2. Save printouts for analysis purposes.

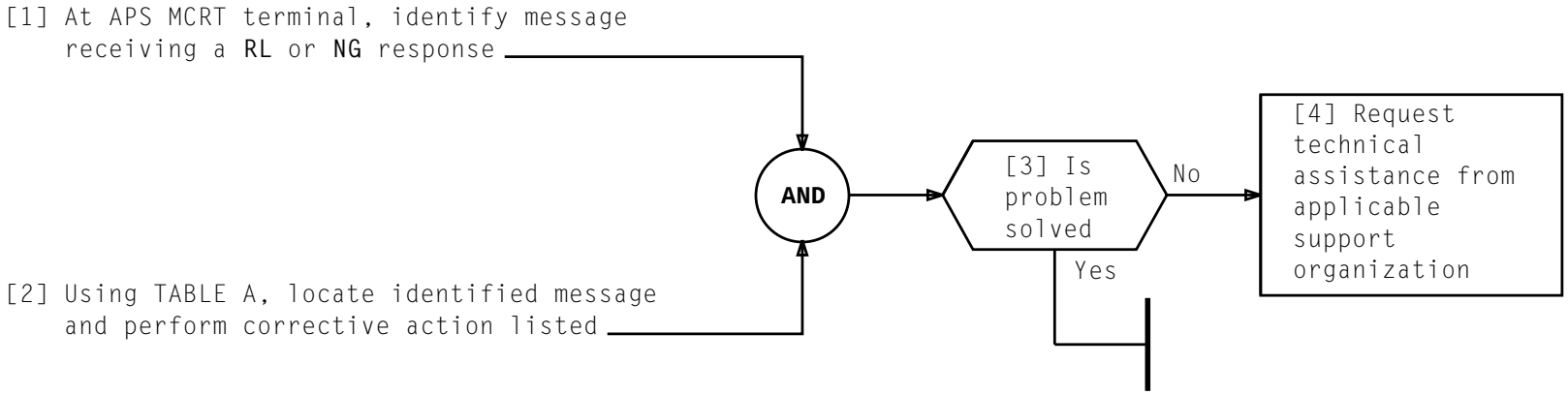


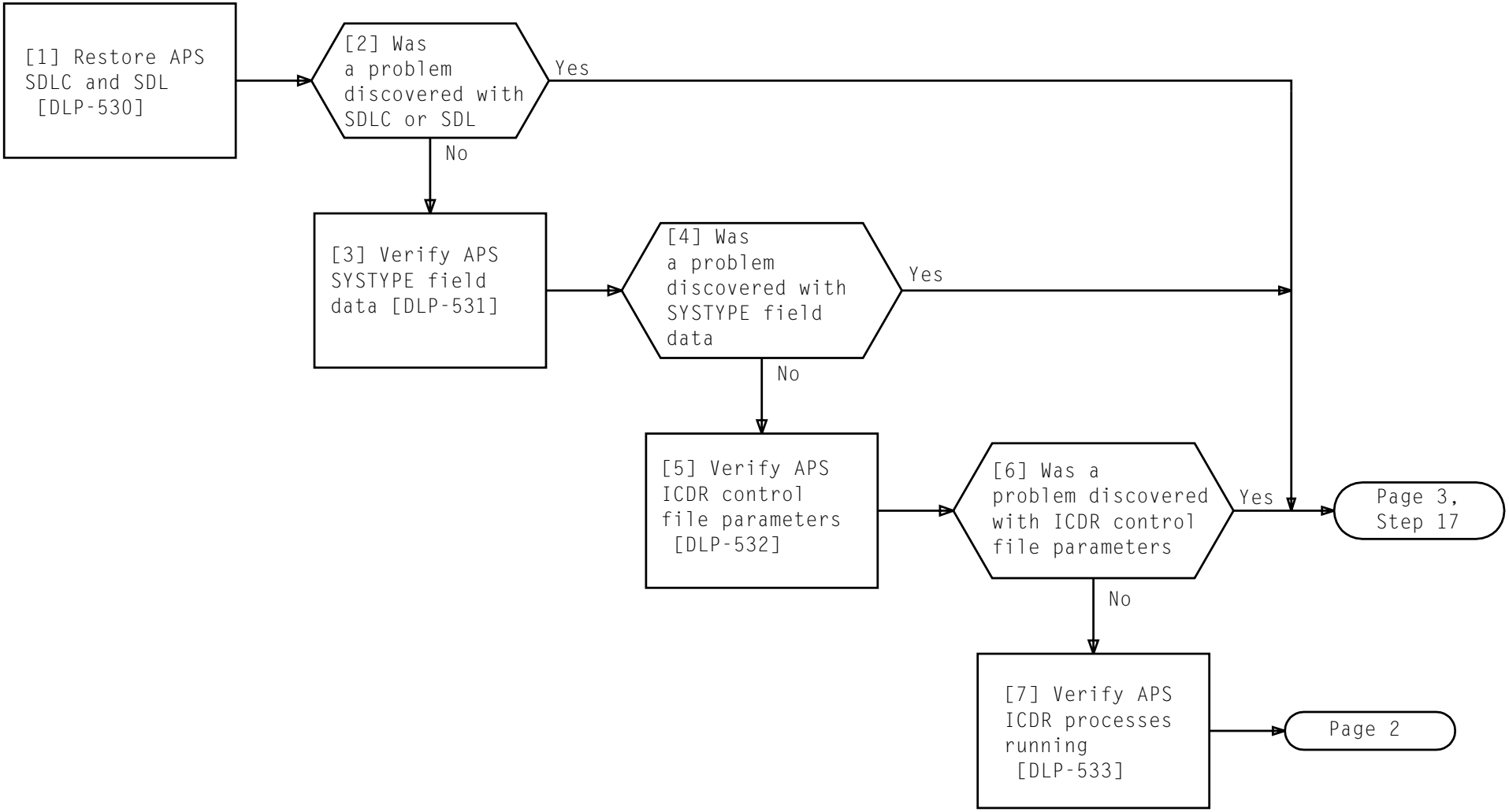
TABLE A

INPUT MESSAGE	RESPONSE	CORRECTIVE ACTION
ALW:ICDR;SESSION INH:ICDR;SESSION SET:ICDR;CONTROL OP:ICDR;TELEPROCESSING OP:ICDR;DISK OP:ICDR;SESSION OP:ICDR;CONTROLFILE OP:ICDR;CONFIG OP:ICDR;MAPS OP:ICDR;RECORDING	RL	1. Verify character position 3 of the SYSTYPE field on the EAI page of the APS MCRT is set to "I" by verifying SYSTYPE field data [DLP-531]. In either case, go to the next step. 2. Use the OP:STATUS:PROCESS,ALL message to obtain the process id of /ama/INmon. (In the UTID column of the printout, INmon is 0x674.) If INmon is running, use the STOP:EXC:ANY,PID a,UCL message to kill it unconditionally. 3. Restart APS processes [DLP-537]. 4. After the REPT ICDR MONITOR INIT COMPLETE message appears, try the OP:STATUS:PROCESS,ALL input message again. 5. If the problem persists, obtain technical assistance.
SET:ICDR;RECORDING	RL	1. Enter CLR:FILESYS:FILE,FN "/amafiles/recind" message to delete the recording indicator file 2. Create a new /amafiles/recind file. 3. Reenter SET:ICDR;RECORDING message. 4. Request technical support to copy "/cft/shl/cmds/SET/ICDR/RECORDING" from broot to root 5. Repeat from Step 1

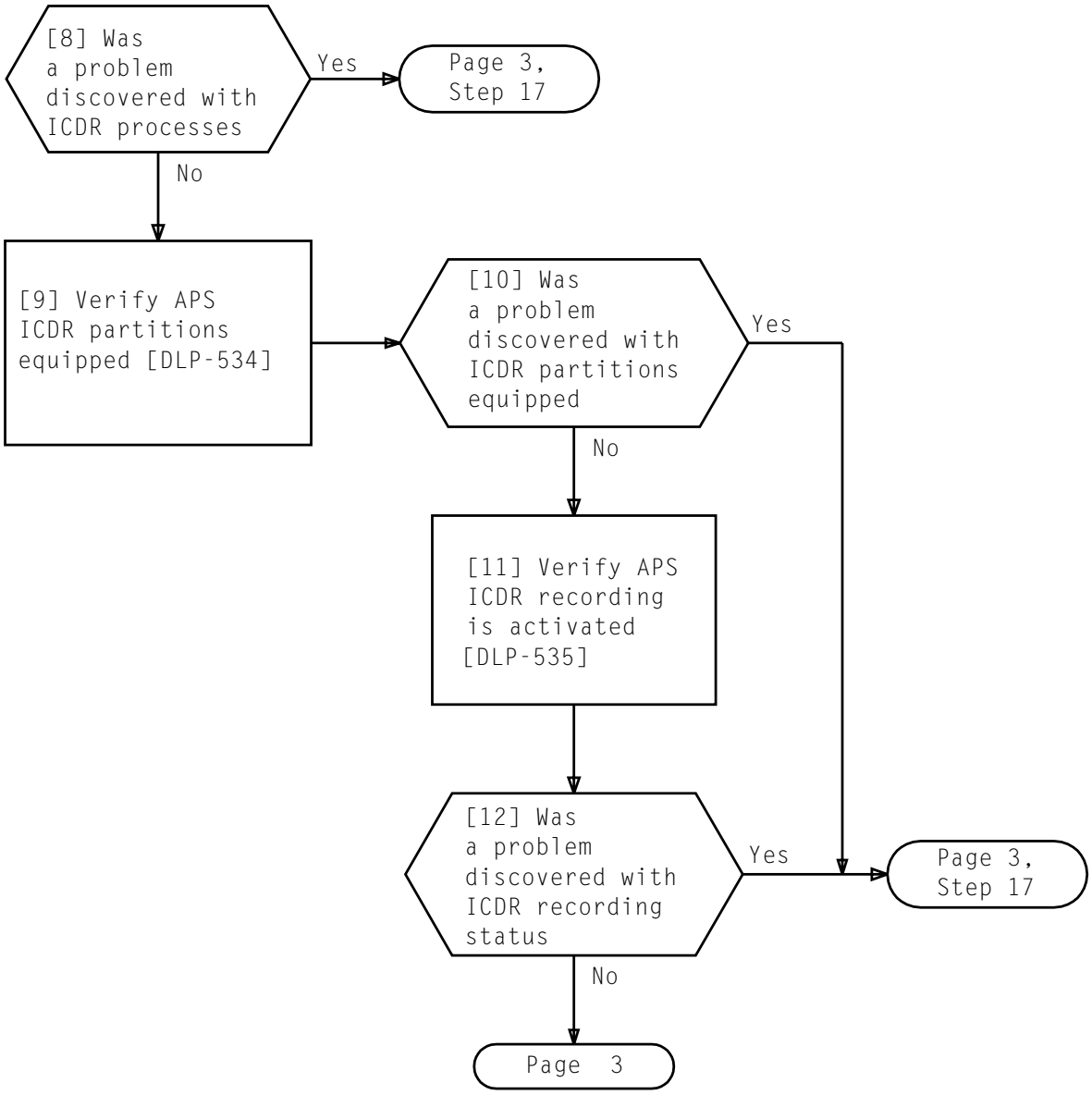
CLEAR AMA/ICDR INPUT MESSAGE RL OR NG RESPONSE PROBLEM

TABLE A (Contd)		
INPUT MESSAGE	**RESPONSE**	**CORRECTIVE ACTION**
SET:AMA;STREAM	RL	1. Use input message CLR:FILESYS:FILE,FN"a" to delete the file. 2. Create a new file using the SET:AMA;STREAM input message. 3. If problem persists, contact next higher technical support group
ABORT:AMATAPE ALW:AMA;AUTOST ALW:AMA;SESSION COPY:AMATAPE INH:AMA;AUTOST INH:AMA;SESSION OP:AMA;CONFIG OP:AMA;CONTROLFILE OP:AMA;DISK OP:AMA;SESSION OP:AMA;TELEPROCESSING SET:AMA;CONTROL STOP:AMATAPE VER:AMATAPE	RL	1. Use the OP:STATUS:PROCESS,ALL input message to get the process id of AMmon. 2. If AMmon is running, use the STOP:EXC:USER input message to kill AMmon. 3. If AMmon is not running, do an INIT:ULARP and OP:STATUS:PROCESS,ALL. 4. If the problem persists, contact next higher technical support group **NOTE:** Any tape or teleprocessing session that was in progress will have to be restarted after the AMmon starts. Also any AMA tape that was aborted can be saved and reused after the new expiration date on tape is met.

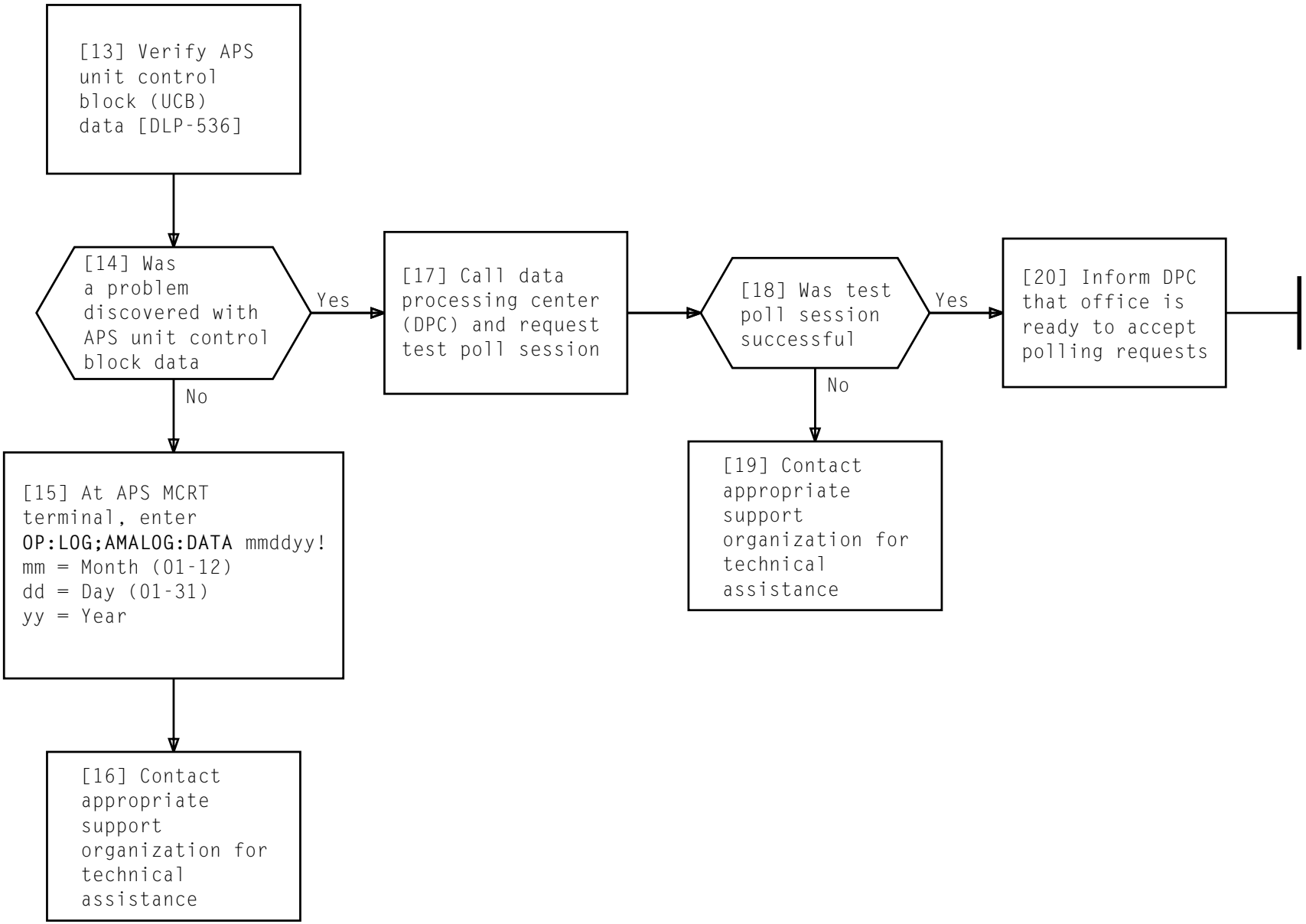
TABLE A (Contd)		
INPUT MESSAGE	**RESPONSE**	**CORRECTIVE ACTION**
ABORT:AMATAPE ALW:AMA;AUTOST ALW:AMA;SESSION COPY:AMATAPE INH:AMA;AUTOST INH:AMA;SESSION OP:AMA;CONFIG OP:AMA;CONTROLFILE OP:AMA;DISK OP:AMA;SESSION OP:AMA;TELEPROCESSING SET:AMA;CONTROL STOP:AMATAPE VER:AMATAPE	NG	1. Check stream value entered 2. Use OP:AMA;STREAM message to determine office configuration 3. Retype message with the correct stream specified 4. If stream value is invalid, use the SET:AMA;STREAM to set the stream to the correct value



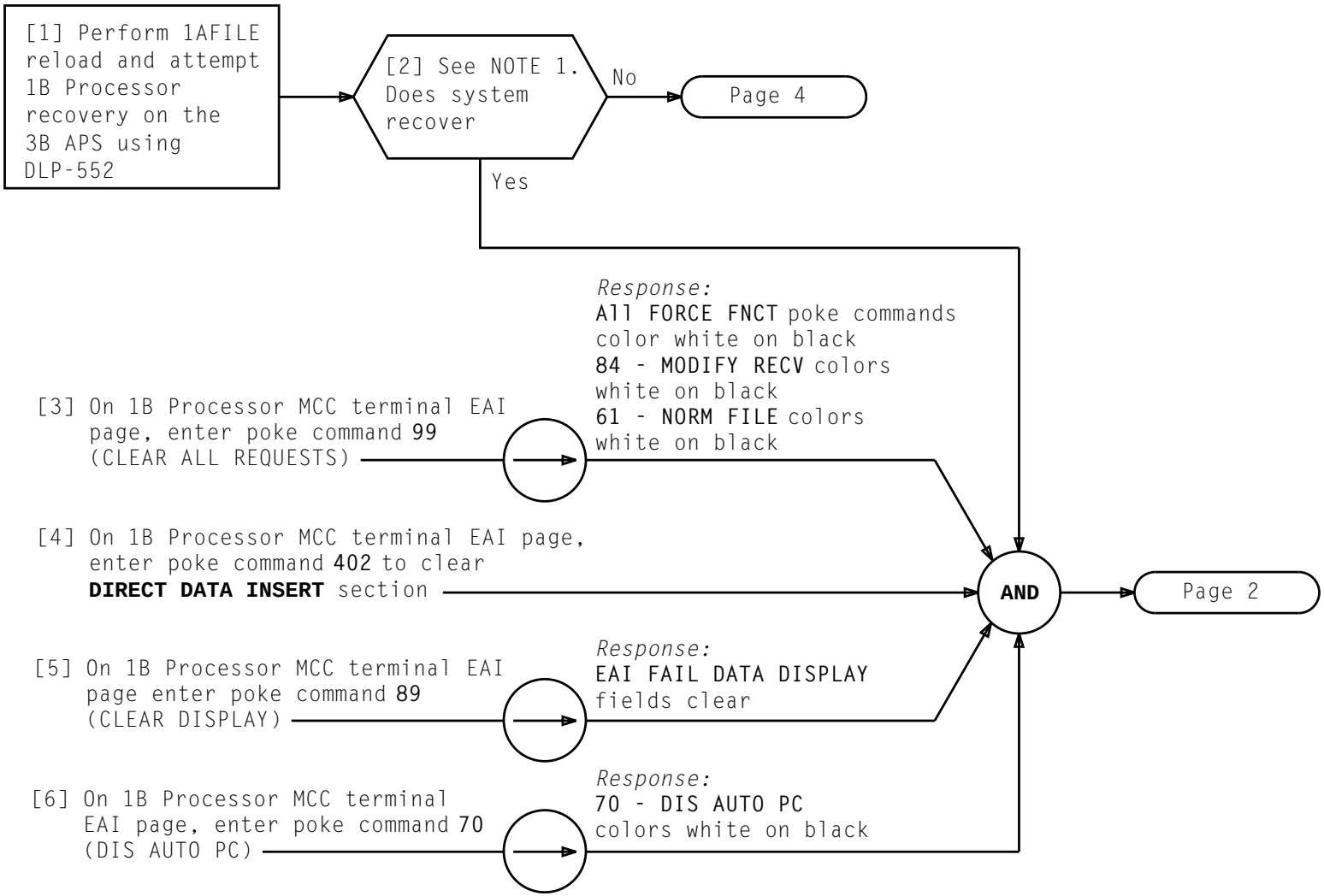
CLEAR ICDR TELEPROCESSING PROBLEM



CLEAR ICDR TELEPROCESSING PROBLEM



CLEAR ICDR TELEPROCESSING PROBLEM



NOTE 1

System has recovered if following conditions are met on 1B Processor MCC terminal:

A. EAI page - under **PC Progression, CMPL** text is lighted black on green
B. EAI page - under **PHASE IN PROG** text has not lighted in last few minutes
C. SYSTEM STATUS page - under **SYSTEM ACTIVITY**, data displayed is normal for time of day (3 minutes approximately for data update)

RECOVER 1B PROCESSOR BY PERFORMING ATTACHED PROCESSOR SYSTEM (APS) 1AFILE RELOAD USING TAPES

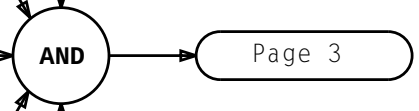
[7] Restore attached processor system (APS) direct link nodes (DLNs) using DLP-563

[8] Contact next higher support group to determine save time when system is stable and operating properly before restoring conditions following System Reinitialization (SR). All earlier recent changes not on the ODA tape that was loaded, can start to be entered at this time. Continue at Step 9 while recent changes are being entered

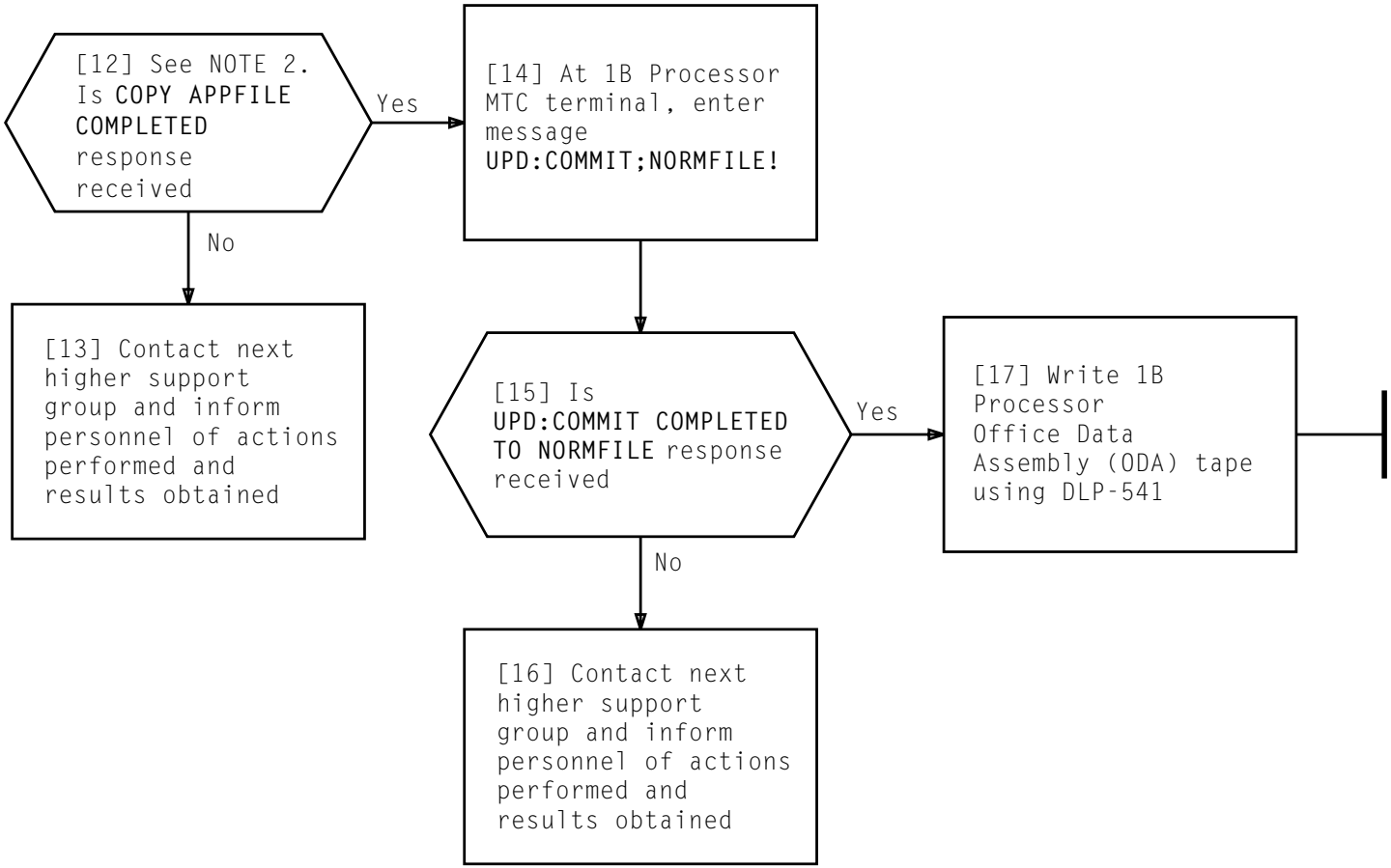
[9] Restore 1B Processor conditions following the SR using DLP-584

[10] All earlier recent changes not on the ODA tape that was loaded, should be entered at this time. Do not continue until all recent changes are entered

[11] At 1B Processor MTC terminal, enter message **COPY:APPFILE NORM;UCL!** to copy NORMAL file to UPDATE file

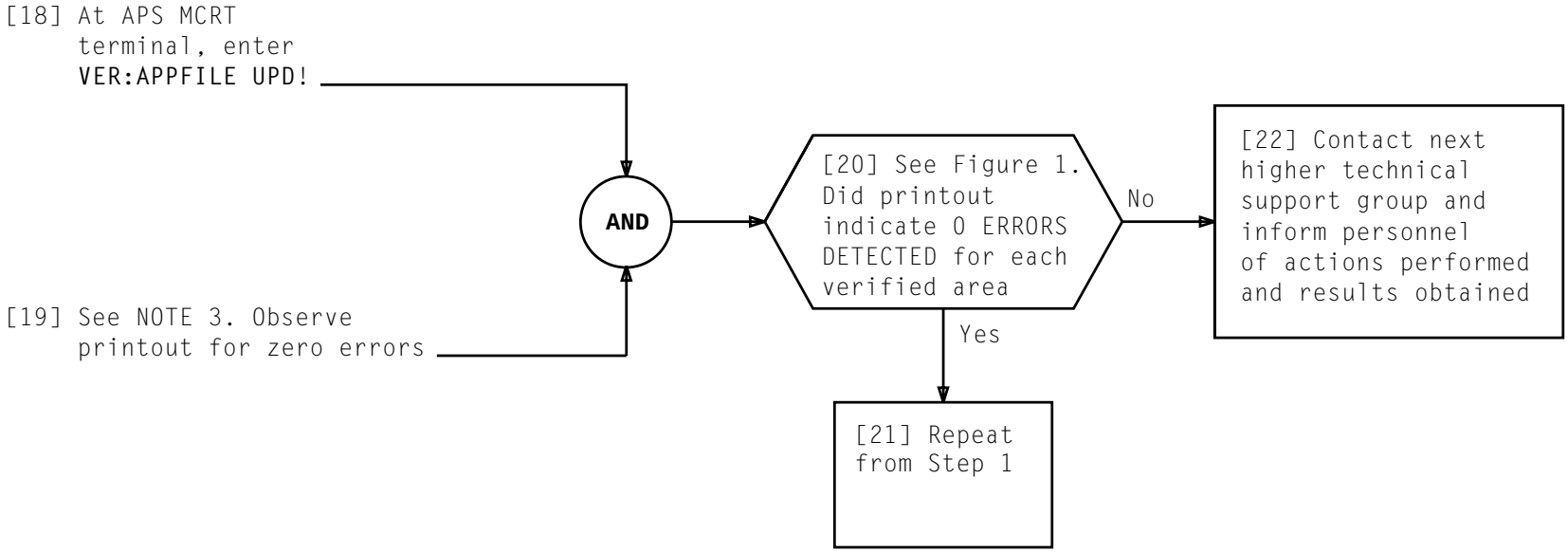


RECOVER 1B PROCESSOR BY PERFORMING ATTACHED PROCESSOR SYSTEM (APS) 1AFILE RELOAD USING TAPES



NOTE 2
Copy will take approximately 5 minutes to complete

RECOVER 1B PROCESSOR BY PERFORMING ATTACHED PROCESSOR SYSTEM (APS) 1AFILE RELOAD USING TAPES



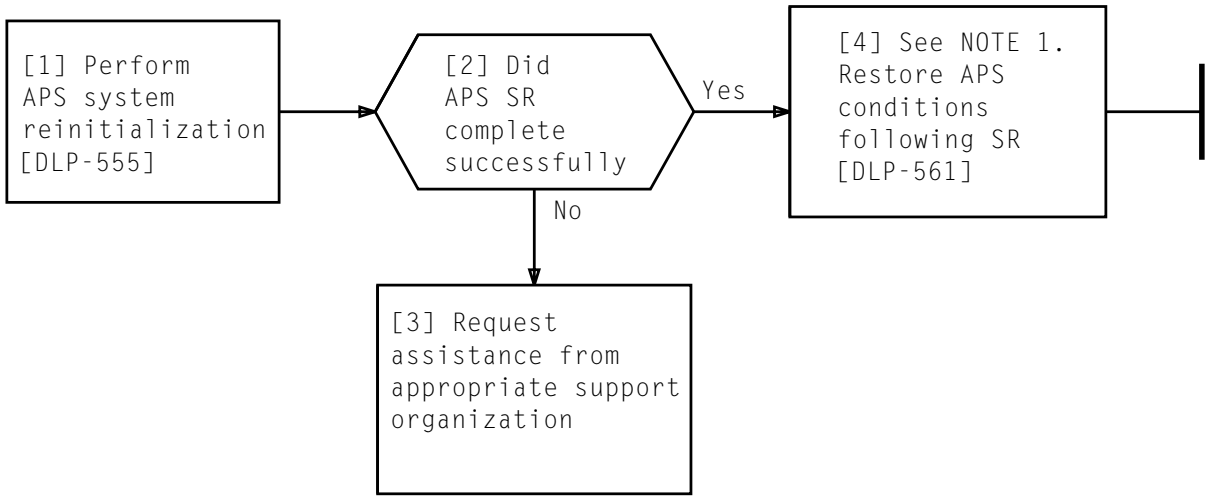

```
VER:APPFILE STARTED, /dev/lafileX (X = 0 or 1)
VER:APPFILE /dev/lafileX MERGE AREA, MSG IP, 0 ERRORS DETECTED
VER:APPFILE /dev/lafileX ID 1, MSG IP, 0 ERRORS DETECTED (Generic Area)
VER:APPFILE /dev/lafileX ID 2, MSG IP, 0 ERRORS DETECTED (Library Area)
```

```
VER:APPFILE /dev/lafileX ID 11, MSG IP, 0 ERRORS DETECTED (RC Rollback Area)
VER:APPFILE /dev/lafileX ID 12, MSG IP, 0 ERRORS DETECTED (Traffic and Plant Management Area)
VER:APPFILE /dev/lafileX ID 17, MSG IP, 0 ERRORS DETECTED (Paged Program Area)
VER:APPFILE /dev/lafileX ID 20, MSG IP, 0 ERRORS DETECTED
(ODA Translations and Parameters in File Segment 1 With TWRP)
VER:APPFILE /dev/lafileX ID 21, MSG IP, 0 ERRORS DETECTED
(ODA Translations and Parameters in File Segment 2 With TWRP)
VER:APPFILE /dev/lafileX COMPLETED, 0 ERRORS DETECTED
```

FIG. 1 – Sample Printout of Verification Output Messages Indicating Zero Errors

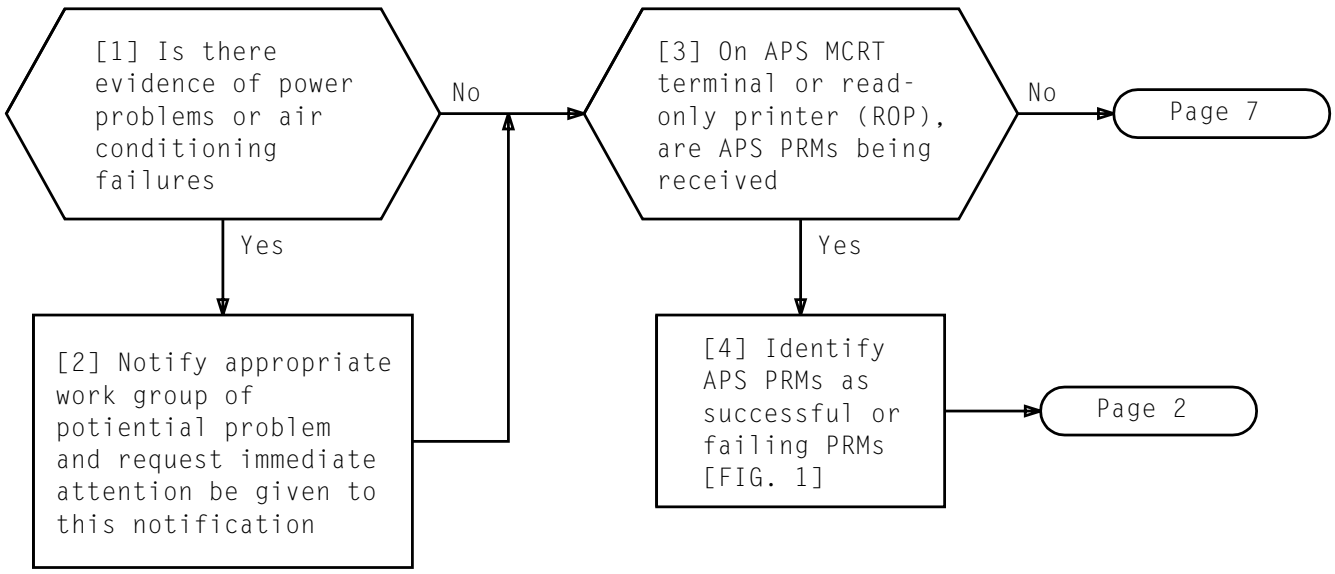
NOTE 3
It takes approximately 30 to 45 minutes for verification to complete

RECOVER 1B PROCESSOR BY PERFORMING ATTACHED PROCESSOR SYSTEM (APS) 1AFILE RELOAD USING TAPES



NOTE 1
Contact technical support group and determine safe time when system is stable and seems to be operating properly before restoring conditions following system reinitialization (SR).

RECOVER ATTACHED PROCESSOR SYSTEM (APS) BY PERFORMING APS SYSTEM REINITIALIZATION (SR)



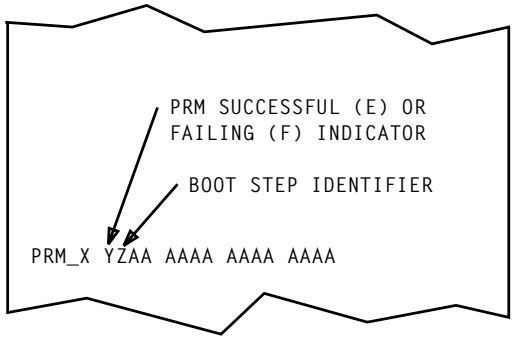
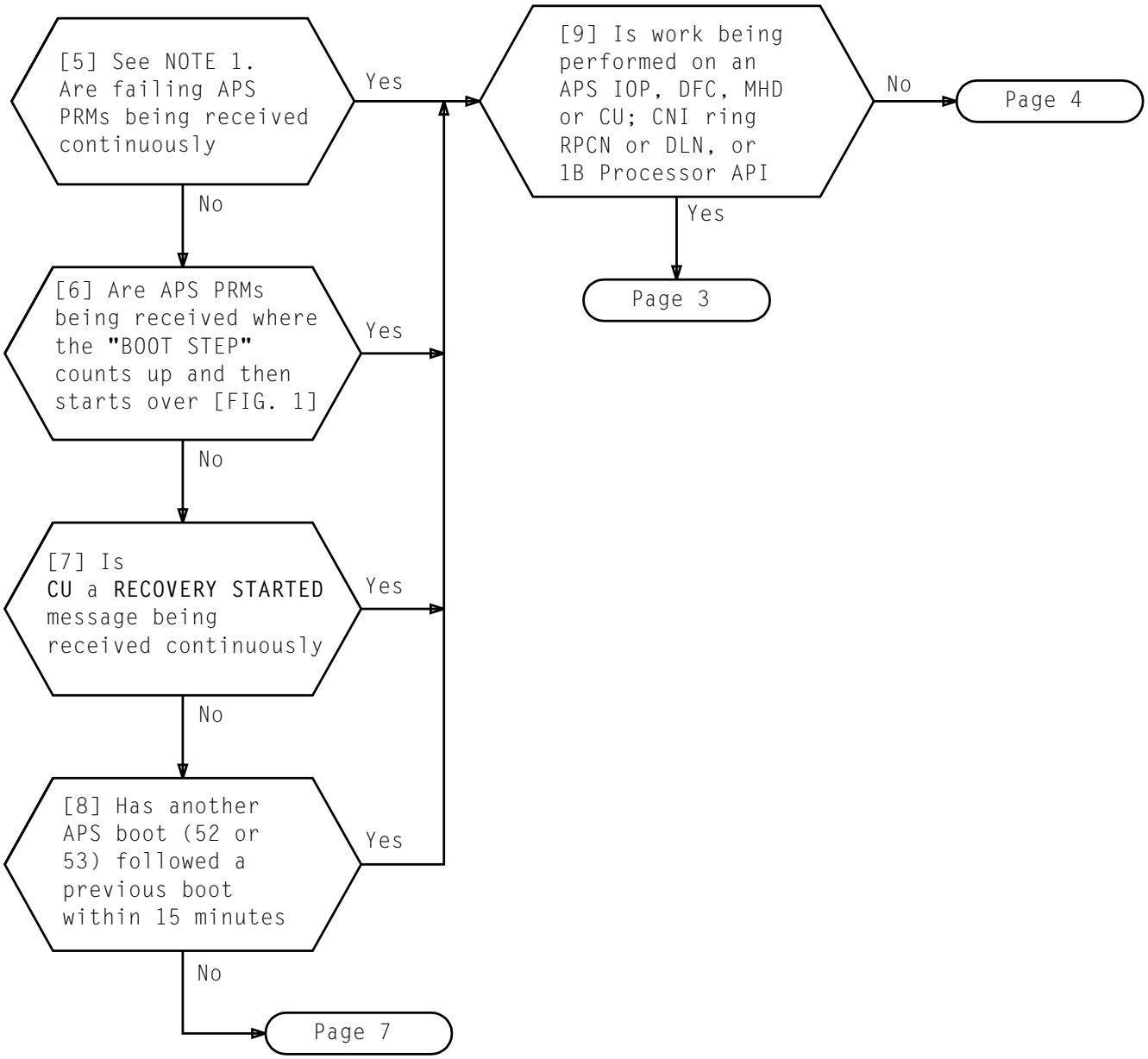
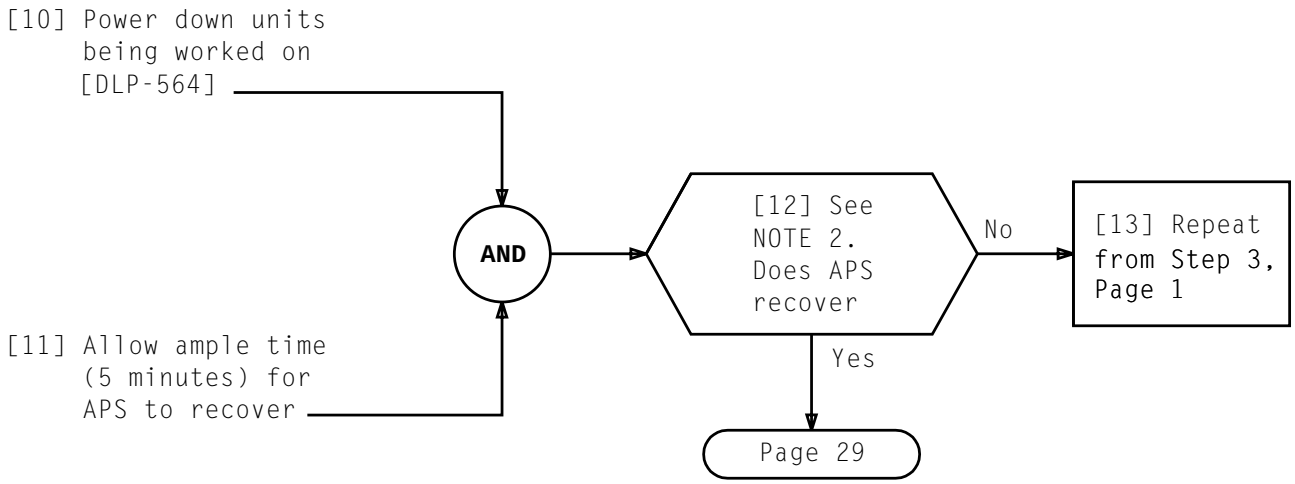


FIG. 1 — Sample Layout of Attached Processor System (APS) Processor Recovery Message (PRM)



NOTE 1
One or two failing PRMs among many successful PRMs does not indicate system sanity is in jeopardy

PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE

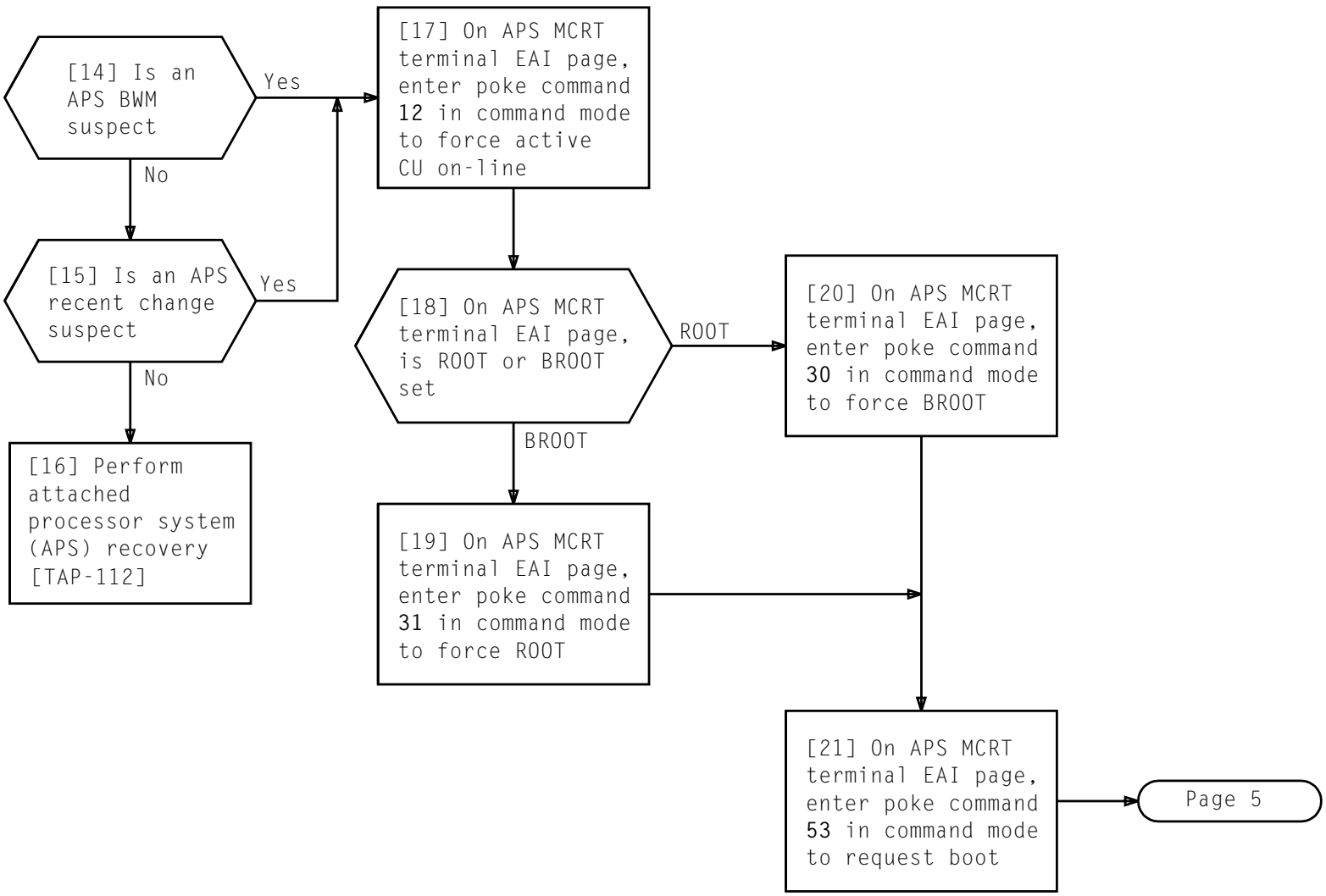


NOTE 2

System has recovered if following conditions have been met:

A. On APS MCRT Terminal SYS EMER INDICATOR is not lighted
B. On MCC panel PROCESSOR CONFIG COMPLETED lamp is lighted
C. No current recent change activity going on
D. PRMs are not being received continuously

PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE



PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE

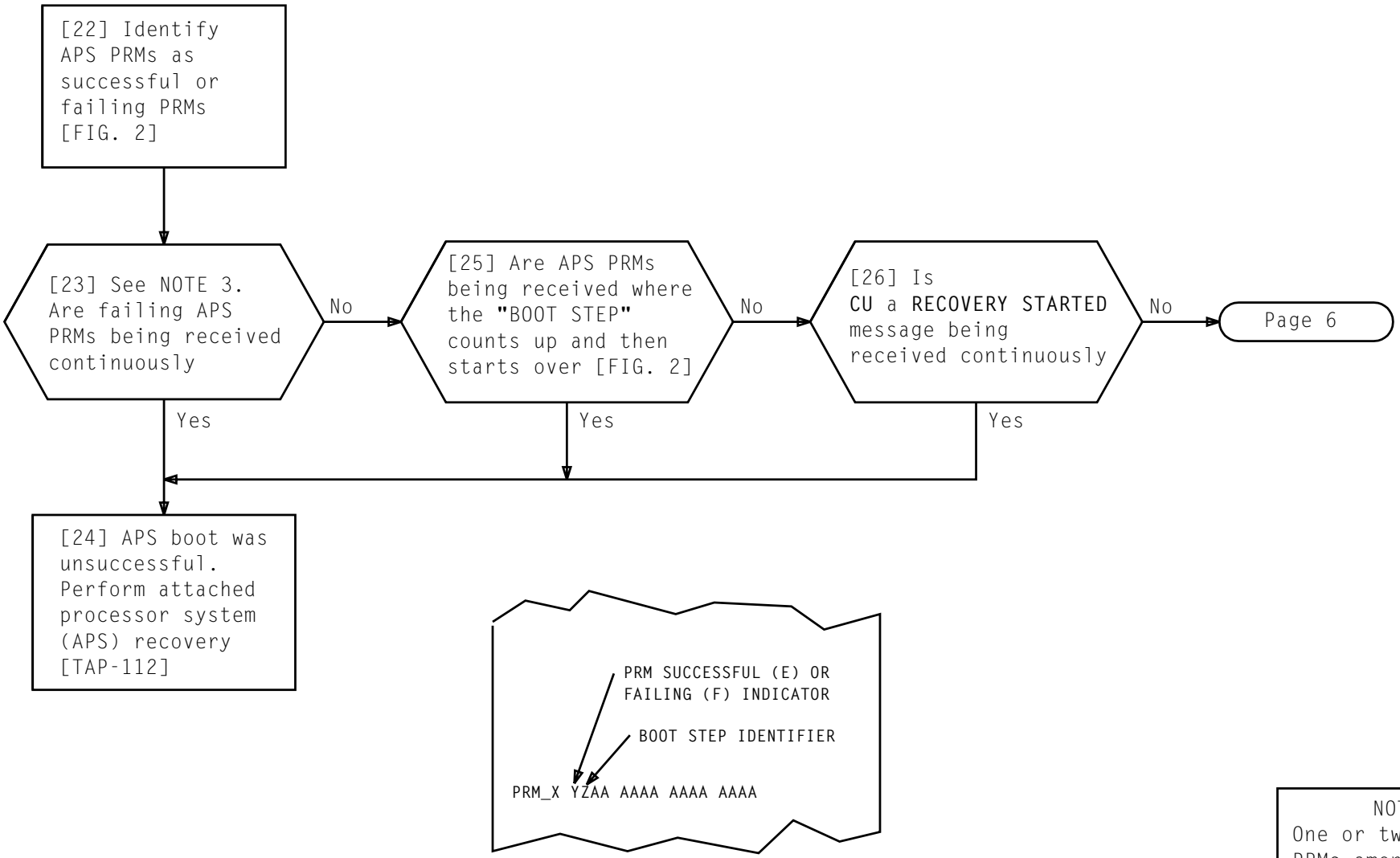
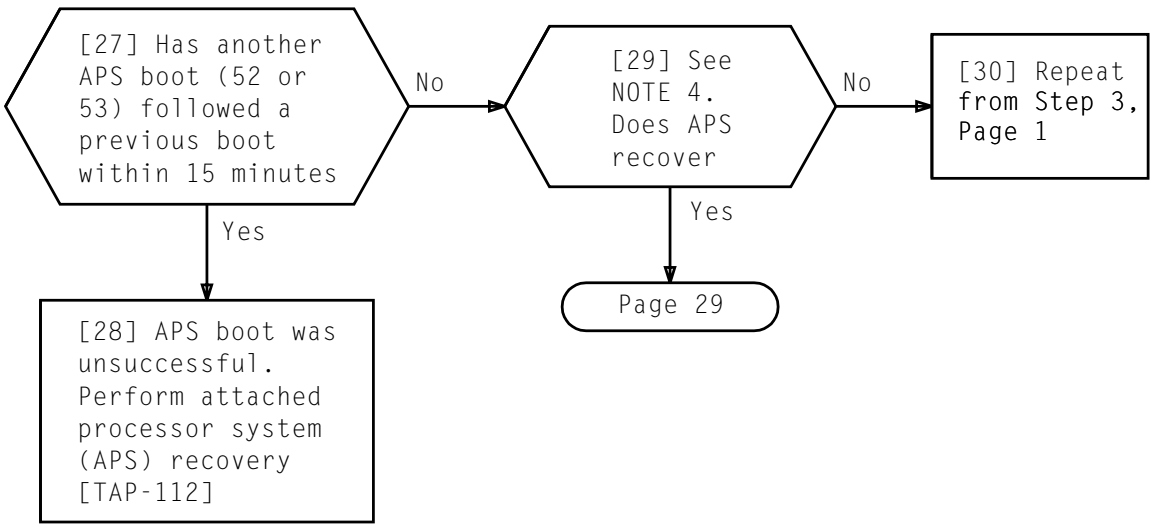


FIG. 2 – Sample Layout of Attached Processor System (APS) Processor Recovery Message (PRM)

NOTE 3
One or two failing PRMs among many successful PRMs does not indicate system sanity is in jeopardy

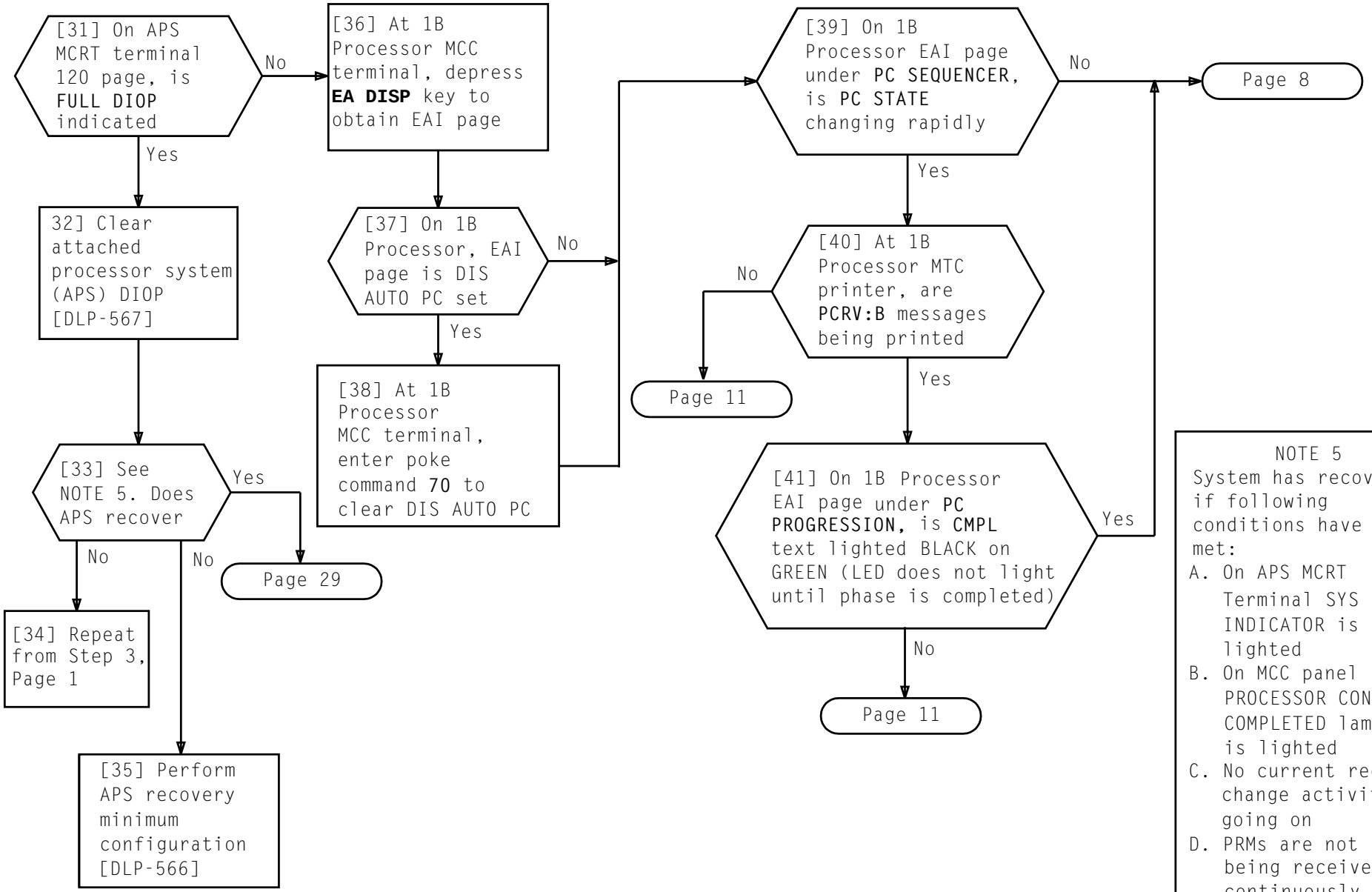
PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE



NOTE 4
System has recovered if following conditions have been met:

A. On APS MCRT Terminal SYS EMER INDICATOR is not lighted
B. On MCC panel PROCESSOR CONFIG COMPLETED lamp is lighted
C. No current recent change activity going on
D. PRMs are not being received continuously

PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE

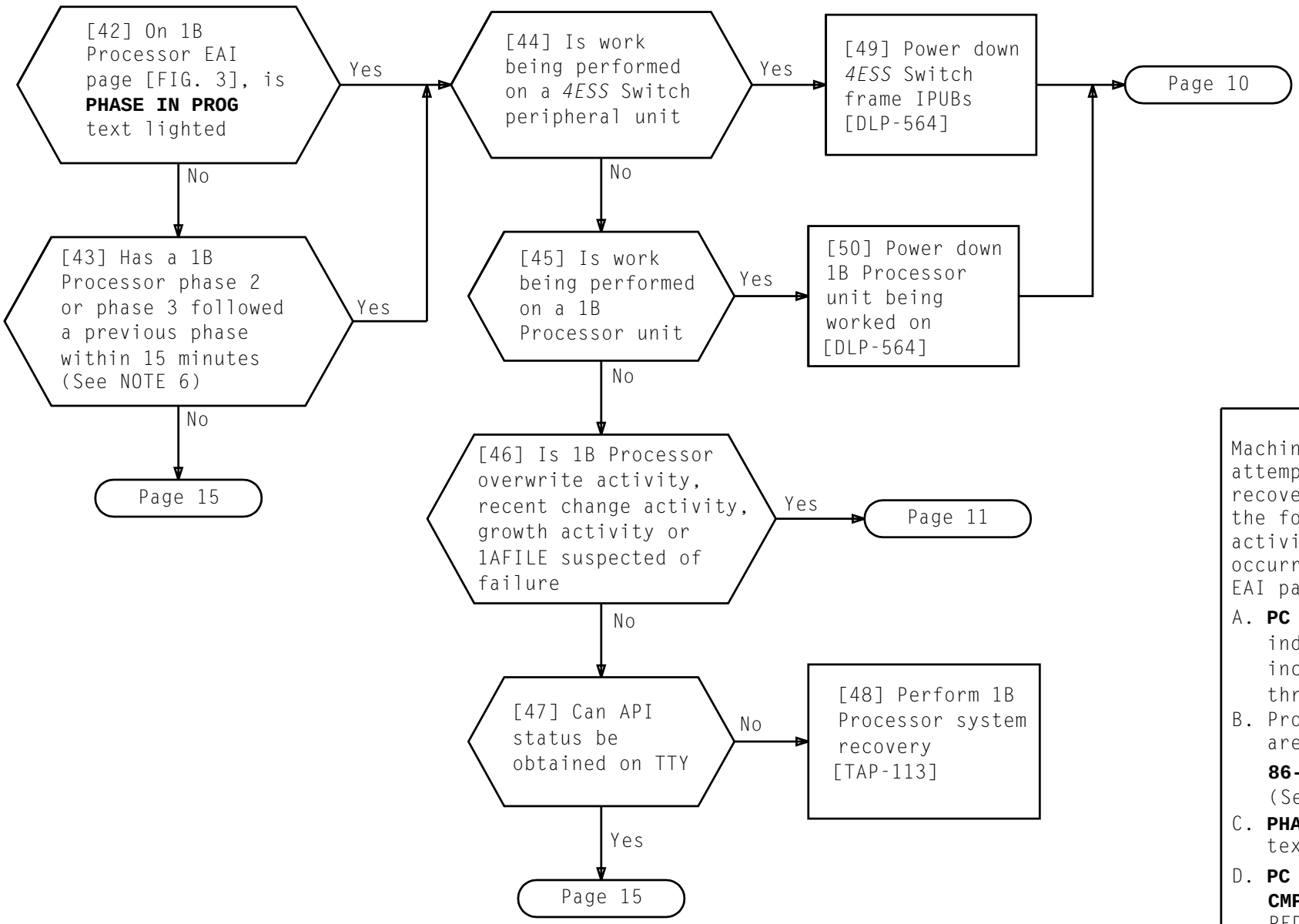


NOTE 5

System has recovered if following conditions have been met:

A. On APS MCRT Terminal SYS EMER INDICATOR is not lighted
B. On MCC panel PROCESSOR CONFIG COMPLETED lamp is lighted
C. No current recent change activity going on
D. PRMs are not being received continuously

PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE

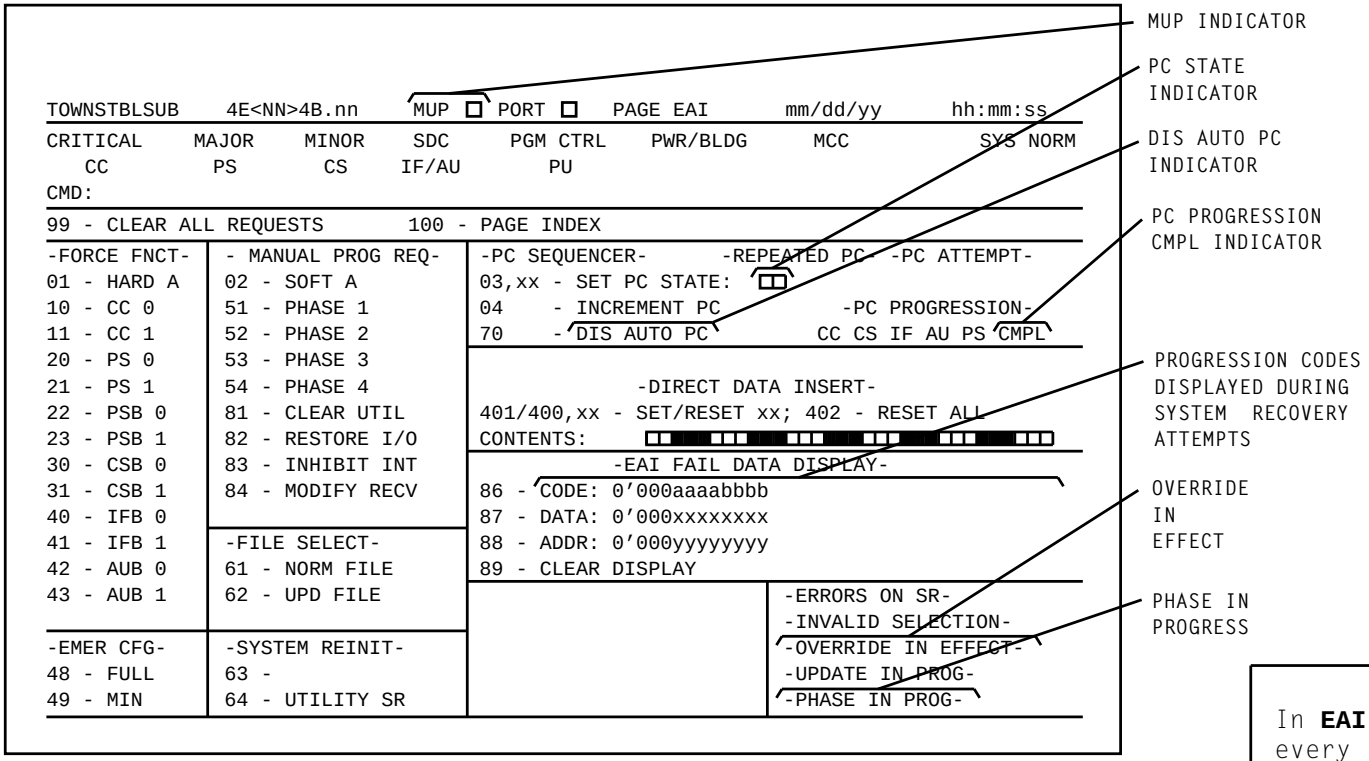


NOTE 6

Machine is attempting to recover if any of the following activities are occurring on the EAI page [FIG. 1]:

A. **PC STATE** indicator is incrementing through PC States
B. Progression codes are advancing in **86-CODE** field (See NOTE 7)
C. **PHASE IN PROGRESS** text is lighted
D. **PC PROGRESSION CMPL** text lighted RED

PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE



MUP INDICATOR

PC STATE INDICATOR

DIS AUTO PC INDICATOR

PC PROGRESSION CMPL INDICATOR

PROGRESSION CODES DISPLAYED DURING SYSTEM RECOVERY ATTEMPTS

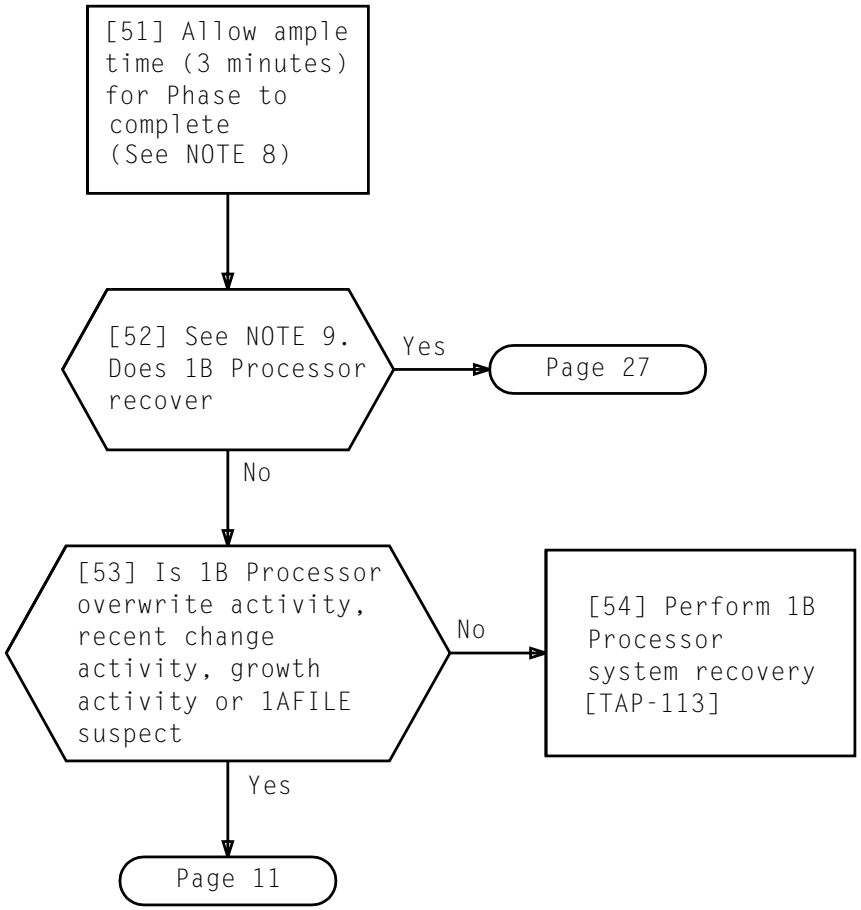
OVERRIDE IN EFFECT

PHASE IN PROGRESS

FIG. 3 — Layout of 1B Processor MCC Terminal EAI Page

NOTE 7

In **EAI FAIL DATA DISPLAY** section, for every PC attempt and every Hard A (01) request, the octal digits **"aaaa"** and **"bbbb"** [FIG. 1] in **86-CODE** field must begin incrementing within 10 seconds. **"bbbb"** indicates that 1B Processor is attempting to pump and **"aaaa"** indicates the memory range that is being pumped (this applies while **PC PROGRESSION - CMPL** lamp is not GREEN). **"aaaa"** and **"bbbb"** will continue to increment until **PC PROGRESSION - CMPL** colors BLACK on GREEN. If **"aaaa"** does not begin to increment and **"bbbb"** does begin to increment, this is a failure. If at any time **"aaaa"** stops incrementing for 30 seconds while **"bbbb"** continues to increment, this is a failure



NOTES

8. A phase is in progress if in **86-CODE** field, the leftmost "a" is alternating between 0 and 4 every half second
9. System has recovered if following conditions have been met:
   A. On 1B Processor MCC terminal EAI page under **PC PROGRESSION, CMPL** text is lighted BLACK on GREEN
   B. On 1B Processor MCC terminal EAI page, **PHASE IN PROG** text has not lighted in last few minutes
   C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY,** displayed data is normal for time of day (takes 3 minutes for data to be updated)
   D. Calls are being processed

PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE

[55] On 1B Processor MCC terminal EAI page, enter poke command **70** to set **DIS AUTO PC** (text lighted BLACK on PURPLE or YELLOW on RED)

[56] On APS MCRT, enter **INIT:APDRV:FPI!** to initialize Attached Processor Driver

[57] On 1B Processor MCC terminal EAI page, enter poke command **99** to clear all requests

[58] On 1B Processor MCC terminal EAI page, enter poke command **402** (**RESET ALL**) to set all DDI Keys to zero

[59] On 1B Processor MCC terminal EAI page, enter poke command **401, 16, 17, 18, 21, 24,** and **26** to set DDI Keys 16, 17, 18, 21, 24, and 26 to one

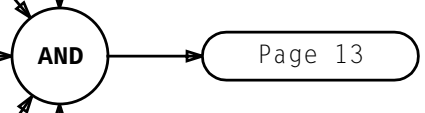
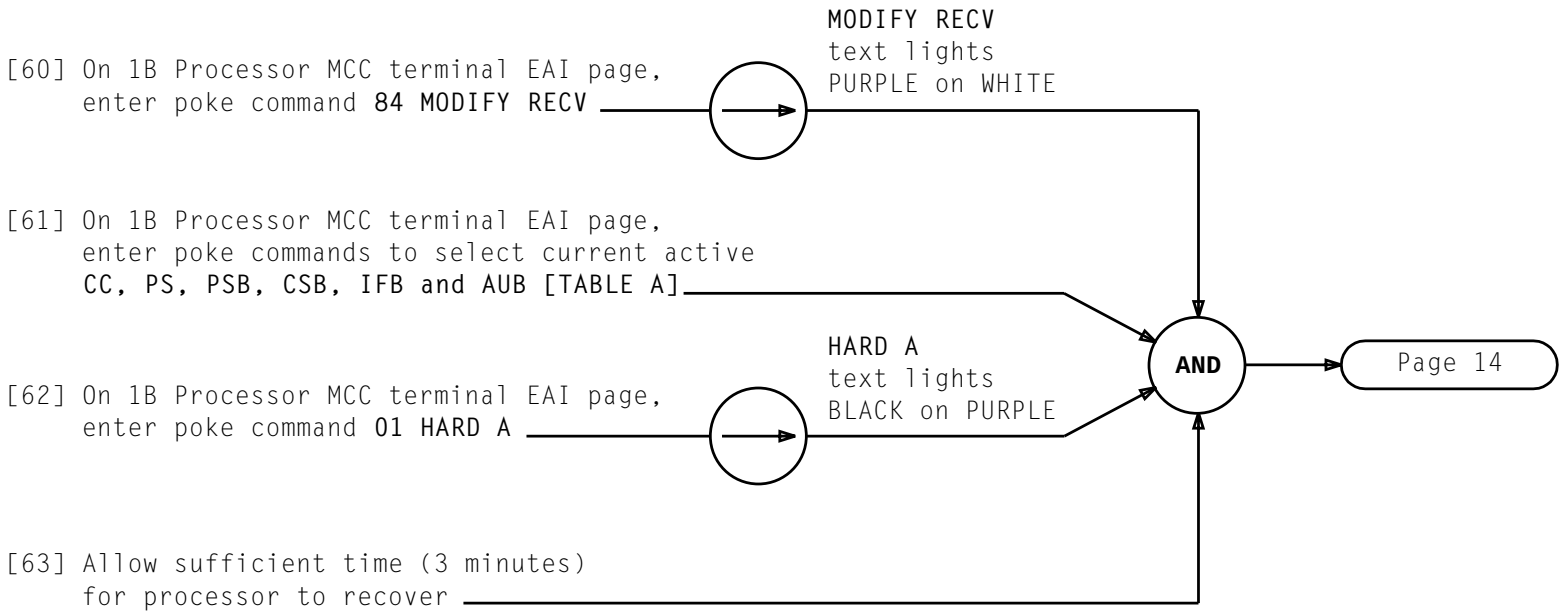
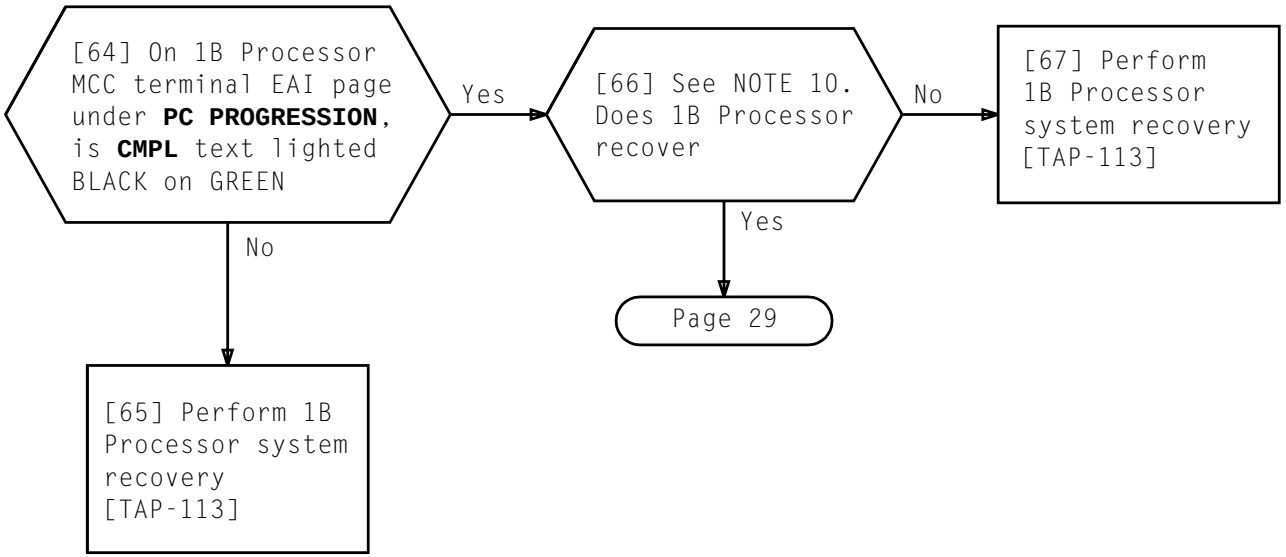


TABLE A
1B PROCESSOR MANUAL CONFIGURATIONS AND ASSOCIATED POKE COMMANDS (MUP 0)

MANUAL SEQUENCE	OVERRIDE CONTROL SELECTIONS												
	CC0	CC1	PS0	PS1	PSB0	PSB1	CSB0	CSB1	IFB0	IFB1	AUB0	AUB1	CHECK OFF ✓
1	10			21	22		30			41	42		
2	10			21	22		30			41	42		
3		11	20		22			31	40			43	
4		11	20		22			31		41		43	
5		11		21	22		30		40		42		
6	10		20			23		31		41		43	
7	10			21		23	30		40		42		
8	10			21	22			31		41		43	
9		11	20			23	30		40		42		
10	10		20		22		30		40		42		
11		11		21		23		31		41		43	

NOTE: All forces must be cleared before next manual configuration can be selected


[60] On 1B Processor MCC terminal EAI page, enter poke command 84 MODIFY RECV
MODIFY RECV text lights PURPLE on WHITE
[61] On 1B Processor MCC terminal EAI page, enter poke commands to select current active CC, PS, PSB, CSB, IFB and AUB [TABLE A]
AND
Page 14
HARD A text lights BLACK on PURPLE
[62] On 1B Processor MCC terminal EAI page, enter poke command 01 HARD A
[63] Allow sufficient time (3 minutes) for processor to recover

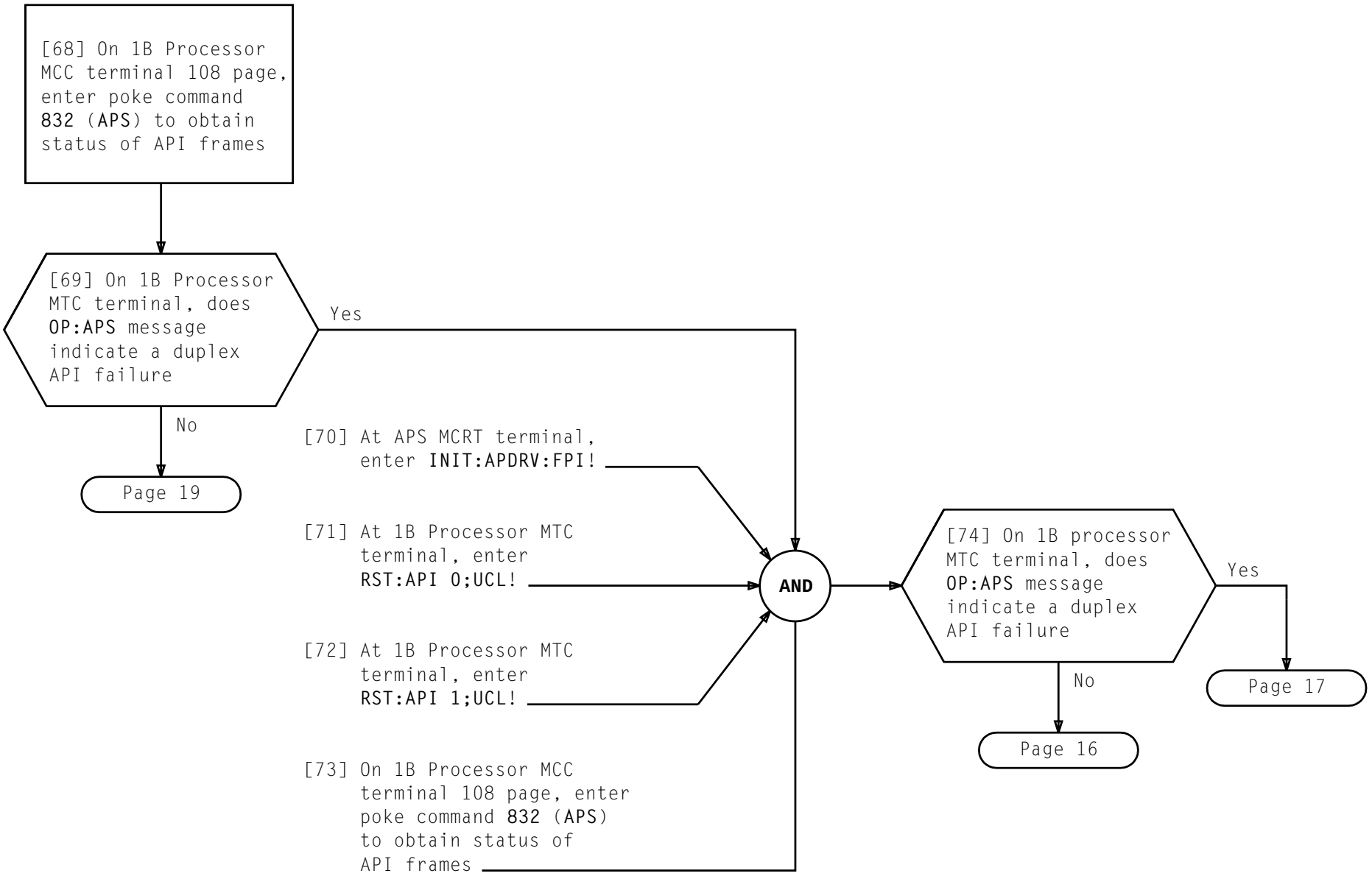


NOTE 10

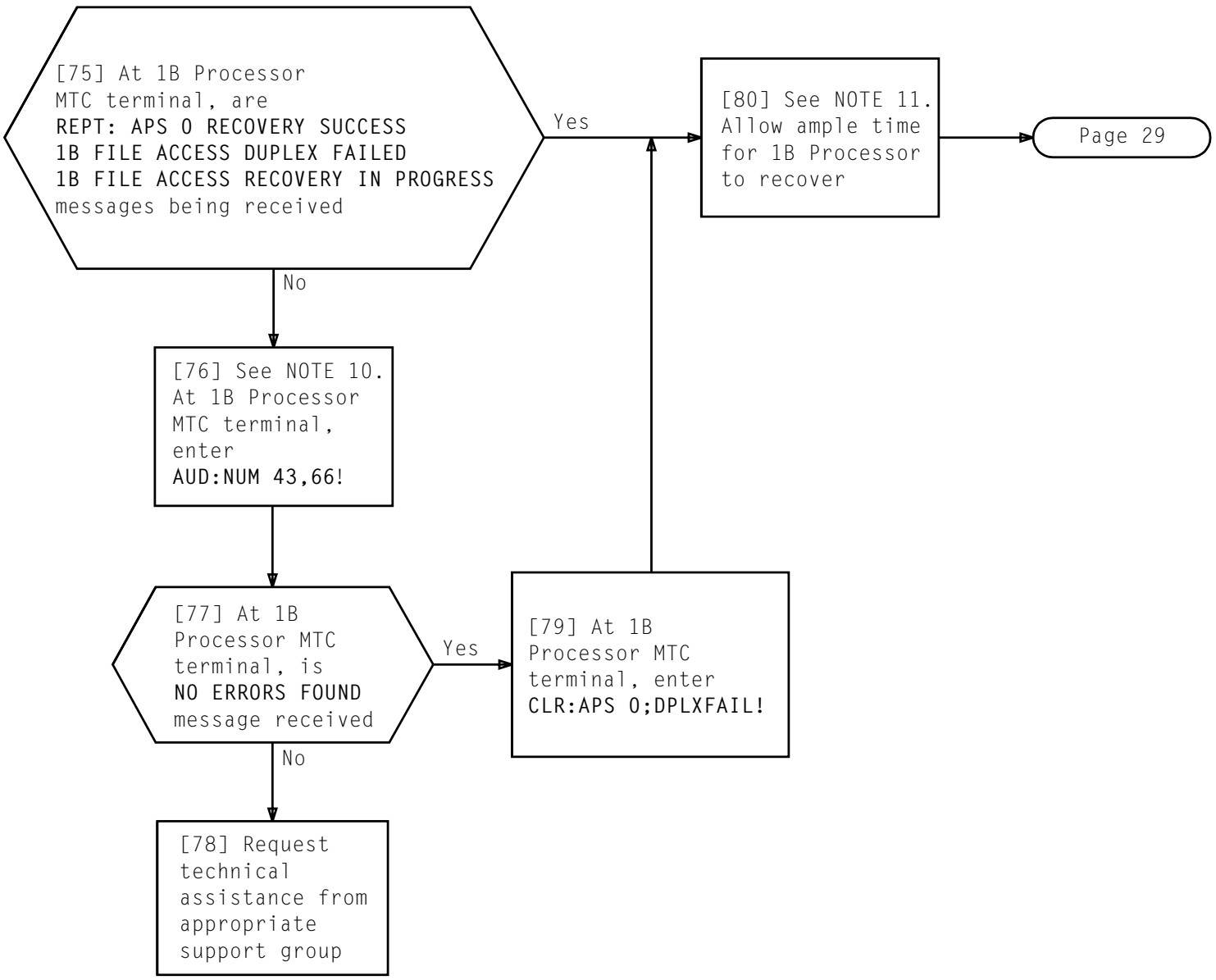
System has recovered if following conditions have been met:

A. On 1B Processor MCC terminal EAI page under **PC PROGRESSION, CMPL** text is lighted BLACK on GREEN
B. On 1B Processor MCC terminal EAI page, **PHASE IN PROG** text has not lighted in last few minutes
C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY**, displayed data is normal for time of day (takes 3 minutes for data to be updated)

PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE

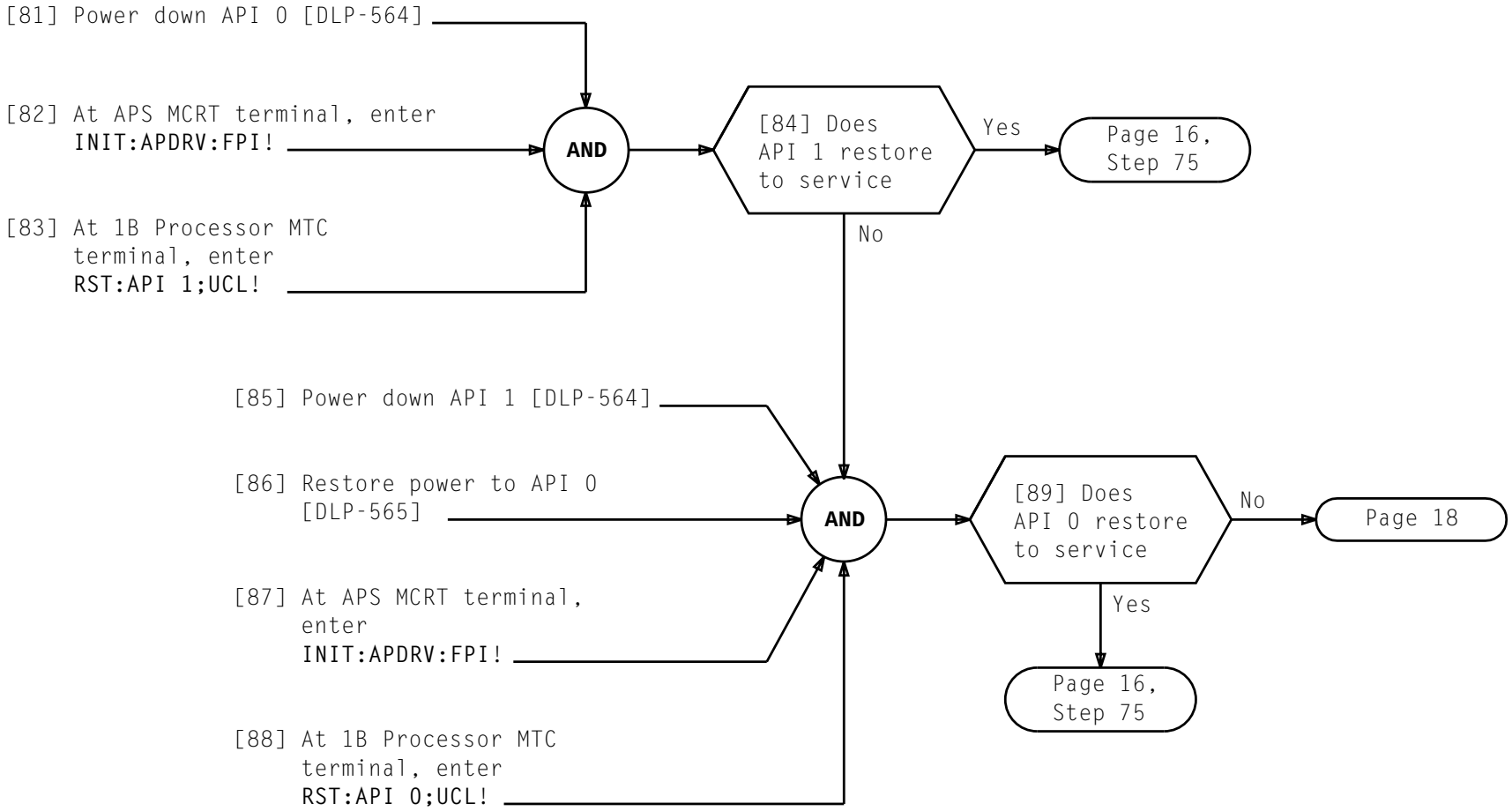


PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE

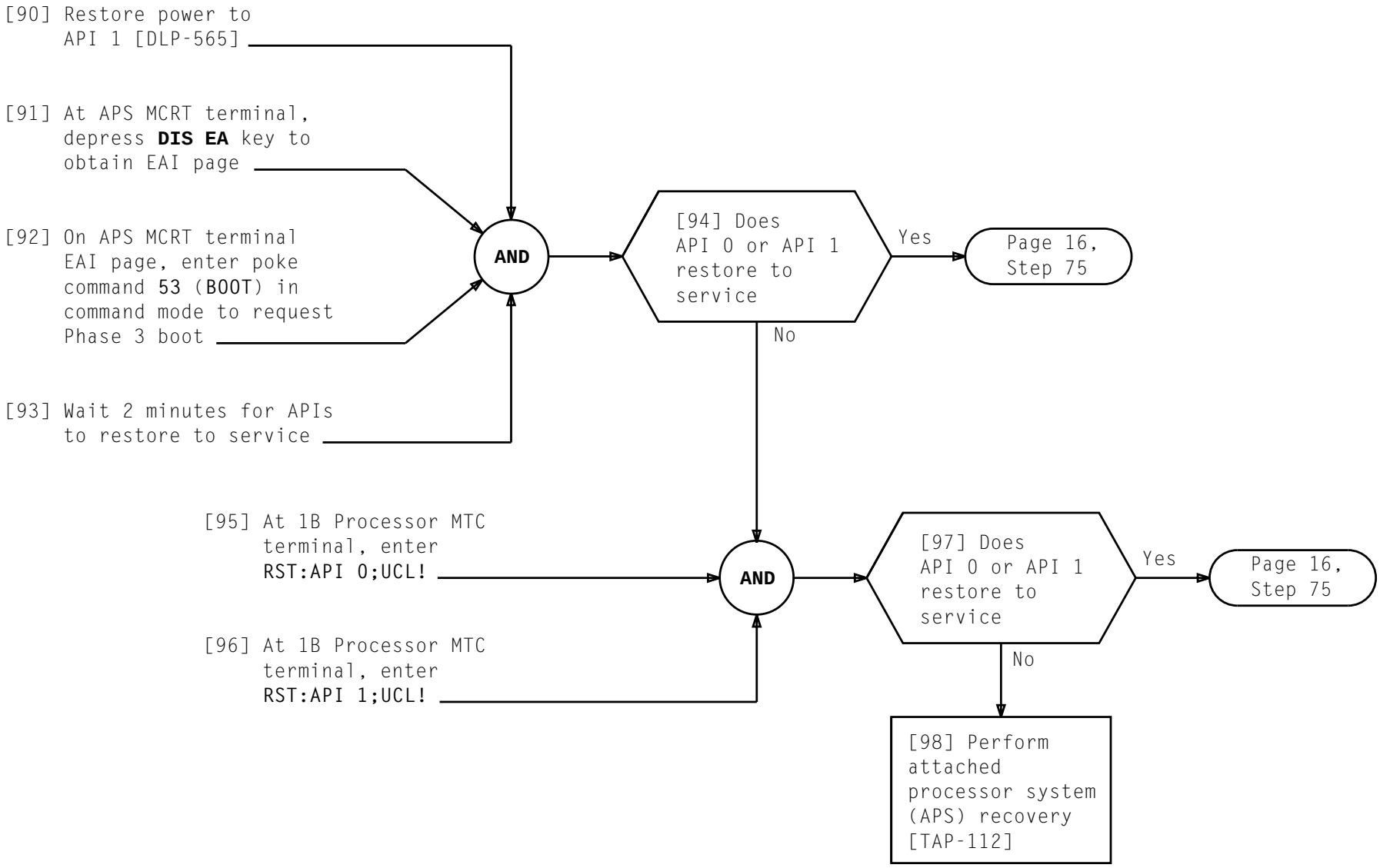


NOTE 11
It will take up to 45 minutes for system to run applicable audits and respond

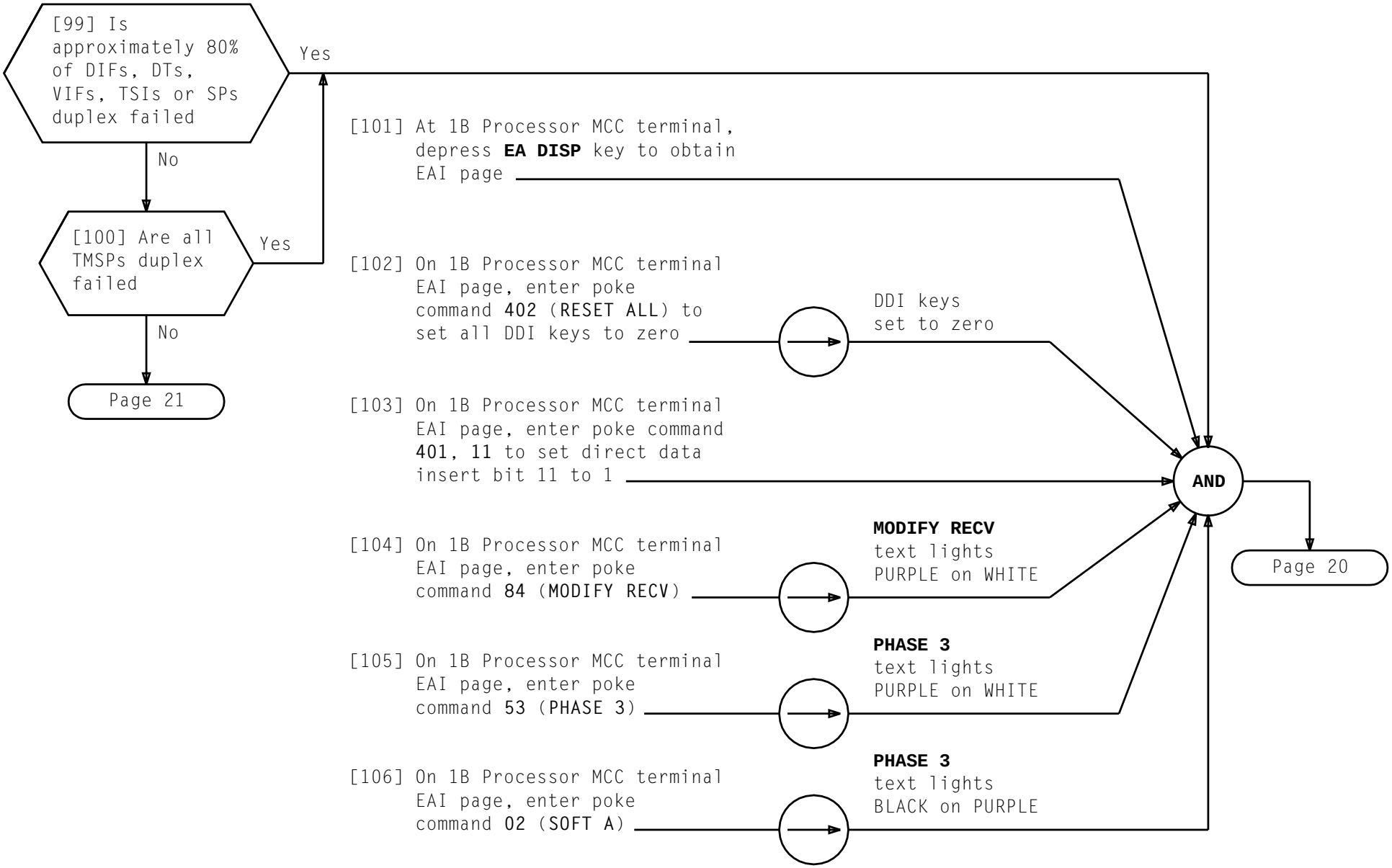
PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE



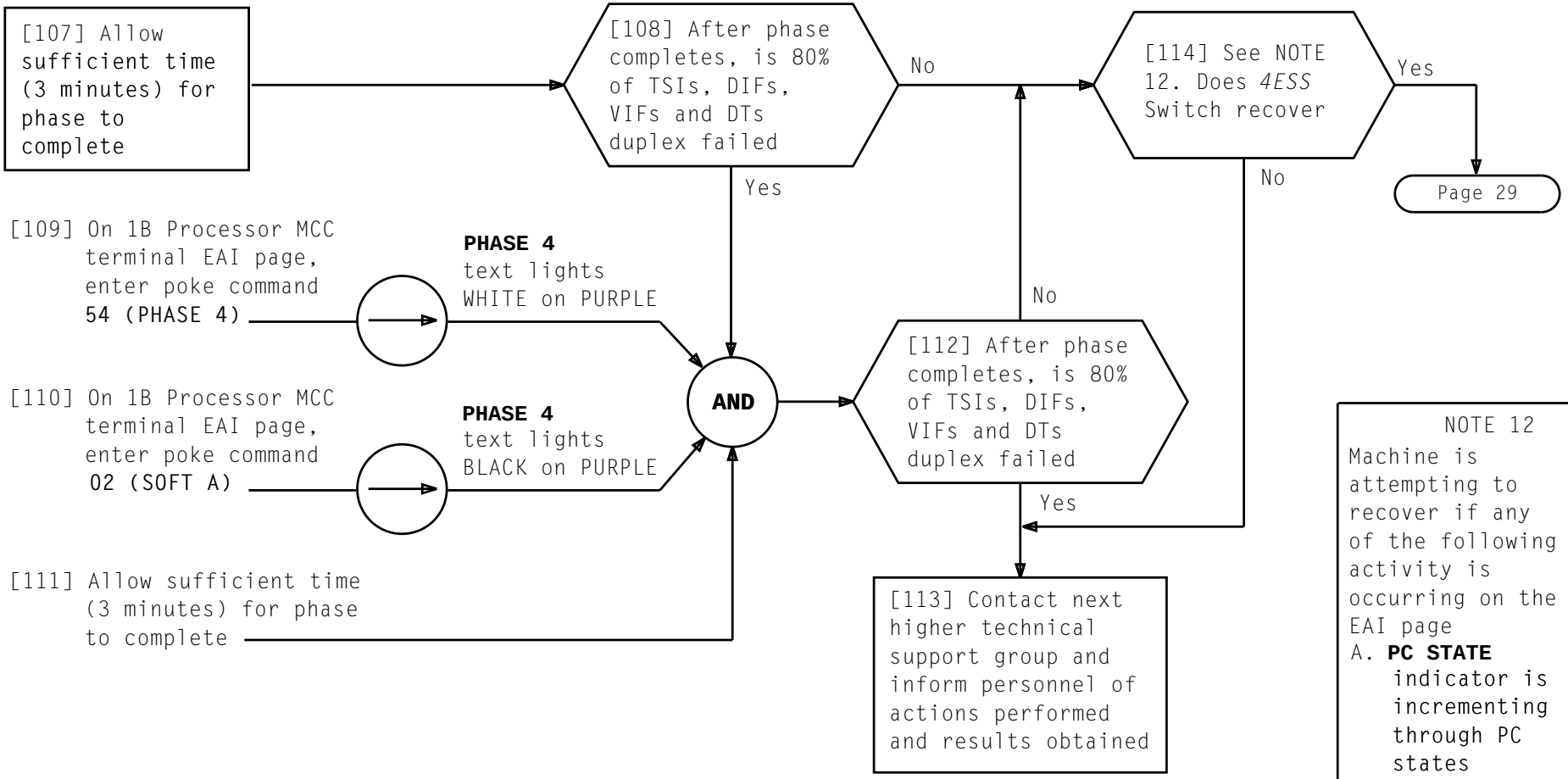
PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE



PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE



PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE



NOTE 12

Machine is attempting to recover if any of the following activity is occurring on the EAI page

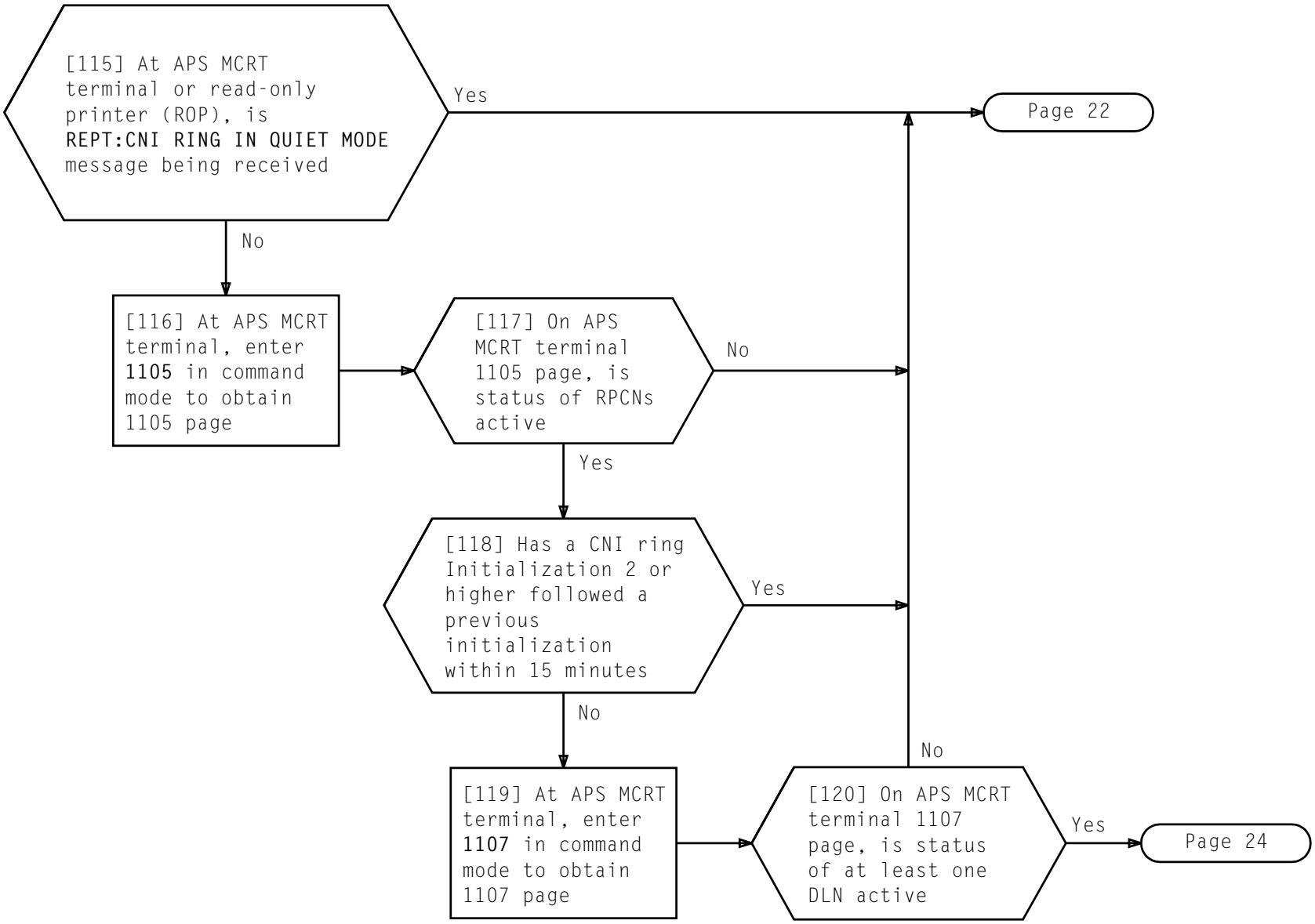
A. **PC STATE** indicator is incrementing through PC states

B. Progression codes are advancing in **86-CODE** field

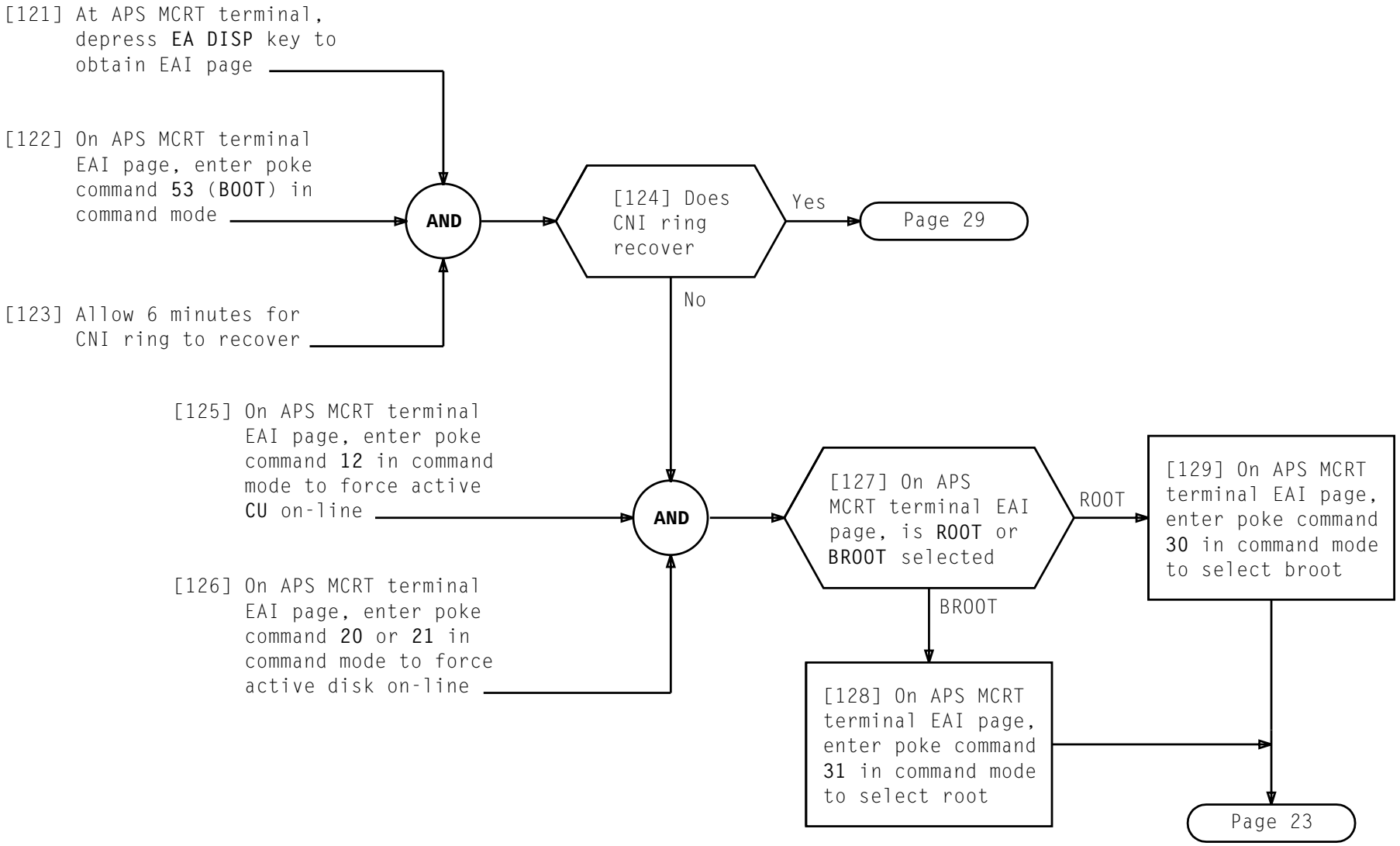
C. **PHASE IN PROG** text is lighted

D. **PC PROGRESION CMPL** text lighted BLACK on GREEN

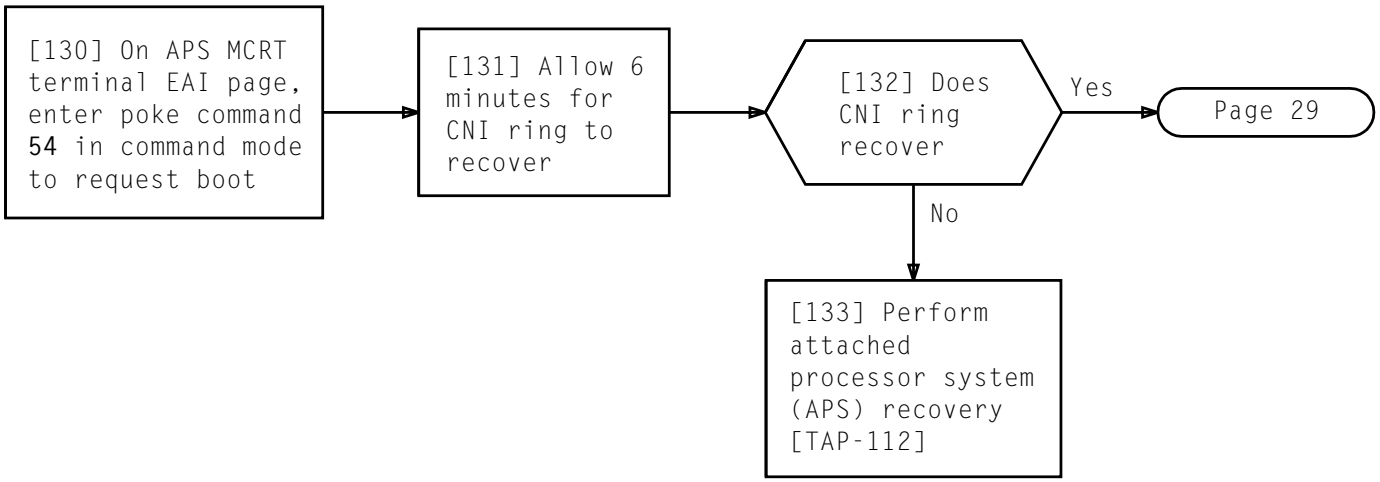
PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE

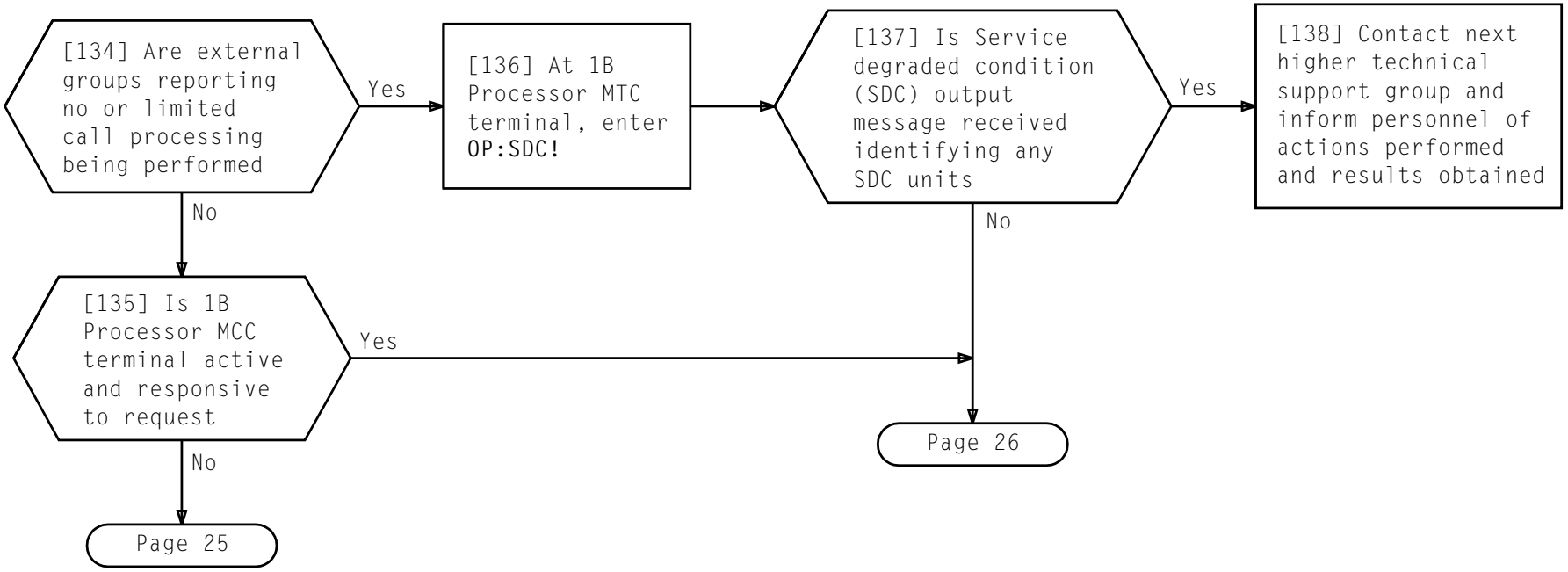


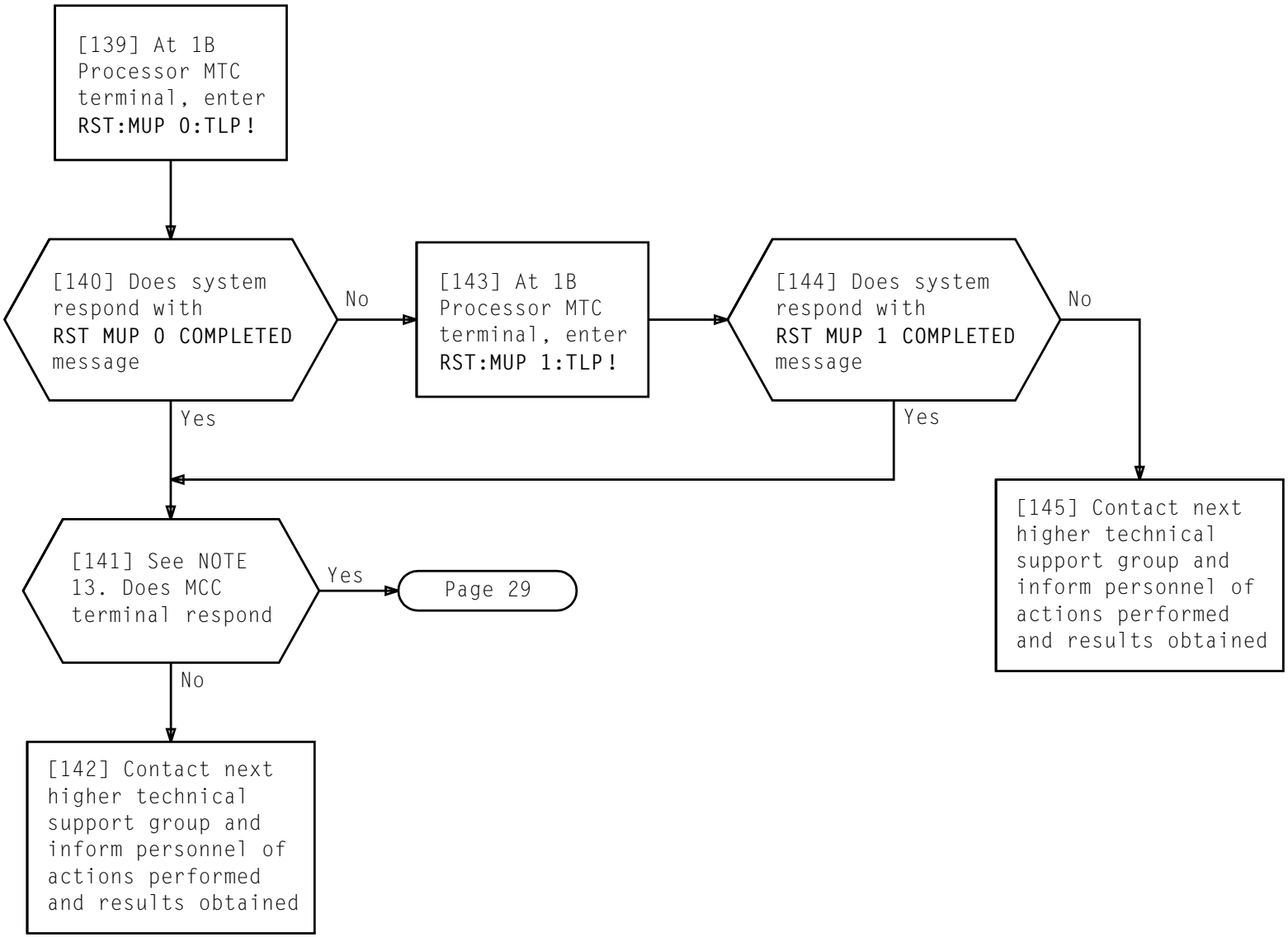
PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE



PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE


[130] On APS MCRT terminal EAI page, enter poke command 54 in command mode to request boot
[131] Allow 6 minutes for CNI ring to recover
[132] Does CNI ring recover
Yes
Page 29
No
[133] Perform attached processor system (APS) recovery [TAP-112]

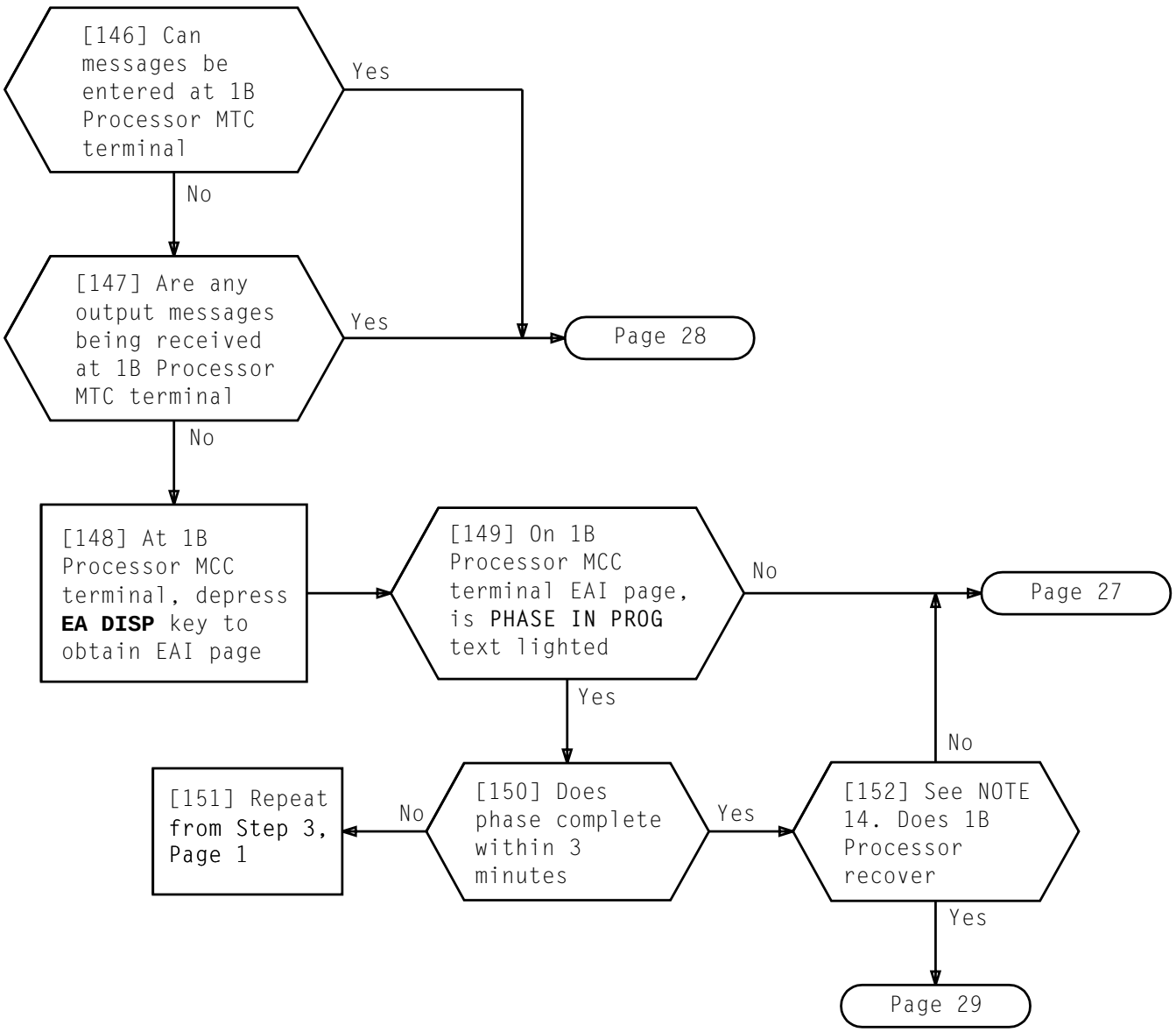

[134] Are external groups reporting no or limited call processing being performed
Yes
[136] At 1B Processor MTC terminal, enter OP:SDC!
[137] Is Service degraded condition (SDC) output message received identifying any SDC units
Yes
[138] Contact next higher technical support group and inform personnel of actions performed and results obtained
No
[135] Is 1B Processor MCC terminal active and responsive to request
Yes
No
Page 26
No
Page 25



NOTE 13
System has recovered if following conditions have been met:

A. On 1B Processor MCC terminal EAI page under **PC PROGRESSION, CMPL** text is lighted BLACK on GREEN
B. On 1B Processor MCC terminal EAI page, **PHASE IN PROG** text has not lighted in last few minutes
C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY**, displayed data is normal for time of day (takes 3 minutes for data to be updated)

PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE

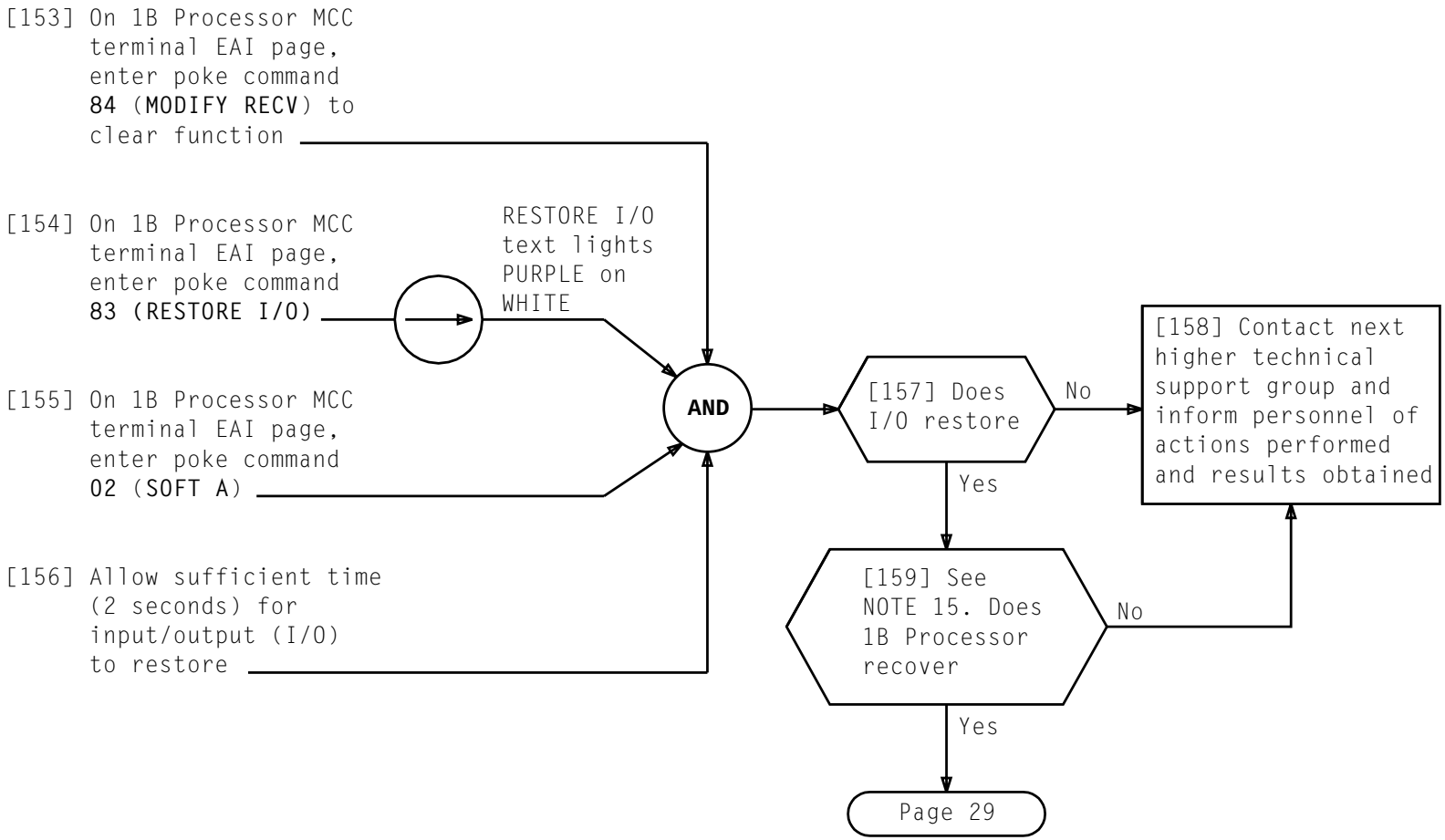


NOTE 14

System has recovered if following conditions have been met:

A. On 1B Processor MCC terminal EAI page under **PC PROGRESSION, CMPL** text is lighted BLACK on GREEN
B. On 1B Processor MCC terminal EAI page, **PHASE IN PROG** text has not lighted in last few minutes
C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY**, displayed data is normal for time of day (takes 3 minutes for data to be updated)

PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE

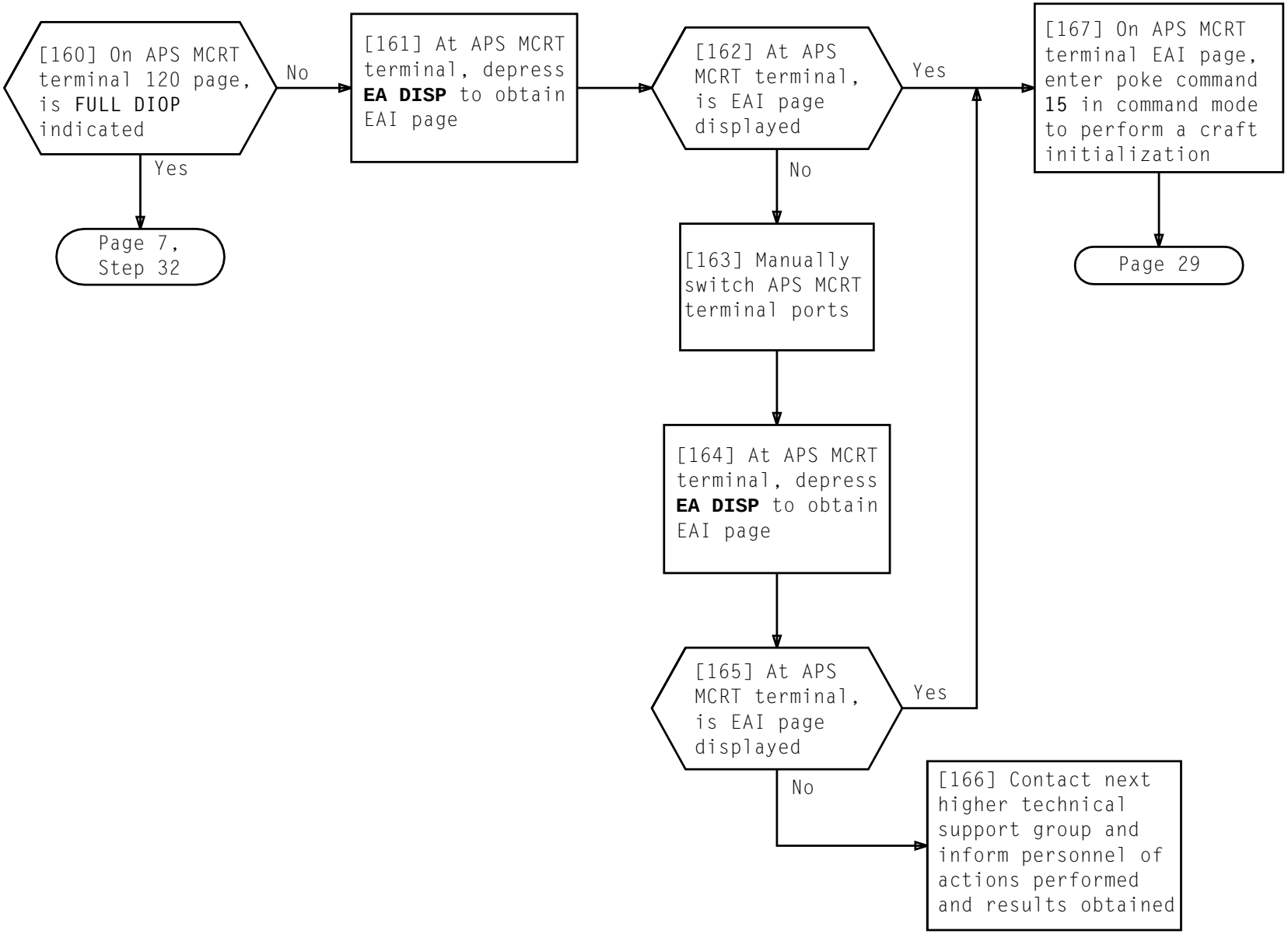


NOTE 15

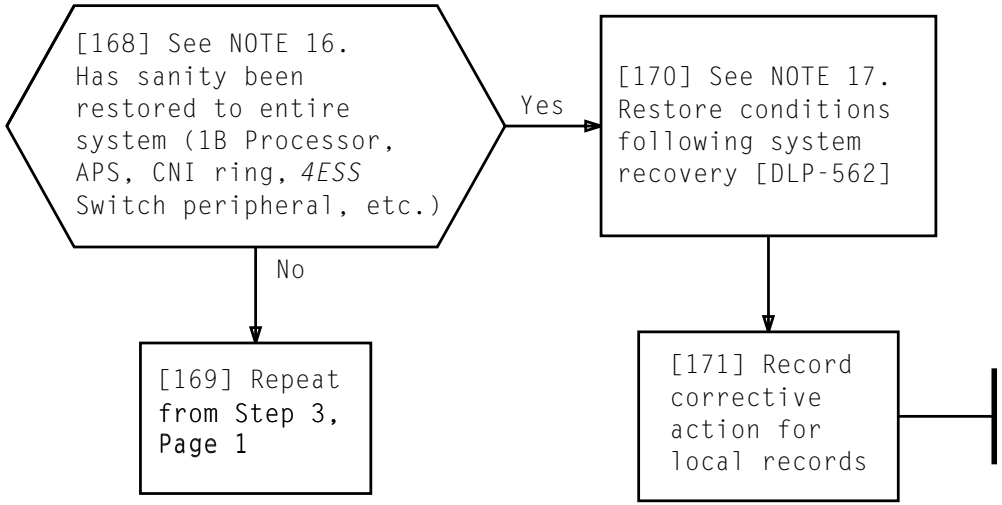
System has recovered if following conditions have been met:

A. On 1B Processor MCC terminal EAI page under **PC PROGRESSION, CMPL** text is lighted BLACK on GREEN
B. On 1B Processor MCC terminal EAI page, **PHASE IN PROG** text has not lighted in last few minutes
C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY**, displayed data is normal for time of day (takes 3 minutes for data to be updated)

PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE



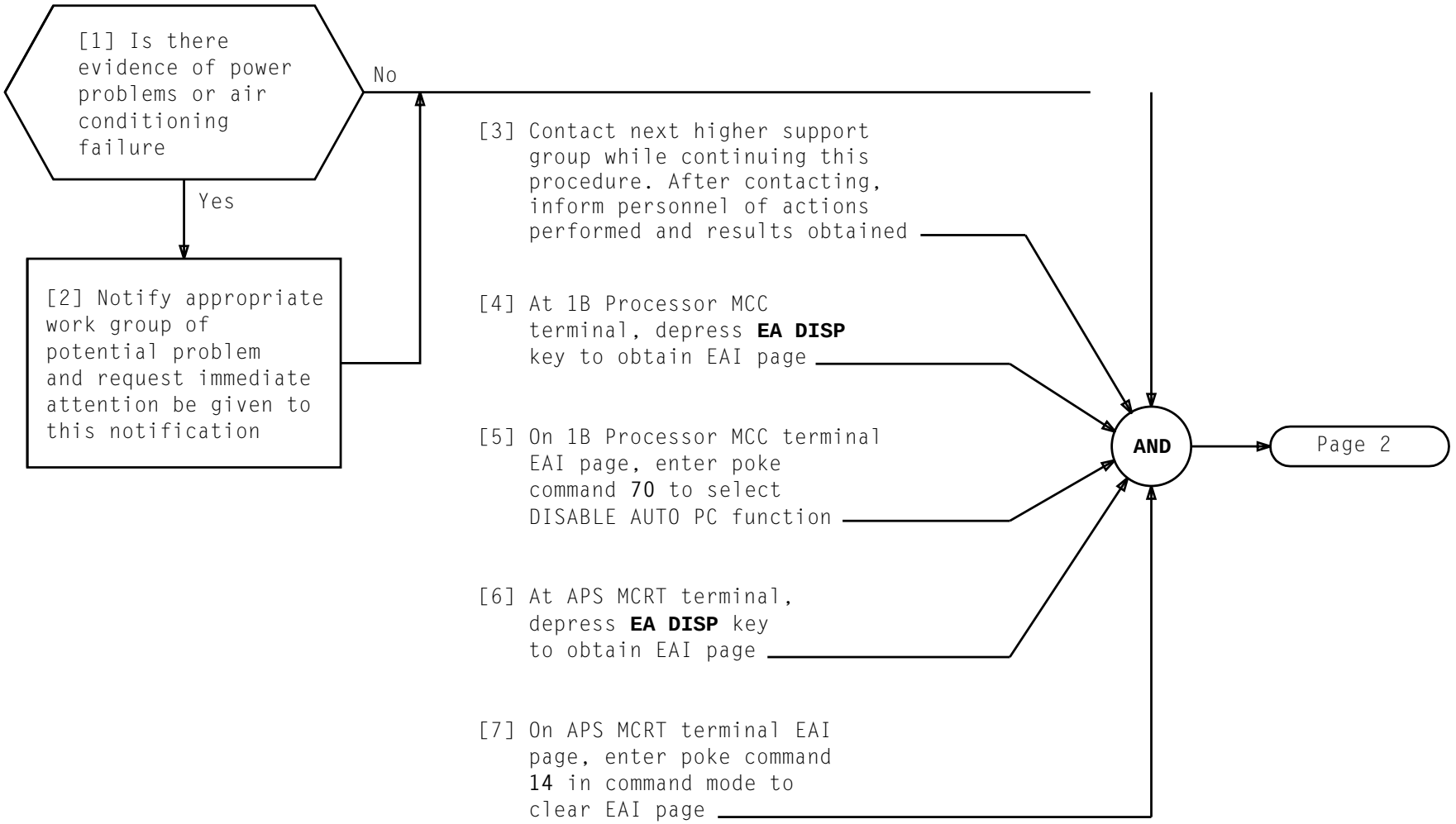
PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE



NOTES

16. System has recovered if following conditions have been met:
    A. On 1B Processor MCC terminal EAI page under **PC PROGRESSION, CMPL** text is lighted BLACK on GREEN
    B. On 1B Processor MCC terminal EAI page, **PHASE IN PROG** text has not lighted in last few minutes
    C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY**, displayed data is normal for time of day (takes 3 minutes for data to be updated)
17. Contact technical support group and determine safe time when system is stable and seems to be operating properly before restoring conditions following system recovery

PERFORM *4ESS* SWITCH EMERGENCY RECOVERY TROUBLE ISOLATION/ RECOVERY PROCEDURE



PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY

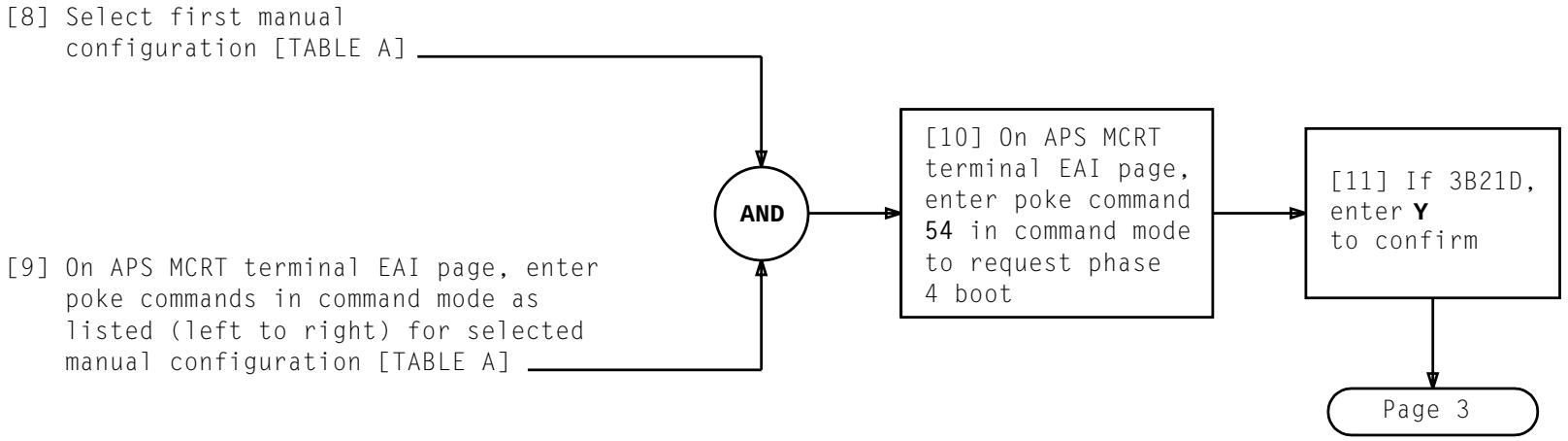
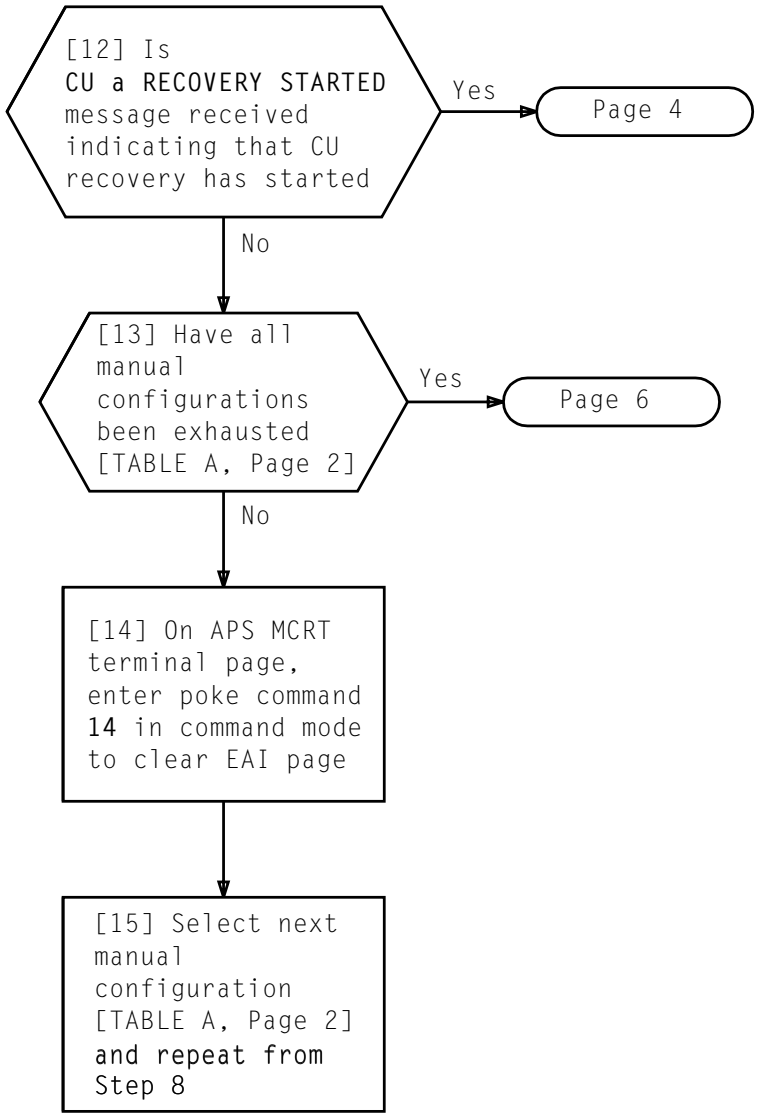
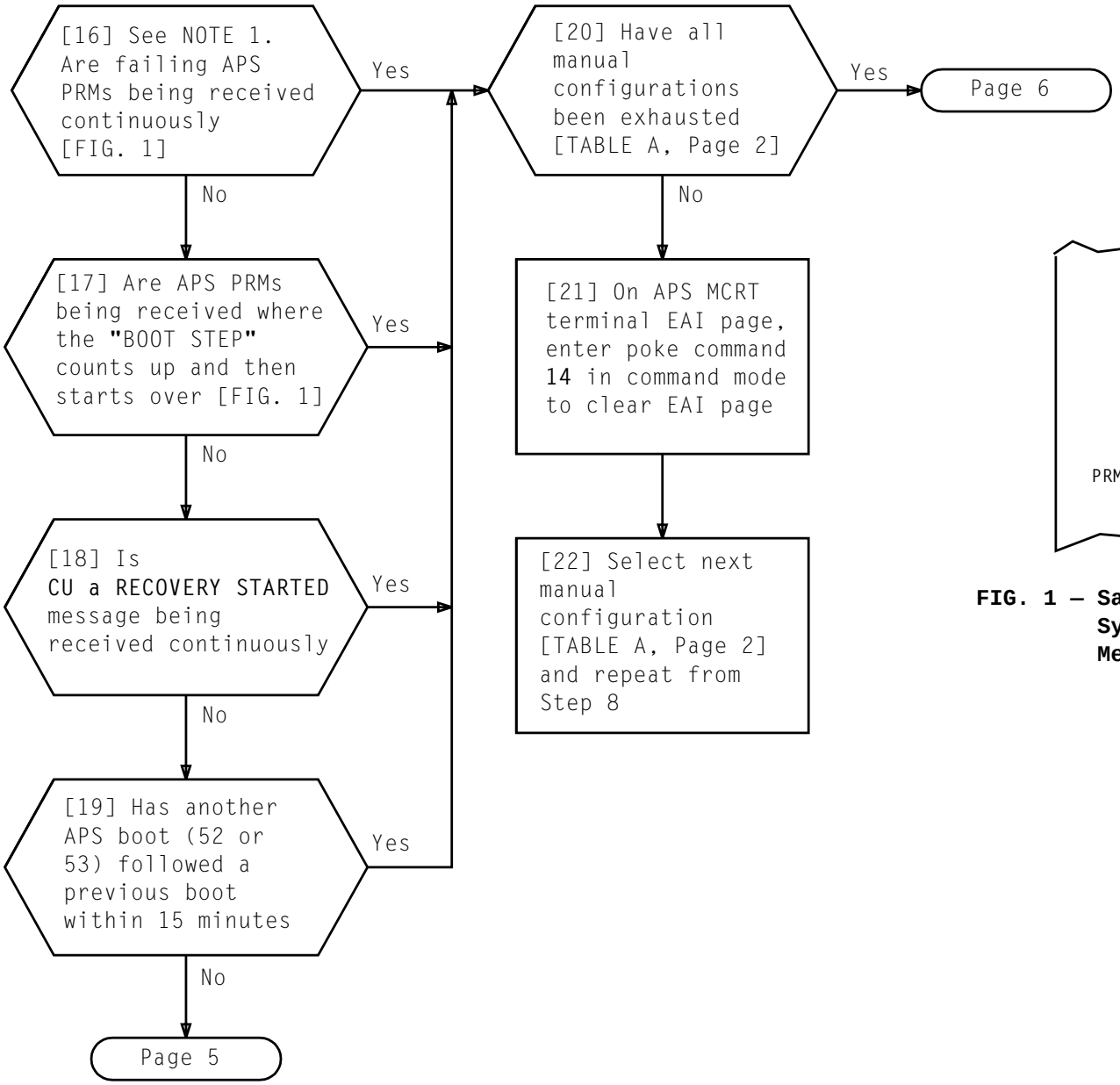


TABLE A
ATTACHED PROCESSOR SYSTEM MANUAL CONFIGURATIONS AND ASSOCIATED POKE COMMANDS

MANUAL CONFIG SEQUENCE	OVERRIDE CONTROL SELECTIONS								IF 3B21D, CONFIRM [Y/N]
	ROOT	BROOT	FULL	MIN	PRIMARY DISK	SECONDARY DISK	CU0	CU1	
1		30	33		20		10		Y
2		30	33		20			11	Y
3	31		33			22	10		Y
4	31		33			22		11	Y



PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY



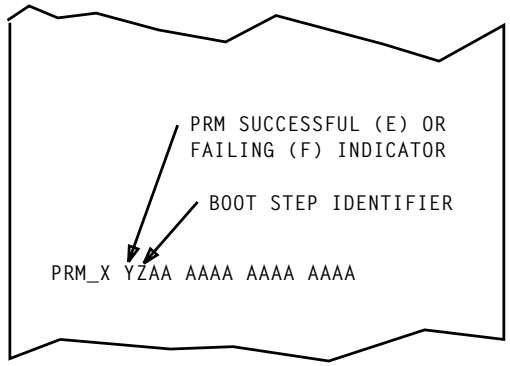
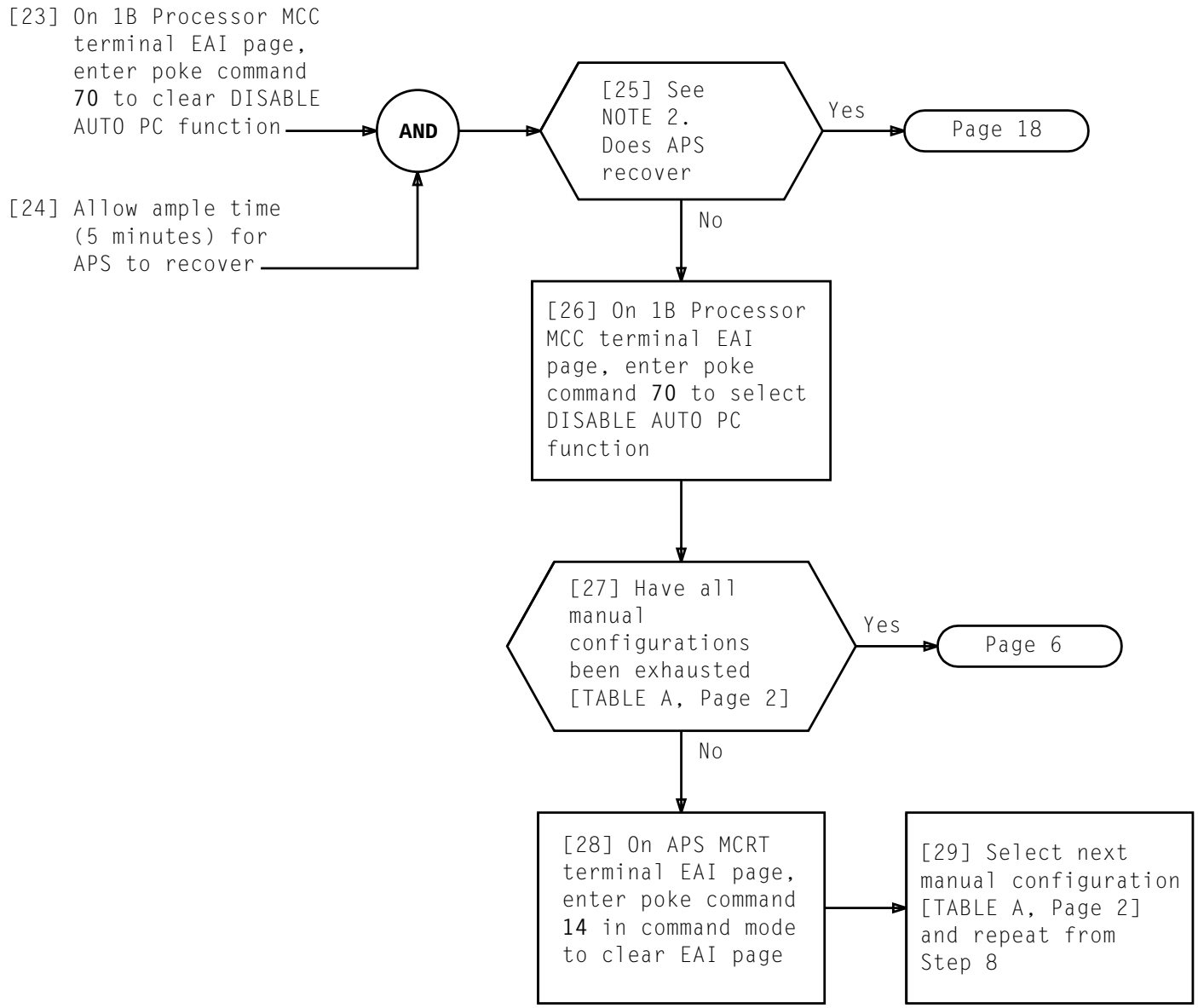


FIG. 1 — Sample Layout of Attached Processor System (APS) Processor Recovery Message (PRM)

NOTE 1
One or two failing PRMs among many successful PRMs does not indicate system sanity is in jeopardy

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY



NOTE 2

System has recovered if following conditions have been met:

A. On APS MCRT terminal, SYS EMER INDICATOR is not lighted

B. On 1B Processor MCC terminal, PROCESSOR CONFIG COMPLETED indicator is lighted

C. PRMs are not being received continuously

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY

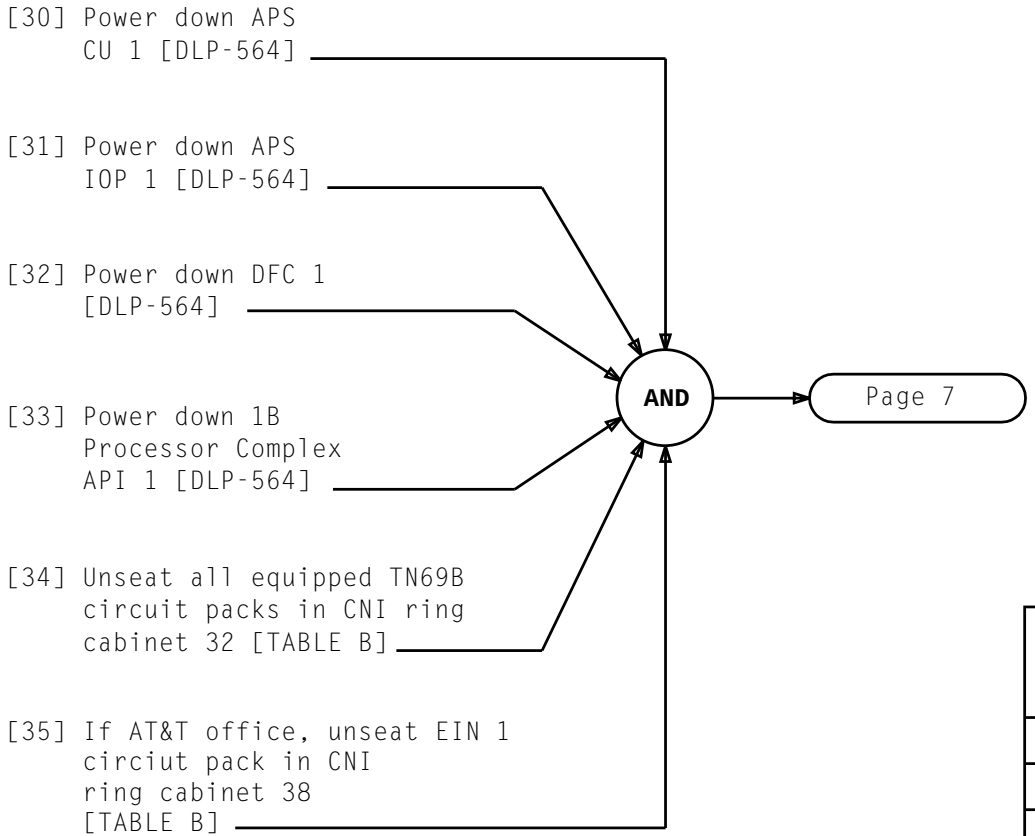


TABLE B TN69B CIRCUIT PACK LOCATIONS IN CNI RING CABINET 32 (NOTE)
TN69B – 19-086
TN69B – 28-086 or 37-086
TN69B – 45-086 or 53-086
EIN1* 45-118 or 37-118 (cabinet 06 or 38)
NOTE: Not all five TN69B circuit packs will be equipped in all CNI ring cabinets * AT&T office only

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY

[36] At APS MCRT terminal, depress **EA DISP** key to obtain EAI page

[37] On APS MCRT terminal EAI page, enter poke command **14** in command mode to clear EAI page

[38] Select first manual configuration [TABLE C]

[39] On APS MCRT terminal EAI page, enter poke commands in command mode as listed (left to right) for selected manual configuration [TABLE C]

[40] On APS MCRT terminal EAI page, enter poke command **54** in command mode to request phase 4 boot

[41] If 3B21D, enter **Y** to confirm

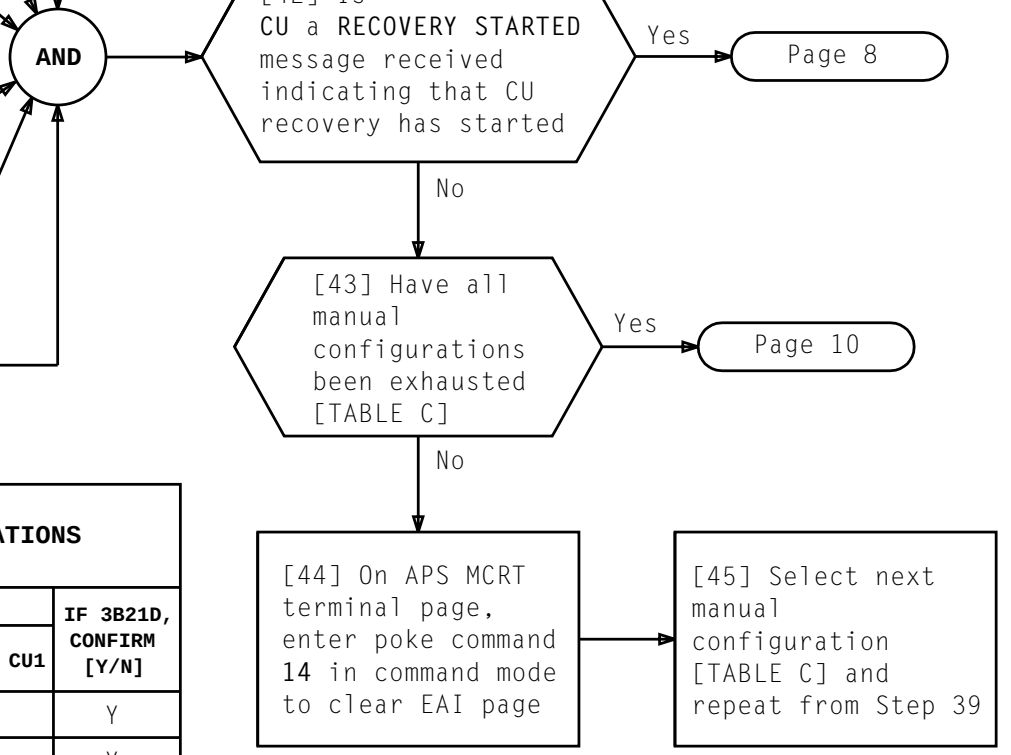
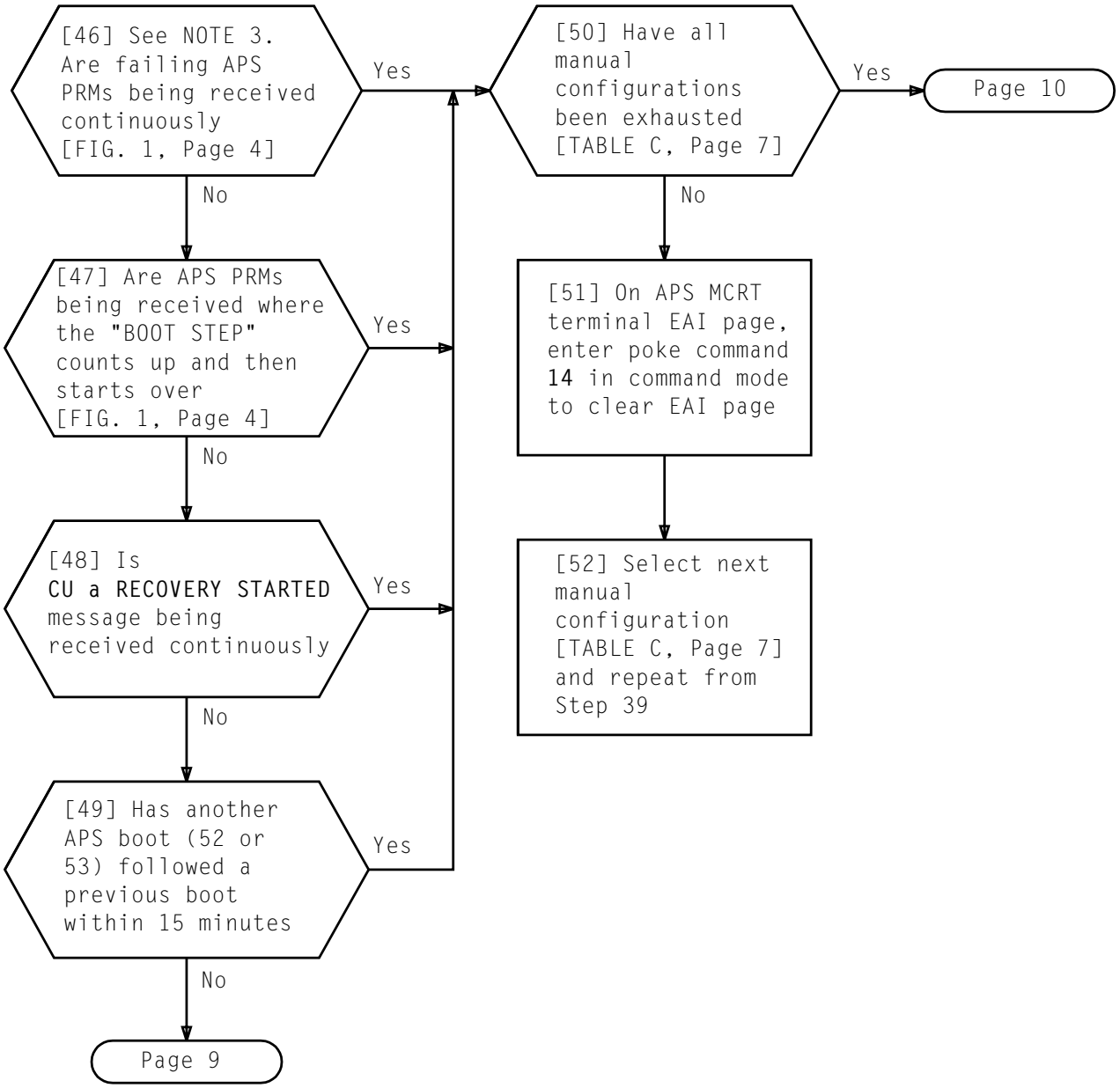


TABLE C
ATTACHED PROCESSOR SYSTEM MANUAL CONFIGURATIONS AND ASSOCIATED POKE COMMANDS

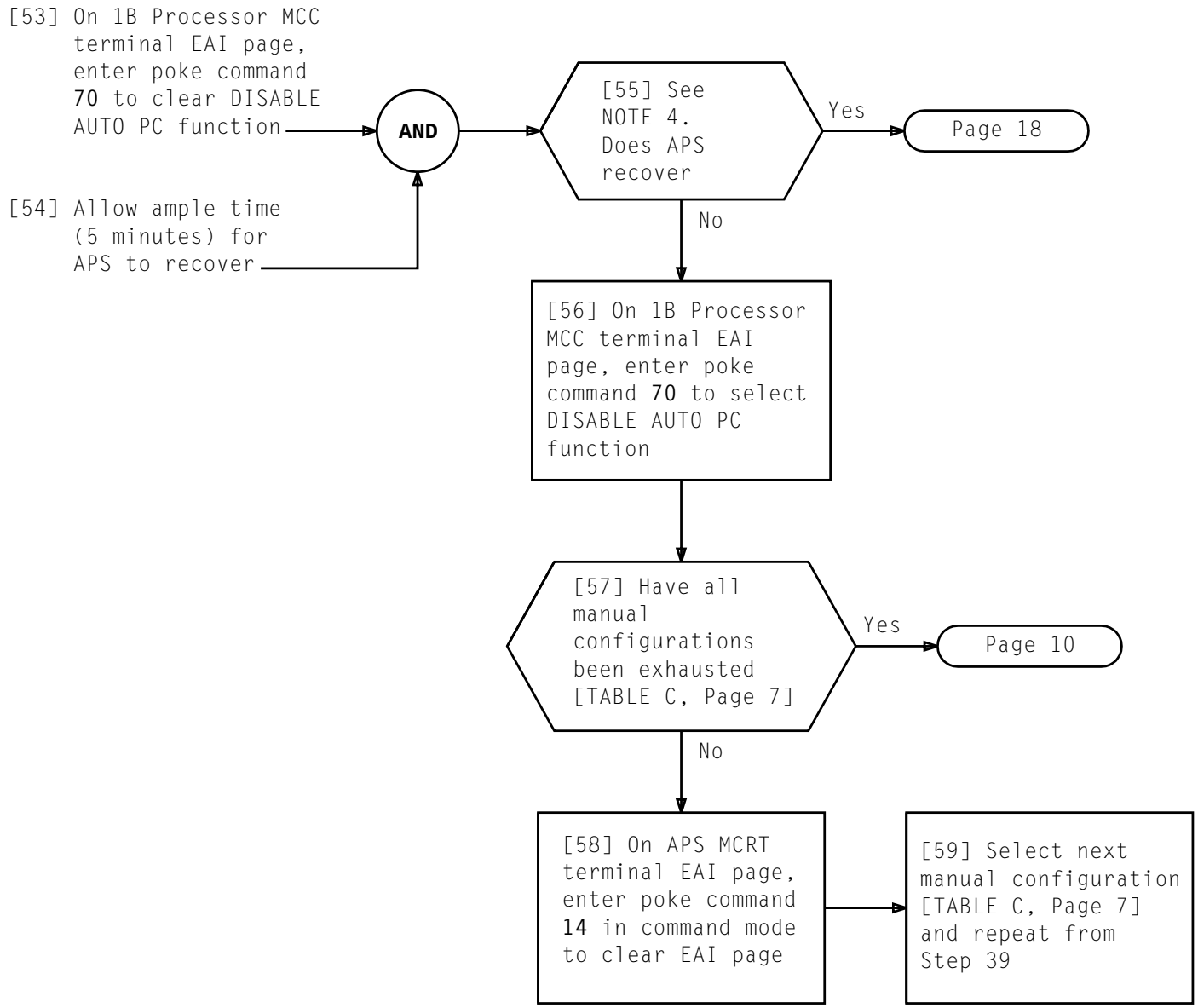
MANUAL CONFIG SEQUENCE	OVERRIDE CONTROL SELECTIONS								IF 3B21D, CONFIRM [Y/N]
	ROOT	BROOT	FULL	MIN	PRIMARY DISK	SECONDARY DISK	CU0	CU1	
1	31		33		20		10		Y
2	31		33			22	10		Y
3		30	33			22	10		Y
4		30	33		20		10		Y

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY



NOTE 3
One or two failing PRMs among many successful PRMs does not indicate system sanity is in jeopardy

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY



NOTE 4
System has recovered if following conditions have been met:

A. On APS MCRT terminal, SYS EMER INDICATOR is not lighted
B. On 1B Processor MCC terminal, PROCESSOR CONFIG COMPLETED indicator is lighted
C. PRMs are not being received continuously

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY

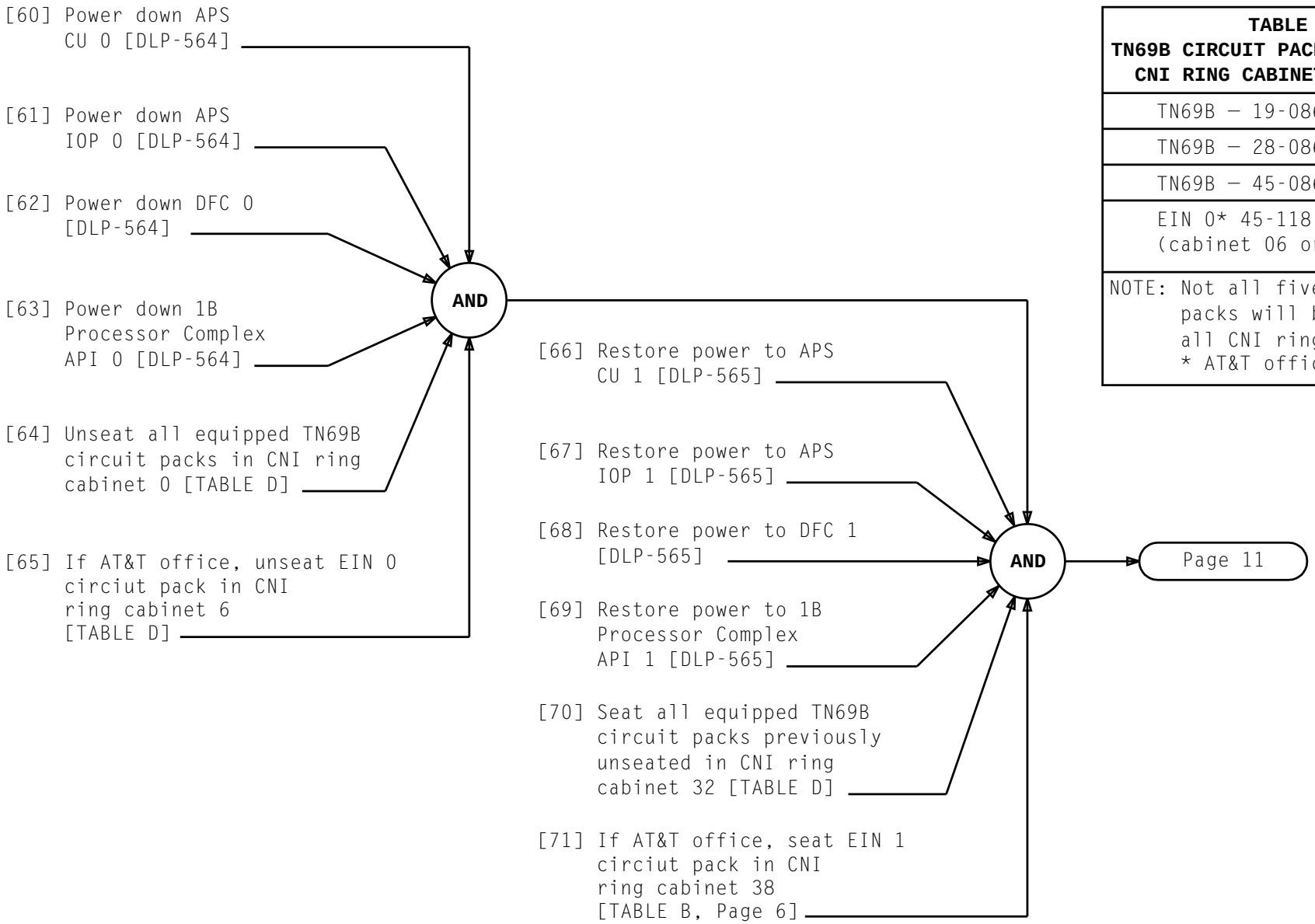


TABLE D TN69B CIRCUIT PACK LOCATIONS IN CNI RING CABINET 0 (NOTE)
TN69B – 19-086
TN69B – 28-086 or 37-086
TN69B – 45-086 or 53-086
EIN 0* 45-118 or 37-118 (cabinet 06 or 38)
NOTE: Not all five TN69B circuit packs will be equipped in all CNI ring cabinets * AT&T office only

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY

[72] At APS MCRT terminal, depress **EA DISP** key to obtain EAI page

[73] On APS MCRT terminal EAI page, enter poke command **14** in command mode to clear EAI page

[74] Select first manual configuration [TABLE E]

[75] On APS MCRT terminal EAI page, enter poke commands in command mode as listed (left to right) for selected manual configuration [TABLE E]

[76] On APS MCRT terminal EAI page, enter poke command **54** in command mode to request phase 4 boot

[77] If 3B21D, enter **Y** to confirm

AND

[78] Is CU a RECOVERY STARTED message received indicating that CU recovery has started

Yes → Page 12

No

[79] Have all manual configurations been exhausted [TABLE E]

Yes → Page 14

No

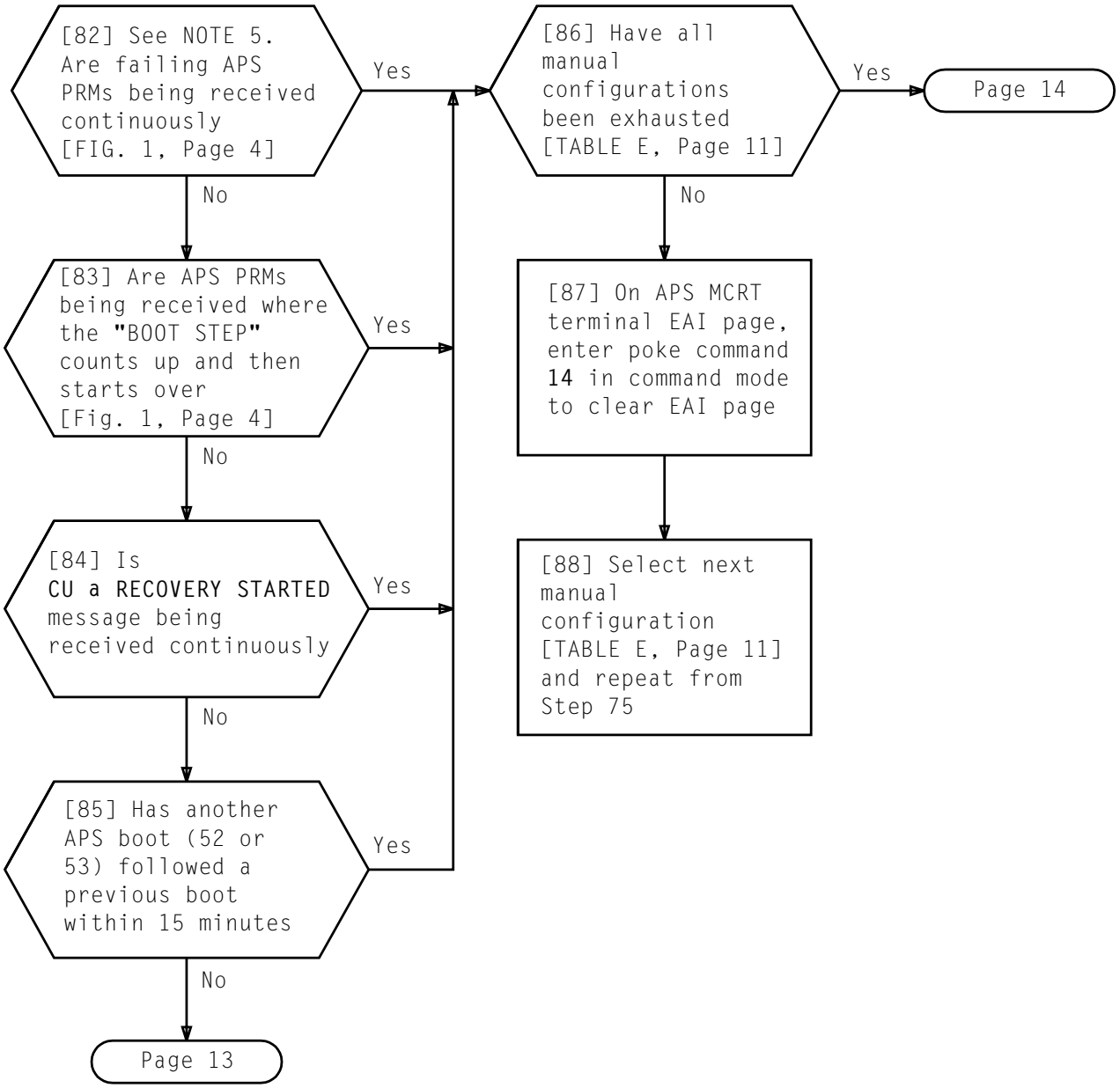
[80] On APS MCRT terminal page, enter poke command **14** in command mode to clear EAI page

[81] Select next manual configuration [TABLE E] and repeat from Step 75

TABLE E
ATTACHED PROCESSOR SYSTEM MANUAL CONFIGURATIONS AND ASSOCIATED POKE COMMANDS

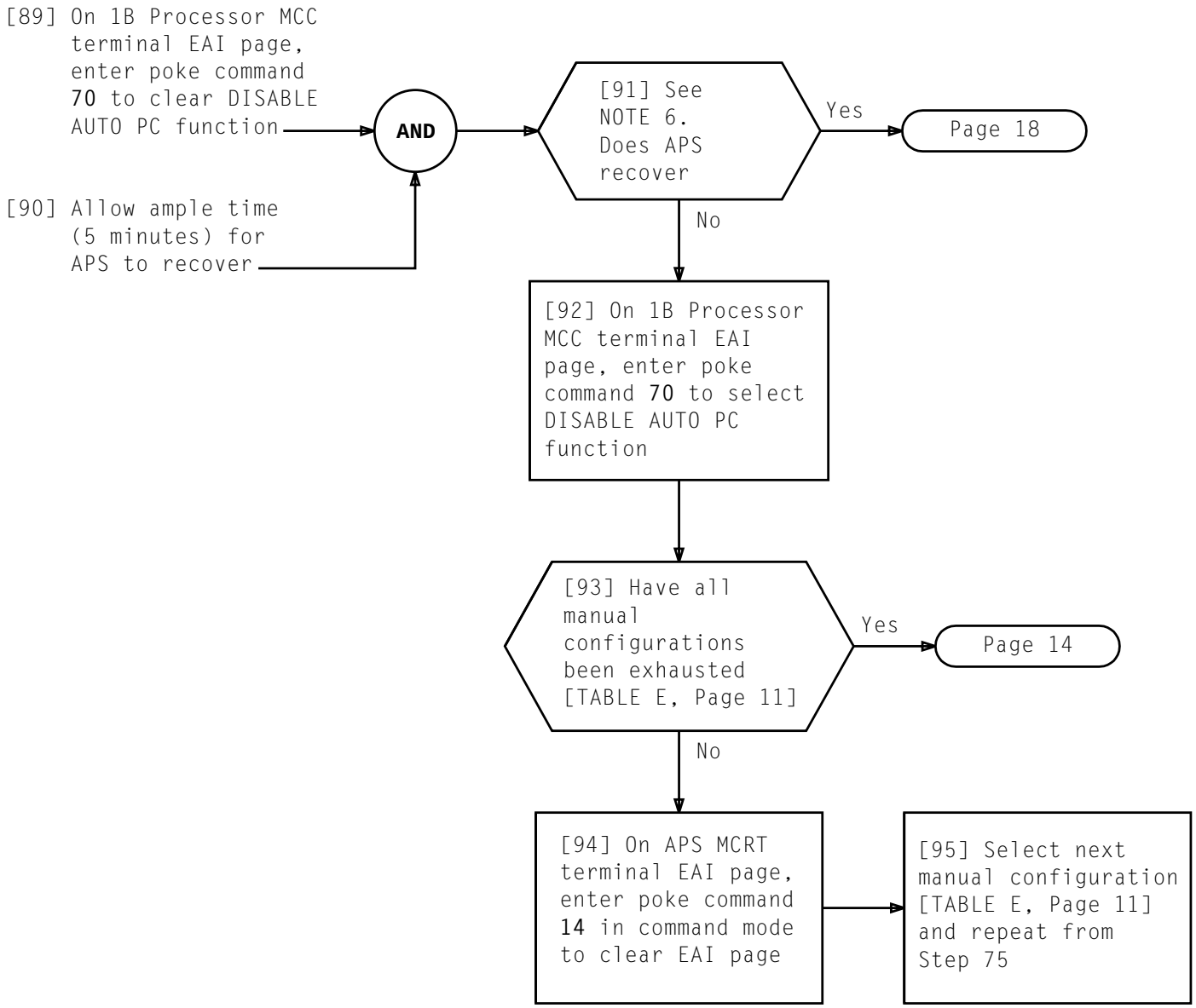
MANUAL CONFIG SEQUENCE	OVERRIDE CONTROL SELECTIONS								IF 3B21D, CONFIRM [Y/N]
	ROOT	BROOT	FULL	MIN	PRIMARY DISK	SECONDARY DISK	CU0	CU1	
1	31		33		20			11	Y
2	31		33			22		11	Y
3		30	33			22		11	Y
4		30	33		20			11	Y

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY



NOTE 5
One or two failing PRMs among many successful PRMs does not indicate system sanity is in jeopardy

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY



NOTE 6

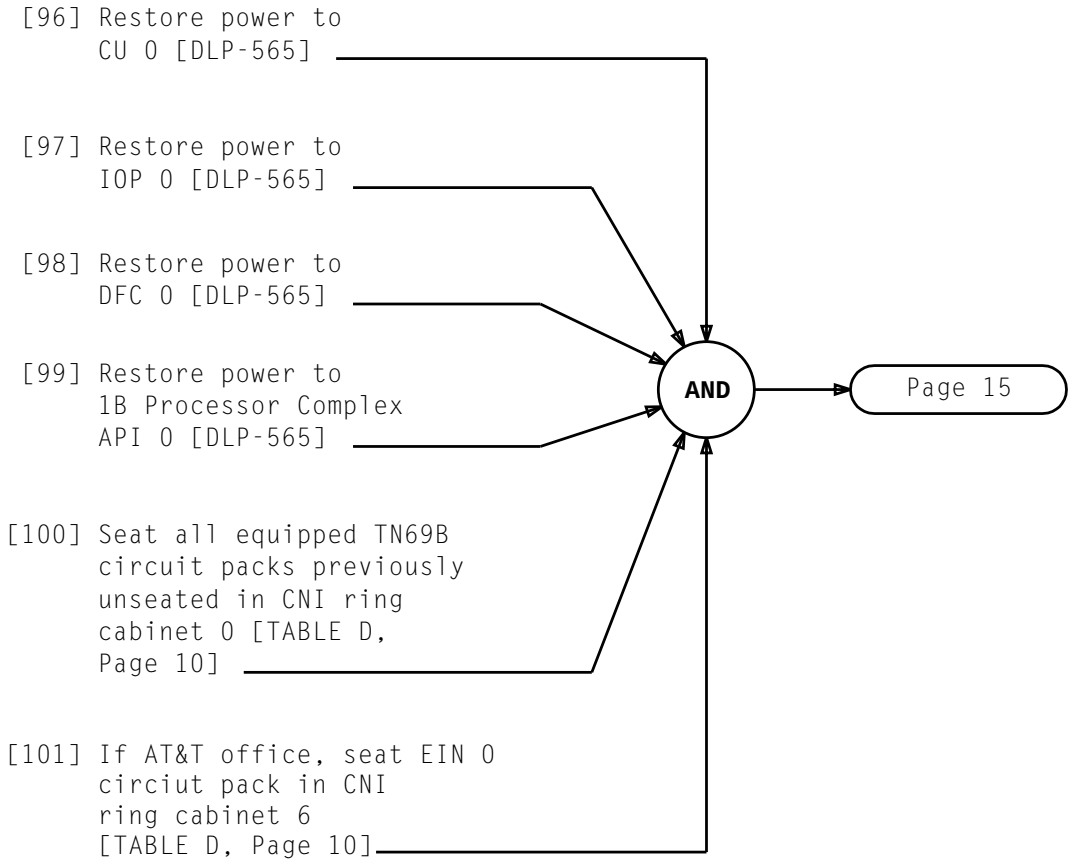
System has recovered if following conditions have been met:

A. On APS MCRT terminal, SYS EMER INDICATOR is not lighted

B. On 1B Processor MCC terminal, PROCESSOR CONFIG COMPLETED indicator is lighted

C. PRMs are not being received continuously

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY


[96] Restore power to CU 0 [DLP-565]
[97] Restore power to IOP 0 [DLP-565]
[98] Restore power to DFC 0 [DLP-565]
[99] Restore power to 1B Processor Complex API 0 [DLP-565]
[100] Seat all equipped TN69B circuit packs previously unseated in CNI ring cabinet 0 [TABLE D, Page 10]
[101] If AT&T office, seat EIN 0 circiut pack in CNI ring cabinet 6 [TABLE D, Page 10]
AND
Page 15

[102] At APS MCRT terminal, depress **EA DISP** key to obtain EAI page

[103] On APS MCRT terminal EAI page, enter poke command **14** in command mode to clear EAI page

[104] Select first manual configuration [TABLE F]

[105] On APS MCRT terminal EAI page, enter poke commands in command mode as listed (left to right) for selected manual configuration [TABLE F]

[106] On APS MCRT terminal EAI page, enter poke command **54** in command mode to request phase 4 boot

[107] If 3B21D, enter **Y** to confirm

AND

[108] Is **CU a RECOVERY STARTED** message received indicating that CU recovery has started

Yes → Page 16

No

[109] Have all manual configurations been exhausted [TABLE F]

Yes → [110] Recover attached Processor system (APS) by performing system reinitialization (SR) [TAP-110]

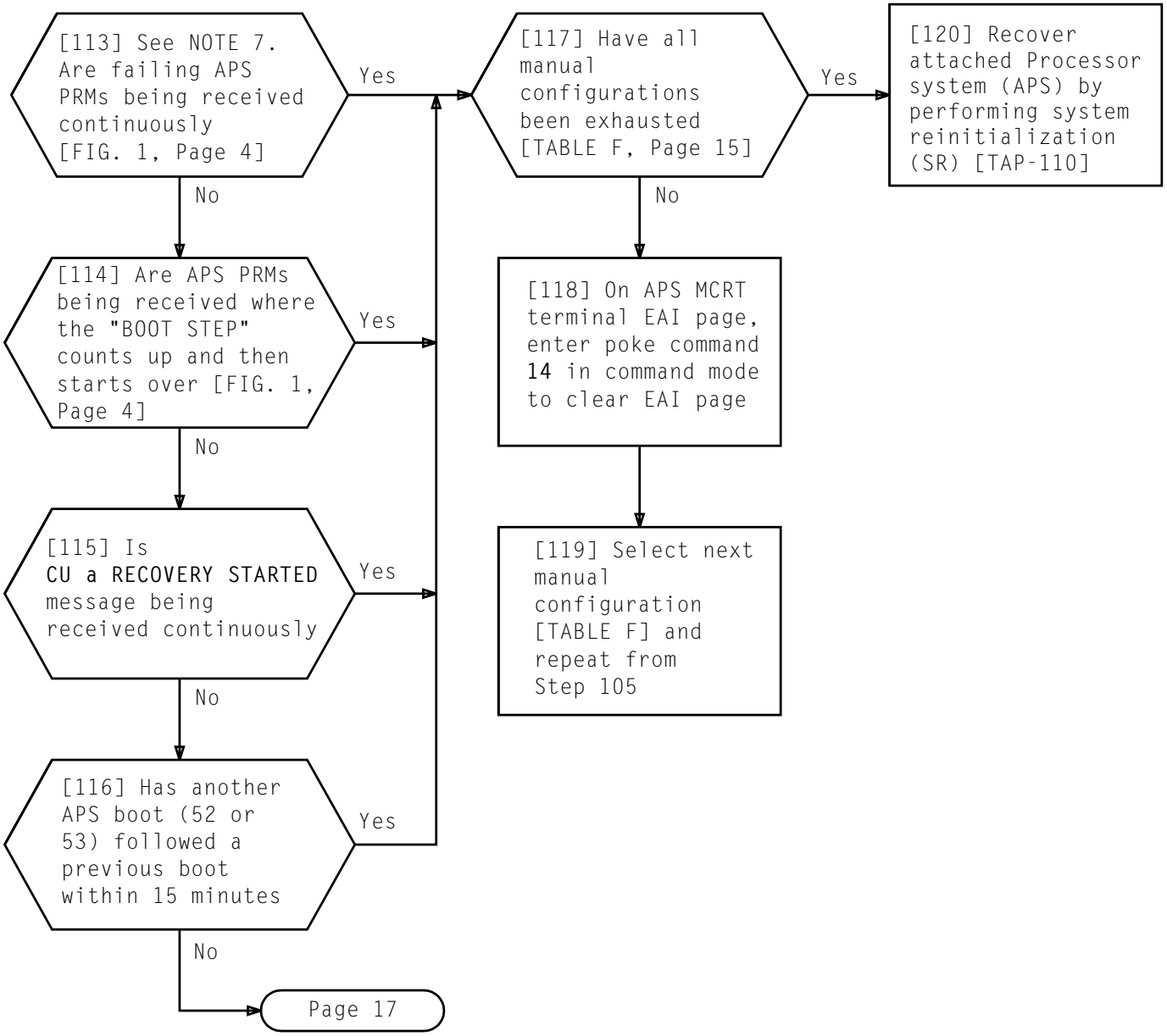
No

[111] On APS MCRT terminal page, enter poke command **14** in command mode to clear EAI page → [112] Select next manual configuration [TABLE F] and repeat from Step 105

TABLE F
ATTACHED PROCESSOR SYSTEM MANUAL CONFIGURATIONS AND ASSOCIATED POKE COMMANDS

	OVERRIDE CONTROL SELECTIONS								
MANUAL CONFIG SEQUENCE	ROOT	BROOT	FULL	MIN	PRIMARY DISK	SECONDARY DISK	CU0	CU1	IF 3B21D, CONFIRM [Y/N]
1	31			32	20		10		Y
2		30		32	20			11	Y

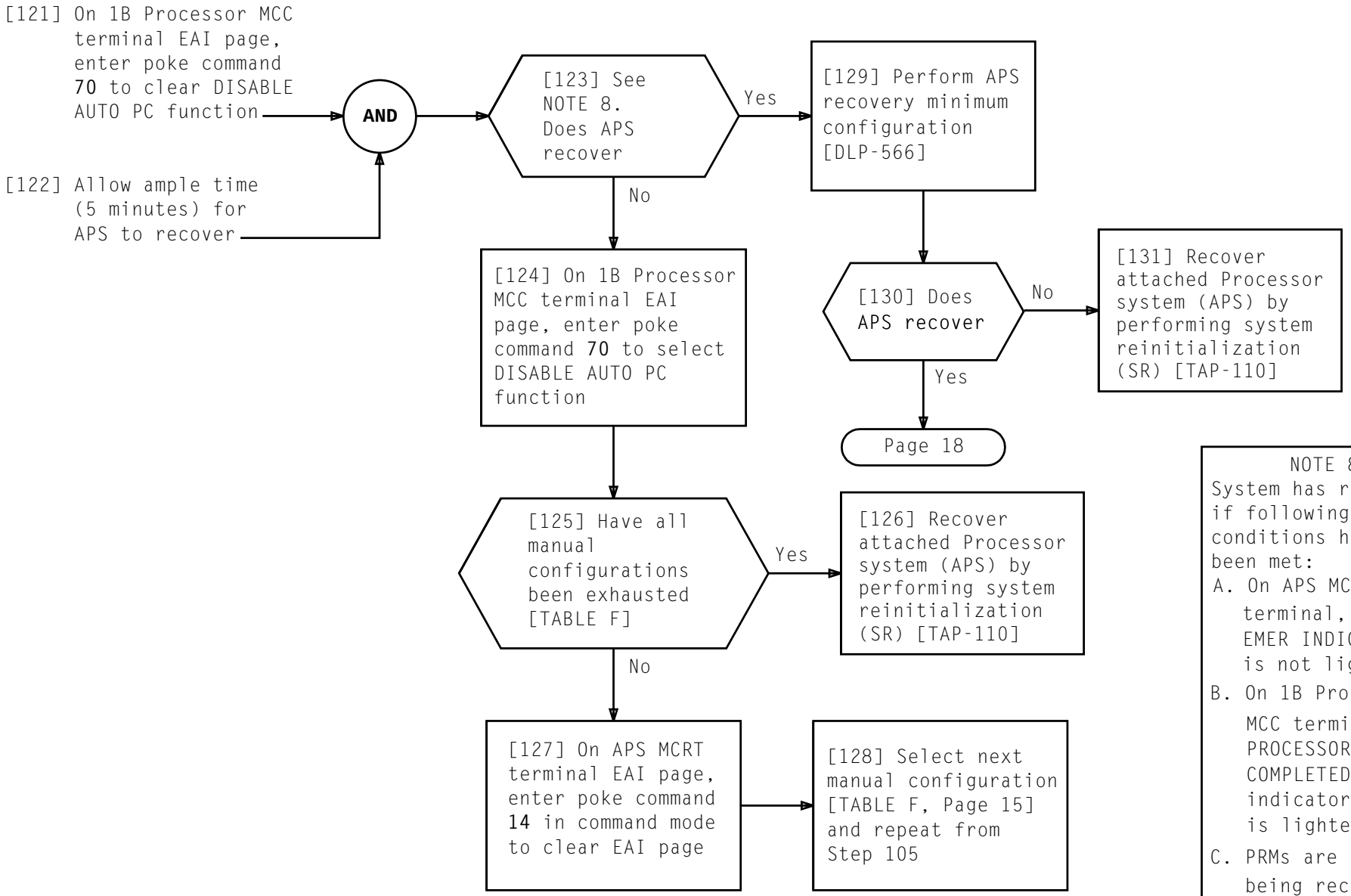
PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY



NOTE 7
One or two failing PRMs among many successful PRMs does not indicate system sanity is in jeopardy

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY



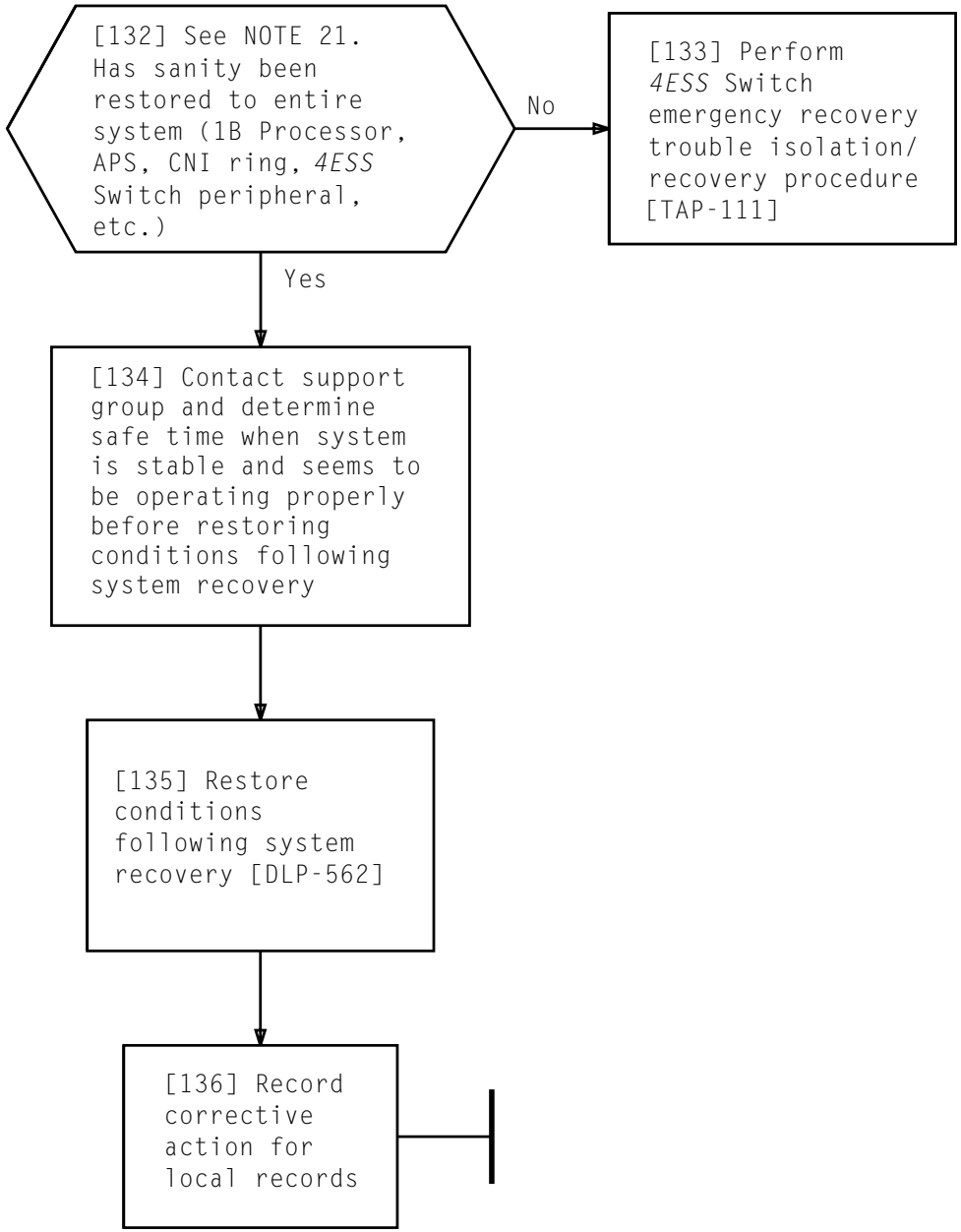
NOTE 8

System has recovered if following conditions have been met:

A. On APS MCRT terminal, SYS EMER INDICATOR is not lighted

B. On 1B Processor MCC terminal, PROCESSOR CONFIG COMPLETED indicator is lighted

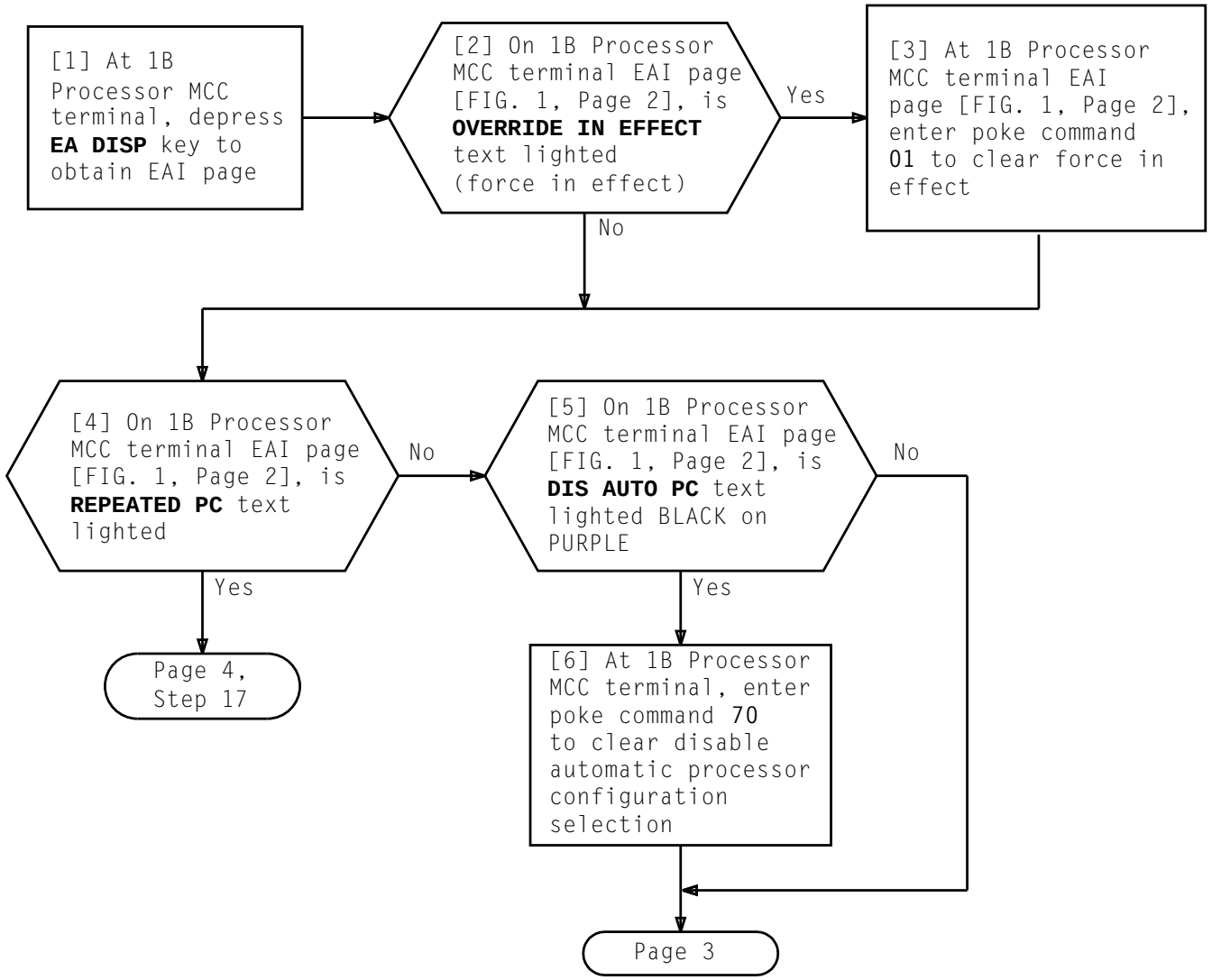
C. PRMs are not being received continuously



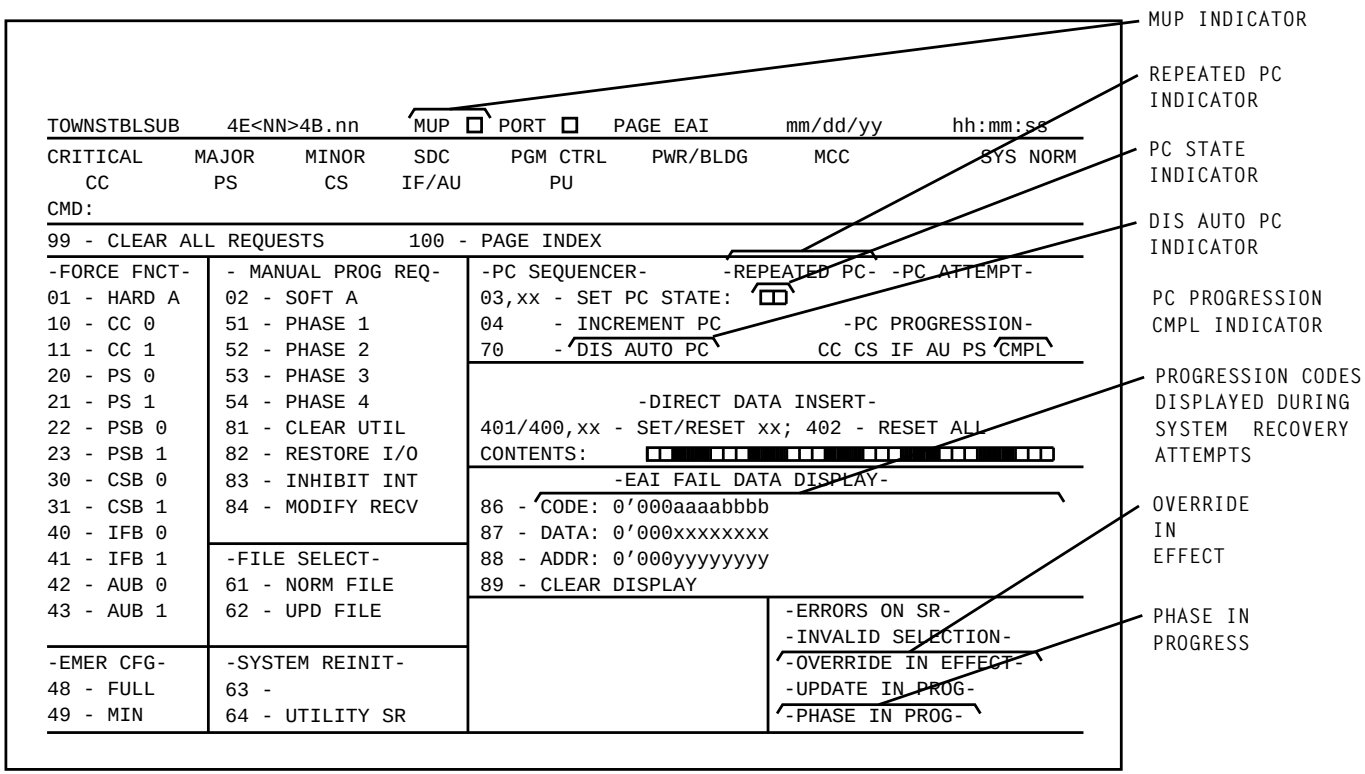
NOTE

21. System has recovered if following conditions have been met:
    A. On APS MCRT terminal, SYS EMER INDICATOR is not lighted
    B. On 1B Processor MCC terminal, PROCESSOR CONFIG COMPLETED indicator is lighted
    C. PRMs are not being received continuously

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY



PERFORM 1B PROCESSOR SYSTEM RECOVERY



MUP INDICATOR

REPEATED PC INDICATOR

PC STATE INDICATOR

DIS AUTO PC INDICATOR

PC PROGRESSION CMPL INDICATOR

PROGRESSION CODES DISPLAYED DURING SYSTEM RECOVERY ATTEMPTS

OVERRIDE IN EFFECT

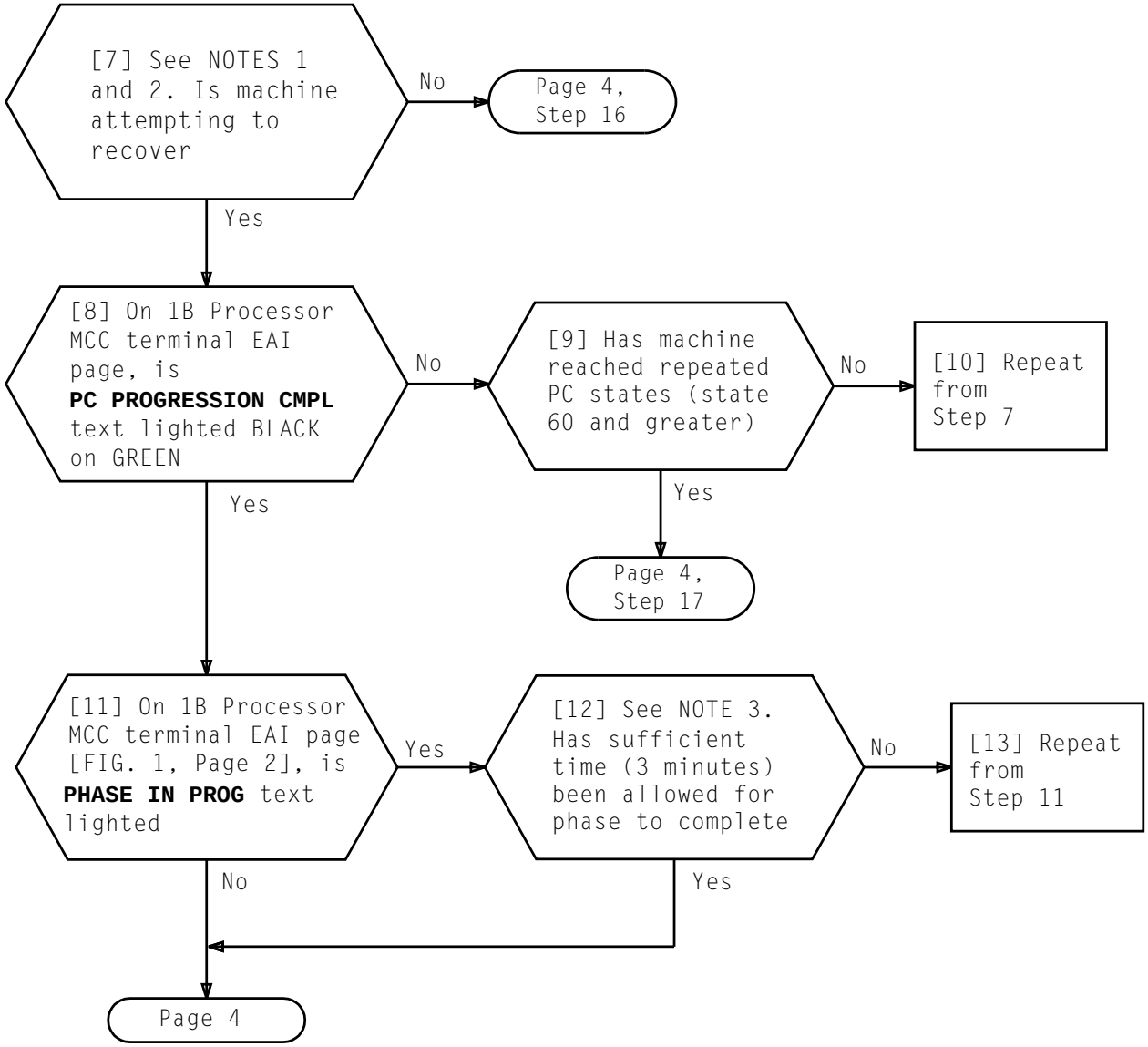
PHASE IN PROGRESS

FIG. 1 – Layout of 1B Processor MCC Terminal EAI Page

NOTE 1

Machine is attempting to recover if any of the following activity is occurring on the EAI page [FIG. 1]:

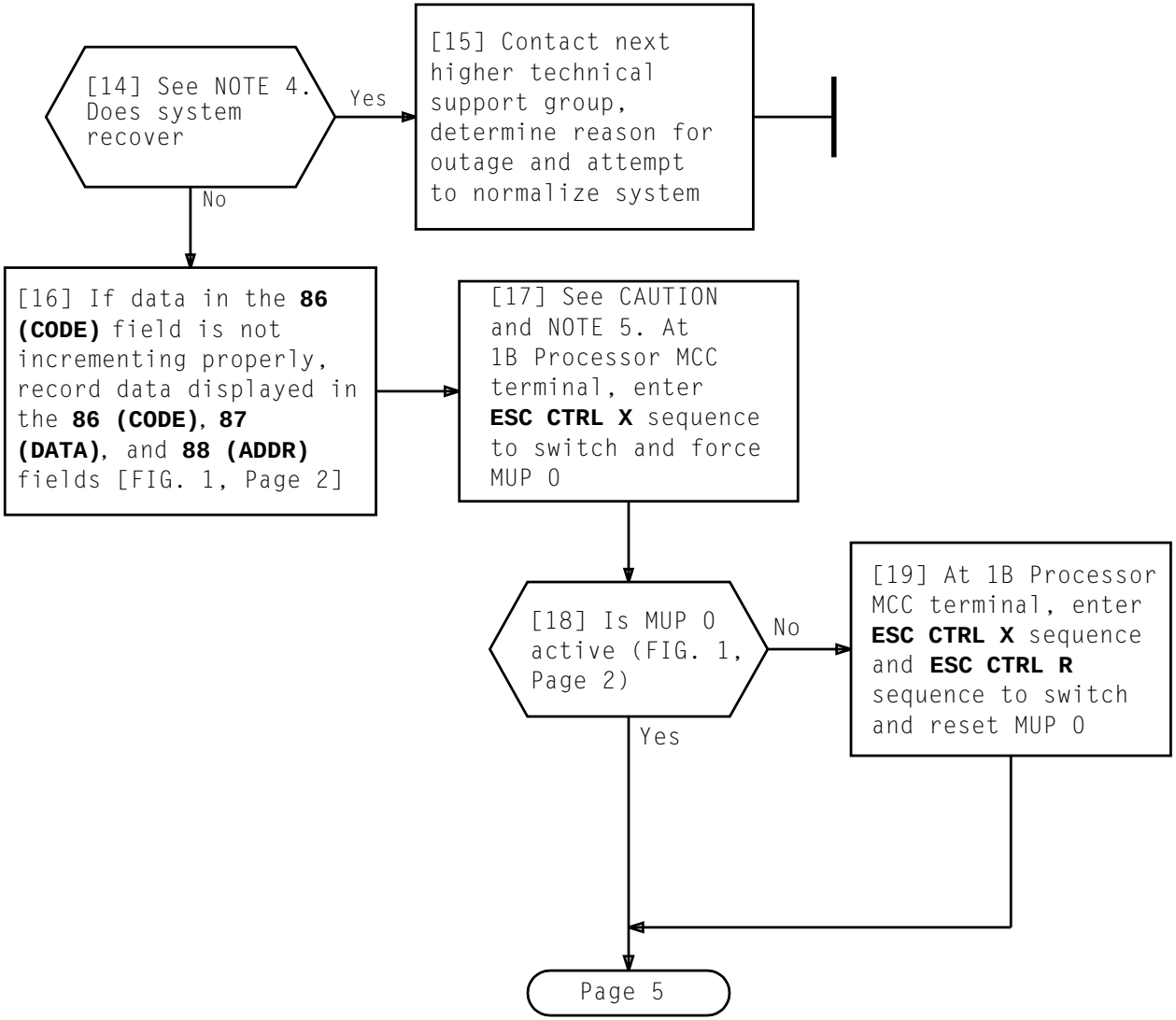
A. **PC STATE** indicator is incrementing through PC states
B. Progression codes are advancing in **86-CODE** field. See NOTE 2
C. **PHASE IN PROGRESS** text is lighted
D. **PC PROGRESSION CMPL** text lighted RED



NOTES

2. In **EAI FAIL DATA DISPLAY** section, for every PC attempt and every Hard A (01) request, the octal digits **"aaaa"** and **"bbbb"** [FIG. 1, Page 2] in **86-CODE** field must begin incrementing within 10 seconds. **"bbbb"** indicates that 1B Processor is attempting to pump and **"aaaa"** indicates the memory range that is being pumped (this applies while **PC PROGRESSION - CMPL** lamp is not GREEN). **"aaaa"** and **"bbbb"** will continue to increment until **PC PROGRESSION - COMPL** text lights BLACK on GREEN. If **"aaaa"** does not begin to increment and **"bbbb"** does begin to increment, this is a failure. If at any time **"aaaa"** stops incrementing for 30 seconds while **"bbbb"** continues to increment, this is a failure
3. A phase is in progress if the leftmost **"a"** position in the **86 (CODE)** field is alternating between 0 and 4 every half second

PERFORM 1B PROCESSOR SYSTEM RECOVERY

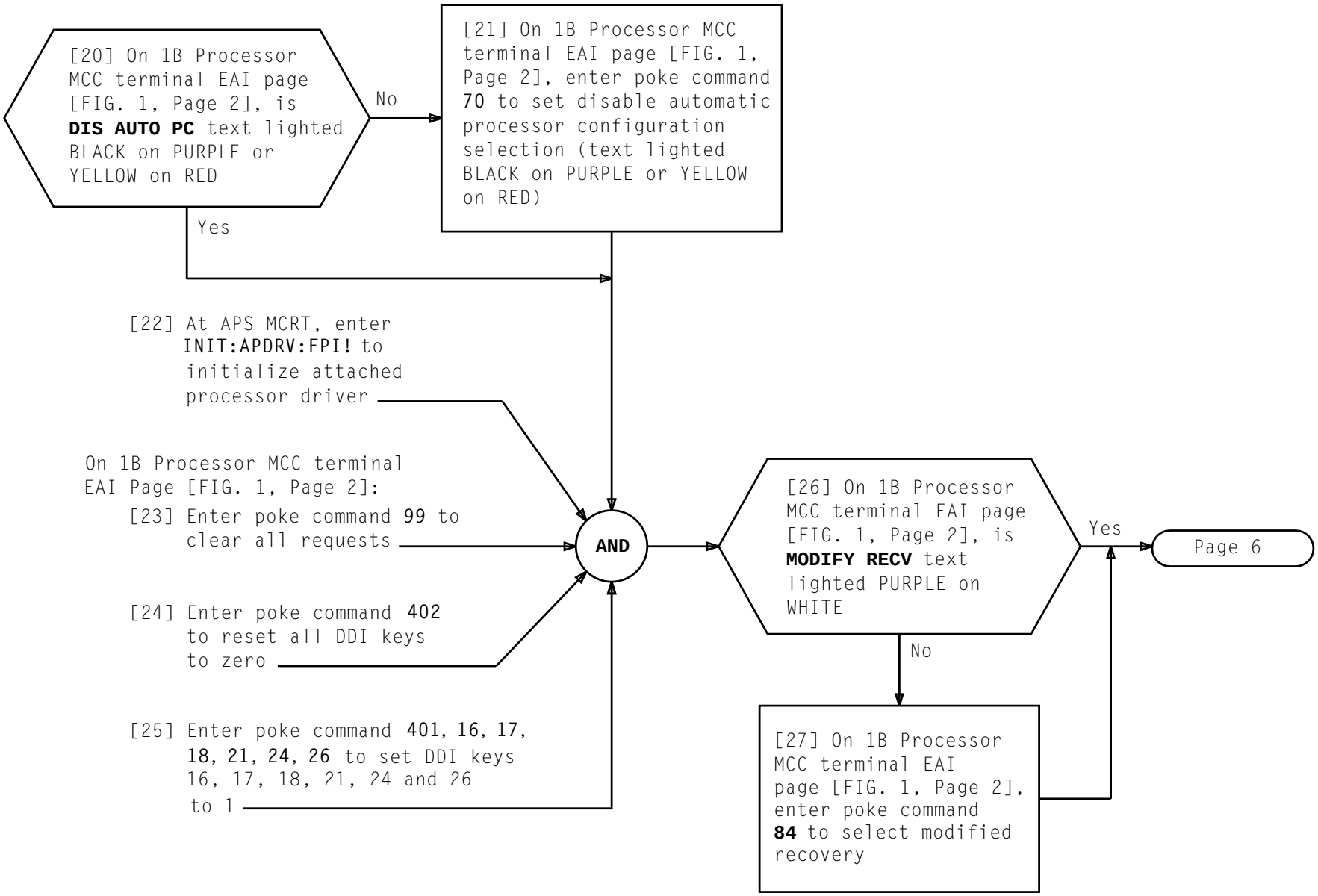


NOTES

4. System has recovered if following conditions have been met:
   A. On 1B Processor MCC terminal EAI page under **PC PROGRESSION**, **CMPL** text is lighted BLACK on GREEN
   B. On 1B Processor MCC terminal EAI page, **PHASE IN PROG** text has not lighted in last few minutes
   C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY**, displayed data is normal for time of day (takes 3 minutes for data to be updated)
   D. Calls are being processed
5. Depress **ESC**, **CTRL** and **X keys** simultaneously to switch MUPs. Depress **ESC**, **CTRL** and **R** keys simultaneously to reset MUPs

CAUTION
Depressing **ESC**, **CTRL** *and* **X** *keys simultaneously in an operating office will cause interjects. Use only in emergency situations*

PERFORM 1B PROCESSOR SYSTEM RECOVERY



PERFORM 1B PROCESSOR SYSTEM RECOVERY

On 1B Processor MCC terminal
EAI Page [FIG. 1, Page 2]:

[28] Enter poke command **10 (CC 0)** to select function

[29] Enter poke command **20 (PS 0)** to select function

[30] Enter poke command **22 (PSB 0)** to select function

[31] Enter poke command **30 (CSB 0)** to select function

[32] Enter poke command **40 (IFB 0)** to select function

[33] Enter poke command **42 (AUB 0)** to select function

[34] Enter poke command **01 (HARD A)** to select override in effect function

AND

[35] See NOTE 6. Allow sufficient time (3 minutes) for processor to recover

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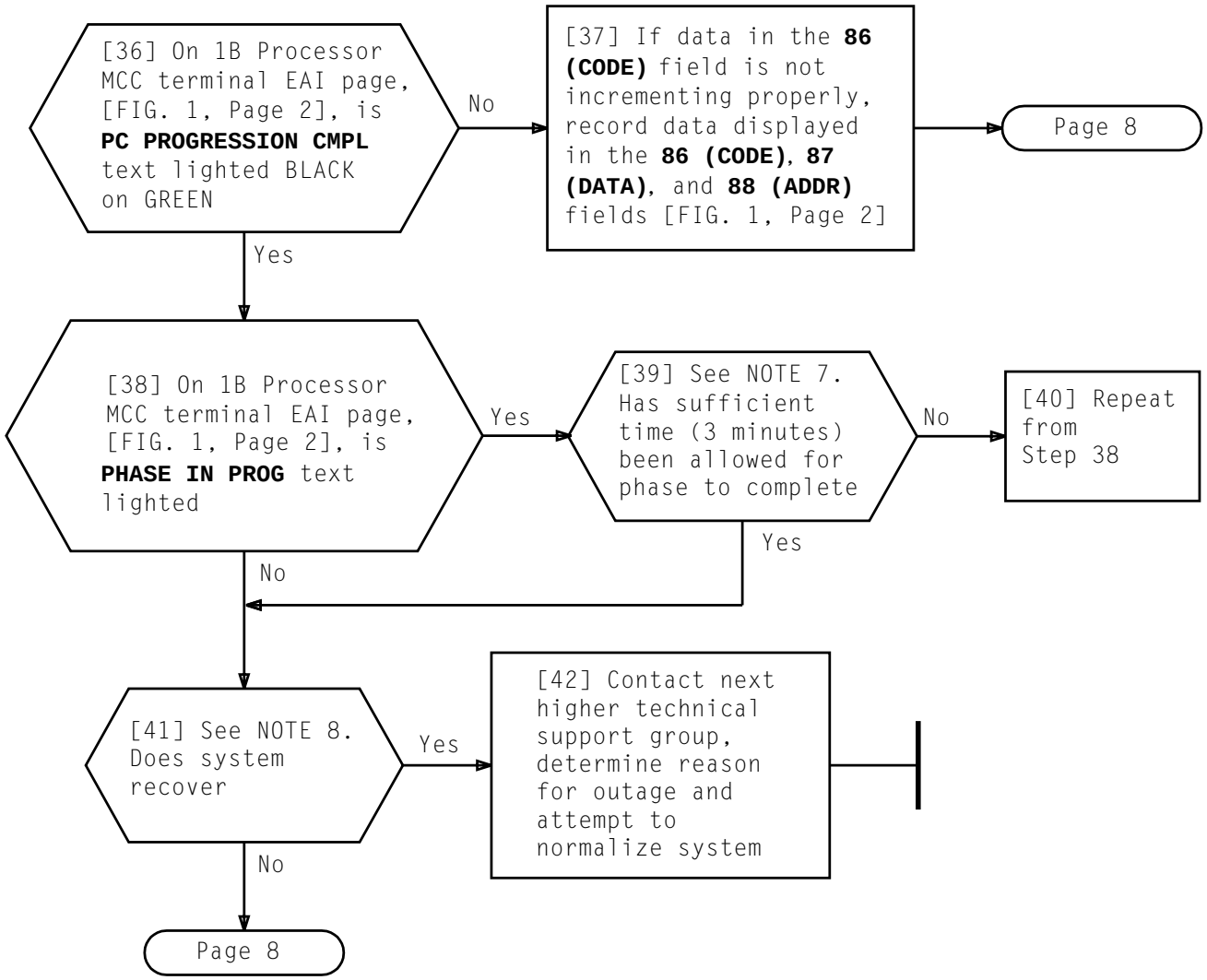
NOTE 6

In **EAI FAIL DATA DISPLAY** section, for every PC attempt and every Hard A (01) request, the octal digits **"aaaa"** and **"bbbb"** [FIG. 1, Page 2] in **86-CODE** field must begin incrementing within 10 seconds. **"bbbb"** indicates that 1B Processor is attempting to pump and **"aaaa"** indicates the memory range that is being pumped (this applies while **PC PROGRESSION - CMPL** lamp is not lighted GREEN). **"aaaa"** and **"bbbb"** will continue to increment until **PC PROGRESSION - CMPL** text lights BLACK on GREEN. If **"aaaa"** does not begin to increment and **"bbbb"** does begin to increment, this is a failure. If at any time **"aaaa"** stops incrementing for 30 seconds while **"bbbb"** continues to increment, this is a failure

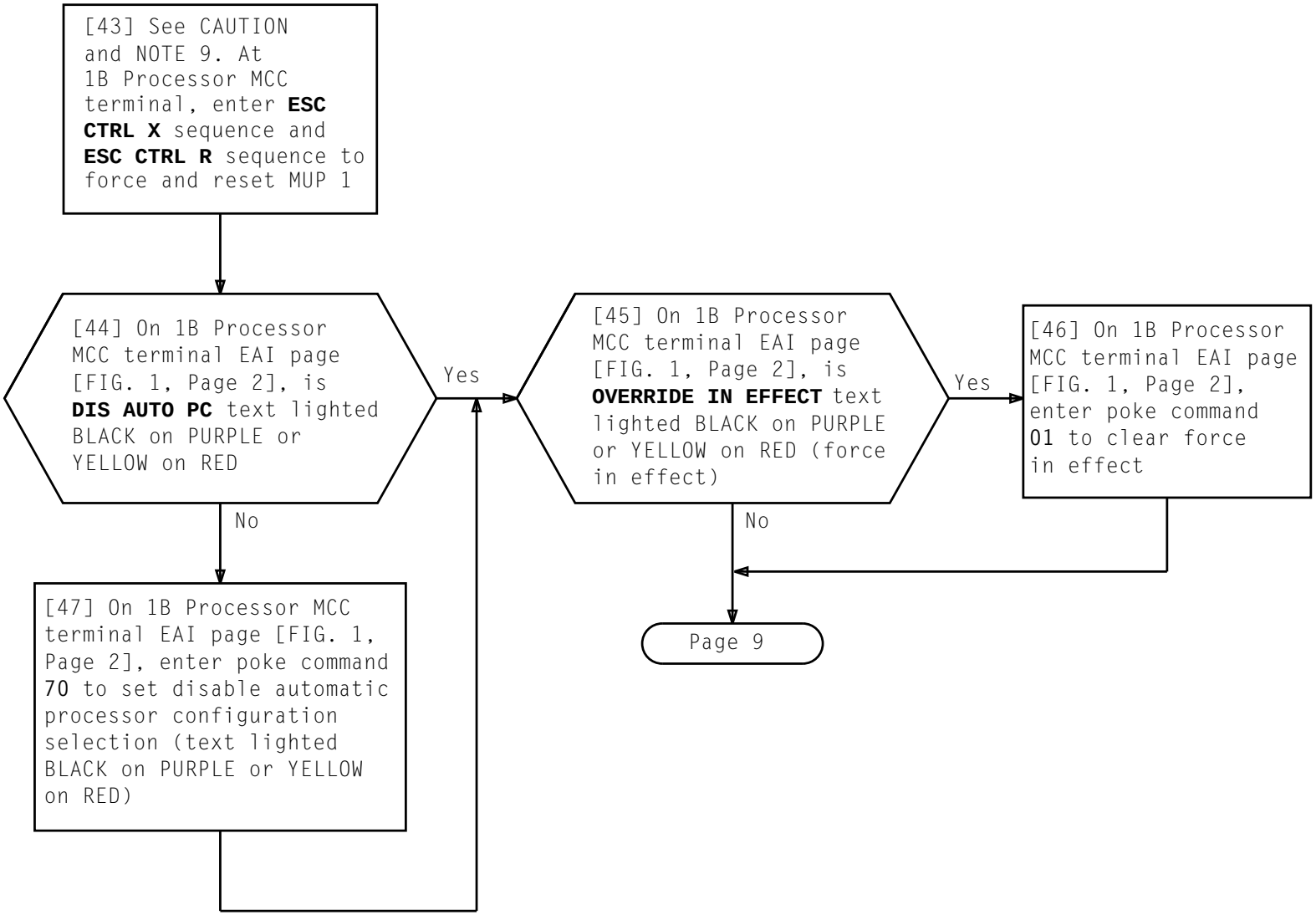
PERFORM 1B PROCESSOR SYSTEM RECOVERY



NOTES

7. A phase is in progress if the left-most **"a"** position in the **86 (CODE)** field is alternating between 0 and 4 every half second
8. System has recovered if following conditions have been met:
   A. On 1B Processor MCC terminal EAI page under **PC PROGRESSION, CMPL** text is lighted BLACK on GREEN
   B. On 1B Processor MCC terminal EAI page, **PHASE IN PROG** text has not lighted in last few minutes
   C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY**, displayed data is normal for time of day (takes 3 minutes for data to be updated)
   D. Calls are being processed

PERFORM 1B PROCESSOR SYSTEM RECOVERY



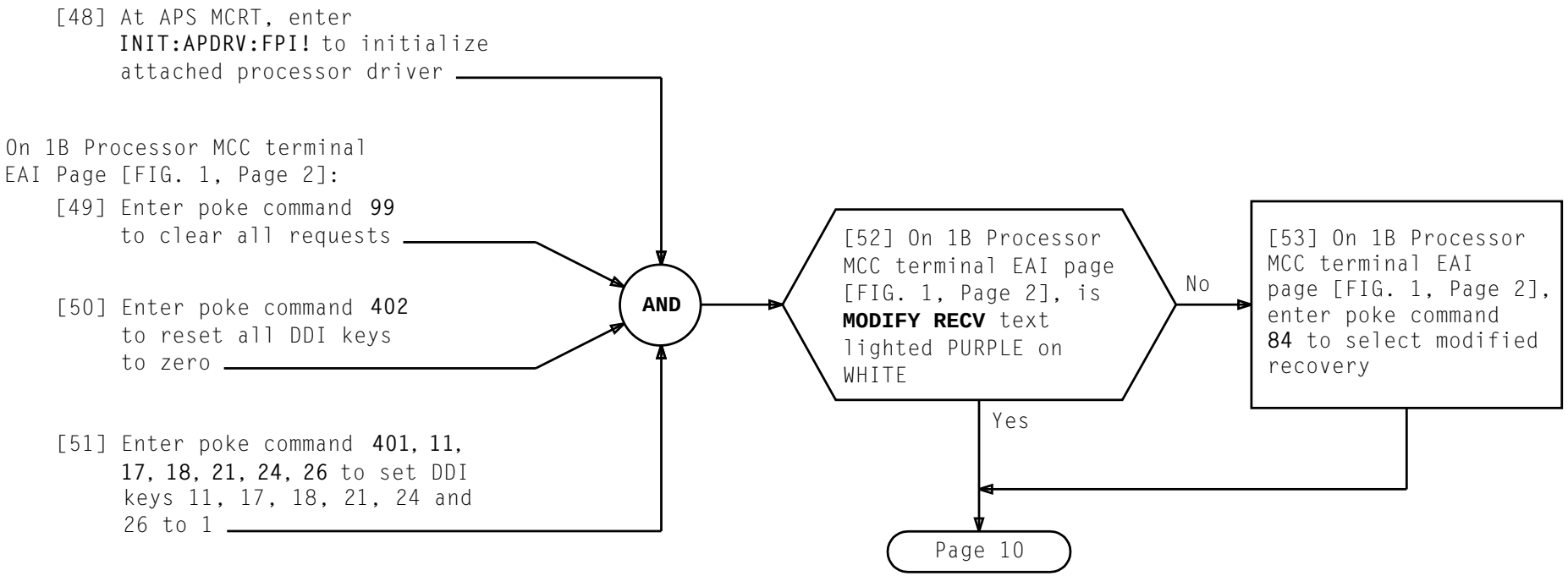
NOTE 9

Depress **ESC**, **CTRL** and **X** keys simultaneously to switch MUPs. Depress **ESC**, **CTRL** and **R** keys simultaneously to reset MUPs

CAUTION

Depressing **ESC**, **CTRL** *and* **X** *keys simultaneously in an operating office will cause interjects. Use only in emergency situations*

PERFORM 1B PROCESSOR SYSTEM RECOVERY



PERFORM 1B PROCESSOR SYSTEM RECOVERY

On 1B Processor MCC terminal
EAI Page [FIG. 1, Page 2]:

[54] Enter poke command **11** (**CC 1**) to select function

[55] Enter poke command **21** (**PS 1**) to select function

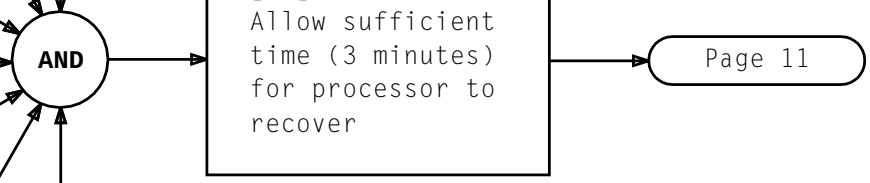
[56] Enter poke command **23** (**PSB 1**) to select function

[57] Enter poke command **31** (**CSB 1**) to select function

[58] Enter poke command **41** (**IFB 1**) to select function

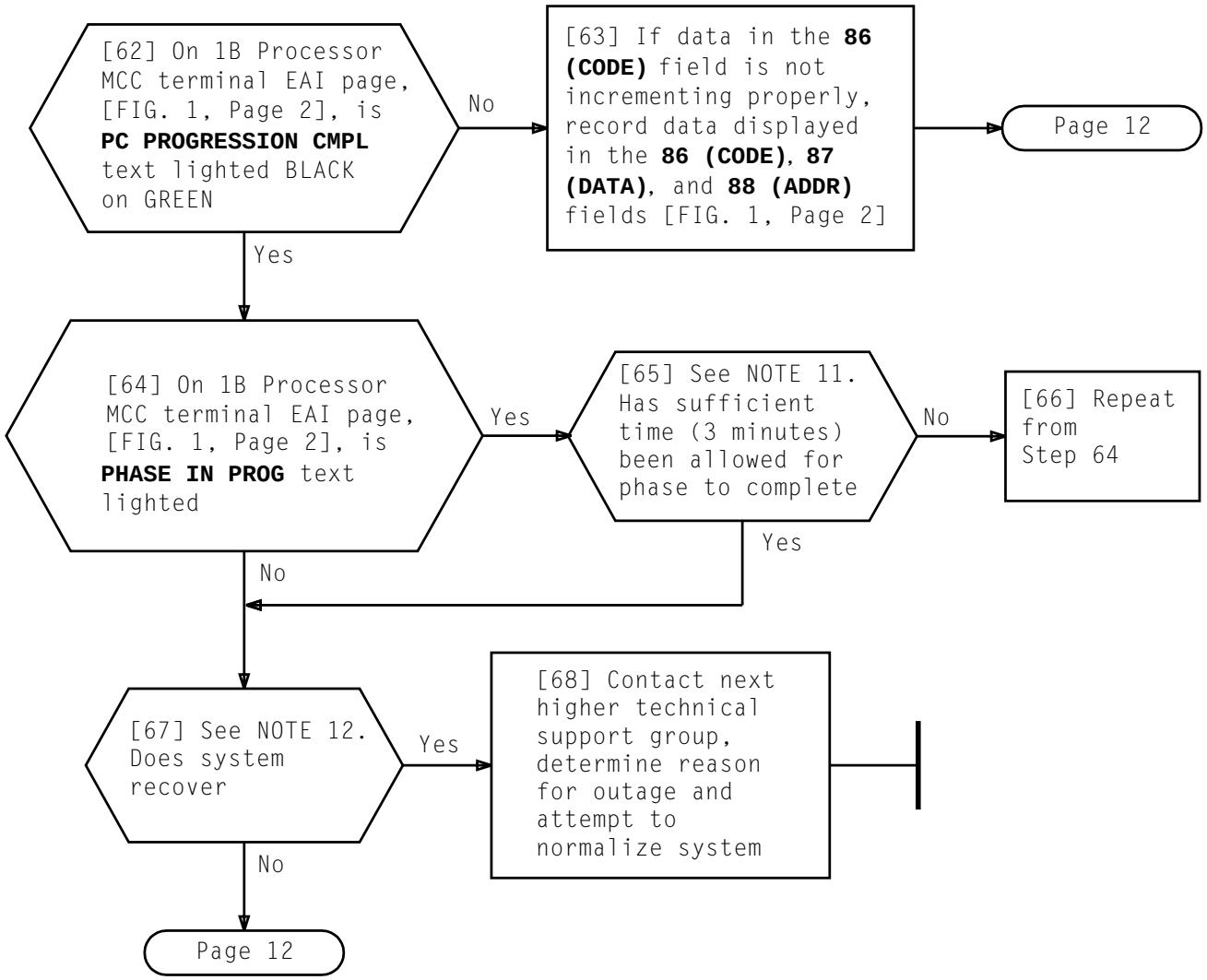
[59] Enter poke command **43** (**AUB 1**) to select function

[60] Enter poke command **01** (**HARD A**) to select override in effect function



NOTE 10

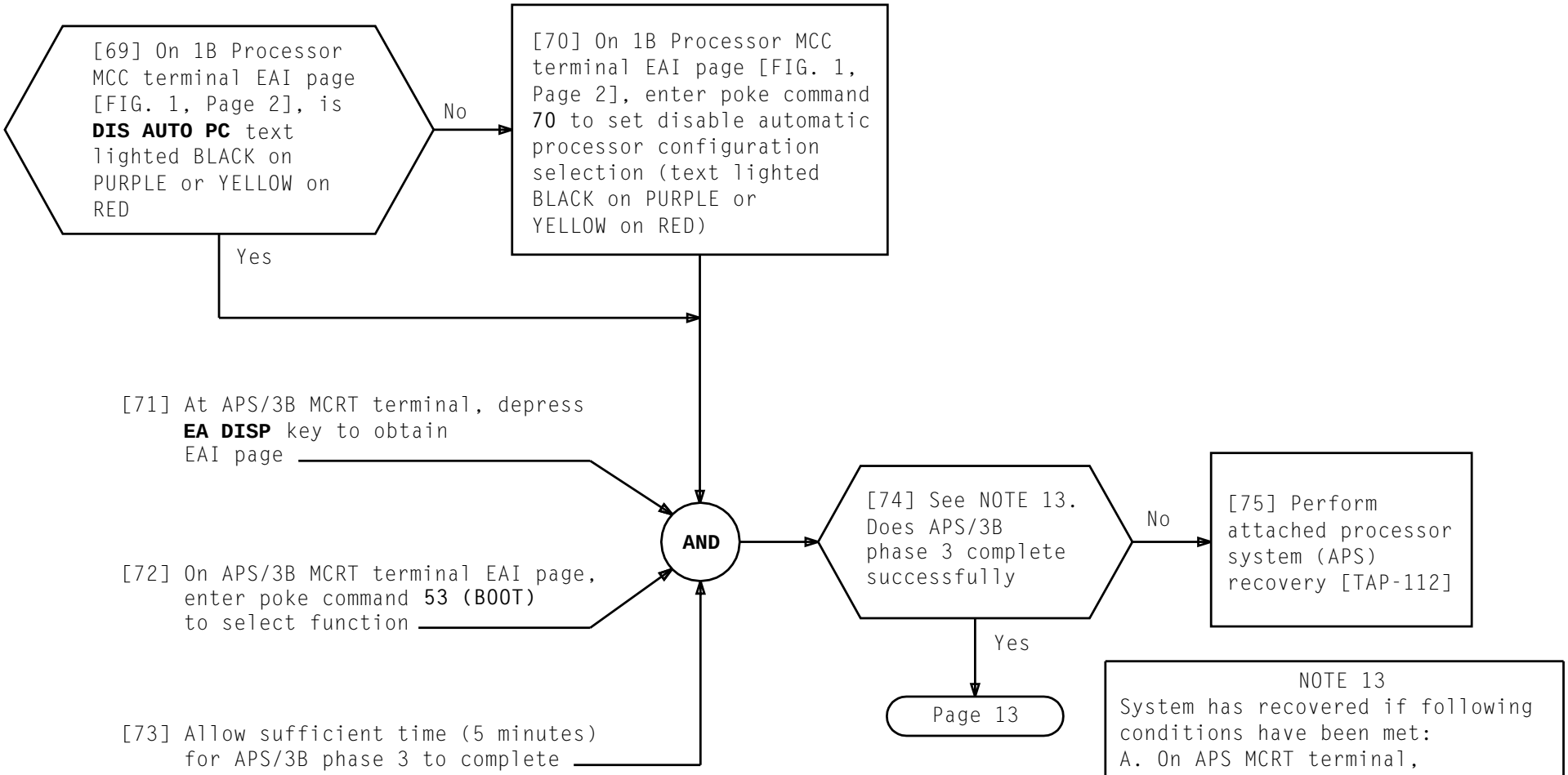
In **EAI FAIL DATA DISPLAY** section, for every PC attempt and every Hard A (01) request, the octal digits **"aaaa"** and **"bbbb"** [FIG. 1, Page 2] in **86-CODE** field must begin incrementing within 10 seconds. **"bbbb"** indicates that 1B Processor is attempting to pump and **"aaaa"** indicates the memory range that is being pumped (this applies while **PC PROGRESSION - CMPL** lamp is not lighted GREEN). **"aaaa"** and **"bbbb"** will continue to increment until **PC PROGRESSION - CMPL** text lights BLACK on GREEN. If **"aaaa"** does not begin to increment and **"bbbb"** does begin to increment, this is and failure. If at any time **"aaaa"** stops incrementing for 30 seconds while **"bbbb"** continues to increment, this is a failure



NOTES

11. A phase is in progress if the left-most **"a"** position in the **86 (CODE)** field is alternating between 0 and 4 every half second
12. System has recovered if following conditions have been met:
    A. On 1B Processor MCC terminal EAI page under **PC PROGRESSION, CMPL** text is lighted BLACK on GREEN
    B. On 1B Processor MCC terminal EAI page, **PHASE IN PROG** text has not lighted in last few minutes
    C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY**, displayed data is normal for time of day (takes 3 minutes for data to be updated)
    D. Calls are being processed

PERFORM 1B PROCESSOR SYSTEM RECOVERY



NOTE 13

System has recovered if following conditions have been met:

A. On APS MCRT terminal, **SYS EMER INDICATOR** is not lighted
B. On MCC panel, **PROCESSOR CONFIG COMPLETED** lamp is lighted
C. No current recent change activity
D. PRMs are not being received continuously

PERFORM 1B PROCESSOR SYSTEM RECOVERY

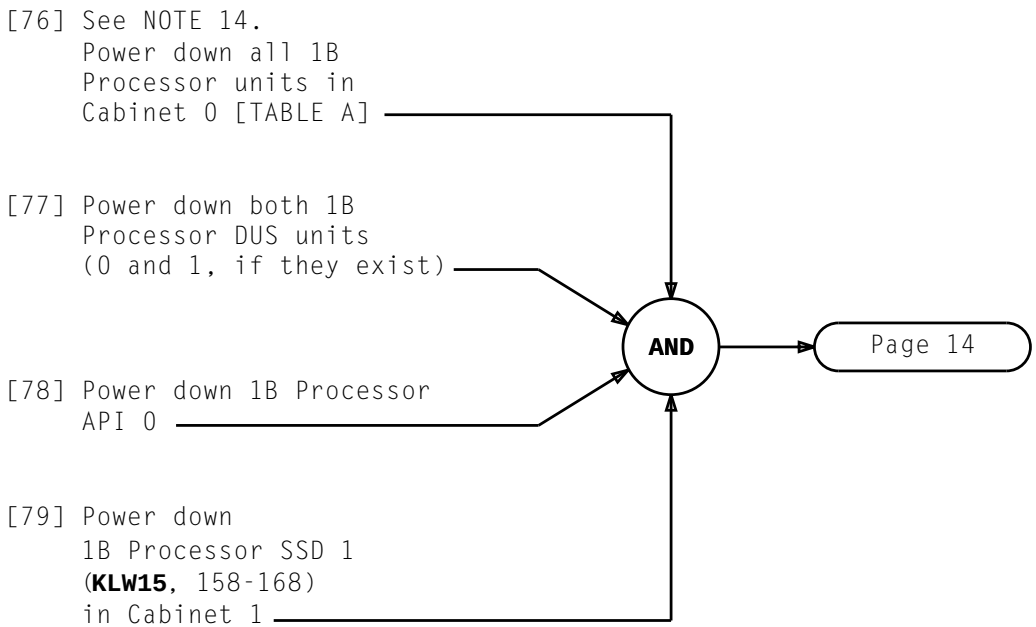
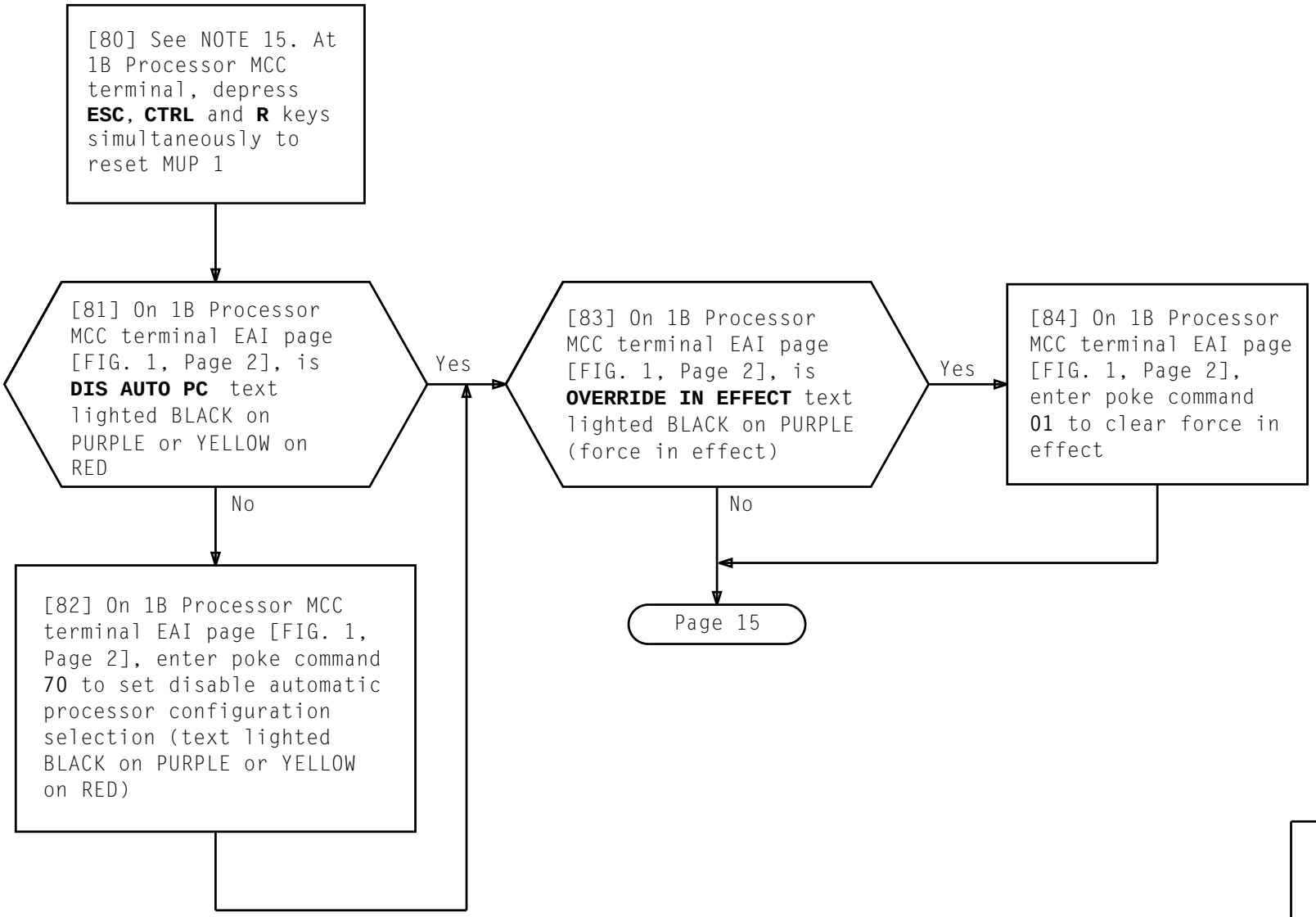


TABLE A 1B PROCESSOR EVEN UNITS
CC 0 **(KLW11)** (041-014)
PS 0, 2... **(KLW2)** (041-128, -136...)
CS 0,2,4,6,8...**(KLW1)** (024-006, -014...)
CSB0 **(KLW26)** (024-086) CSB1 **(KLW27)** (024-096) In Cabinet 0
AUI 0 **(KLW18)** (058-120)
SSD 0 **(KLW15)** (058-168)
MUP 0 **(KLW25)** (058-086)
XPWR 0 **(KLW23)** (024-030)

NOTE 14
Do not toggle **ROS** switch, use **MOR** and **OFF** buttons to power down units

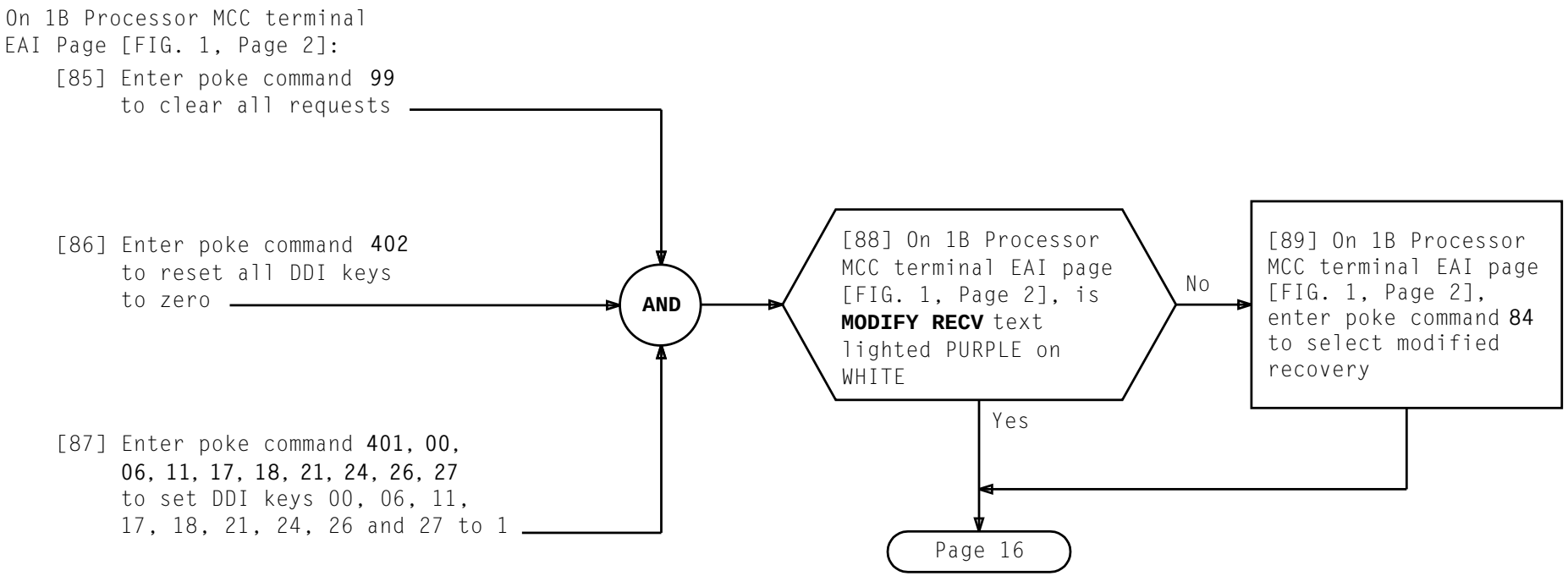
PERFORM 1B PROCESSOR SYSTEM RECOVERY



NOTE 15

Depressing **ESC**, **CTRL** and **R** keys simultaneously will reset MUP

PERFORM 1B PROCESSOR SYSTEM RECOVERY


On 1B Processor MCC terminal
EAI Page [FIG. 1, Page 2]:
[85] Enter poke command 99
to clear all requests
[86] Enter poke command 402
to reset all DDI keys
to zero
[87] Enter poke command 401, 00,
06, 11, 17, 18, 21, 24, 26, 27
to set DDI keys 00, 06, 11,
17, 18, 21, 24, 26 and 27 to 1
AND
[88] On 1B Processor
MCC terminal EAI page
[FIG. 1, Page 2], is
MODIFY RECV text
lighted PURPLE on
WHITE
No
[89] On 1B Processor
MCC terminal EAI page
[FIG. 1, Page 2],
enter poke command 84
to select modified
recovery
Yes
Page 16

On 1B Processor MCC terminal
EAI Page [FIG. 1, Page 2]:

[90] Enter poke command **11** (**CC 1**) to select function

[91] Enter poke command **21** (**PS 1**) to select function

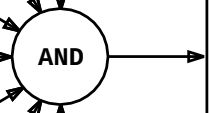
[92] Enter poke command **23** (**PSB 1**) to select function

[93] Enter poke command **31** (**CSB 1**) to select function

[94] Enter poke command **41** (**IFB 1**) to select function

[95] Enter poke command **43** (**AUB 1**) to select function

[96] Enter poke command **01** (**HARD A**) to select override in effect function



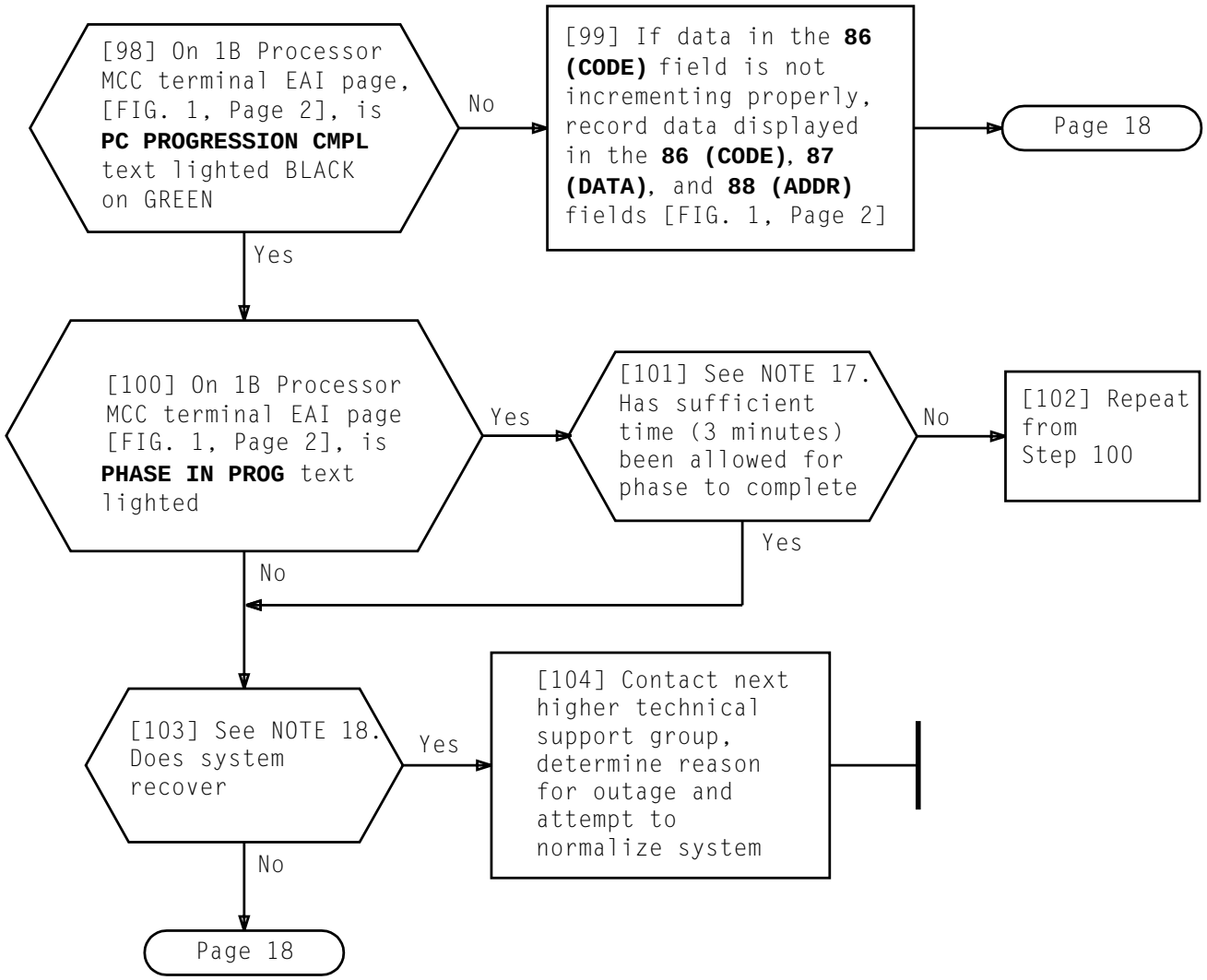
[97] See NOTE 16. Allow sufficient time (3 minutes) for processor to recover

Page 17

NOTE 16

In **EAI FAIL DATA DISPLAY** section, for every PC attempt and every Hard A (01) request, the octal digits **"aaaa"** and **"bbbb"** [FIG. 1, Page 2] in **86-CODE** field must begin incrementing within 10 seconds. **"bbbb"** indicates that 1B Processor is attempting to pump and **"aaaa"** indicates the memory range that is being pumped (this applies while **PC PROGRESSION - CMPL** lamp is not lighted GREEN). **"aaaa"** and **"bbbb"** will continue to increment until **PC PROGRESSION - CMPL** text lights BLACK on GREEN. If **"aaaa"** does not begin to increment and **"bbbb"** does begin to increment, this is a failure. If at any time **"aaaa"** stops incrementing for 30 seconds while **"bbbb"** continues to increment, this is a failure

PERFORM 1B PROCESSOR SYSTEM RECOVERY



NOTES

17. A phase is in progress if the left most "**a**" position in the **86 (CODE)** field is alternating between 0 and 4 every half second
18. System has recovered if following conditions have been met:
    A. On 1B Processor MCC terminal EAI page under **PC PROGRESSION**, **CMPL** text is lighted BLACK on GREEN
    B. On 1B Processor MCC terminal EAI page, **PHASE IN PROG** text has not lighted in last few minutes
    C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY**, displayed data is normal for time of day (takes 3 minutes for data to be updated)
    D. Calls are being processed

PERFORM 1B PROCESSOR SYSTEM RECOVERY

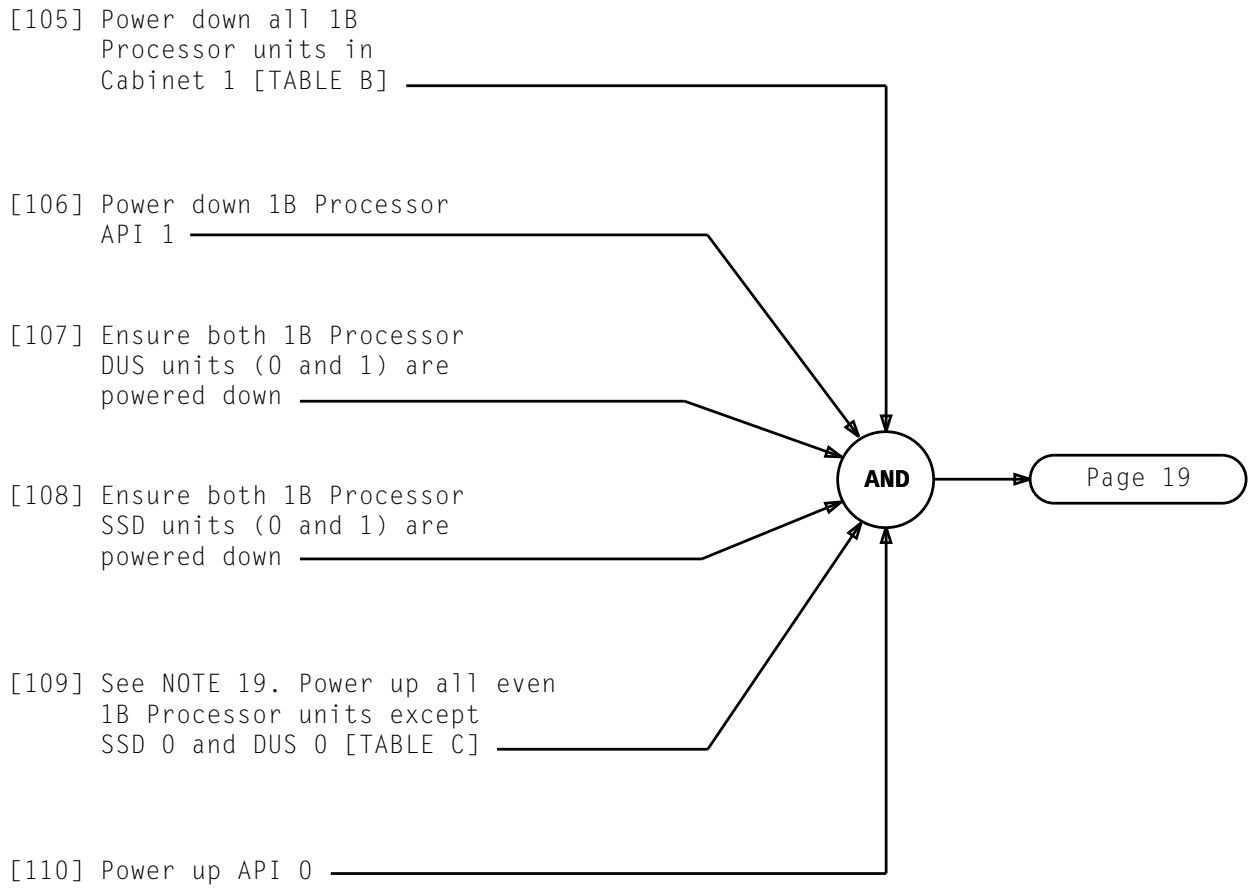
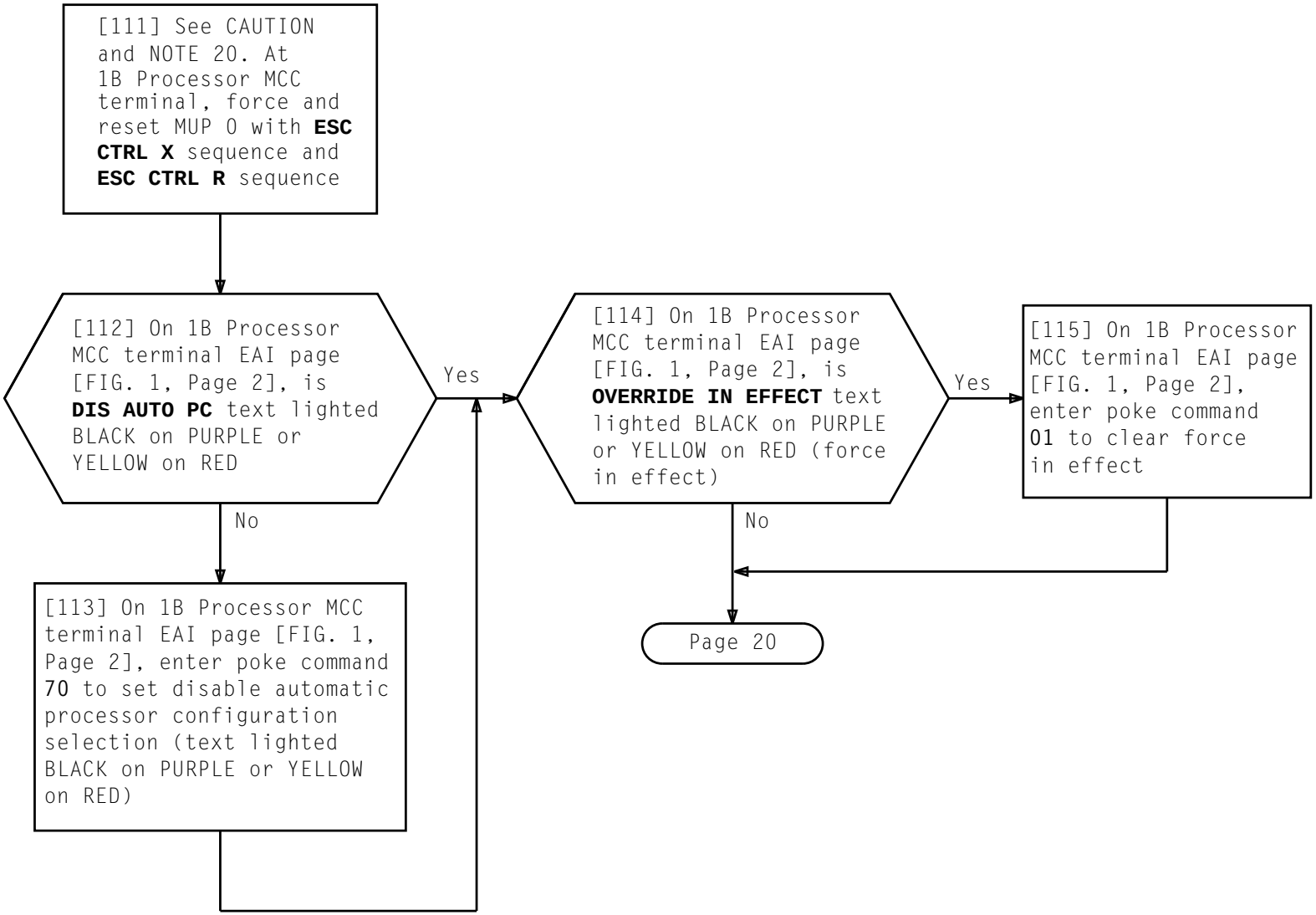


TABLE B 1B PROCESSOR ODD UNITS
CC 1 **(KLW11)** (141-014)
PS 1, 3... **(KLW2)** (141-128, -136...)
CS 1,3,5,7,9...**(KLW1)** (124-006, -014...)
CSB0 **(KLW26)** (124-086) CSB1 **(KLW27)** (124-096) In Cabinet 1
AUI 1 **(KLW18)** (158-120)
MUP 1 **(KLW25)** (158-086)
XPWR 1 **(KLW23)** (024-030)

TABLE C 1B PROCESSOR EVEN UNITS
CC 0 **(KLW11)** (041-014)
PS 0, 2... **(KLW2)** (041-128, -136...)
CS 0,2,4,6,8...**(KLW1)** (024-006, -014...)
CSB0 **(KLW26)** (024-086) CSB1 **(KLW27)** (024-096) In Cabinet 0
AUI 0 **(KLW18)** (058-120)
MUP 0 **(KLW25)** (058-086)
XPWR 0 **(KLW23)** (024-030)

NOTE 19
At this time, all 1B Processor units including both API units and both DUS units should be powered down

PERFORM 1B PROCESSOR SYSTEM RECOVERY



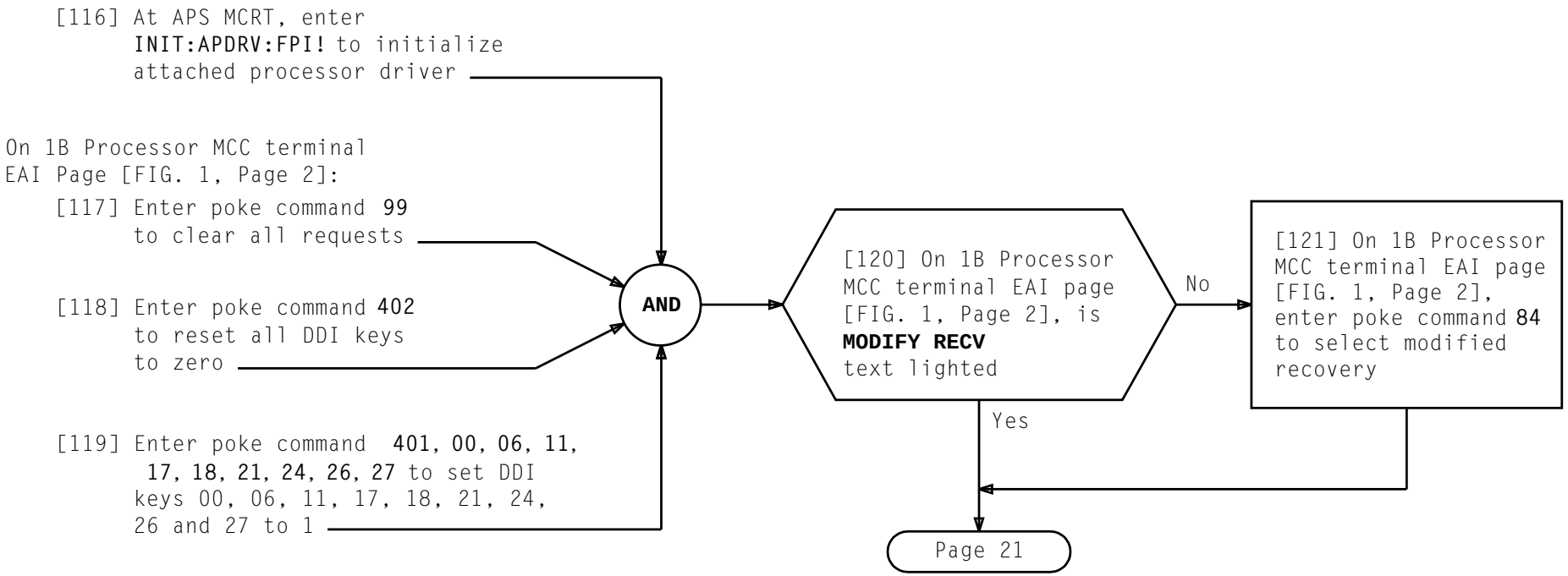
NOTE 20

Depressing **ESC**, **CTRL** and **X** keys simultaneously will switch MUPs. Depressing **ESC**, **CTRL** and **R** keys simultaneously will reset MUPs

CAUTION

Depressing **ESC**, **CTRL** *and* **X** *keys simultaneously in an operating office will cause interjects. Use only in emergency situations*

PERFORM 1B PROCESSOR SYSTEM RECOVERY



PERFORM 1B PROCESSOR SYSTEM RECOVERY

On 1B Processor MCC terminal
EAI Page [FIG. 1, Page 2]:

[122] Enter poke command **10** (CC 0) to select function

[123] Enter poke command **20** (PS 0) to select function

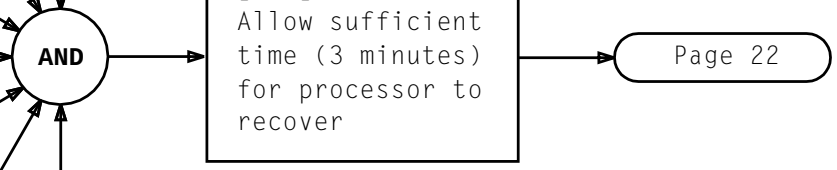
[124] Enter poke command **22** (PSB 0) to select function

[125] Enter poke command **30** (CSB 0) to select function

[126] Enter poke command **40** (IFB 0) to select function

[127] Enter poke command **42** (AUB 0) to select function

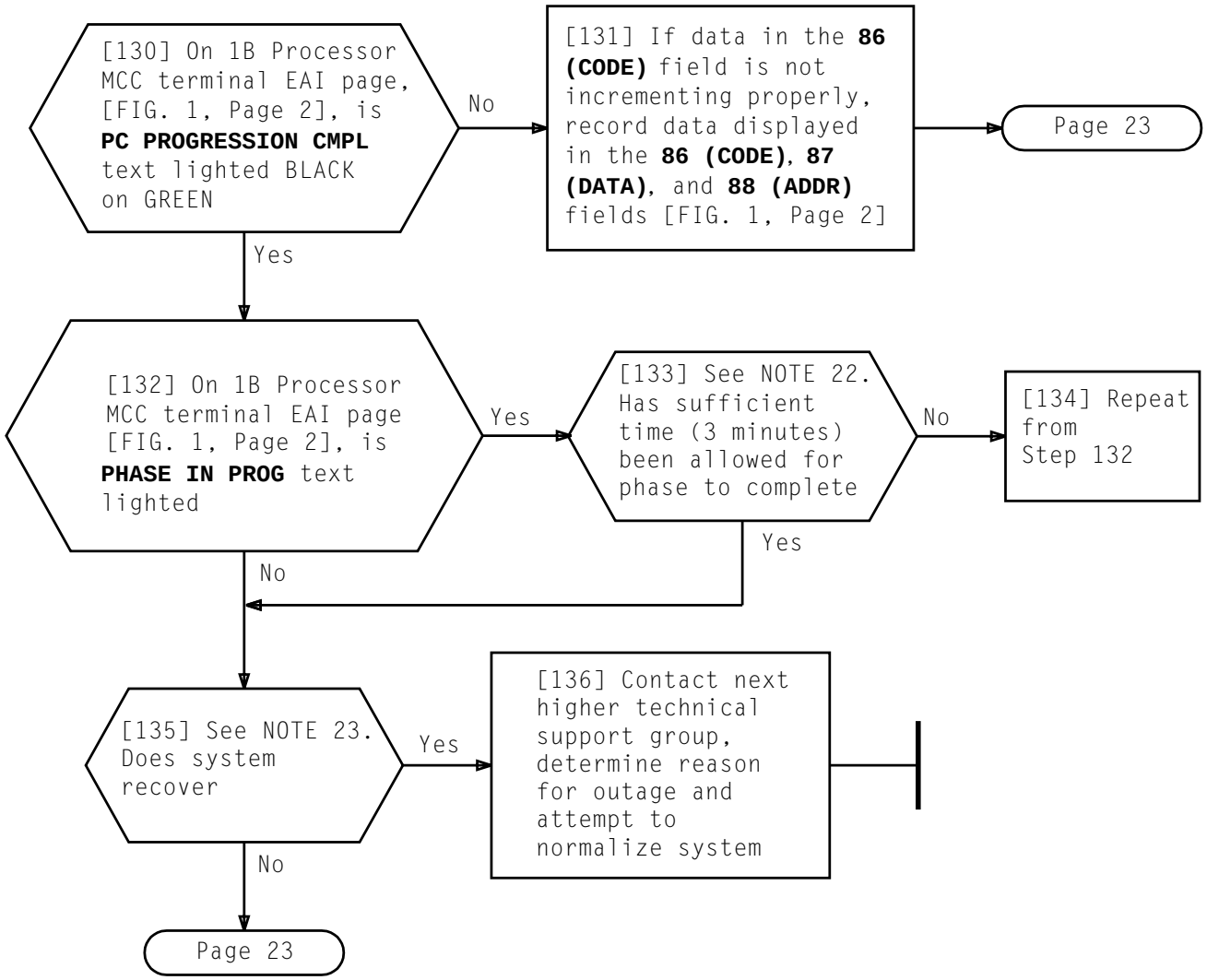
[128] Enter poke command **01** (HARD A) to select override in effect function



NOTE 21

In **EAI FAIL DATA DISPLAY** section, for every PC attempt and every Hard A (01) request, the octal digits **"aaaa"** and **"bbbb"** [FIG. 1, Page 2] in **86-CODE** field must begin incrementing within 10 seconds. **"bbbb"** indicates that 1B Processor is attempting to pump and **"aaaa"** indicates the memory range that is being pumped (this applies while **PC PROGRESSION - CMPL** lamp is not lighted GREEN). **"aaaa"** and **"bbbb"** will continue to increment until **PC PROGRESSION - CMPL** text lights BLACK on GREEN. If **"aaaa"** does not begin to increment and **"bbbb"** does begin to increment, this is and failure. If at any time **"aaaa"** stops incrementing for 30 seconds while **"bbbb"** continues to increment, this is a failure

PERFORM 1B PROCESSOR SYSTEM RECOVERY



NOTES

22. A phase is in progress if the left-most **"a"** position in the **86 (CODE)** field is alternating between 0 and 4 every half second
23. System has recovered if following conditions have been met:
    A. On 1B Processor MCC terminal EAI page under **PC PROGRESSION, CMPL** text is lighted BLACK on GREEN
    B. On 1B Processor MCC terminal EAI page, **PHASE IN PROG** text has not lighted in last few minutes
    C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY**, displayed data is normal for time of day (takes 3 minutes for data to be updated)
    D. Calls are being processed

PERFORM 1B PROCESSOR SYSTEM RECOVERY

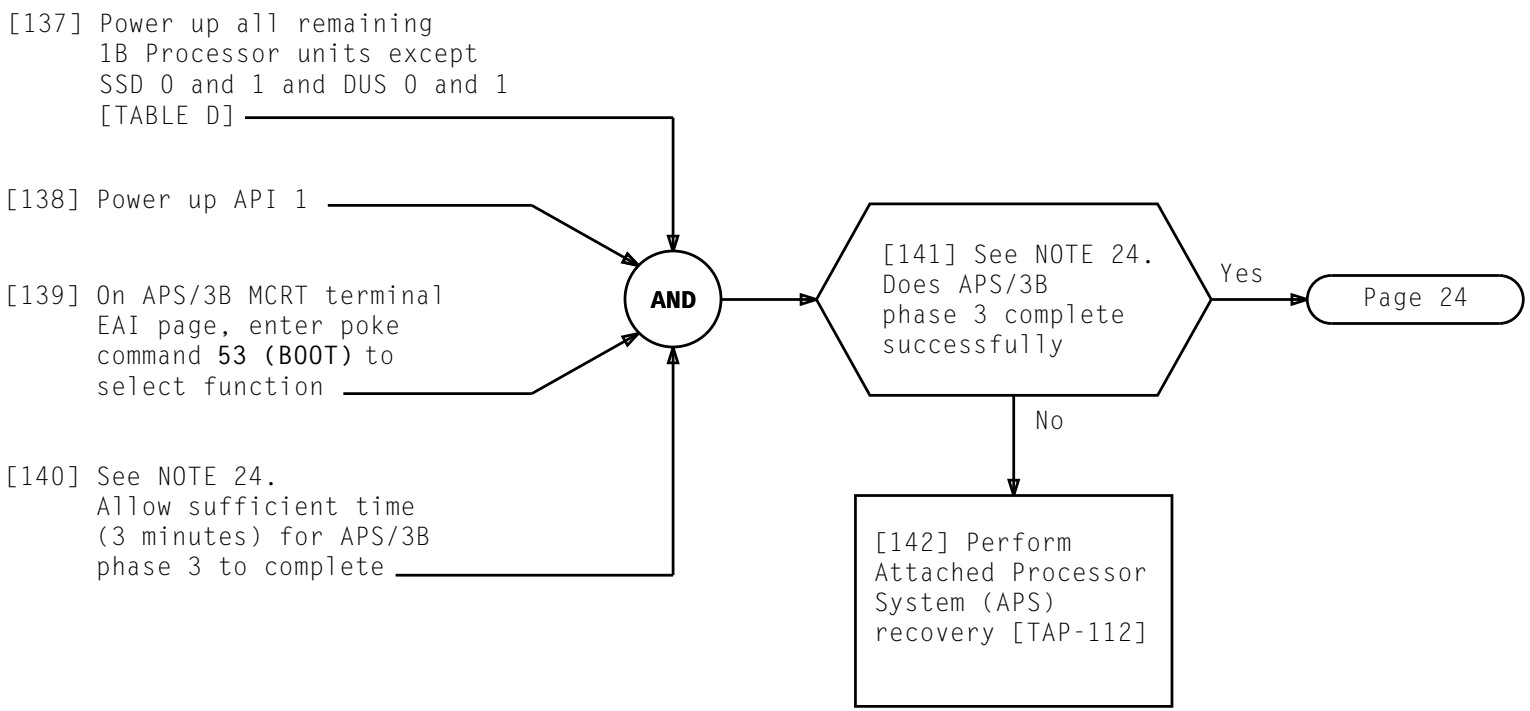


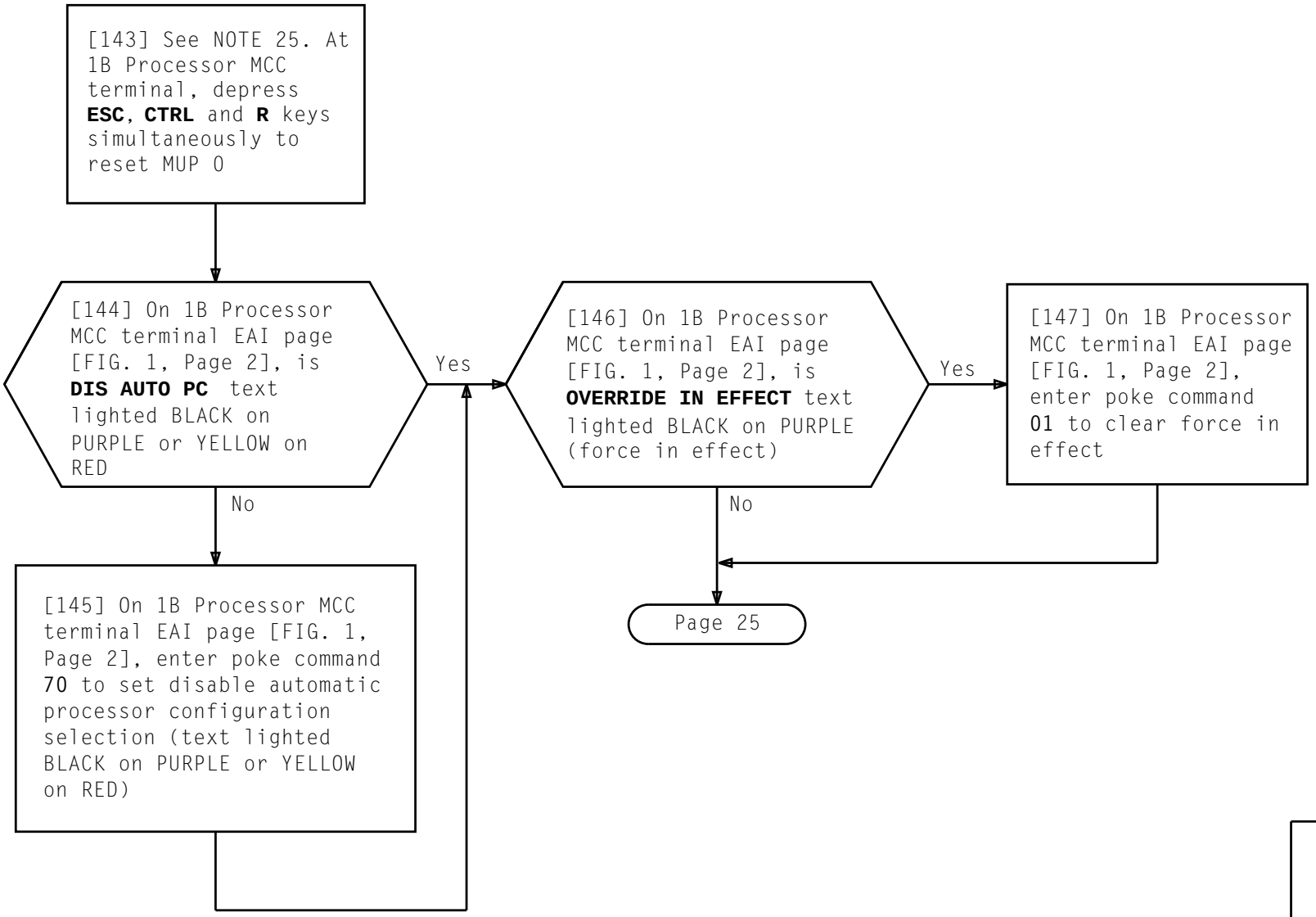
TABLE D 1B PROCESSOR ODD UNITS
CC 1 **(KLW11)** (141-014)
PS 1, 3... **(KLW2)** (141-128, -136...)
CS 1,3,5,7,9...**(KLW1)** (124-006, -014...)
(KLW26) (124-086) **(KLW27)** (124-096) In Cabinet 1
AUI 1 **(KLW18)** (158-120)
MUP 1 **(KLW25)** (158-086)
XPWR 1 **(KLW23)** (124-030)

NOTE 24

System has recovered if following conditions have been met:

A. On APS MCRT terminal, SYS EMER INDICATOR is not lighted
B. On MCC panel, PROCESSOR CONFIG COMPLETED lamp is lighted
C. No current recent change activity
D. PRMs are not being received continuously

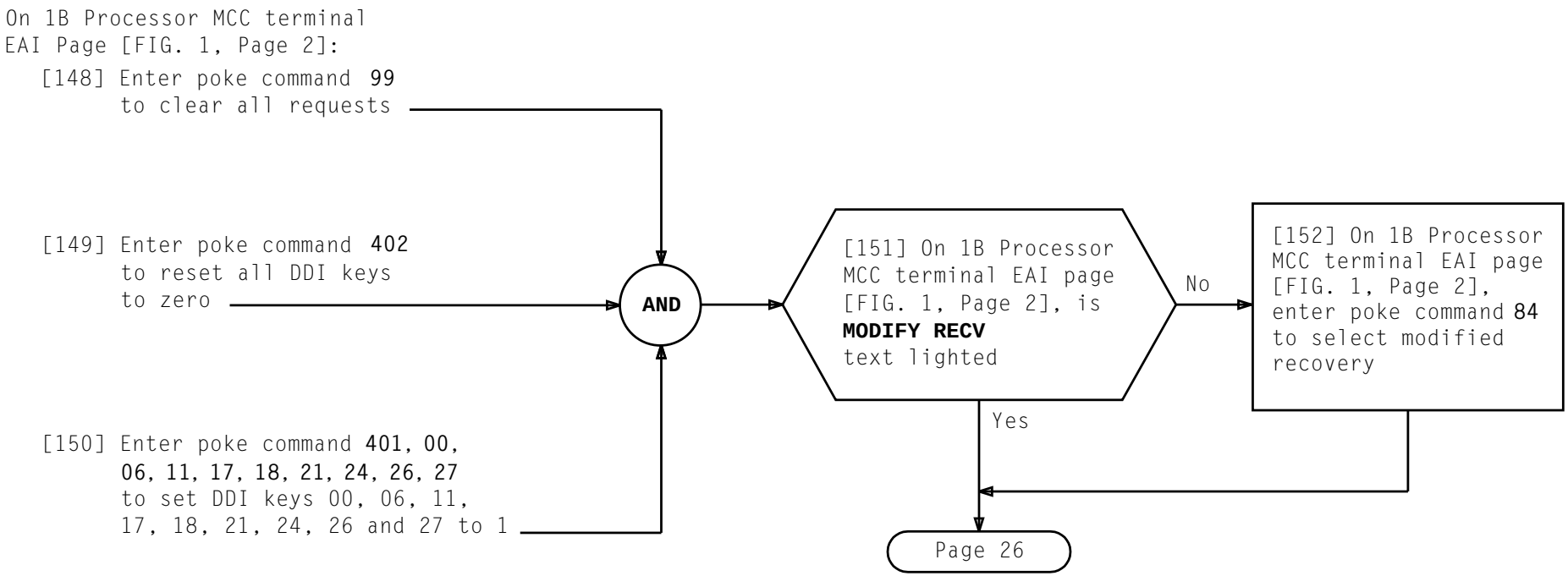
PERFORM 1B PROCESSOR SYSTEM RECOVERY



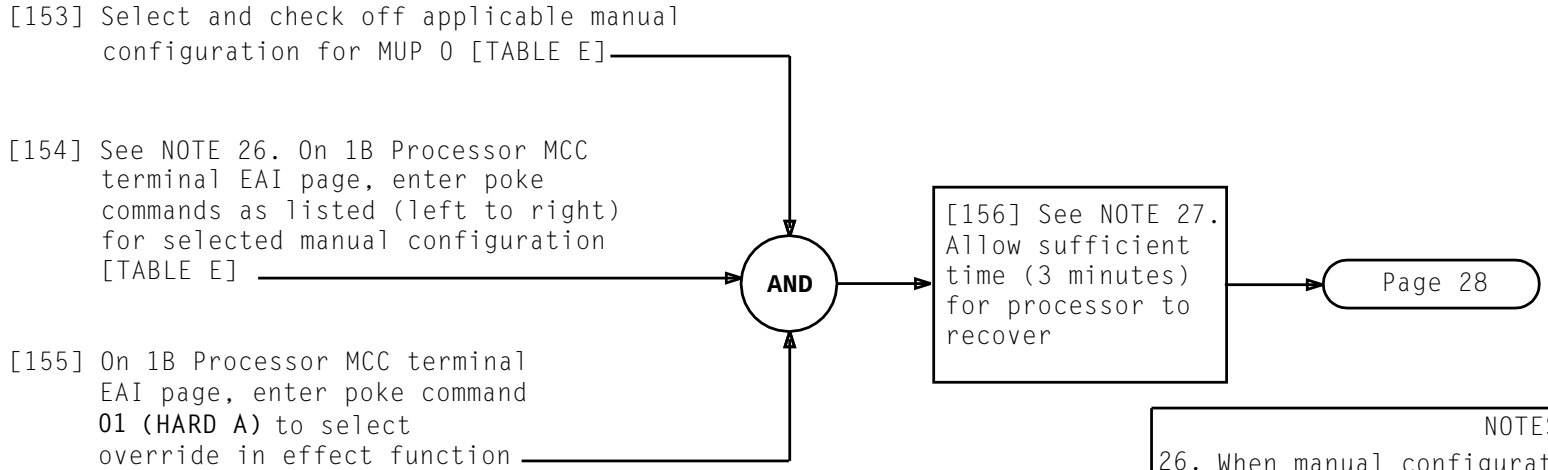
NOTE 15

Depressing **ESC**, **CTRL** and **R** keys simultaneously will reset MUP

PERFORM 1B PROCESSOR SYSTEM RECOVERY



PERFORM 1B PROCESSOR SYSTEM RECOVERY



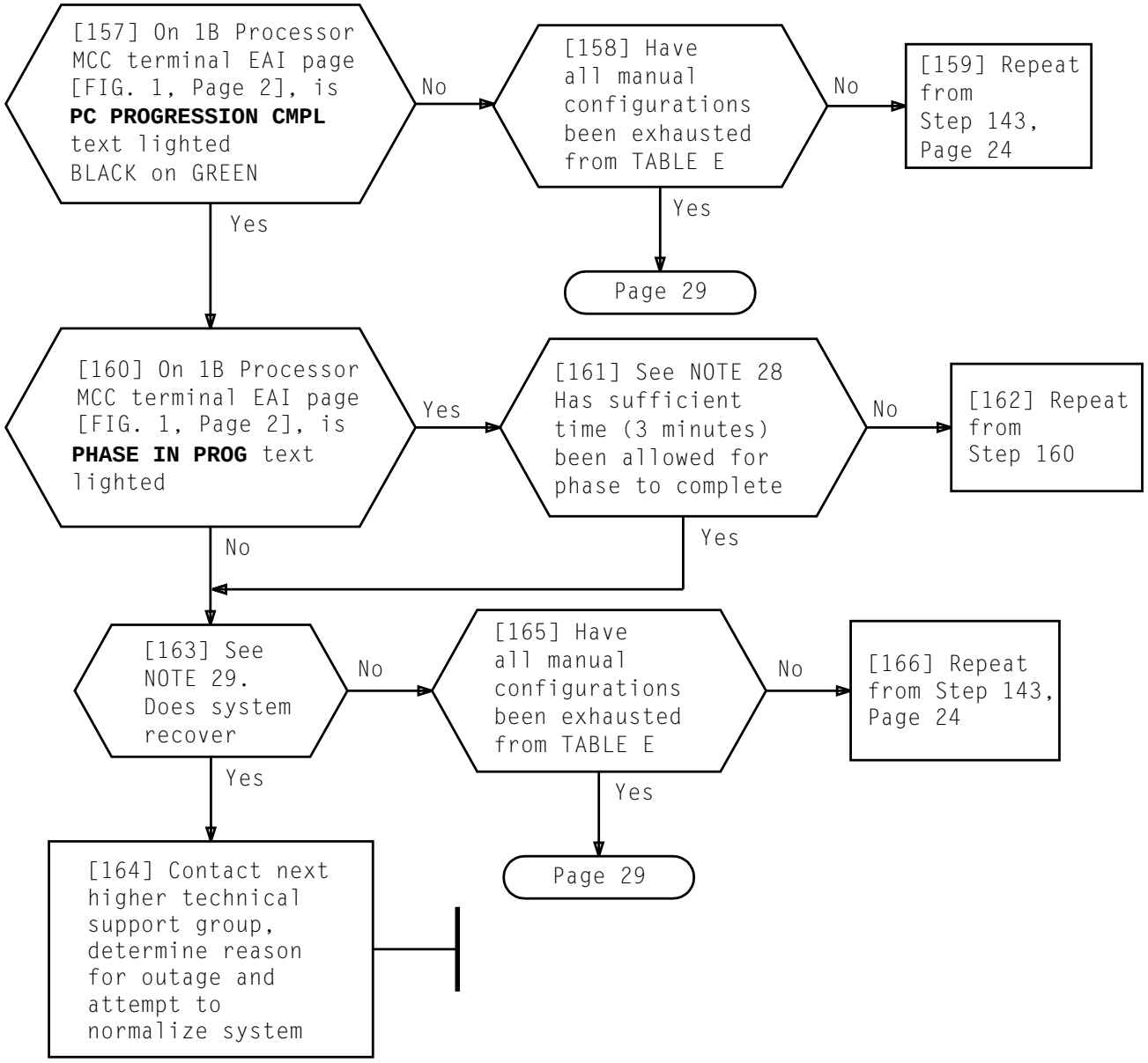
NOTES

26. When manual configurations are selected that specify opposite IFB and MUP selections (for example, IFB0/MUP1 or IFB1/MUP0), a "FORCED MUP/IFB MISMATCH" system response will be received. This system response should be ignored while system recovery manual configurations are being forced
27. In **EAI FAIL DATA DISPLAY** section, for every PC attempt and every Hard A (01) request, the octal digits **"aaaa"** and **"bbbb"** [FIG. 1, Page 2] in **86-CODE** field must begin incrementing within 10 seconds. **"bbbb"** indicates that 1B Processor is attempting to pump and **"aaaa"** indicates the memory range that is being pumped (this applies while **PC PROGRESSION - CMPL** lamp is not lighted GREEN). **"aaaa"** and **"bbbb"** will continue to increment until **PC PROGRESSION - CMPL** text lights BLACK on GREEN. If **"aaaa"** does not begin to increment and **"bbbb"** does begin to increment, this is a failure. If at any time **"aaaa"** stops incrementing for 30 seconds while **"bbbb"** continues to increment, this is a failure

TABLE E
1B PROCESSOR MANUAL CONFIGURATIONS AND ASSOCIATED POKE COMMANDS (MUP 0)

MANUAL SEQUENCE (See NOTE)	OVERRIDE CONTROL SELECTIONS												
	CC0	CC1	PS0	PS1	PSB0	PSB1	CSB0	CSB1	IFB0	IFB1	AUB0	AUB1	CHECK OFF ✓
1	10			21	22		30			41	42		
2	10			21	22		30			41	42		
3		11	20		22			31	40			43	
4		11	20		22			31		41		43	
5		11		21	22		30		40		42		
6	10		20			23		31		41		43	
7	10			21		23	30		40		42		
8	10			21	22			31		41		43	
9		11	20			23	30		40		42		
10	10		20		22		30		40		42		
11		11		21		23		31		41		43	

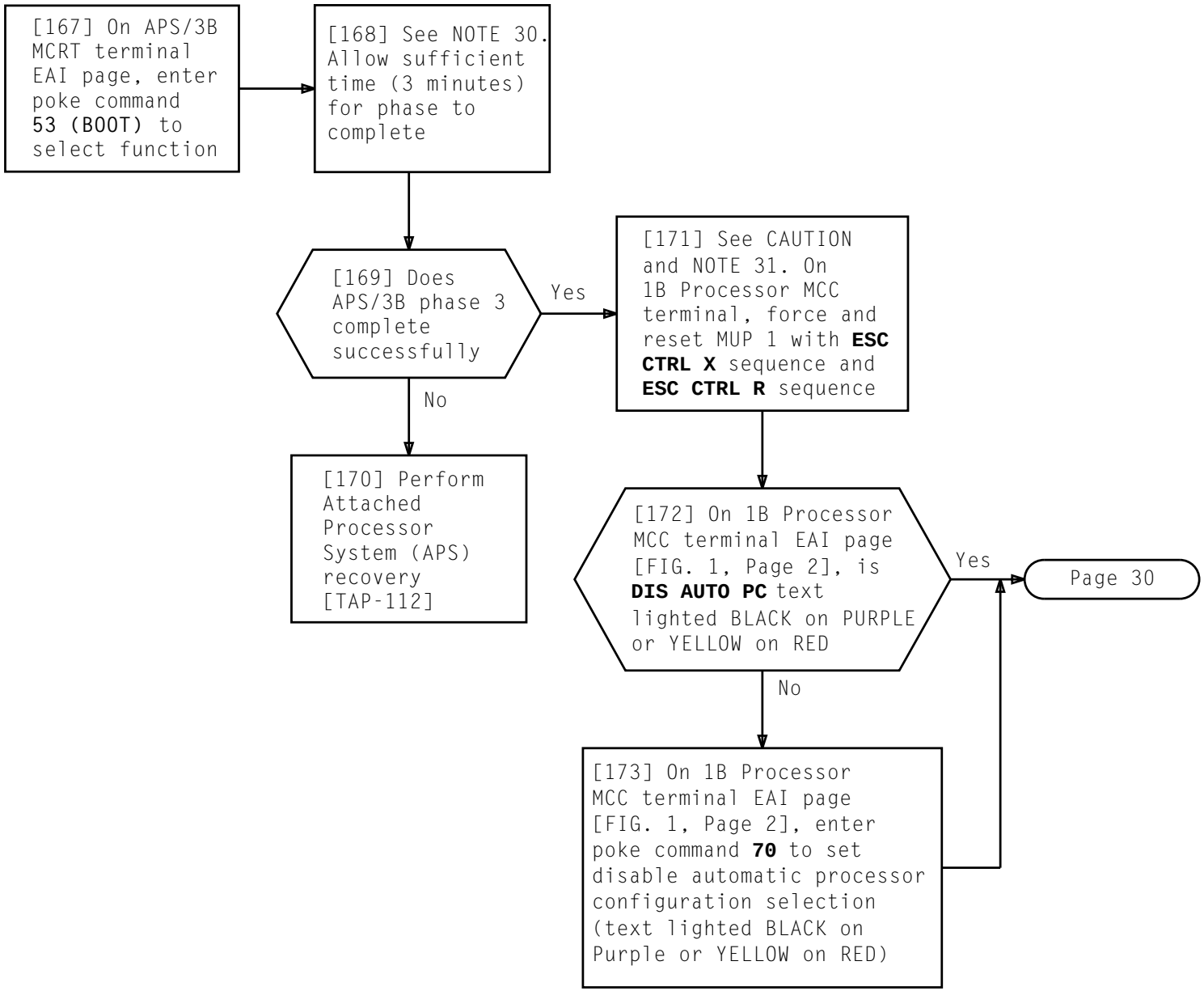
NOTE: All forces must be cleared before next manual configuration can be selected



NOTES

28. A phase is in progress if the left-most **"a"** position in the **86 (CODE)** field is alternating between 0 and 4 every half second
29. System has recovered if following conditions have been met:
    A. On 1B Processor MCC terminal EAI page under **PC PROGRESSION, CMPL** text is lighted BLACK on GREEN
    B. On 1B Processor MCC terminal EAI page, **PHASE IN PROG** text has not lighted in last few minutes
    C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY,** displayed data is normal for time of day (takes 3 minutes for data to be updated)
    D. Calls are being processed

PERFORM 1B PROCESSOR SYSTEM RECOVERY

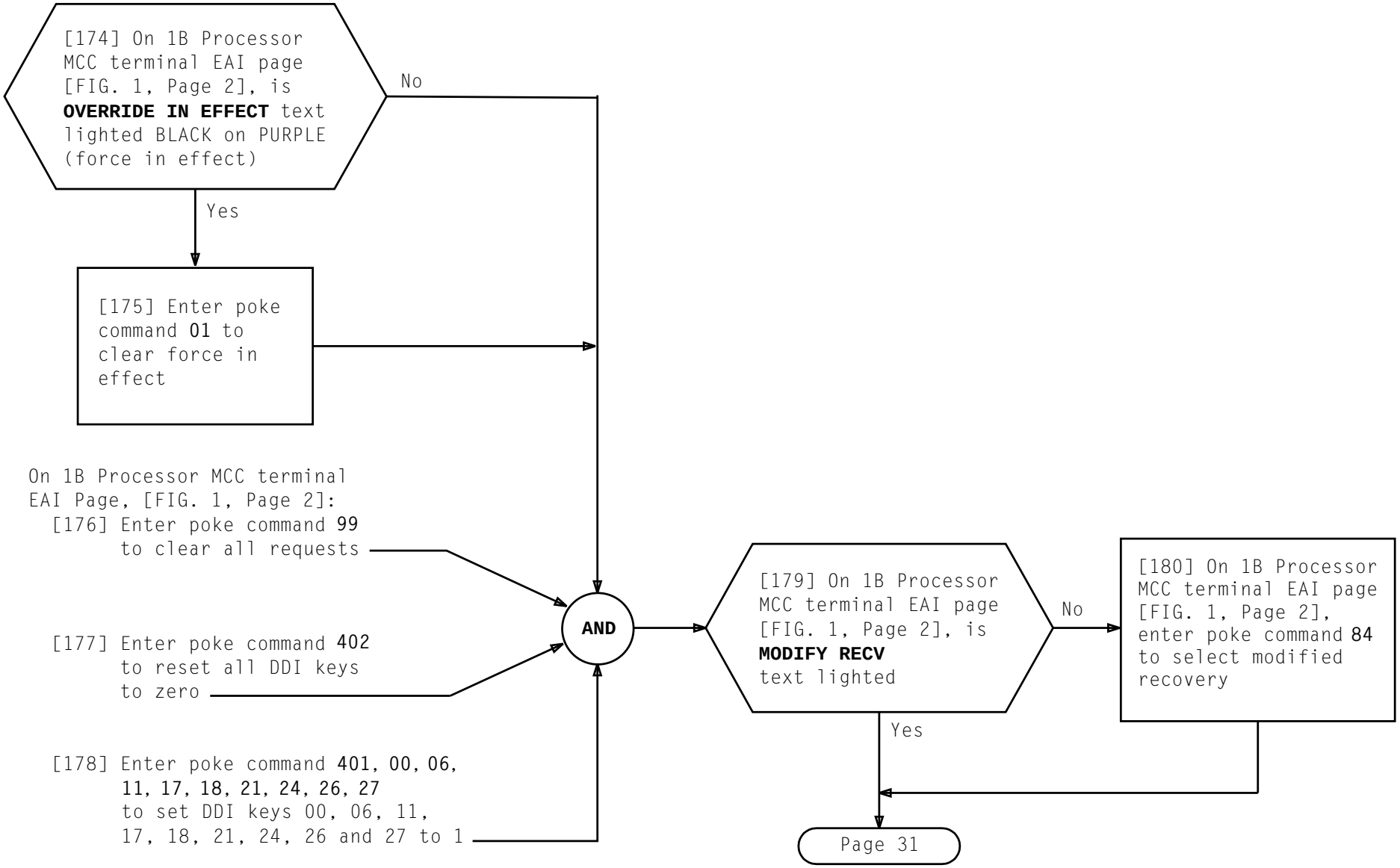


NOTES

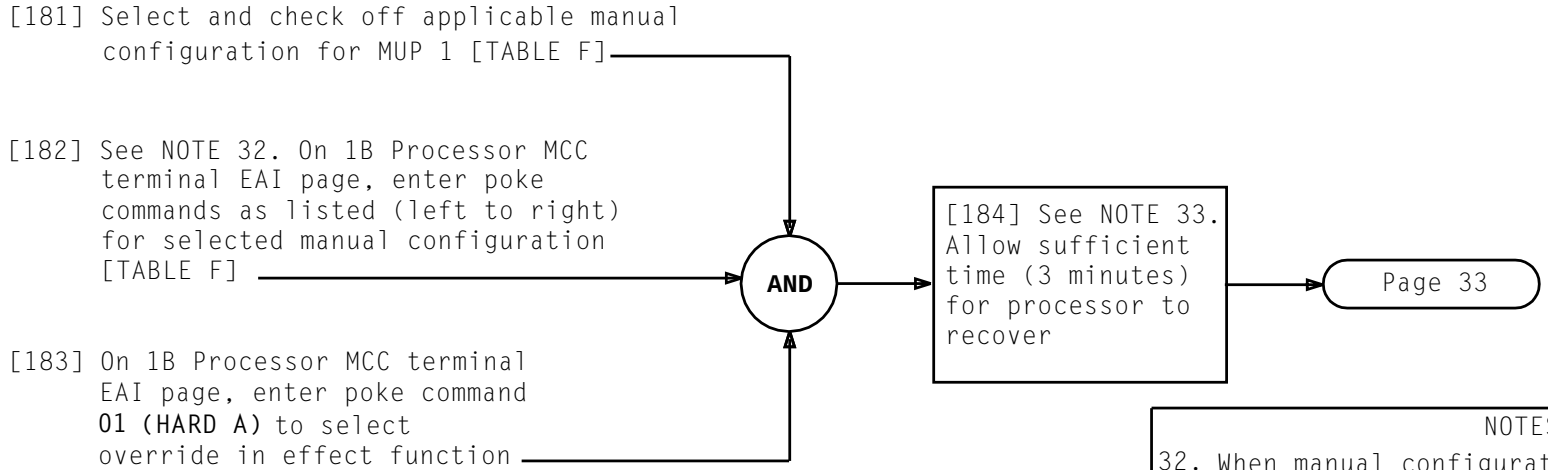
30. System has recovered if following conditions have been met:
    A. On APS MCRT terminal, SYS EMER INDICATOR is not lighted
    B. On MCC panel, PROCESSOR CONFIG COMPLETED lamp is lighted
    C. No current recent change activity
    D. PRMs are not being received continuously
31. Depressing **ESC**, **CTRL** and **X** keys simultaneously will switch MUPs. Depressing **ESC**, **CTRL** and **R** keys simultaneously will reset MUPs

CAUTION
Depressing **ESC**, **CTRL** *and* **X** *keys simultaneously in an operating office will cause interjects. Use only in emergency situations.*

PERFORM 1B PROCESSOR SYSTEM RECOVERY



PERFORM 1B PROCESSOR SYSTEM RECOVERY



NOTES

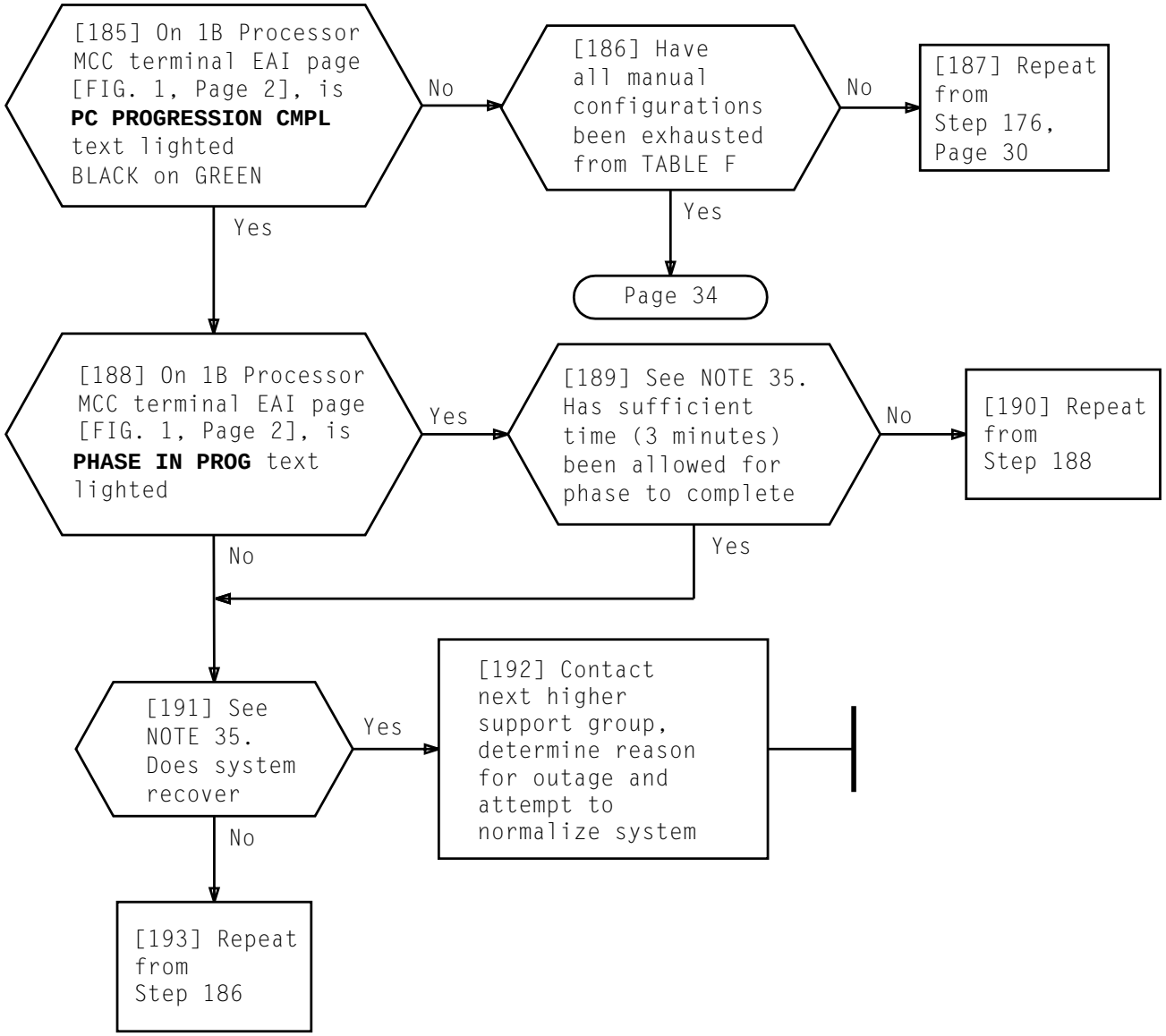
32. When manual configurations are selected that specify opposite IFB and MUP selections (for example, IFB0/MUP1 or IFB1/MUP0), a "FORCED MUP/IFB MISMATCH" system response will be received. This system response should be ignored while system recovery manual configurations are being forced
33. In **EAI FAIL DATA DISPLAY** section, for every PC attempt and every Hard A (01) request, the octal digits **"aaaa"** and **"bbbb"** [FIG. 1, Page 2] in **86-CODE** field must begin incrementing within 10 seconds. **"bbbb"** indicates that 1B Processor is attempting to pump and **"aaaa"** indicates the memory range that is being pumped (this applies while **PC PROGRESSION - CMPL** lamp is not lighted GREEN). **"aaaa"** and **"bbbb"** will continue to increment until **PC PROGRESSION - CMPL** text lights BLACK on GREEN. If **"aaaa"** does not begin to increment and **"bbbb"** does begin to increment, this is a failure. If at any time **"aaaa"** stops incrementing for 30 seconds while **"bbbb"** continues to increment, this is a failure

PERFORM 1B PROCESSOR SYSTEM RECOVERY

TABLE F
1B PROCESSOR MANUAL CONFIGURATIONS AND ASSOCIATED POKE COMMANDS (MUP 1)

MANUAL SEQUENCE (See NOTE)	OVERRIDE CONTROL SELECTIONS												
	CC0	CC1	PS0	PS1	PSB0	PSB1	CSB0	CSB1	IFB0	IFB1	AUB0	AUB1	CHECK OFF ✓
12		11	20			23	30			41	42		
13		11		21	22			31	40			43	
14		11	20			23		31	40			43	
15	10		20		22		30			41	42		
16	10			21		23		31	40			43	
17	10		20		22		30		40		42		
18		11		21		23		31		41		43	

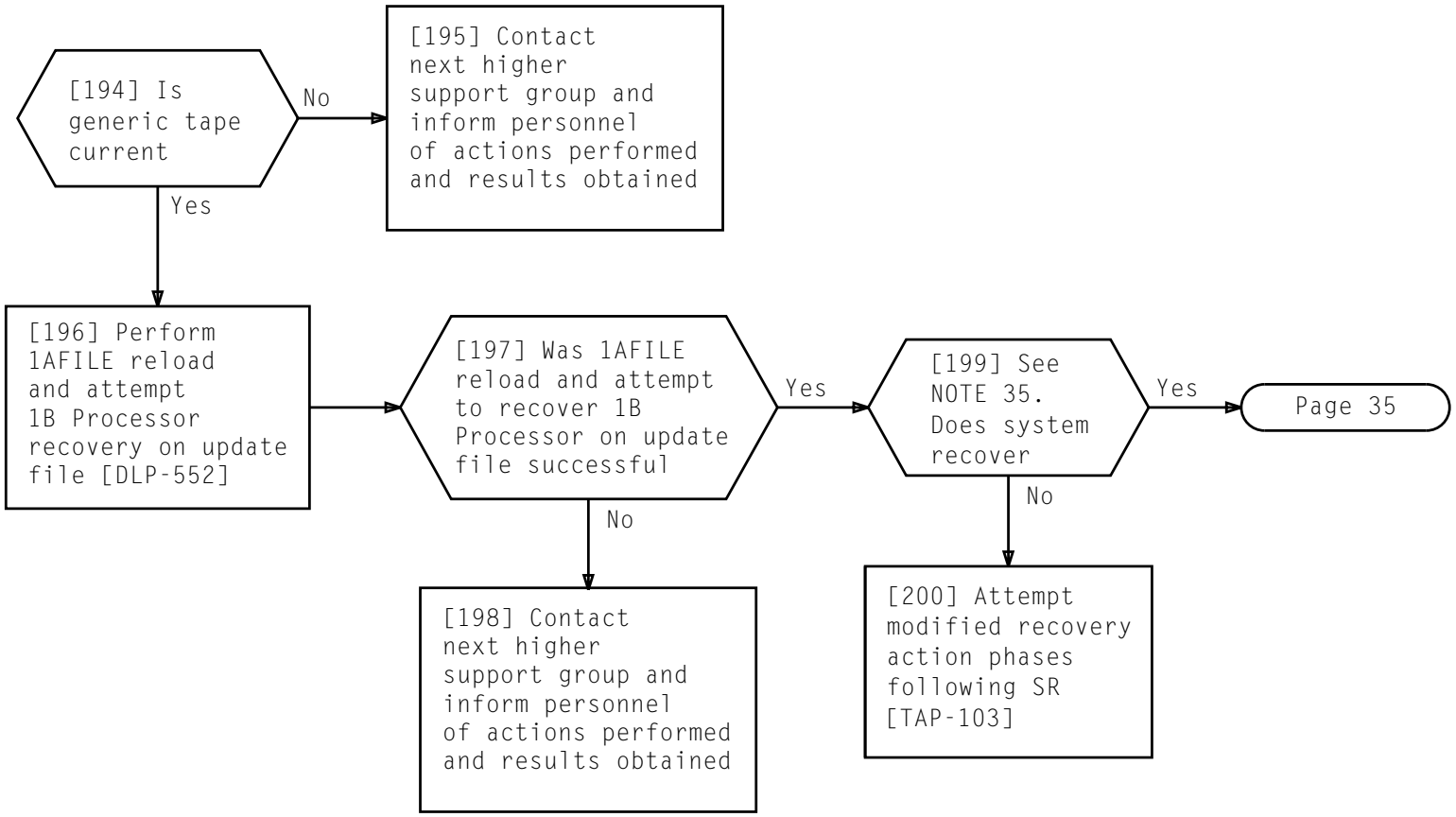
NOTE: All forces must be cleared before next manual configuration can be selected



NOTES

34. A phase is in progress if the left-most **"a"** position in the **86 (CODE)** field is alternating between 0 and 4 every half second
35. System has recovered if following conditions have been met:
    A. On 1B Processor MCC terminal EAI page under **PC PROGRESSION, CMPL** text is lighted BLACK on GREEN
    B. On 1B Processor MCC terminal EAI page, **PHASE IN PROG** text has not lighted in last few minutes
    C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY**, displayed data is normal for time of day (takes 3 minutes for data to be updated)
    D. Calls are being processed

PERFORM 1B PROCESSOR SYSTEM RECOVERY

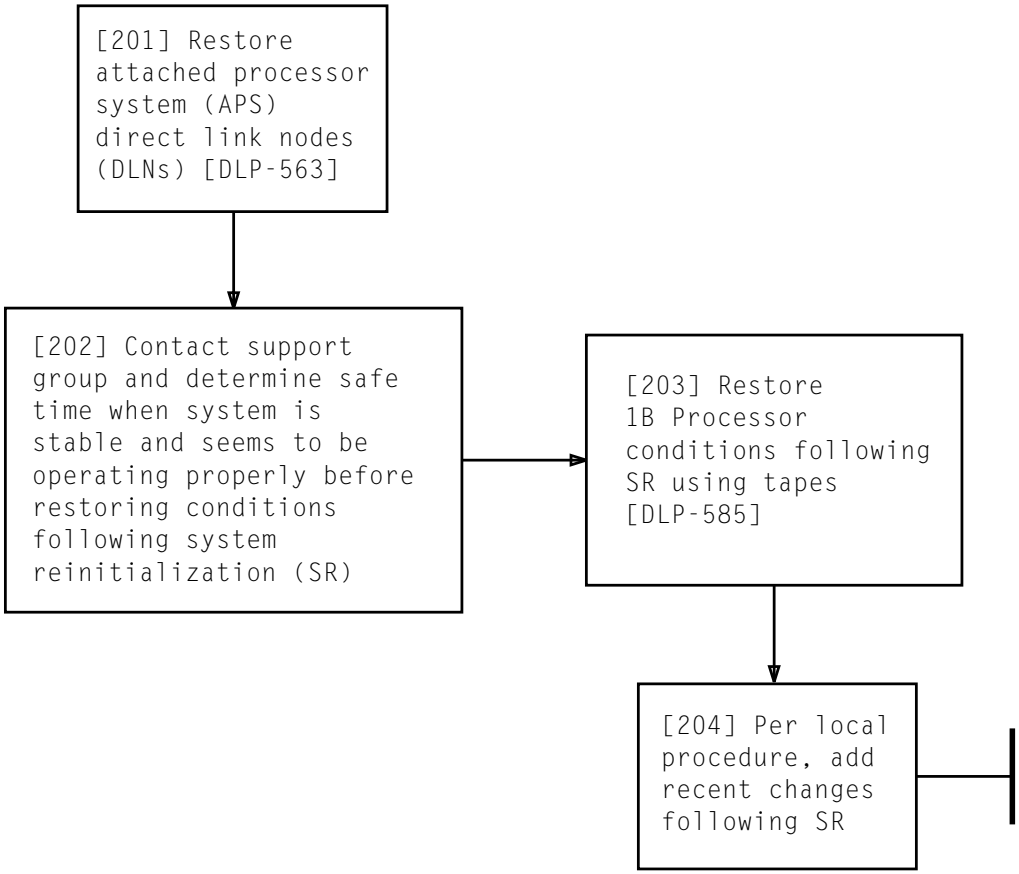


NOTE 35

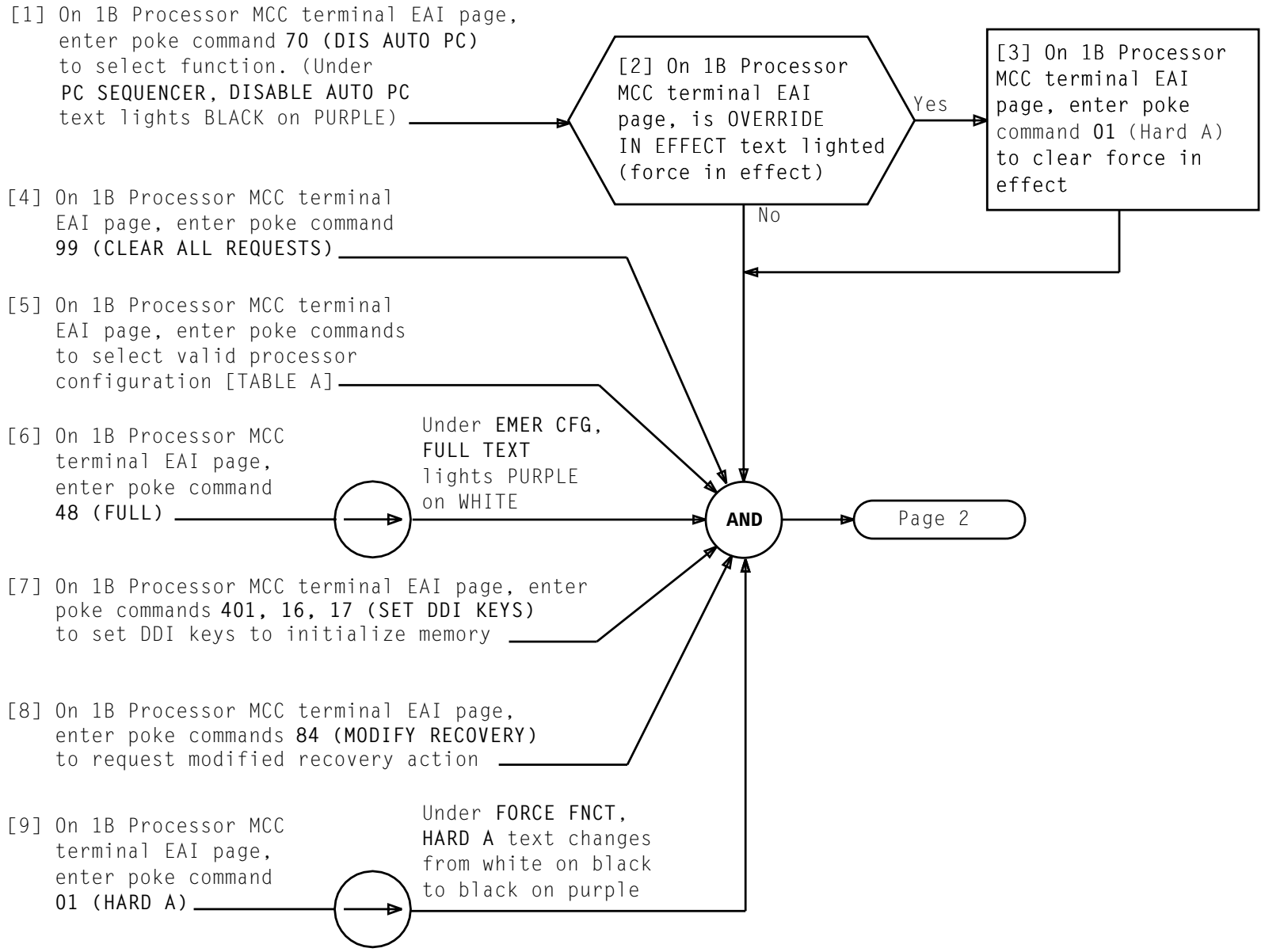
System has recovered if following conditions have been met:

A. On 1B Processor MCC terminal EAI page under **PC PROGRESSION**, **CMPL** text is lighted BLACK on GREEN
B. On 1B Processor MCC terminal EAI page, **PHASE IN PROG** text has not lighted in last few minutes
C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY**, displayed data is normal for time of day (takes 3 minutes for data to be updated)
D. Calls are being processed

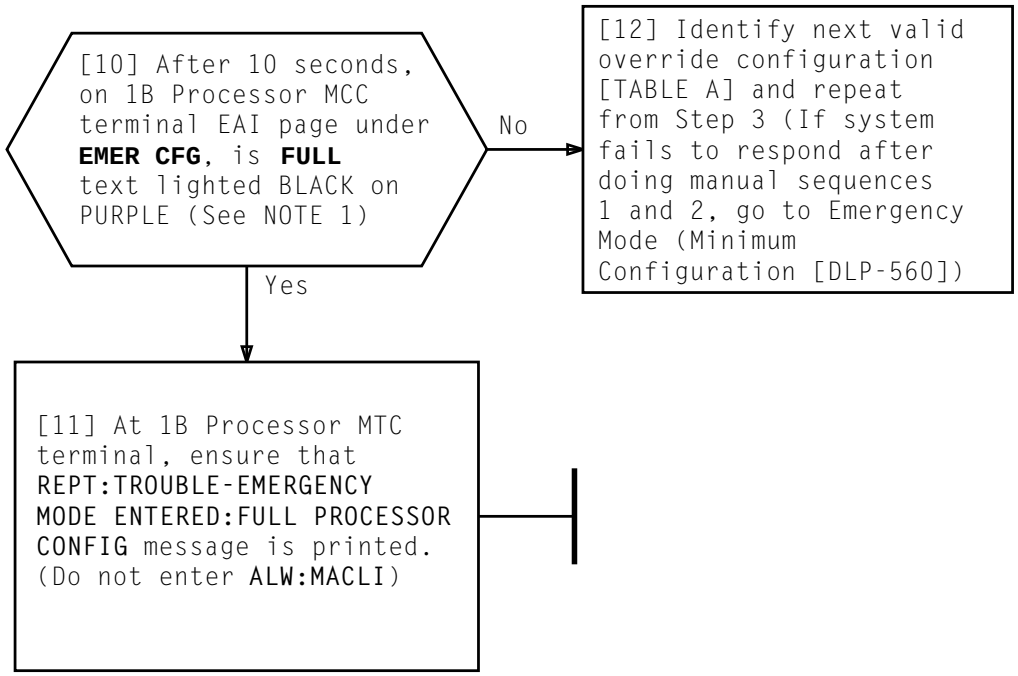
PERFORM 1B PROCESSOR SYSTEM RECOVERY



PERFORM 1B PROCESSOR SYSTEM RECOVERY



ENTER 1B PROCESSOR EMERGENCY MODE (FULL CONFIGURATION) BY FORCING AN OVERRIDE CONFIGURATION



86-CODE: 0'000aaabbbbb
87-DATA:
88-ADDR:

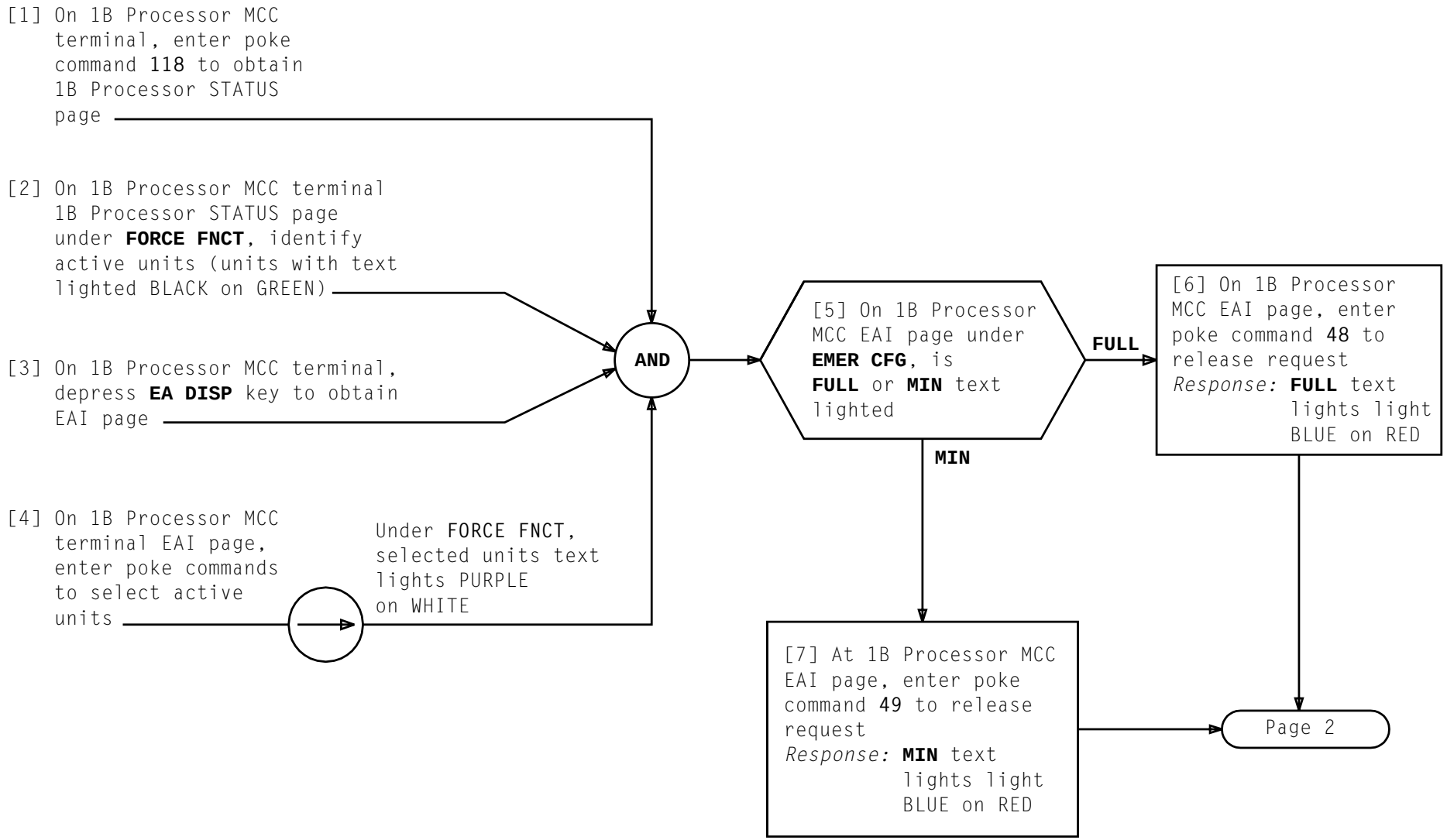
FIG. 1 - 86-CODE Field Layout

NOTE 1

In EAI DATA DISPLAY section, octal digits **"aaa"** and **"bbbbb"** [FIG. 1] in **86-CODE** field must begin incrementing within 10 seconds after entering poke command **702** (RUN CC) 1B Processor. **"bbbbb"** indicates that 1B Processor is attempting to pump and **"aaa"** indicates memory range that is being pumped. **"aaa"** and **"bbbbb"** will continue to increment until **PC PROGRESSION - CMPL** colors BLACK on GREEN and **SAM_01** fires (color WHITE on RED), approximately 2 minutes after entering poke command **702** (RUN CC). If **"aaa"** does not begin to increment and **"bbbbb"** does begin to increment, this is a failure. If at any time **"aaa"** stops incrementing while **"bbbbb"** continues to increment, this is a failure. If 87 and 88 fields are not blank, this is a failure. If these fields are blank, the 1B Processor successfully pumped

ENTER 1B PROCESSOR EMERGENCY MODE (FULL CONFIGURATION) BY FORCING AN OVERRIDE CONFIGURATION

TABLE A 1B PROCESSOR MANUAL CONFIGURATIONS AND ASSOCIATED POKE COMMANDS													
MANUAL CONFIG SEQUENCE	OVERRIDE CONTROL SELECTIONS												
	PC STATE	CC0	CC1	PS0	PS1	PSB0	PSB1	CSB0	CSB1	IFB0	IFB1	AUB0	AUB1
1	40	10		20		22		30		40		42	
2	41		11		21		23		31		41		43



EXIT 1B PROCESSOR EMERGENCY MODE

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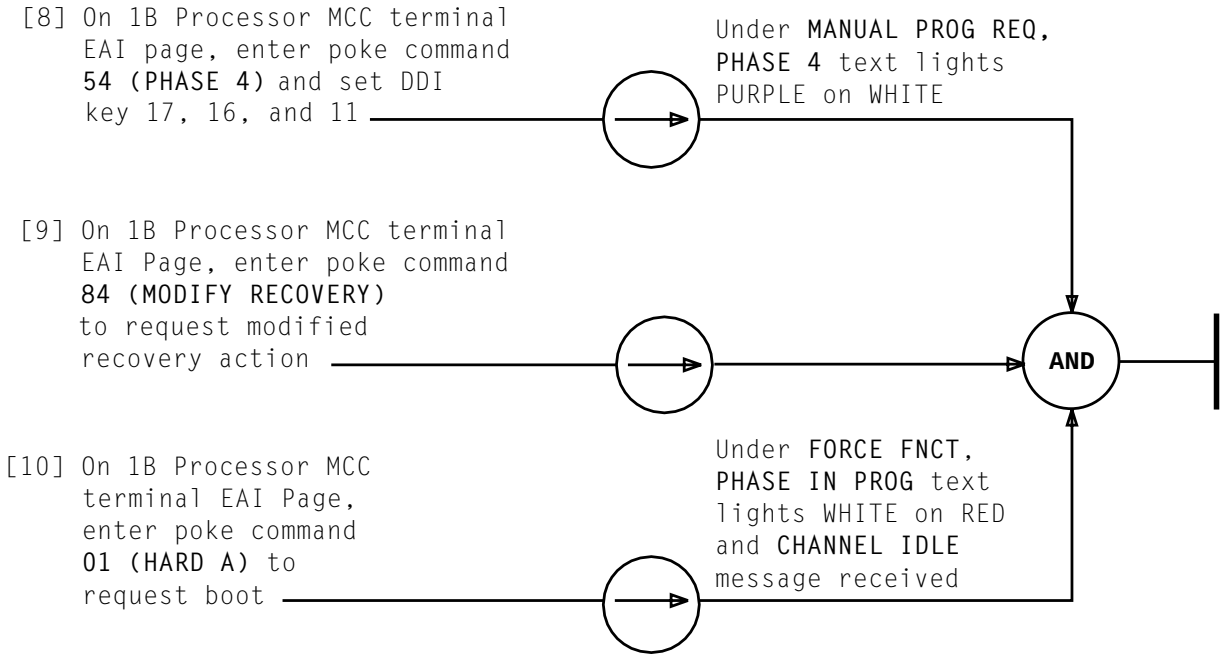
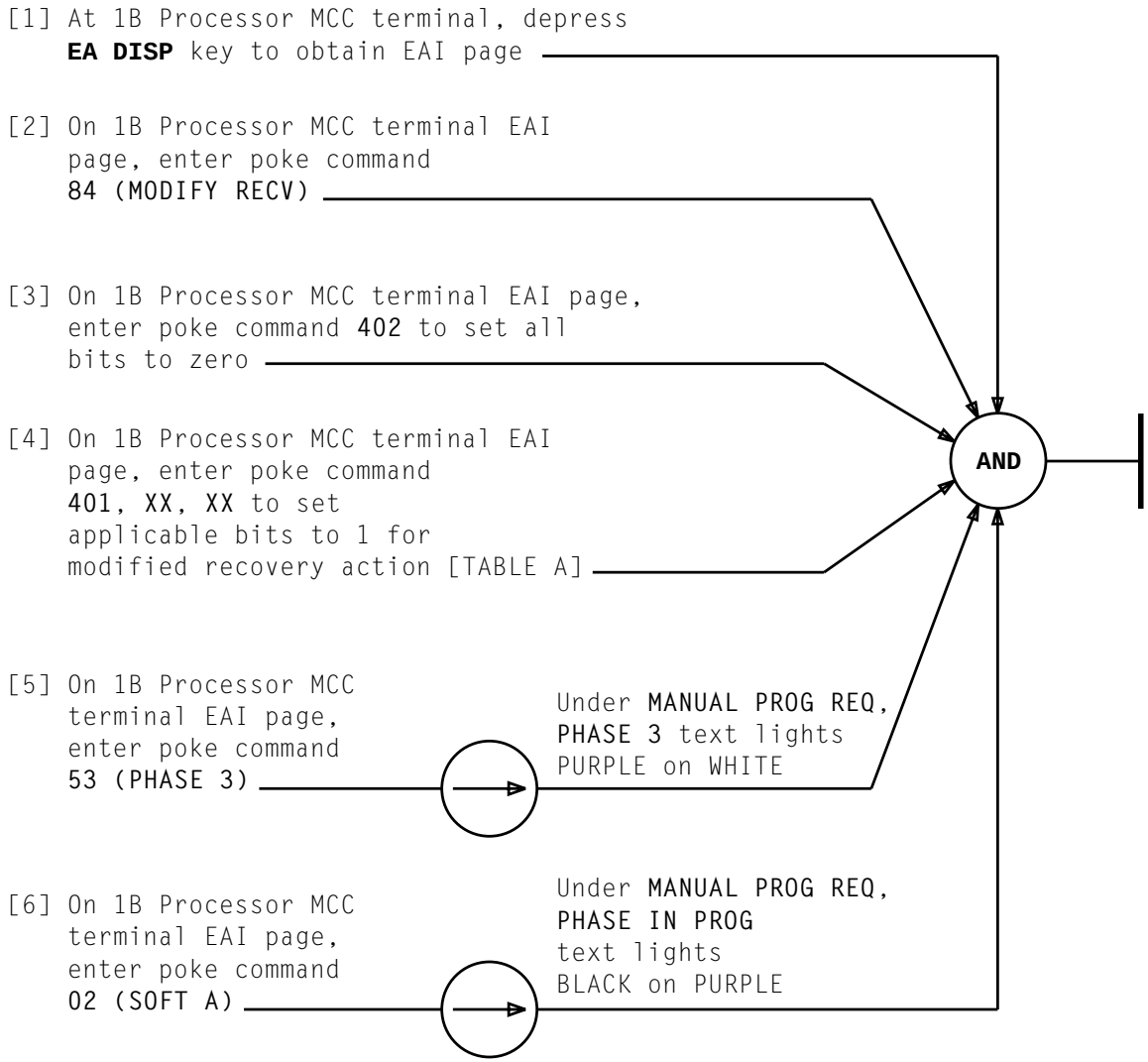


EXIT 1B PROCESSOR EMERGENCY MODE



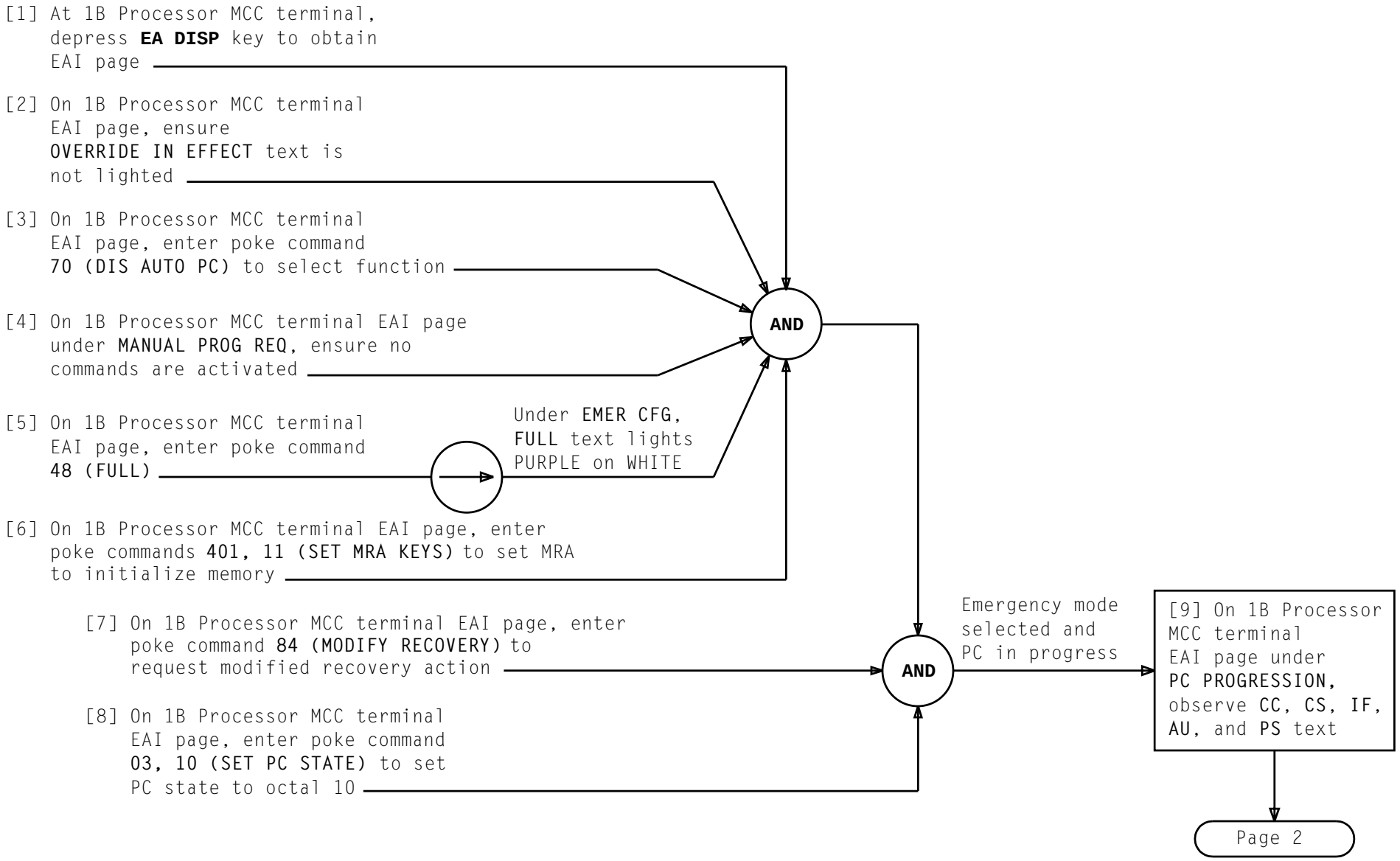
PERFORM 1B PROCESSOR MODIFIED RECOVERY ACTION

TABLE A

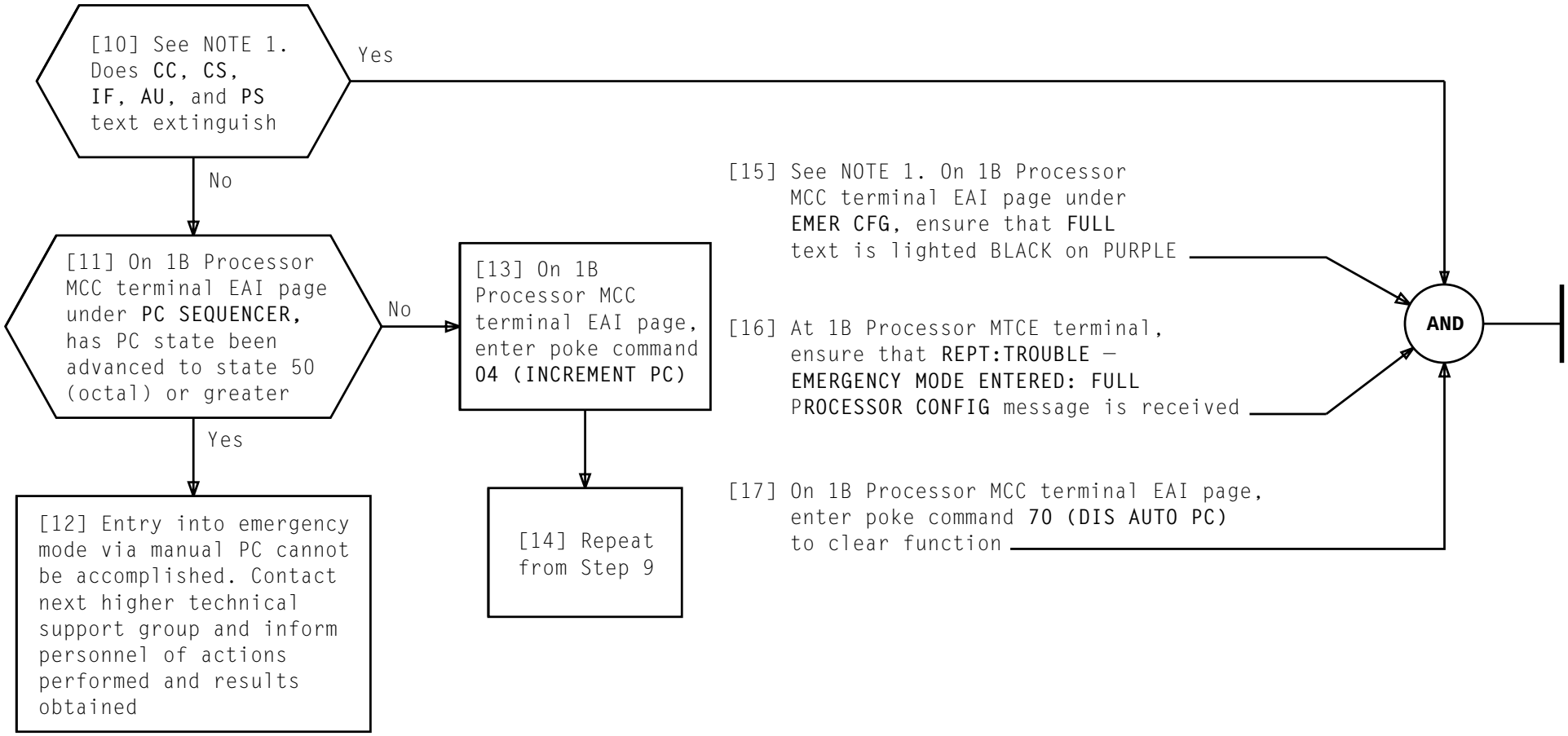
DIRECT DATA INSERT BIT OPTIONS (MCD REGISTER)

BIT	OPTION	APPLICATION	BIT	OPTION	APPLICATION
00	SET ALL INH	PH 2, 3, 4	16	ZERO ALL MEMORY	AO, PC (pump)
01	RB RC TO TAPE 1	PH 3, 4	17	SKIP HASHSUM CALCULATION	SR, AO, PC
02	RB RC TO TAPE 2	PH 3, 4	18	BYPASS CC SANITY TESTS	SR, PC
03	RB RC NO OF ORDRS IN DIS 1 (940)	PH 2, 3, 4	19	INH TAPE ERROR CORRECTION (4E21 AND EARLIER)	—
04	RB RC TO ORNU IN DIS 1 (940)	PH 2, 3, 4			
05	CLEAR SPECIFIC DISK AREAS	PH 3, 4	20	INH MAP AUDITS	—
06	CLEAR NTWK MGMT CONTROLS	PH 2, 3, 4	21	INH STORE ACCESS TESTS	SR, AO, PC (pump)
07	INITIALIZE TRK OOS LIST	PH 3, 4	22	READ & VERIFY DISK DATA IN SR	SR
08	RESERVED	—	23	ALW DUPLEX APS FAILURE IN SR	SR
09	RESERVED	—	24	RESERVED	—
10	RESERVED	—	25	RESERVED	—
11	RST DUPLEX FAILED CONTRS	PH 3	26	RESERVED	—
12	RESERVED	—	27	RESERVED	—
13	RESERVED	—	28	RESERVED	—
14	ALLOW DUPLEX FAILED PUBB	PC, SR	29	RESERVED	—
15	MULTIPLE TAPE SR (4E21 AND EARLIER)	SR	30	RESERVED	—
			31	RESERVED	—

SR - System Reinitialization; PC - Processor Configuration; AO - Activate Override

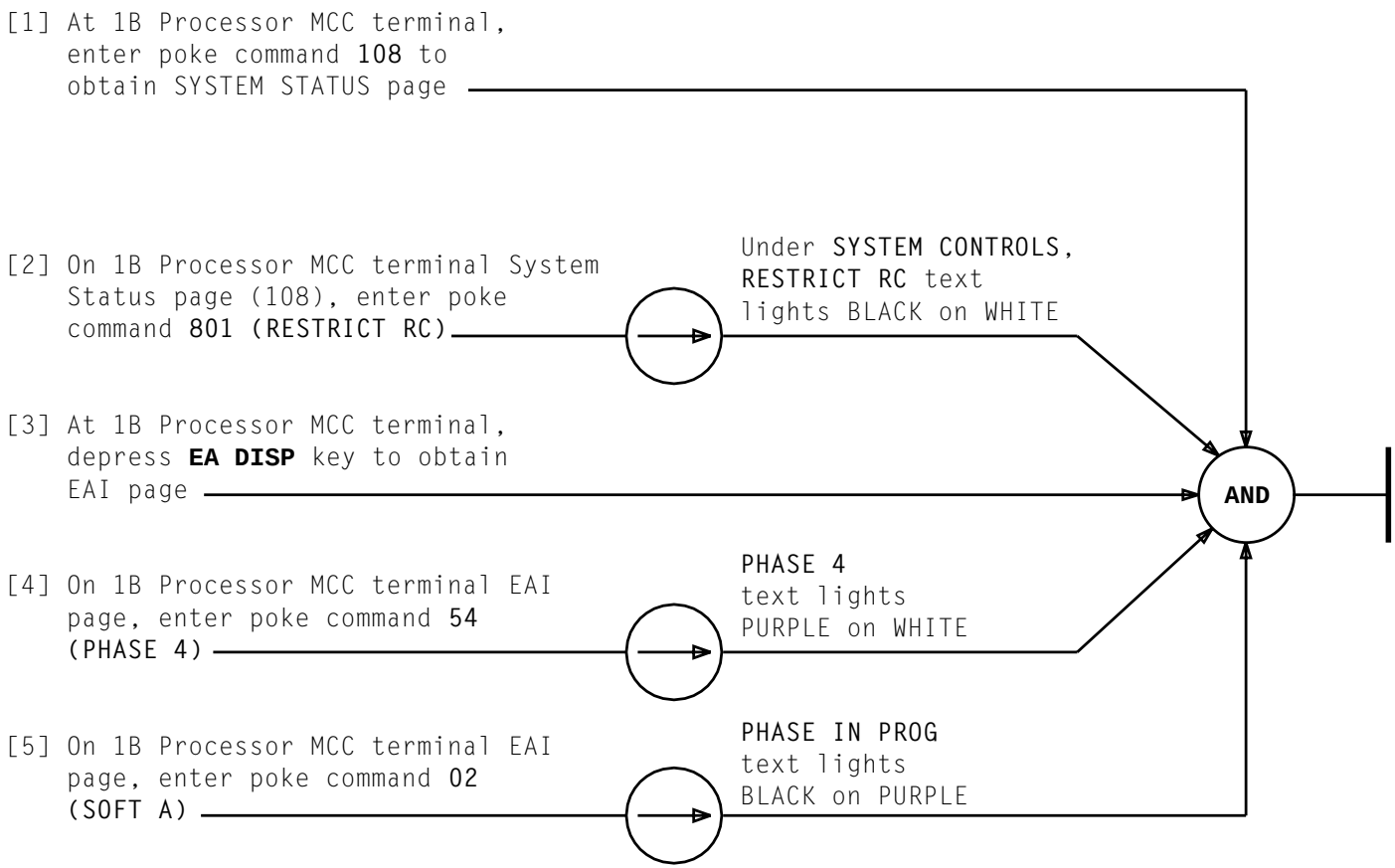


ENTER 1B PROCESSOR EMERGENCY MODE (FULL CONFIGURATION) BY MANUALLY TRIGGERING PROCESSOR CONFIGURATION (PC) SEQUENCER



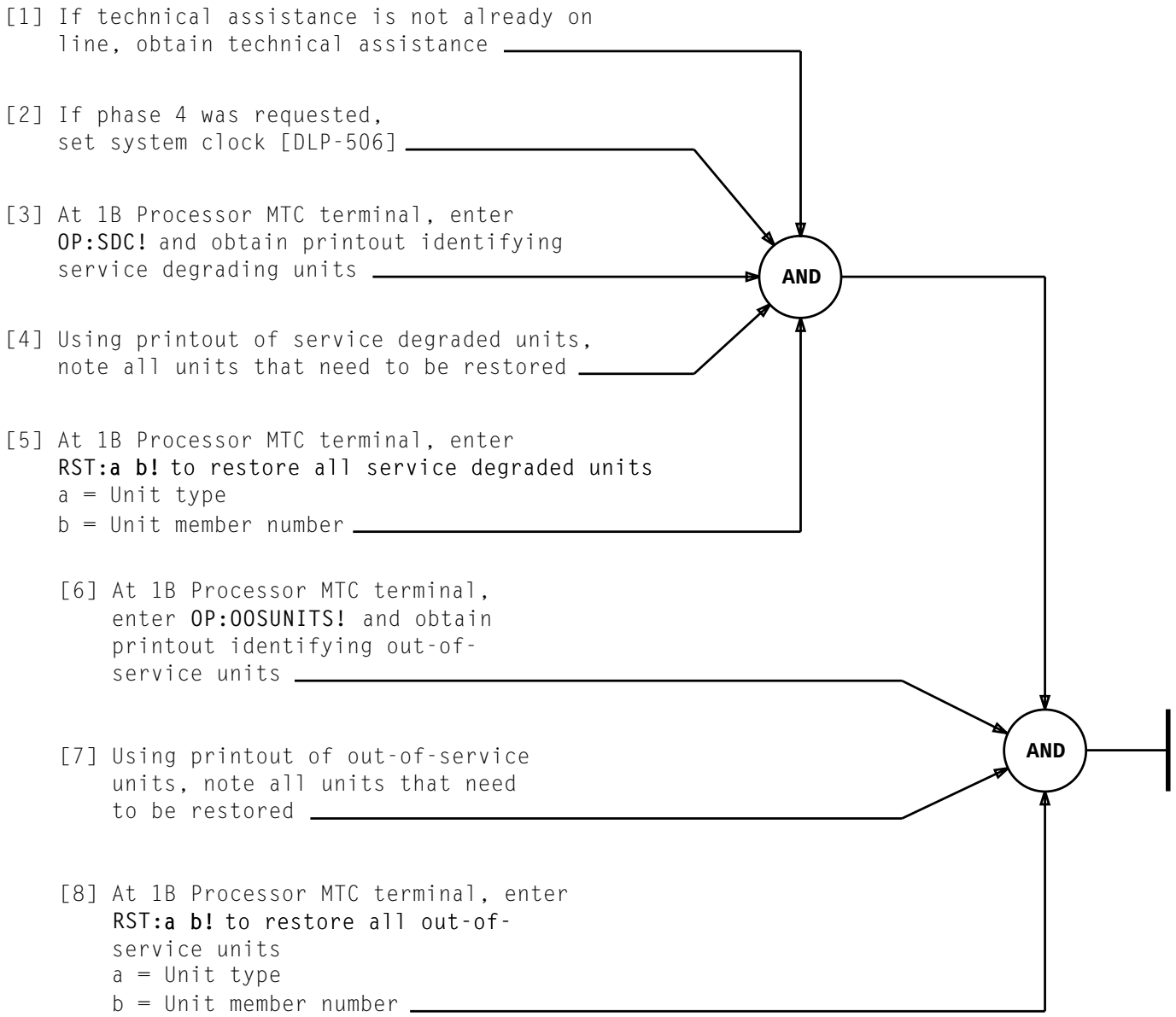
ENTER 1B PROCESSOR EMERGENCY MODE (FULL CONFIGURATION) BY MANUALLY TRIGGERING PROCESSOR CONFIGURATION (PC) SEQUENCER

NOTE 1
It can take up to 50 seconds for conditions to occur.



REQUEST 1B PROCESSOR INITIALIZATION PHASE (PHASE 4)

RESTORE 1B PROCESSOR CONDITIONS FOLLOWING PHASE 3 OR 4



[1] See CAUTION 1 and NOTE 1. At 1B Processor MTC terminal, type, but do not enter:

SET:CLK:DAY a**,DATE** b**,TIME** cde!

(complete all entries except minutes and seconds)

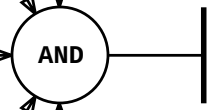
a = Day (SUN, MON, TUE, WED, THU, FRI or SAT)
b = Date (6-digit number, MMDDYY)
c = Hour (2-digit number, 01 to 24)
d = Minutes (2-digit number, 00 to 59)
e = Seconds (2-digit number, 00 to 59)

[2] See NOTE 2. Call U.S. Bureau of Standards Time Announcement (303-499-7111) and listen for time announcement

[3] At next time announcement, complete (but do not enter) message by adding minute announced plus 1 and 00 seconds

[4] Return cursor to start of message

[5] At next time announcement, when tone is heard, depress **SEND**



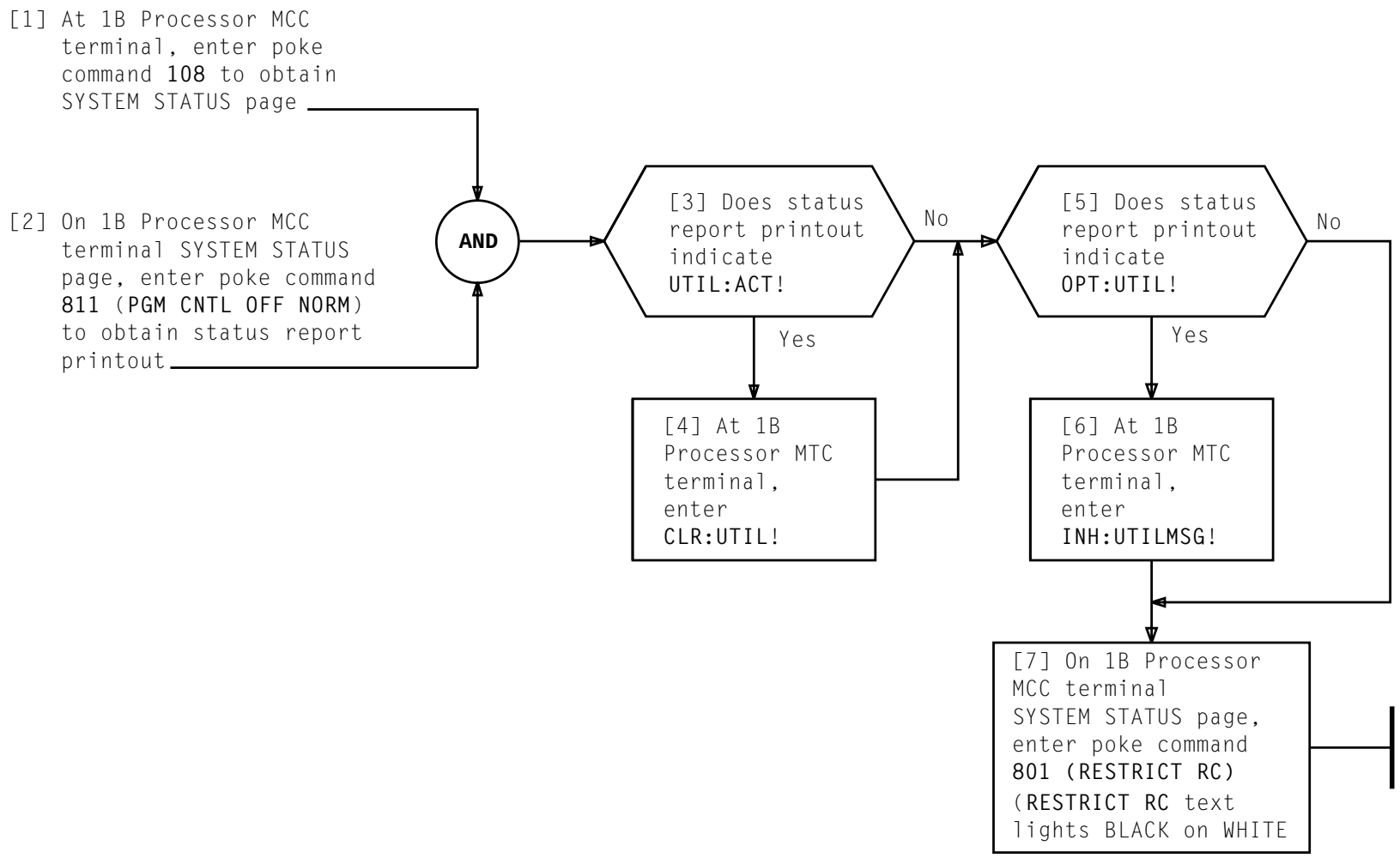
NOTES

1. The minute and second entries should not be typed at this time. Contact with the U.S. Bureau of Standards Time Announcement will be required to obtain the correct entries
2. Time announcements are made every minute on the minute. Hours announced are in Greenwich Mean Time.

CAUTION 1

System clock update must be accomplished between 2:02 and 2:12 a.m. Review procedure and notify network management of impending time change.

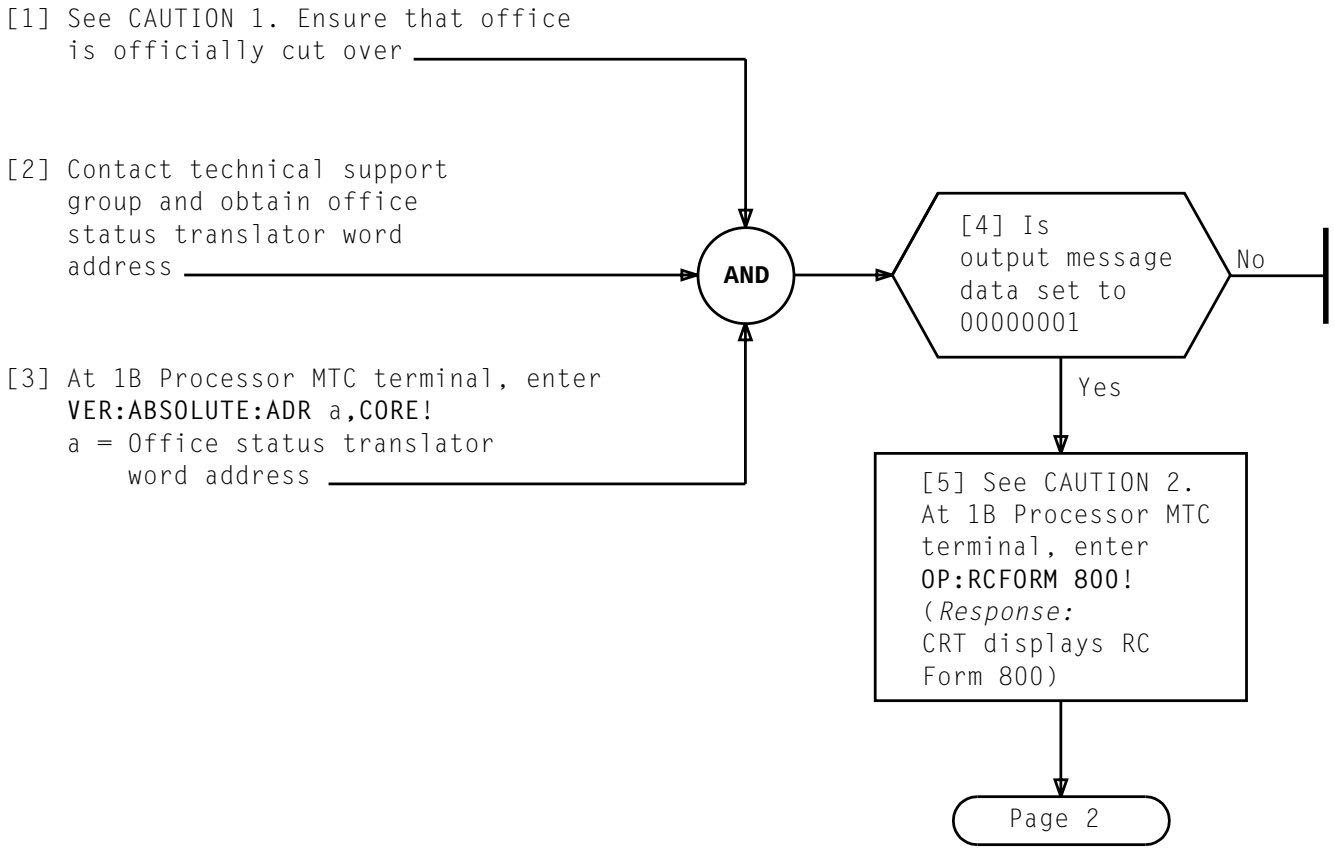
SET 1B PROCESSOR CLOCK



SET 1B PROCESSOR CONDITIONS FOR INSTALLING OVERWRITES MANUALLY

SUMMARY

Assure that office is officially cut over and first set of trunks are turned up. Using 1B Processor MTC terminal, verify office status translator word address and verify that rightmost octal digit is 1. Request RC Form 800. Complete RC Form 800 to change binary value of bit 0 in office status translator word from precutover (1) to post-cutover (0) state and enter message. Using assigned order number, activate the recent change and verify changed data.



CAUTION

1. *Office status translator word can remain in precutover state until office is officially cut over and first set of trunks are turned up*
2. *Calling up RC form will cause all CRT data to be cleared*

PERFORM 1B PROCESSOR RECENT CHANGE TO CHANGE OFFICE STATUS TRANSLATOR TO POST-CUTOVER STATE

On display of RC Form 800 [FIG. 1]:

[6] Complete all entries and ensure **NEWDATA** entry is **0** and **OLDDATA** entry is **1**

[7] Depress Enter (return) key to submit RC Form 800

AND

RC Form 800 entered

[8] See NOTES 1 and 2. Was recent change accepted or rejected for test state

Accepted → Page 3

Rejected → [9] Repeat from Step 5

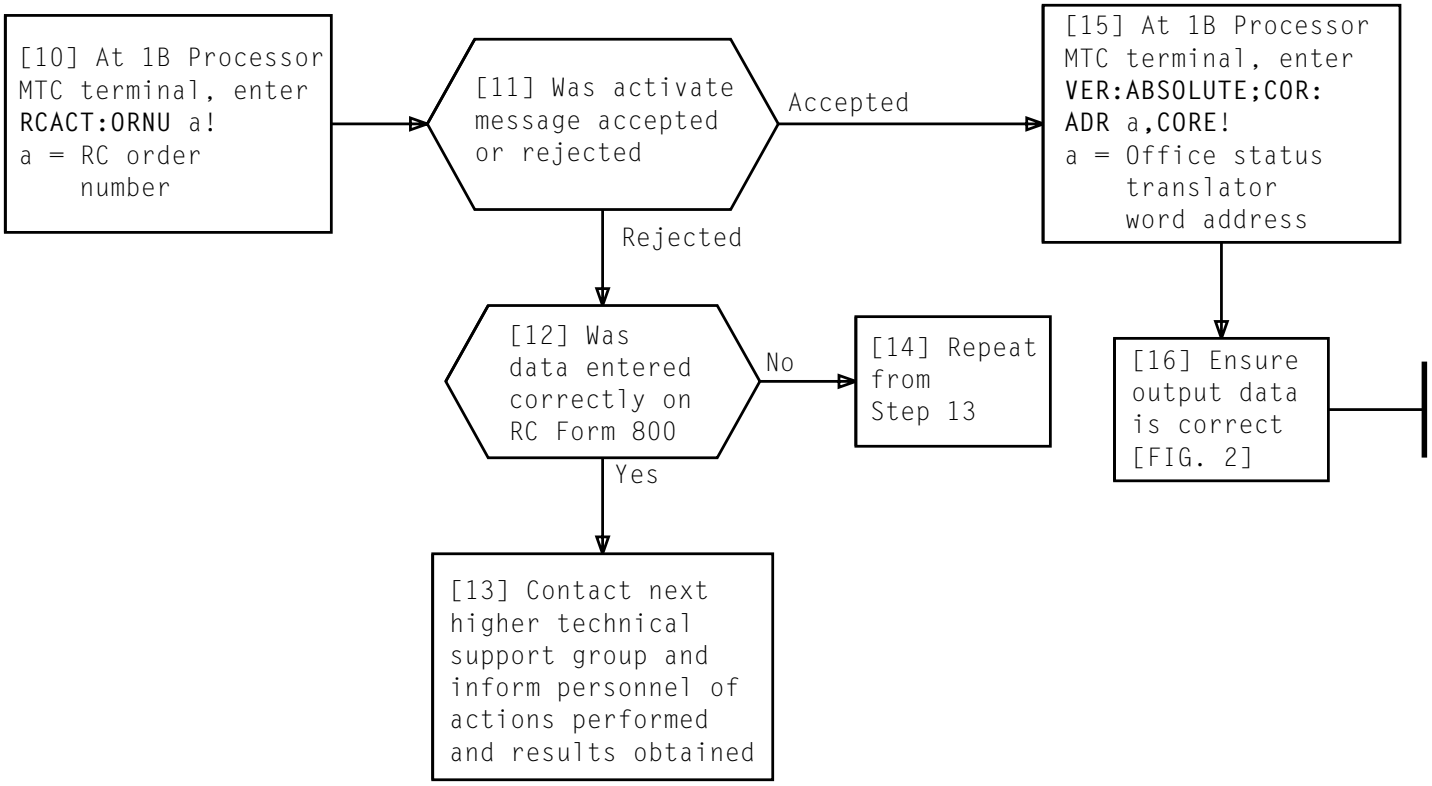
```
RC:FUNC;CHG;OPT(ABSOLUTE),TST: FSONLY N, ADDRESS XXXXXXXX,
ORNU ------,
WORDNO ------,
SIZE 1-,         DISP 0-,
BINOCT B,
NEWDATA 0------------------------,
OLDDATA 1------------------------,
REMARKS ----------------------------------!
```

FIG. 1 — Blank CRT Display of RC Form 800

NOTES

1. Acceptance of RC order number does not necessarily mean all input data was correct
2. A delay of up to 30 seconds may occur while processing data from buffer to test state

PERFORM 1B PROCESSOR RECENT CHANGE TO CHANGE OFFICE STATUS TRANSLATOR TO POST-CUTOVER STATE



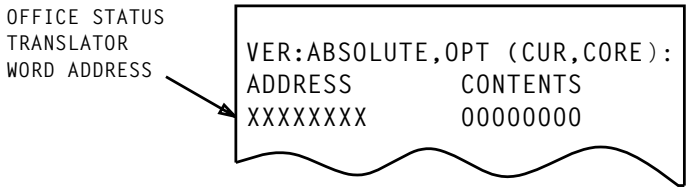
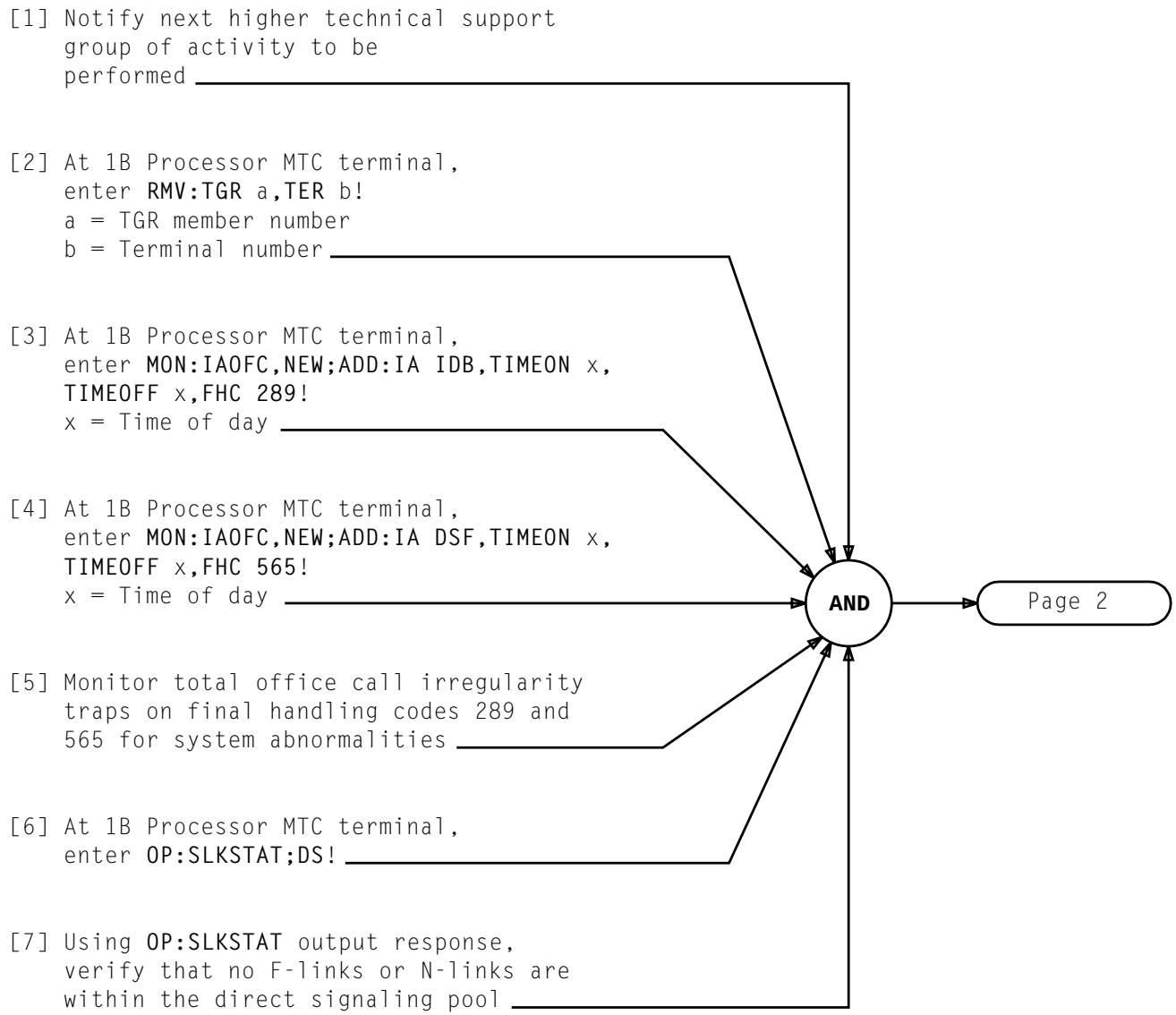
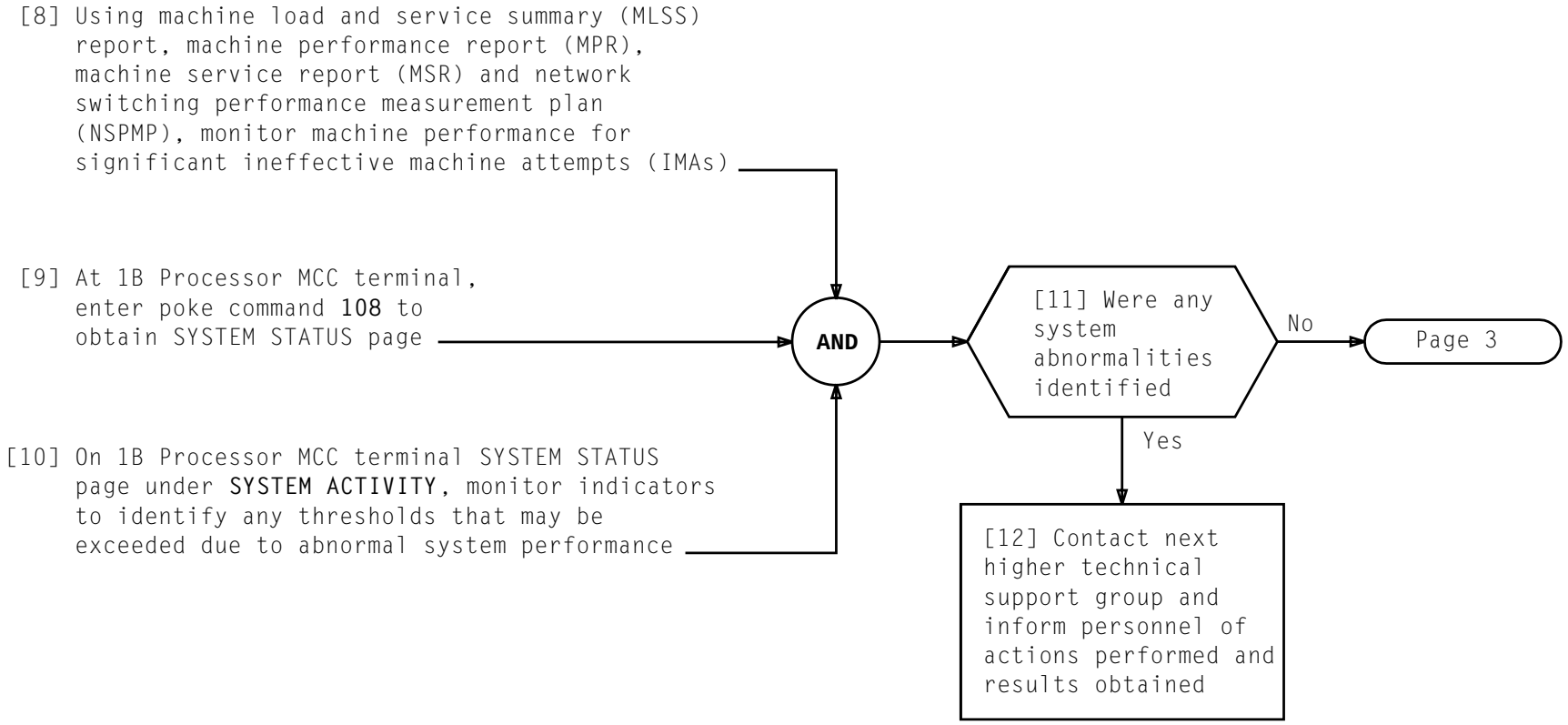


FIG. 2 – Sample Printout of Verify Output Message

PERFORM 1B PROCESSOR RECENT CHANGE TO CHANGE OFFICE STATUS TRANSLATOR TO POST-CUTOVER STATE



PERFORM RECENT CHANGE TO CHANGE FUNCTIONAL WORD OF TGR TERMINAL UNIT LOOP DATA



PERFORM RECENT CHANGE TO CHANGE FUNCTIONAL WORD OF TGR TERMINAL UNIT LOOP DATA

[13] See CAUTION 1. At 1B Processor MTC terminal, enter **OP:RCFORM 801!**

CRT displays RC Form 801

On display of RC Form 801 [FIG.1]:

[14] Following **RC:FUNC;CHG;OPT(TRANS),** enter **TST**

[15] Following **TRANSID**, enter **UTTGR**

AND

Page 4

[16] Following **ORNU**, enter recent change order number assigned to this recent change

[17] Following **ENTRY**, enter member number of TGR frame containing self-synchronized terminal unit

```
RC:FUNC;CHG;OPT(TRANS), --- :                    TRANSID -------,
ORNU ------,
ENTRY -------, WORDNO -----,
SIZE --,          DISP --,
BINOCT -,
NEWDATA ------------------------,
OLDDATA ------------------------,
REMARKS ----------------------------------------------------!
```

FIG. 1 – Blank CRT Display of RC Form 801

CAUTION 1
Calling up RC form will cause all CRT data to be cleared

PERFORM RECENT CHANGE TO CHANGE FUNCTIONAL WORD OF TGR TERMINAL UNIT LOOP DATA

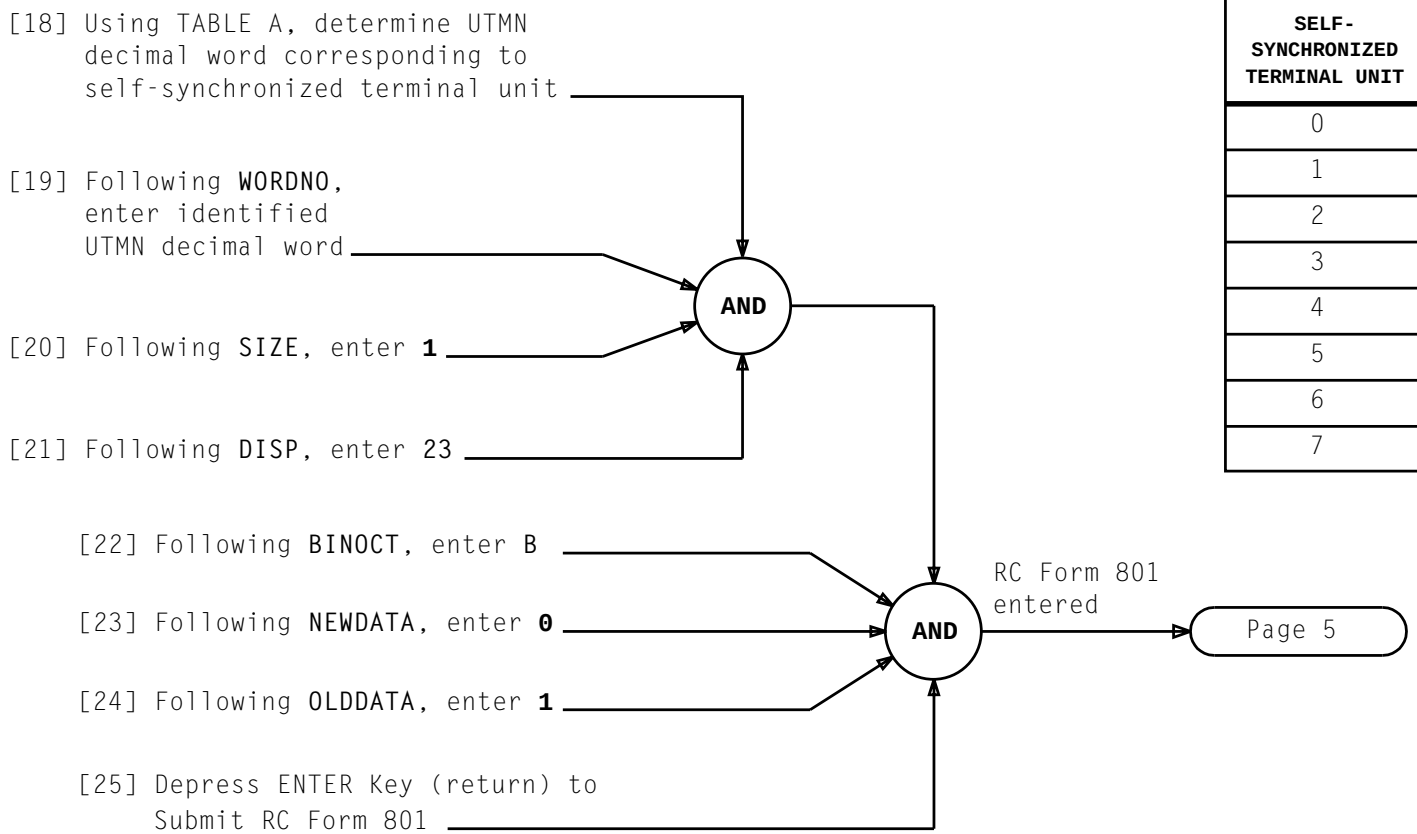
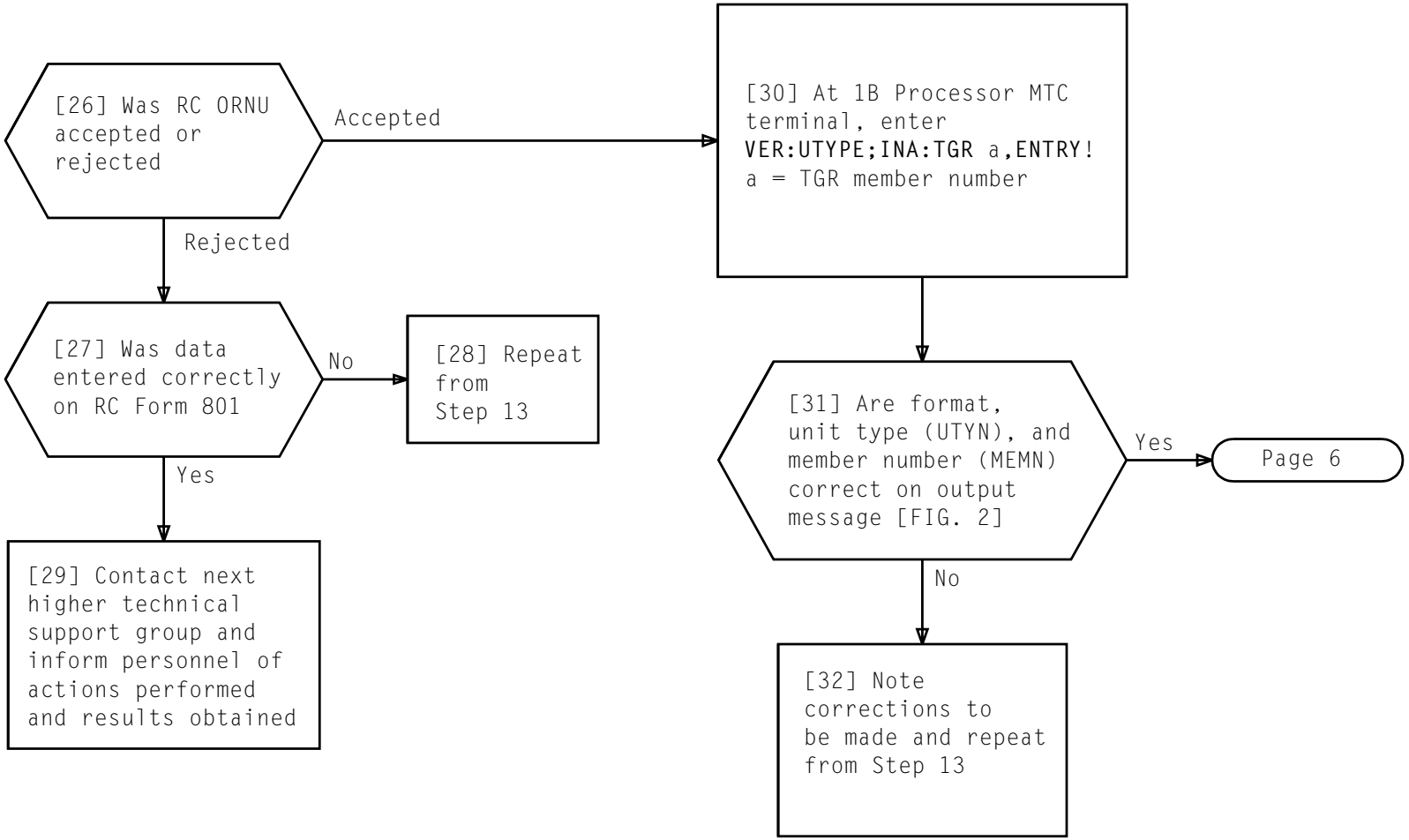


TABLE A

SELF-SYNCHRONIZED TERMINAL UNIT	UTMN DECIMAL WORD	SELF-SYNCHRONIZED TERMINAL UNIT	UTMN DECIMAL WORD
0	18	8	50
1	22	9	54
2	26	10	58
3	30	11	62
4	34	12	66
5	38	13	70
6	42	14	74
7	46	15	78

PERFORM RECENT CHANGE TO CHANGE FUNCTIONAL WORD OF TGR TERMINAL UNIT LOOP DATA



NOTE 1
A delay of up to 30 seconds may occur while processing data from buffer to test state

PERFORM RECENT CHANGE TO CHANGE FUNCTIONAL WORD OF TGR TERMINAL UNIT LOOP DATA

[33] Using TABLE B, determine octal word associated with self-synchronized terminal unit

AND → Page 7

[34] On TTY printout, locate octal word identified in previous step [FIG. 2]

TABLE B			
SELF-SYNCHRONIZED TERMINAL UNIT	**OCTAL WORD**	**SELF-SYNCHRONIZED TERMINAL UNIT**	**OCTAL WORD**
0	22	8	62
1	26	9	66
2	32	10	72
3	36	11	76
4	42	12	102
5	46	13	106
6	52	14	112
7	56	15	116

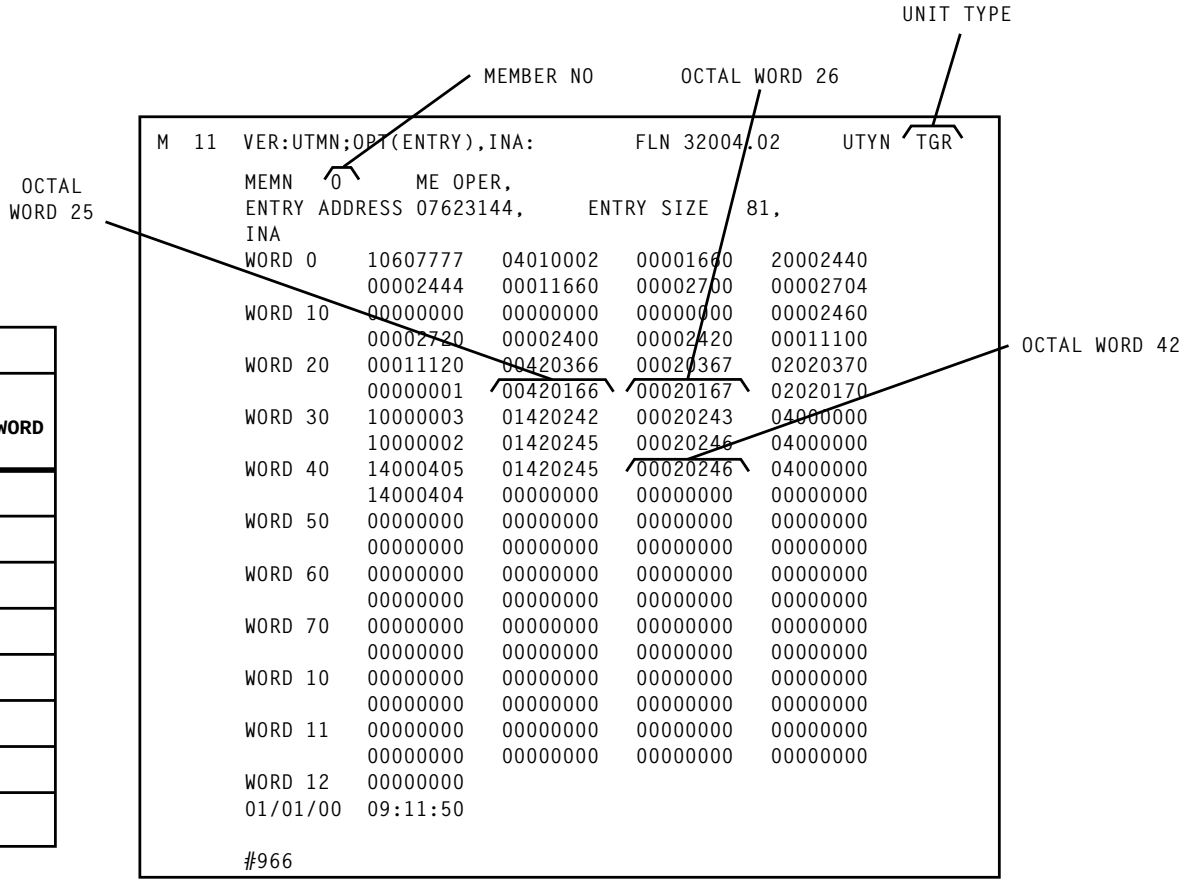
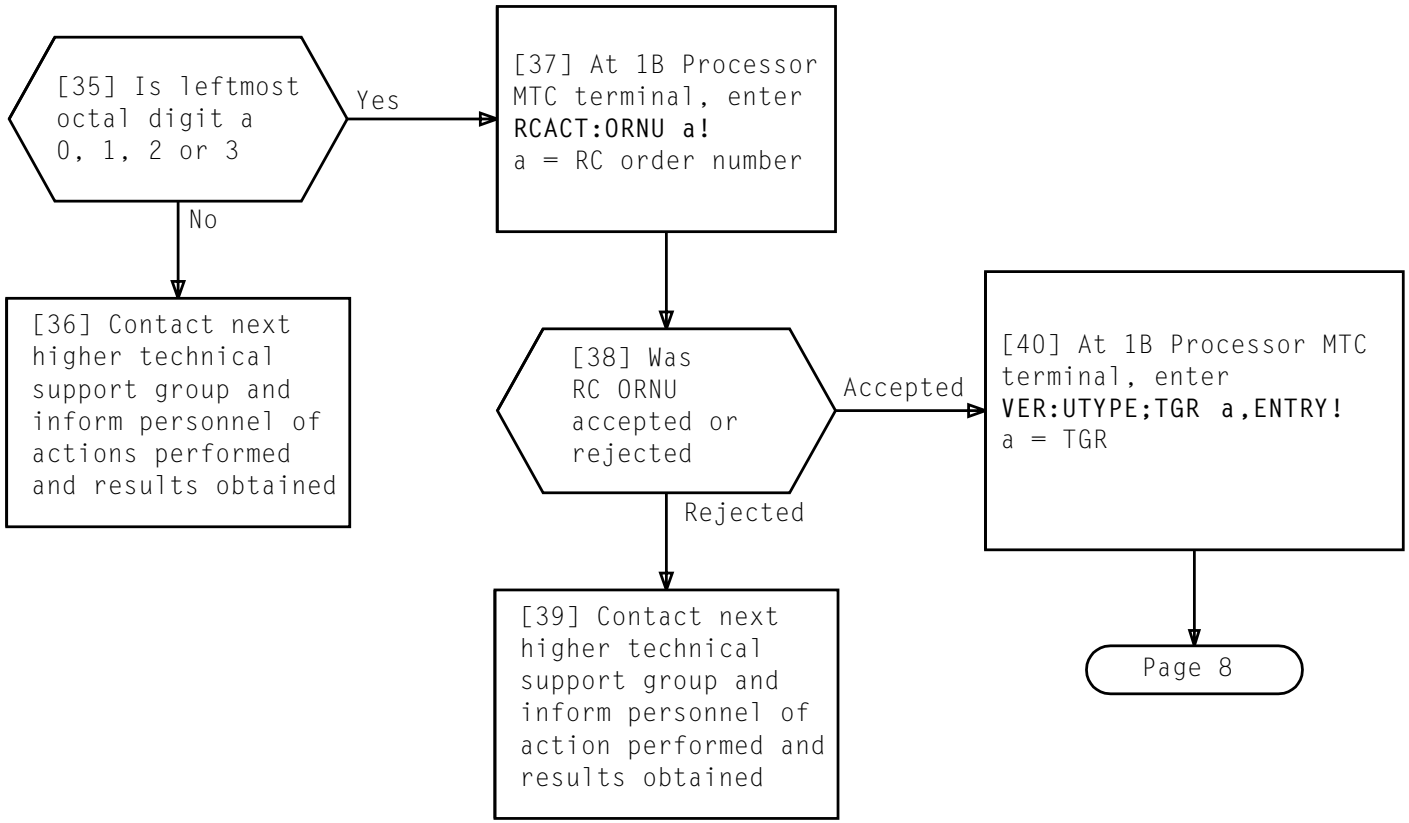
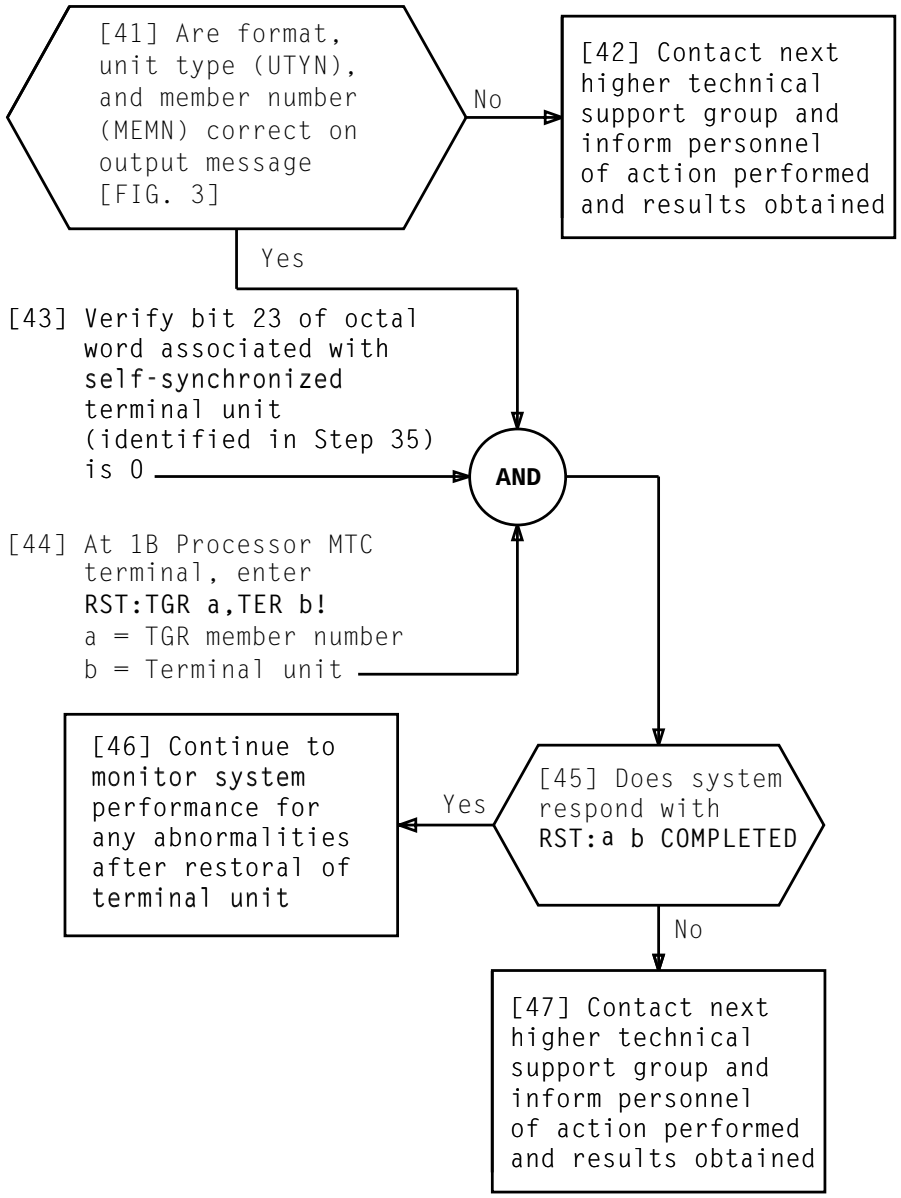


FIG. 2 – Sample Verify Message (Inactive Translations)

PERFORM RECENT CHANGE TO CHANGE FUNCTIONAL WORD OF TGR TERMINAL UNIT LOOP DATA



PERFORM RECENT CHANGE TO CHANGE FUNCTIONAL WORD OF TGR TERMINAL UNIT LOOP DATA



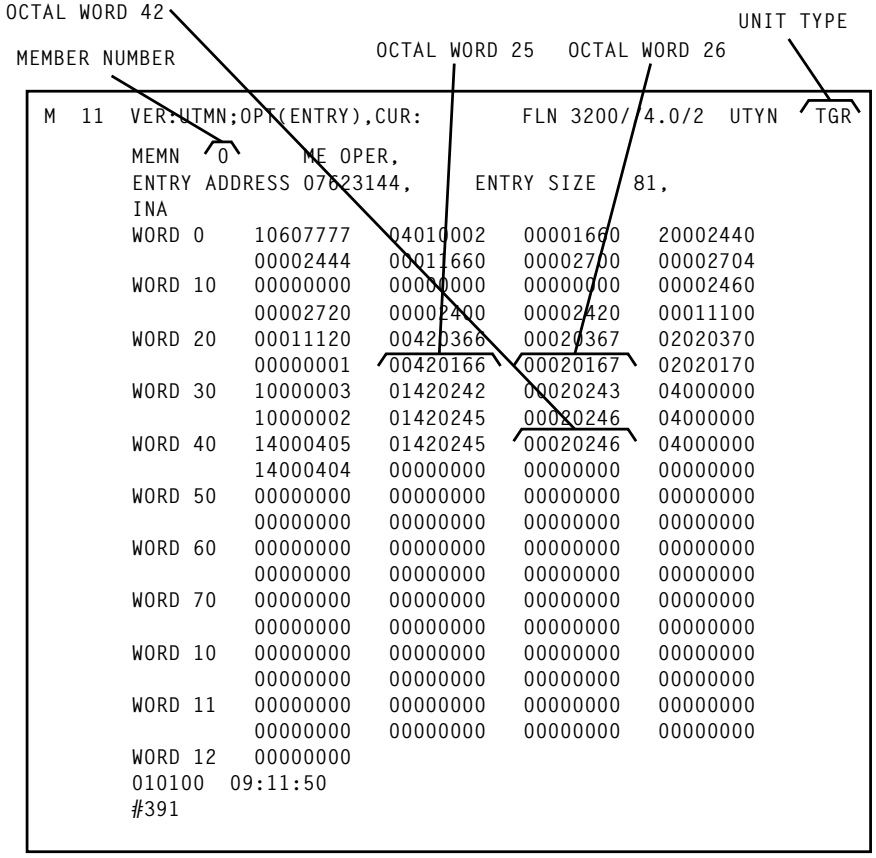


FIG. 3 – Sample Printout of Verify Message (Current Translations)

PERFORM RECENT CHANGE TO CHANGE FUNCTIONAL WORD OF TGR TERMINAL UNIT LOOP DATA

1. General

   1.1 Cursor must be at left margin prior to each entry.

   1.2 Execution character for all messages in this procedure is the **RETURN** key

   1.3 If at any time during SCANS session the message ENTER SYSTEM SELECT CODE is obtained, link to host computer has been lost. In this case, it will be necessary to enter ^SCANS1 and log in again

2. Procedure

   2.1 Establish DDD communication link with Gateway II computer per local instruction

   2.2 After connection is made, enter ^SCANS1
   (^ is obtained by depressing SHIFT and 6 keys simultaneously)

   Response: CONNECT IN PROGRESS

   AWAITING HOST RESPONSE

   CONNECTING TO HOST SYSTEM

   Gateway DEC2/6.03A hh:mm:ss: TTYnn (etc.)
   Connected to Node DEC2B(xx) Line #yy
   Please LOGIN

   2.3 Enter LOG 7122,xxxxxx
   xxxxxx = PPA number assigned by SCANS administrator

   Response: JOB zz Gateway II DEC2/6.03 Line xx-yy TTYnn
   Password:

   2.4 Enter password

   Response: Enter subpassword:

   2.5 Enter subpassword

   Response: Enter up to 5 initials

   2.6 Enter your name or initials up to 5 characters

   Response: Welcome to the time share support system

End of Procedure

SET UP SYSTEM TO RECEIVE SCANS MESSAGES

1. General

1.1 Cursor must be at left margin prior to each entry

1.2 Execution character for all messages in this procedure is the **RETURN** key

1.3 If at any time during SCANS session the message **ENTER SYSTEM SELECT CODE** is obtained, link to host computer has been lost. In this case, it will be necessary to enter **^SCANS1** and log in again

2. Procedure

2.1 Enter **SUM+,S 4E,G 4E(**a**),I** b
a = Generic designation number
b = Generic issue number

Response: Summary list of BWMs for specified generic is obtained

Note: There may be a short delay before printout is received

End of Procedure

PRINT SCANS SUMMARY LIST OF BROADCAST WARNING MESSAGES (BWMs)

1. General

1.1 Cursor must be at left margin prior to each entry

1.2 Execution character for all messages in this procedure is the **RETURN** key

1.3 If at any time during SCANS session the message **ENTER SYSTEM SELECT CODE** is obtained, link to host computer has been lost. In this case, it will be necessary to enter **^SCANS1** and log in again

2. Procedure

2.1 Enter appropriate message to print desired BWMs:

(a) For a specific BWM, enter
BWM:S 4E,R aa-bbbb
aa-bbbb = BWM number

Response: Printout of requested BWM received

(b) For all BWMs associated with a specific generic issue, enter
BWM,S 4E,G 4E(a**),I** b
a = Generic designation number
b = Generic issue number

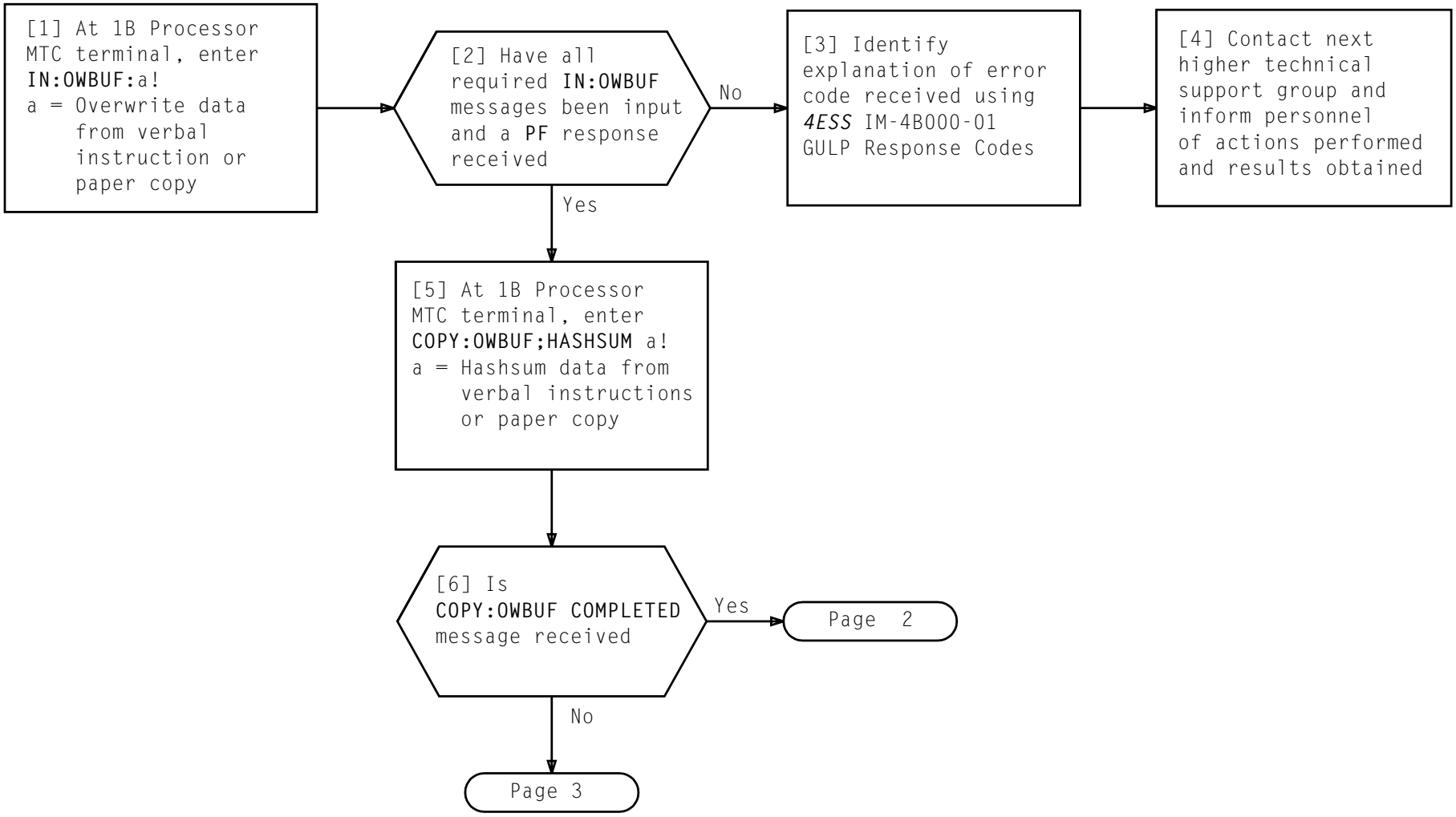
Response: Printout of all BWMs associated with specified generic issue including those BWMs associated with all generics received

(c) For all BWMs associated with a specific generic issue within a given range of BWMs, enter **BWM,S 4E,G 4E(**a**),I** b**,R** c-d
a = Generic designation number
b = Generic issue number
c = Lower limit BWM number
d = Upper limit BWM number

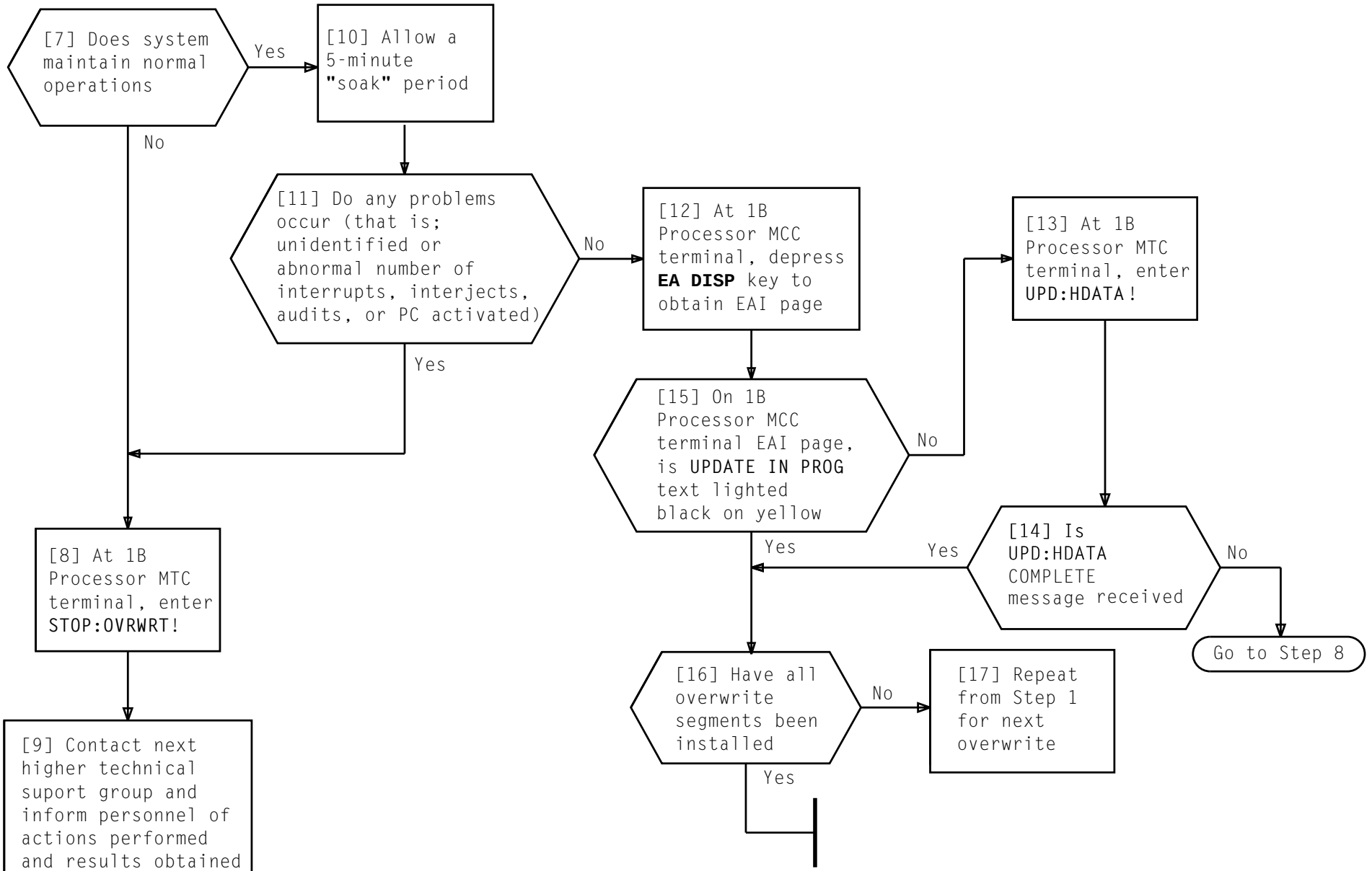
Response: Printout of all BWMs associated with the specified generic issue within the given range of BWMs received

End of procedure

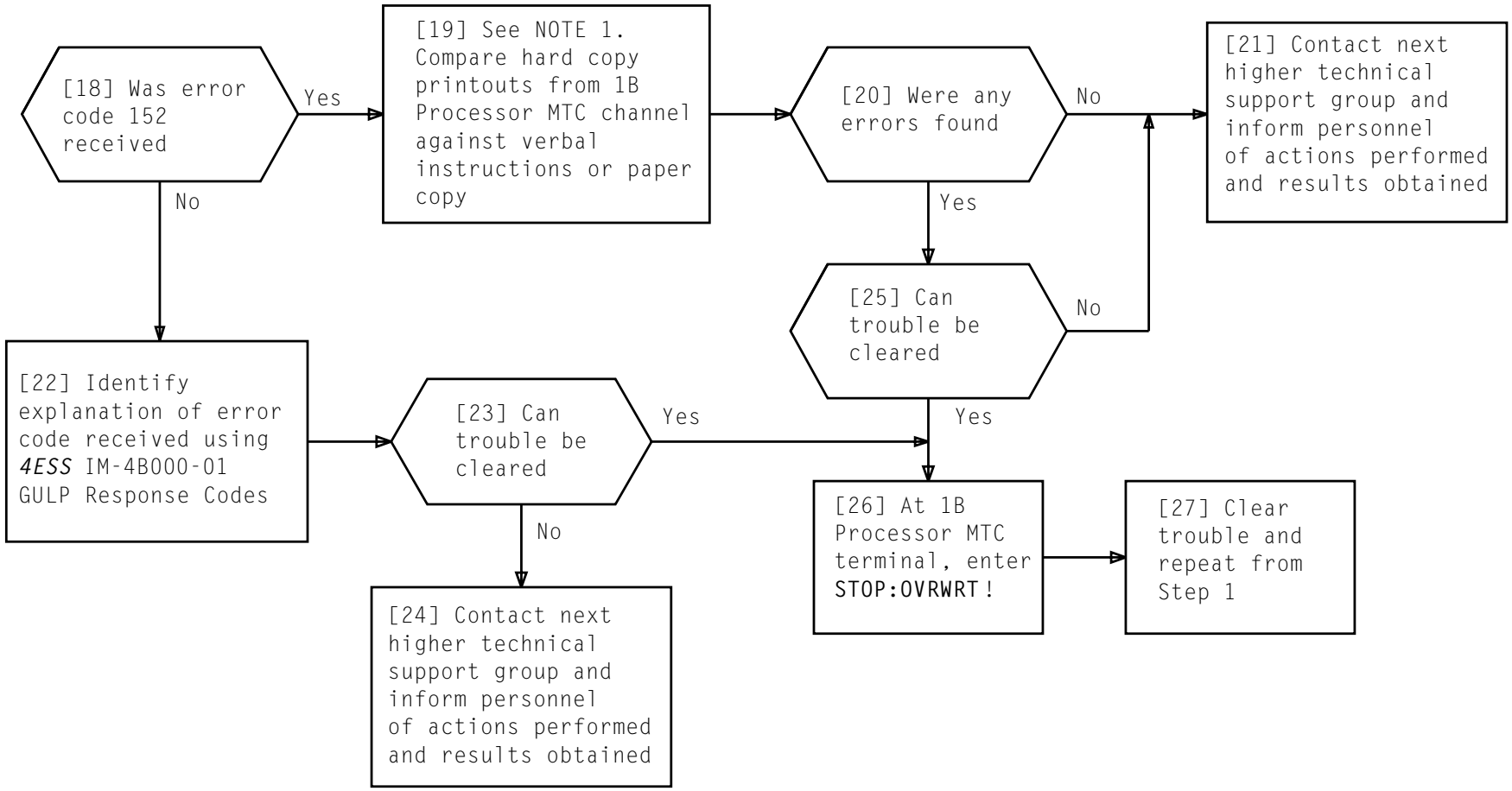
PRINT HARD COPY OF SCANS BROADCAST WARNING MESSAGES (BWMs)



INSTALL 1B PROCESSOR MANUAL OVERWRITES USING VERBAL INSTRUCTIONS OR PAPER COPY AS SOURCE

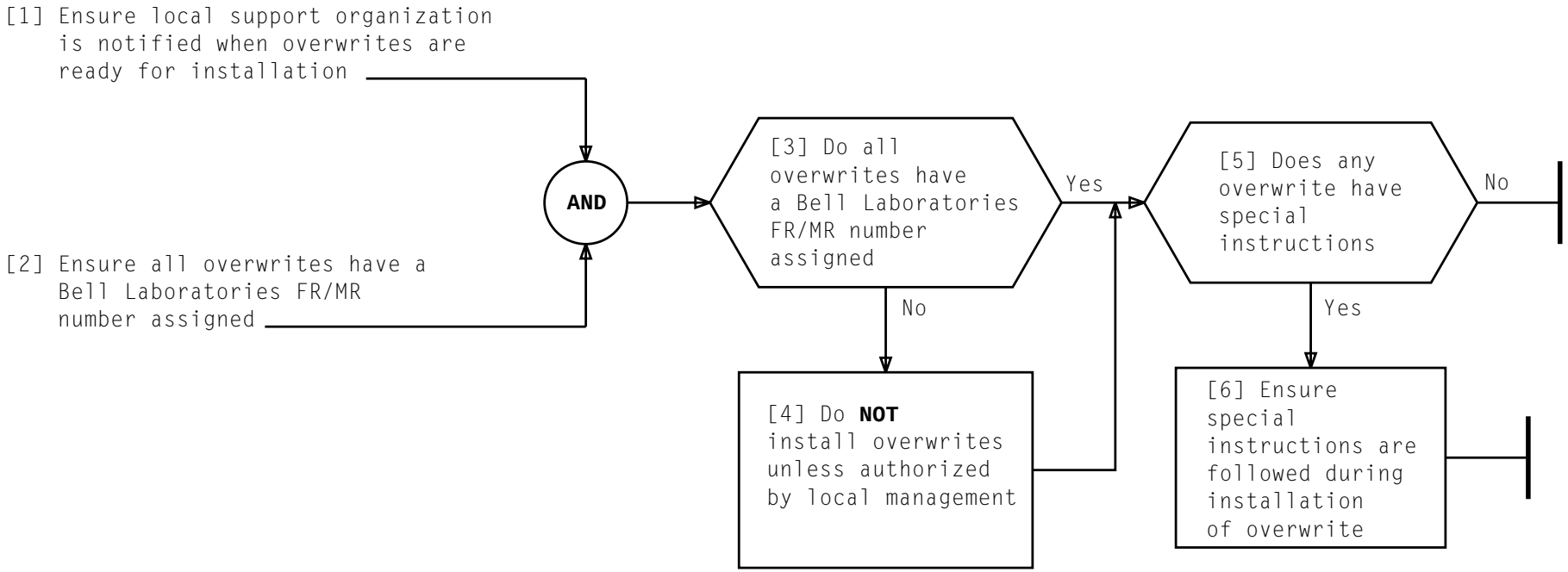


INSTALL 1B PROCESSOR MANUAL OVERWRITES USING VERBAL INSTRUCTIONS OR PAPER COPY AS SOURCE

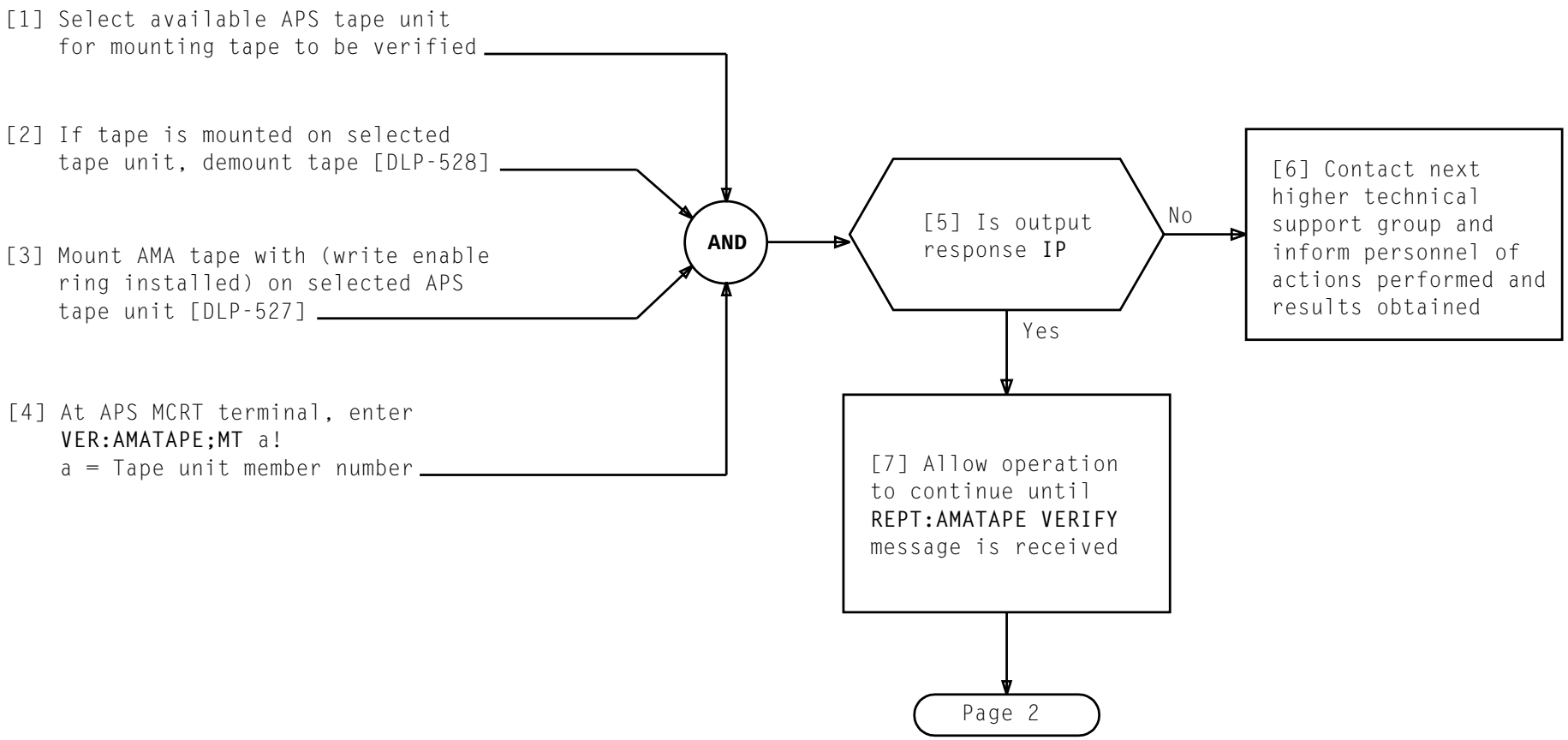


NOTE 1
Hash sum failed indicating that OLD DATA and NEW DATA in overwrite buffer does not agree with hash sum calculated

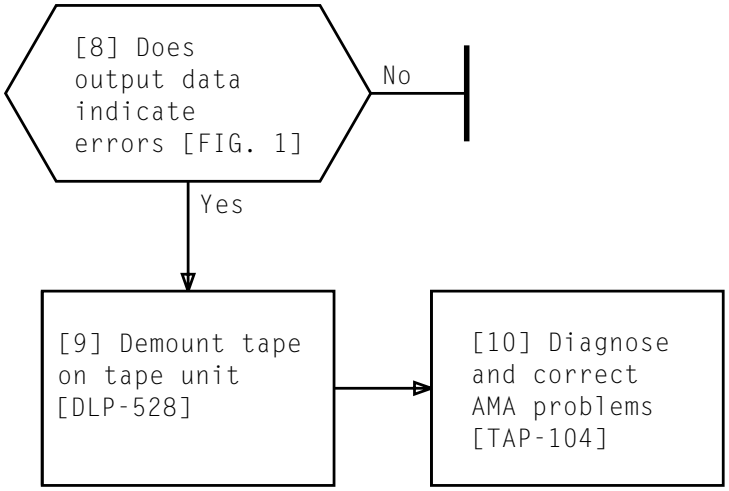
INSTALL 1B PROCESSOR MANUAL OVERWRITES USING VERBAL INSTRUCTIONS OR PAPER COPY AS SOURCE



CHECK 1B PROCESSOR MANUAL OVERWRITES FOR SPECIAL INSTRUCTIONS AND NEEDED AUTHORIZATION



VERIFY AUTOMATIC MESSAGE ACCOUNTING (AMA) TAPE



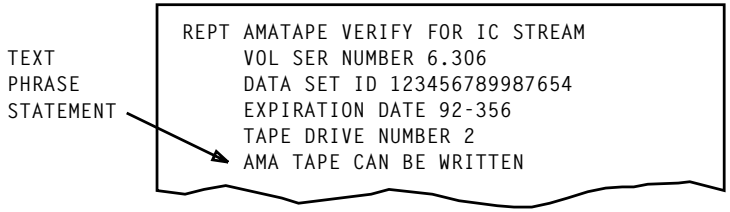
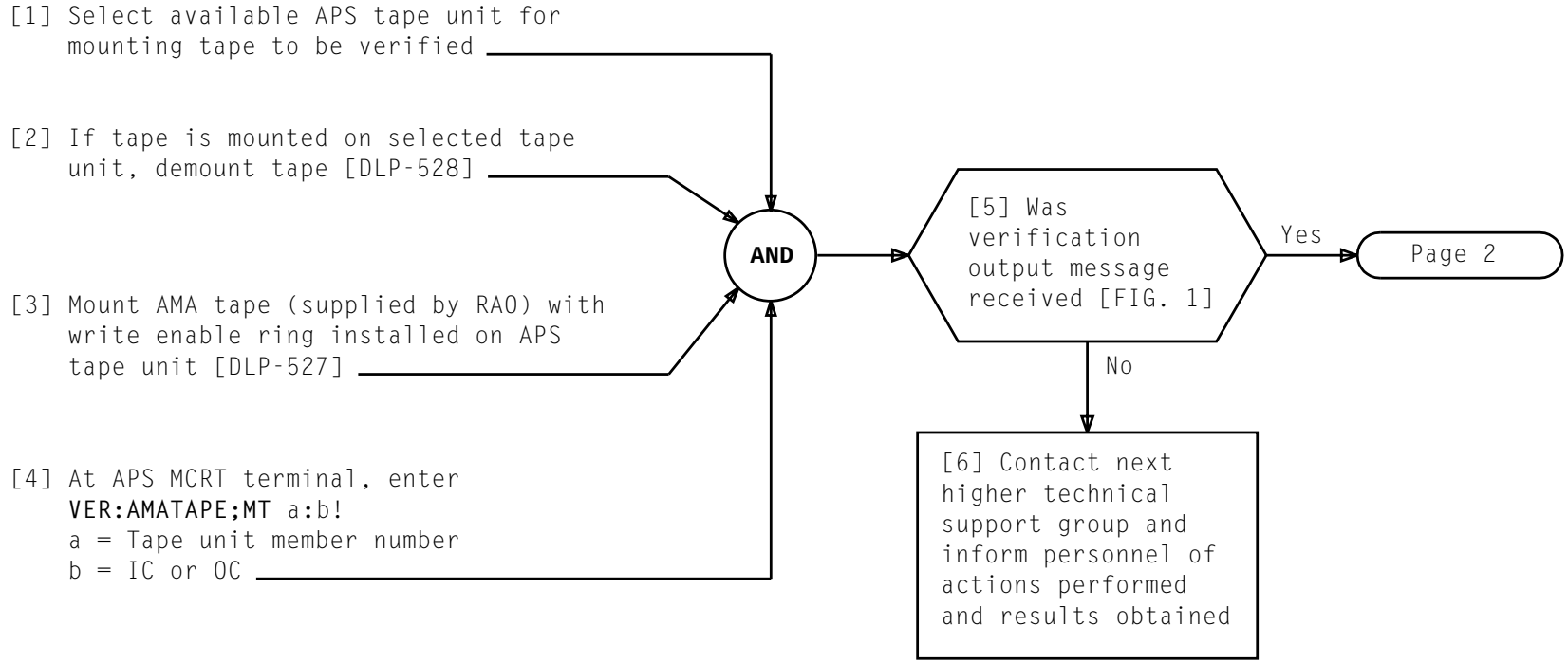


FIG. 1 — Sample Printout of REPT:AMATAPE COMPLETE Message

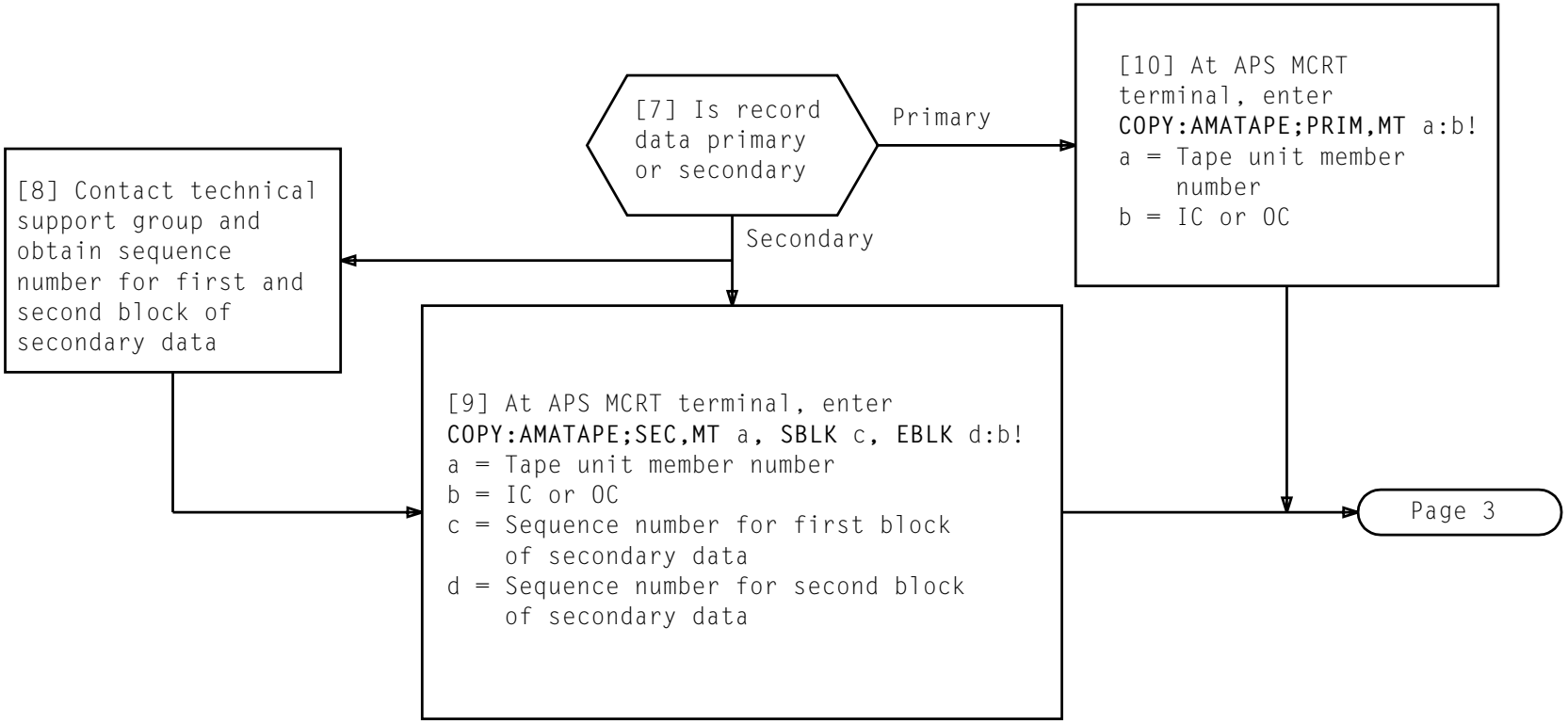
VERIFY AUTOMATIC MESSAGE ACCOUNTING (AMA) TAPE



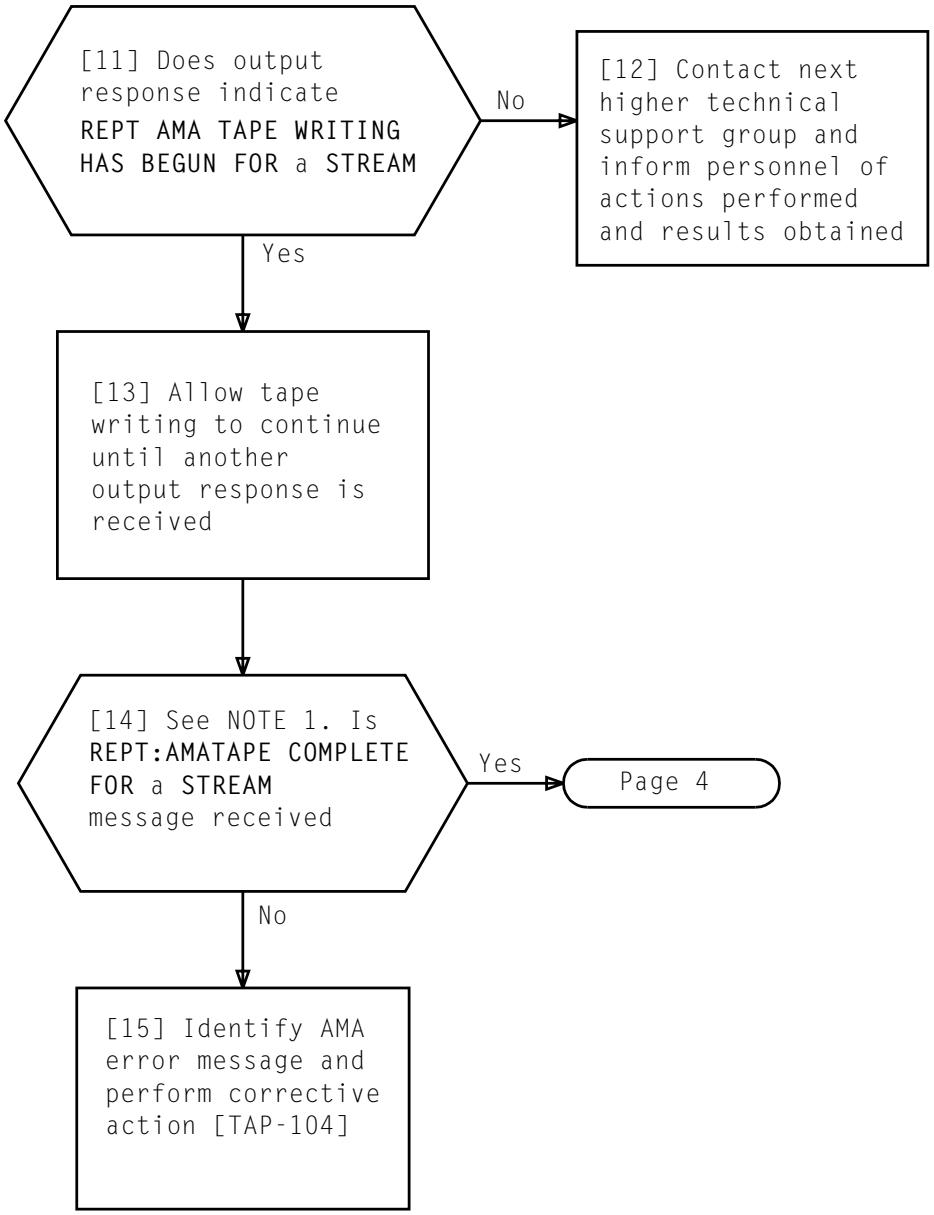

```
REPT AMATAPE VERIFY FOR a STREAM
   VOL SER NUMBER b
   DATA SET ID c
   EXPIRATION DATE d-e
   TAPE DRIVE NUMBER f
   AMA TAPE CAN BE WRITTEN
```

FIG. 1 — Sample Printout of AMA Verification Output Message

WRITE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA) TAPE

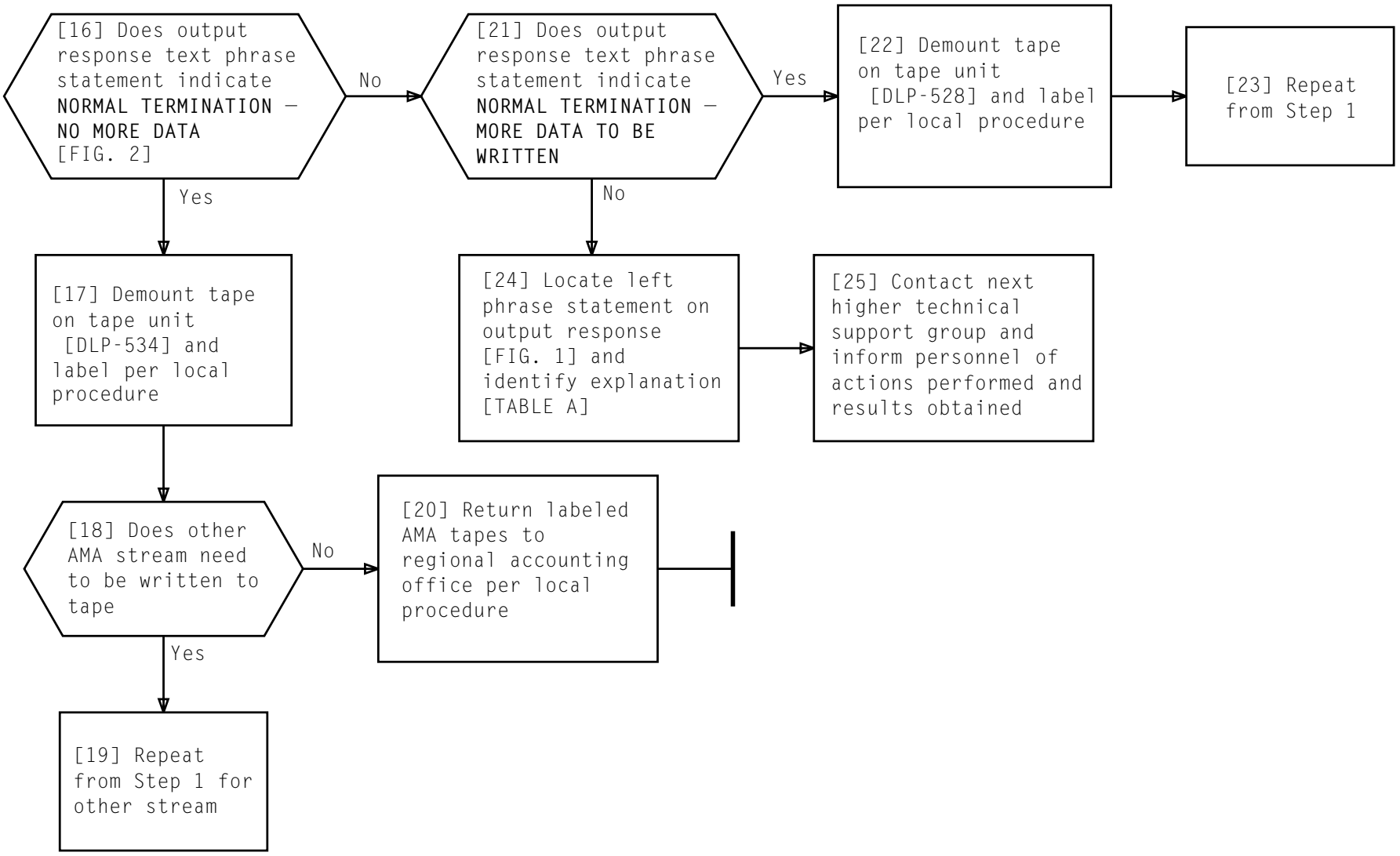


WRITE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA) TAPE



WRITE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA) TAPE

NOTE 1
Output message contains detailed data of AMA tape



WRITE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA) TAPE

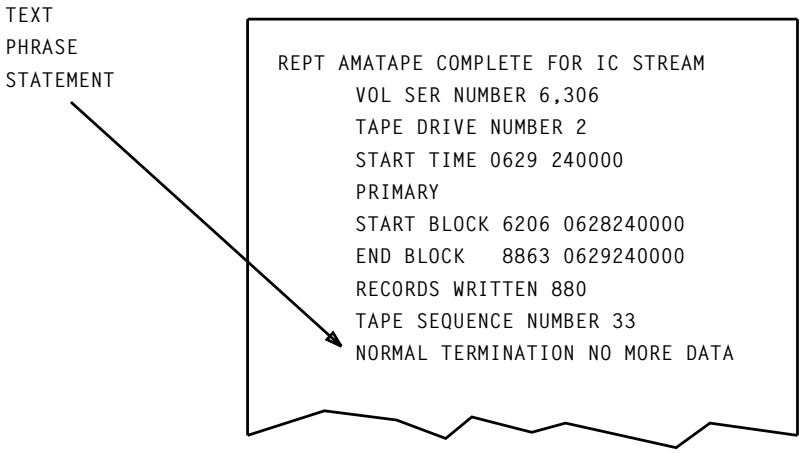


FIG. 2 - Sample Printout of RETP:AMATAPE COMPLETE Message

TABLE A	
TEXT PHRASE STATEMENTS	**EXPLANATION**
NORMAL TERMINATION - NO MORE DATA	ALL DATA HAS BEEN WRITTEN
TERMINATION REQUESTED VIA STOP AMA TAPE MESSAGE	STOP MESSAGE HAS BEEN ENTERED TO TERMINATE WRITE PROCEDURE
NORMAL TERMINATION - MORE DATA TO BE WRITTEN	TERMINATION IS NORMAL BUT ALL DATA HAS NOT BEEN WRITTEN
TRAILER LABELS COULD NOT BE WRITTEN	SOMETHING IN TRAILER LABEL CONTENTS PREVENTS WRITING
NORMAL TERMINATION - MORE DATA REQUESTED THAN AVAILABLE	WRITING STOPS WHEN DATA IS WRITTEN, THROUGH WRITE ORDER ASKED FOR MORE
AUTOMATIC TAPE WRITING STOP TIME WAS REACHED	PRESET STOP TIME WAS REACHED, TERMINATING WRITE PRECEDURE REGARDLESS OF COMPLETENESS
TAPE WRITING STOPPED FOR REX DGNS	ROUTINE EXERCISE IN PROGRESS INTERRUPTS TAPE WRITING

[1] Select available APS tape unit for mounting tape

[2] If tape is mounted on selected tape unit, demounted tape [DLP-528]

[3] Mount AMA tape with write enable ring installed on selected APS tape unit [DLP-527]

[4] At APS MCRT terminal, enter
OP:AMA;CONTROLFILE a!
a = OC or IC

System responds with
REPT AMA CONTROL FILE printout

AND

Page 2

[5] On AMA control file printout [FIG. 1], verify AMA tape writing data [TABLE A]

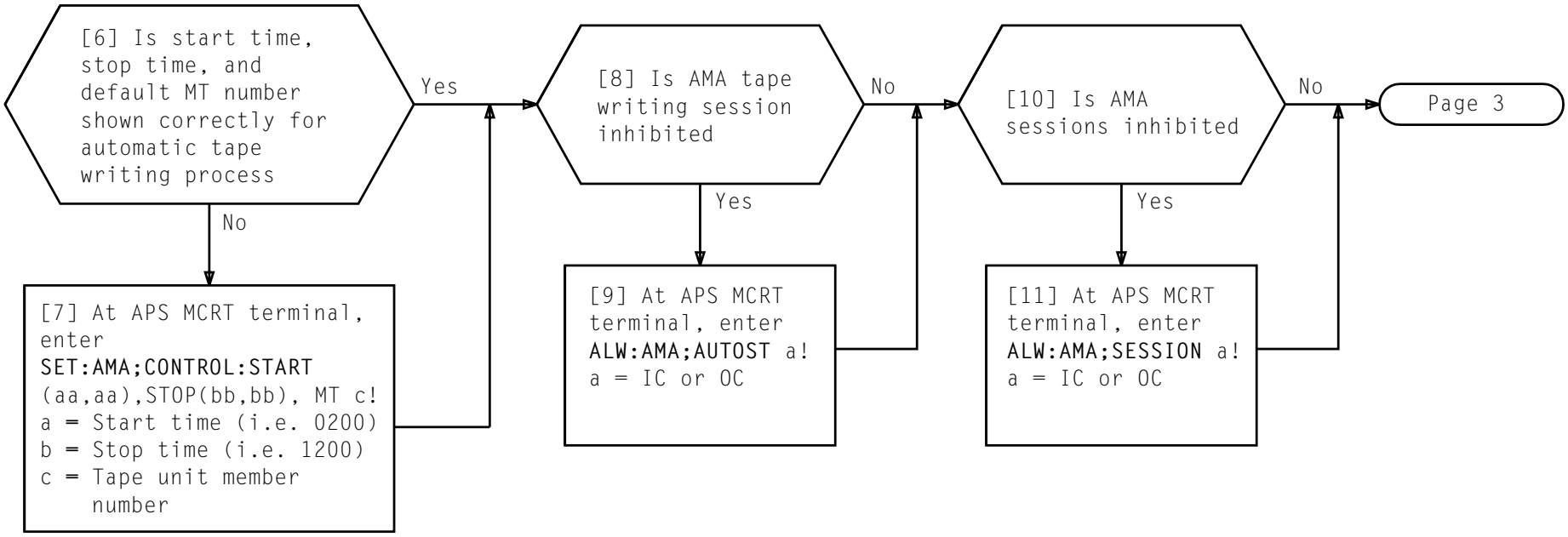
```
24 REPT AMA CONTROL FILE
    OFFICE ID 123456
    DAYS UNTIL EXPIRATION 5
    PROCESS START TIME 00:00
    PROCESS STOP TIME 00:00
    DEFAULT MT FOR AUTO TAPE START 0
    AMA OPTION IS TELEPROCESSING
    DATA TRANSFER IS MANUALLY INHIBITED
    AMAT PASSWORD 0040123456
    HOC PASSWORD 0320123456
    BACKUP HOC PASSWORD 0320218357
    PASSWORD FROM LAST SESSION 0320123456
    TAPE SESSION IS NOT IN PROGRESS
    TELEPROCESSING SESSION IS NOT IN PROGRESS
    OFFICE TYPE 004
    AUTOMATIC TAPE WRITING IS NOT INHIBITED
    TAPE SEQUENCE NUMBER 4
```

FIG.1 – Sample Printout of AMA Control File

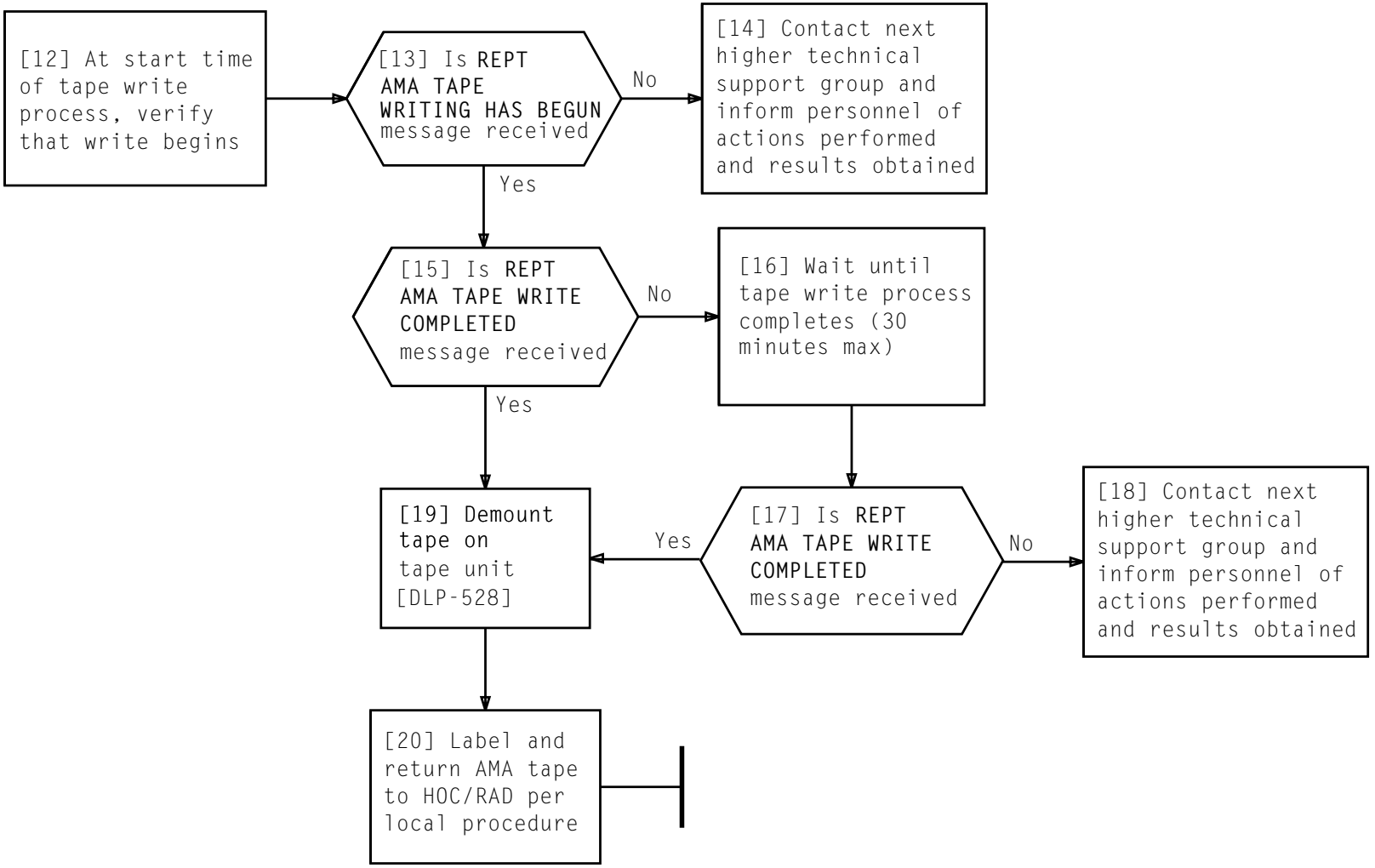
TABLE A
AMA TAPE WRITING DATA

Process start time
Process stop time
Default MT for auto tape start
Indication of whether or not auto tape writing has been inhibited
Indication of whether or not AMA data transfer sessions have been manually inhibited

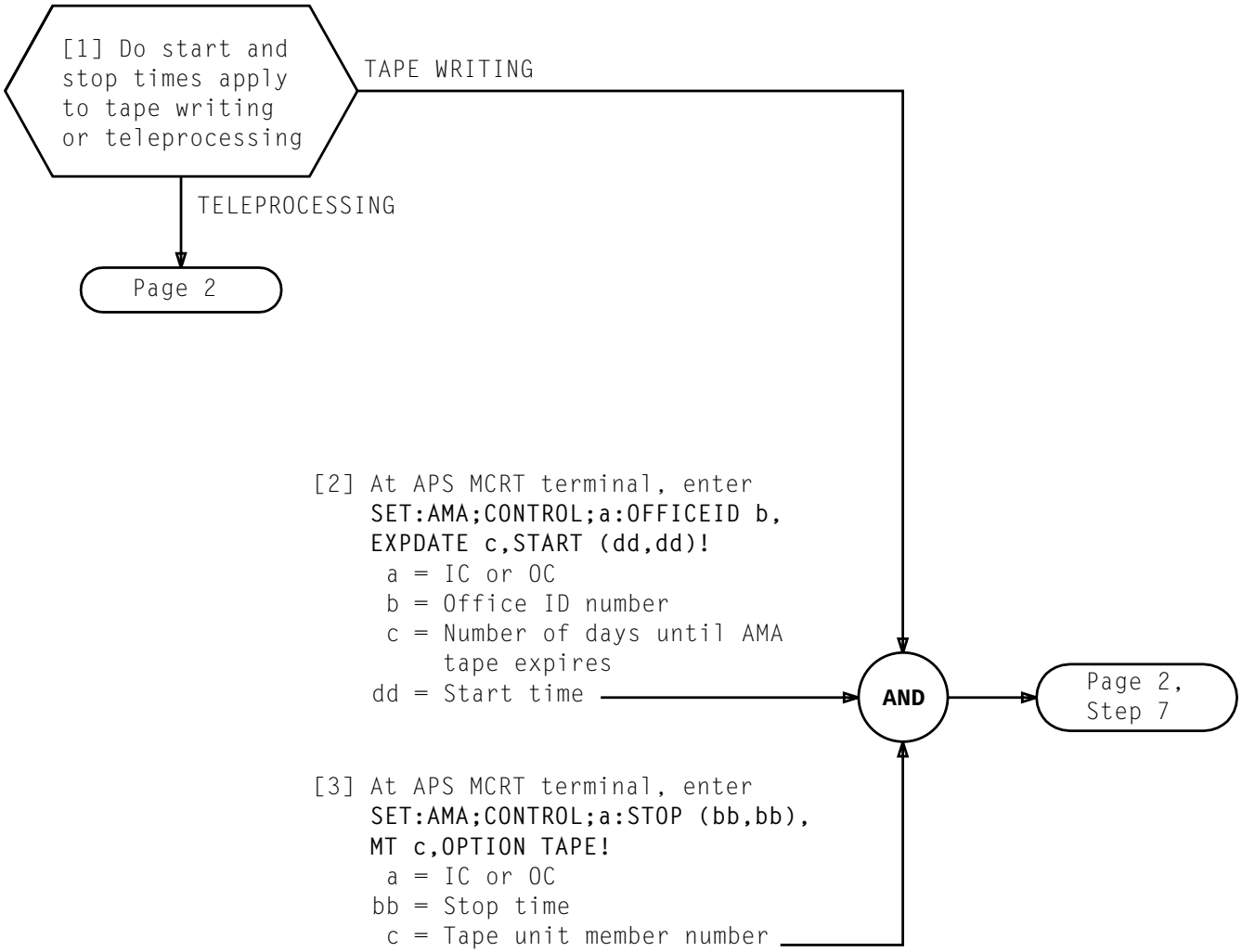
INITIALIZE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC AMA TAPE WRITING PROCESS



INITIALIZE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC AMA TAPE WRITING PROCESS



INITIALIZE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC AMA TAPE WRITING PROCESS

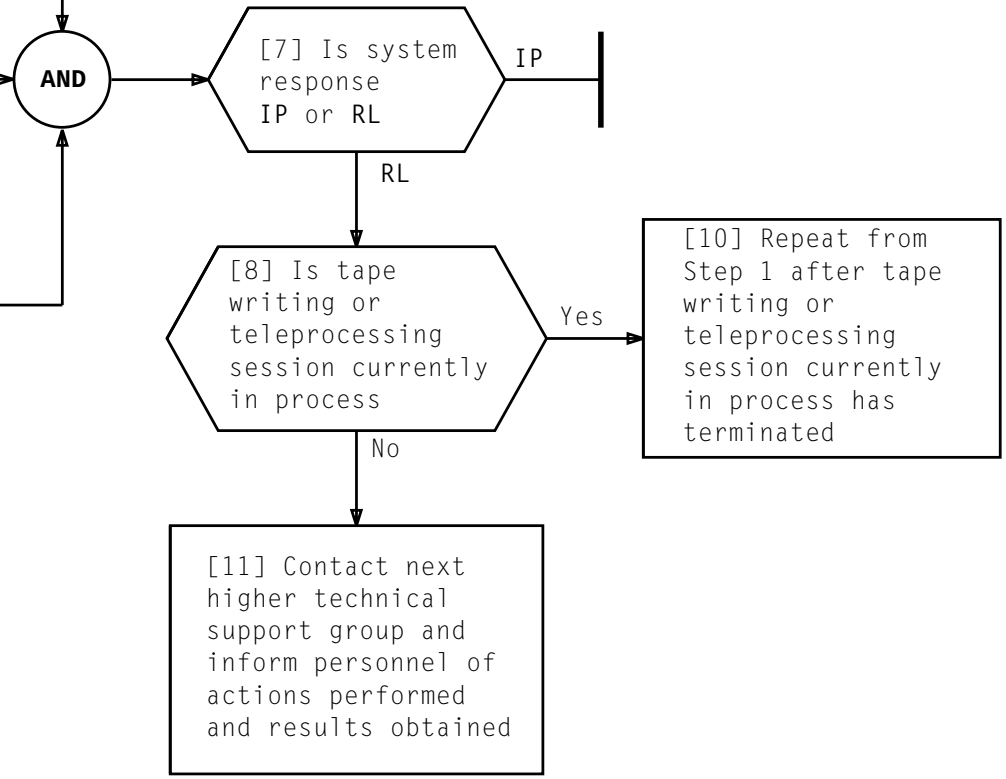


SET START AND STOP TIME FOR AUTOMATIC AMA RECORD OUTPUT (TAPE OR TELEPROCESSING)

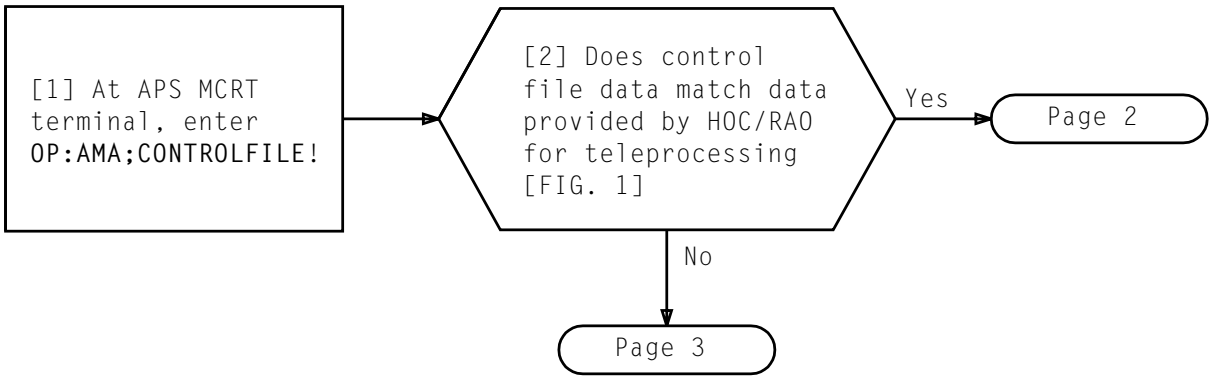
[4] At APS MCRT terminal, enter
SET:AMA;CONTROL;a:OFFICEID b,START (cc,cc)!
a = IC or OC
b = Office ID number
cc = Start time

[5] At APS MCRT terminal, enter
SET:AMA;CONTROL:a;STOP (bb,bb), OPTION TP,HOCPSWD c!
a = IC or OC
bb = Stop time
c = HOC password (10 digits)

[6] At APS MCRT terminal, enter
SET:AMA;CONTROL;a:BACKUPSWD b!
a = IC or OC
b = Backup HOC password (10 digits)



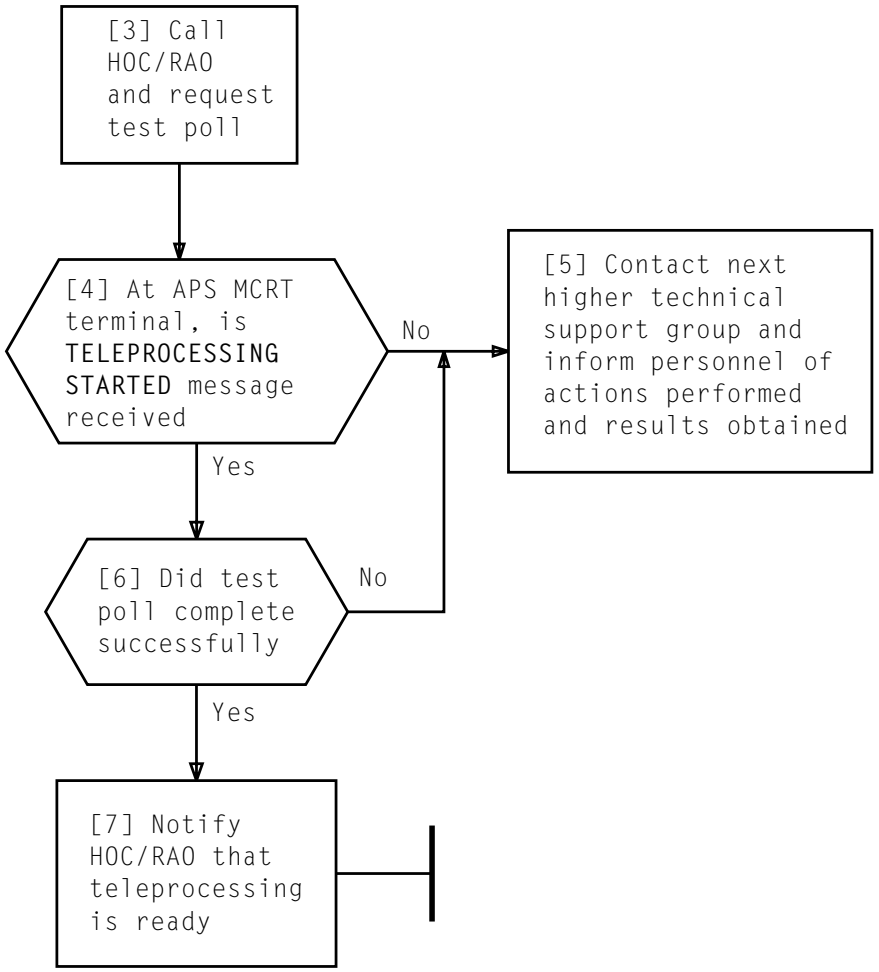
SET START AND STOP TIME FOR AUTOMATIC AMA RECORD OUTPUT (TAPE OR TELEPROCESSING)




```
24 REPT AMA CONTROL FILE
      OFFICE ID  123456
      DAYS UNTIL EXPIRATION  5
      PROCESS START TIME  0/ 0/:0/0/
      PROCESS STOP TIME  0/ 0/:0/0/
      DEFAULT MT FOR AUTO TAPE START  0/
      AMA OPTION IS TELEPROCESSING
      DATA TRANSFER IS MANUALLY INHIBITED
      AMAT PASSWORD  0  /0/40/123456
      HOC PASSWORD   0/320/123456
      BACKUP HOC PASSWORD  0/320/218357
      PASSWORD FROM LAST SESSION 0/320/123456
      TAPE SESSION IS NOT IN PROGRESS
      TELEPROCESSING SESSION IS NOT IN PROGRESS
      OFFICE TYPE 0/0/4
      AUTOMATIC TAPE WRITING IS NOT INHIBITED
      TAPE SEQUENCE NUMBER  4
```

FIG. 1 — AMA Conrol File Printout

TEST FOR ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA) TELEPROCESSING CAPABILITY

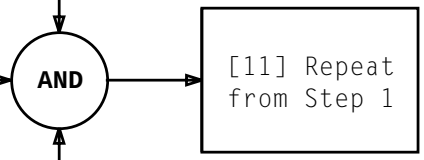


TEST FOR ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA)

[8] At APS MCRT terminal, enter
SET:AMA;CONTROL;a:OFFICEID b,EXPDATE c,START d!
a = OC or IC
b = Office ID number (0040 followed by six digits)
c = Number of days until AMA tape expires
d = Stop time (Hours and minutes)

[9] At APS MCRT terminal, enter
SET:AMA;CONTROL;a:STOP b,MT c,OPTION TP!
a = OC or IC
b = Stop time (Hours and minutes)
c = Tape unit member number

[10] At APS MCRT terminal, enter
SET:AMA;CONTROL;a:HOCPSWD b,BACKUPSWD c!
a = OC or IC
b = HOC password (0320 followed by six digits)
c = Backup HOC password (ten digits)



TEST FOR ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA) TELEPROCESSING CAPABILITY

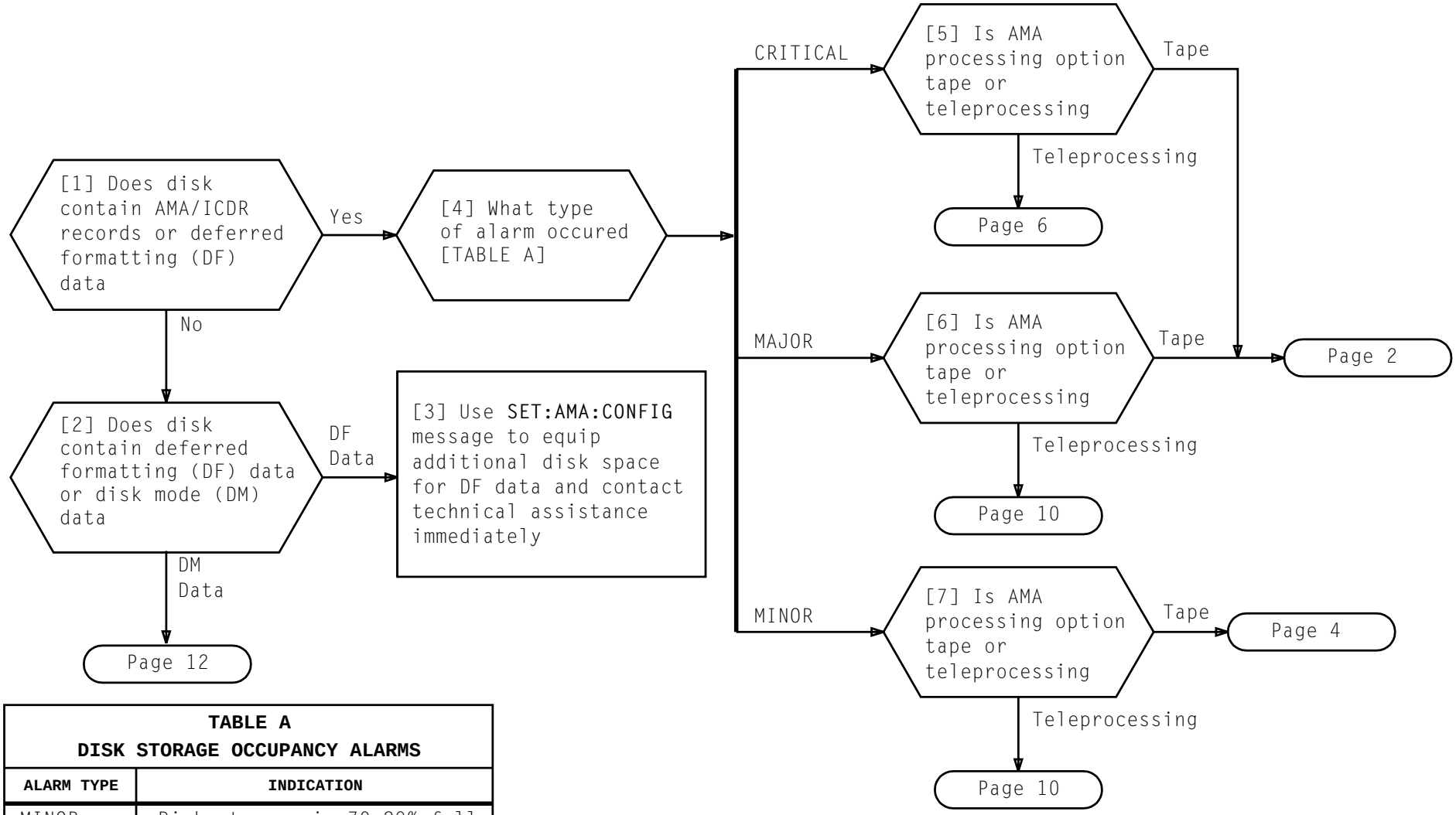
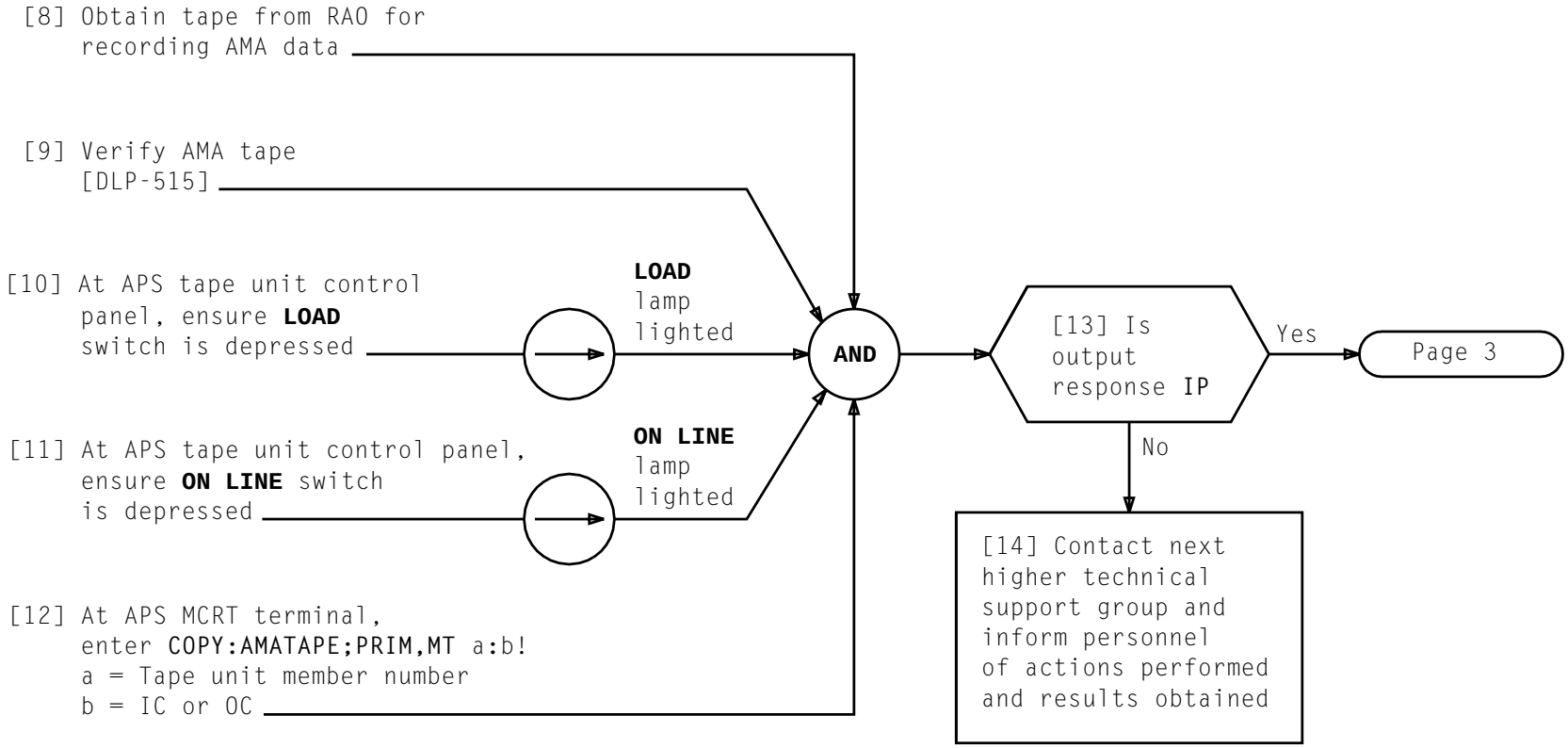


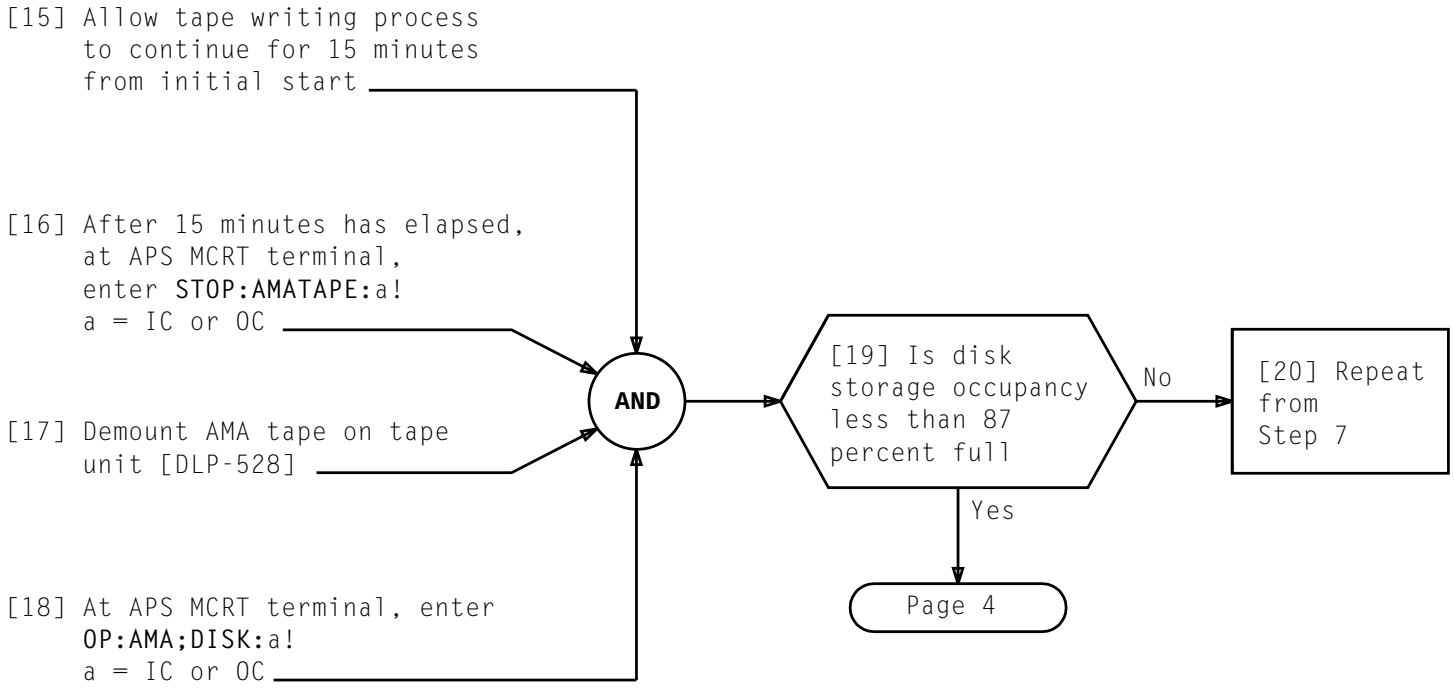
TABLE A
DISK STORAGE OCCUPANCY ALARMS

ALARM TYPE	INDICATION
MINOR	Disk storage is 70-89% full
MAJOR	Disk storage is 90-99% full
CRITICAL	Disk storage is 100% full

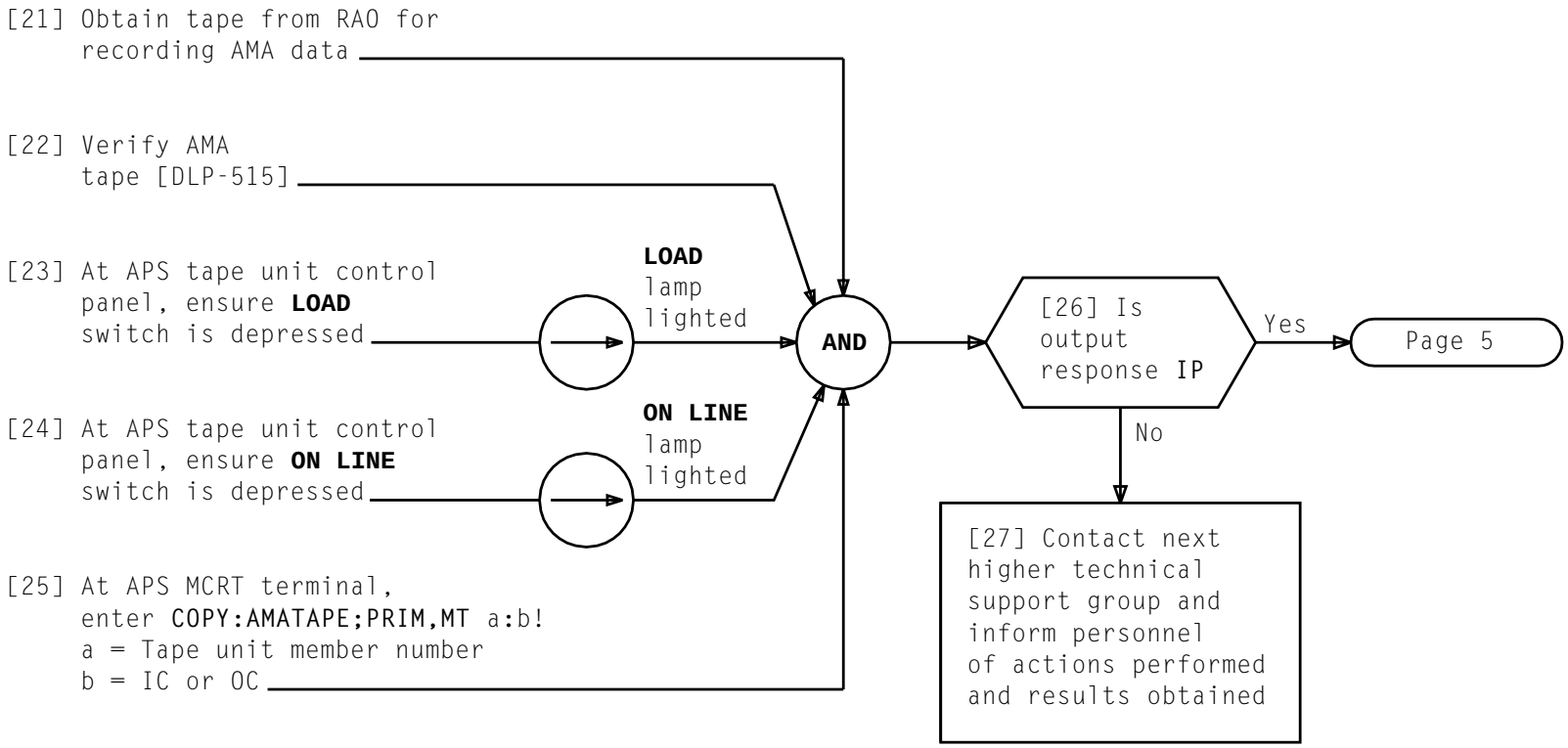
REDUCE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA) DISK STORAGE OCCUPANCY



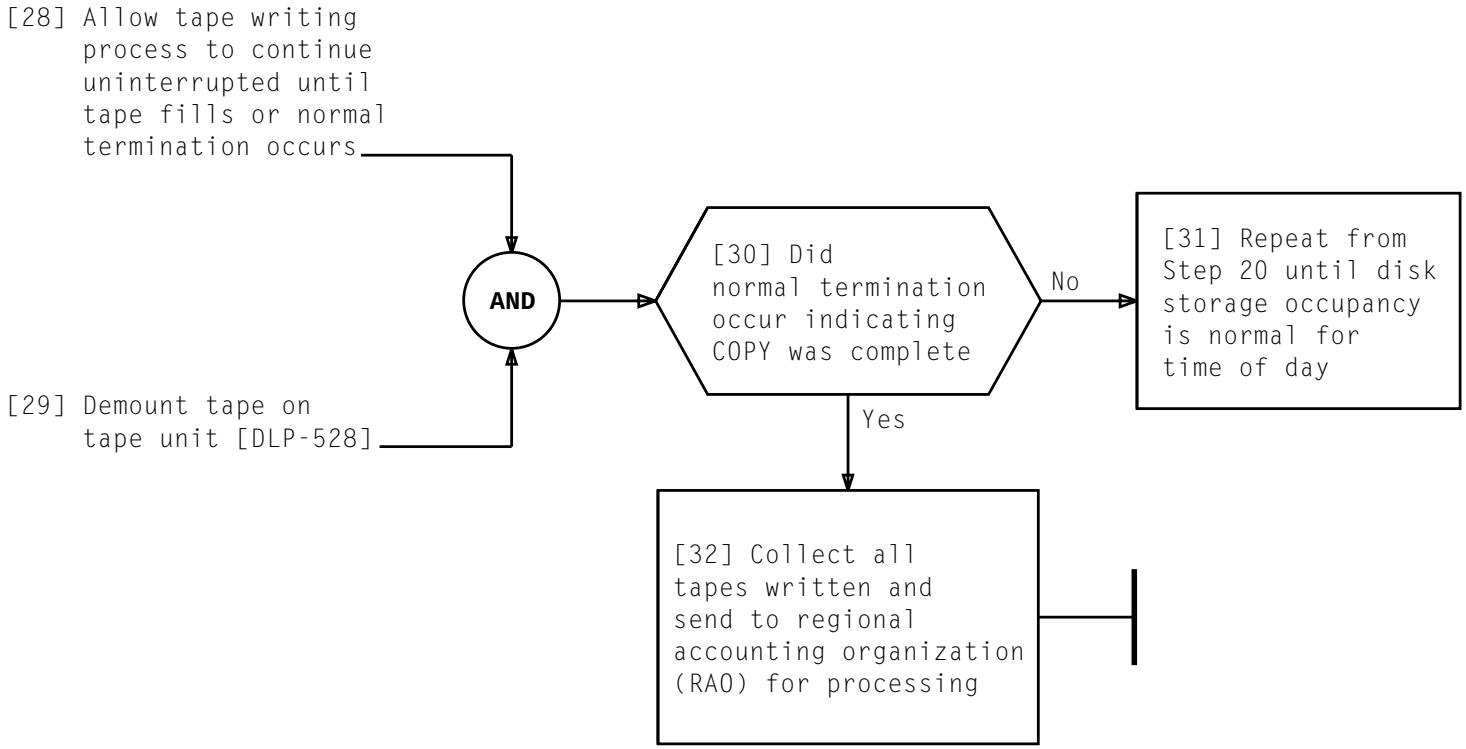
REDUCE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA) DISK STORAGE OCCUPANCY



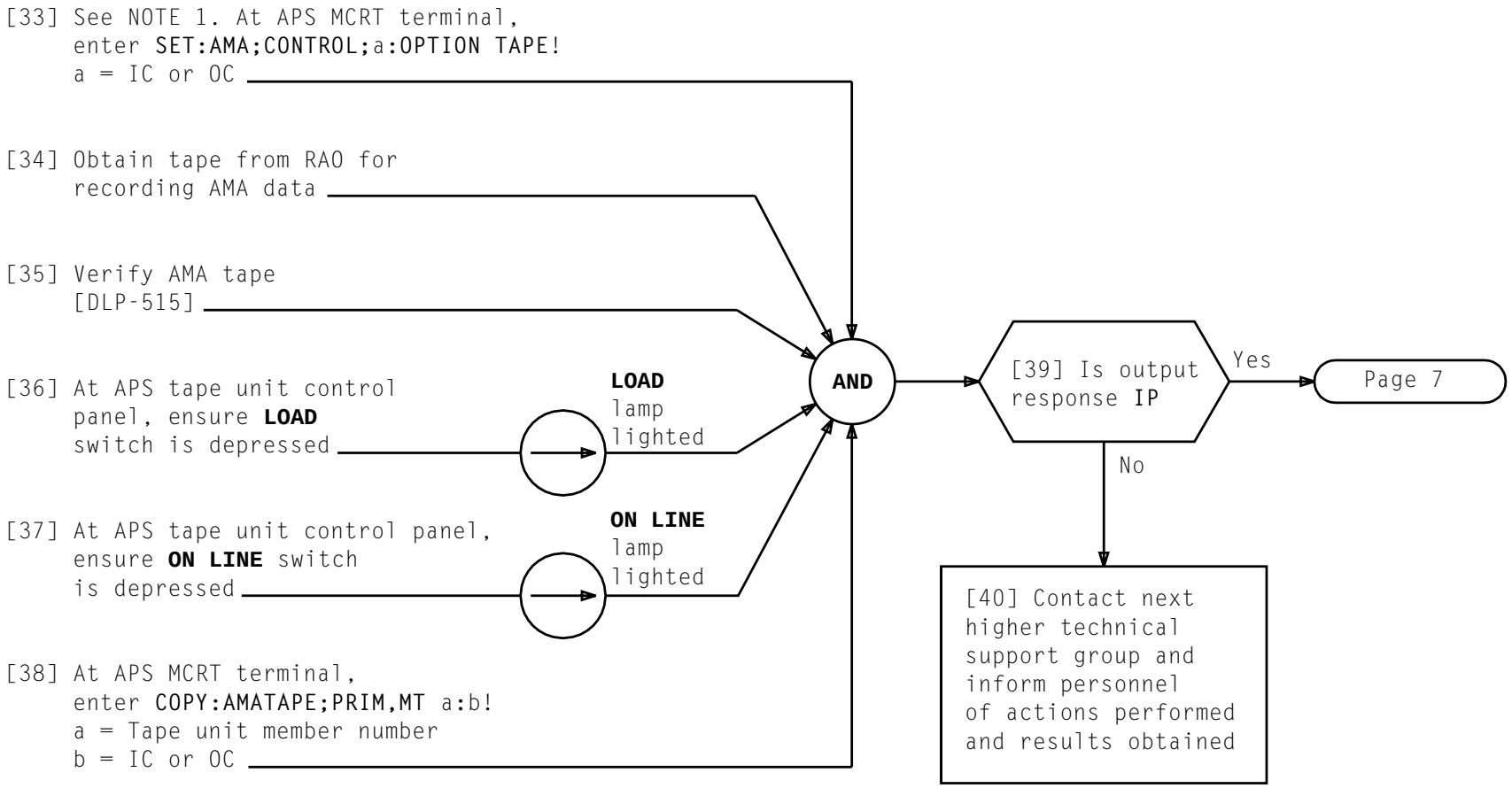
REDUCE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA) DISK STORAGE OCCUPANCY



REDUCE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA) DISK STORAGE OCCUPANCY

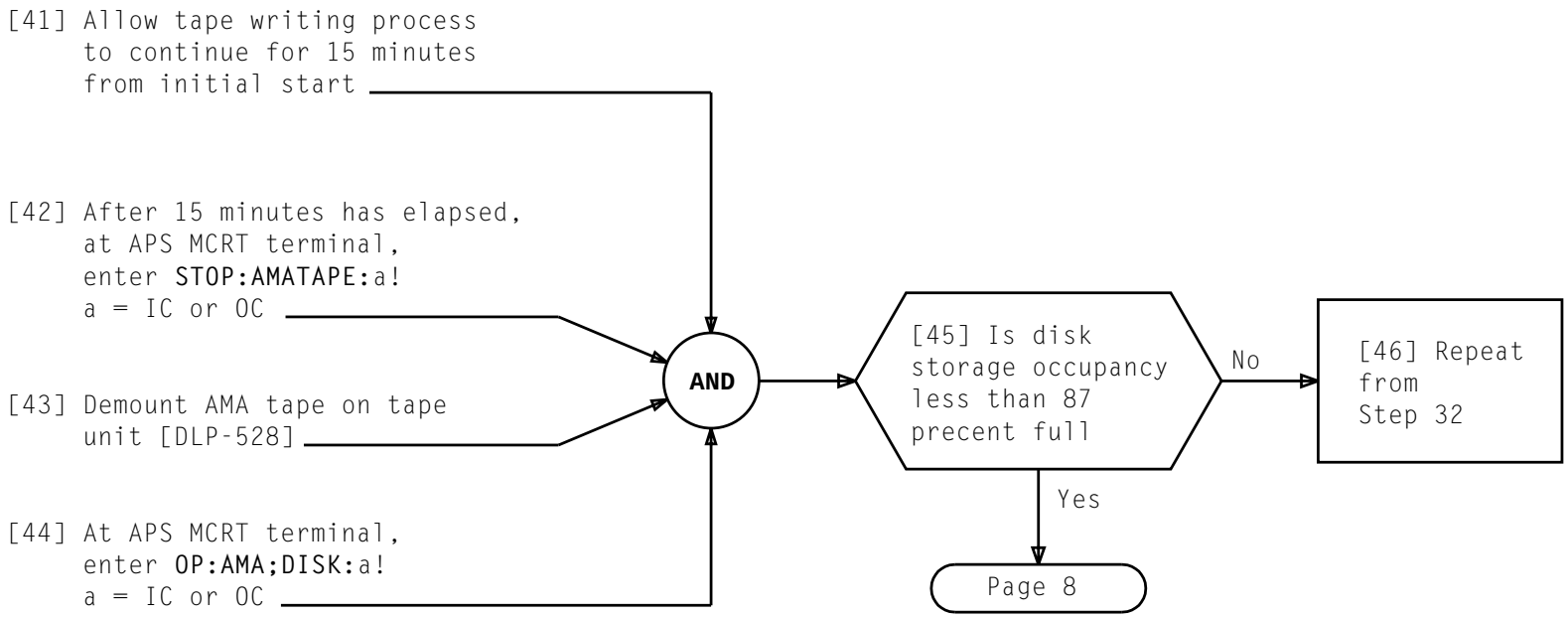


REDUCE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA) DISK STORAGE OCCUPANCY

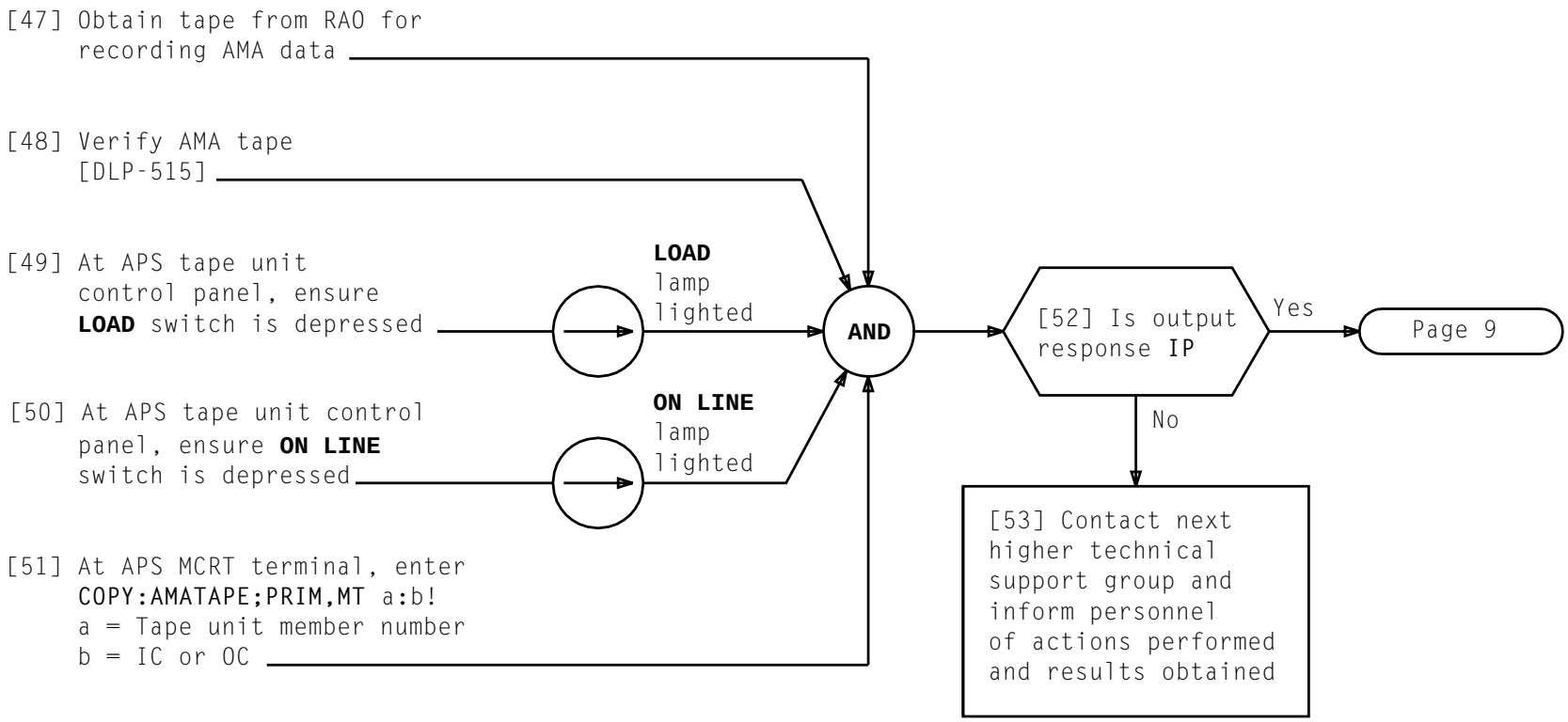


NOTE 1
For disk storage occupancy to be at 100% full, minor and major alarms could not be retired and conditions progressed to critical

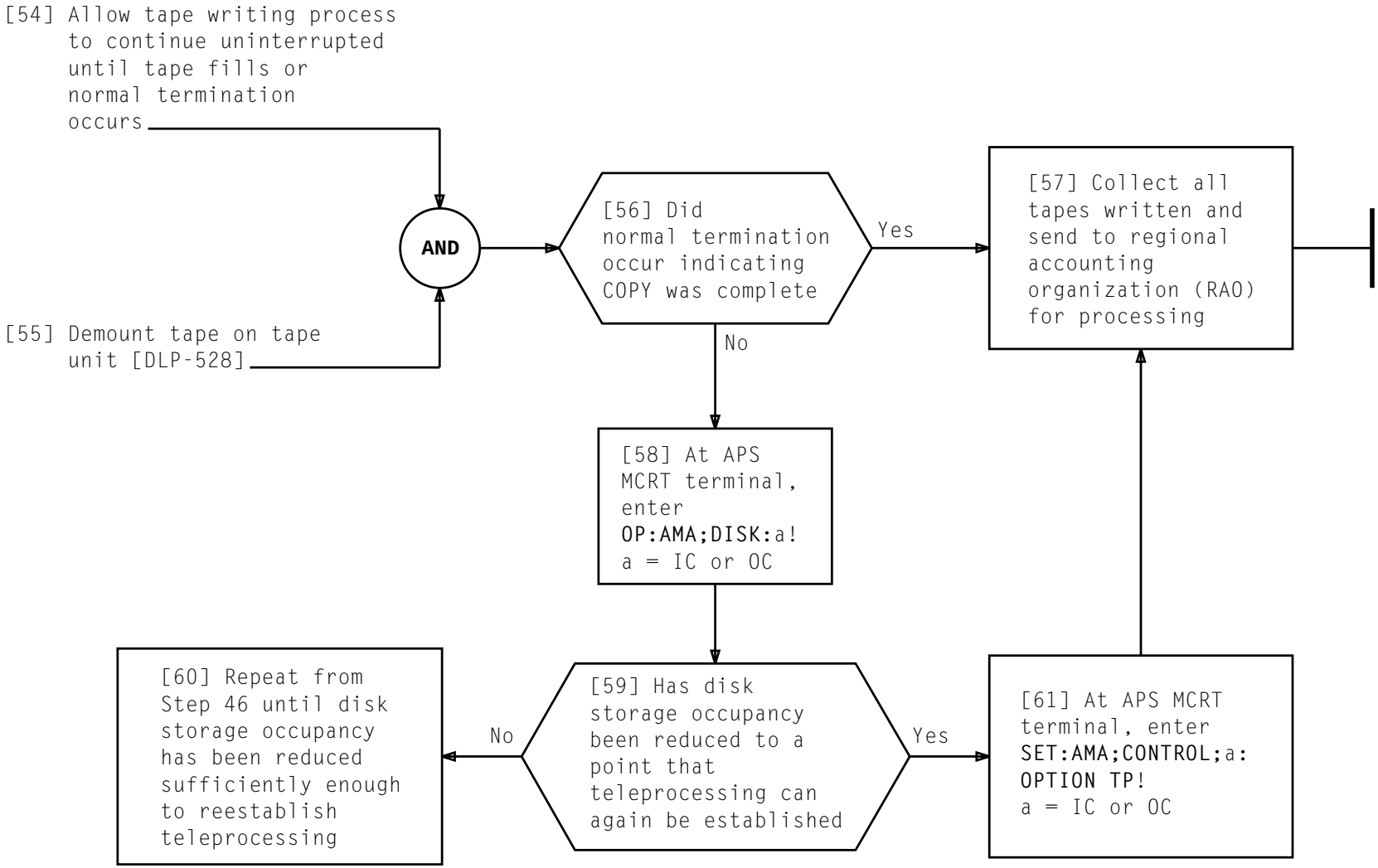
REDUCE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA) DISK STORAGE OCCUPANCY



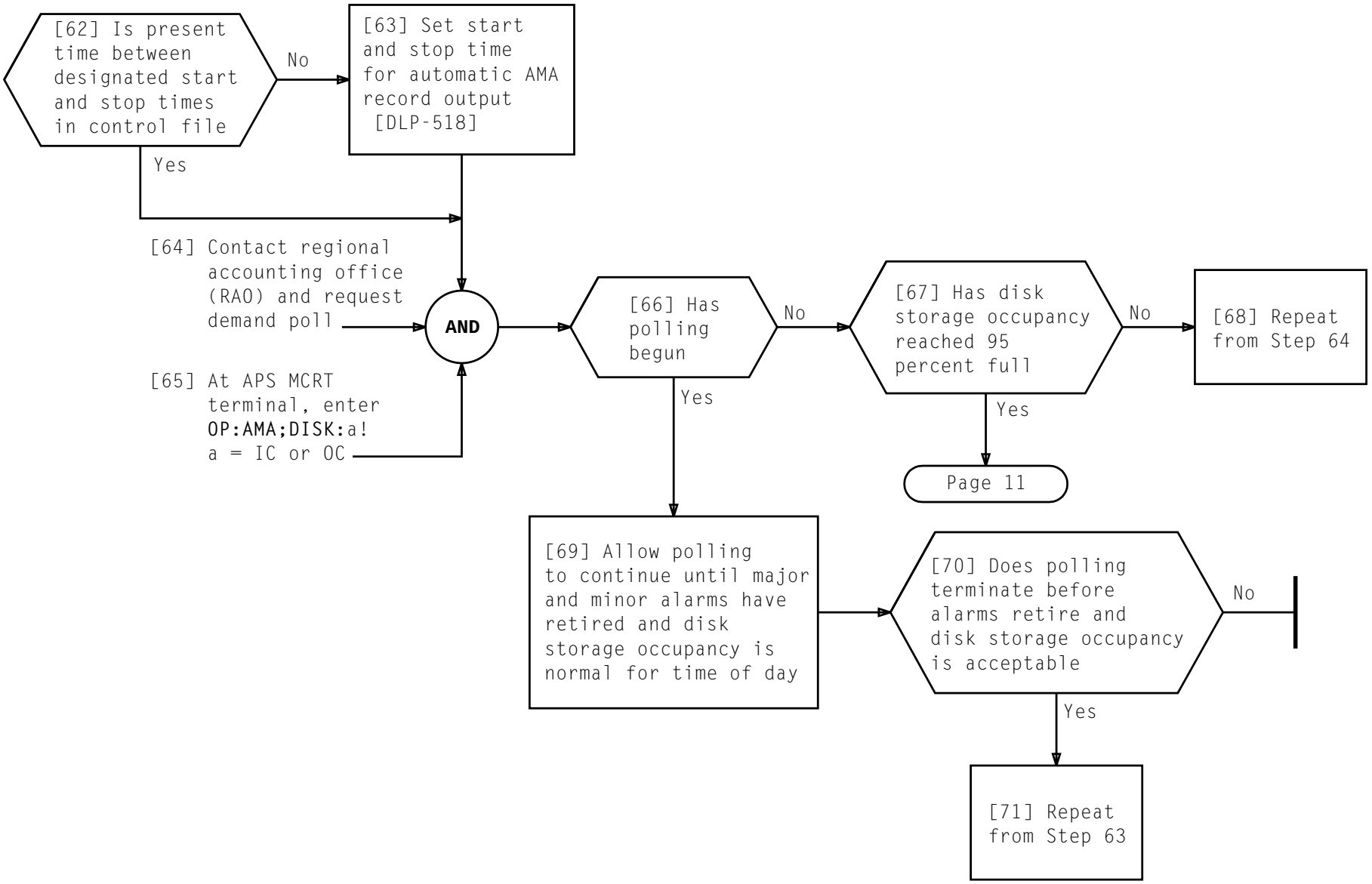
REDUCE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA) DISK STORAGE OCCUPANCY



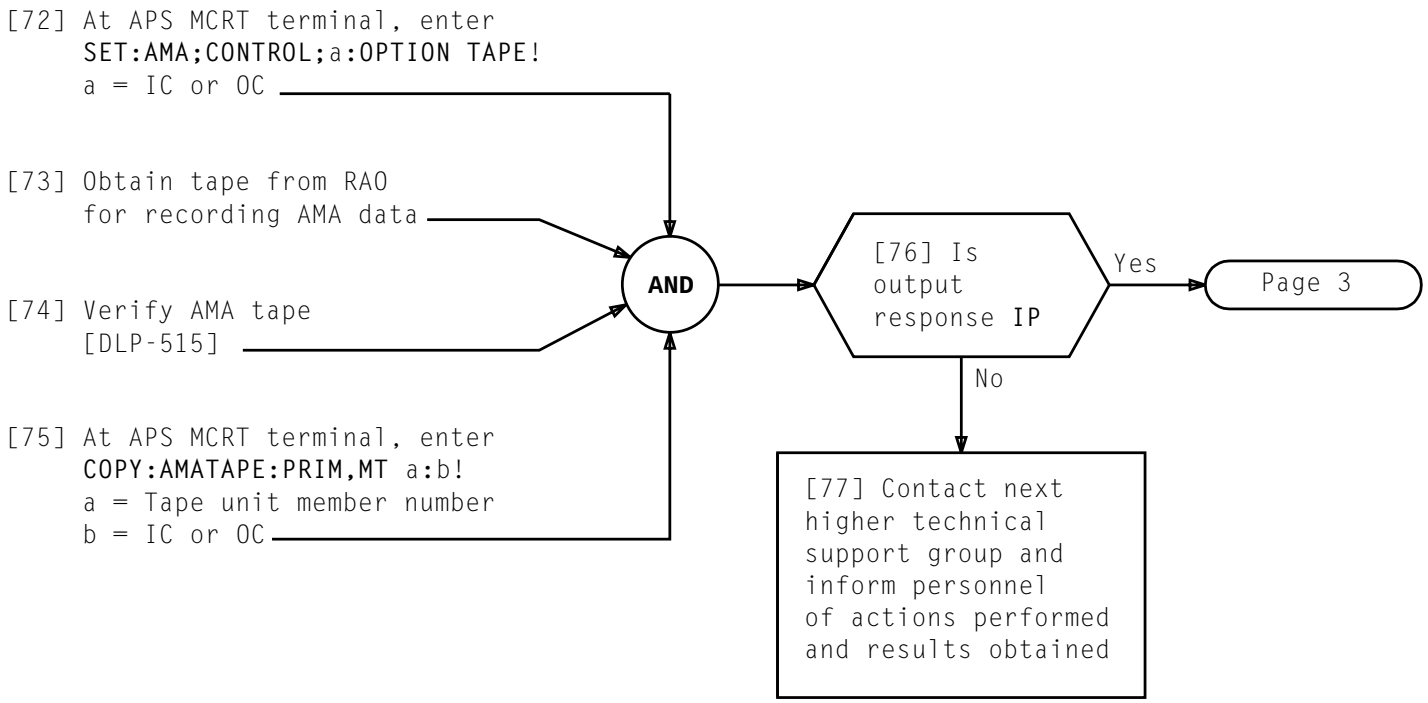
REDUCE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA) DISK STORAGE OCCUPANCY



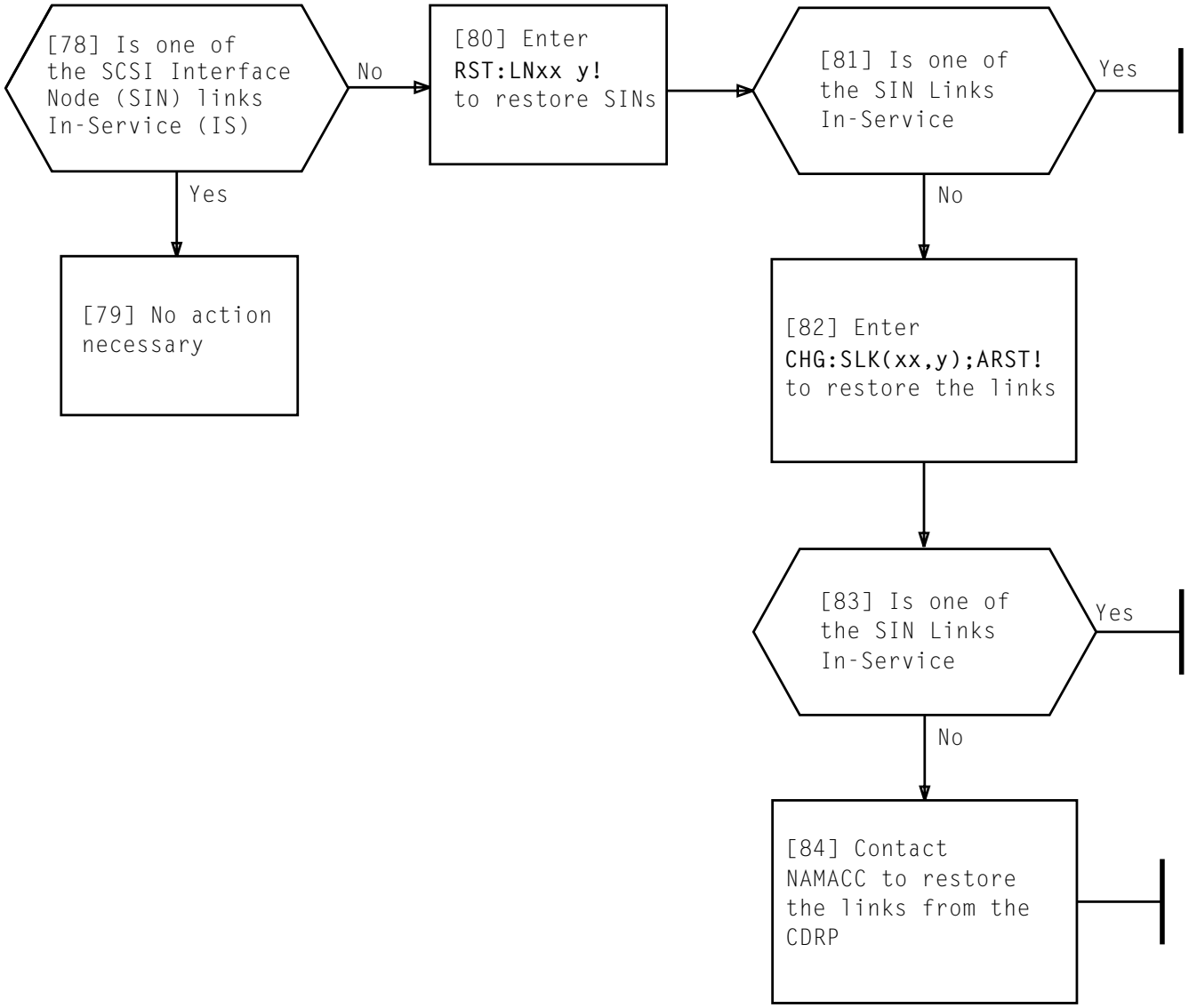
REDUCE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA) DISK STORAGE OCCUPANCY



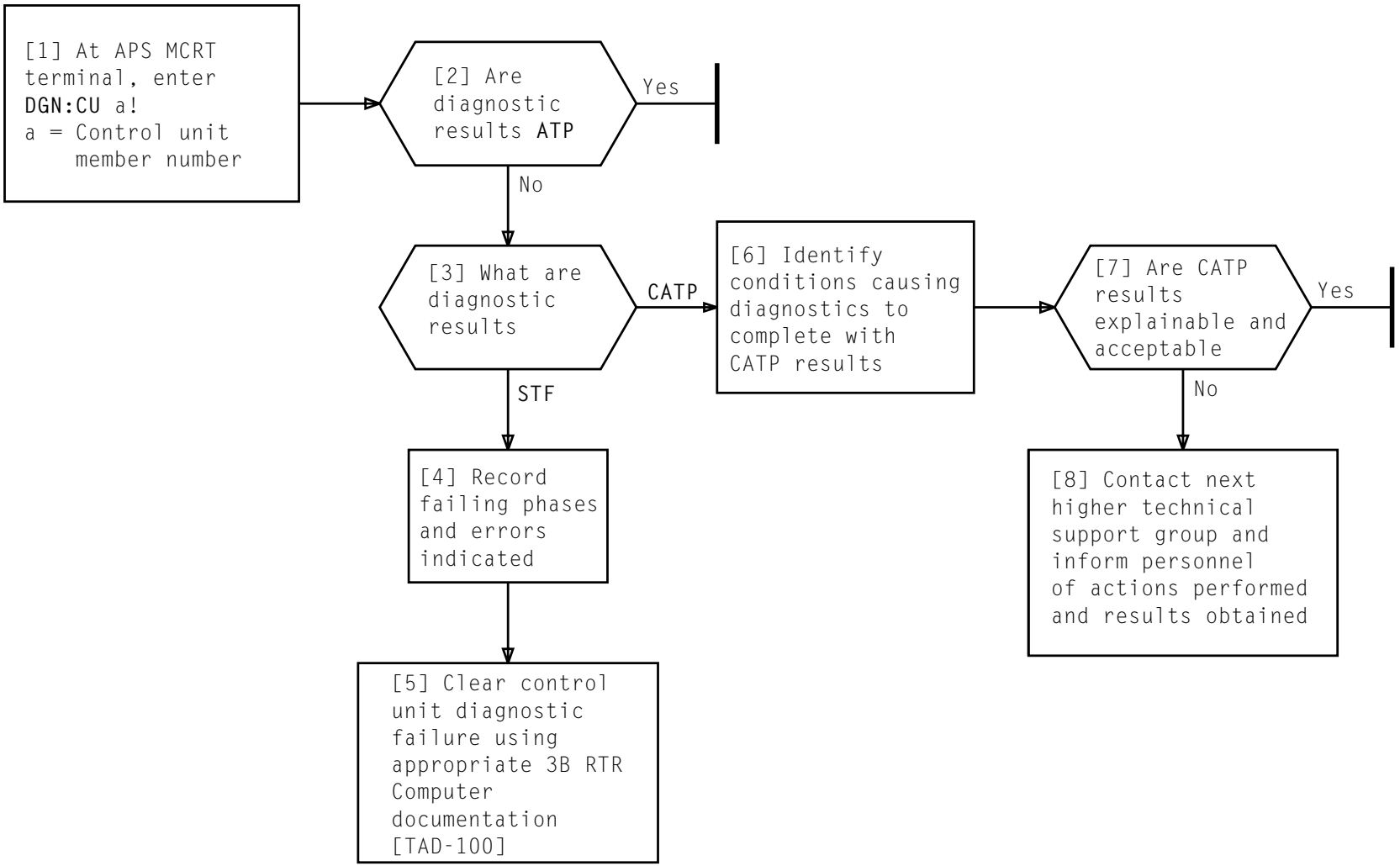
REDUCE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA) DISK STORAGE OCCUPANCY



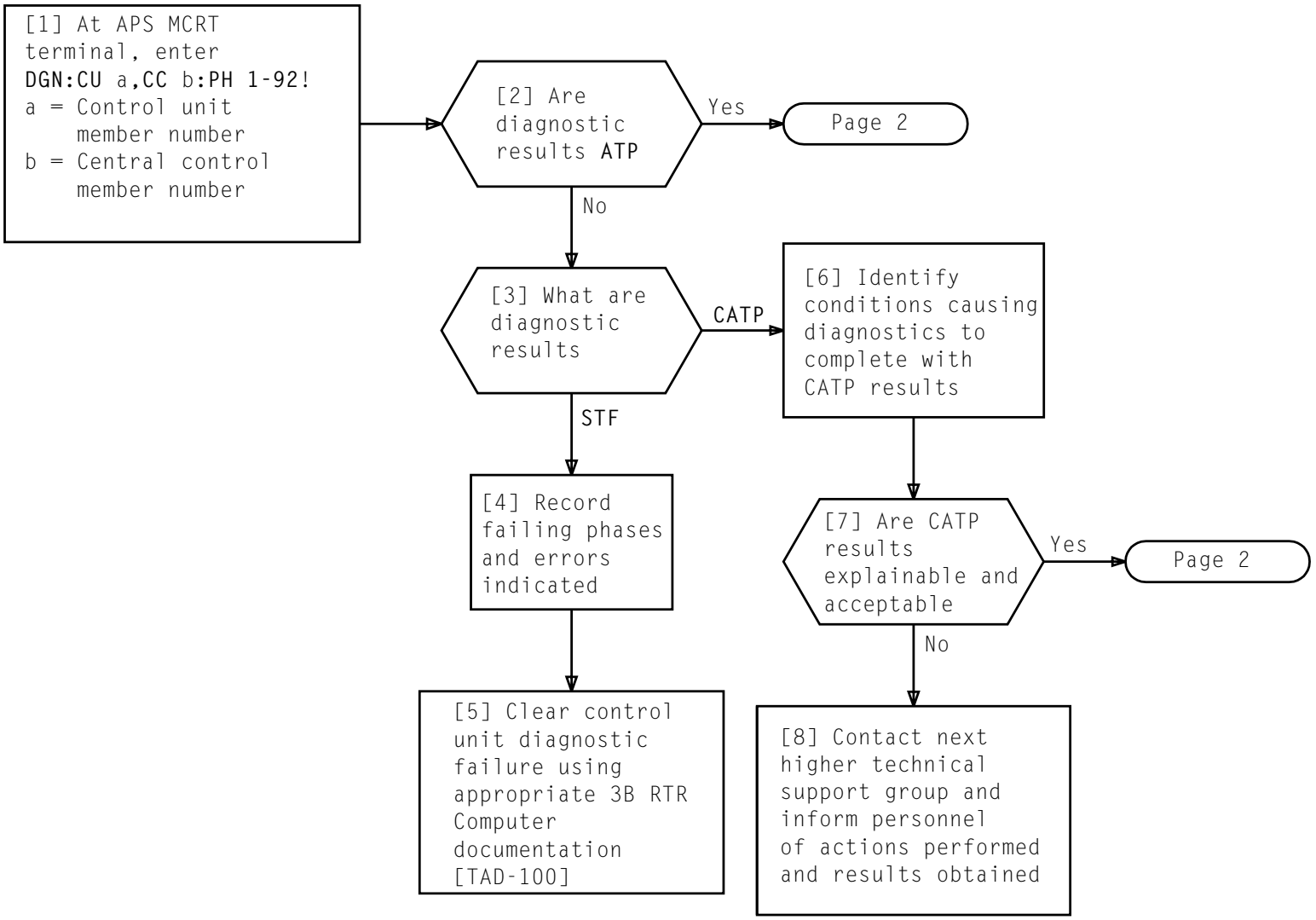
REDUCE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA) DISK STORAGE OCCUPANCY



REDUCE ATTACHED PROCESSOR SYSTEM (APS) AUTOMATIC MESSAGE ACCOUNTING (AMA) DISK STORAGE OCCUPANCY



PERFORM ATTACHED PROCESSOR SYSTEM (APS) CONTROL UNIT DIAGNOSTICS



PERFORM ATTACHED PROCESSOR SYSTEM (APS) CONTROL UNIT DEMAND DIAGNOSTICS

[9] At APS MCRT terminal, depress **EA DISP** key to obtain EAI page

[10] On APS MCRT terminal EAI page, enter poke command **14** in command mode to clear all forced status

AND

[11] See Note 1. At APS MCRT terminal, enter **DGN:CU** a,**CC** b:**PH 93!**
a = Control unit member number (0 or 1)
b = Central control member number

[12] Was **PF** or **RL** response received

PF

[14] Do seven PRMs listed in TABLE A agree with PRMs displayed on APS MCRT terminal EAI page

Yes → Page 3

No

[15] Record failing phases and errors indicated

[16] Clear control unit diagnostic failure using appropriate 3B RTR Computer documentation [TAD-100]

RL

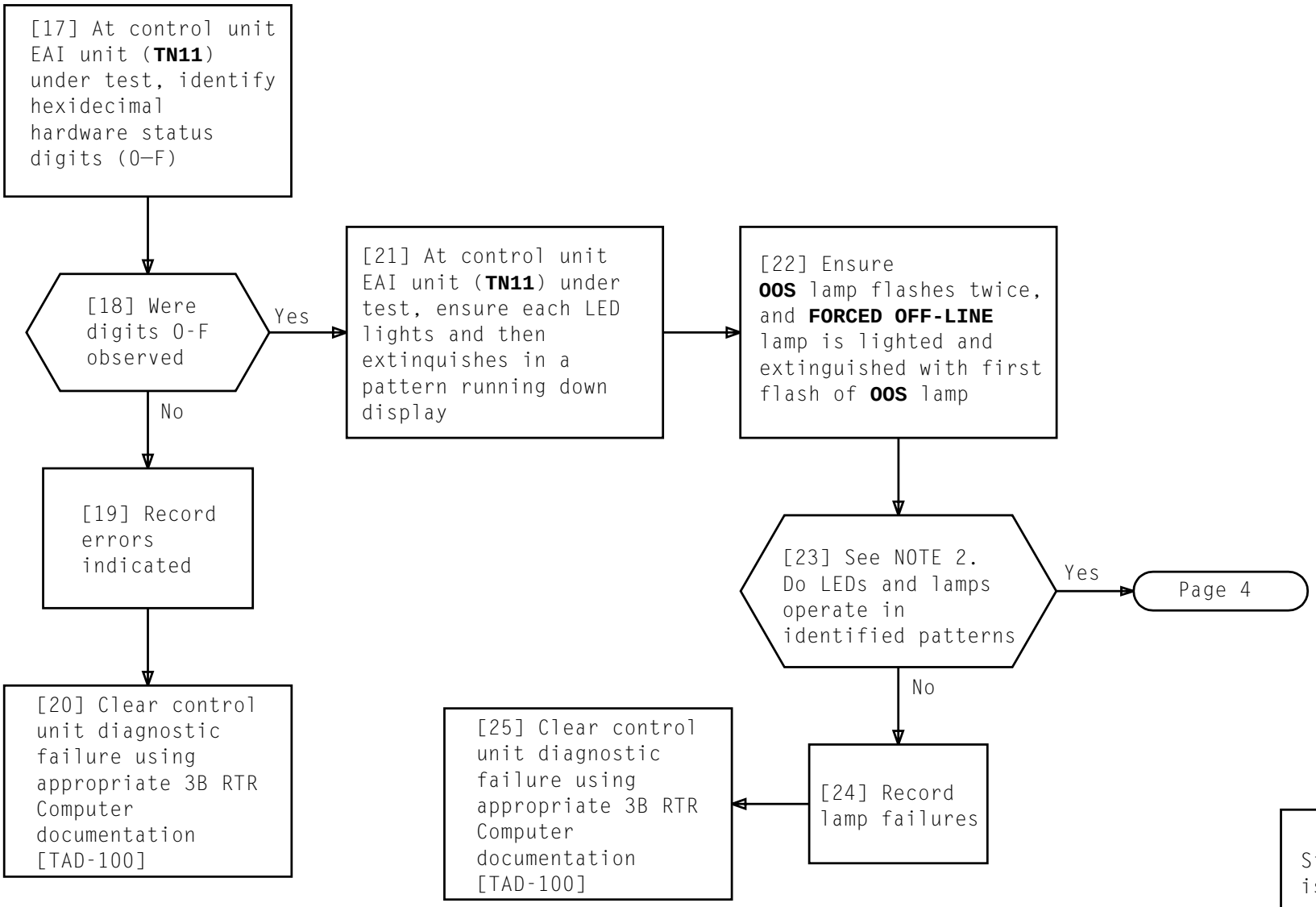
[13] Wait 2 minutes and repeat from Step 11

TABLE A
CONTROL UNIT DEMAND DIAGNOSTIC PRMs

PRM-x 0123 4567 89AB CDEF xx xx xx
PRM-x AAAA AAAA AAAA AAAA xx xx xx
PRM-x 5555 5555 5555 5555 xx xx xx
PRM-x EEEE EEEE EEEE EEEE xx xx xx
PRM-x 1111 1111 1111 1111 xx xx xx
PRM-x 0000 0000 0000 0000 xx xx xx
PRM-x FFFF FFFF FFFF FFFF xx xx xx

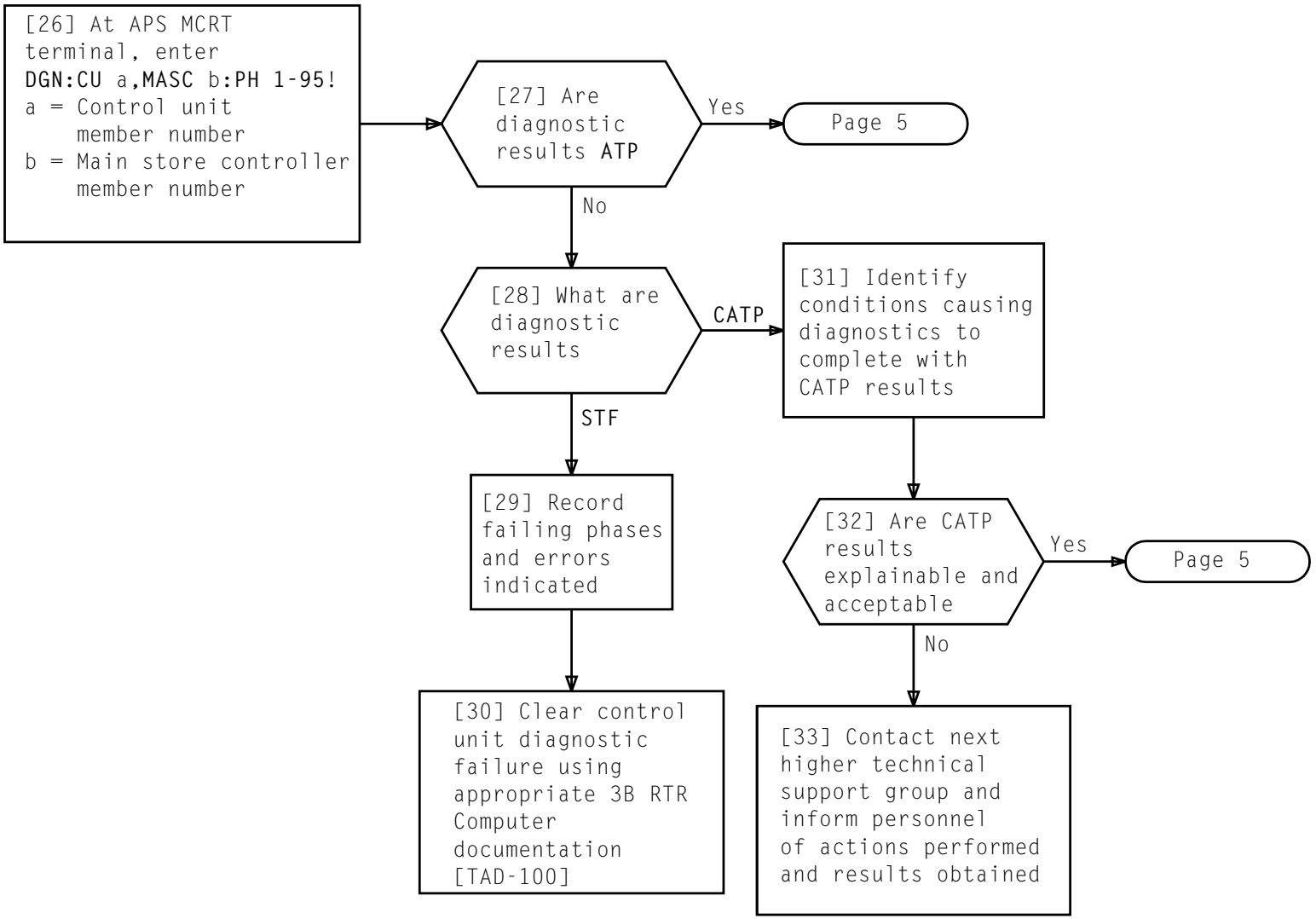
NOTE 1
Read Steps 11-22 to become familiar with phase 93 and observations to be made while performing this phase. This phase may require two people.

PERFORM ATTACHED PROCESSOR SYSTEM (APS) CONTROL UNIT DEMAND DIAGNOSTICS

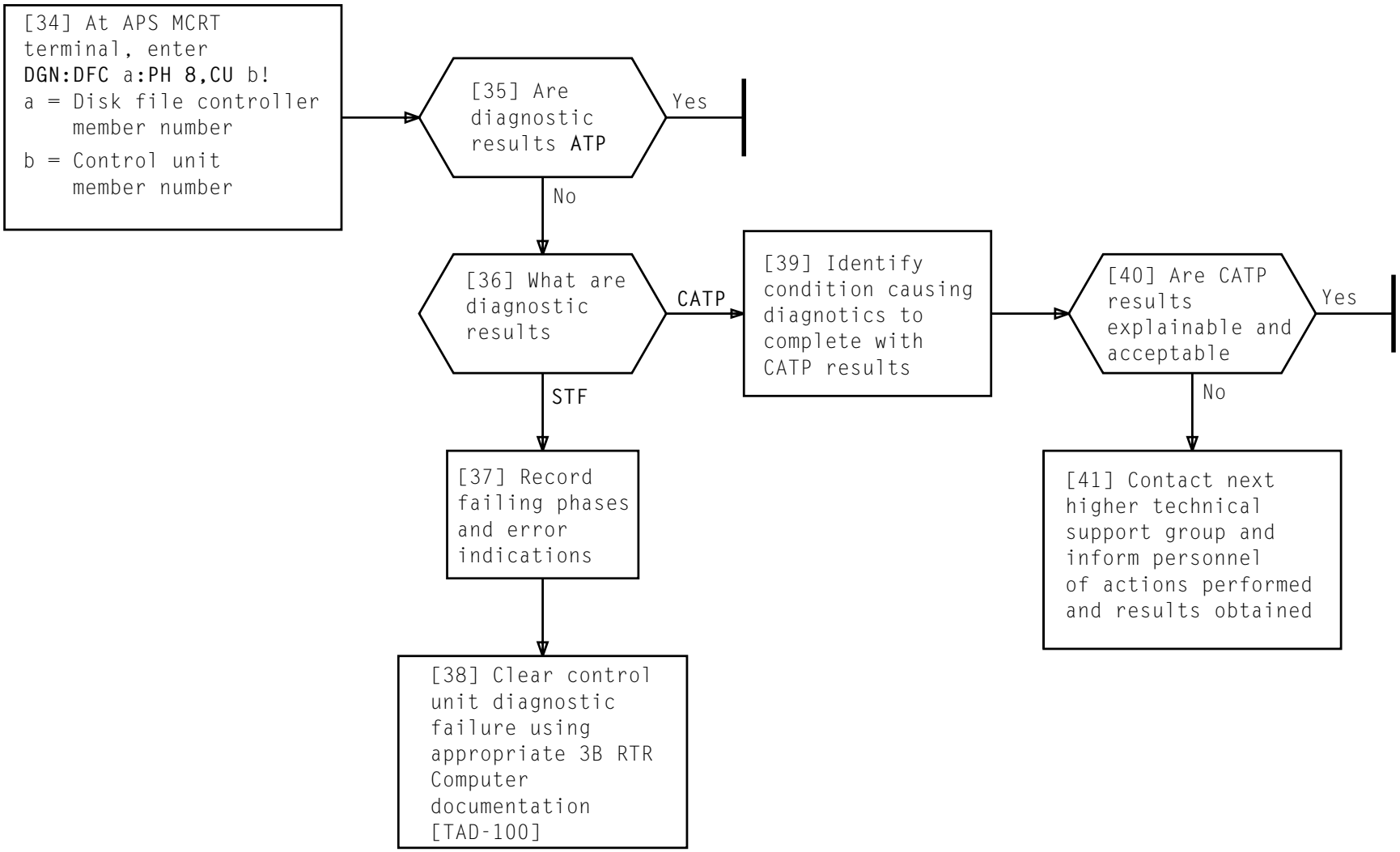


NOTE 2
Since any failure is indicated visually, phase may run ATP in spite of display faults

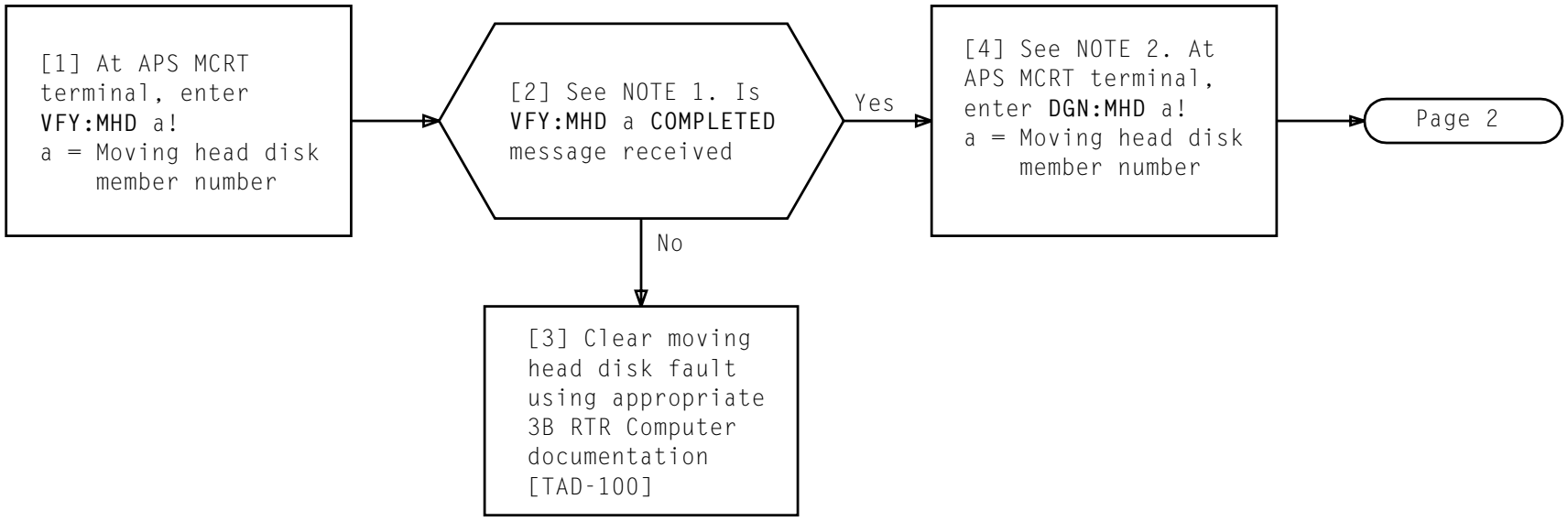
PERFORM ATTACHED PROCESSOR SYSTEM (APS) CONTROL UNIT DEMAND DIAGNOSTICS



PERFORM ATTACHED PROCESSOR SYSTEM (APS) CONTROL UNIT DEMAND DIAGNOSTICS



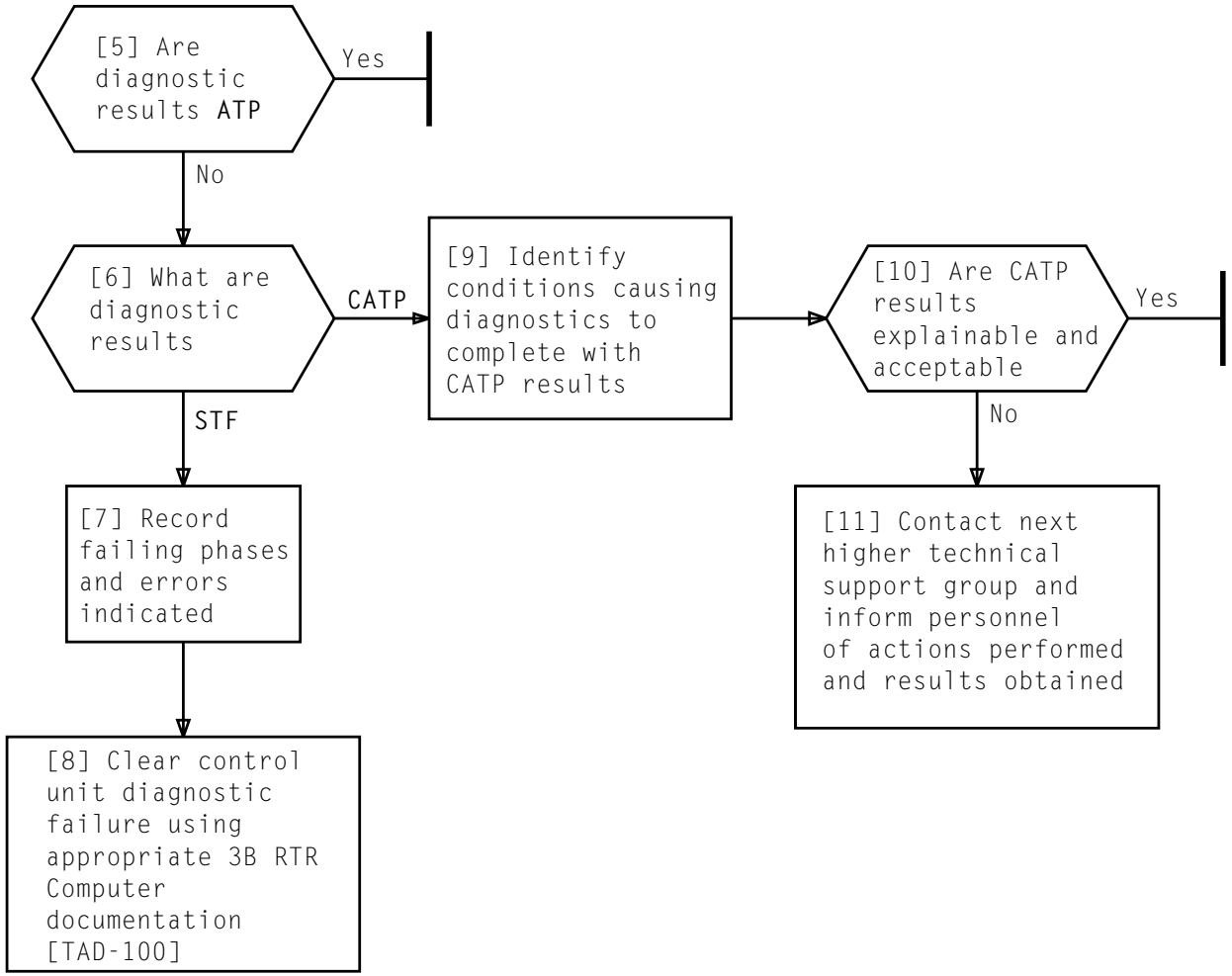
PERFORM ATTACHED PROCESSOR SYSTEM (APS) CONTROL UNIT DEMAND DIAGNOSTICS



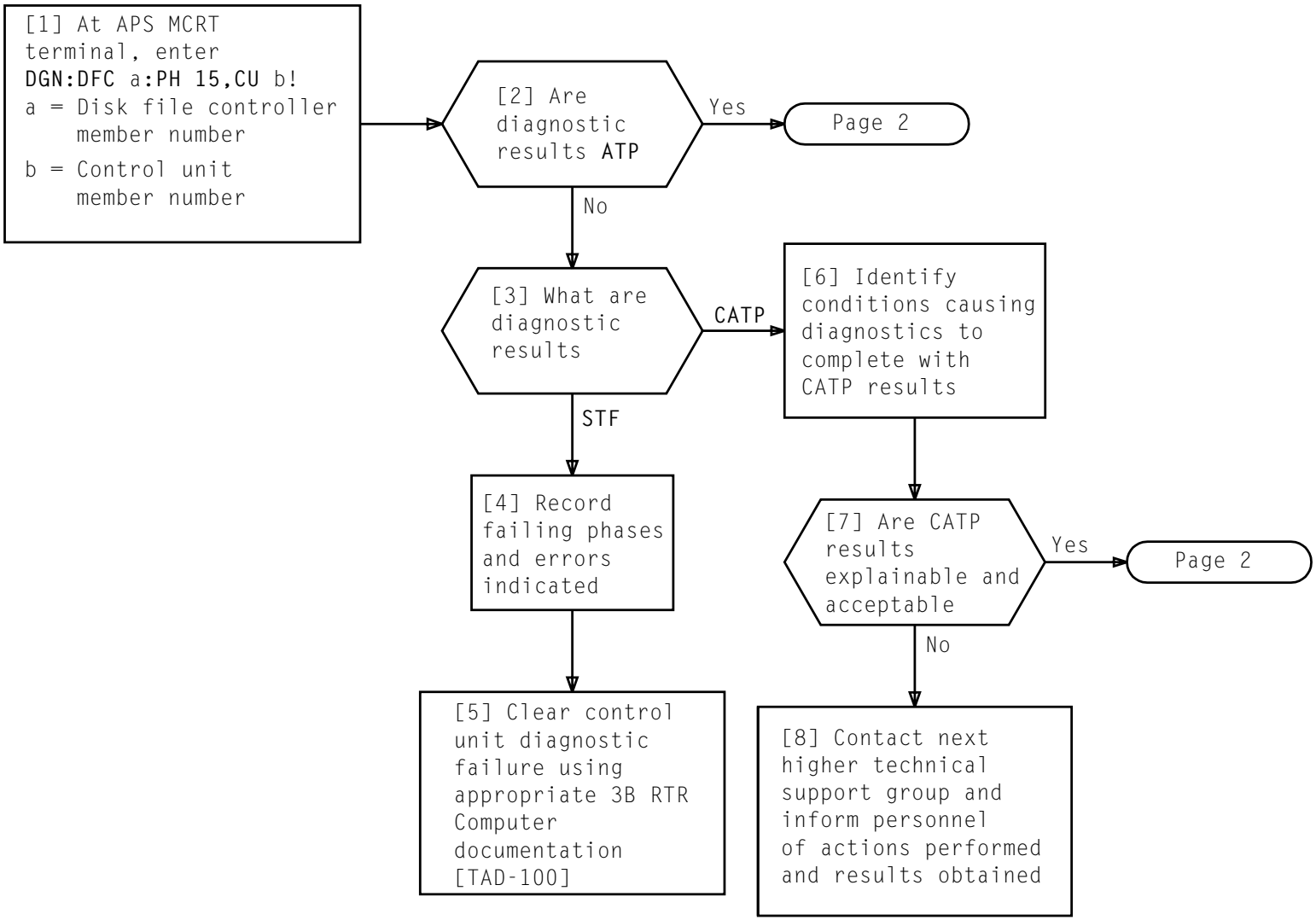
NOTES

1. It can take up to 15 minutes for MHD verification to complete. While verification is in progress, a VFY MHD a IN PROGRESS message will be printed every 2 minutes until verification is complete.
2. Disk file controller (DFC) must be in service before MHD can be diagnosed

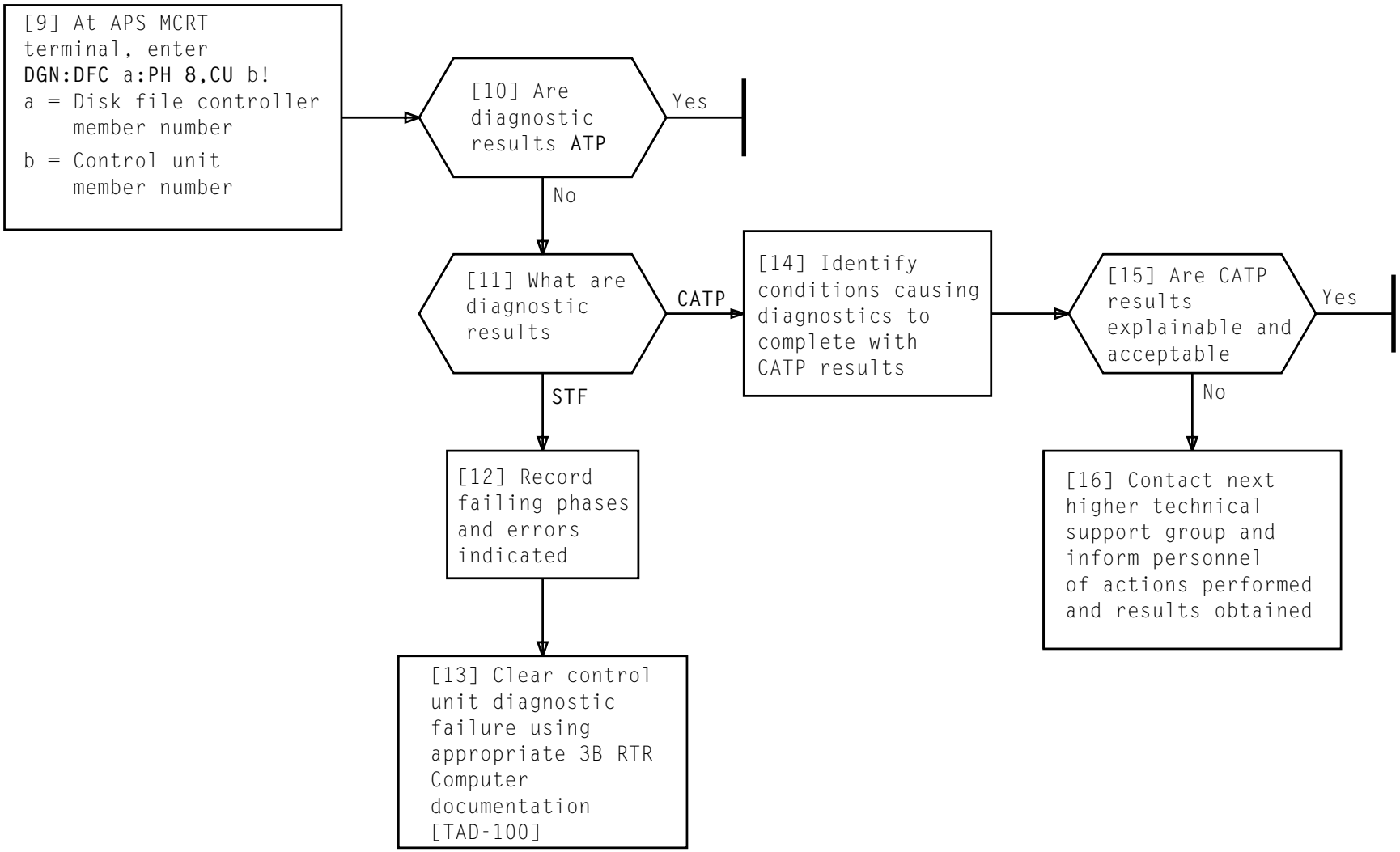
PERFORM ATTACHED PROCESSOR SYSTEM (APS) MOVING HEAD DISK (MHD) DIAGNOSTICS



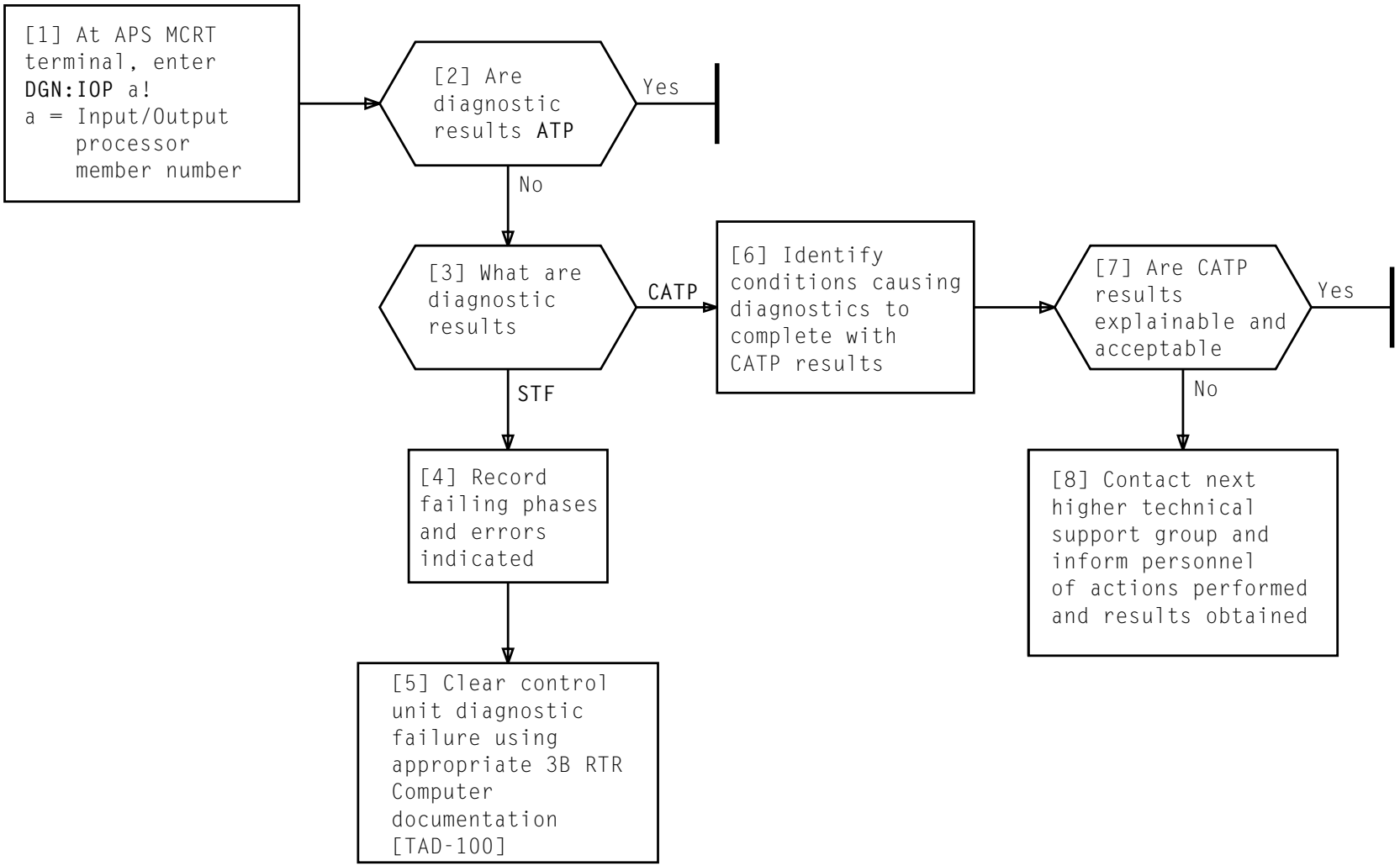
PERFORM ATTACHED PROCESSOR SYSTEM (APS) MOVING HEAD DISK (MHD) DIAGNOSTICS



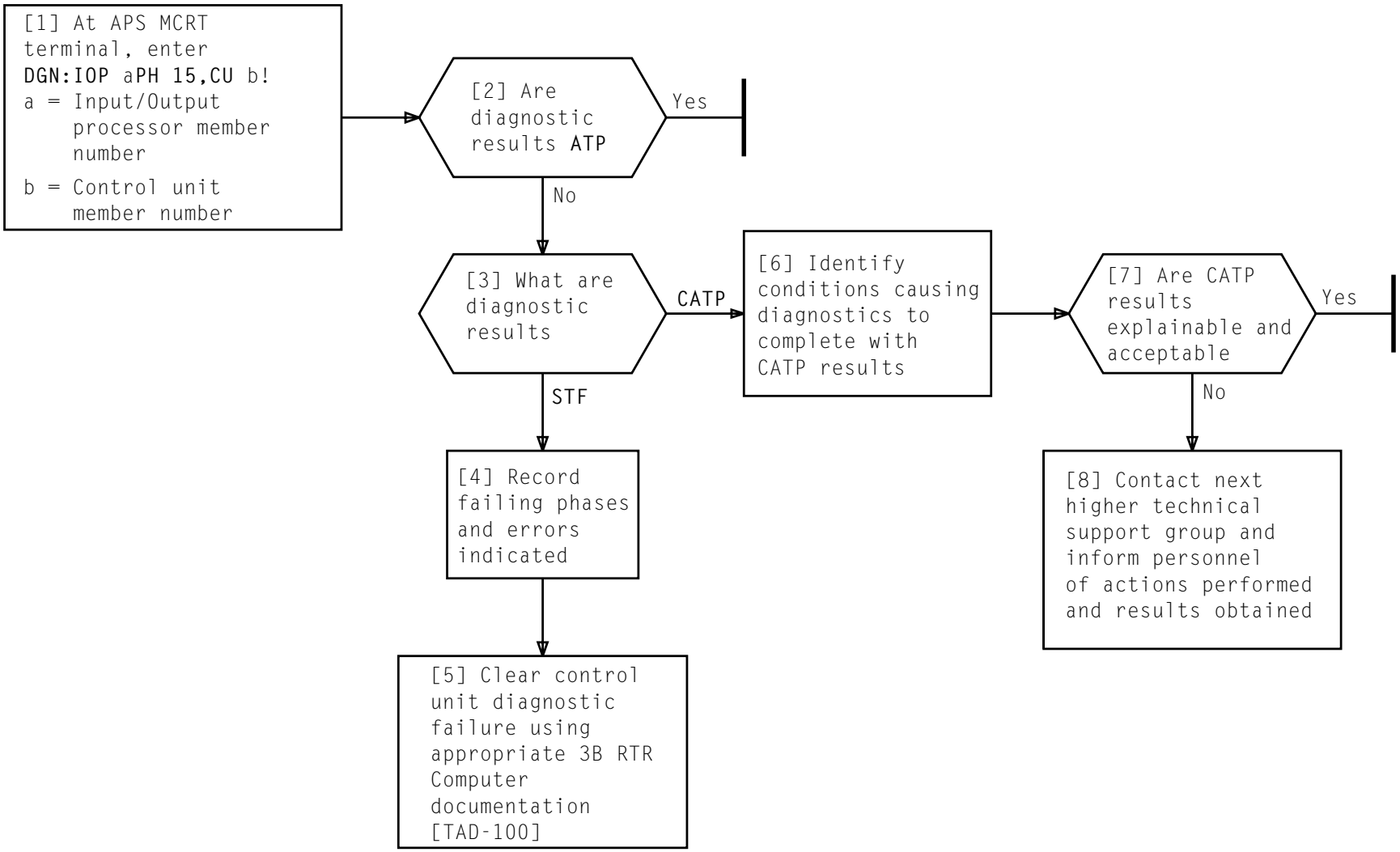
PERFORM ATTACHED PROCESSOR SYSTEM (APS) DISK FILE CONTROLLER (DFC) DEMAND DIAGNOSTICS



PERFORM ATTACHED PROCESSOR SYSTEM (APS) DISK FILE CONTROLLER (DFC) DEMAND DIAGNOSTICS



PERFORM ATTACHED PROCESSOR SYSTEM (APS) INPUT/OUTPUT PROCESSOR (IOP) DIAGNOSTICS



PERFORM ATTACHED PROCESSOR SYSTEM (APS) INPUT/OUTPUT PROCESSOR (IOP) DEMAND DIAGNOSTICS

[1] Office has

3B21D APS → Page 4

3B20 Model 2/3 APS → Page 3

3B20 Model 1 APS

[2] Open tape unit dust cover

[3] Lift supply (upper) reel hub tab and place tape reel onto supply reel hub [FIG. 1]

[4] While holding tape reel, secure reel by returning supply hub tab to normal locked (down) position

[5] Thread tape through tape path indicated on tape unit [FIG. 1]

[6] Start tape on take-up (lower) reel making sure tape is not twisted and manually wind reel clockwise three or four turns

AND → Page 2

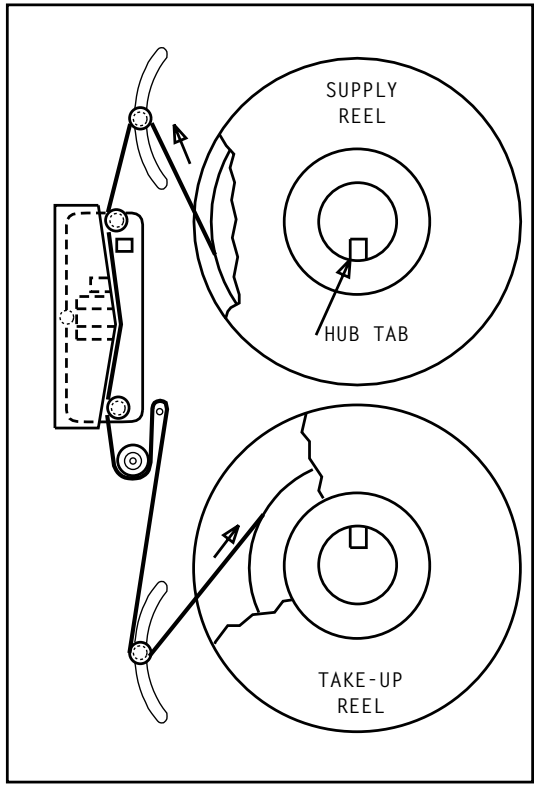
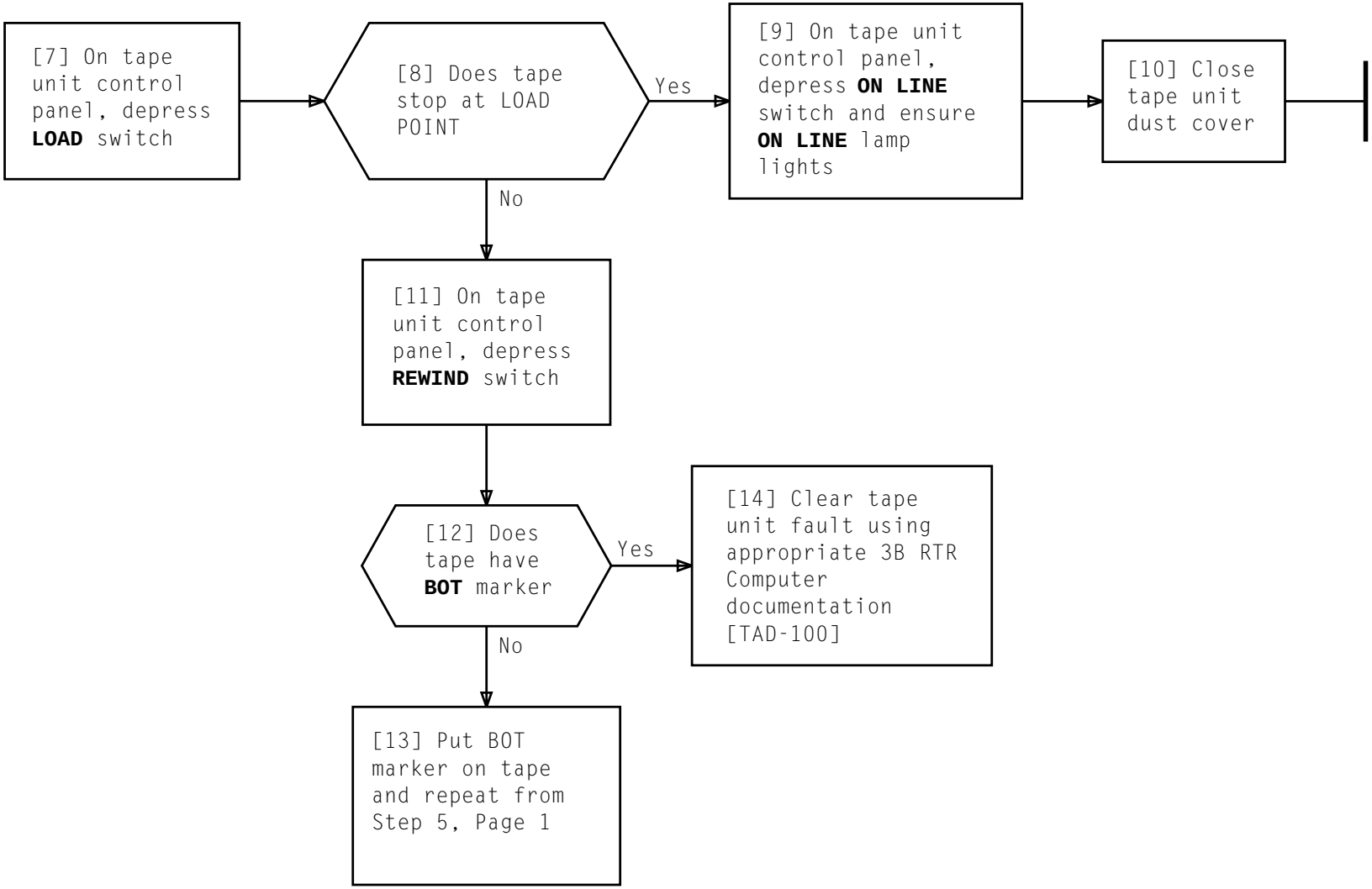


FIG. 1 — APS Kennedy Tape Unit

MOUNT TAPE ON ATTACHED PROCESSOR SYSTEM (APS) TAPE UNIT OR DIGITAL AUDIO TAPE (DAT) UNIT



MOUNT TAPE ON ATTACHED PROCESSOR SYSTEM (APS) TAPE UNIT OR DIGITAL AUDIO TAPE (DAT) UNIT

[15] On tape unit control panel, is **LOGIC OFF** LED lighted

Yes

[16] On tape unit control panel, depress **LOGIC ON** switch
Response: **LOGIC OFF** LED goes off

No

[17] Open tape unit dust cover

[18] Place supply (upper) reel on hub and depress hub latch [FIG. 2]

[19] Thread tape through tape path indicated on tape drive [FIG. 2]

[20] Start tape on take-up (lower) reel making sure tape is not twisted and manually wind reel clockwise three or four turns

[21] Close dust cover

[22] On tape unit control panel, depress **LOAD/REWIND** switch

AND

[23] Does tape move and stop, and **BOT** LED lighted

Yes

[26] Touch **ON LINE** switch

No

[24] Touch **RESET** switch, attach beginning of tape (BOT) marker, and repeat from Step 19

No

[25] To clear fault, refer to appropriate 3B RTR Computer [TAD-100]

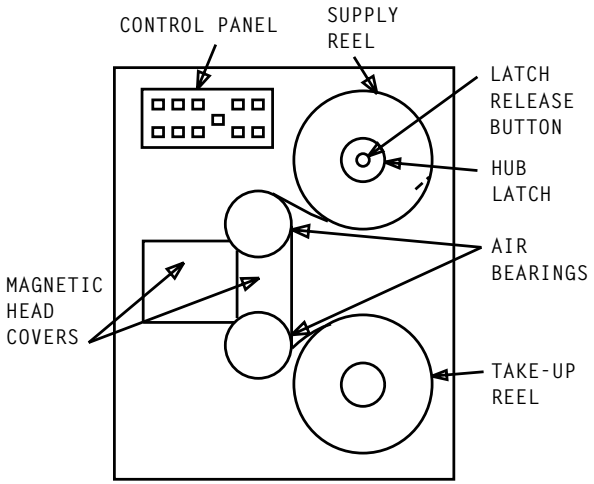


FIG. 2 – APS Keystone Tape Unit

MOUNT TAPE ON ATTACHED PROCESSOR SYSTEM (APS) TAPE UNIT OR DIGITAL AUDIO TAPE (DAT) UNIT

[27] Is tape to be written

No

Yes

[28] Put write-protect tab on 4-mm tape in the up (unlocked) position [FIG. 3]

[29] See NOTE 1 and CAUTION 1. At available in-service digital audio tape (DAT) unit (EQL 11-124 or 62-124), carefully insert 4-mm tape [FIG. 4]

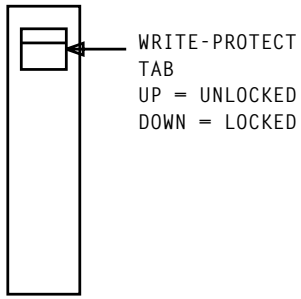


FIG. 3 — 4-mm Tape

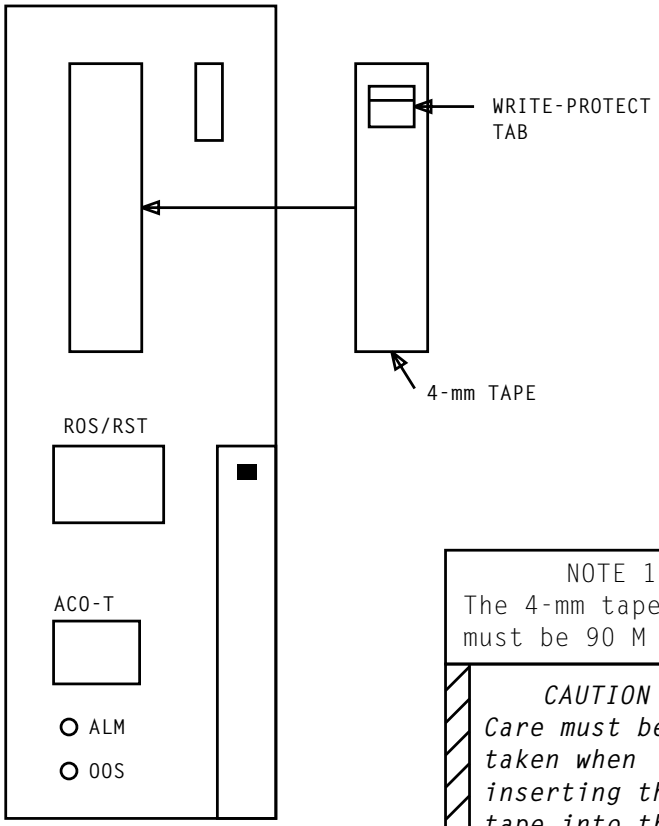
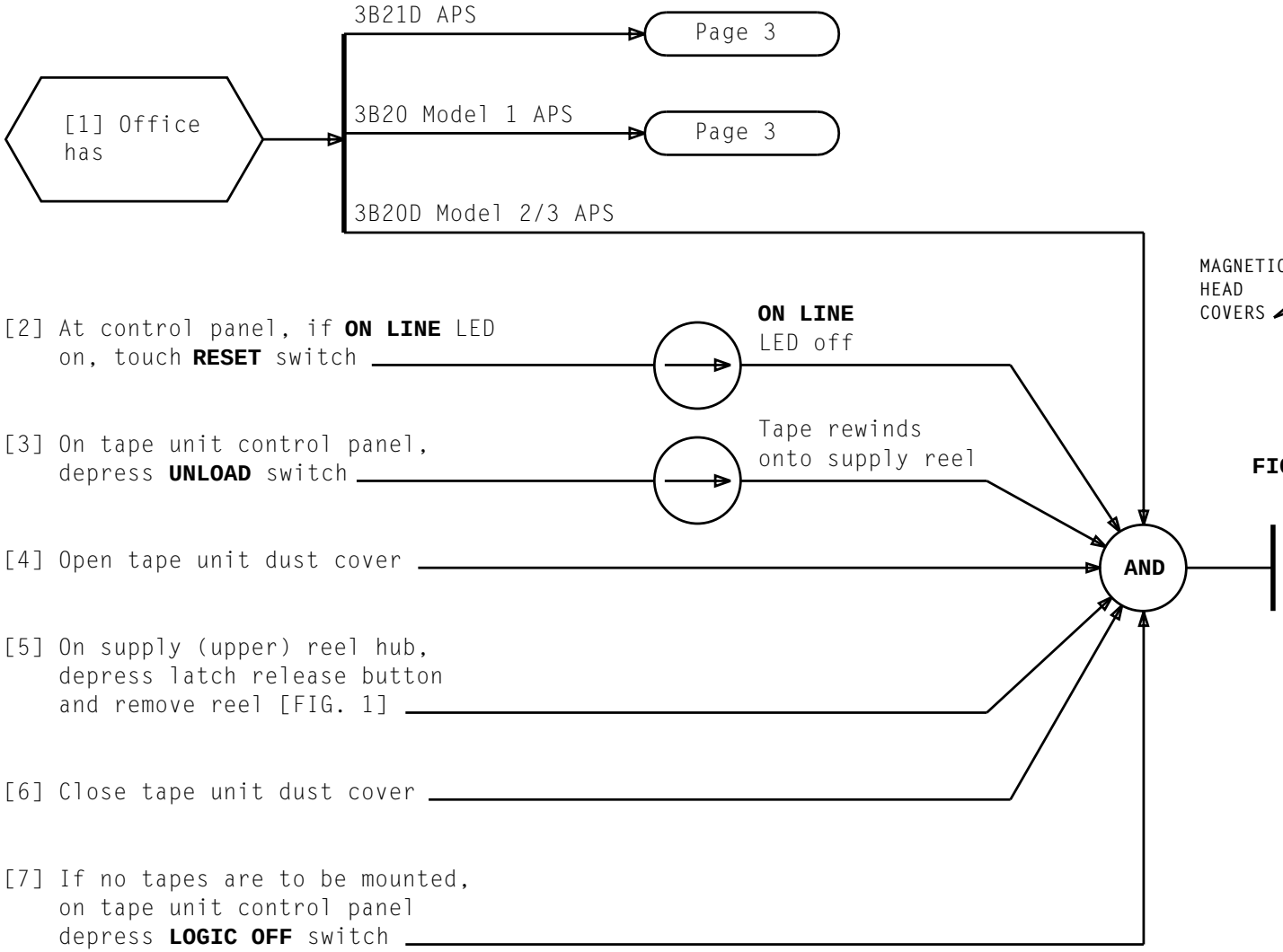


FIG. 4 — DAT Unit

NOTE 1
The 4-mm tape length must be 90 M

CAUTION 1
Care must be taken when inserting the tape into the DAT unit. Tape must not be forced

MOUNT TAPE ON ATTACHED PROCESSOR SYSTEM (APS) TAPE UNIT OR DIGITAL AUDIO TAPE (DAT) UNIT



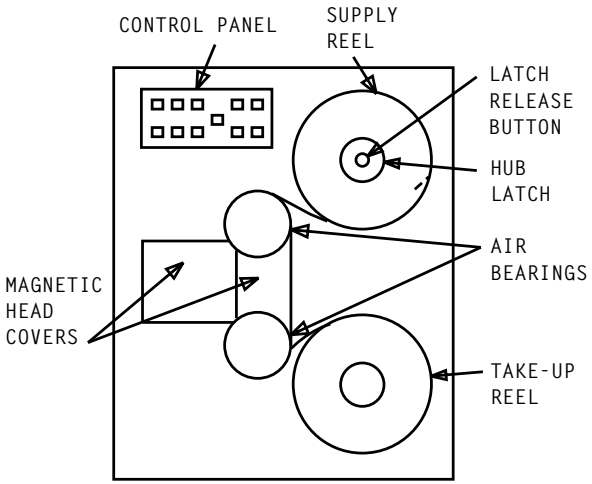


FIG. 1 — APS Keystone Tape Unit

DEMOUNT TAPE ON ATTACHED PROCESSOR SYSTEM (APS) TAPE UNIT OR DIGITAL AUDIO TAPE (DAT) UNIT

[8] On tape unit control panel, is **ON LINE** LED lighted [FIG. 1]

Yes

[9] On tape unit control panel, depress **ON LINE** switch
Response: **ON LINE** LED goes off

No

[10] On tape unit control panel, depress **REWIND** switch

LOAD POINT LED lights

Tape rewinds to end of tape and stops

[11] On tape unit control panel, depress **REWIND** switch

AND

[12] Open tape unit dust cover

[13] Rotate supply (upper) reel hub knob counterclockwise until all of tape is rewound

[14] On supply (upper) reel hub, raise hub tab and remove tape reel [FIG. 2]

AND

[15] Return hub tab to locked (down) position

[16] Close tape unit dust cover

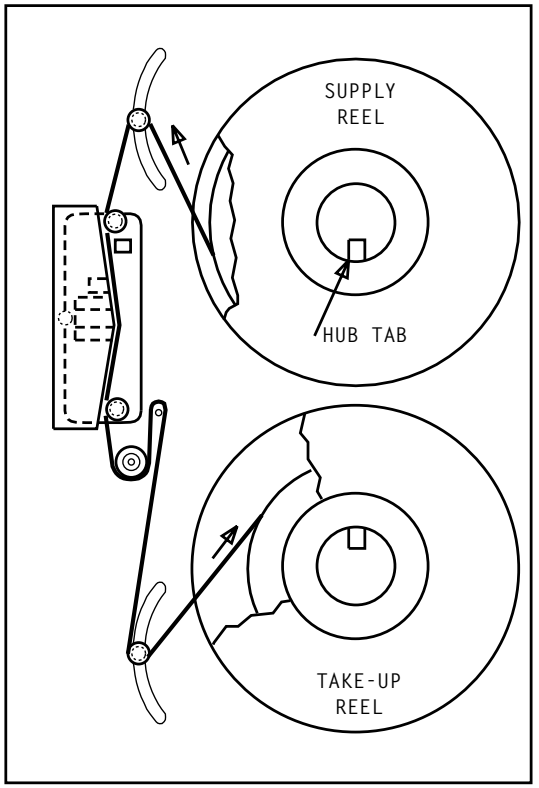


FIG. 2 — APS Kennedy Tape Unit

DEMOUNT TAPE ON ATTACHED PROCESSOR SYSTEM (APS) TAPE UNIT OR DIGITAL AUDIO TAPE (DAT) UNIT

[17] At digital audio tape (DAT) unit that contains tape to be removed, depress eject button [FIG. 3]

[18] Was tape just written

No

Yes

[19] Put write-protect tab in the down (locked) position [FIG. 4]

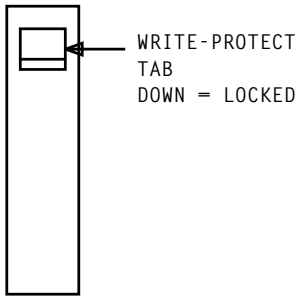


FIG. 4 — 4-mm Tape

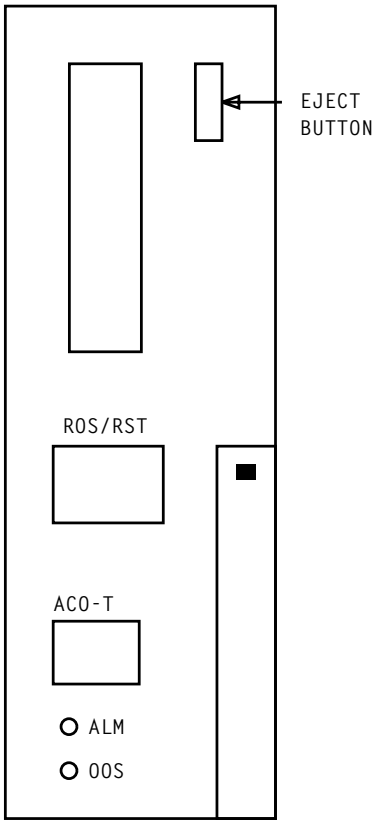


FIG. 3 — DAT Unit

DEMOUNT TAPE ON ATTACHED PROCESSOR SYSTEM (APS) TAPE UNIT OR DIGITAL AUDIO TAPE (DAT) UNIT

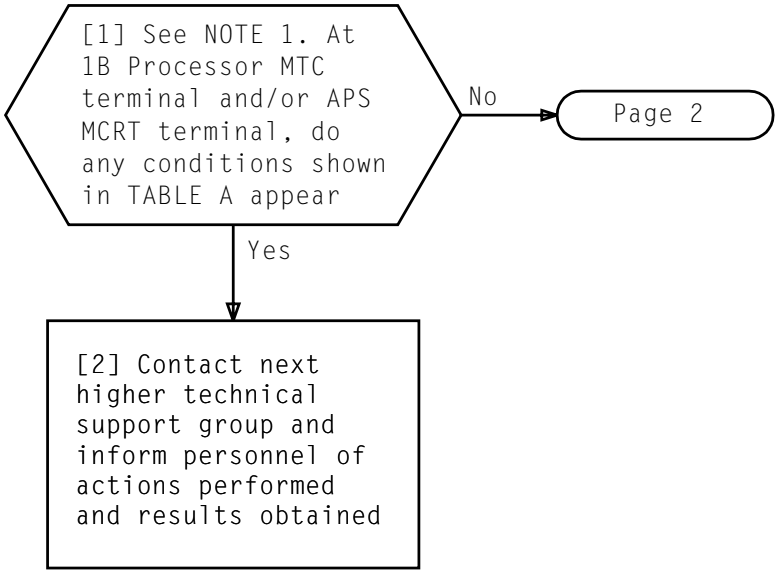
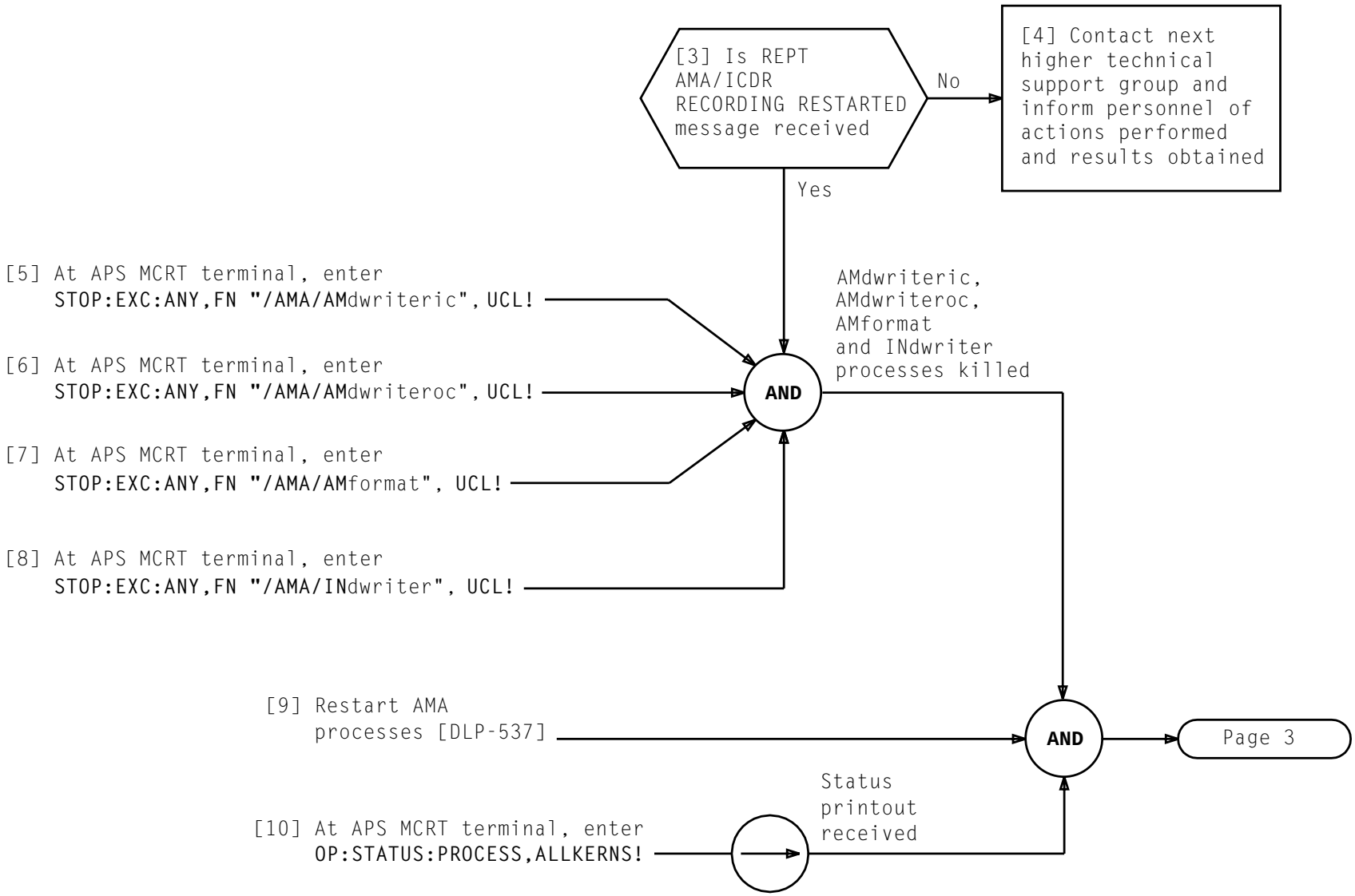


TABLE A

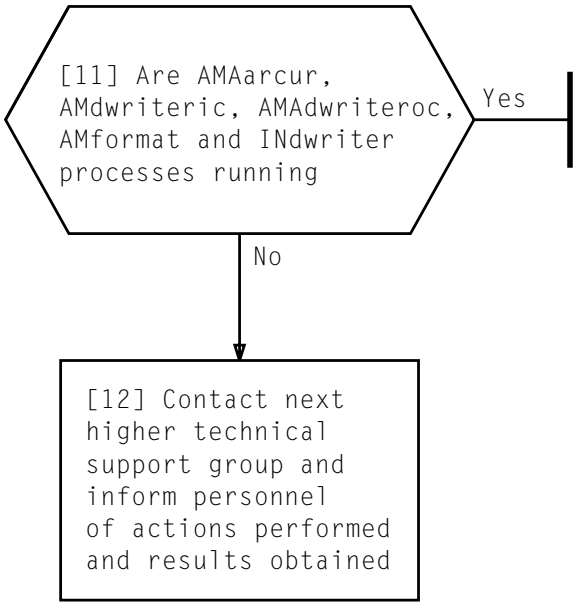
TROUBLE	RESPONSIBLE AREA
APS duplex failed	APS
APS AMA disks are duplex failed	APS
APIs are duplex failed	APS/1B
AU bus (1B side) is duplex failed	1B
AMA disk partition is 100% full	APS

NOTE 1
When buffer overflow report message appears, a critical alarm is also initiated

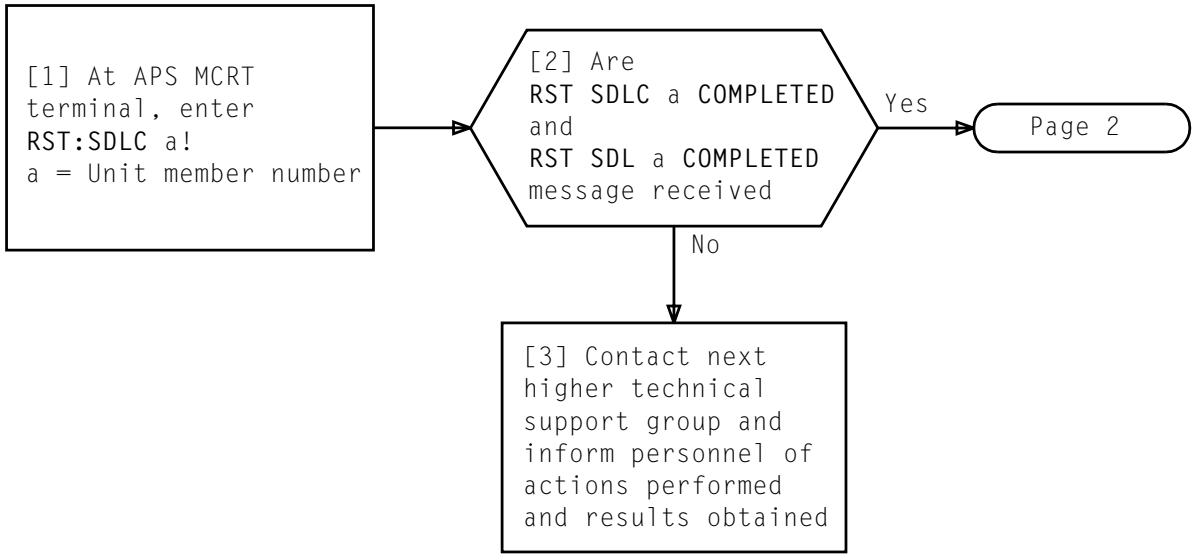
CLEAR ATTACHED PROCESSOR SYSTEM (APS) AMA/ICDR TRANSFER BUFFER OVERFLOW PROBLEM



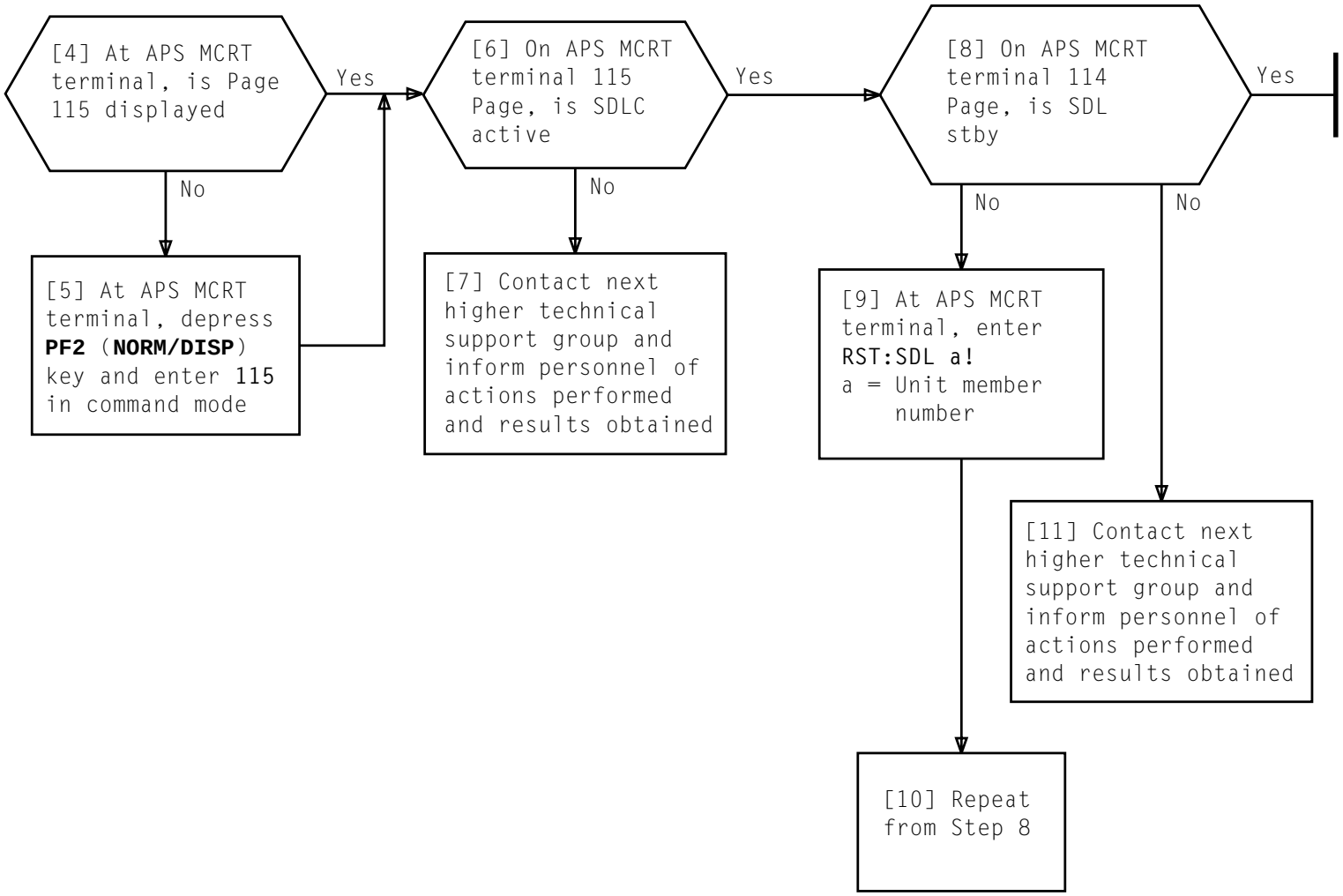
CLEAR ATTACHED PROCESSOR SYSTEM (APS) AMA/ICDR TRANSFER BUFFER OVERFLOW PROBLEM



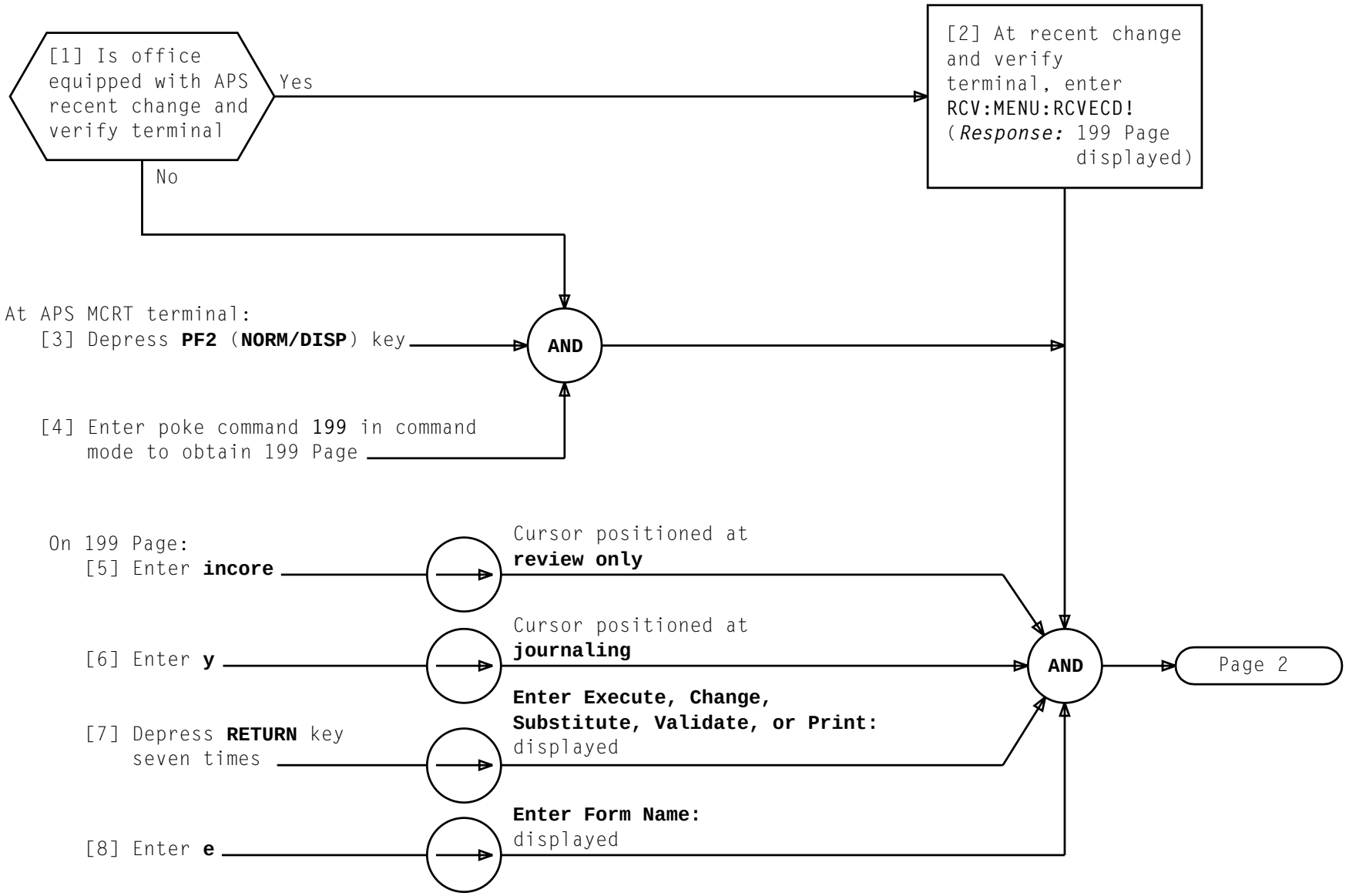
CLEAR ATTACHED PROCESSOR SYSTEM (APS) AMA/ICDR TRANSFER BUFFER OVERFLOW PROBLEM



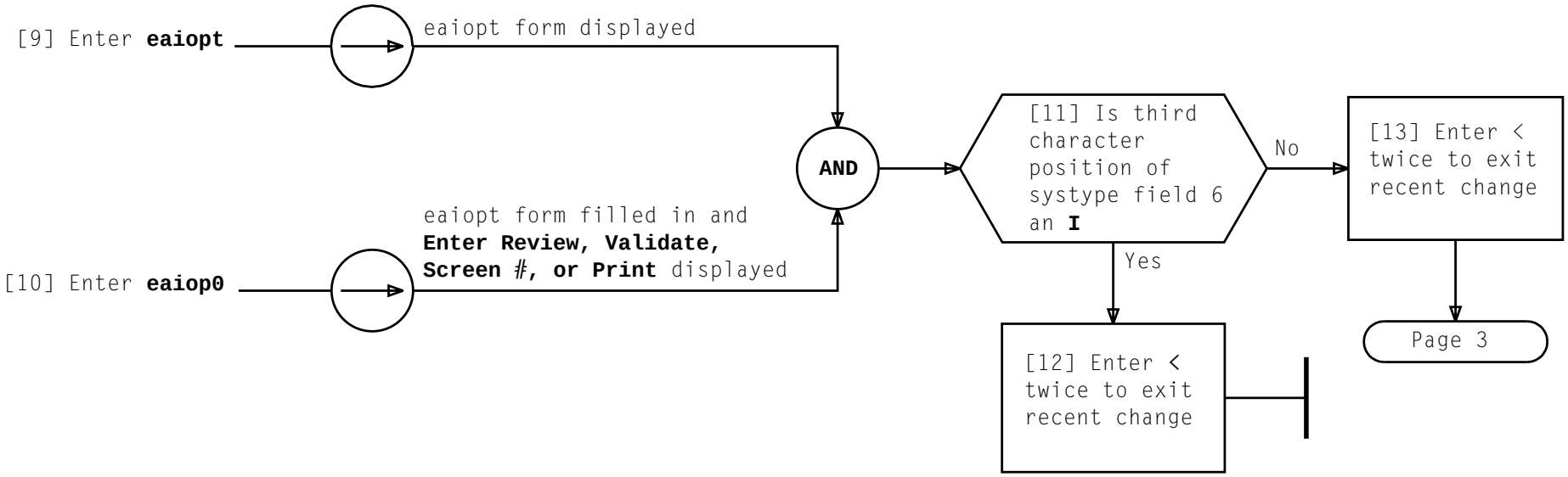
RESTORE ATTACHED PROCESSOR SYSTEM (APS) SYNCHRONIOUS DATA LINK CONTROLLER (SDLC) AND SYNCHRONIOUS DATA LINK (SDL)



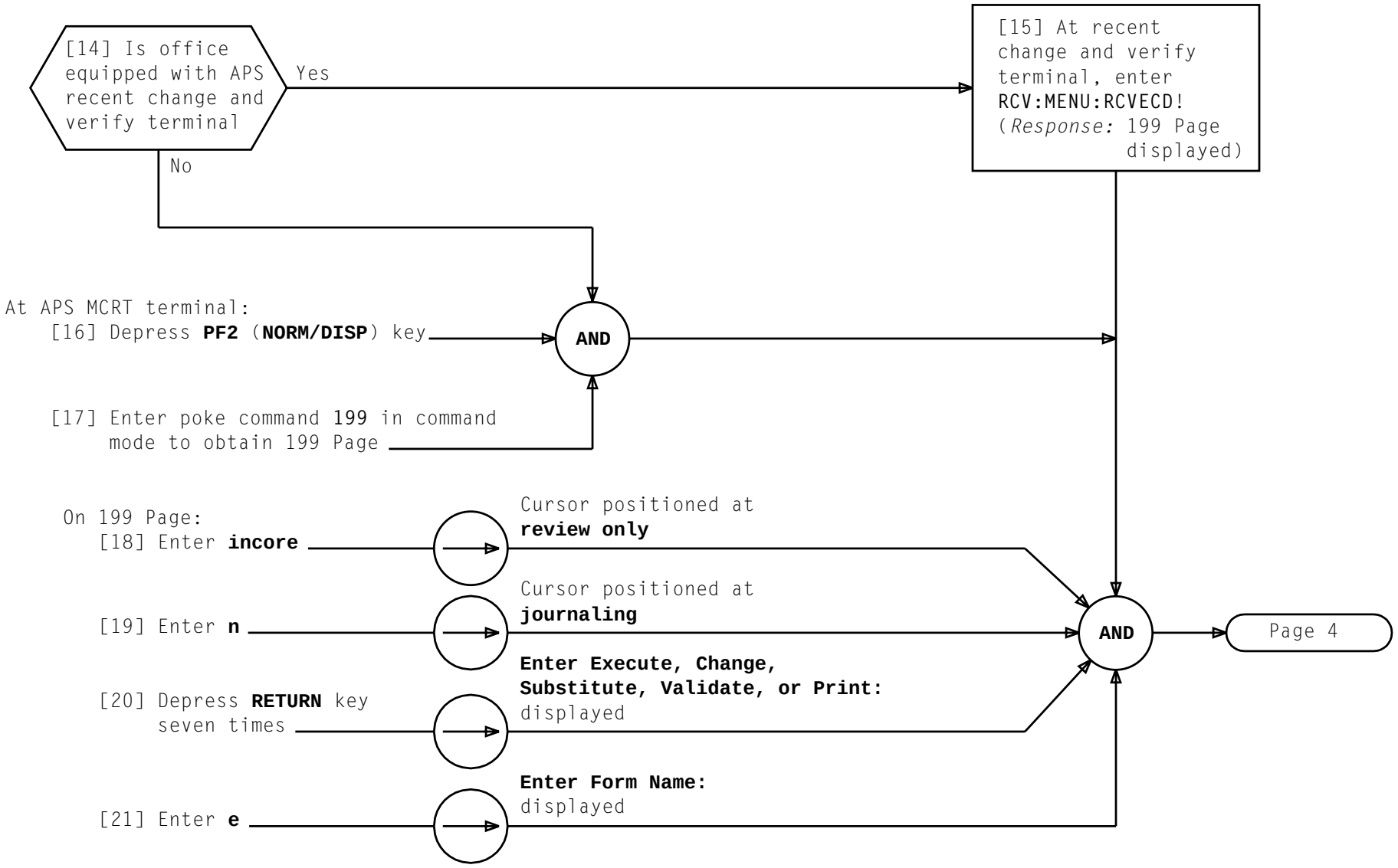
RESTORE ATTACHED PROCESSOR SYSTEM (APS) SYNCHRONIOUS DATA LINK CONTROLLER (SDLC) AND SYNCHRONIOUS DATA LINK (SDL)



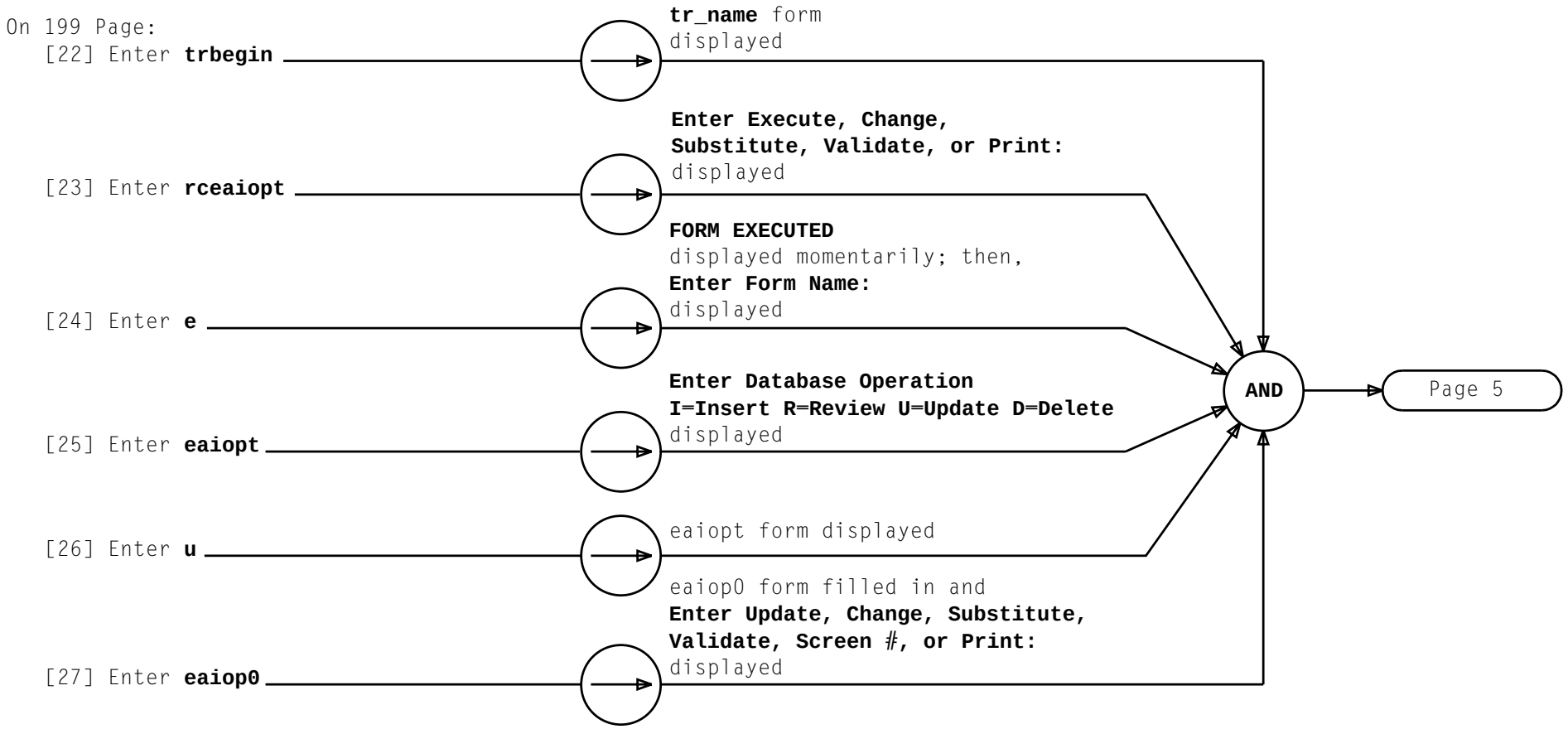
VERIFY ATTACHED PROCESSOR SYSTEM (APS) SYSTYPE FIELD DATA



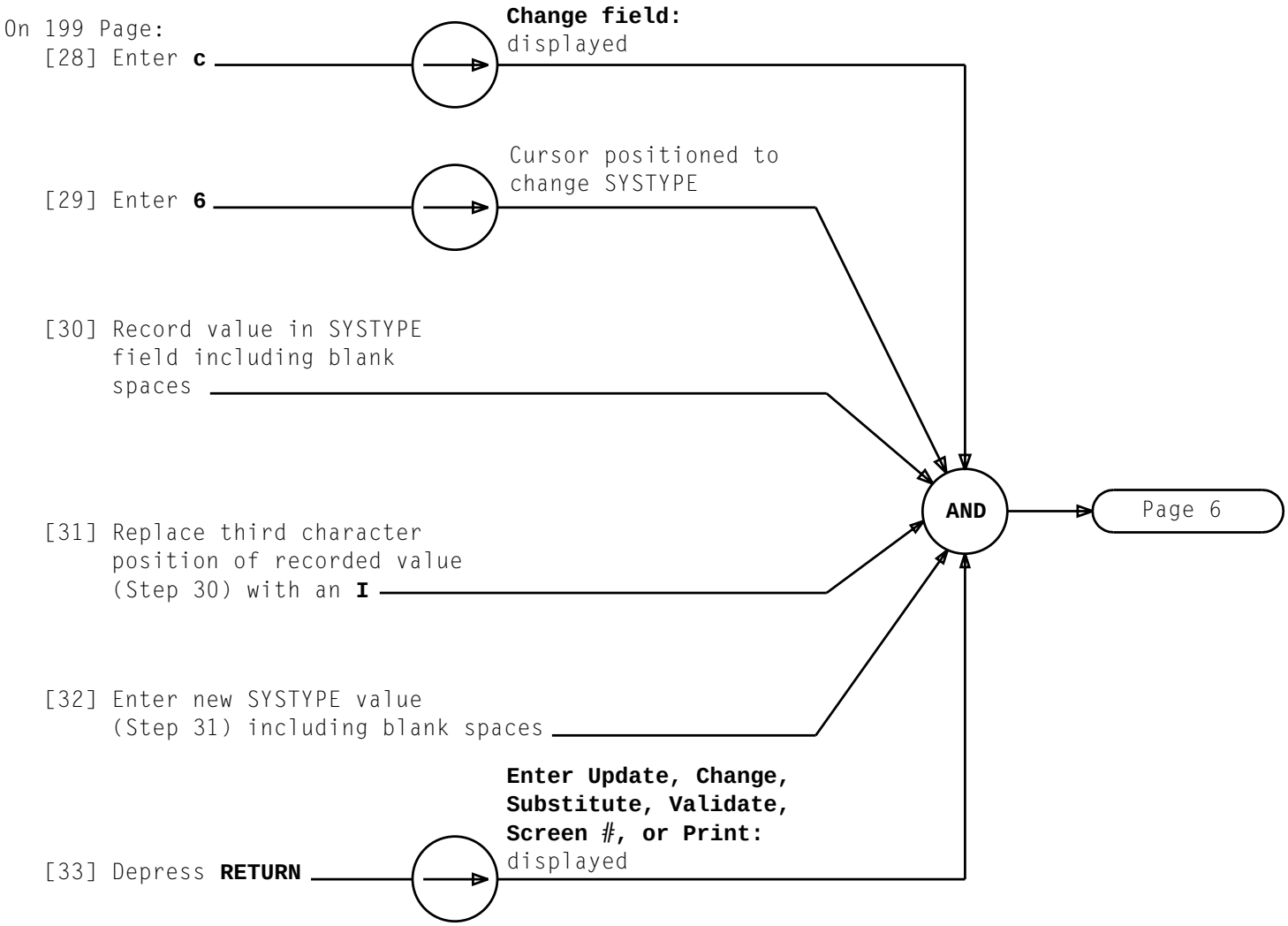
VERIFY ATTACHED PROCESSOR SYSTEM (APS) SYSTYPE FIELD DATA



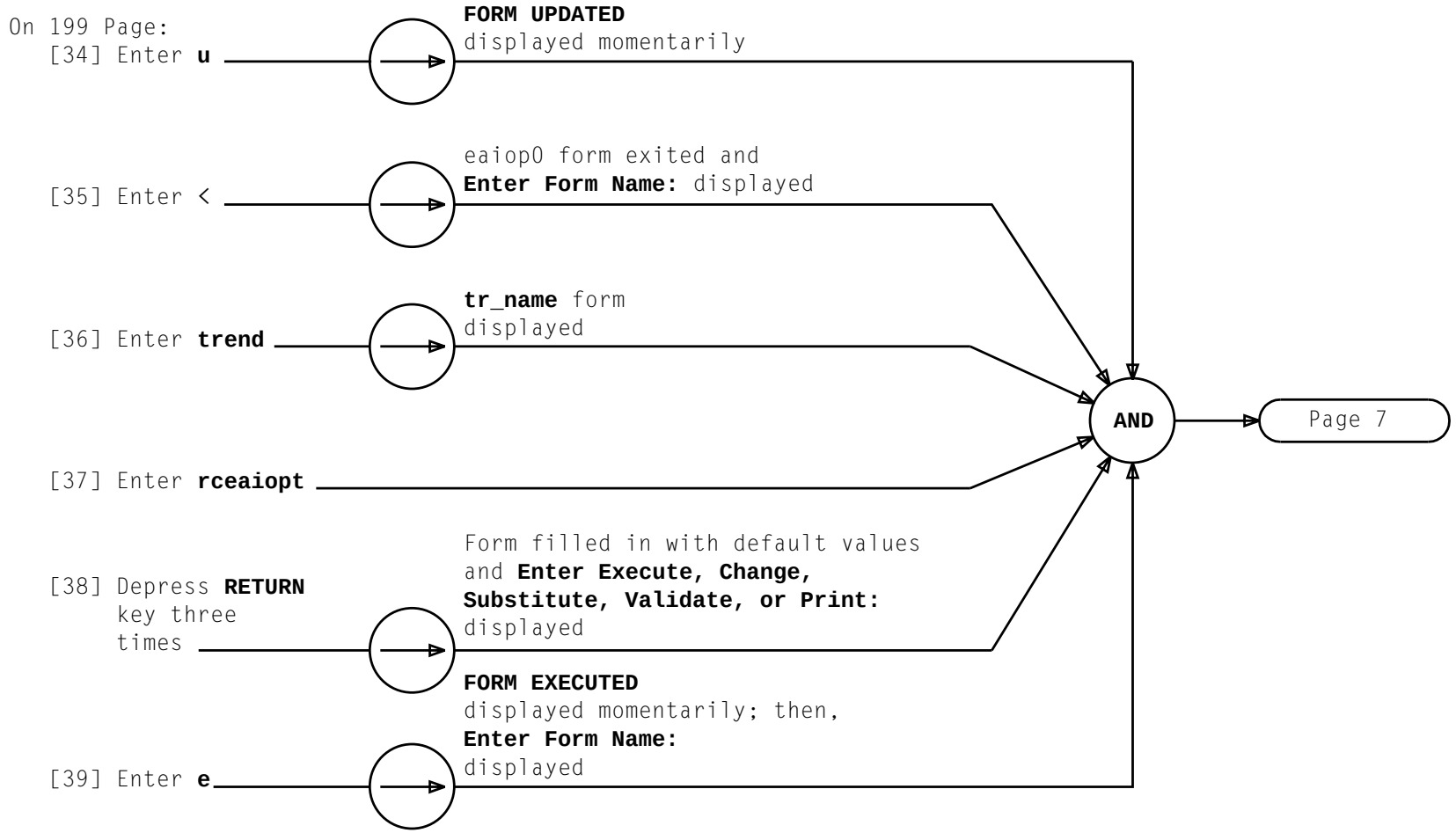
VERIFY ATTACHED PROCESSOR SYSTEM (APS) SYSTYPE FIELD DATA



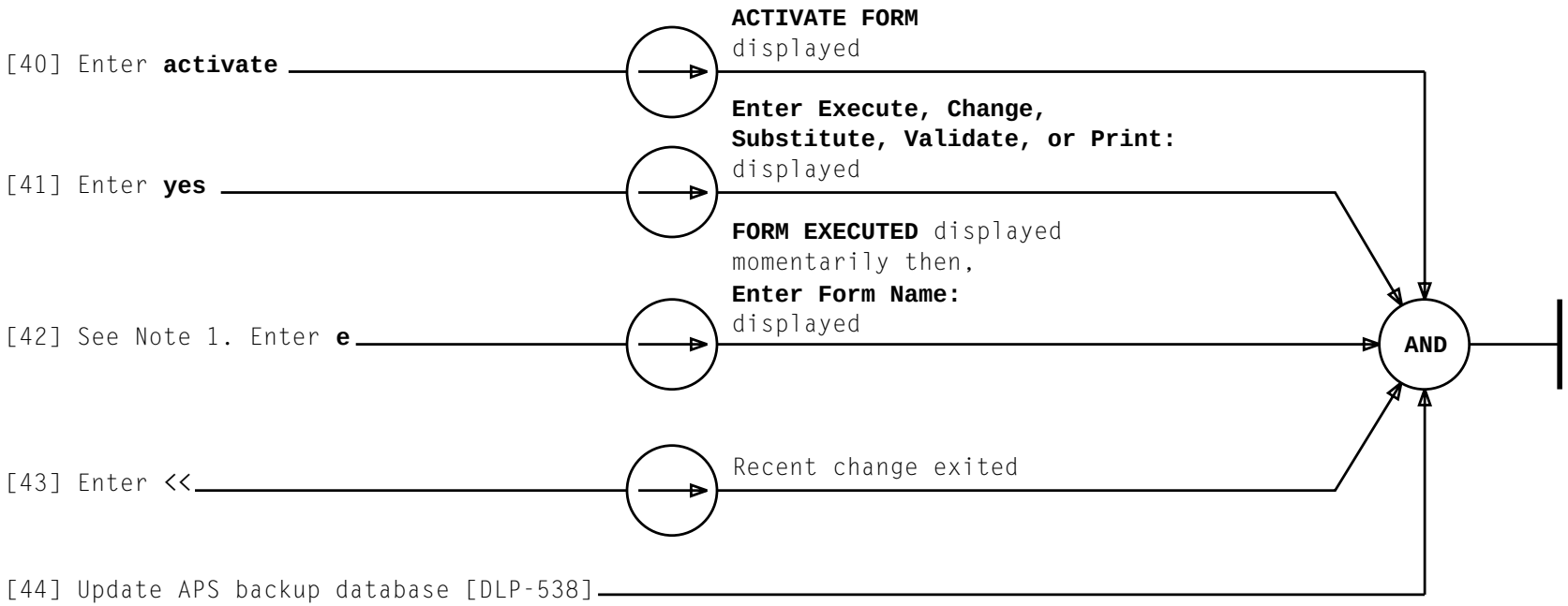
VERIFY ATTACHED PROCESSOR SYSTEM (APS) SYSTYPE FIELD DATA



VERIFY ATTACHED PROCESSOR SYSTEM (APS) SYSTYPE FIELD DATA



VERIFY ATTACHED PROCESSOR SYSTEM (APS) SYSTYPE FIELD DATA



NOTE 1
It may take several minutes before **FORM EXECUTED** is displayed

VERIFY ATTACHED PROCESSOR SYSTEM (APS) SYSTYPE FIELD DATA

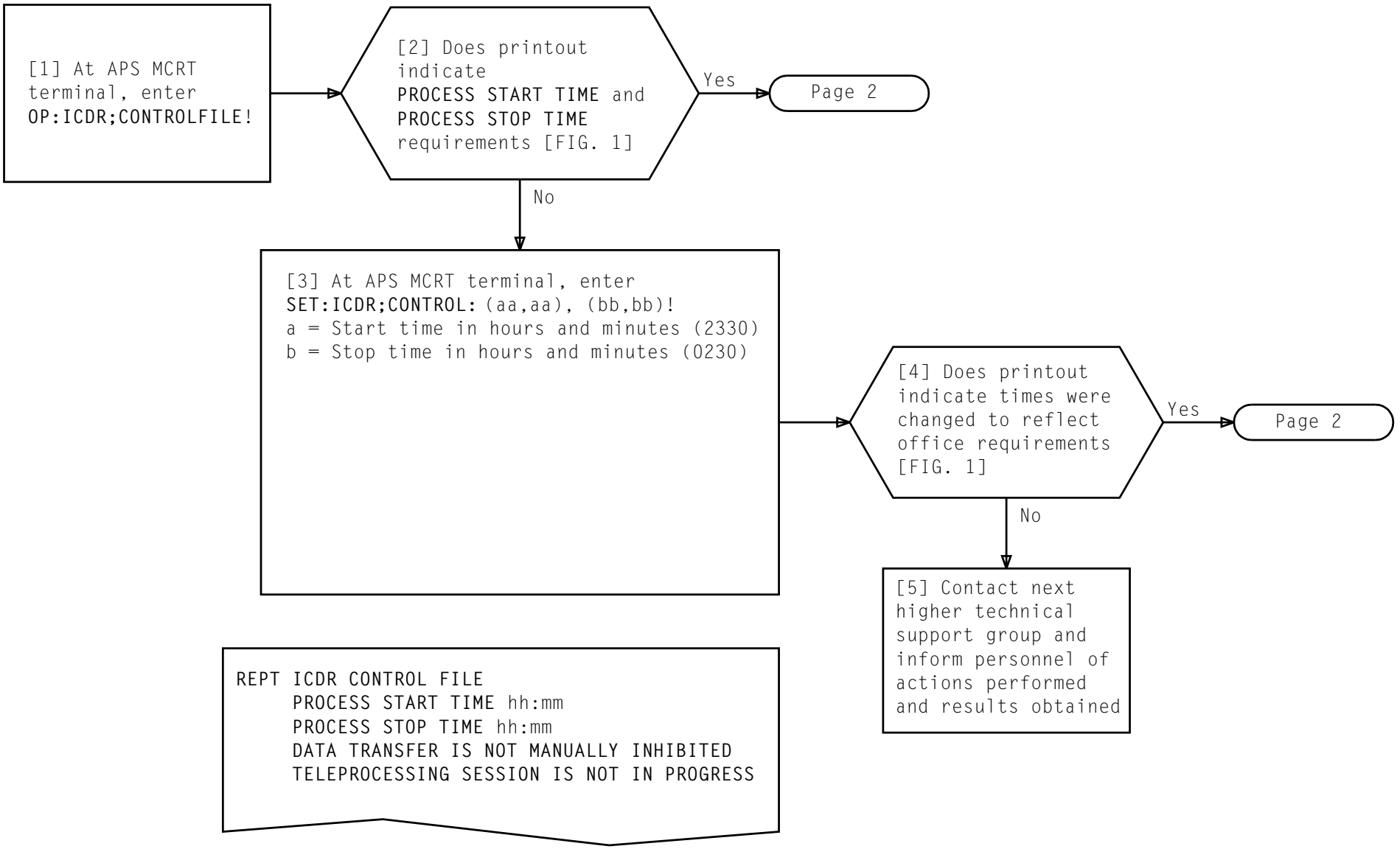
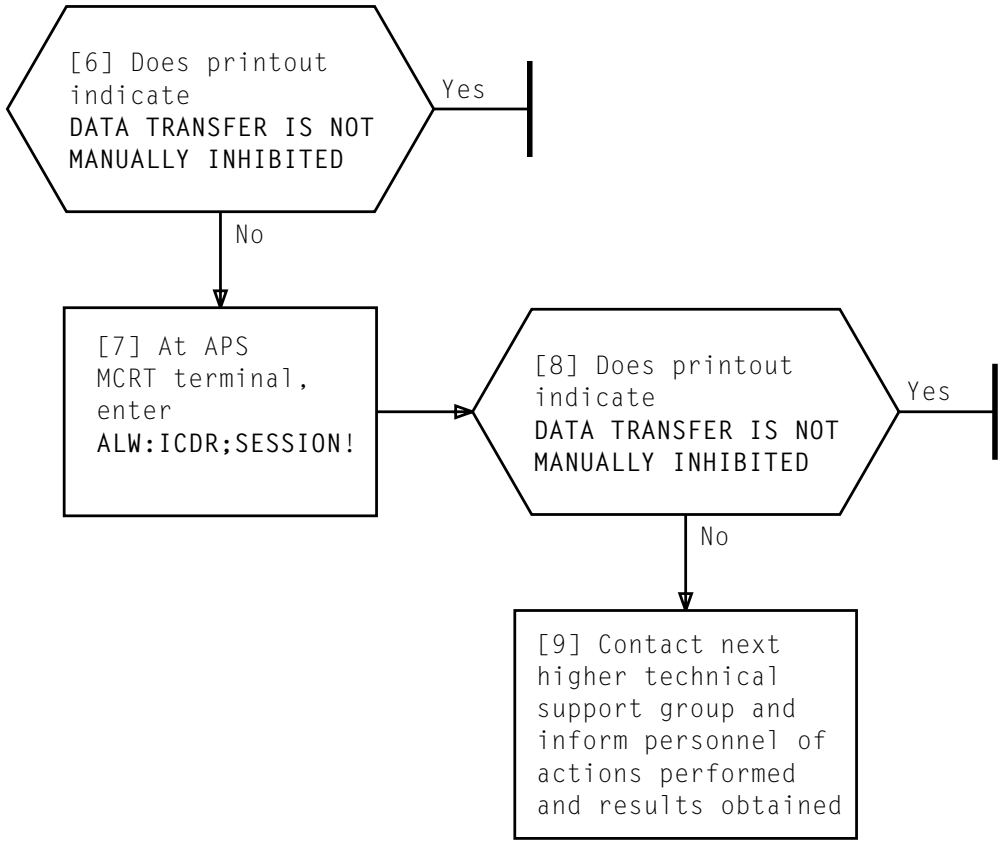
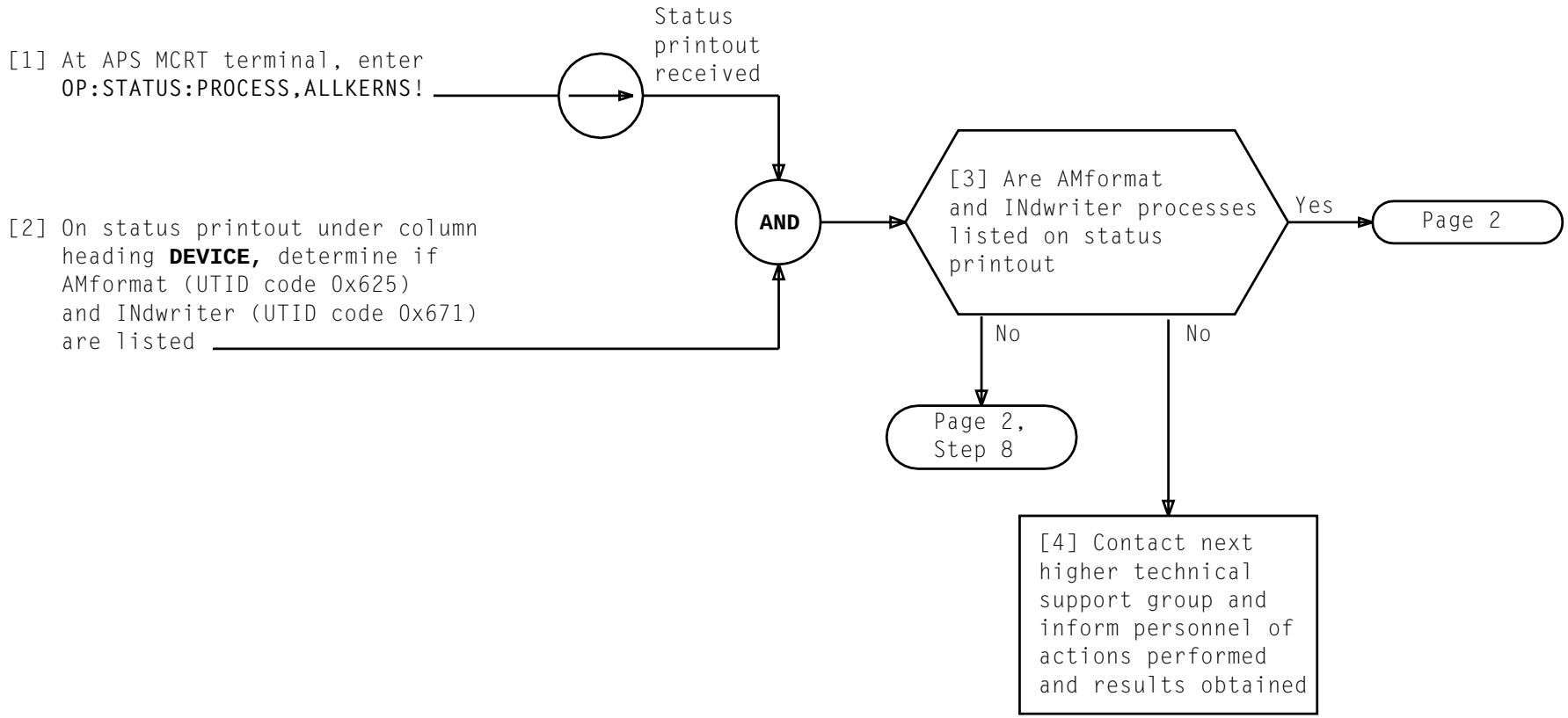


FIG. 1 — Sample Printout of ICDR Control File Status

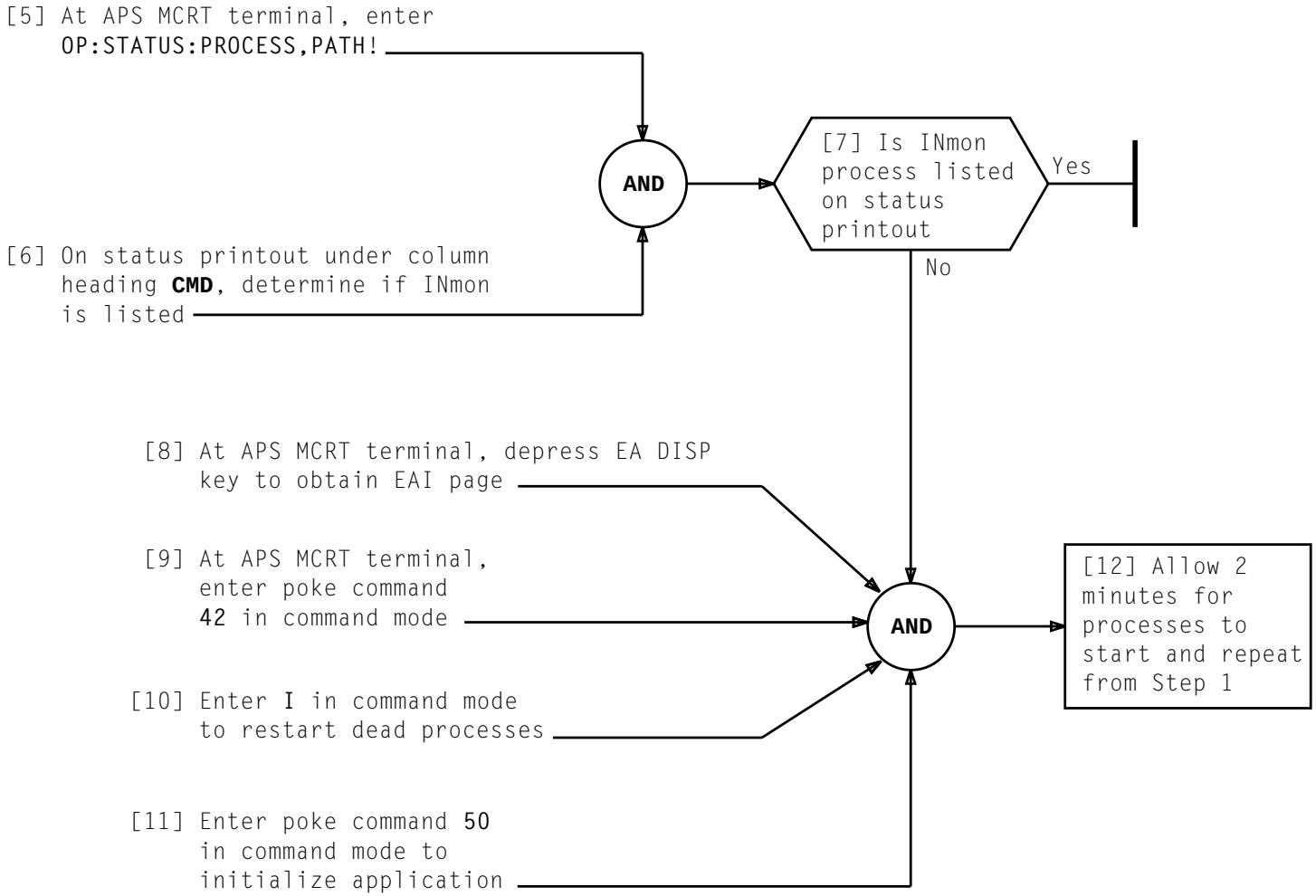
VERIFY ATTACHED PROCESSOR SYSTEM (APS) ICDR CONTROL FILE PARAMETERS



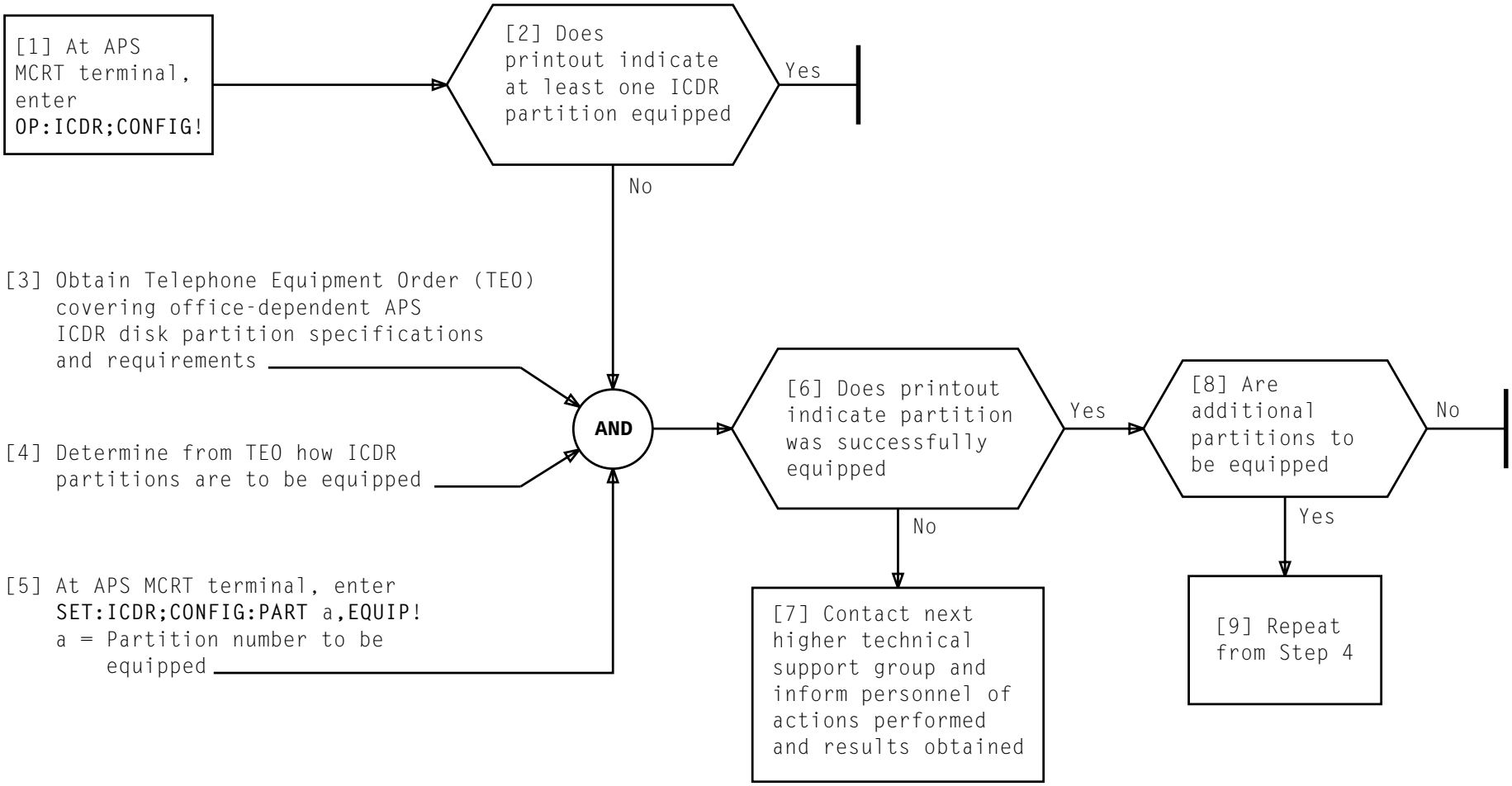
VERIFY ATTACHED PROCESSOR SYSTEM (APS) ICDR CONTROL FILE PARAMETERS



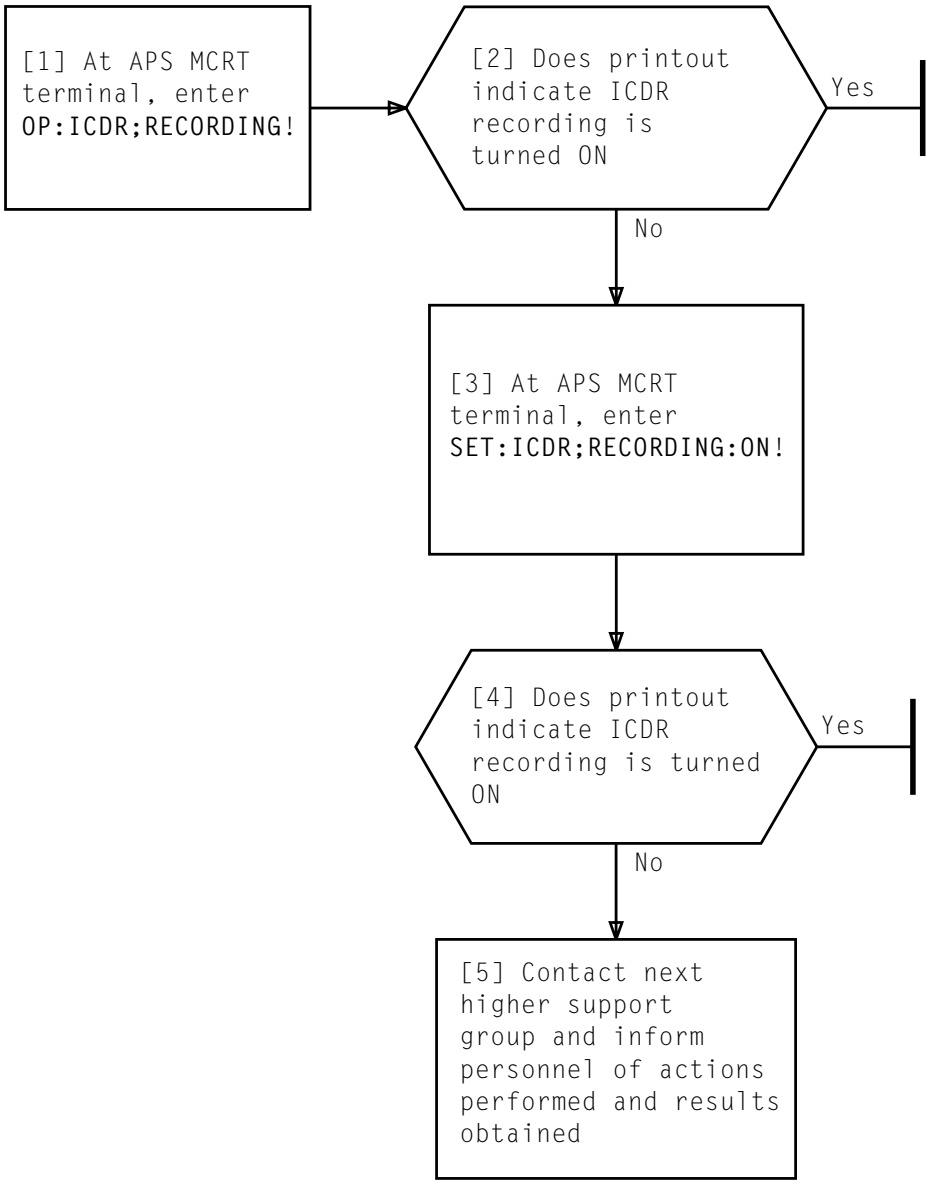
VERIFY ATTACHED PROCESSOR SYSTEM (APS) ICDR PROCESSES RUNNING



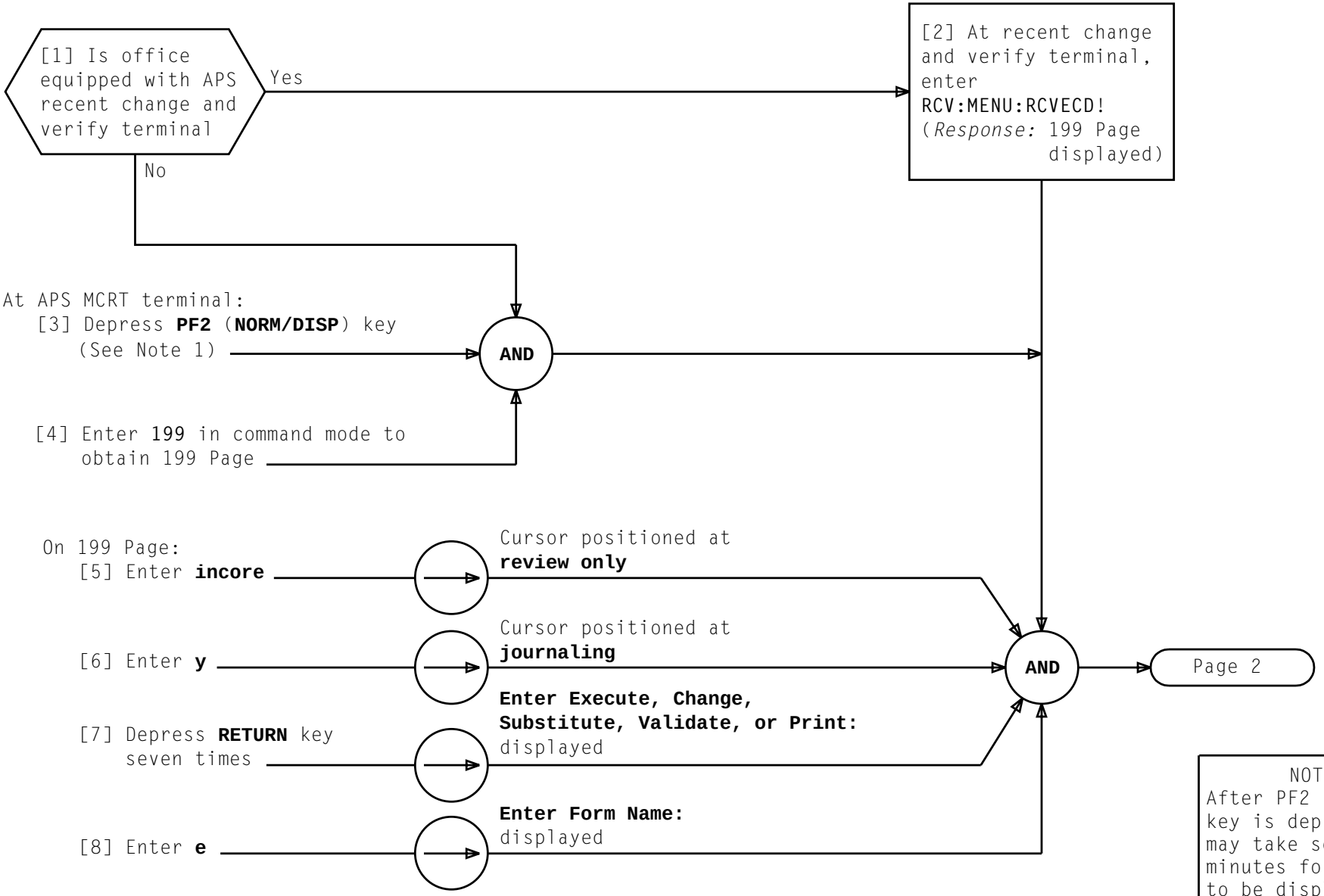
VERIFY ATTACHED PROCESSOR SYSTEM (APS) ICDR PROCESSES RUNNING



VERIFY ATTACHED PROCESSOR SYSTEM (APS) ICDR PARTITIONS EQUIPPED

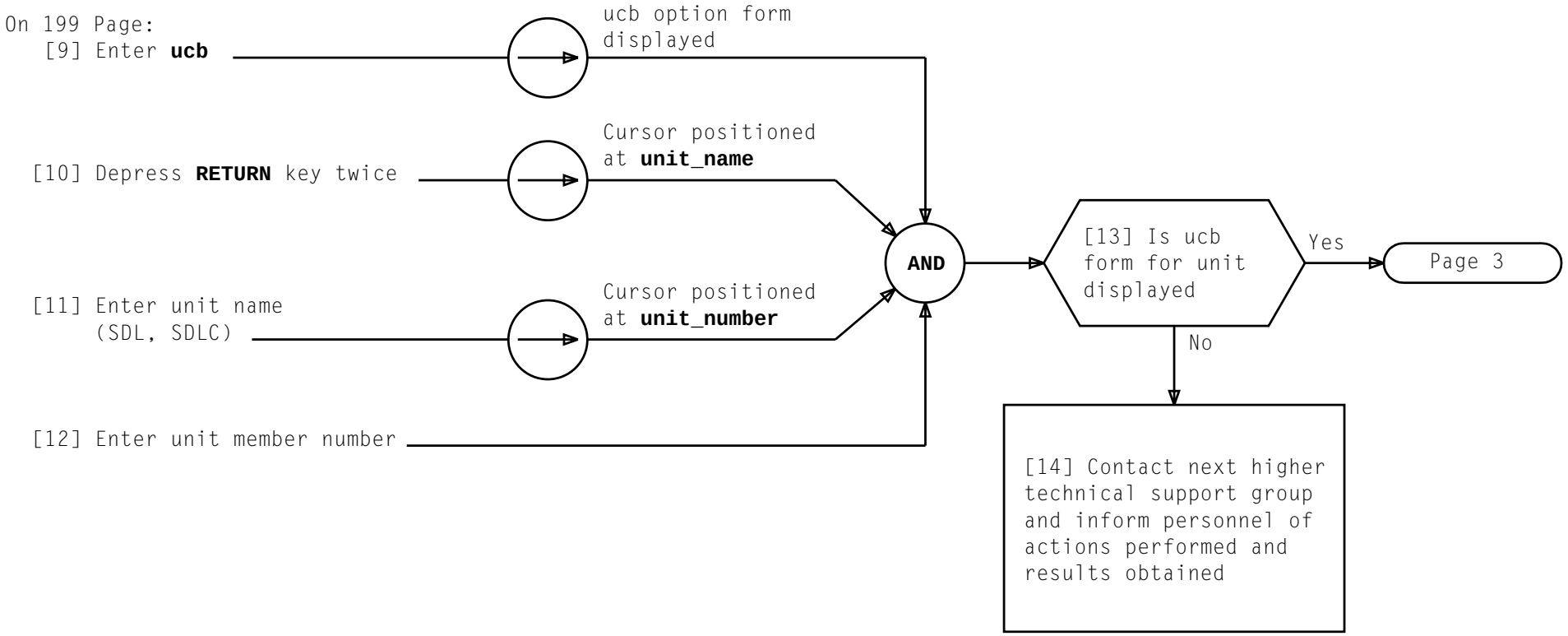


VERIFY ATTACHED PROCESSOR SYSTEM (APS) ICDR RECORDING IS ACTIVATED

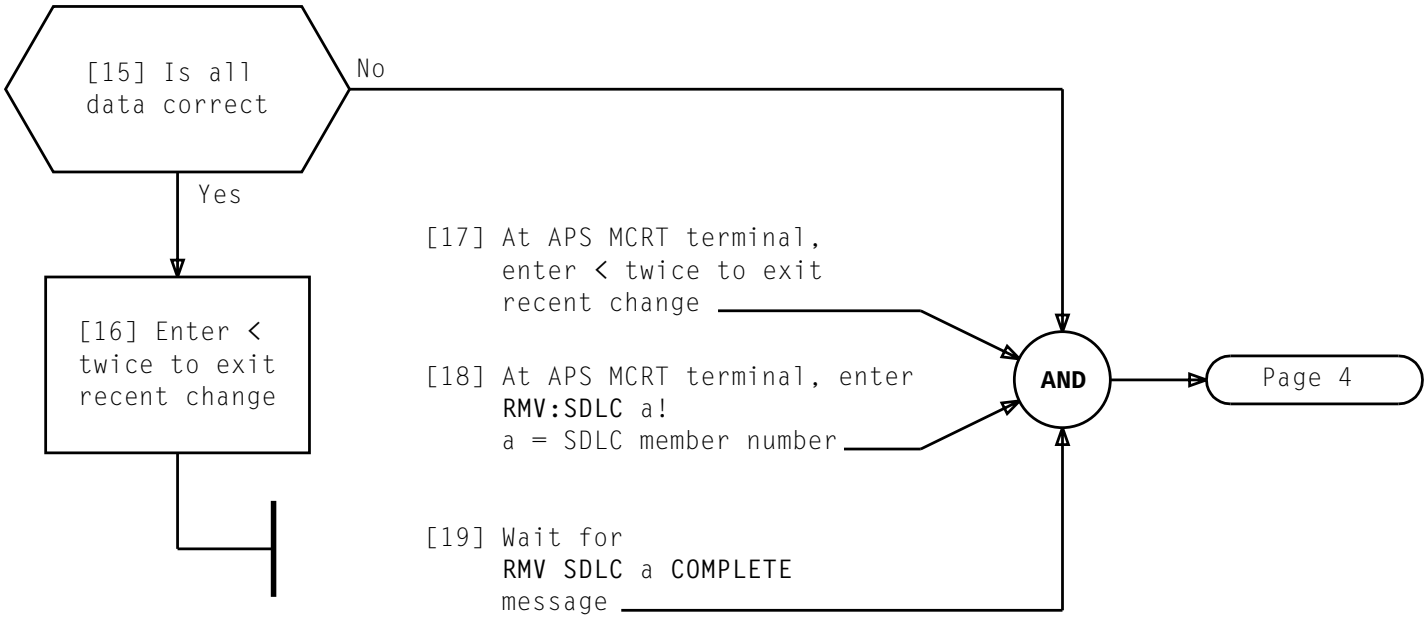


VERIFY ATTACHED PROCESSOR SYSTEM (APS) UNIT CONTROL BLOCK (UCB) DATA

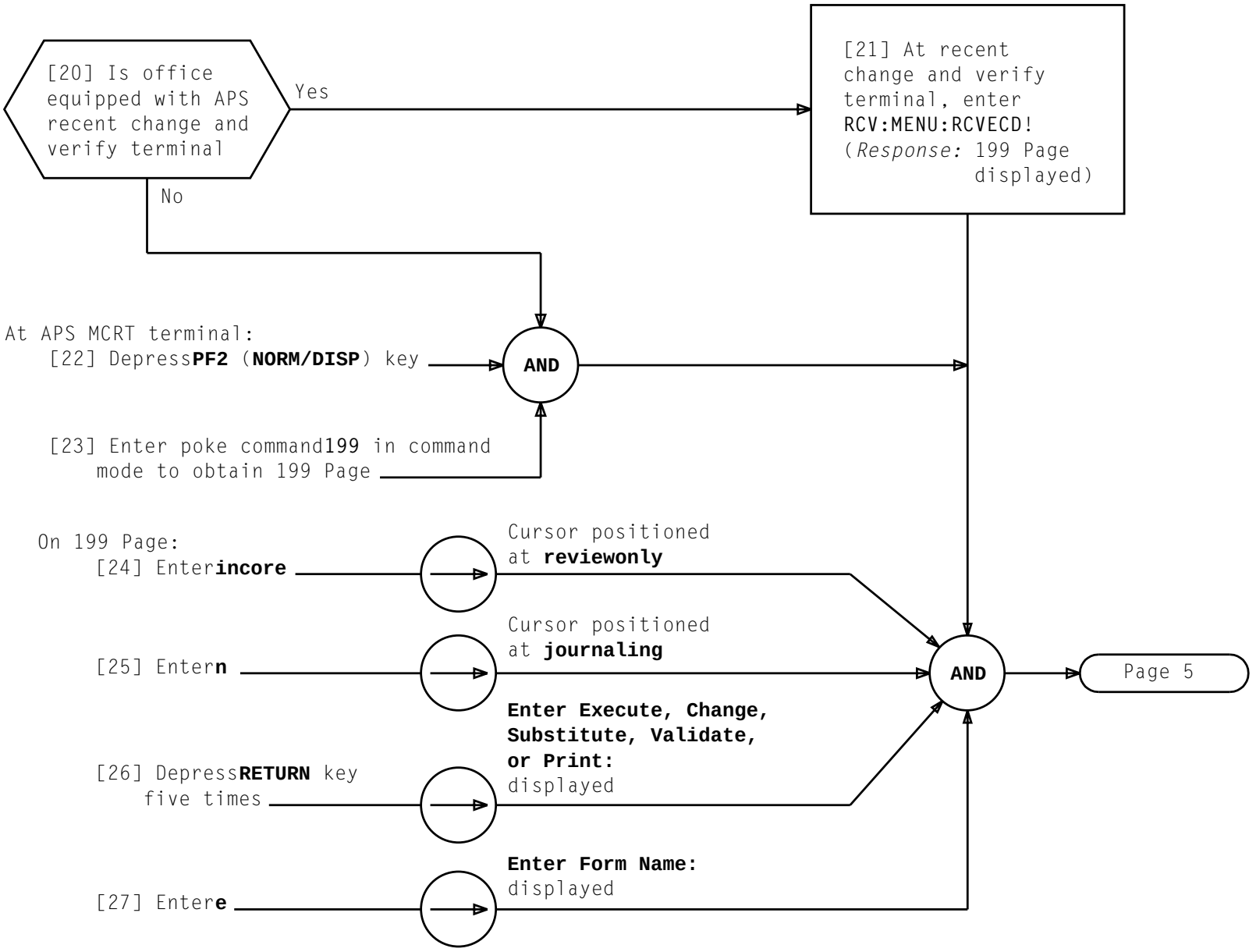
NOTE 1
After PF2 (NORM/DISP) key is depressed it may take several minutes for 199 page to be displayed



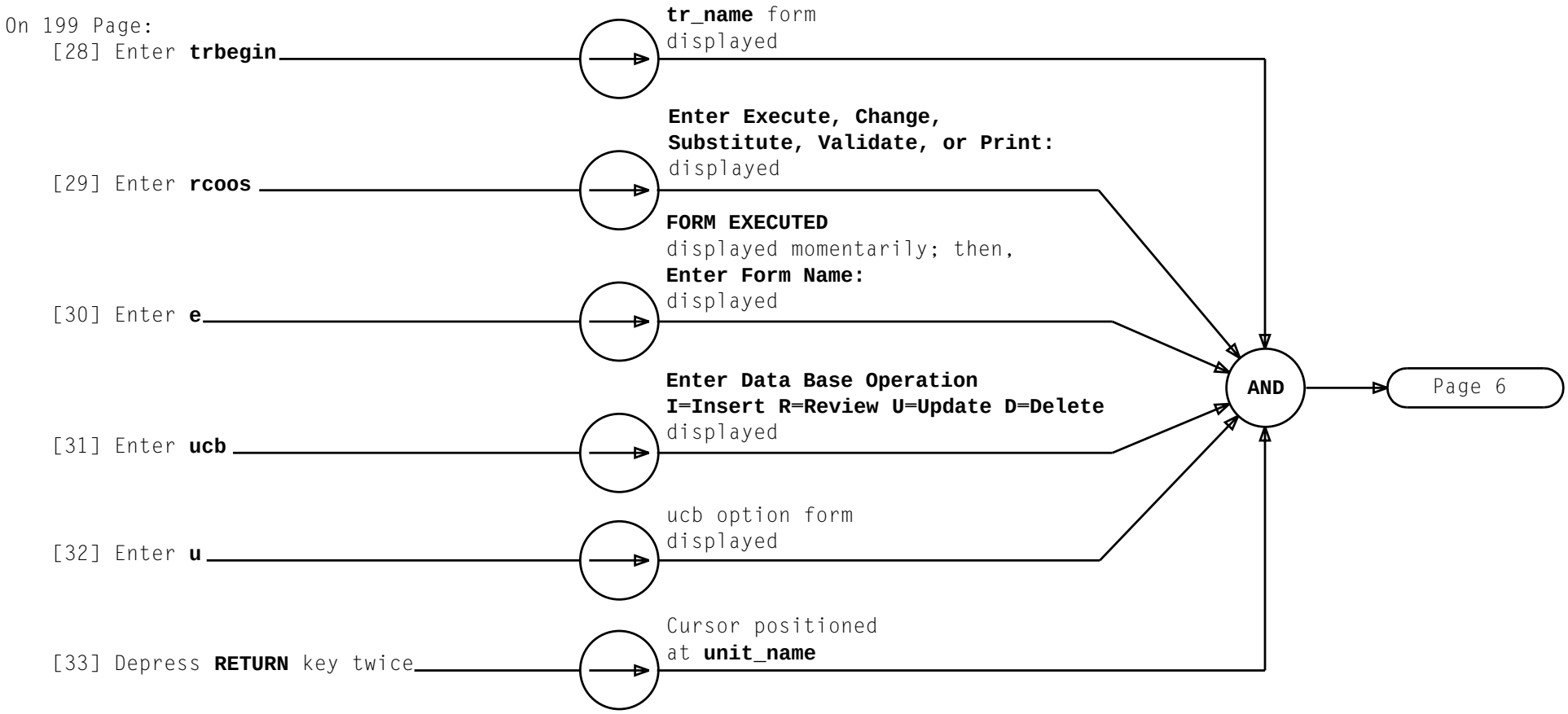
VERIFY ATTACHED PROCESSOR SYSTEM (APS) UNIT CONTROL BLOCK (UCB) DATA



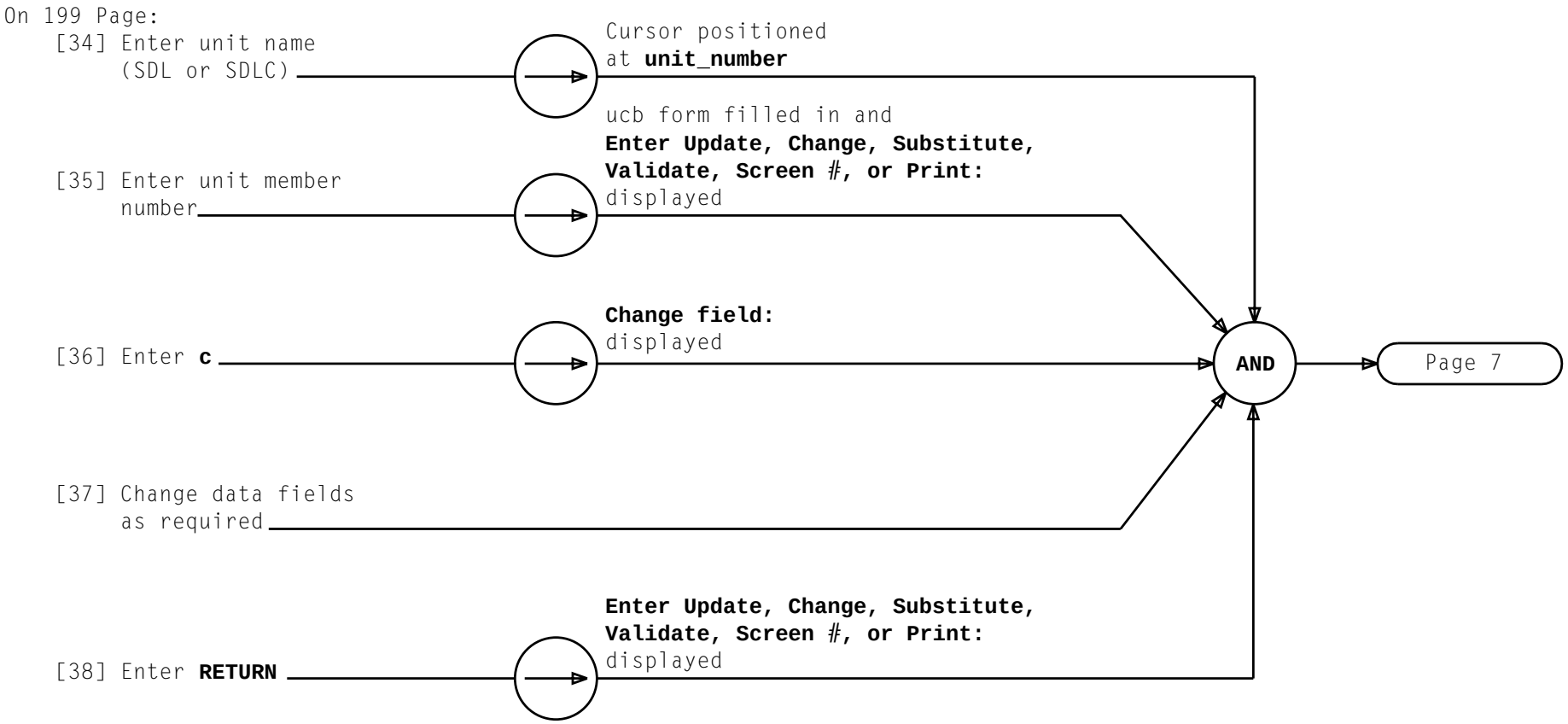
VERIFY ATTACHED PROCESSOR SYSTEM (APS) UNIT CONTROL BLOCK (UCB) DATA



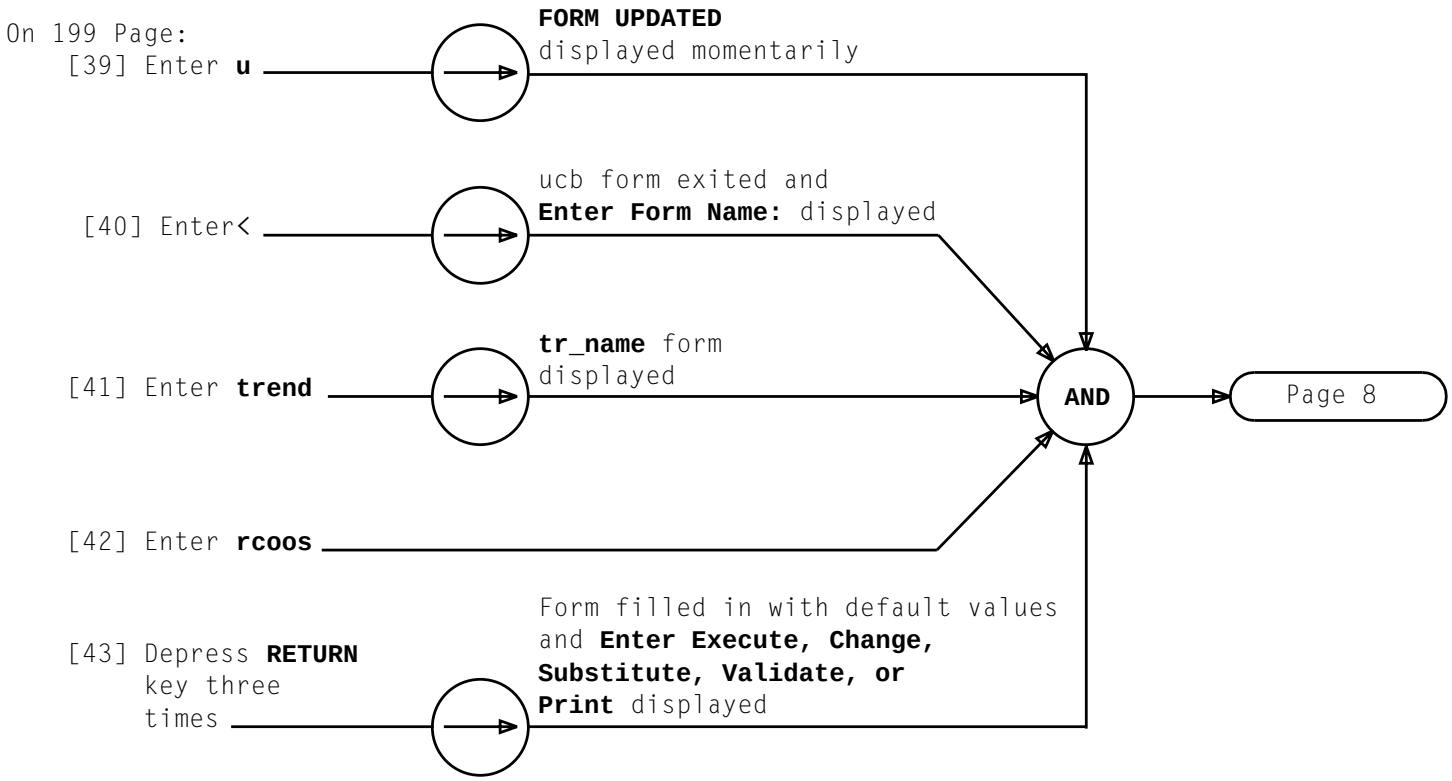
VERIFY ATTACHED PROCESSOR SYSTEM (APS) UNIT CONTROL BLOCK (UCB) DATA



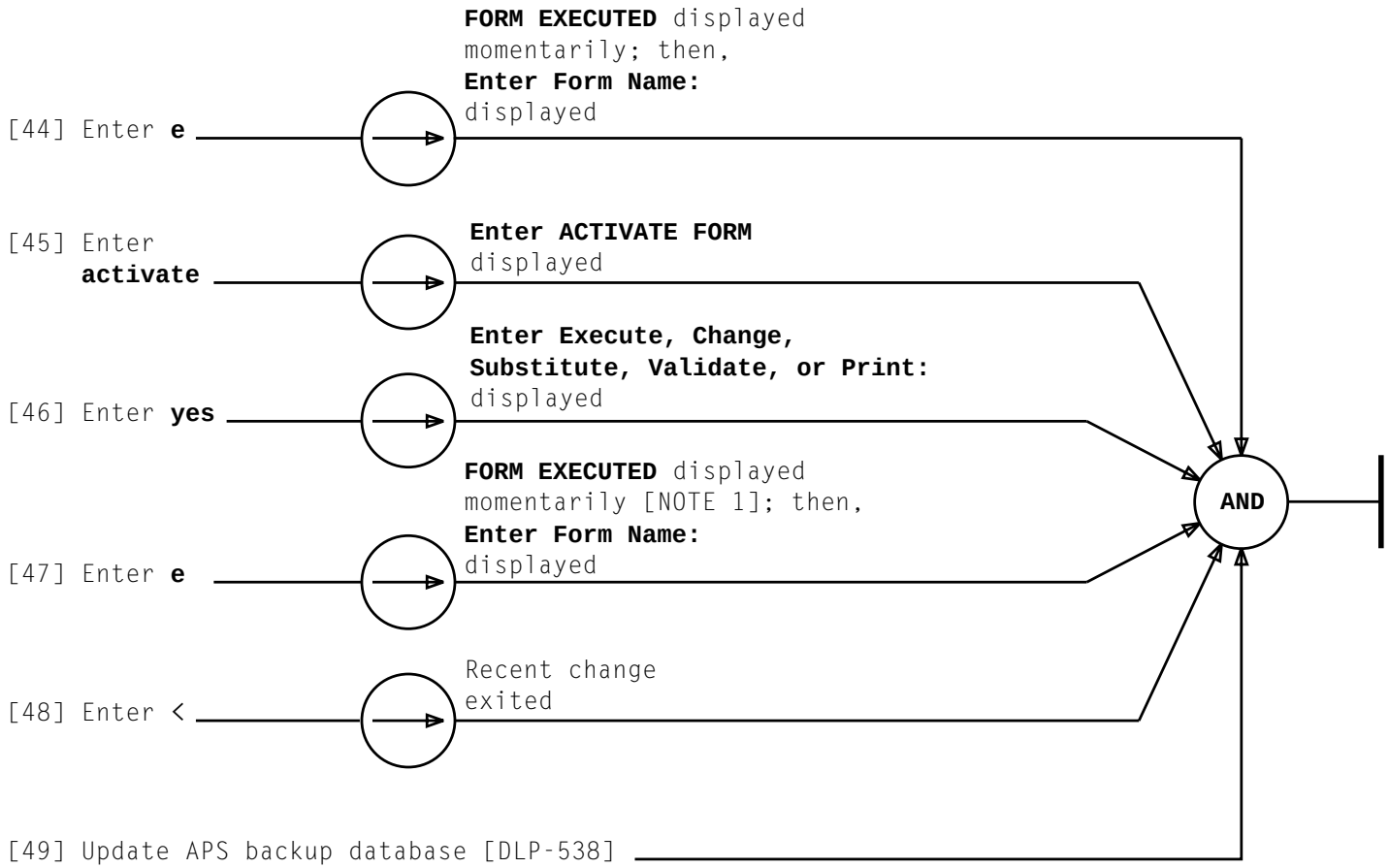
VERIFY ATTACHED PROCESSOR SYSTEM (APS) UNIT CONTROL BLOCK (UCB) DATA



VERIFY ATTACHED PROCESSOR SYSTEM (APS) UNIT CONTROL BLOCK (UCB) DATA

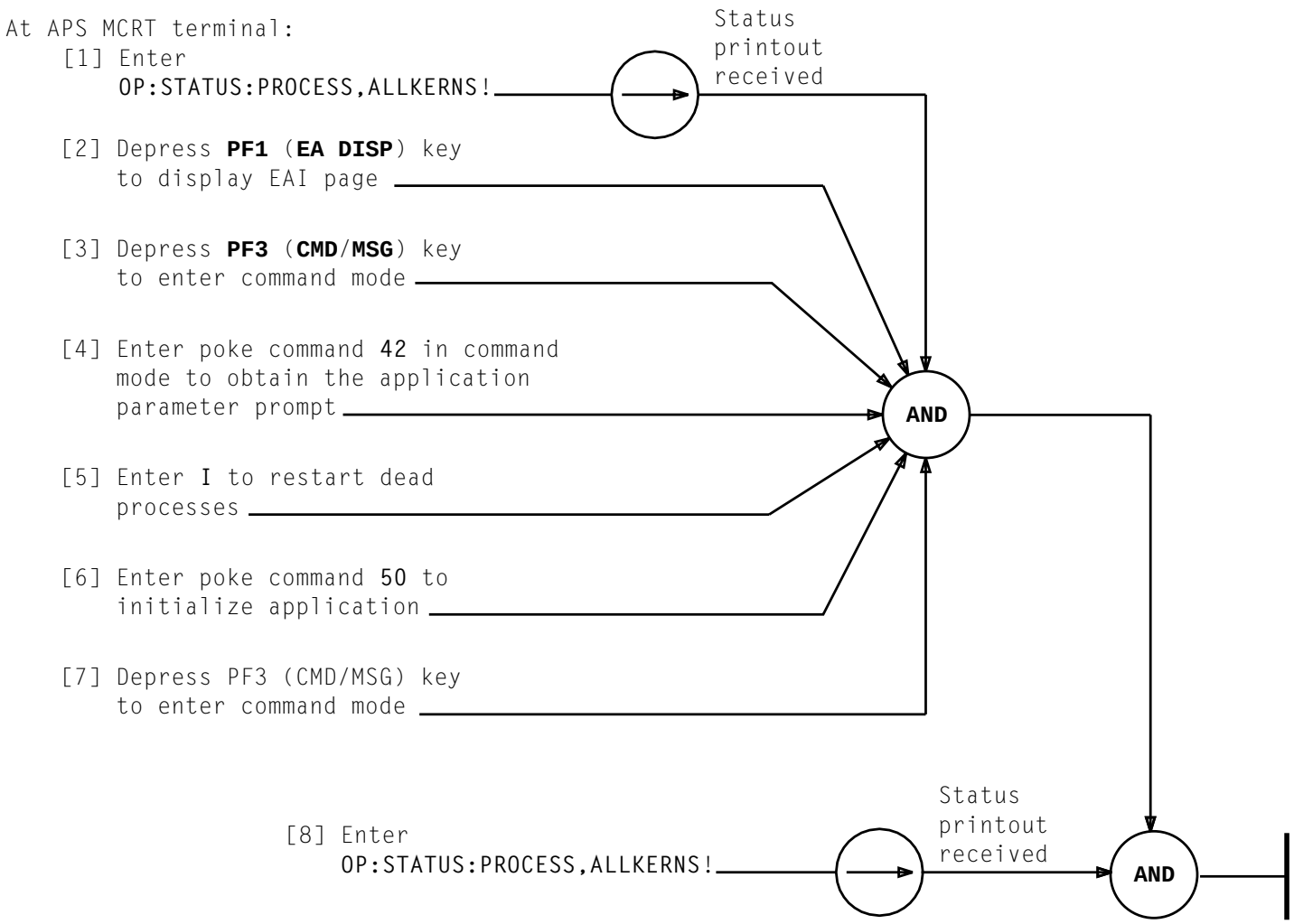


VERIFY ATTACHED PROCESSOR SYSTEM (APS) UNIT CONTROL BLOCK (UCB) DATA

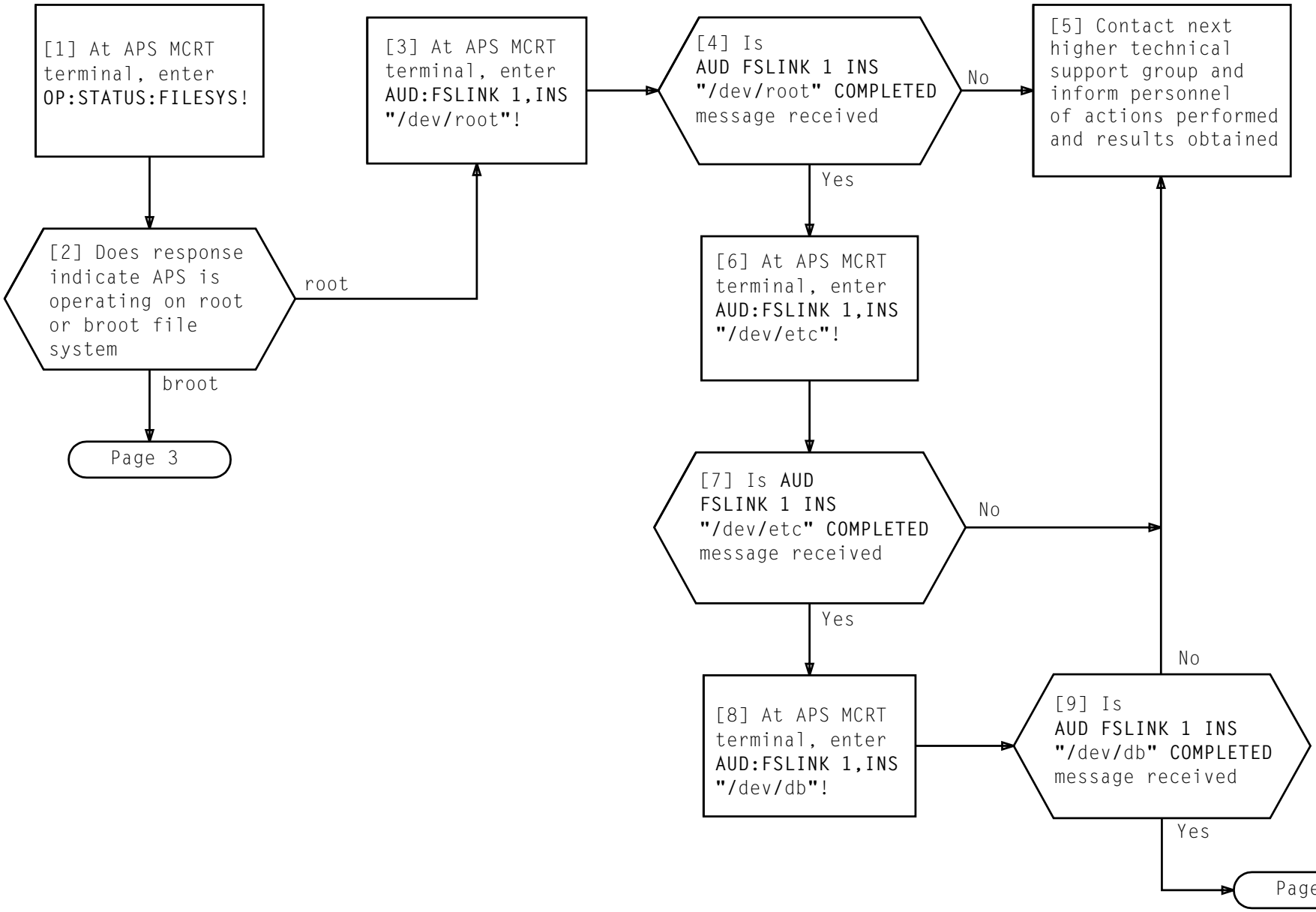


VERIFY ATTACHED PROCESSOR SYSTEM (APS) UNIT CONTROL BLOCK (UCB) DATA

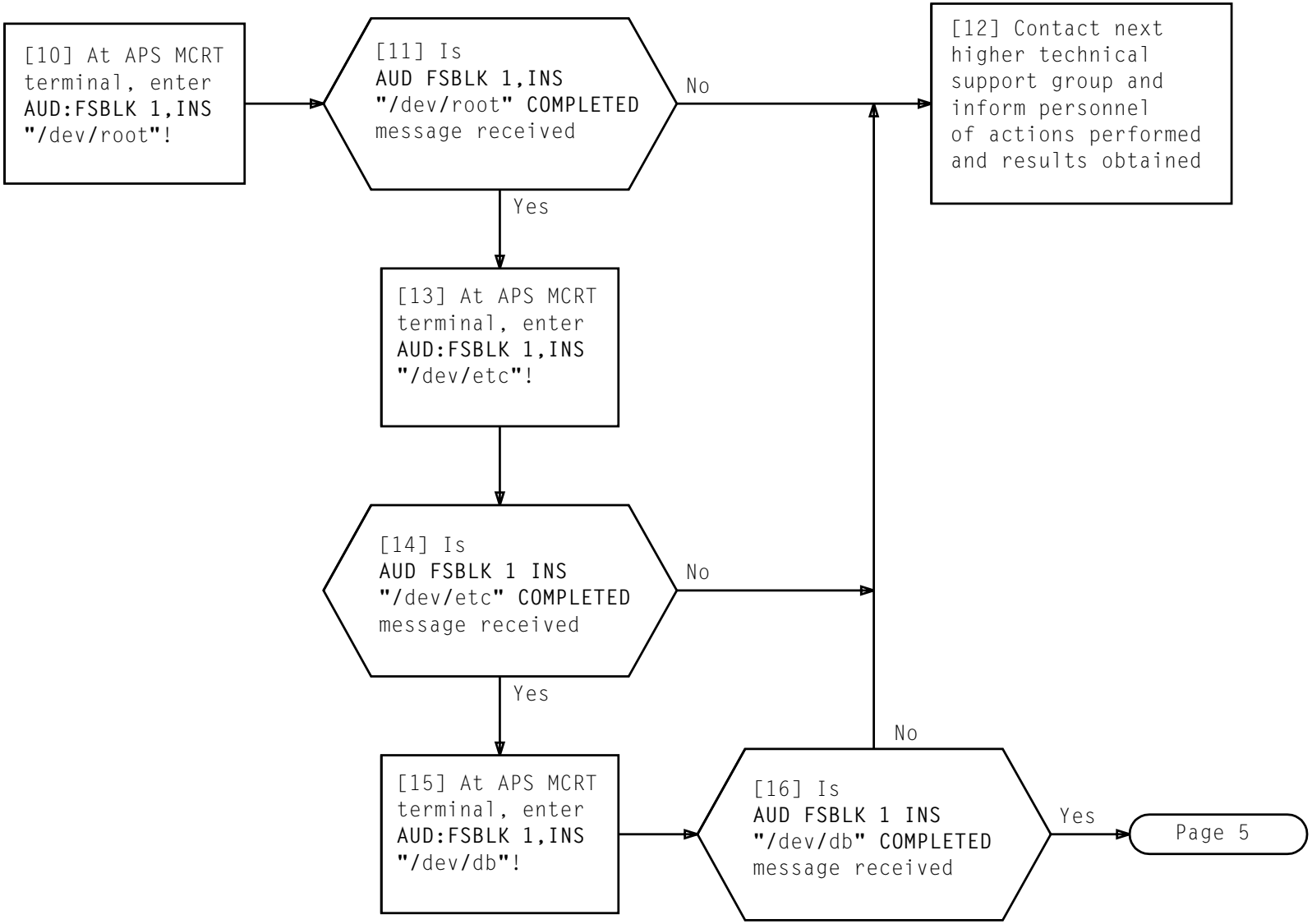
NOTE 1
It may take several minutes before **FORM EXECUTED** is displayed



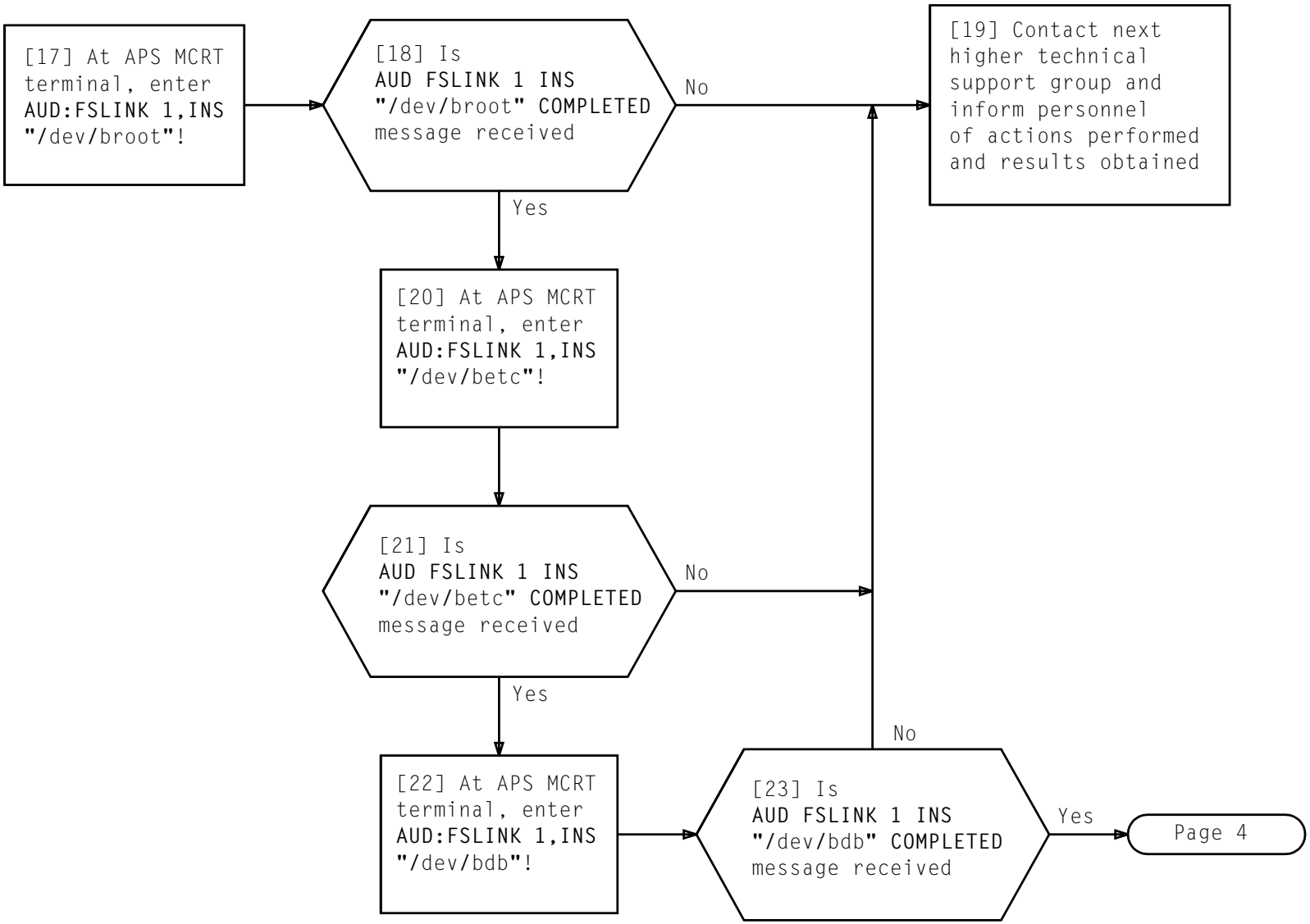
RESTART ATTACHED PROCESSOR SYSTEM (APS) PROCESSES



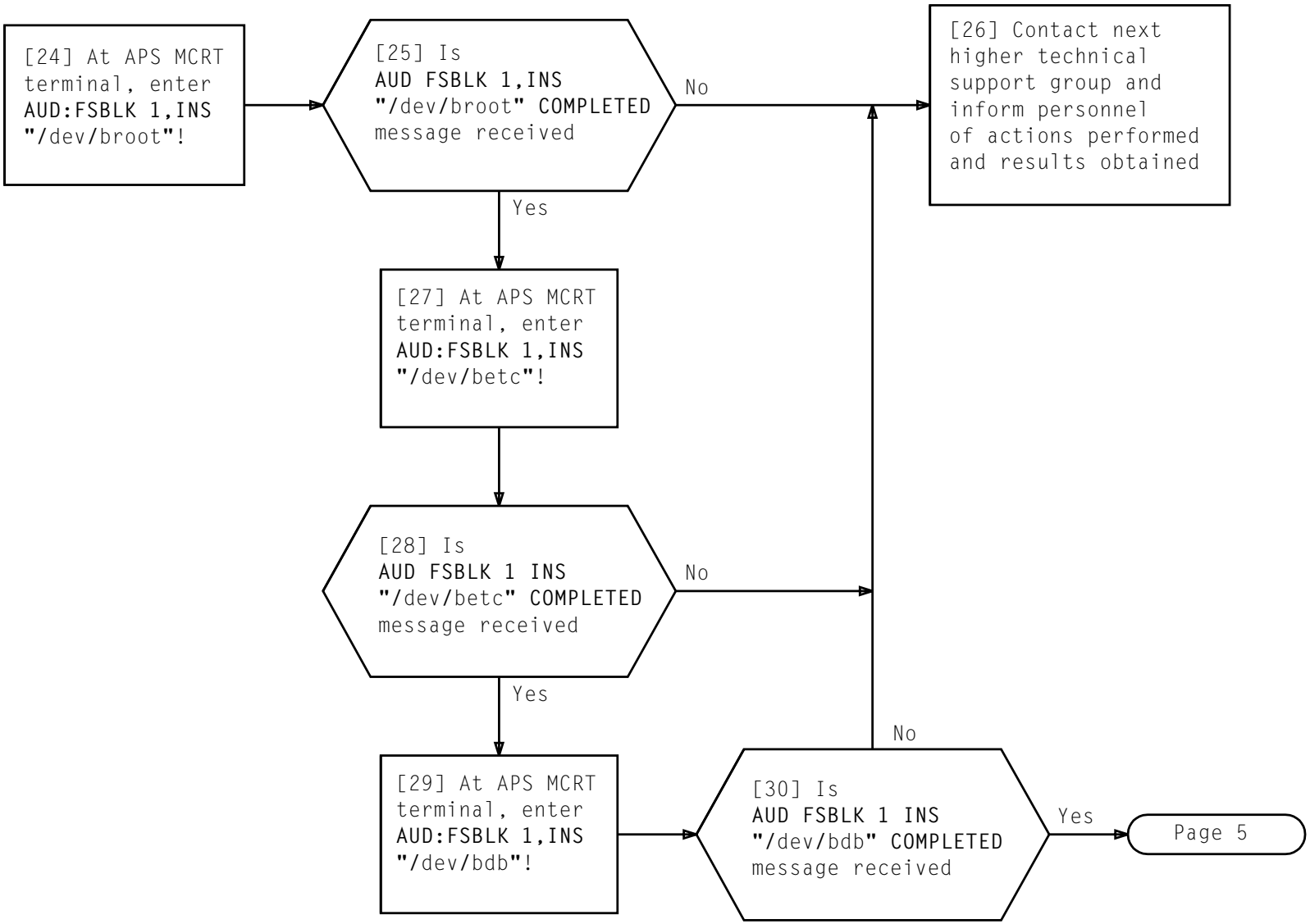
UPDATE ATTACHED PROCESSOR SYSTEM (APS) BACKUP DATABASE



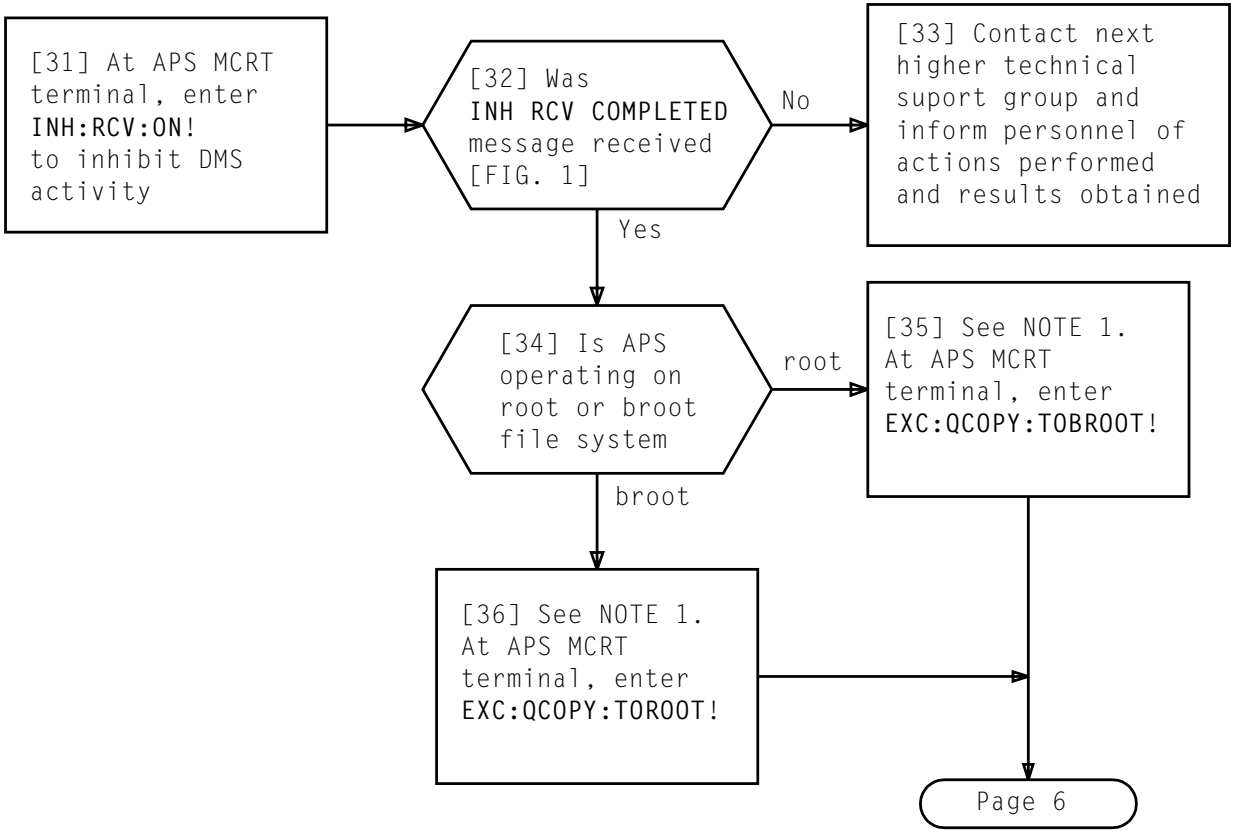
UPDATE ATTACHED PROCESSOR SYSTEM (APS) BACKUP DATABASE



UPDATE ATTACHED PROCESSOR SYSTEM (APS) BACKUP DATABASE



UPDATE ATTACHED PROCESSOR SYSTEM (APS) BACKUP DATABASE



INH RCV COMPLETED

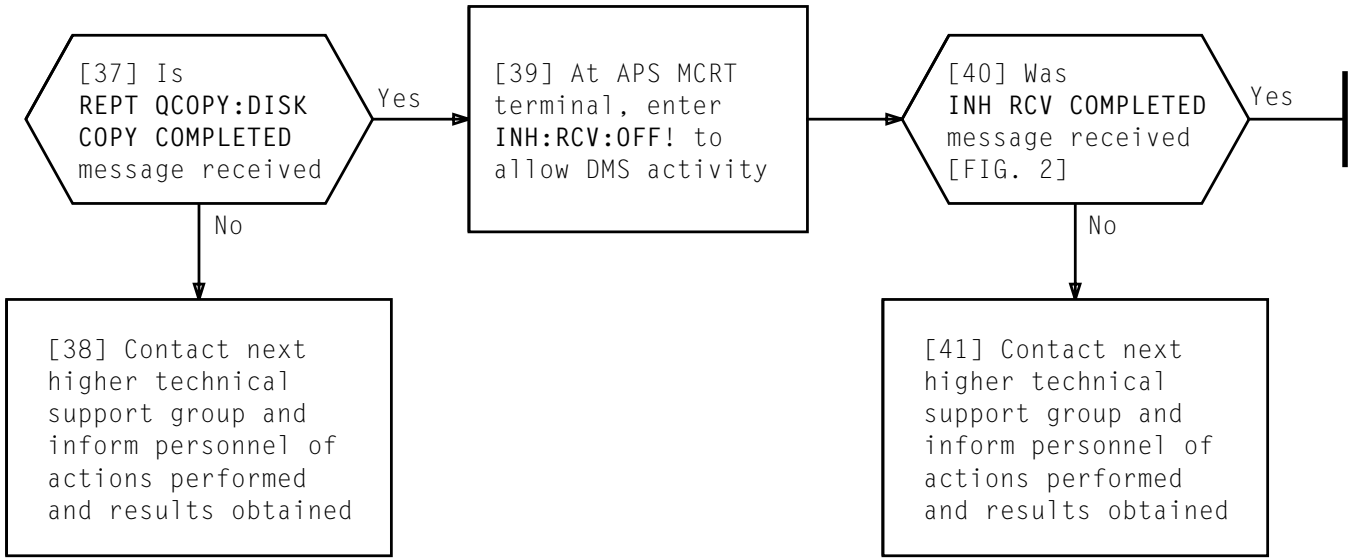
4ESS INH RCV COMPL

RECENT CHANE INHIBIT ON

FIG. 1 — Sample Printout of Output Messages Indicating RC Inhibit Is On

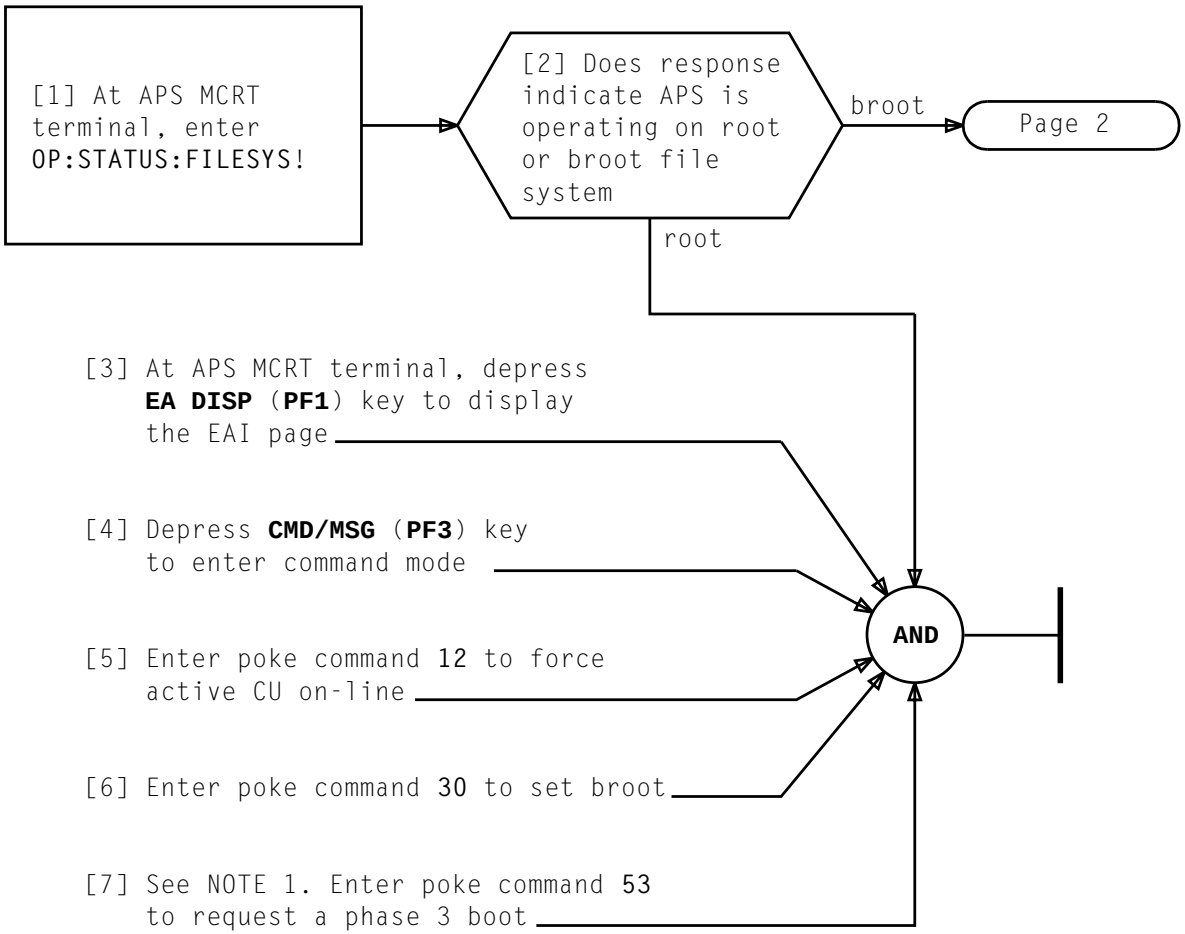
NOTE 1
This command requires a minimum of 10 minutes to complete

UPDATE ATTACHED PROCESSOR SYSTEM (APS) BACKUP DATABASE



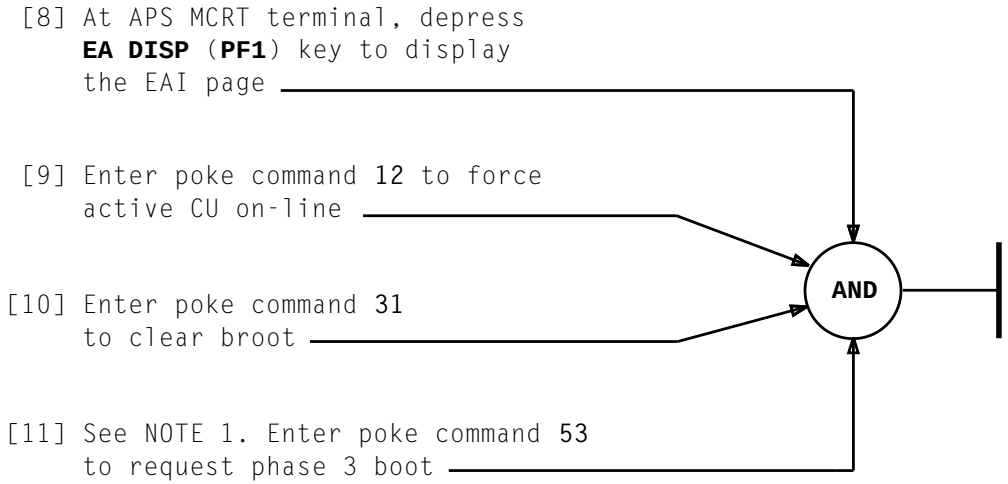

```
INH RCV COMPLETED
4ESS INH RCV COMPL
RECENT CHANGE INHIBIT OFF
```

FIG. 2 — Sample Printout of Output Message Indicating RC Inhibit Is OFF

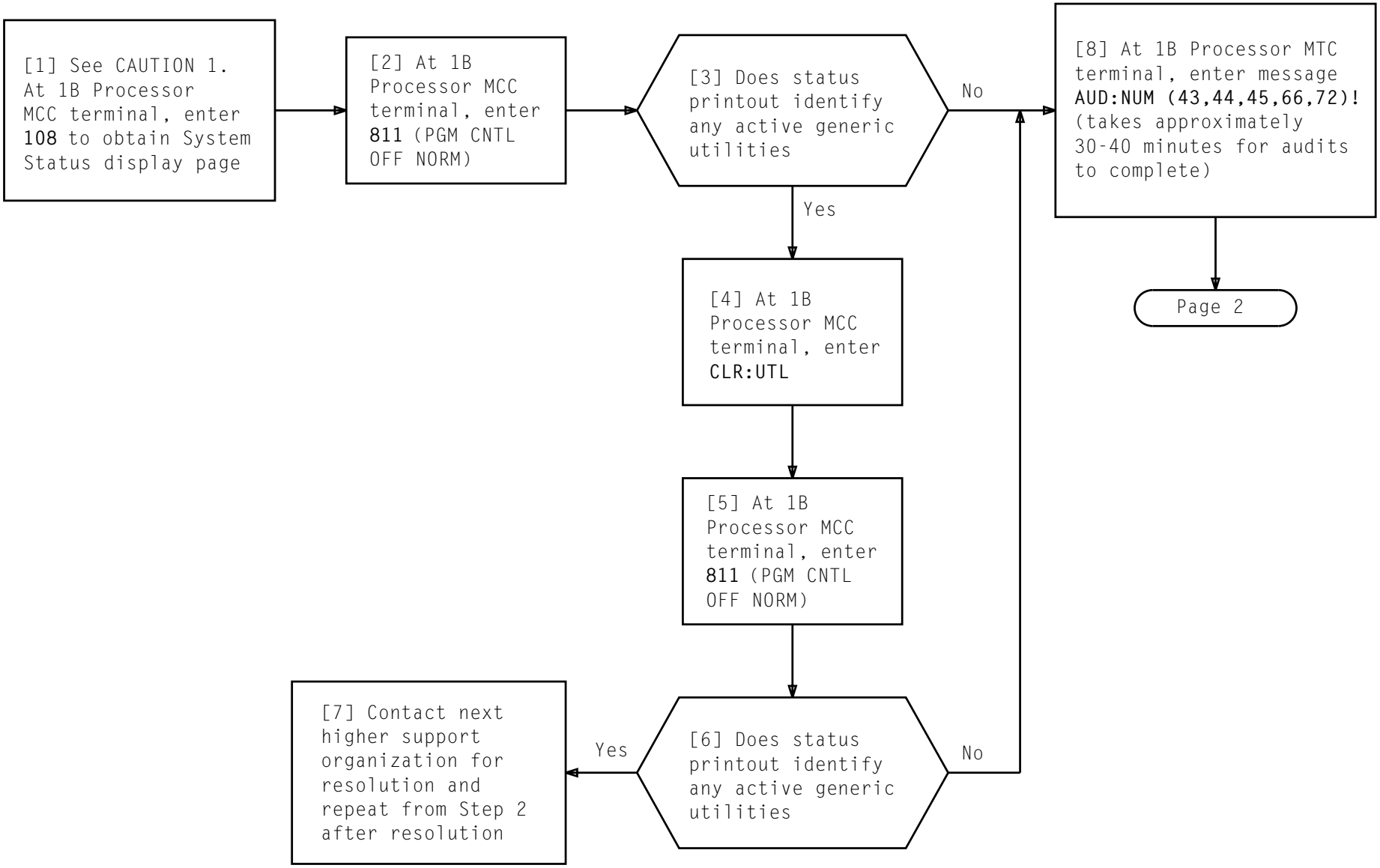


BOOT TO ATTACHED PROCESSOR SYSTEM (APS) BACKUP DATABASE (SANE PROCESSOR)

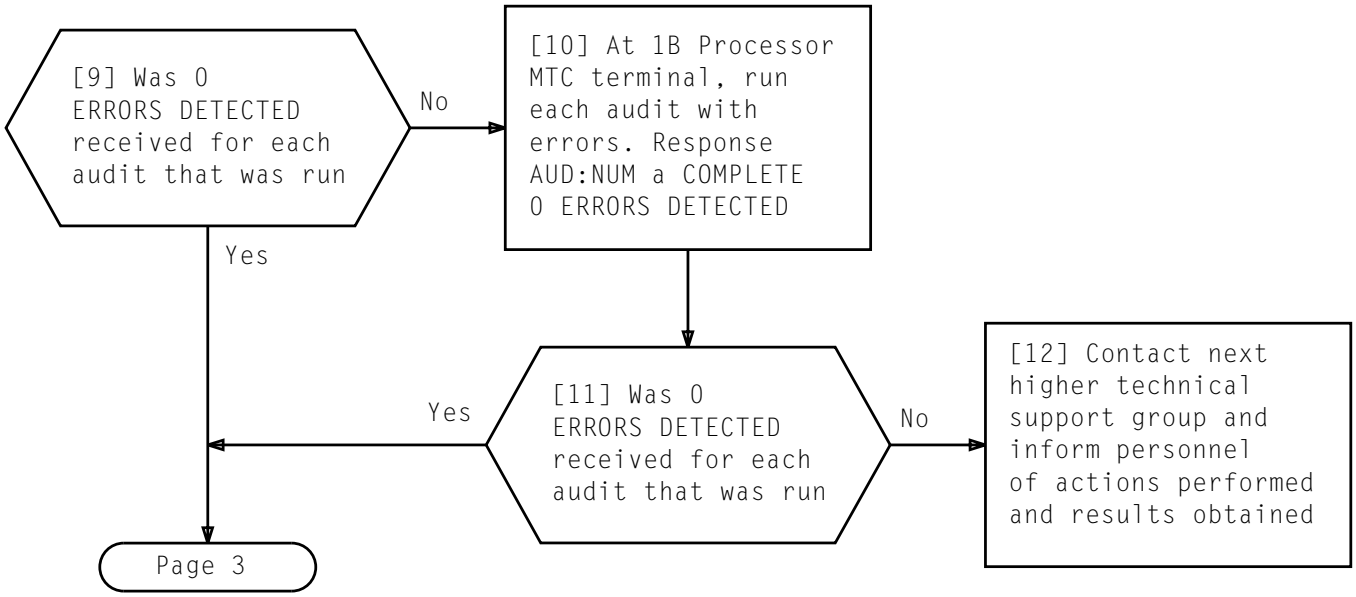
NOTE 1
A 53 boot takes approximately 3 minutes to complete



BOOT TO ATTACHED PROCESSOR SYSTEM (APS) BACKUP DATABASE (SANE PROCESSOR)



WRITE 1B PROCESSOR GENERIC TAPE



WRITE 1B PROCESSOR GENERIC TAPE

[13] Select available APS tape unit

[14] If tape is mounted on selected tape unit, demount tape [DLP-528]

[15] Mount blank or erasable tape with write enable ring installed (1600 BPI) or protect tab in up (unlocked) position (4mm) on tape unit [DLP-527]

[16] At APS MCRT terminal, enter
COPY:UPDATE:GEN NORM,MT a!
a = Tape unit member number

AND

[17] Is GEN TAPE WRITTEN message received [FIG. 1]

No

[18] Contact next higher support group and inform personnel of actions performed and results obtained

Yes

[19] Demount tape on tape unit [DLP-528] and label per local procedure

[20] Is another generic backup tape required to be written

No

[22] Store tapes per local procedures

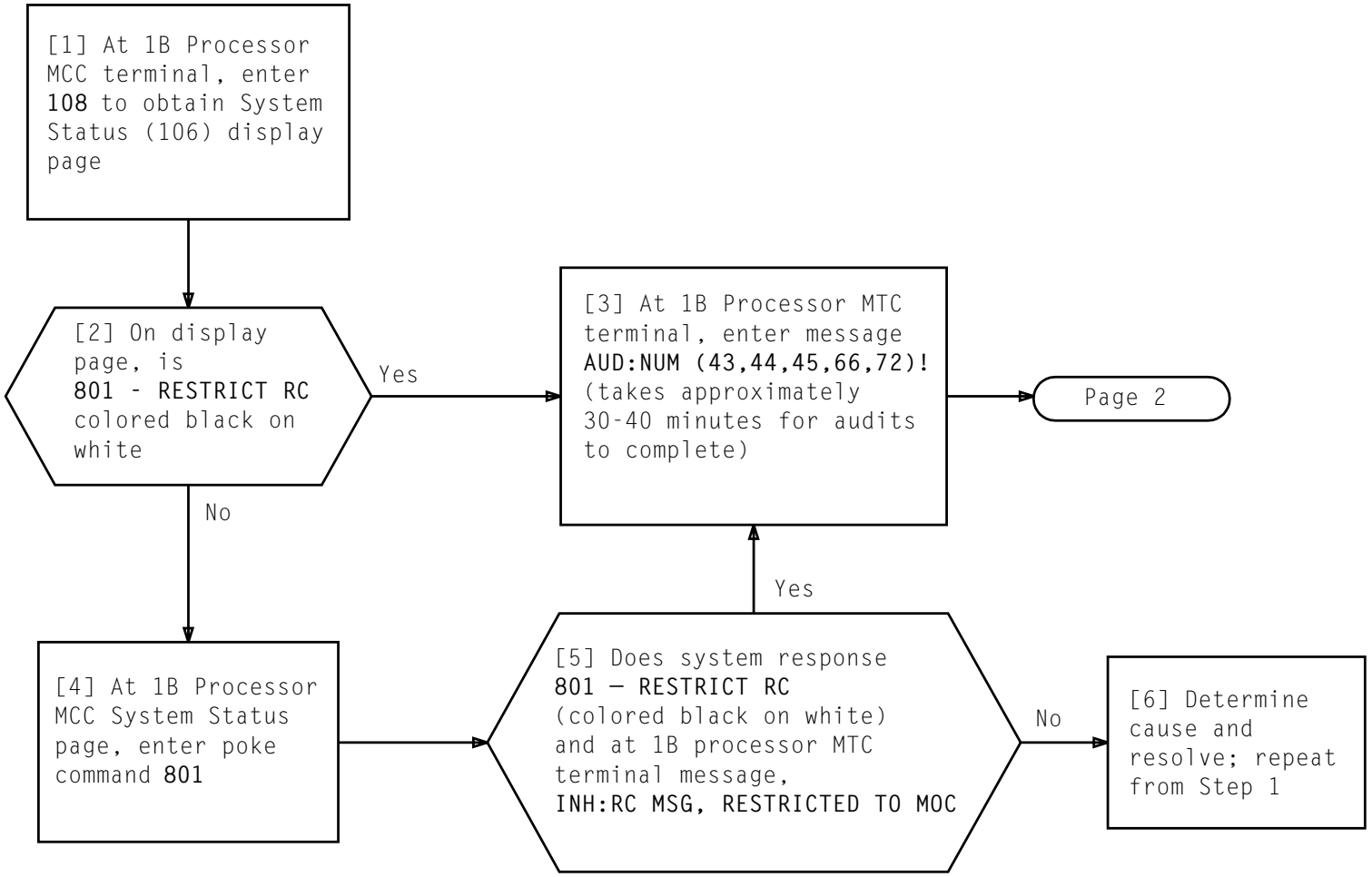
Yes

[21] Repeat from Step 15

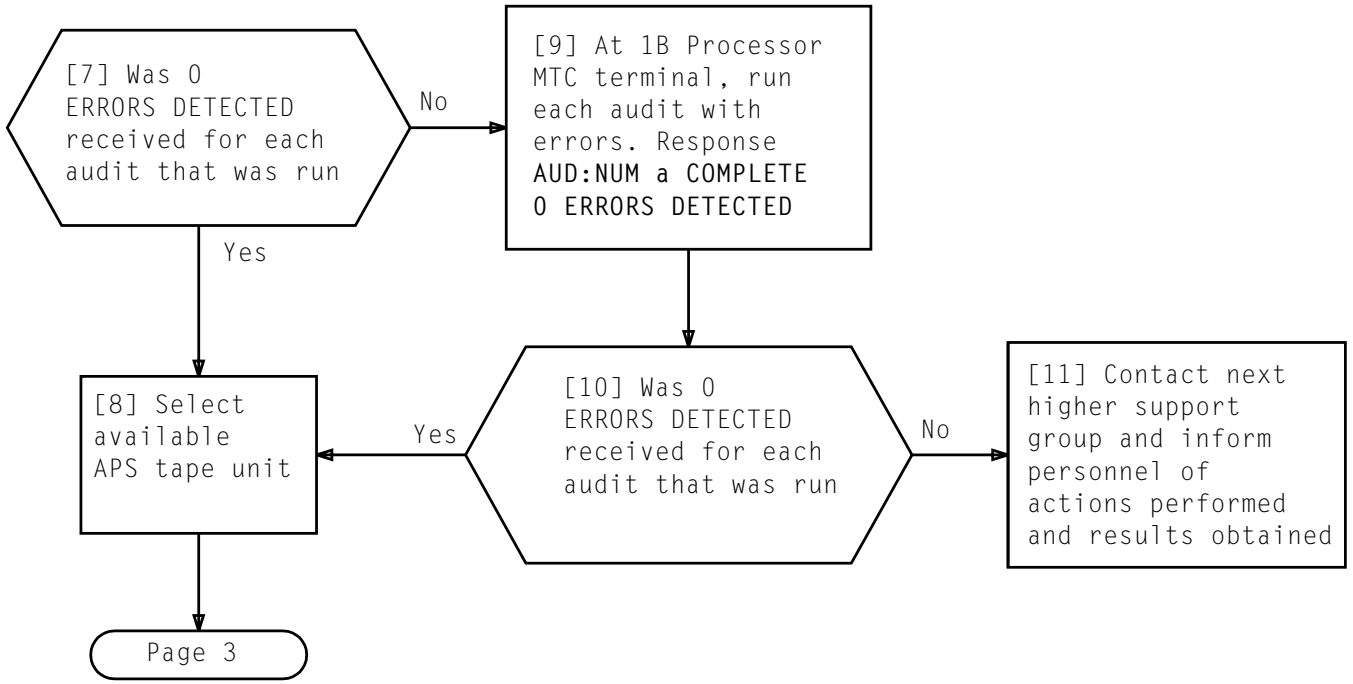
```
COPY GEN FROM NORM FILE
10 TAPE FILES WRITTEN
20 TAPE FILES WRITTEN
30 TAPE FILES WRITTEN
          .
          .
n TAPE FILES WRITTEN
GEN TAPE WRITTEN
```

FIG. 1 – Sample Printout of Generic Backup Tape Write

WRITE 1B PROCESSOR GENERIC TAPE



WRITE 1B PROCESSOR OFFICE DATA ASSEMBLY (ODA) TAPE



WRITE 1B PROCESSOR OFFICE DATA ASSEMBLY (ODA) TAPE

[12] If tape is mounted on selected tape unit, demount tape [DLP-528]

[13] Mount blank or erasable tape with write-enable ring installed (1600 BPI) or protect tab in up (unlocked) position (4mm) on tape unit [DLP-527]

[14] At APS MCRT terminal, enter
COPY:UPDATE:ODA NORM,MT a!
a = Tape unit member number

AND

[15] Is **ODA TAPE WRITTEN** message received [FIG. 1]

No → [16] Contact next higher support group and inform personnel of actions performed and results obtained

Yes

[17] Demount tape on tape unit [DLP-528] and label per local procedure

[18] Is another ODA backup tape required to be written

No → Page 4

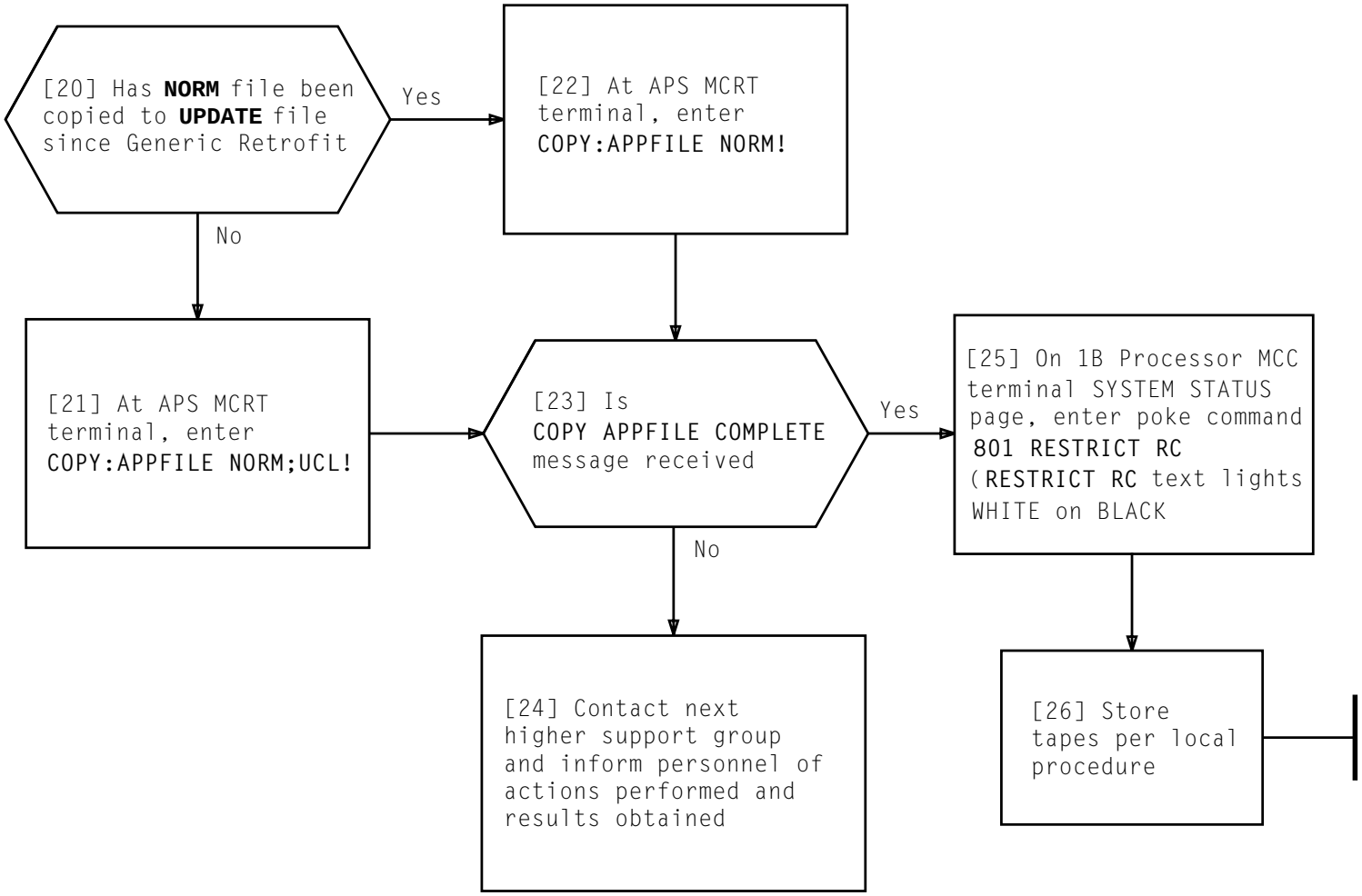
Yes

[19] Repeat from Step 12

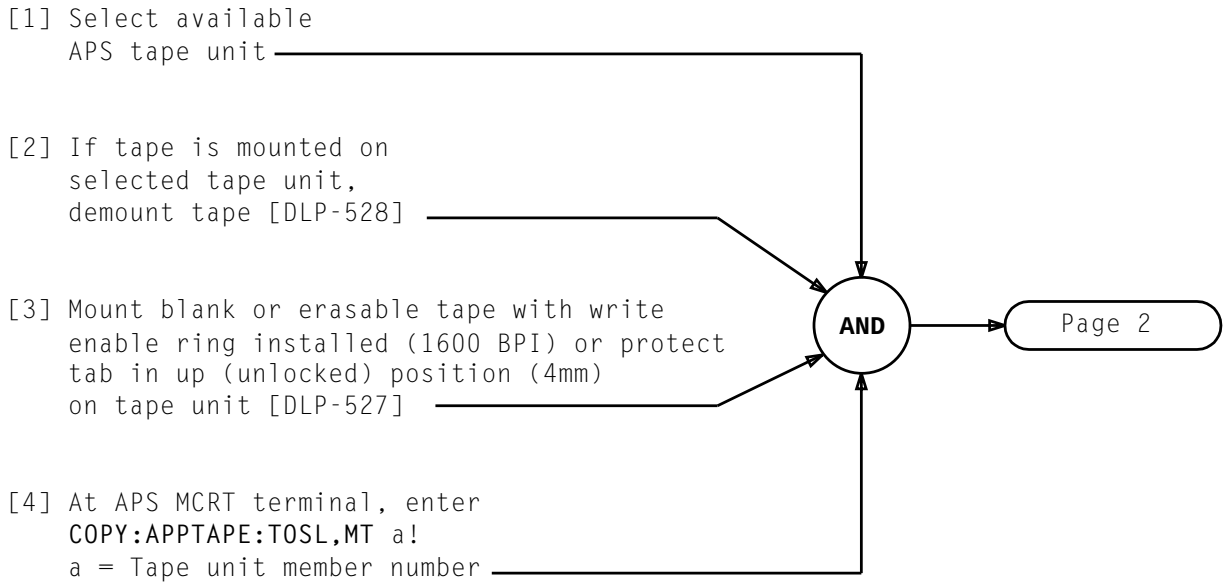
```
COPY ODA FROM NORM FILE
10 TAPE FILES WRITTEN
20 TAPE FILES WRITTEN
        •
        •
 n TAPE FILES WRITTEN
 ODA TAPE WRITTEN
```

FIG. 1 — Sample Printout of ODA Backup Tape Write

WRITE 1B PROCESSOR OFFICE DATA ASSEMBLY (ODA) TAPE



WRITE 1B PROCESSOR OFFICE DATA ASSEMBLY (ODA) TAPE



WRITE 1B PROCESSOR TRUNK OUT-OF-SERVICE LIST (TOSL) TAPE

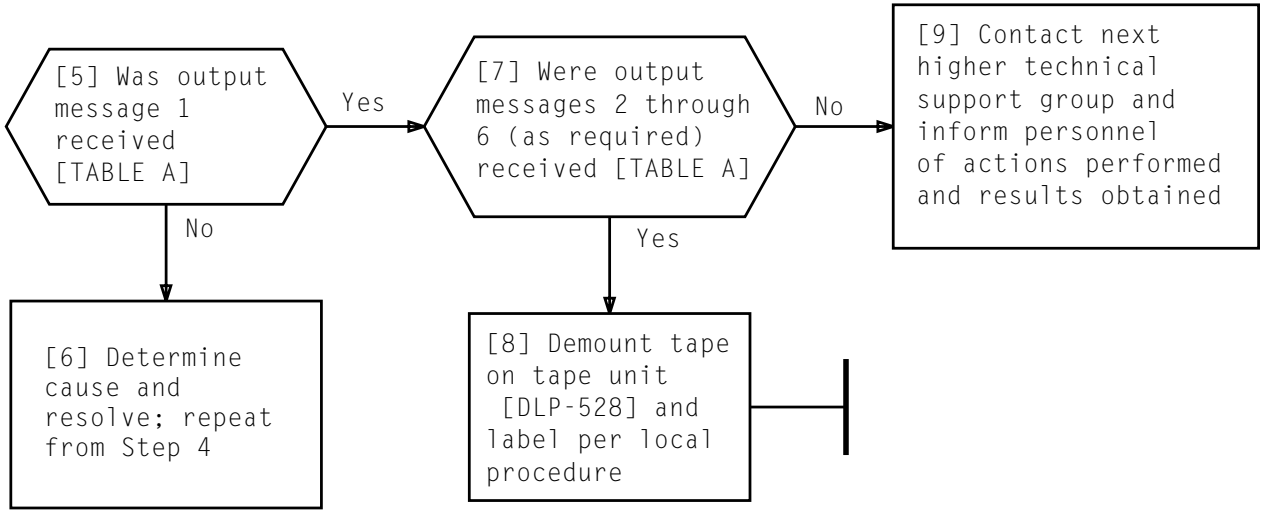


TABLE A

MESSAGE NUMBER	OUTPUT MESSAGES
1	APPTAPE TYPE:TOSL,WRITTEN mm/dd/yy hh:mm
2	APPTAPE ADDRESS RANGE aaaaaaaa – bbbbbbbb STARTED, FILE
3	APPTAPE ADDRESS RANGE aaaaaaaa – bbbbbbbb COMPLETED
4*	APPTAPE ADDRESS RANGE cccccccc – dddddddd STARTED, FILE
5*	APPTAPE ADDRESS RANGE cccccccc – dddddddd COMPLETED
6	APPTAPE COMPLETED

* Only receive if office has Mass Status Table (MST)
aaaaaaaa = Starting TOSL address
bbbbbbbb = Ending TOSL address
cccccccc = Starting MST address
dddddddd = Ending MST address
mm/dd/yy hh:mm = Month/day/year hour:minute tape was written

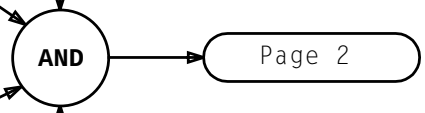
WRITE 1B PROCESSOR TRUNK OUT-OF-SERVICE LIST (TOSL) TAPE

[1] Select available
APS tape unit

[2] If tape is mounted on
selected tape unit,
demount tape [DLP-528]

[3] Mount blank or erasable tape write
enable ring installed (1600 BPI) or protect
tab in up (unlocked) position (4mm)
on tape unit [DLP-527]

[4] See NOTE 1. At APS MCRT terminal, enter
COPY:APPTAPE:LTS,MT a!
a = Tape unit member number
or DAT unitmember (0 or 1)



NOTE 1
Writing of LTS tape must be initiated during 7-minute window beginning 4 minutes past any quarter hour. If **COPY** message is not entered during this window, a repeat later (RL) response will be received

WRITE 1B PROCESSOR LONG-TERM STORAGE (LTS) TAPE

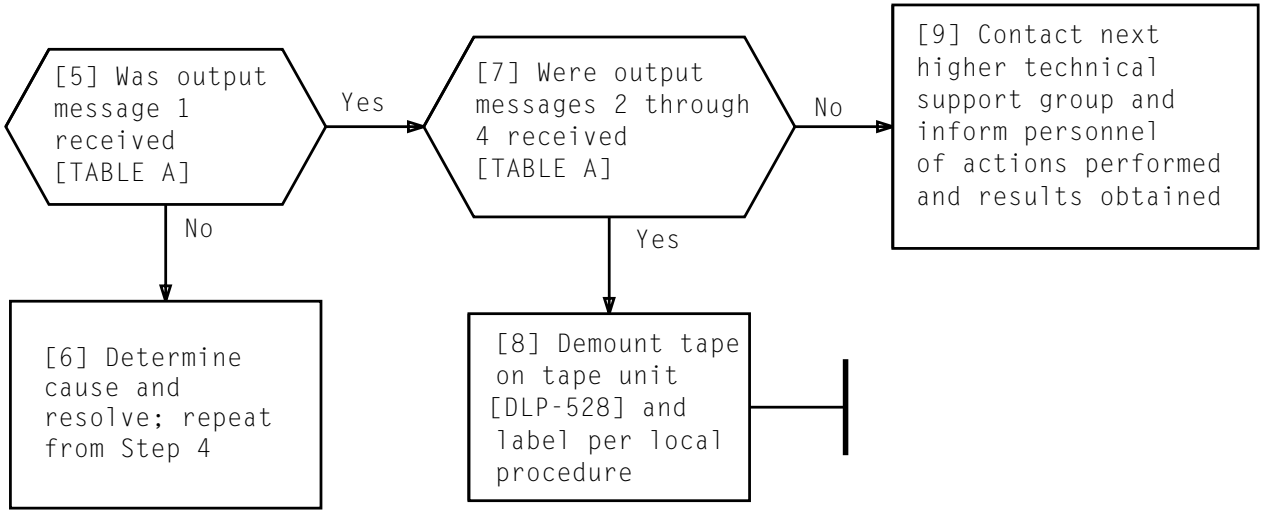
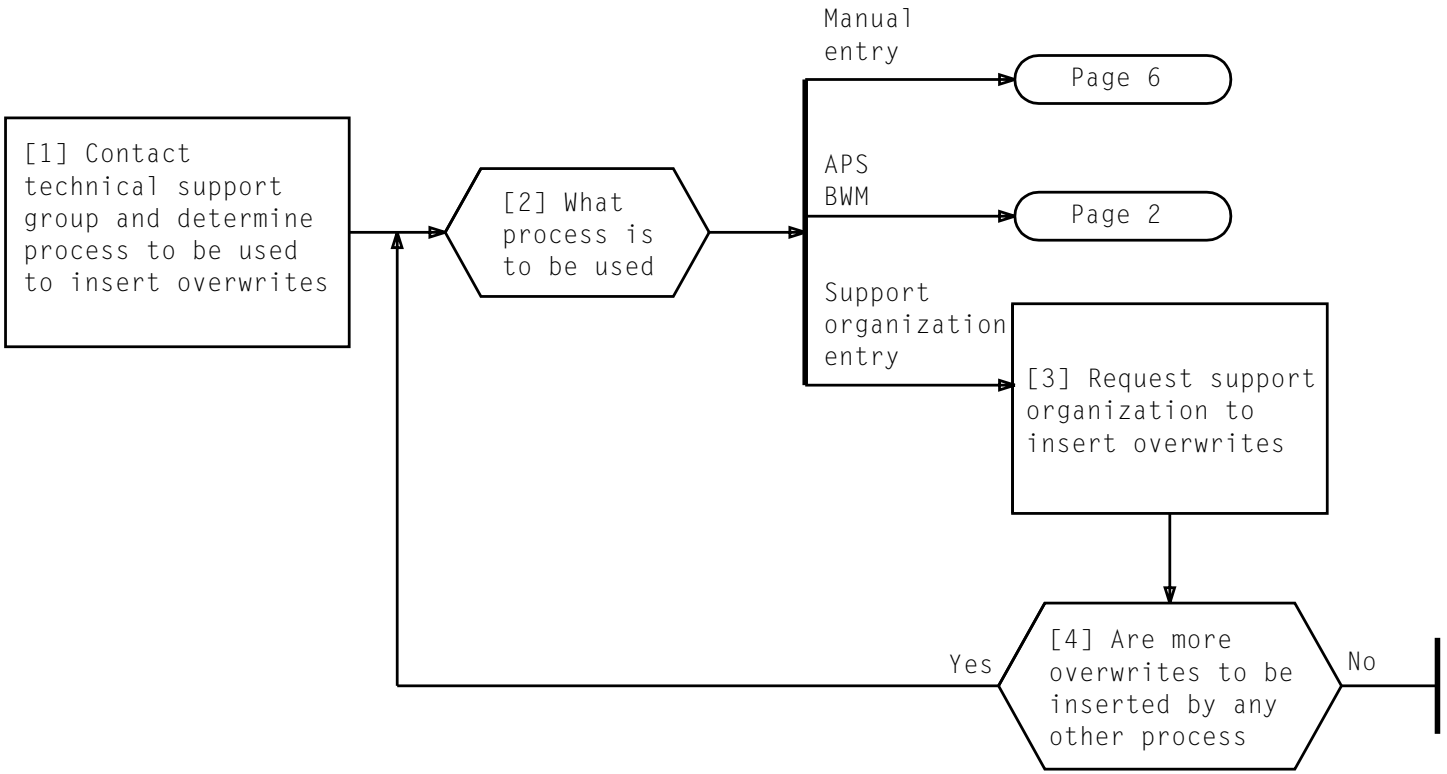


TABLE A

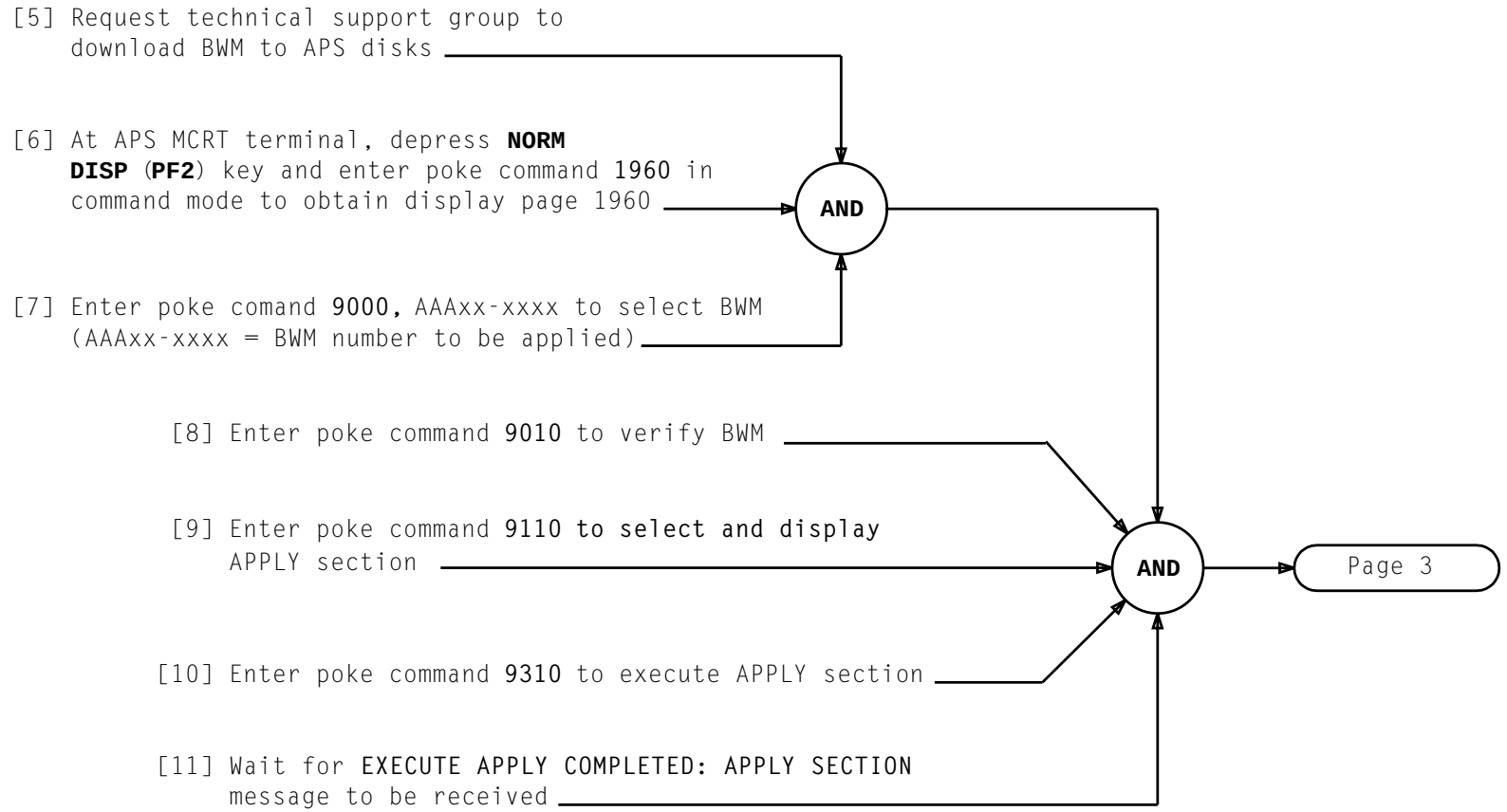
MESSAGE NUMBER	OUTPUT MESSAGES
1	APPTAPE TYPE:LTS,WRITTEN mm/dd/yy hh:mm
2	APPTAPE ADDRESS RANGE aaaaaaaa – bbbbbbbb STARTED, FILE
3	APPTAPE ADDRESS RANGE aaaaaaaa – bbbbbbbb COMPLETED
4	APPTAPE COMPLTED

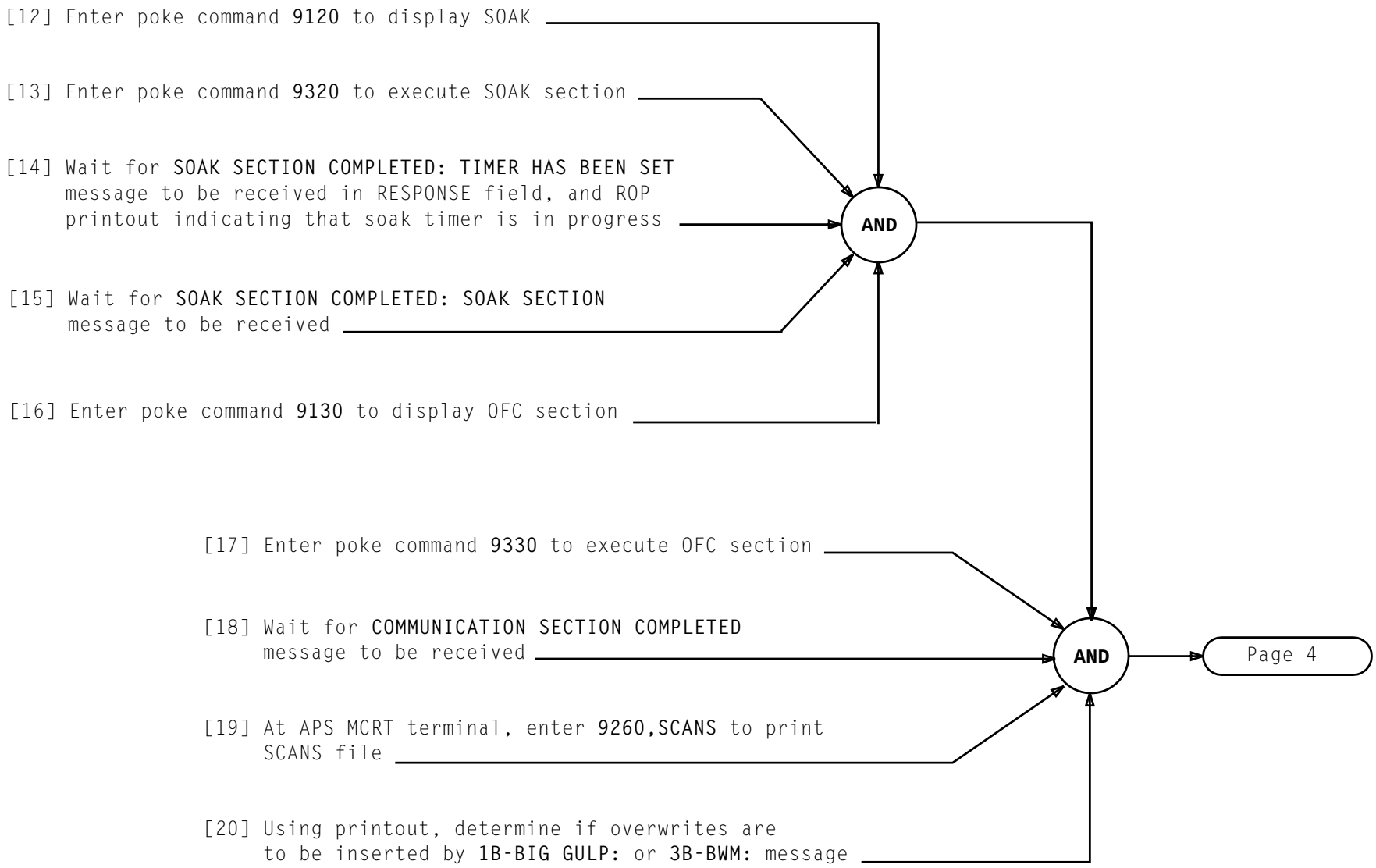
mm/dd/yy hh:mm = Month/day/year hour:minute tape was written
aaaaaaaa = Starting LTS address through
bbbbbbbb = Ending LTS address written

WRITE 1B PROCESSOR LONG-TERM STORAGE (LTS) TAPE

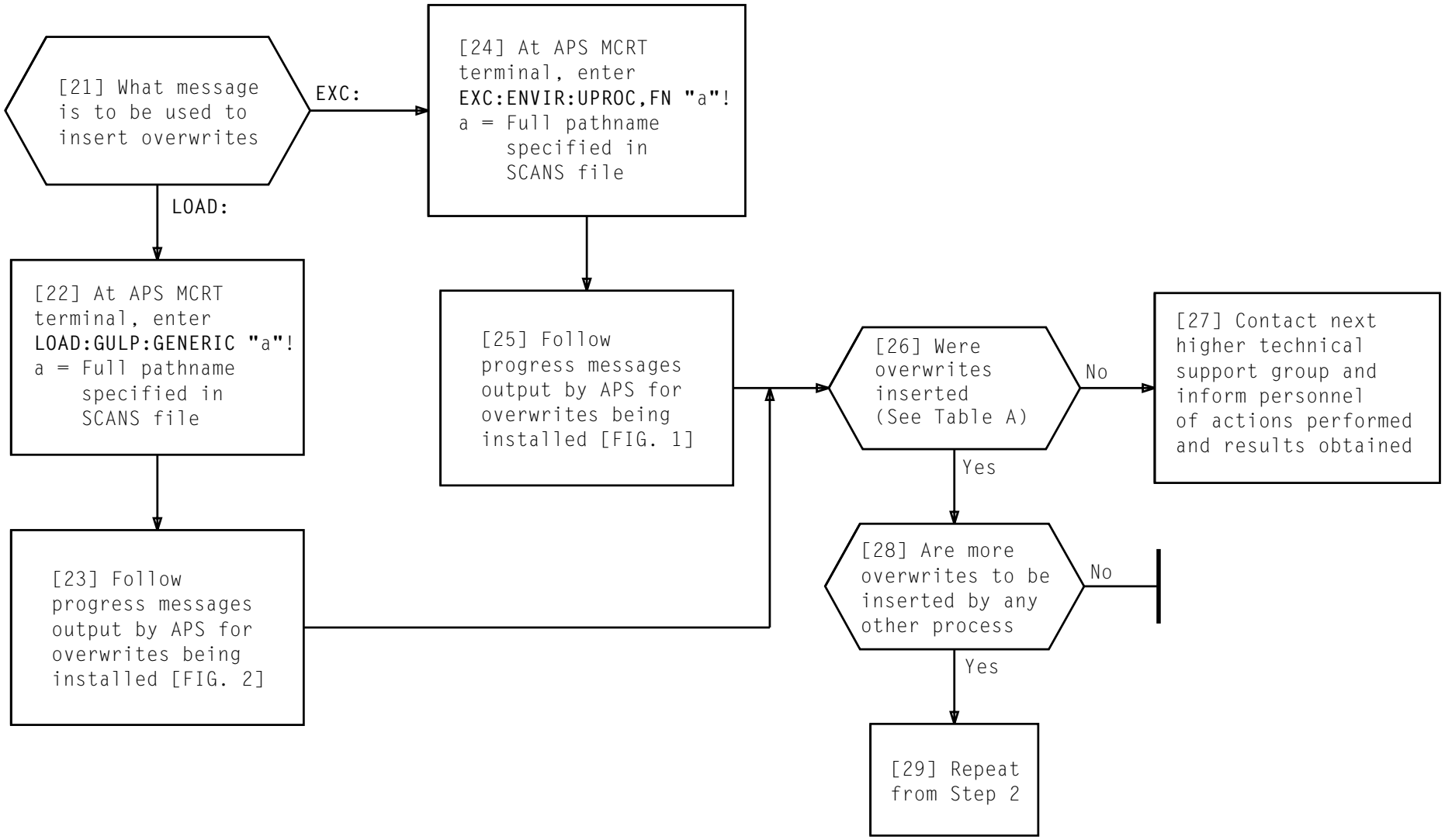


INSERT CRITICAL 1B PROCESSOR GENERIC OVERWRITES INTO UPDATE FILE


[5] Request technical support group to download BWM to APS disks
[6] At APS MCRT terminal, depress **NORM DISP** (**PF2**) key and enter poke command 1960 in command mode to obtain display page 1960
AND
[7] Enter poke comand 9000, AAAxx-xxxx to select BWM (AAAxx-xxxx = BWM number to be applied)
[8] Enter poke command 9010 to verify BWM
[9] Enter poke command 9110 to select and display APPLY section
AND
Page 3
[10] Enter poke command 9310 to execute APPLY section
[11] Wait for EXECUTE APPLY COMPLETED: APPLY SECTION message to be received



INSERT CRITICAL 1B PROCESSOR GENERIC OVERWRITES INTO UPDATE FILE



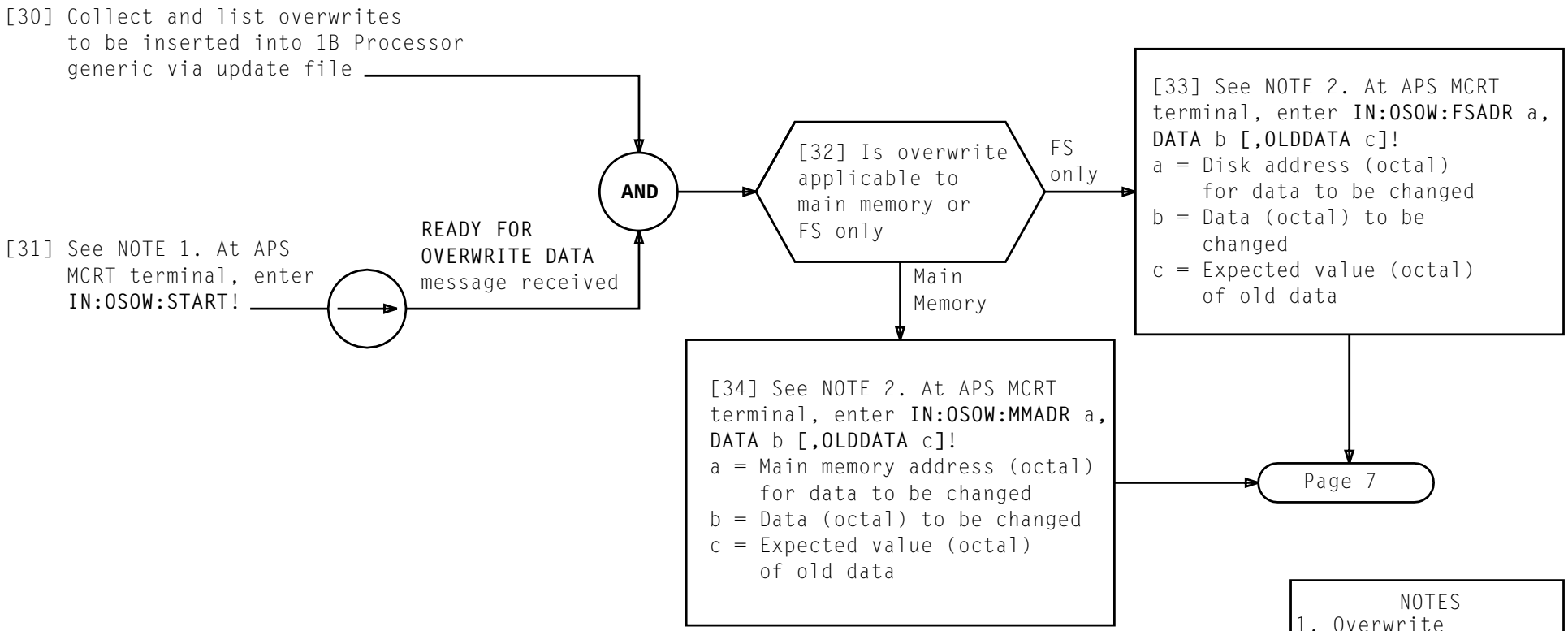
INSERT CRITICAL 1B PROCESSOR GENERIC OVERWRITES INTO UPDATE FILE

```
IN:OSOW:START!
READY FOR OVERWRITE DATA
IN:OSOW:a b,DATA c!
IN:OSBUF:COMPLETED
MM ADR    FS ADR  ID  OLD DATA  NEW DATA
vvvvvvvv wwwwwwww xx  yyyyyyyy  zzzzzzzz
READY FOR OVERWRITE DATA
                  •
                  •
                  •
IN:OSOW:UPD[,HASHSUM d]!
EXC ENV UPROC COMPLETED
OVERWRITE DATA WRITTEN TO UPDATE FILE
```

FIG. 1 — Sample Printout of Progress Messages for Overwrites Inputted Via EXC Command

```
BUILDING OW BUFFER — OW BLOCK 1
BUILDING OW BUFFER — OW BLOCK 2
                  •
                  •
                  •
DATABASE UPDATED WITH OVERWRITES
```

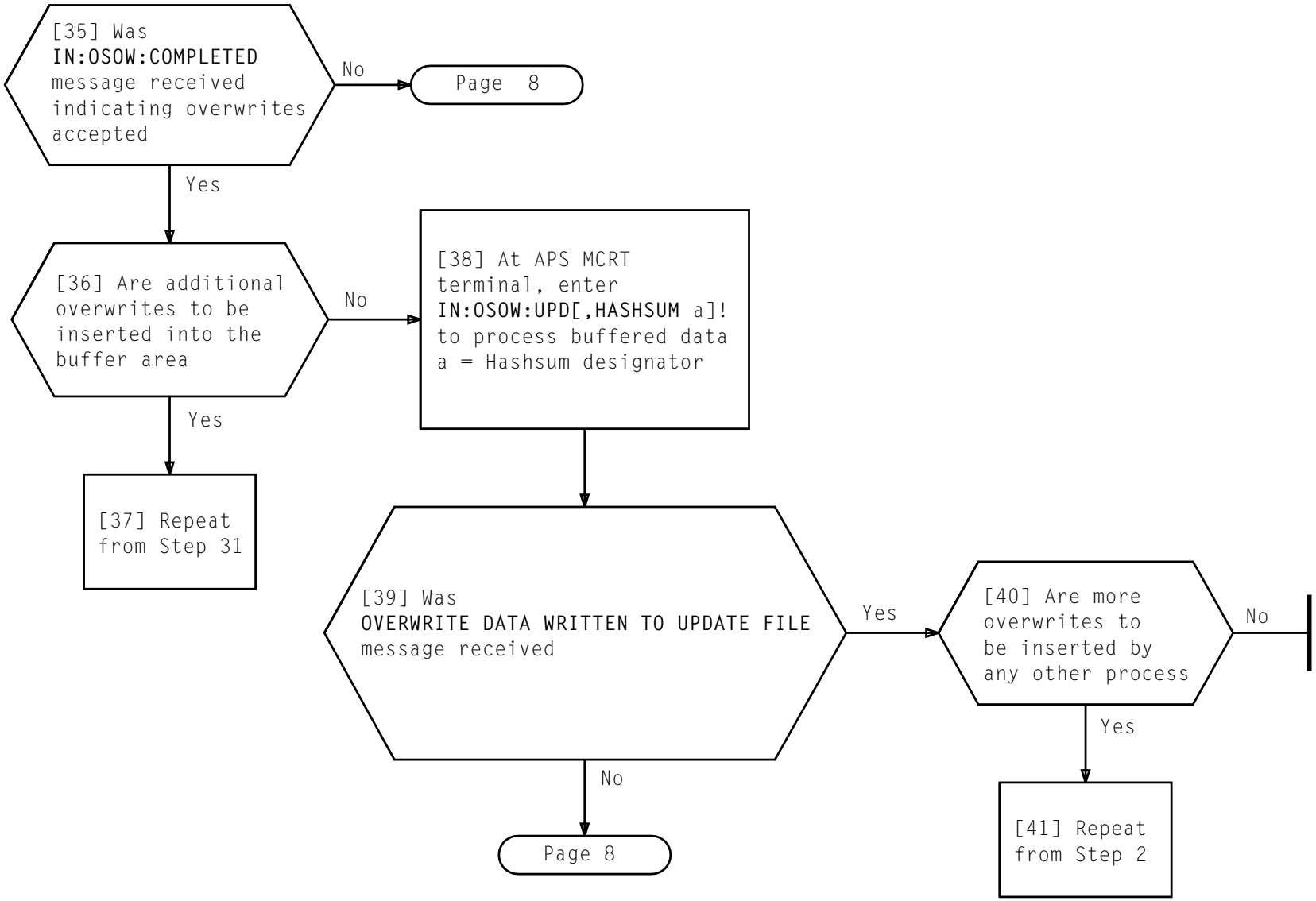
FIG. 2 — Sample Printout of Progress Messages for Overwrites Inputted Via LOAD Command



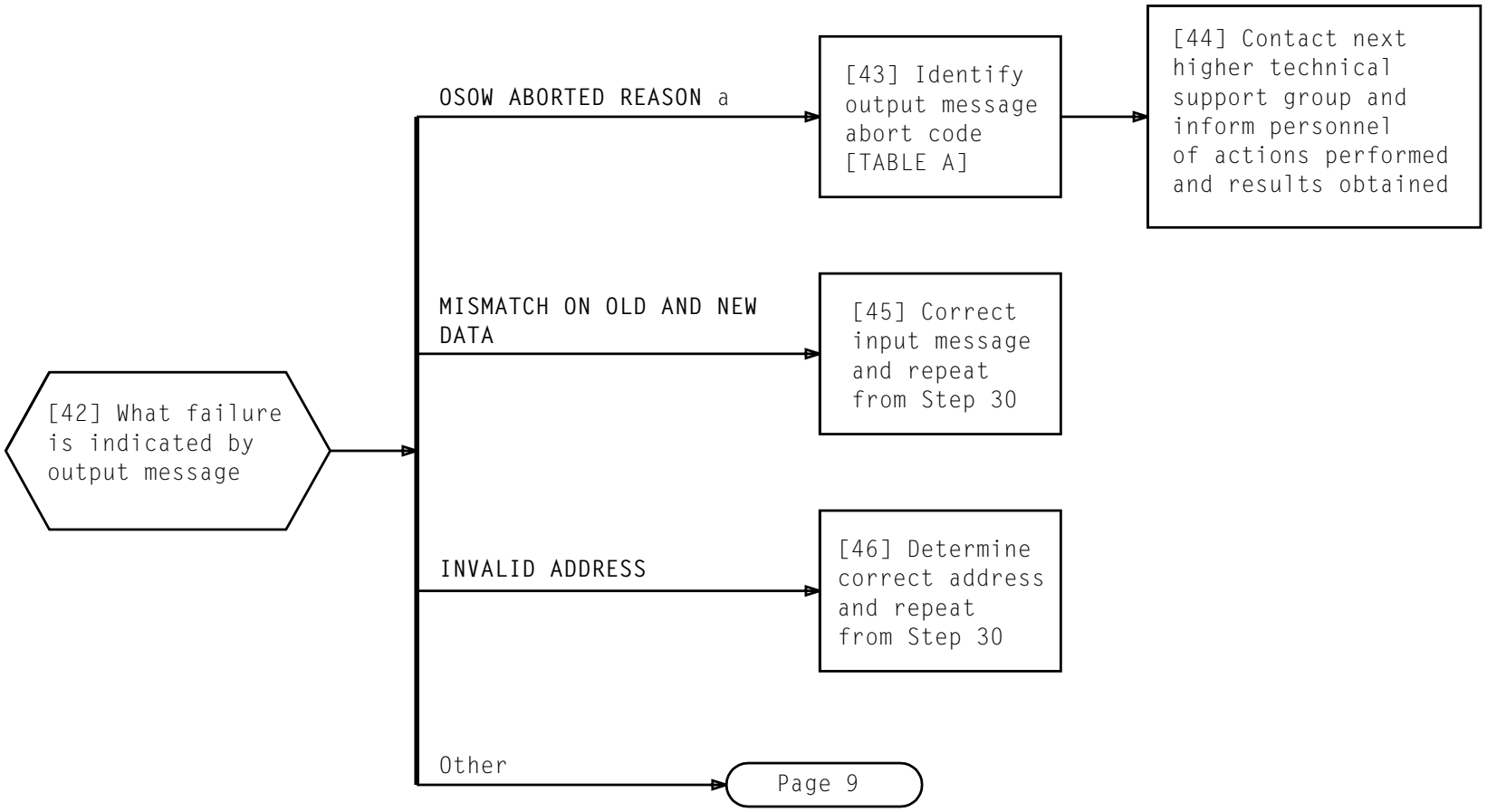
NOTES

1. Overwrite process will time out after 20 minutes of inactivity
2. OLDDATA is not required to be inputted, but if information is available, it should be entered to ensure that correct data is being changed

INSERT CRITICAL 1B PROCESSOR GENERIC OVERWRITES INTO UPDATE FILE



INSERT CRITICAL 1B PROCESSOR GENERIC OVERWRITES INTO UPDATE FILE


[42] What failure is indicated by output message
OSOW ABORTED REASON a
[43] Identify output message abort code [TABLE A]
[44] Contact next higher technical support group and inform personnel of actions performed and results obtained
MISMATCH ON OLD AND NEW DATA
[45] Correct input message and repeat from Step 30
INVALID ADDRESS
[46] Determine correct address and repeat from Step 30
Other
Page 9

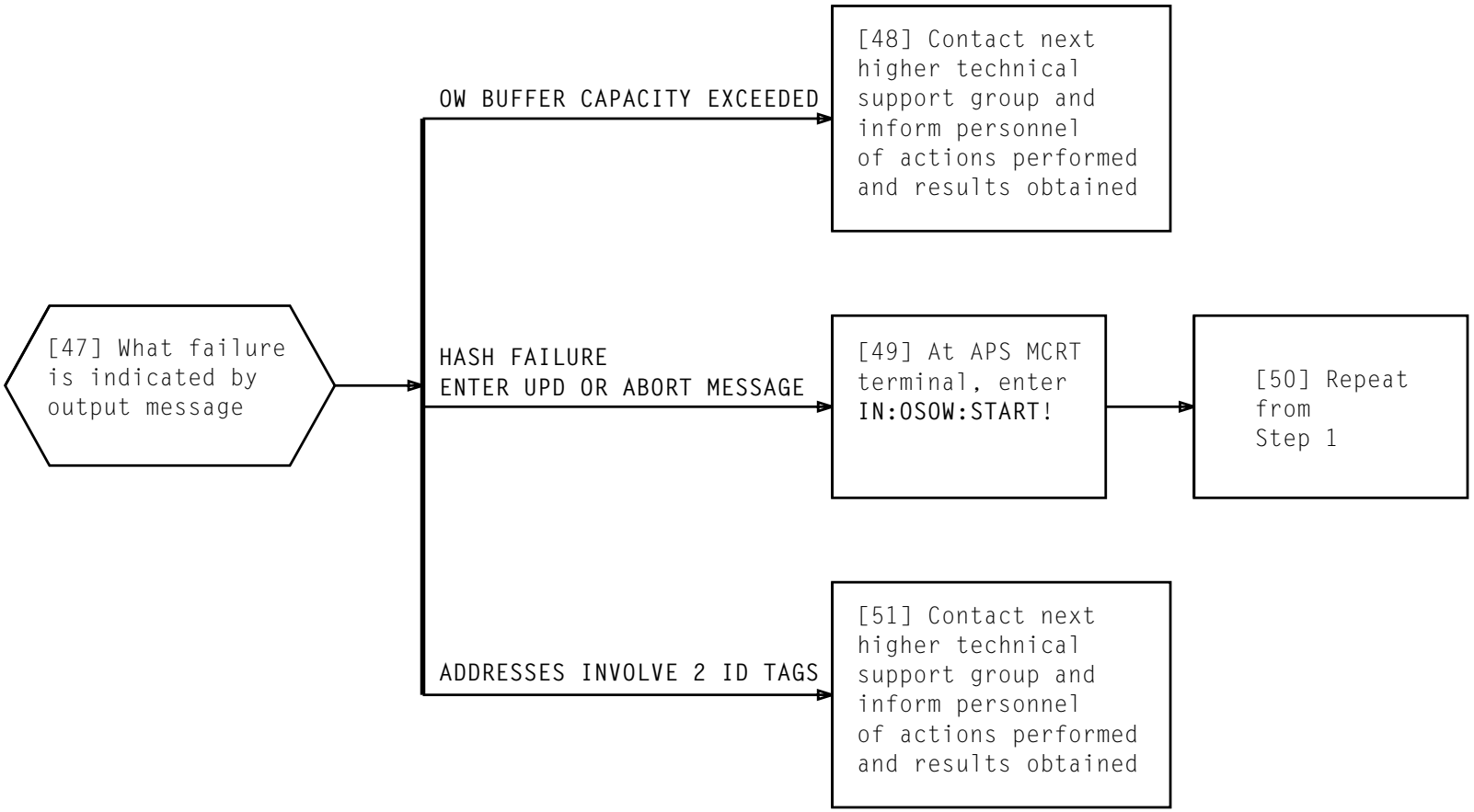
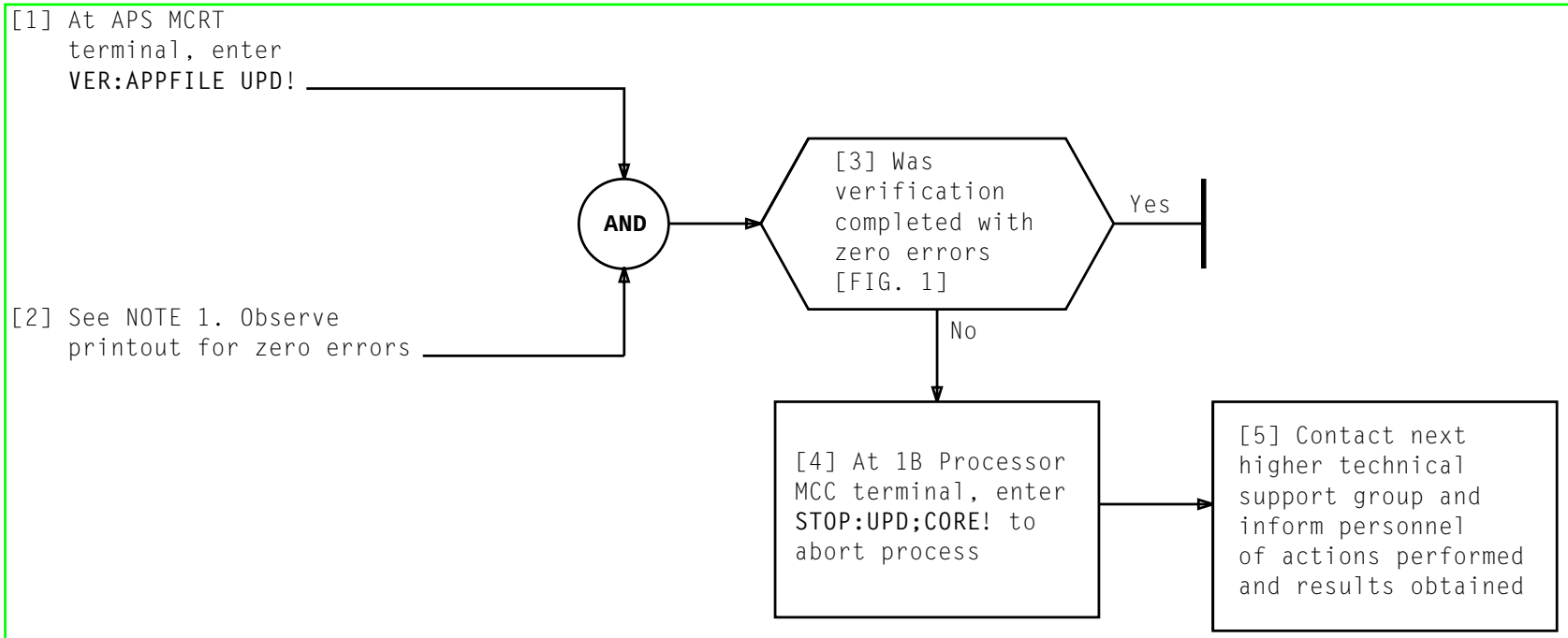

[47] What failure is indicated by output message
OW BUFFER CAPACITY EXCEEDED
[48] Contact next higher technical support group and inform personnel of actions performed and results obtained
HASH FAILURE
ENTER UPD OR ABORT MESSAGE
[49] At APS MCRT terminal, enter IN:OSOW:START!
[50] Repeat from Step 1
ADDRESSES INVOLVE 2 ID TAGS
[51] Contact next higher technical support group and inform personnel of actions performed and results obtained

TABLE A
SYSTEM ERROR CODES

ERROR CODE	EXPLANATION
100	Failure on access of 1ASTAT file
101	UPDATE file is in update mode
102	Cannot allocate main memory for buffers
103	Cannot open UPDATE for reading
104	Invalid ID2FS
105	Cannot open overwrite file
106	Cannot translate valid MM address to FS address
107	Out-of-range MM address for translation to FS address
108	Failure on seek of 1AFILE
109	Failure on read of 1AFILE
10a	Pointer outside hash sum area
10b	Failure on write of 1AFILE
10c	Cannot translate MM address
10d	FS address not generic, ODA, or merge
10e	Cannot read overwrite file
10f	Invalid ID in overwrite file
110	Invalid word count in overwrite file
111	Invalid hashsum
112	Cannot position overwrite file
113	Invalid FS-only address
114	Invalid MM address
115	OW Buffer capacity exceeded
116	Address in OW buffer duplicated

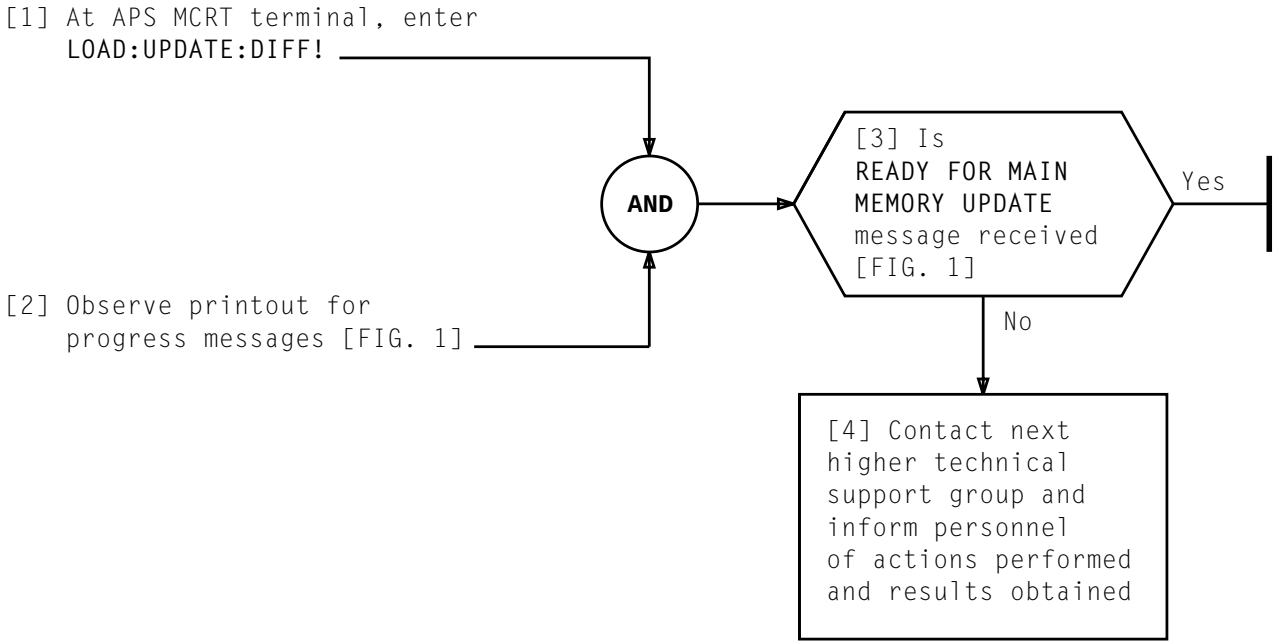



```
VER:APPFILE STARTED, /dev/lafileX (X = 0 or 1)
VER:APPFILE /dev/lafileX MERGE AREA, MSG IP, 0 ERRORS DETECTED
VER:APPFILE /dev/lafileX ID 1, MSG IP, 0 ERRORS DETECTED (Generic Area)
VER:APPFILE /dev/lafileX ID 2, MSG IP, 0 ERRORS DETECTED (Library Area)
VER:APPFILE /dev/lafileX ID 3, MSG IP, 0 ERRORS DETECTED (ODA Area)
VER:APPFILE /dev/lafileX ID 7, MSG IP, 0 ERRORS DETECTED (Network Management Area)
VER:APPFILE /dev/lafileX ID 11, MSG IP, 0 ERRORS DETECTED (RC Rollback Area)
VER:APPFILE /dev/lafileX ID 12, MSG IP, 0 ERRORS DETECTED (Traffic and Plant Management Area)
VER:APPFILE /dev/lafileX ID 17, MSG IP, 0 ERRORS DETECTED (Paged Program Area)
VER:APPFILE /dev/lafileX COMPLETED, 0 ERRORS DETECTED
```

FIG. 1 – Sample Printout of Verification Output Messages Indicating Zero Errors

NOTE 1
It takes approximately 30 minutes for verification to complete

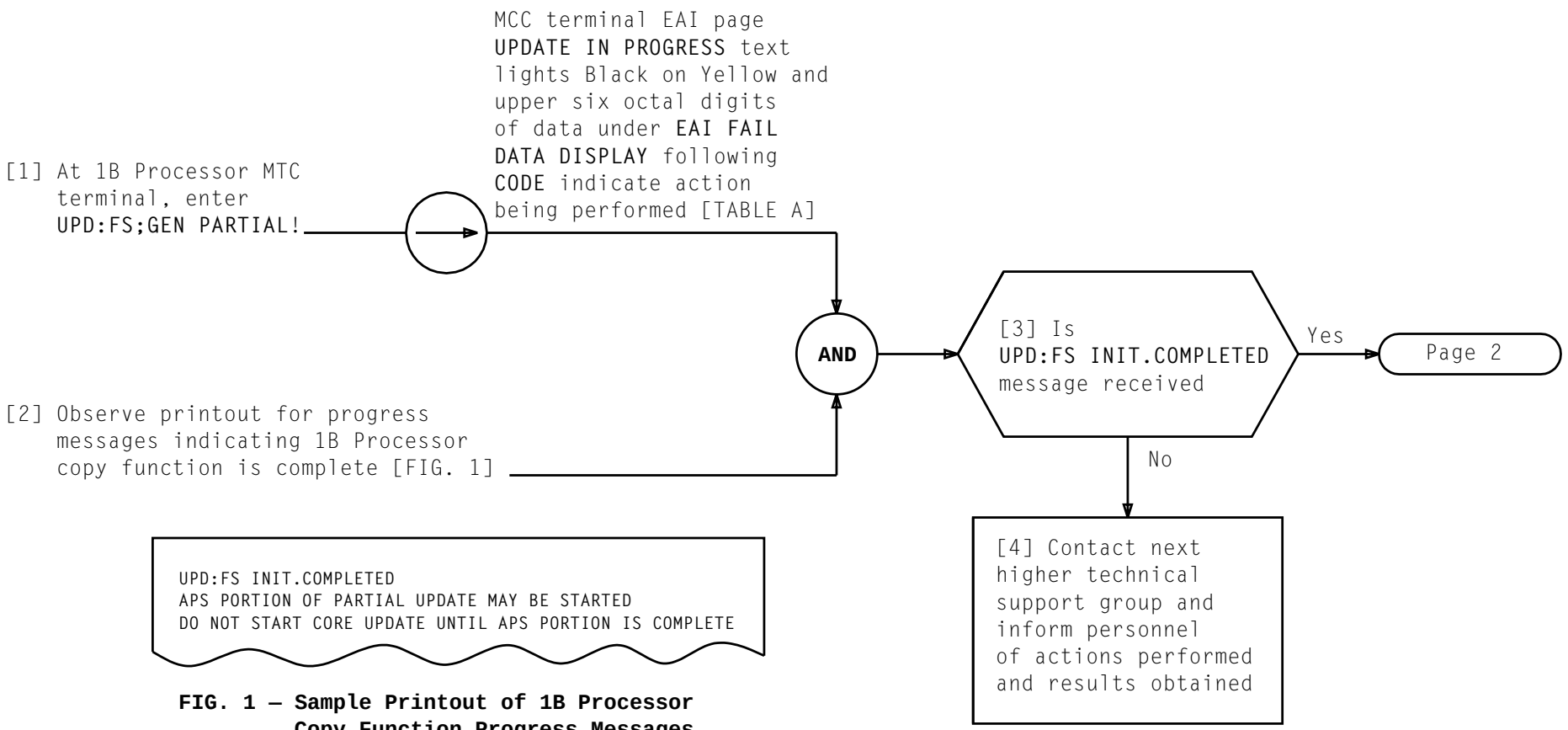
VERIFY ATTACHED PROCESSOR SYSTEM (APS) 1B FILE HASHED AREAS




```
DETERMINING DIFFERENCES FOR ADDRESS 0
DETERMINING DIFFERENCES FOR ADDRESS 2000000
DETERMINING DIFFERENCES FOR ADDRESS 4000000
                    .
                    .
                    .
DETERMINING DIFFERENCES FOR ADDRESS xxxxxxxx
DETERMINING HASH DIFFERENCES
READY FOR MAIN MEMORY UPDATE
```

FIG. 1 – Sample Printout of Progress Messages

DETERMINE 1B PROCESSOR MAIN-MEMORY GENERIC DIFFERENCES BETWEEN THE NORMAL AND UPDATE FILE



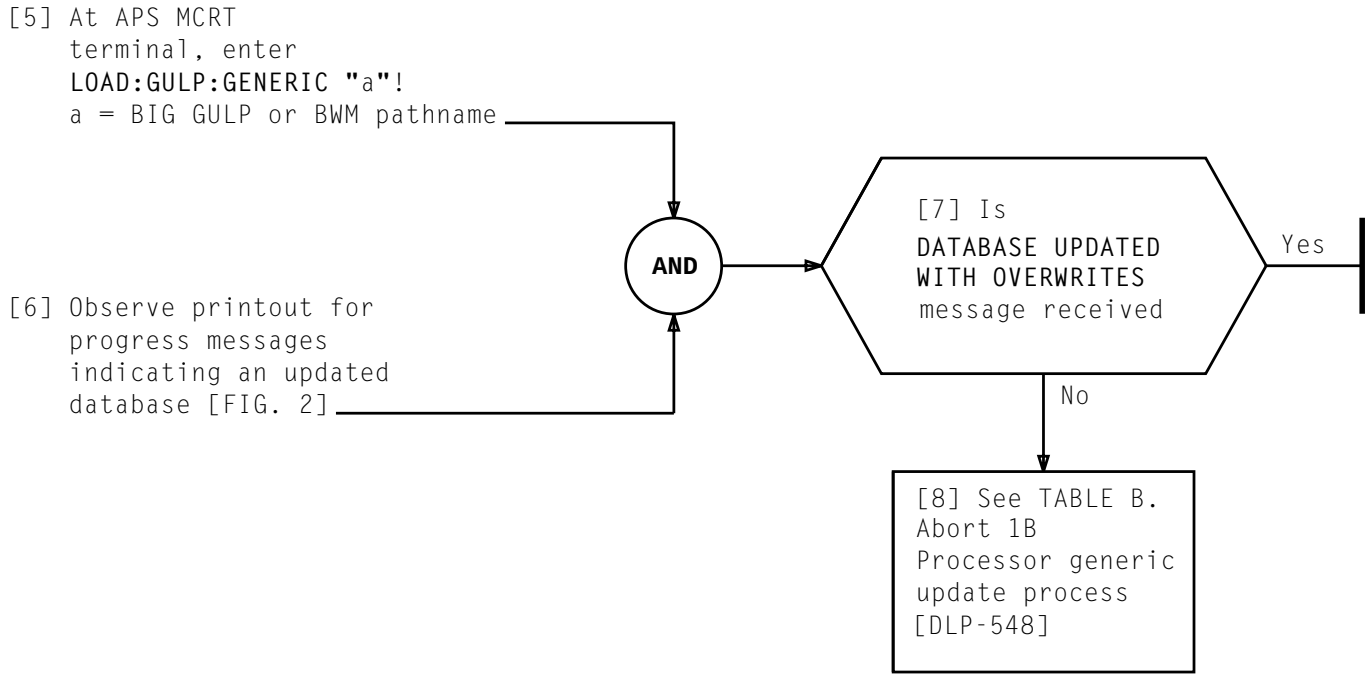

```
UPD:FS INIT.COMPLETED
APS PORTION OF PARTIAL UPDATE MAY BE STARTED
DO NOT START CORE UPDATE UNTIL APS PORTION IS COMPLETE
```

FIG. 1 – Sample Printout of 1B Processor Copy Function Progress Messages

TABLE A
MCC EAI FAIL DATA DISPLAY CODES

UPPER SIX DIGITS	EXPLANATION
000122	Copy in progress
000170	Copy complete

LOAD 1B PROCESSOR GENERIC BIG GULP UPDATE DATA ON DISK



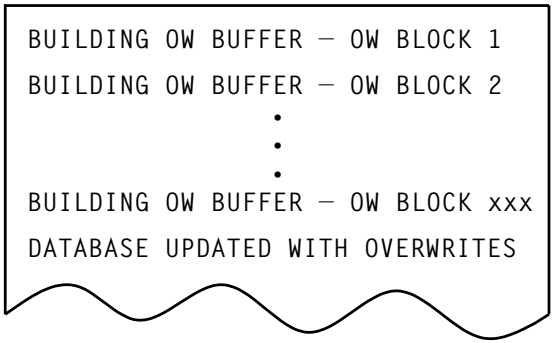


FIG. 2 — Sample Printout of 3B Computer Load Function Progress Messages

LOAD 1B PROCESSOR GENERIC BIG GULP UPDATE DATA ON DISK

TABLE B SYSTEM ERROR CODES	
ERROR CODE	**EXPLANATION**
100	Failure on access of 1ASTAT file
101	UPDATE file is in update mode
102	Cannot allocate main memory for buffers
103	Cannot open UPDATE for reading
104	Invalid ID2FS
105	Cannot open overwrite file
106	Cannot translate valid MM address to FS address
107	Out-of-range MM address for translation to FS address
108	Failure on seek of 1AFILE
109	Failure on read of 1AFILE
10a	Pointer outside hash sum area
10b	Failure on write of 1AFILE
10c	Cannot translate MM address
10d	FS address not generic, ODA, or merge
10e	Cannot read overwrite file
10f	Invalid ID in overwrite file
110	Invalid word count in overwrite file
111	Invalid hashsum
112	Cannot position overwrite file
113	Invalid FS-only address
114	Invalid MM address
115	OW Buffer capacity exceeded
116	Address in OW buffer duplicated

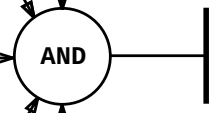
[1] At 1B Processor MTC terminal, enter
STOP:UPD;CORE!

[2] On 1B Processor MTC terminal EAI Page, enter
Poke Command **61** (**NORM FILE!**)

[3] At 1B Processor MTC terminal, enter Poke
Command **108** to Obtain SYSTEM STATUS Page

[4] At 1B Processor MTC terminal, SYSTEM STATUS
Page, Enter Poke Command **801** (Restrict RC)

[5] At APS MCRT terminal, enter **COPY:APPFILE NORM!**
To put update 1Afile back in order



ABORT 1B PROCESSOR GENERIC UPDATE PROCESS

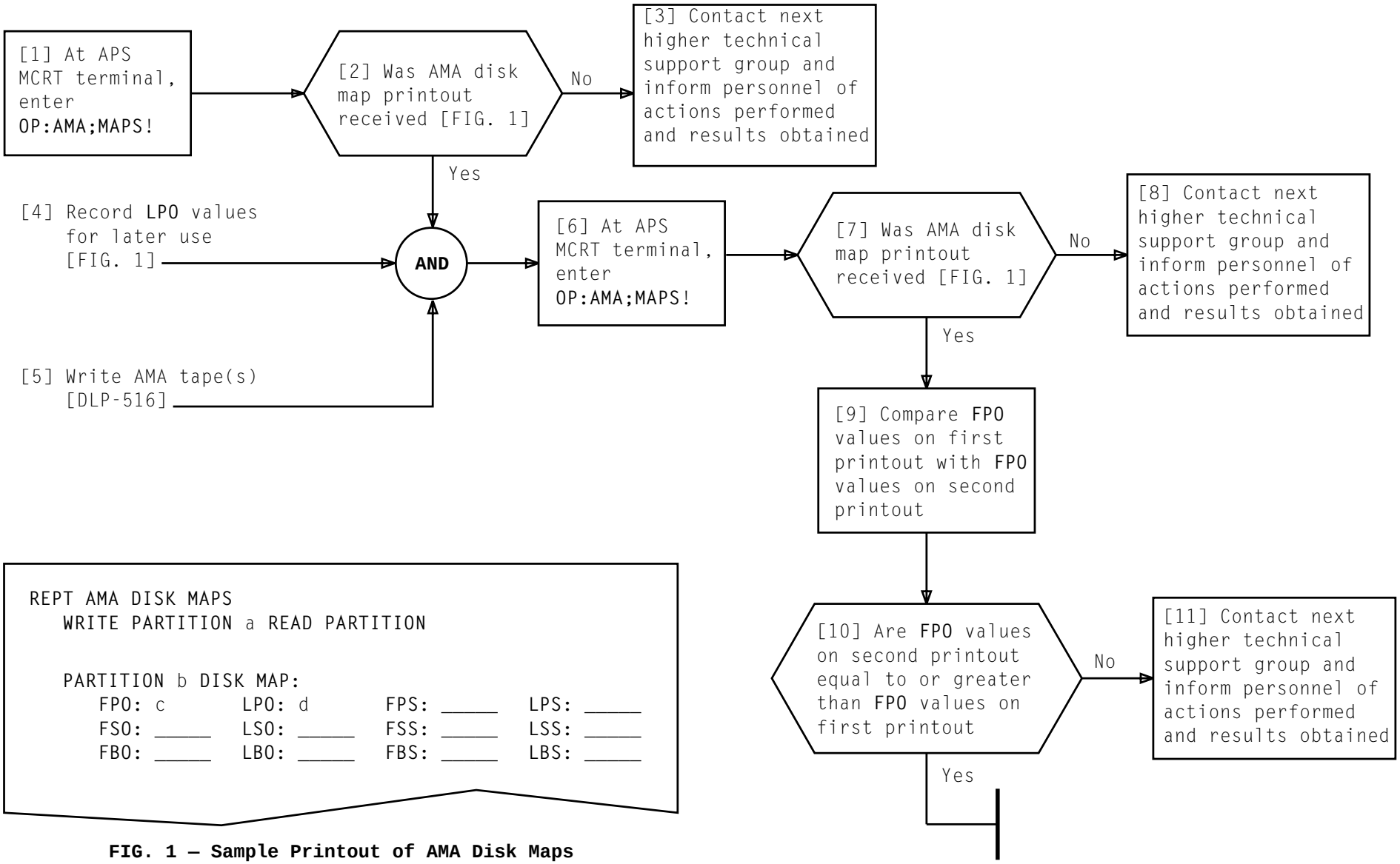
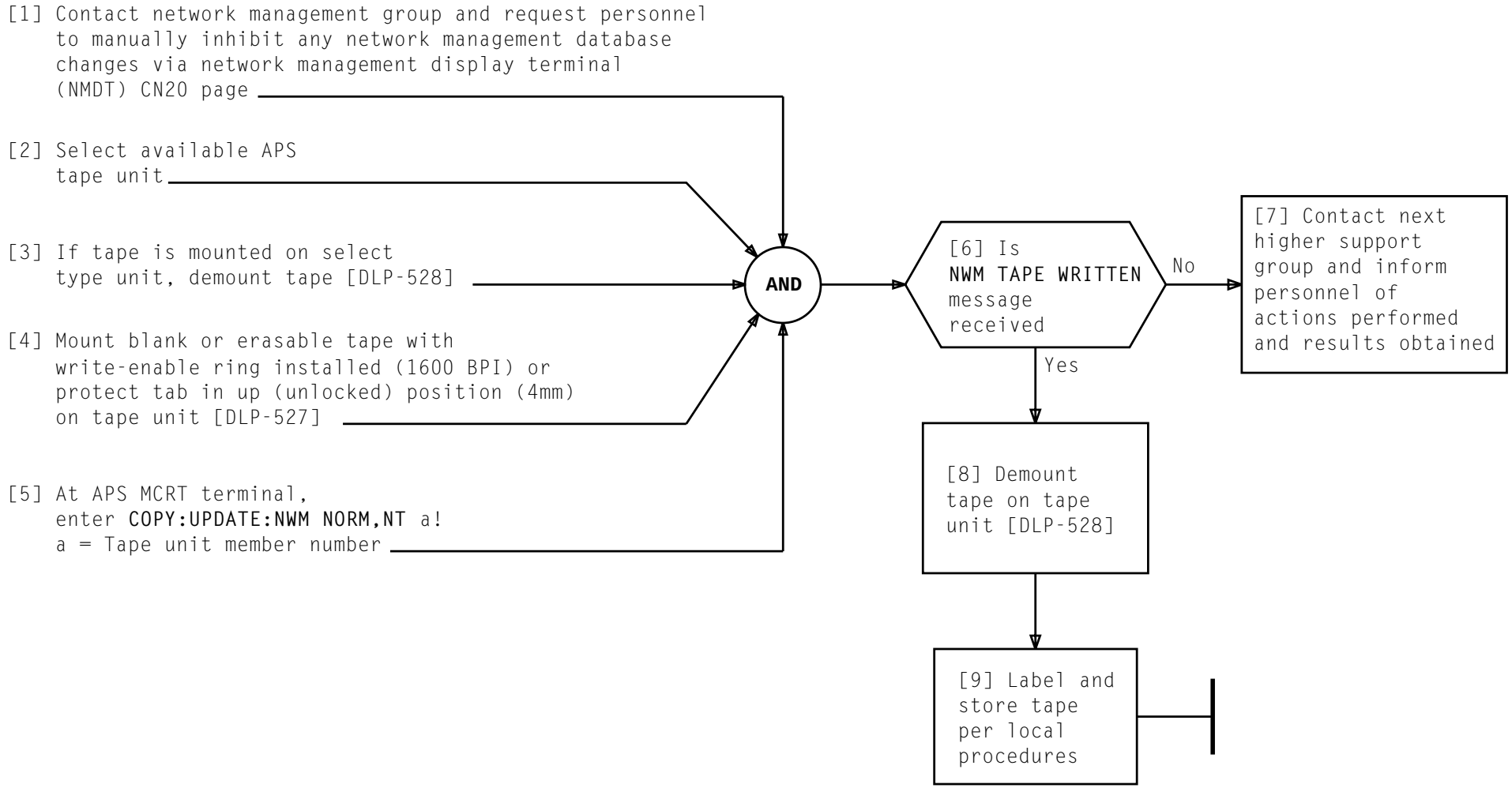


FIG. 1 — Sample Printout of AMA Disk Maps

SAVE ATTACHED PROCESSOR SYSTEM (APS) PRIMARY AMA DATA ON TAPE



WRITE 1B PROCESSOR NETWORK MANAGEMENT (NWM) TAPE

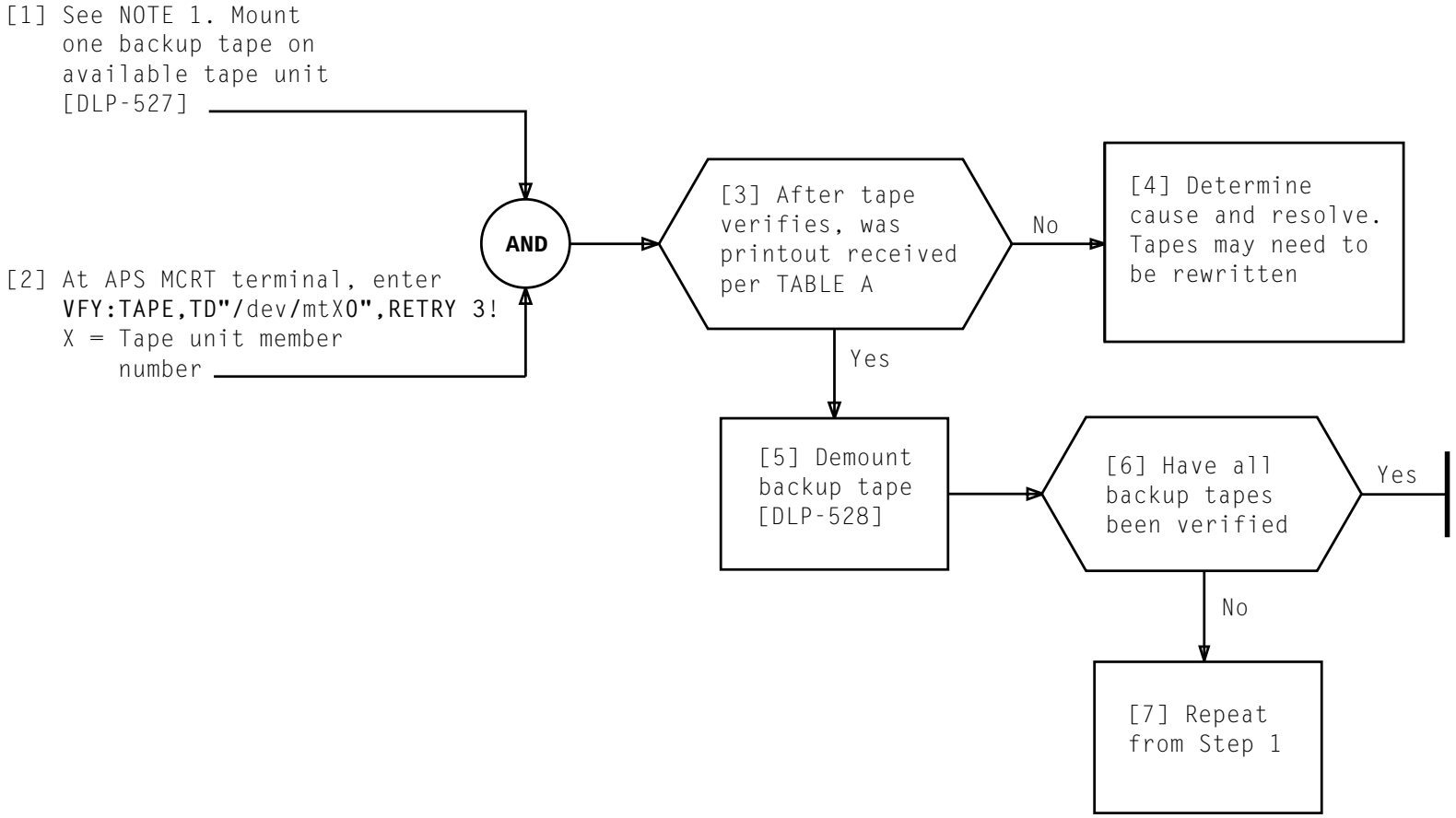


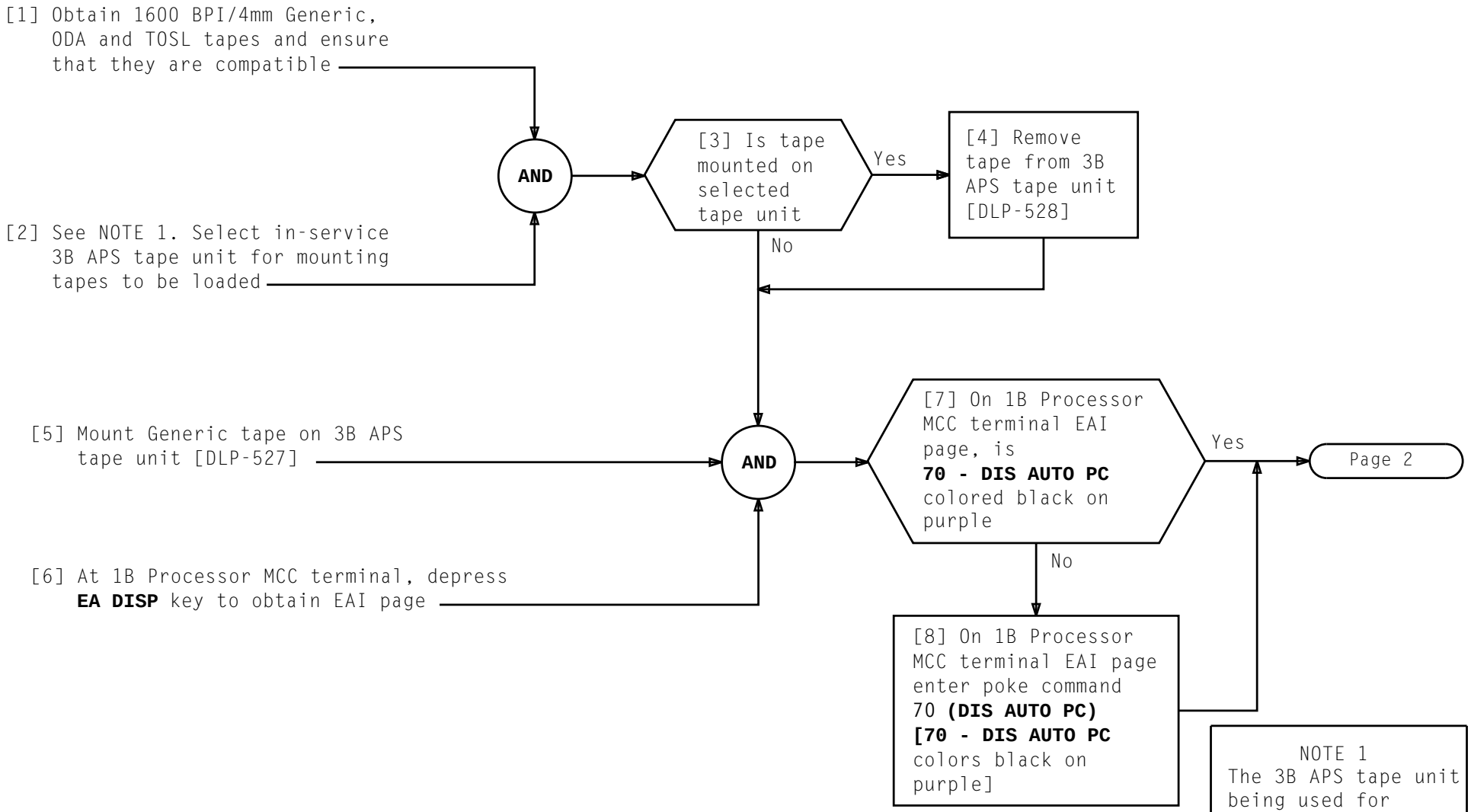
TABLE A

MESSAGE NUMBER	OUTPUT MESSAGE
1	VFY TAPE STARTED VFY TAPE COMPLETED RETRIES 0 HEADER MISMATCHES 0 DATA MISMATCHES 0

NOTE 1

Verify backup generic tapes from lowest to highest rt0 number; then backup db tape

VERIFY ATTACHED PROCESSOR SYSTEM (APS) BACKUP TAPES



NOTE 1
The 3B APS tape unit being used for processing Generic tape should be used for ODA and TOSL tapes, this ensures a known good unit

PERFORM 1AFILE RELOAD AND ATTEMPT 1B PROCESSOR RECOVERY ON NORMAL FILE

[9] At 3B APS MCRT terminal, enter message **VER:UPDATE:TAPE,MT a!**
a = tape unit member number with Generic tape mounted (0 or 1)

[10] Using Generic tape header printout [FIG. 1], is proper generic identification listed

No

[11] Repeat from Step 1, Page 1 using proper Generic tape

Yes

[12] At 3B APS MCRT terminal, enter message **LOAD:UPDATE:SR FILEb,MT a!**
a = Tape unit member number with Generic tape mounted (0 or 1)
b = See NOTE 2. File number (0 or 1)

[13] See CAUTION 1. Is **GENERIC COMPLETE — READY FOR ODA** message received [FIG. 2]

Yes

Page 3

No

[14] Repeat from Step 1, Page 1 using different tape unit

GENERIC IDENTIFICATION

```
TAPE TYPE: GEN
GENERIC 4E<xx>4R.23 R2
MOST RECENT OFL GENERATION: YR yy, MON 03, DAY 04 AT 11:28
THIS TAPE WRITTEN: YR yy, MON 03, DAY 04 AT 17:19
FS IDS: 0000000000000010, TAPE IDS: 0000000011111111
PARTL UPD FLG: 0 PHASE REQD: 0001000
```

FIG. 1

```
TAPE HEADER
        .
        .
        .
TAPE FILE 10 LOADED TO FS
TAPE FILE 20 LOADED TO FS
TAPE FILE 30 LOADED TO FS
        .
        .
        .
TAPE FILE n LOADED TO FS
GENERIC COMPLETE — READY FOR CDA
```

FIG. 2

CAUTION 1
When GENERIC COMPLETE — READY FOR ODA message is received, update program enters a 20-minute wait mode Input messages to process ODA tape must be entered within this time limit or the process will be terminated. If the process is terminated, all loads will have to be repeated.

NOTE 2
If there is no preference for which file tapes are to be loaded, use file 0

PERFORM 1AFILE RELOAD AND ATTEMPT 1B PROCESSOR RECOVERY ON NORMAL FILE

[15] Remove Generic tape from 3B APS tape unit [DLP-528]

[16] Mount the ODA tape on same 3B APS tape unit [DLP-527]

[17] At 3B APS MCRT terminal, enter message
VER:UPDATE:TAPE,MT a!
a = Tape unit member number with ODA tape mounted (0 or 1)

[18] Using ODA tape header printout and FIG. 3, identify and record BASE and CONTROL data

[19] At 3B APS MCRT terminal, enter message
LOAD:UPDATE:CONT "aaaabb",MT c!
a = BASE data (Step 18). Must be 4 characters long and letters in Caps. Spaces are used after BASE data if not 4 characters long
b = CONTROL data(Step 18). Must be 2 characters long and letters in Caps. Spaces are used after CONTROL data if not 2 characters long
c = Tape unit mumber number with ODA tape mounted (0 or 1)

AND

[20] Is DATABASE COMPLETE — READY FOR 1B SYSTEM REINITIALIZATION message received

Yes → Page 4

No

[21] Repeat from Step 15, using different tape unit

BASE AND CONTROL DATA (MUST BE IN CAPS)

```
TAPE TYPE: ODA
BASE 908F, CONTROL H6
GENERIC 4E<xx>.4R-23, 4019
MOST RECENT OFL GENERATION: YR yy, MON 03, DAY 05 AT 16:23
THIS TAPE WRITTEN: YR yy, MON 03, DAY 09 AT 08:23
FS IDS: 0000000000001000, TAPE IDS: 0000000011110100
PARTL UPD FLG: 0, PHASE REQD: 0001000
```

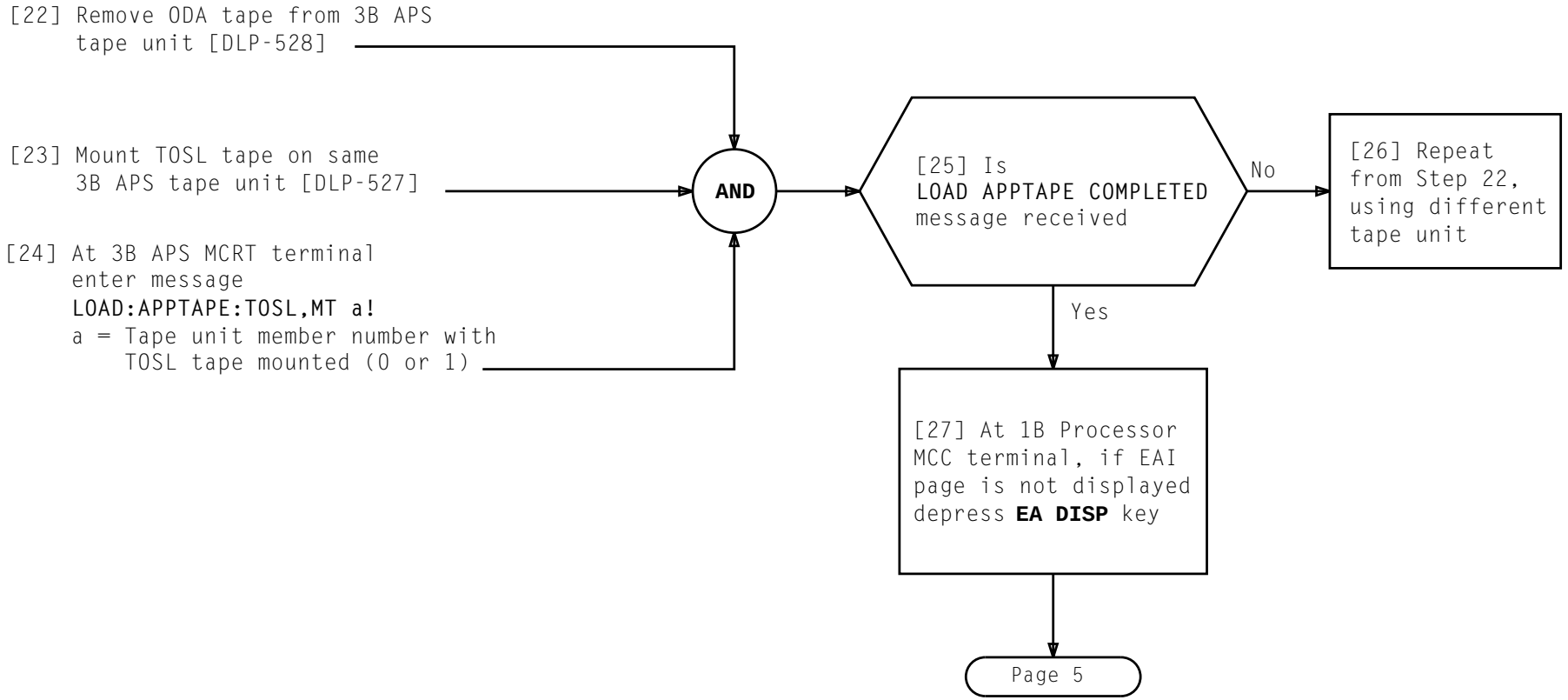
FIG. 3

```
TAPE HEADER
        .
        .
        .
TAPE FILE 10 LOADED TO FS
        .
TAPE FILE n LOADED TO FS
ODA COMPLETE
NWM SKIPPED
```

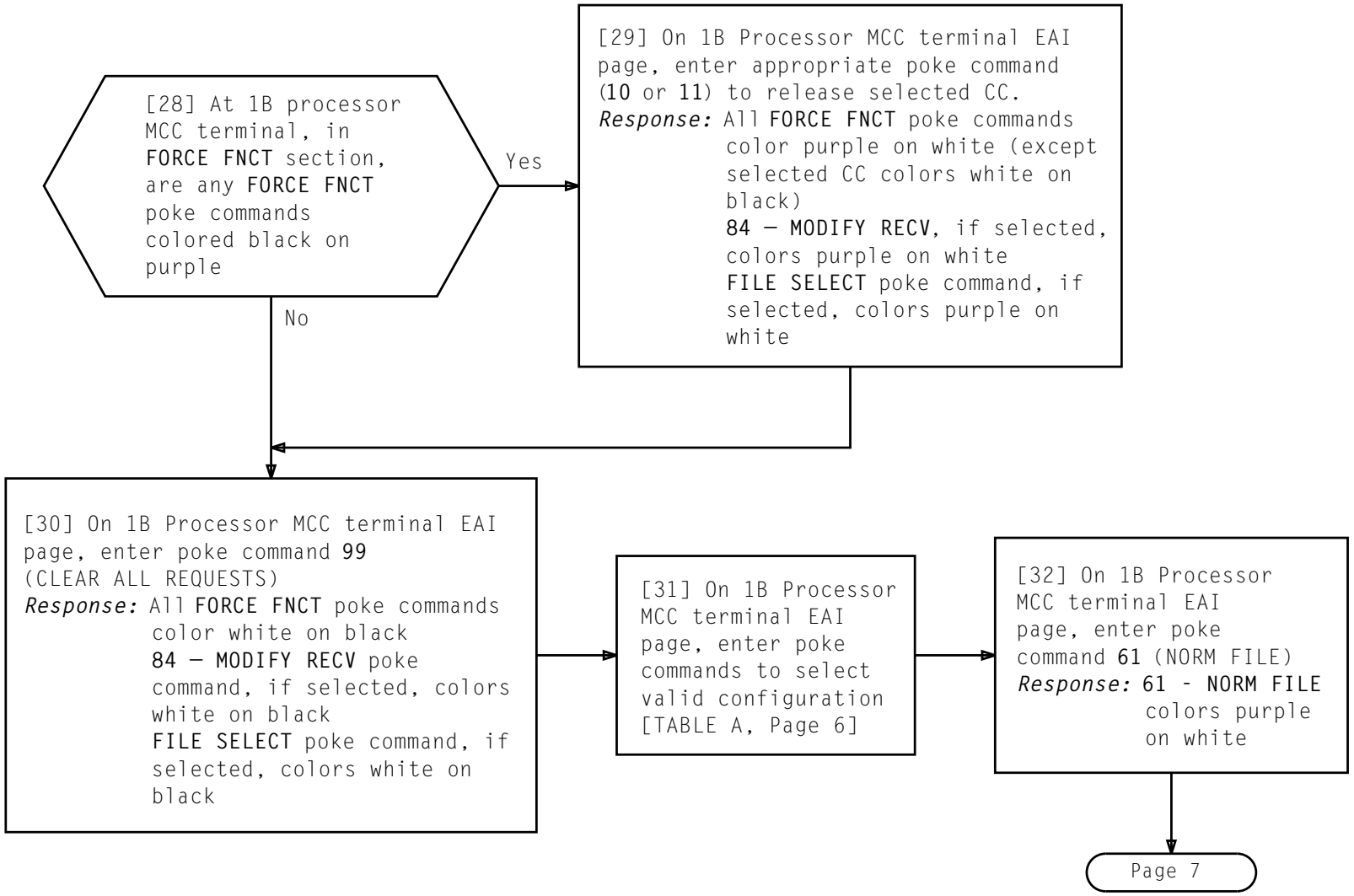
```
WRITE MERGE DATA AND ZERO FS AREAS
DATABASE COMPLETE - READY FOR 1B SYSTEM REINITIALIZATION
```

FIG. 4

PERFORM 1AFILE RELOAD AND ATTEMPT 1B PROCESSOR RECOVERY ON NORMAL FILE



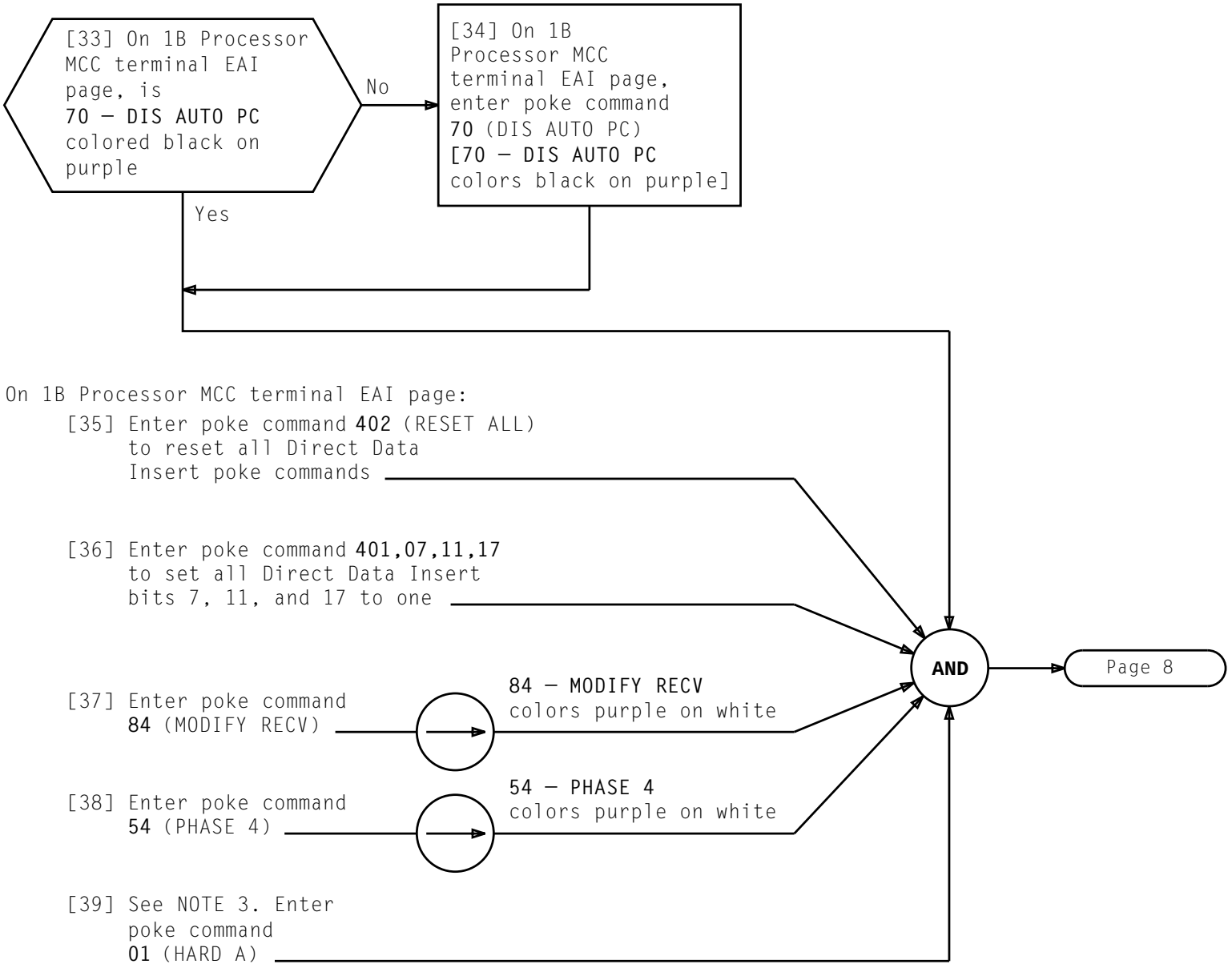
PERFORM 1AFILE RELOAD AND ATTEMPT 1B PROCESSOR RECOVERY ON NORMAL FILE



PERFORM 1AFILE RELOAD AND ATTEMPT 1B PROCESSOR RECOVERY ON NORMAL FILE

TABLE A
1B Processor Manual Configurations and Associated Poke Commands

Manual Config Sequence	Override Control Selections												
	PC State	CC0	CC1	PS0	PS1	PSB0	PSB1	CSB0	CSB1	IFB0	IFB1	AUB0	AUB1
1	40	**10**		**20**		**22**		**30**		**40**		**42**	
2	41		**11**		**21**		**23**		**31**		**41**		**43**
3	52		**11**	**20**			**23**	**30**			**41**	**42**	
4	53		**11**		**21**	**22**			**31**	**40**			**43**
5	66		**11**	**20**			**23**		**31**	**40**			**43**
6	50	**10**		**20**		**22**		**30**			**41**	**42**	
7	51	**10**			**21**		**23**		**31**	**40**			**43**
8	65	**10**			**21**	**22**		**30**			**41**	**42**	
9	67	**10**			**21**	**22**		**30**			**41**	**42**	
10	64		**11**	**20**		**22**			**31**	**40**			**43**
11	74		**11**	**20**		**22**			**31**		**41**		**43**
12	77		**11**		**21**	**22**		**30**		**40**		**42**	
13	76	**10**		**20**			**23**		**31**		**41**		**43**
14	75	**10**			**21**		**23**	**30**		**40**		**42**	
15	43	**10**			**21**	**22**			**31**		**41**		**43**
16	42		**11**	**20**			**23**	**30**		**40**		**42**	



NOTE 3

As soon as poke command **01** (HARD A) is entered, **PC PROGRESSION, CC, CS, IF, AU** and **PS** text colors RED for short time and **CMPL** text colors WHITE on RED. **CMPL** text colors GREEN on BLACK if good processor configuration is established

PERFORM 1AFILE RELOAD AND ATTEMPT 1B PROCESSOR RECOVERY ON NORMAL FILE

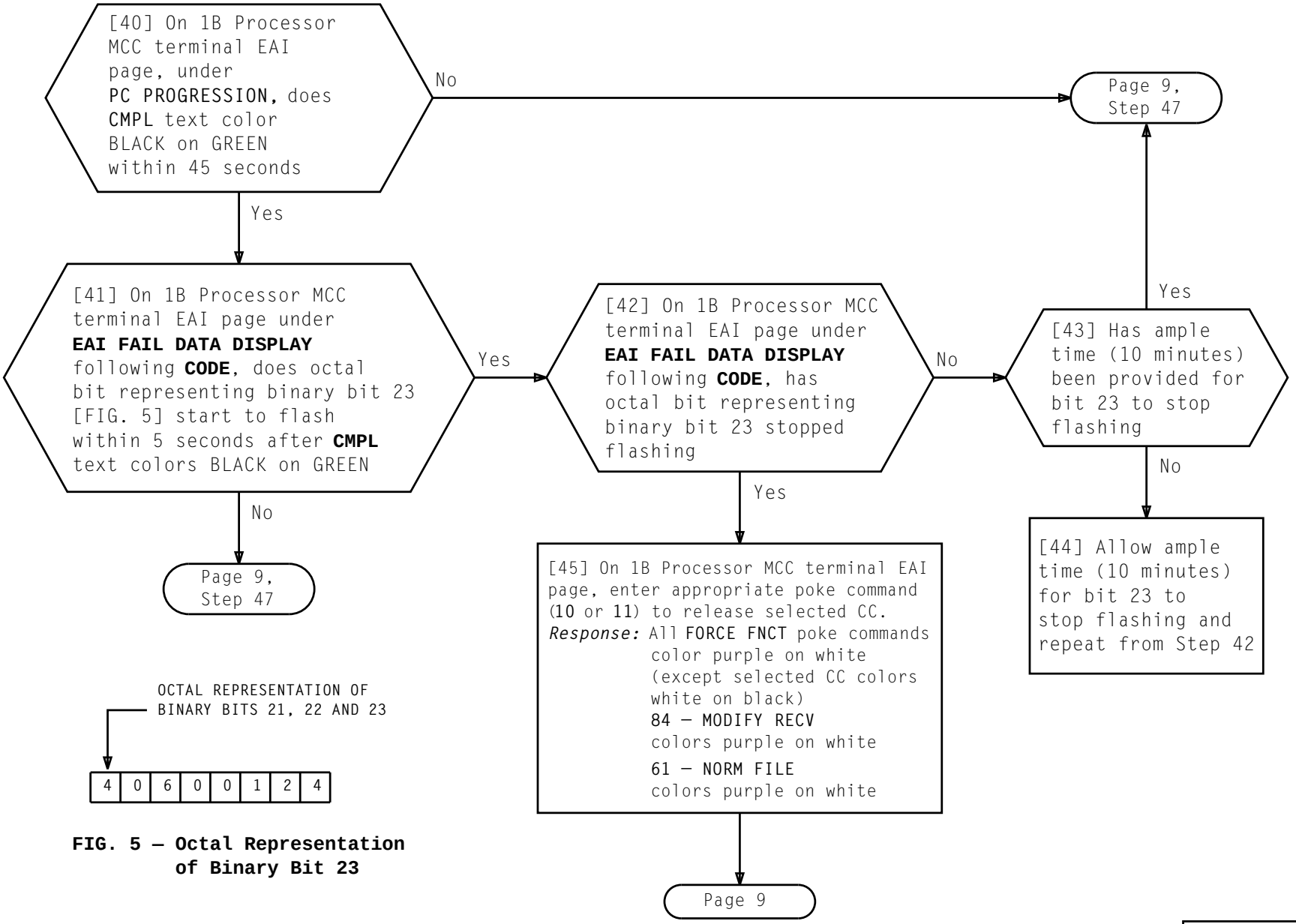
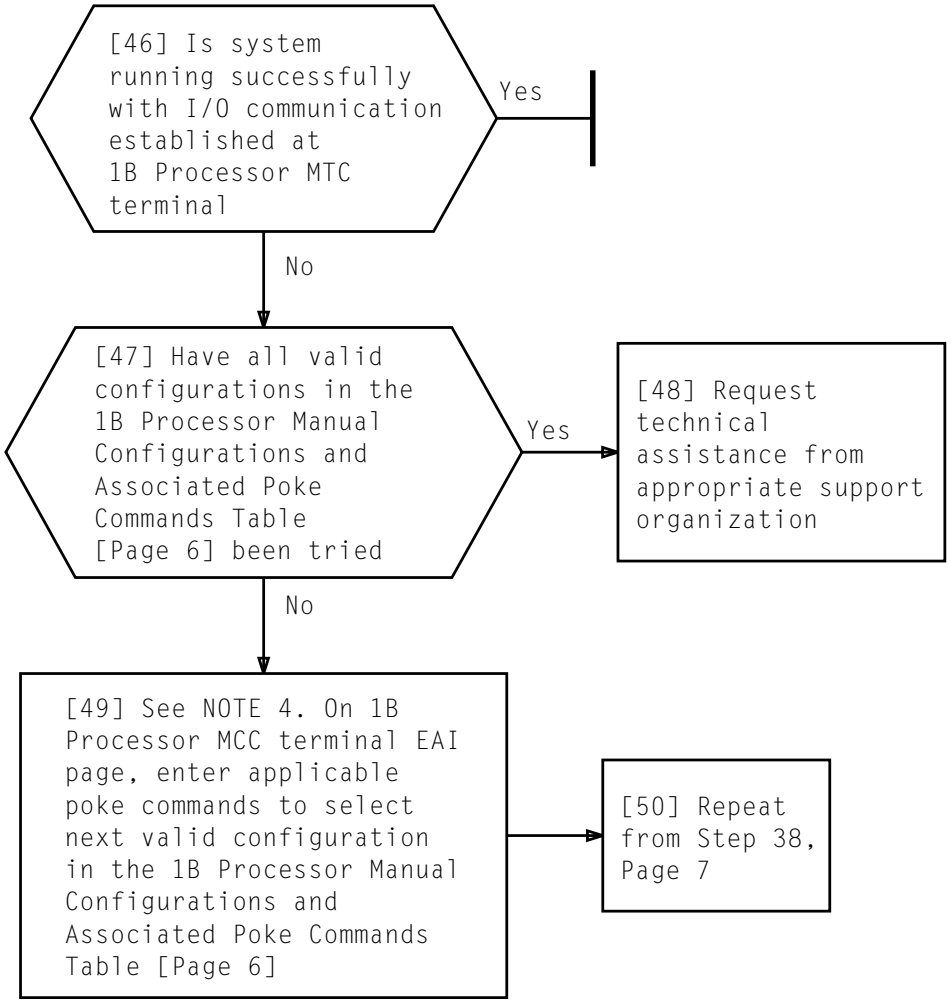


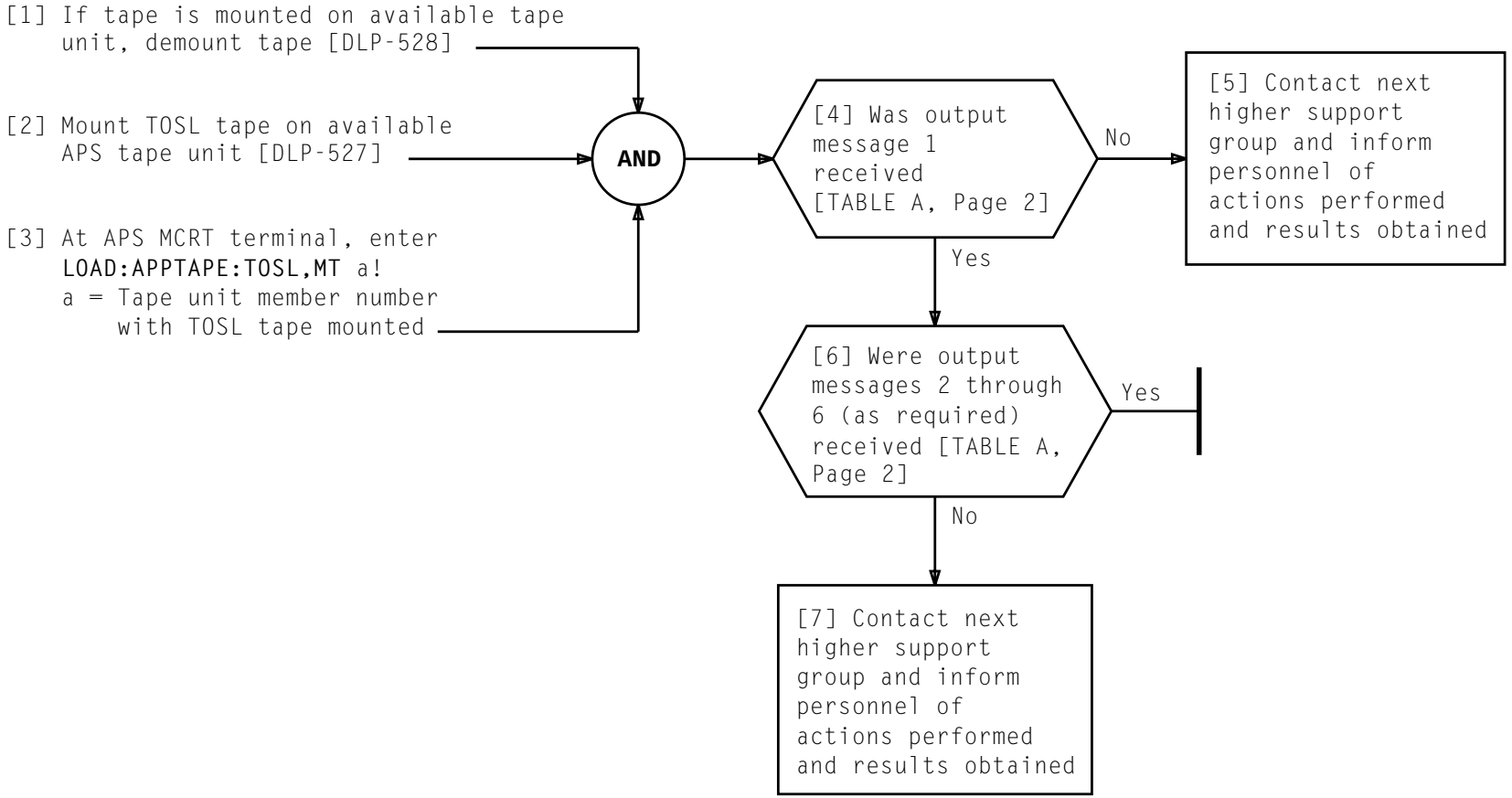
FIG. 5 — Octal Representation of Binary Bit 23

PERFORM 1AFILE RELOAD AND ATTEMPT 1B PROCESSOR RECOVERY ON NORMAL FILE



NOTE 4
In order to clear an unwanted selection in the FORCE FNCT section, enter the associated poke command that is colored purple on white

PERFORM 1AFILE RELOAD AND ATTEMPT 1B PROCESSOR RECOVERY ON NORMAL FILE



LOAD 1B PROCESSOR TRUNK OUT-OF-SERVICE LIST (TOSL) DATA FROM TAPE

TABLE A
TOSL TAPE LOADING OUTPUT MESSAGES

MESSAGE NUMBER	OUTPUT MESSAGES
1	APPTAPE TYPE: TOSL, WRITTEN mm/dd/yy hh:mm
2	APPTAPE ADDRESS RANGE aaaaaaaa – bbbbbbbb STARTED
3	APPTAPE ADDRESS RANGE aaaaaaaa – bbbbbbbb COMPLETED
4*	APPTAPE ADDRESS RANGE cccccccc – dddddddd STARTED
5*	APPTAPE ADDRESS RANGE cccccccc – dddddddd COMPLETED
6	APPTAPE COMPLETED

* Only received if office has Mass Status Table (MST)
mm/dd/yy hh:mm = Month/day/year hour:minute tape was written
aaaaaaaa = Starting TOSL address
bbbbbbbb = Ending TOSL address
cccccccc = Starting MST address
dddddddd = Ending MST address

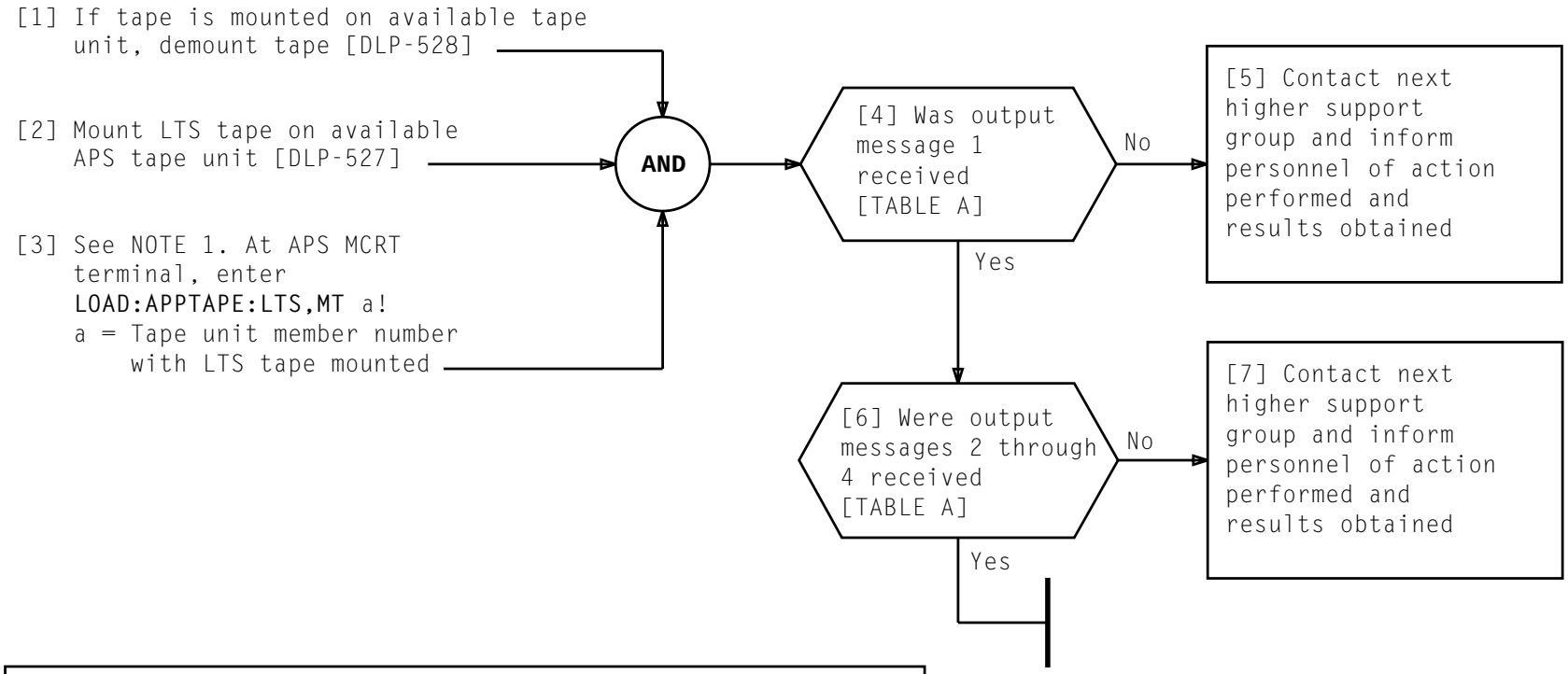


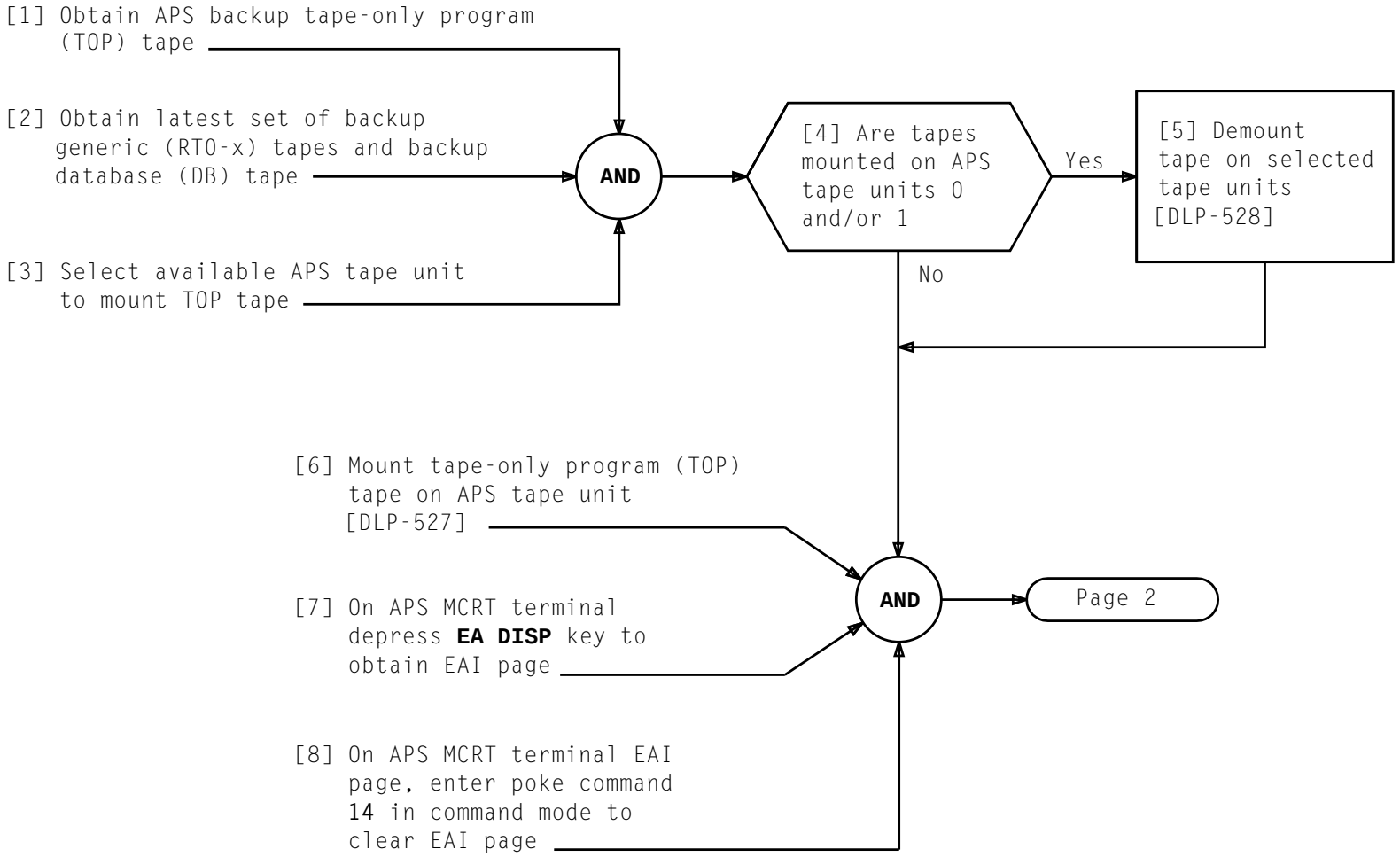
TABLE A
LTS TAPE LOADING OUTPUT MESSAGES

MESSAGE NUMBER	OUTPUT MESSAGES
1	APPTAPE TYPE: LTS, WRITTEN mm/dd/yy hh:mm
2	APPTAPE ADDRESS RANGE aaaaaaaa – bbbbbbbb STARTED
3	APPTAPE ADDRESS RANGE aaaaaaaa – bbbbbbbb COMPLETED
4	APPTAPE COMPLETED

mm/dd/yy hh:mm = Month/day/year hour:minute tape was written
aaaaaaaa = Starting LTS address
bbbbbbbb = Ending LTS address

NOTE 1
Loading of LTS tape must be initiated during 7-minute window beginning 4 minutes past any quarter hour. If LOAD message is not entered during this window, a repeat later (RL) response will be received

LOAD 1B PROCESSOR LONG TERM STORAGE (LTS) DATA FROM TAPE



PERFORM ATTACHED PROCESSOR SYSTEM (APS) SYSTEM REINITIALIZATION (SR)

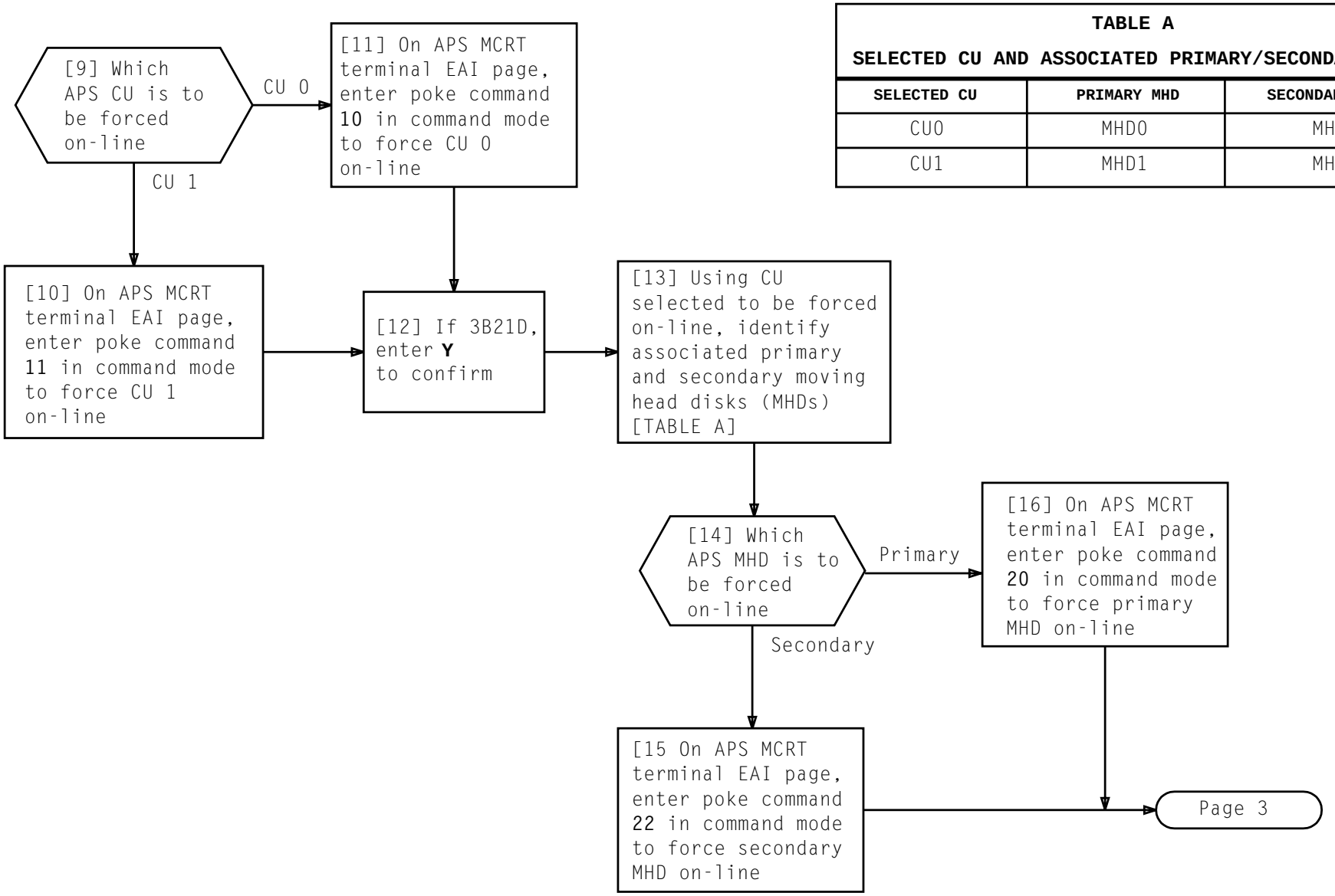
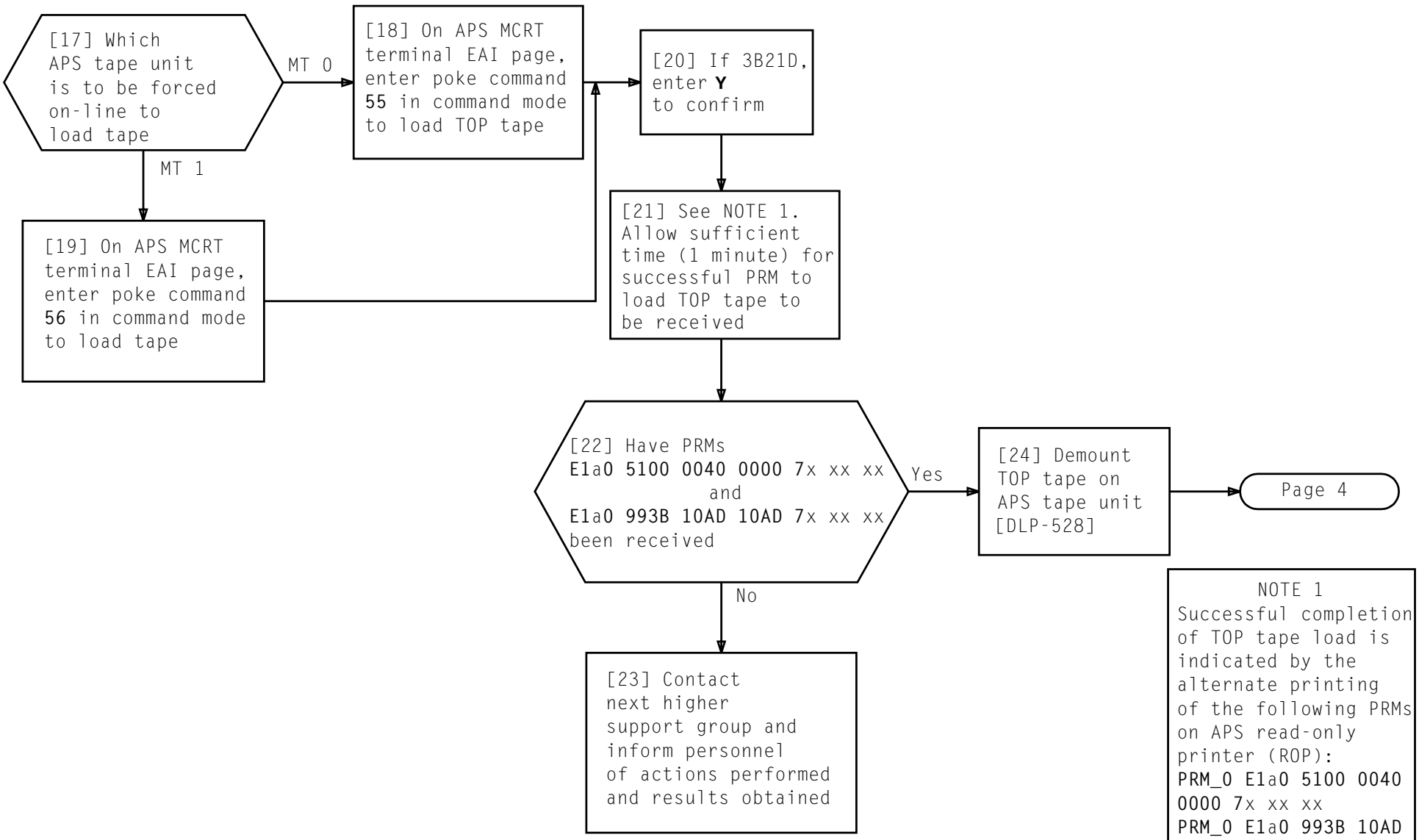


TABLE A

SELECTED CU AND ASSOCIATED PRIMARY/SECONDARY MHDs

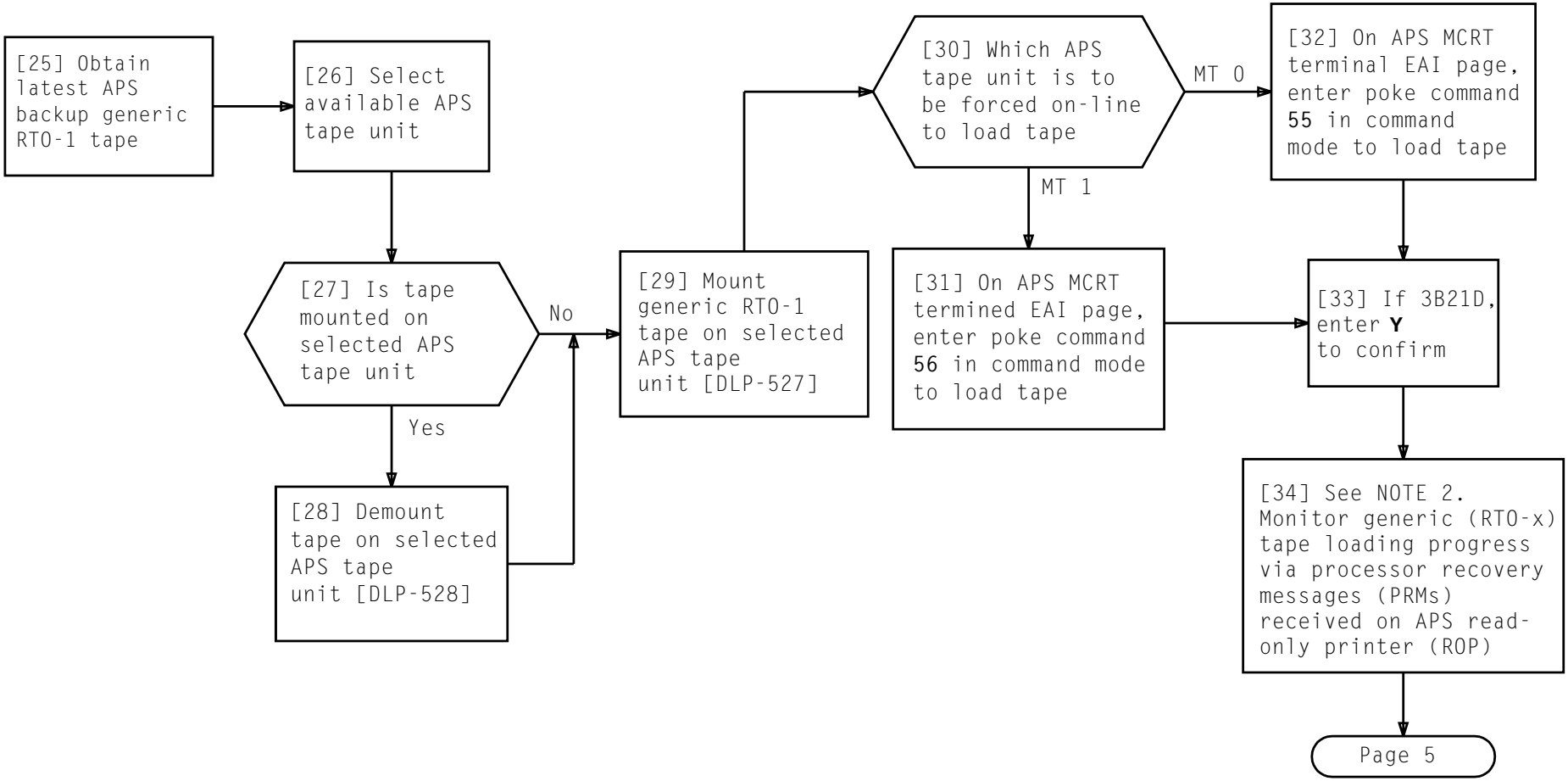
SELECTED CU	PRIMARY MHD	SECONDARY MHD
CU0	MHD0	MHD1
CU1	MHD1	MHD0

PERFORM ATTACHED PROCESSOR SYSTEM (APS) SYSTEM REINITIALIZATION (SR)



NOTE 1
Successful completion of TOP tape load is indicated by the alternate printing of the following PRMs on APS read-only printer (ROP):
PRM_0 E1a0 5100 0040 0000 7x xx xx
PRM_0 E1a0 993B 10AD 10AD 7x xx xx
a = 6 or 7

PERFORM ATTACHED PROCESSOR SYSTEM (APS) SYSTEM REINITIALIZATION (SR)



NOTE 2
During loading of generic (RTO-x) tape, a series of PRMs will be printed that contain status information pertaining to load

PERFORM ATTACHED PROCESSOR SYSTEM (APS) SYSTEM REINITIALIZATION (SR)

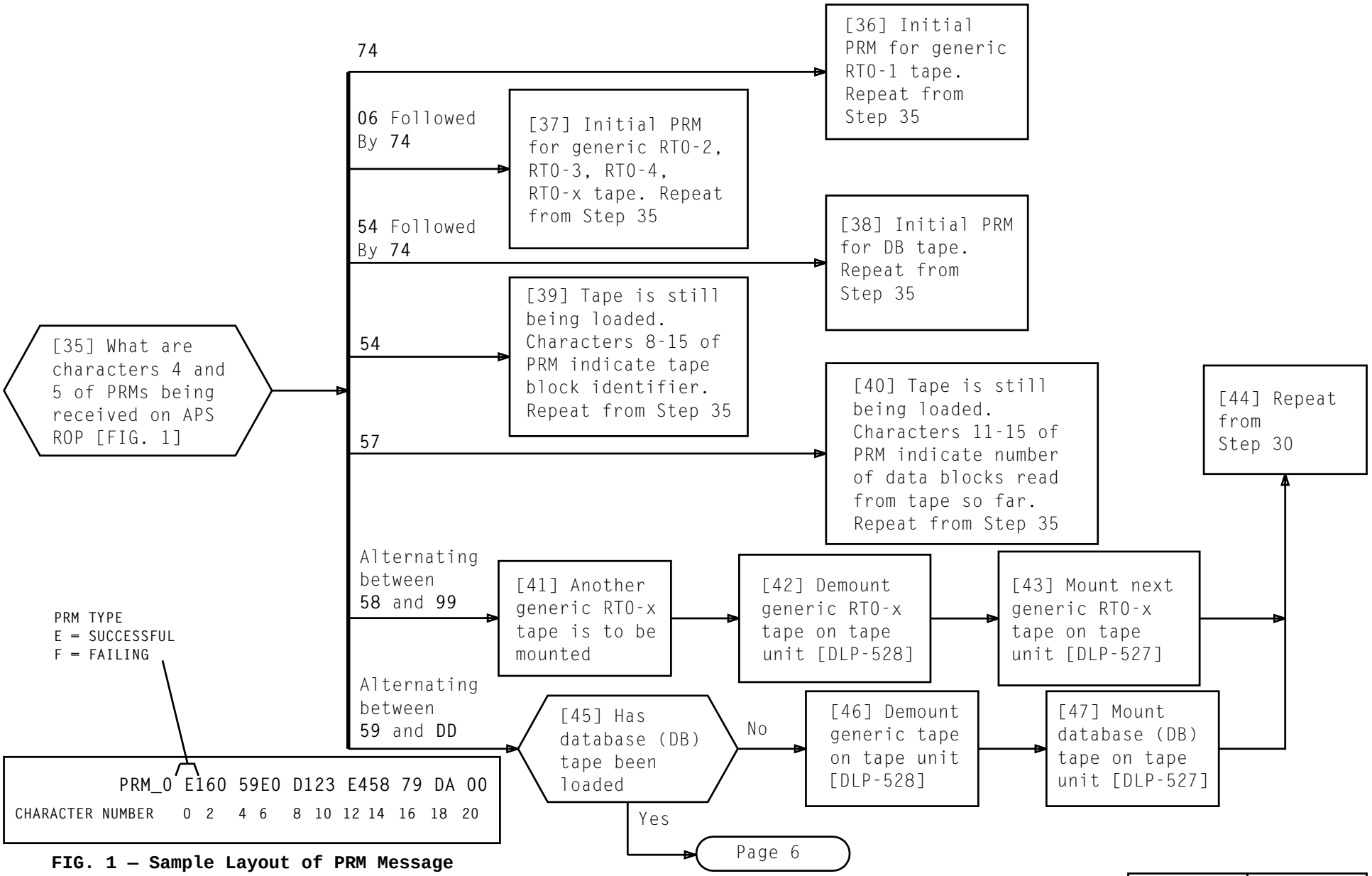
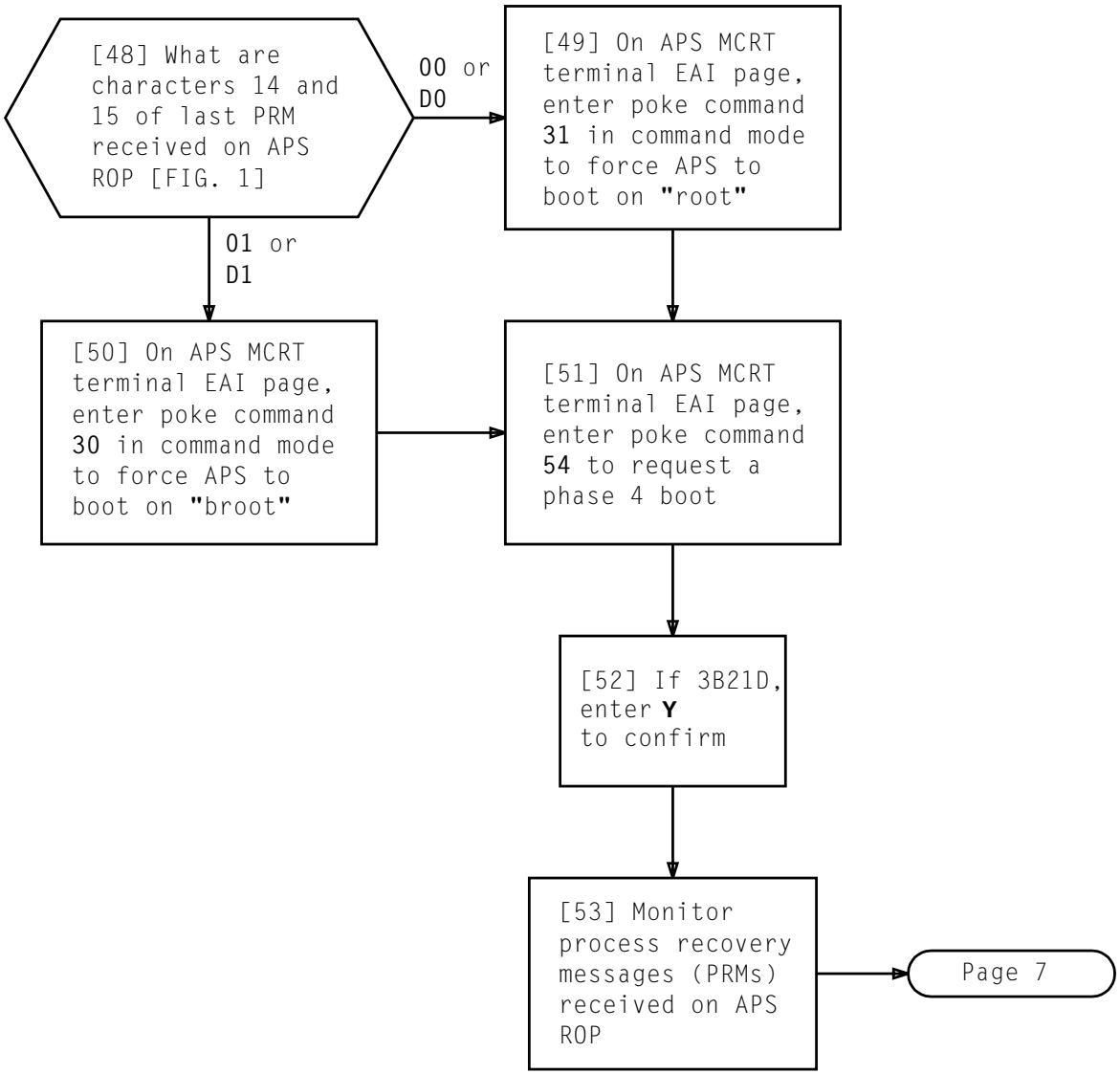
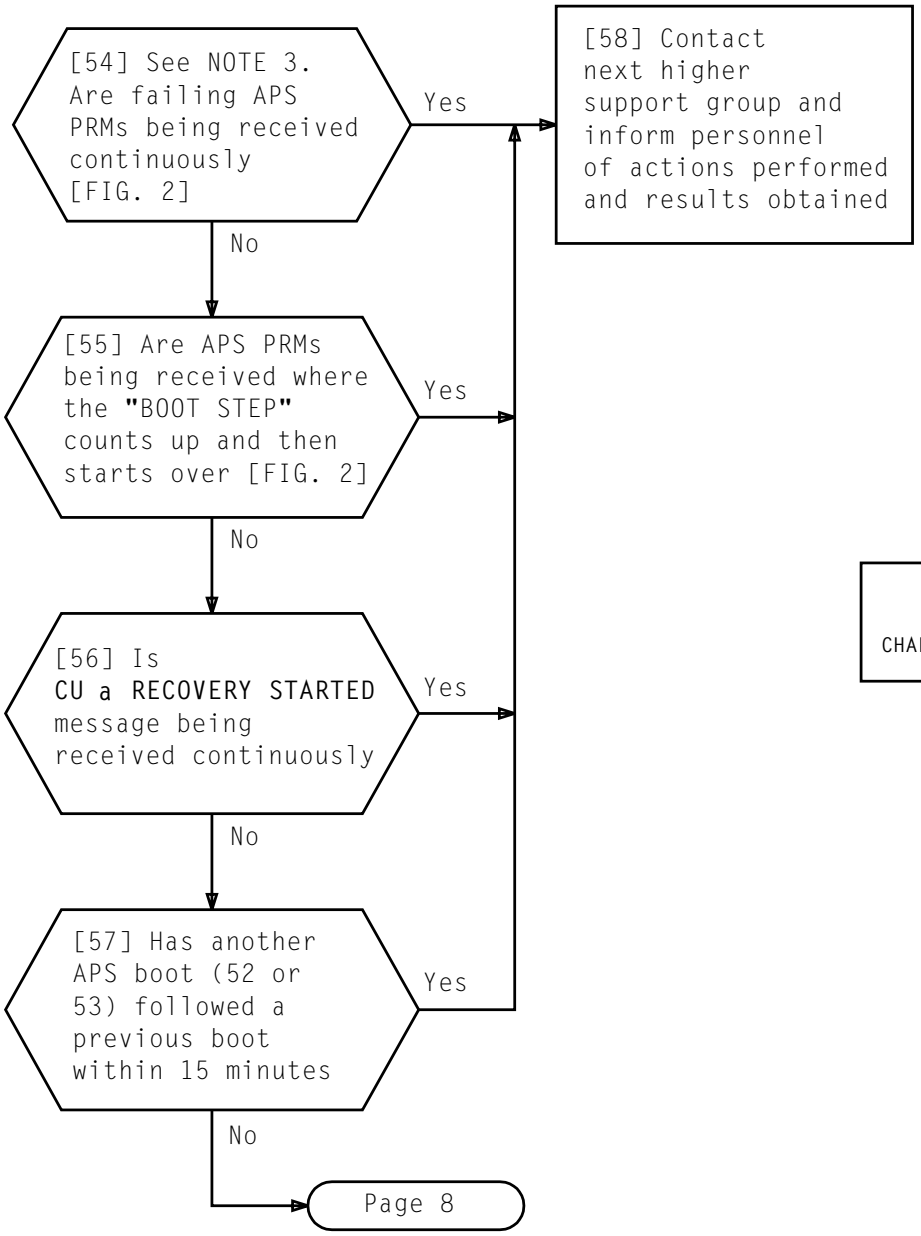


FIG. 1 – Sample Layout of PRM Message

PERFORM ATTACHED PROCESSOR SYSTEM (APS) SYSTEM REINITIALIZATION (SR)



PERFORM ATTACHED PROCESSOR SYSTEM (APS) SYSTEM REINITIALIZATION (SR)



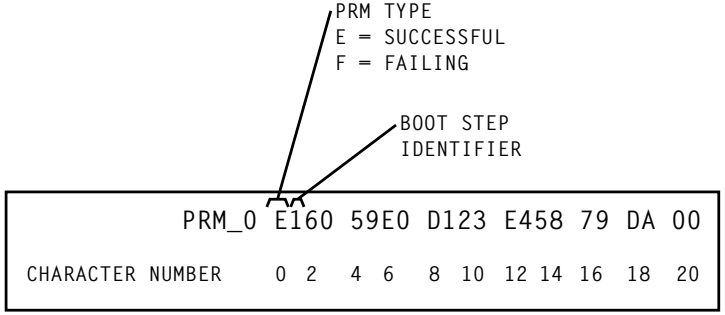
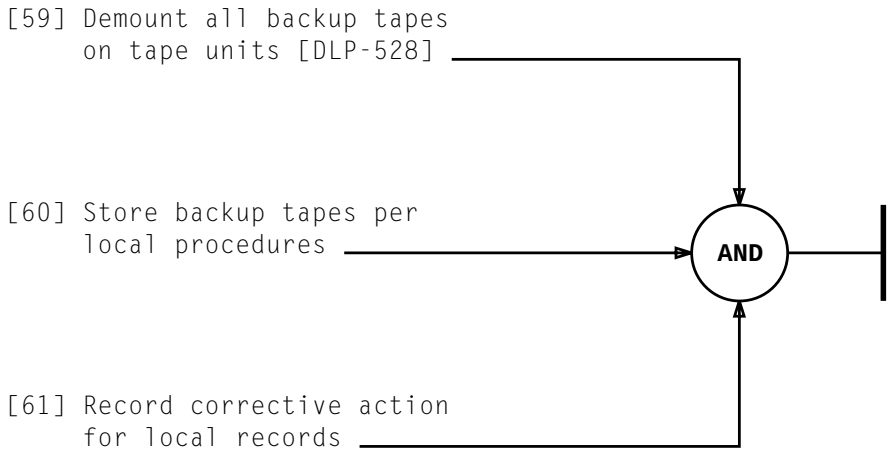


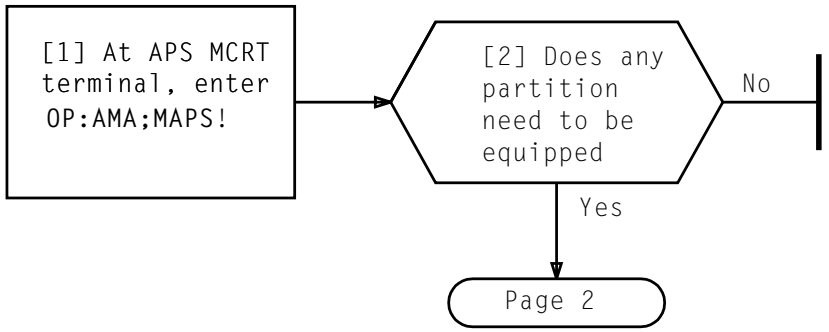
FIG. 2 – Sample Layout of PRM Message

NOTE 3
One or two failing PRMs among many successful PRMs does not indicate system sanity is in jeopardy

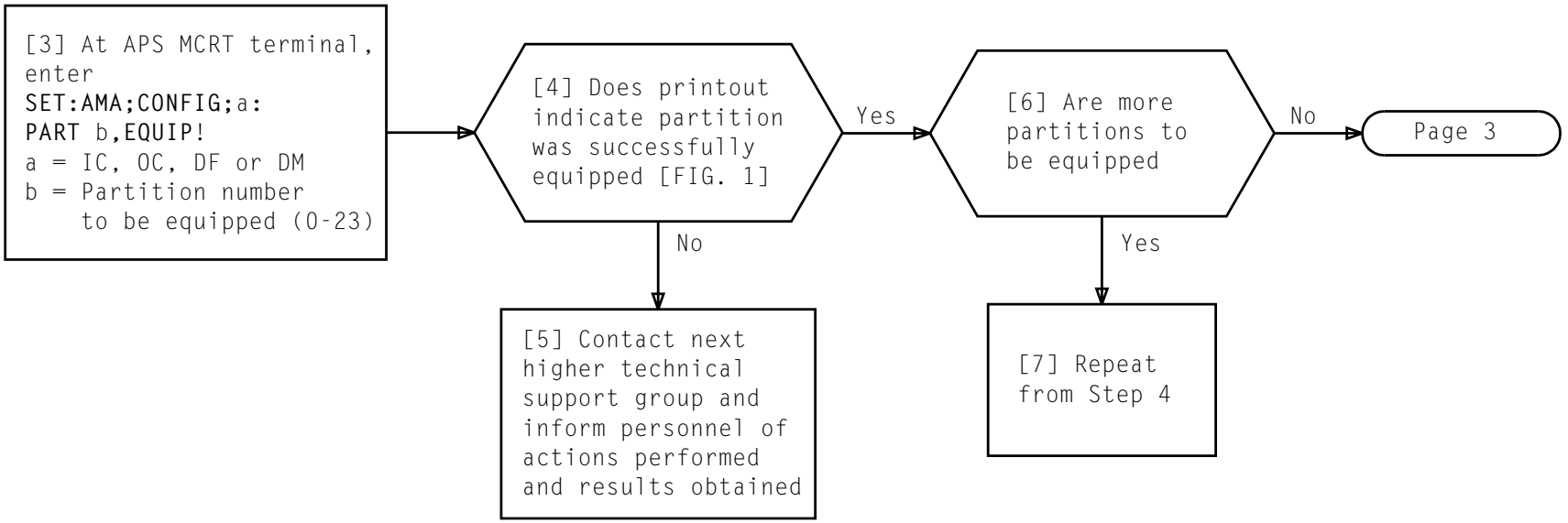
PERFORM ATTACHED PROCESSOR SYSTEM (APS) SYSTEM REINITIALIZATION (SR)



PERFORM ATTACHED PROCESSOR SYSTEM (APS) SYSTEM REINITIALIZATION (SR)



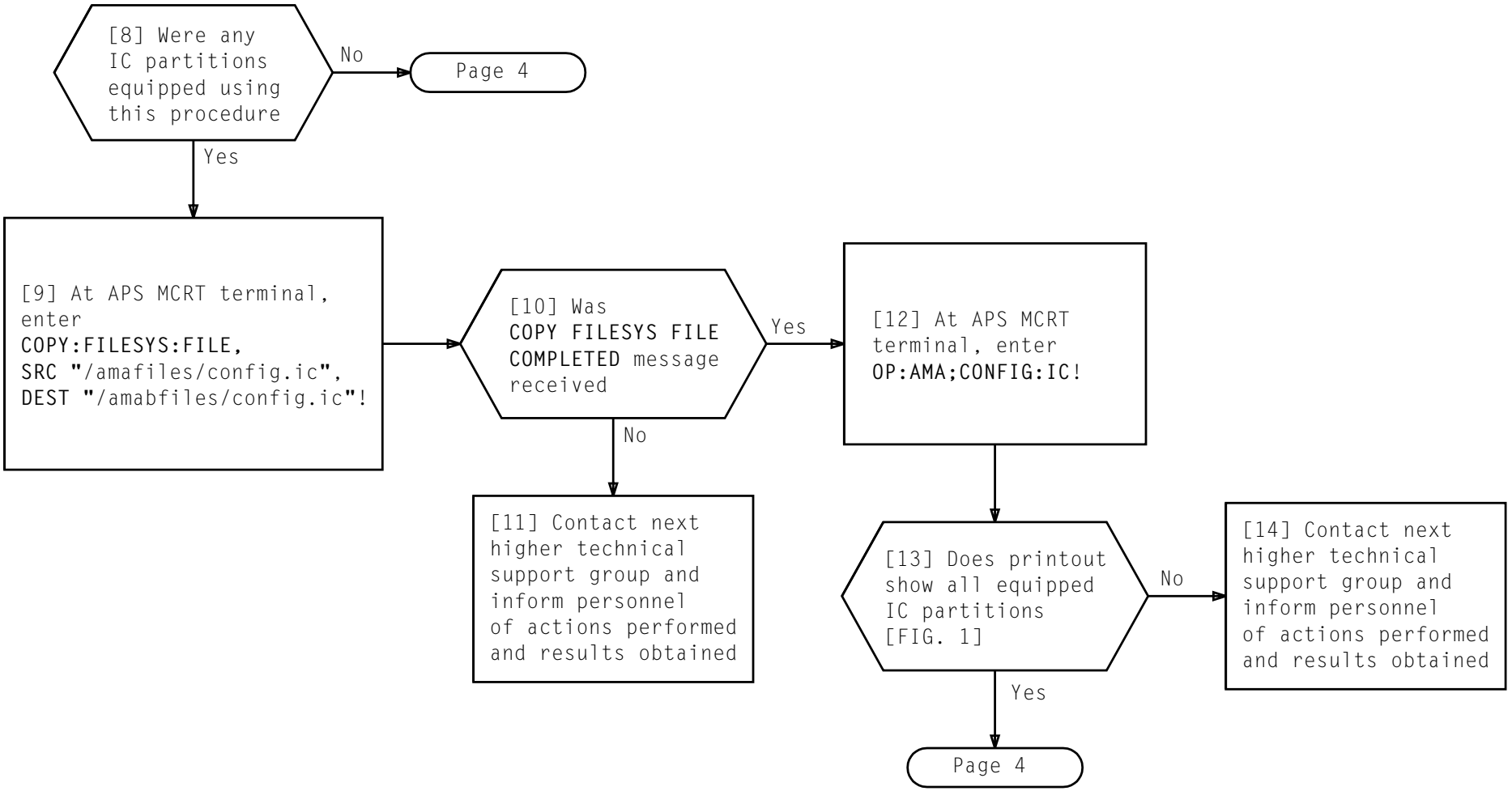
EQUIP ATTACHED PROCESSOR SYSTEM (APS) AMA PARTITIONS



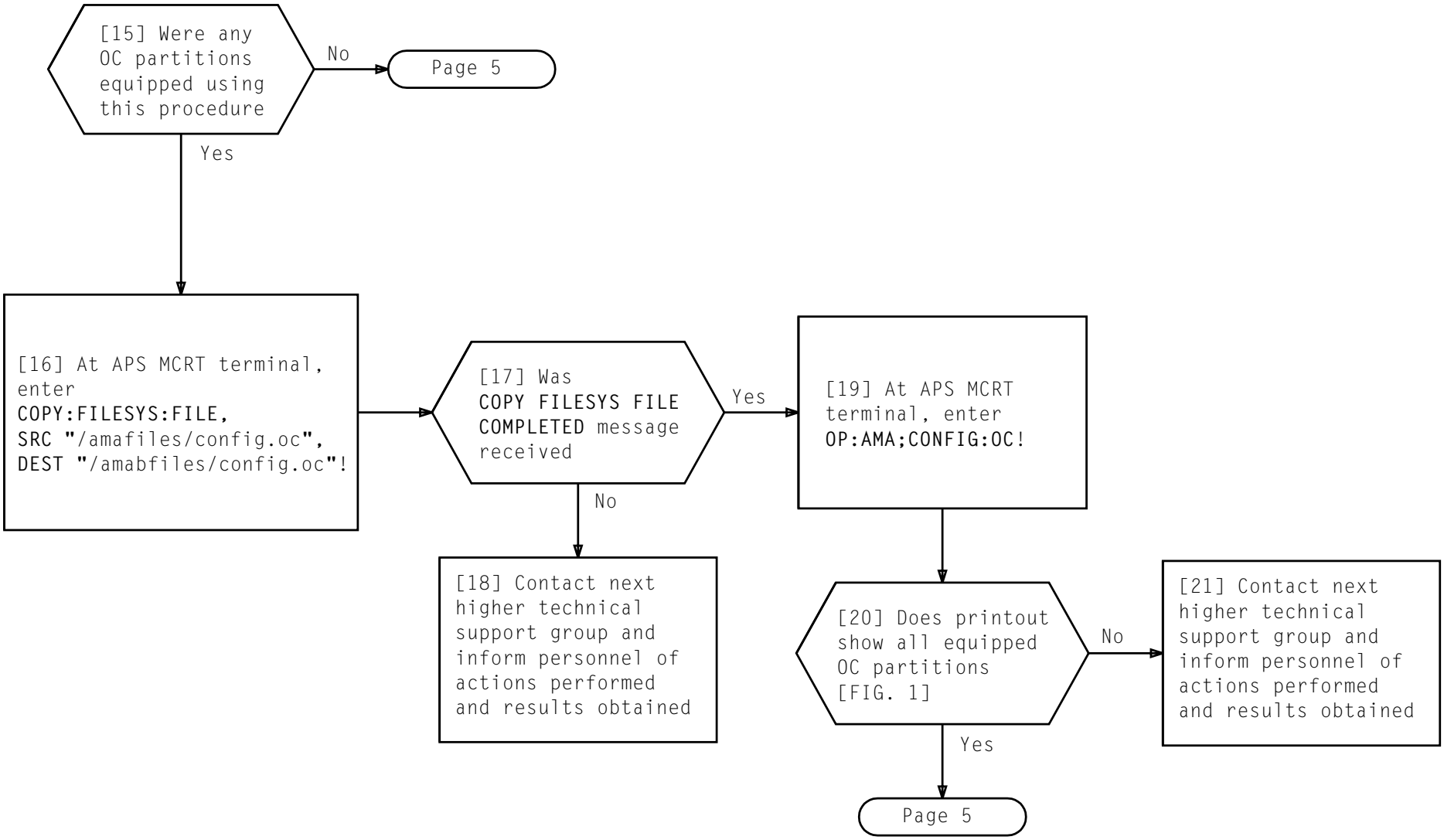

```
REPT AMA CONFIG FILE FOR a STREAM
     NUMBER OF EQUIPPED PARTITIONS b
     TOTAL NUMBER OF AMA BLOCKS c
     d e f

a = IC, OC, DF or DM
b = Number of AMA partitions equipped
    for this stream
c = Number of AMA blocks for this stream
d = AMA partition number
e = AMA partition file name
f = Number of AMA blocks for this partition
```

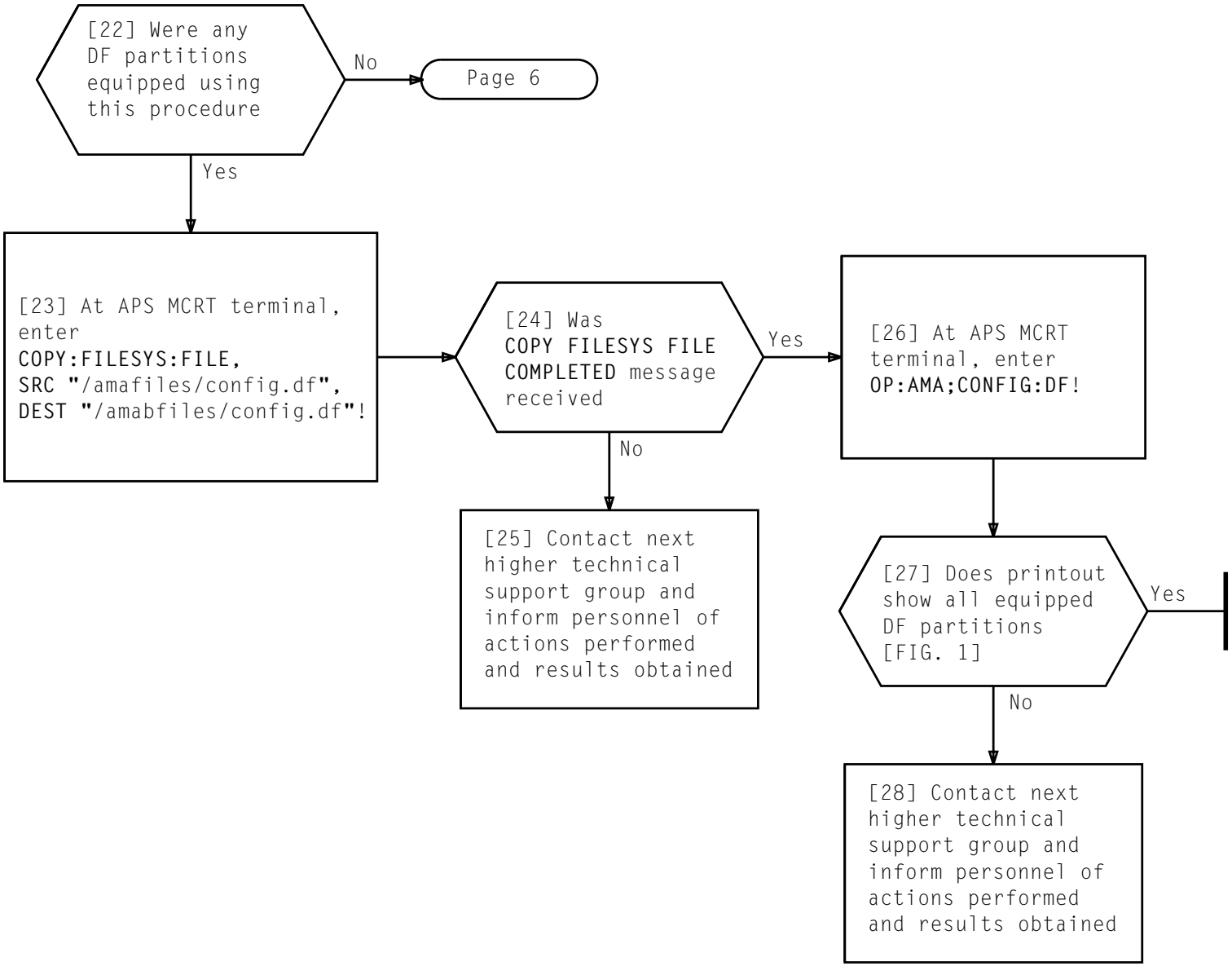
FIG. 1 — Sample Output Message Indicating Successful Equipage of Partition



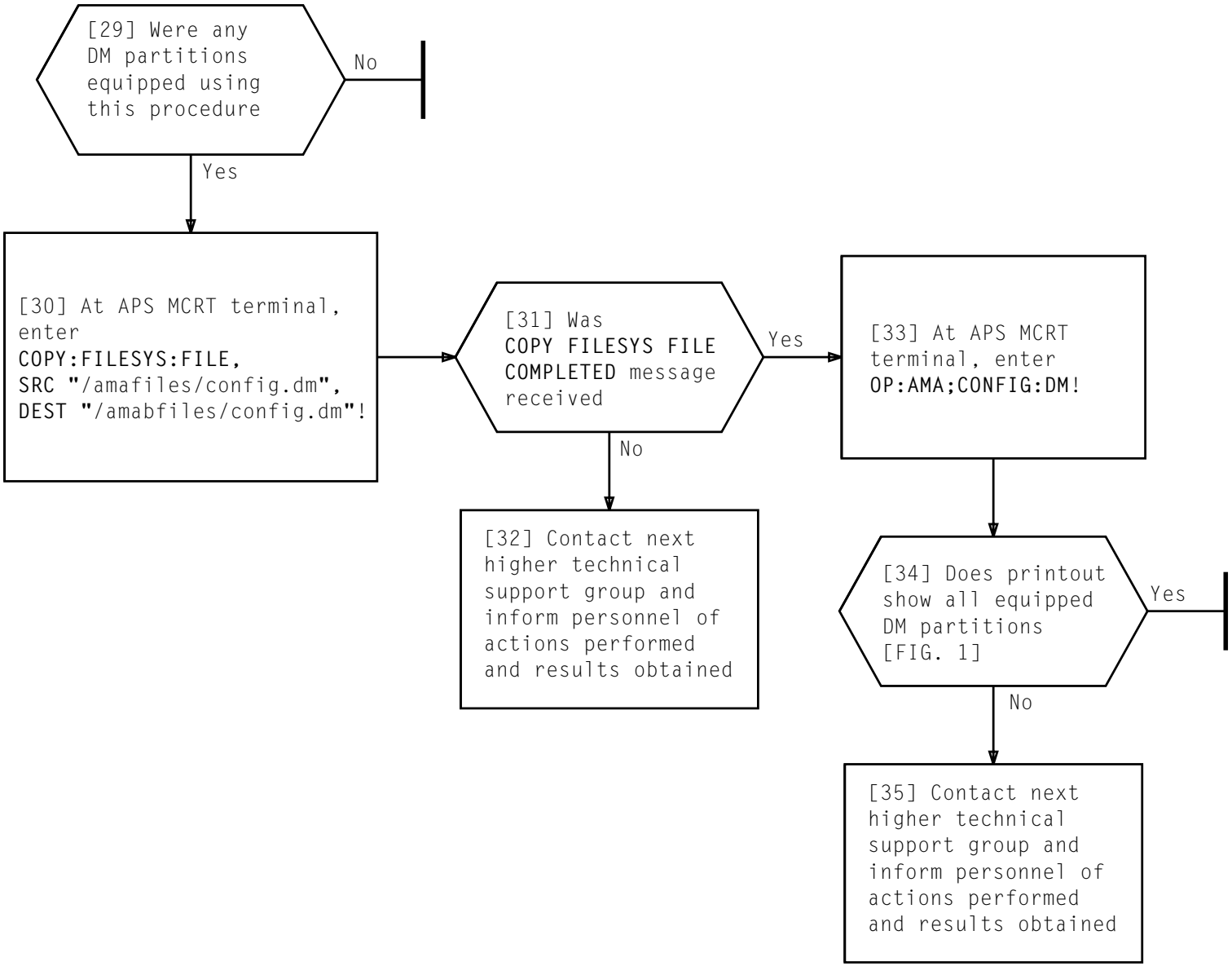
EQUIP ATTACHED PROCESSOR SYSTEM (APS) AMA PARTITIONS



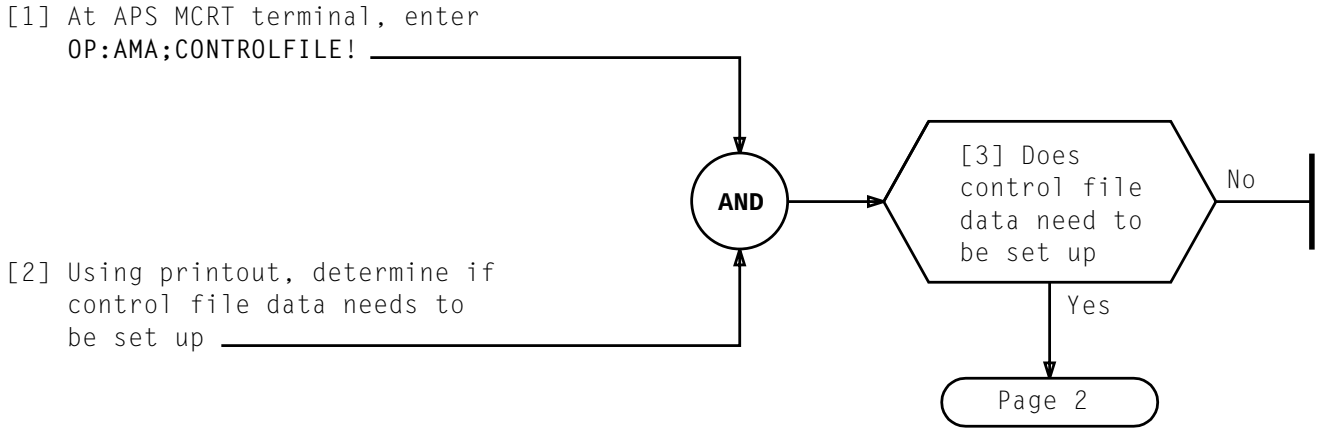
EQUIP ATTACHED PROCESSOR SYSTEM (APS) AMA PARTITIONS



EQUIP ATTACHED PROCESSOR SYSTEM (APS) AMA PARTITIONS



EQUIP ATTACHED PROCESSOR SYSTEM (APS) AMA PARTITIONS



SET UP ATTACHED PROCESSOR SYSTEM (APS) AMA CONTROL FILE DATA

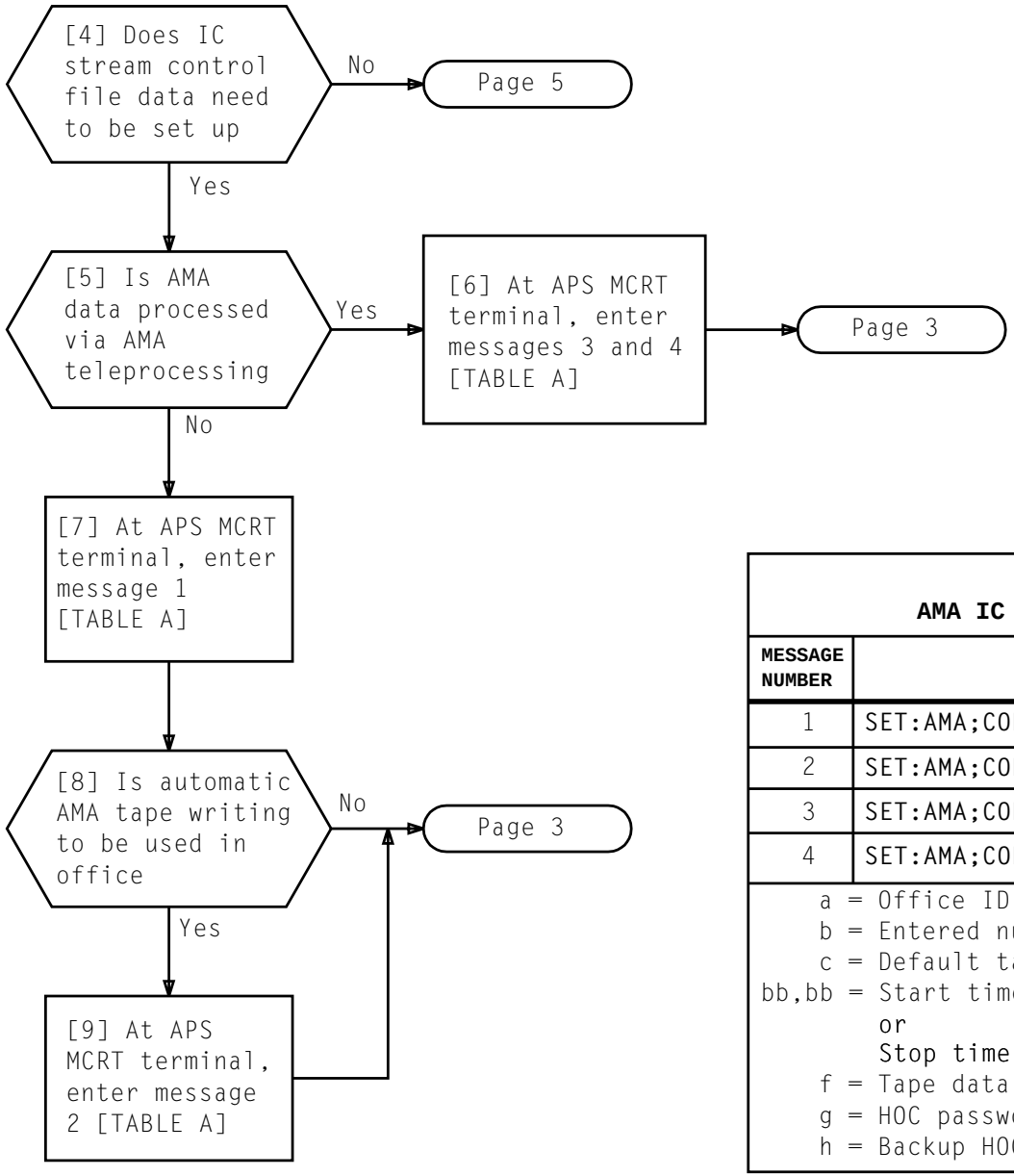


TABLE A
AMA IC STREAM CONTROL FILE DATA INPUT MESSAGES

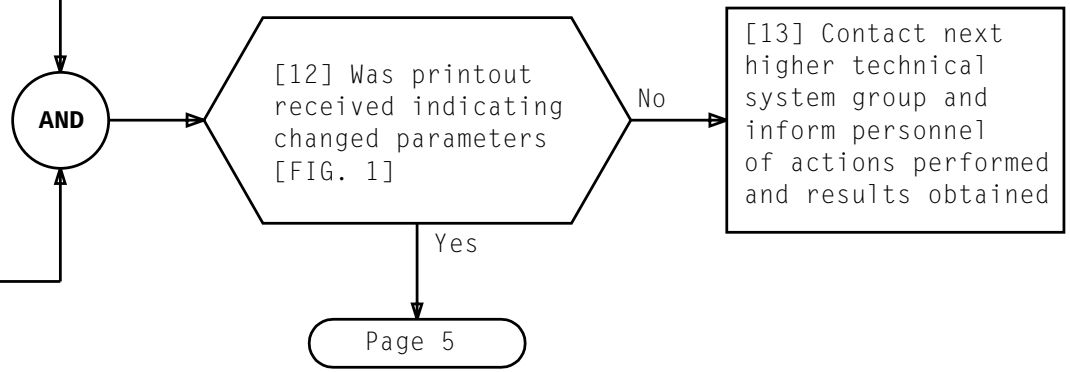
MESSAGE NUMBER	INPUT MESSAGE
1	SET:AMA;CONTROL;IC:OFFICEID a,EXPDATE b,OPTION TAPE!
2	SET:AMA;CONTROL;IC:MT c,START(bb,bb),STOP(bb,bb),TAPEID " f"!
3	SET:AMA;CONTROL;IC:OFFICEID a,START(bb,bb),STOP(bb,bb)!
4	SET:AMA;CONTROL;IC:OPTION TP,HOCPSWD g,BACKUPSWD h!

a = Office ID assigned by HOC (6 digits)
b = Entered number of days until AMA tape expires
c = Default tape drive number for automatic tape process
bb,bb = Start time for automatic tape writing or teleprocessing (hh,mm)
or
Stop time for automatic tape writing or teleprocessing (hh,mm)
f = Tape data set ID
g = HOC password (10 digits)
h = Backup HOC password (10 digits)

SET UP ATTACHED PROCESSOR SYSTEM (APS) AMA CONTROL FILE DATA

[10] See NOTE 1. At APS MCRT terminal, enter
SET:AMA;CONTROL;IC:DF a!
a = Deferred format feature
switch setting (ON or OFF)

[11] See NOTE 1. At APS MCRT terminal,
enter **SET:AMA;CONTROL;IC:FAST** a!
a = Fast Stream Option indicating
which office stream is fast
(IC or OC)



NOTE 1
DF parameters are only stored in the IC control file

SET UP ATTACHED PROCESSOR SYSTEM (APS) AMA CONTROL FILE DATA

```
REPT AMA CONTROL FILE AUDIT FOR a STREAM
     OFFICE ID b
     DAYS UNTIL EXPIRATION c
     PROCESS START TIME d
     PROCESS STOP TIME e
     DEFAULT MT FOR AUTO TAPE START f
     AMA OPTION IS g
     DATA TRANSFER h MANUALLY INHIBITED
     AMAT PASSWORD i
     HOC PASSWORD j
     BACKUP HOC PASSWORD k
     PASSWORD FROM LAST SESSION x
     TAPE SESSION IS NOT IN PROGRESS
     TELEPROCESSING SESSION IS NOT IN PROGRESS
     AUTOMATIC TAPE WRITING x INHIBITED
     TAPE SEQUENCE NUMBER x
     TAPE DATA SET ID l

a = IC or OC
b = Office identification
c = Number of days until tape expires
d = Start time in hours and minutes
e = Stop time in hours and minutes
f = Default tape drive for AMA function
g = TAPE or TELEPROCESSING
h = IS or IS NOT
i = AMA teleprocessing password
j = HOC password
k = Backup HOC password
l = Tape data set ID
x = Don't care
```

FIG. 1 – Sample Output Message Indicating Successful Equipage of Control File

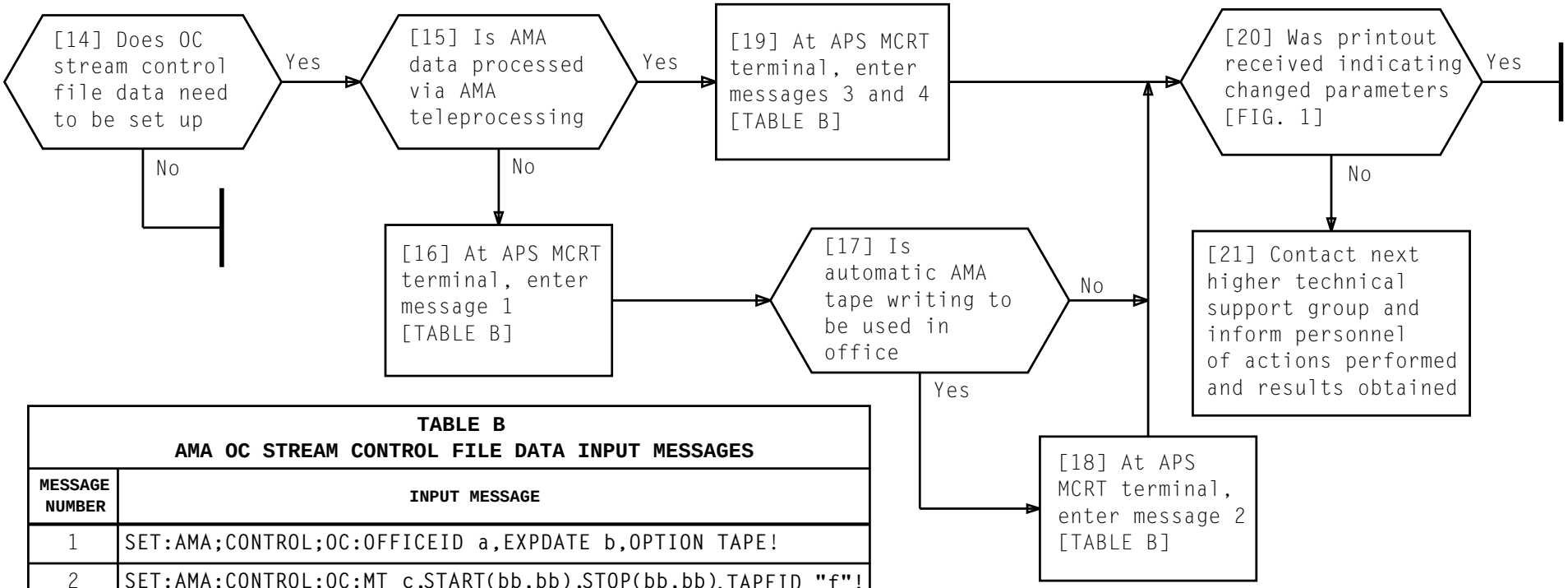
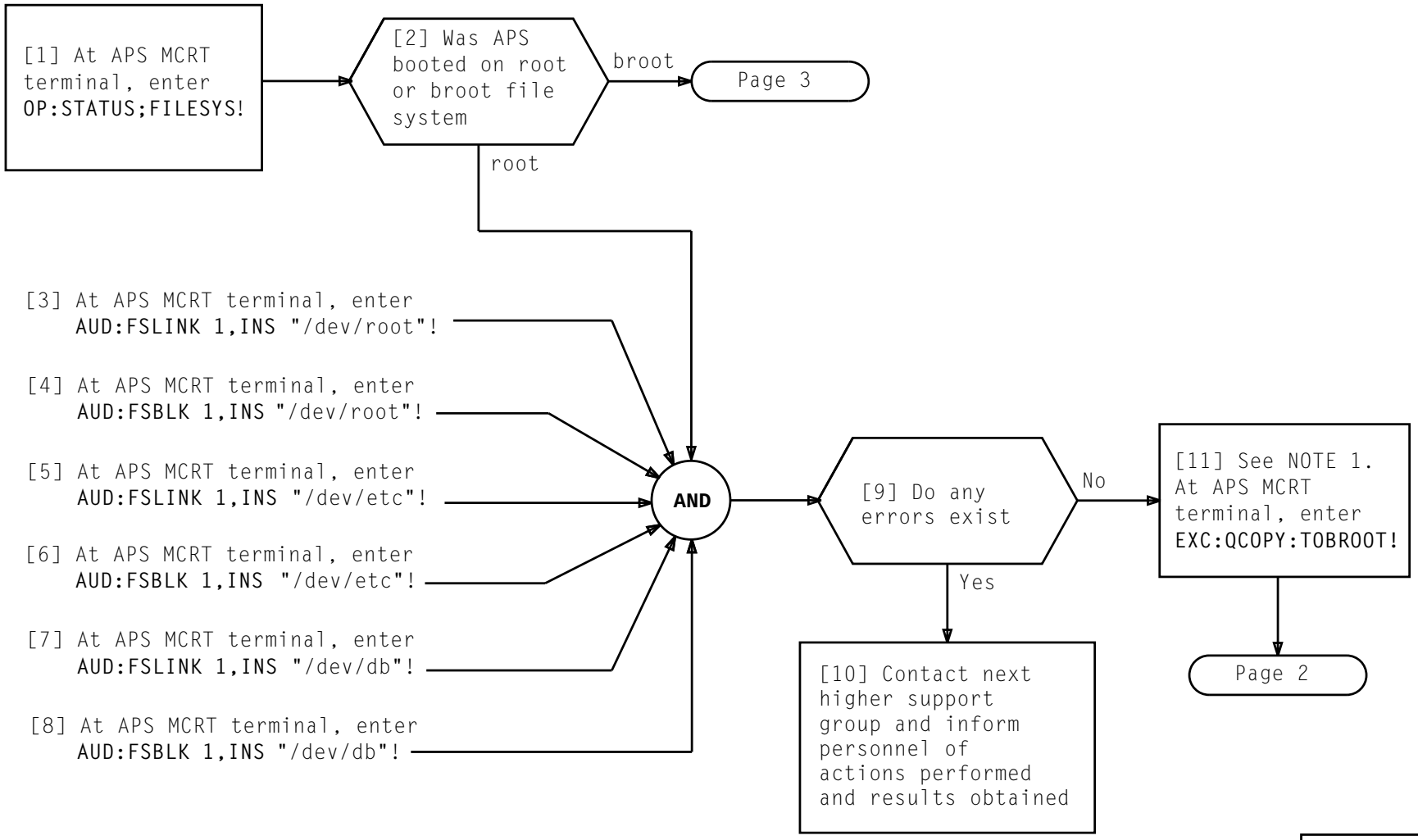


TABLE B
AMA OC STREAM CONTROL FILE DATA INPUT MESSAGES

MESSAGE NUMBER	INPUT MESSAGE
1	SET:AMA;CONTROL;OC:OFFICEID a,EXPDATE b,OPTION TAPE!
2	SET:AMA;CONTROL;OC:MT c,START(bb,bb),STOP(bb,bb),TAPEID "f"!
3	SET:AMA;CONTROL;OC:OFFICEID a,START(bb,bb),STOP(bb,bb)!
4	SET:AMA;CONTROL;OC:OPTION TP,HOCPSWD g,BACKUPSWD h!

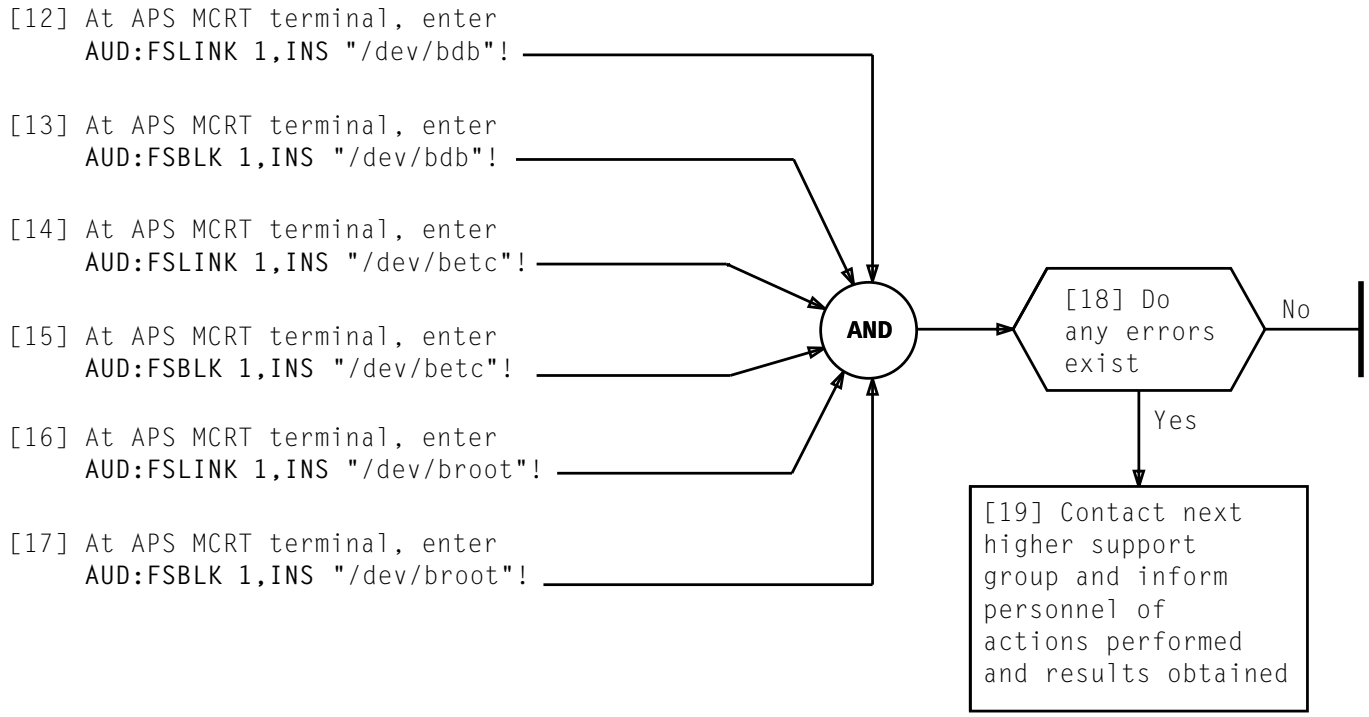
a = Office ID assigned by HOC (6 digits)
b = Entered number of days until AMA tape expires
c = Default tape drive number for automatic tape process
bb,bb = Start time for automatic tape writing or teleprocessing (hh,mm)
or
Stop time for automatic tape writing or teleprocessing (hh,mm)
f = Tape data set ID
g = HOC password (10 digits)
h = Backup HOC password (10 digits)

SET UP ATTACHED PROCESSOR SYSTEM (APS) AMA CONTROL FILE DATA

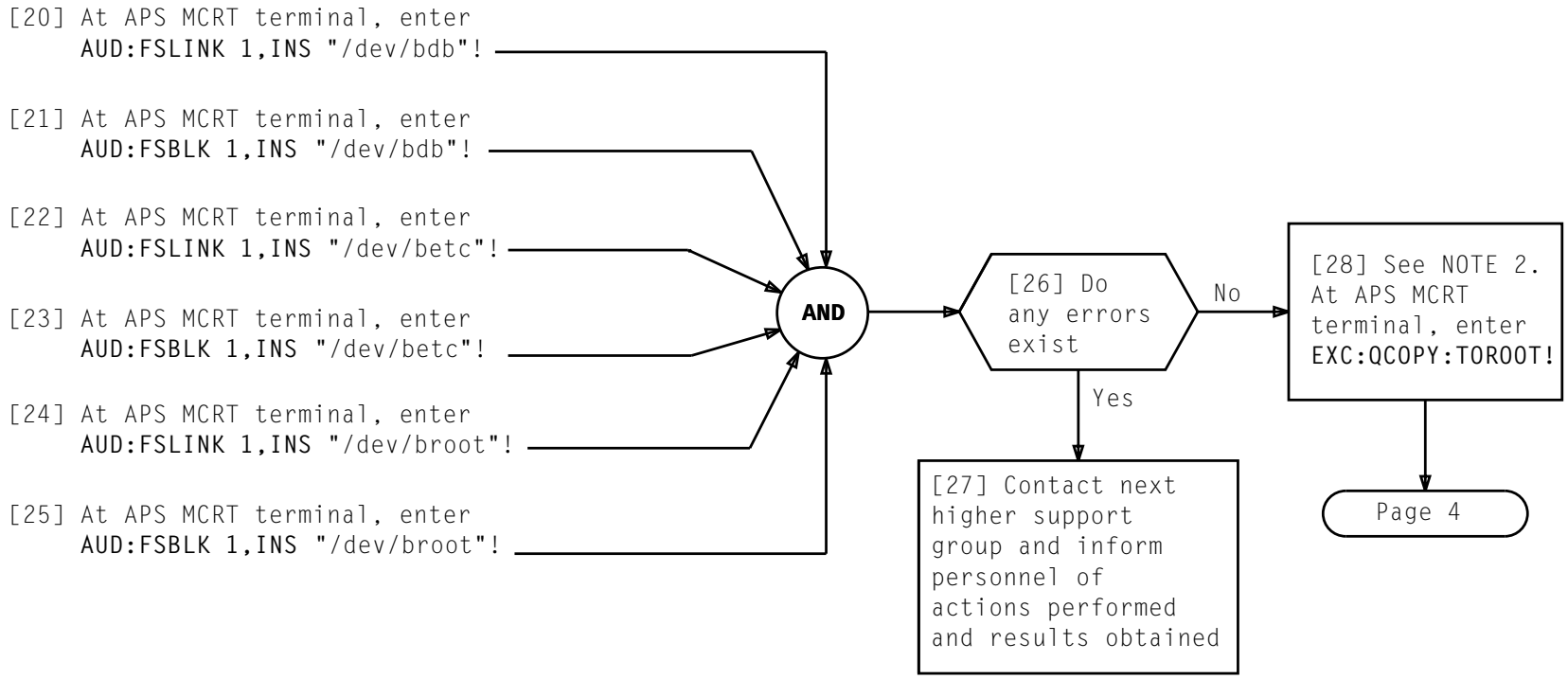


NOTE 1
After each input message, wait for **COMPLETED** message before proceeding to next step

COPY ATTACHED PROCESSOR SYSTEM (APS) ROOT TO BROOT OR BROOT TO ROOT

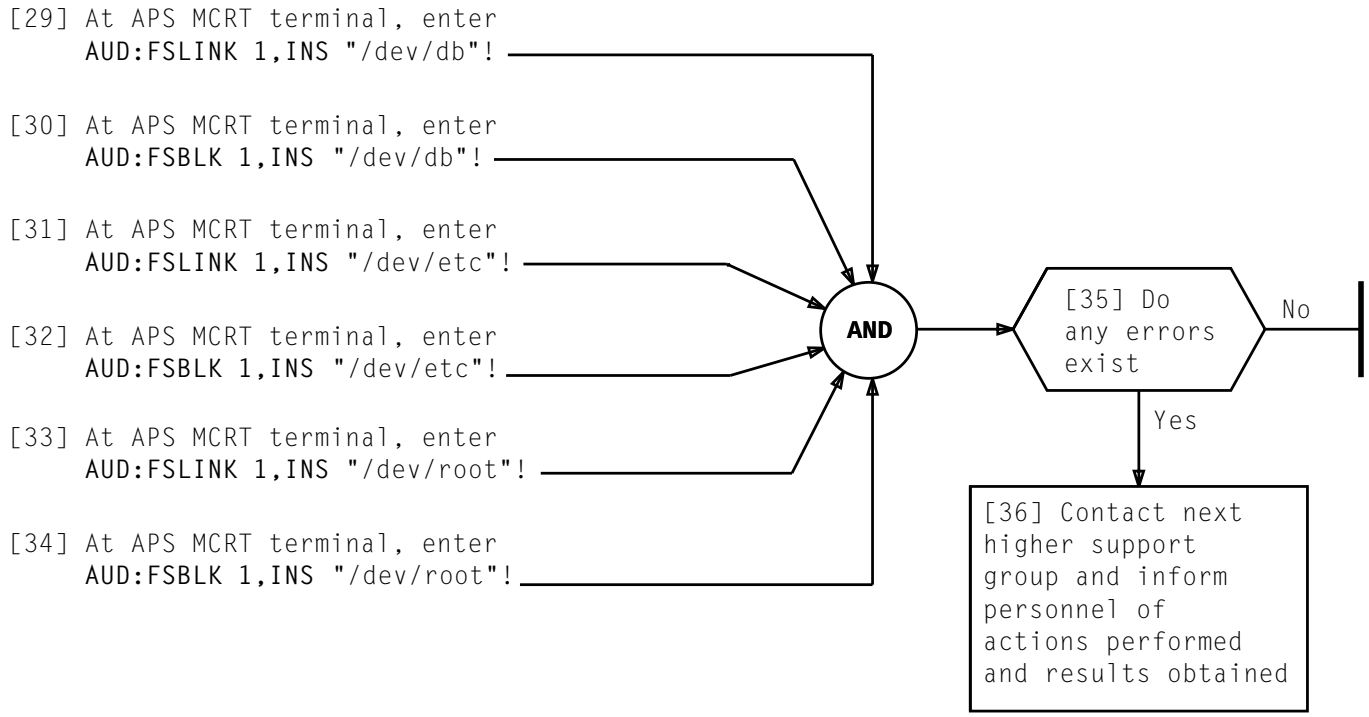


COPY ATTACHED PROCESSOR SYSTEM (APS) ROOT TO BROOT OR BROOT TO ROOT

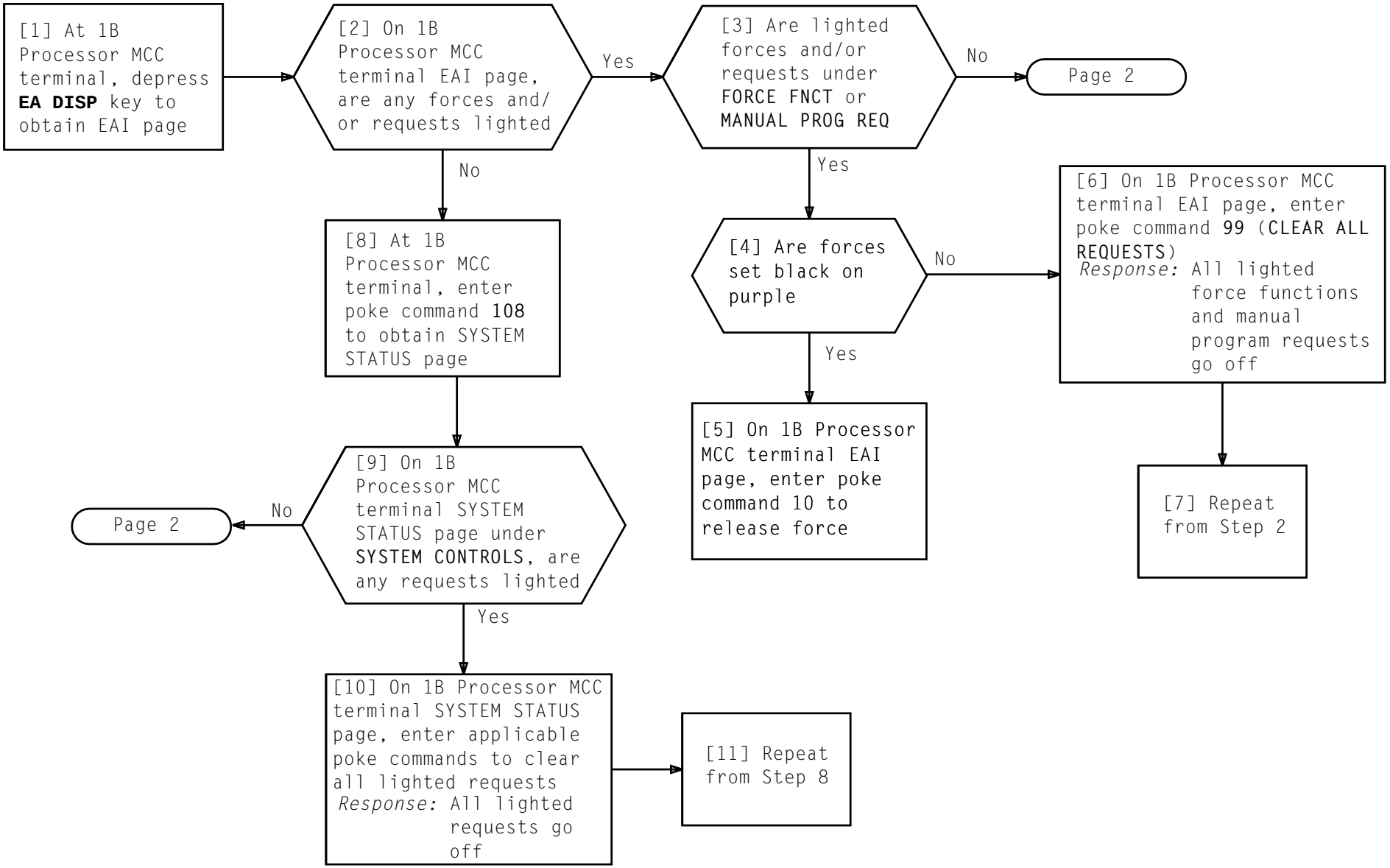


COPY ATTACHED PROCESSOR SYSTEM (APS) ROOT TO BROOT OR BROOT TO ROOT

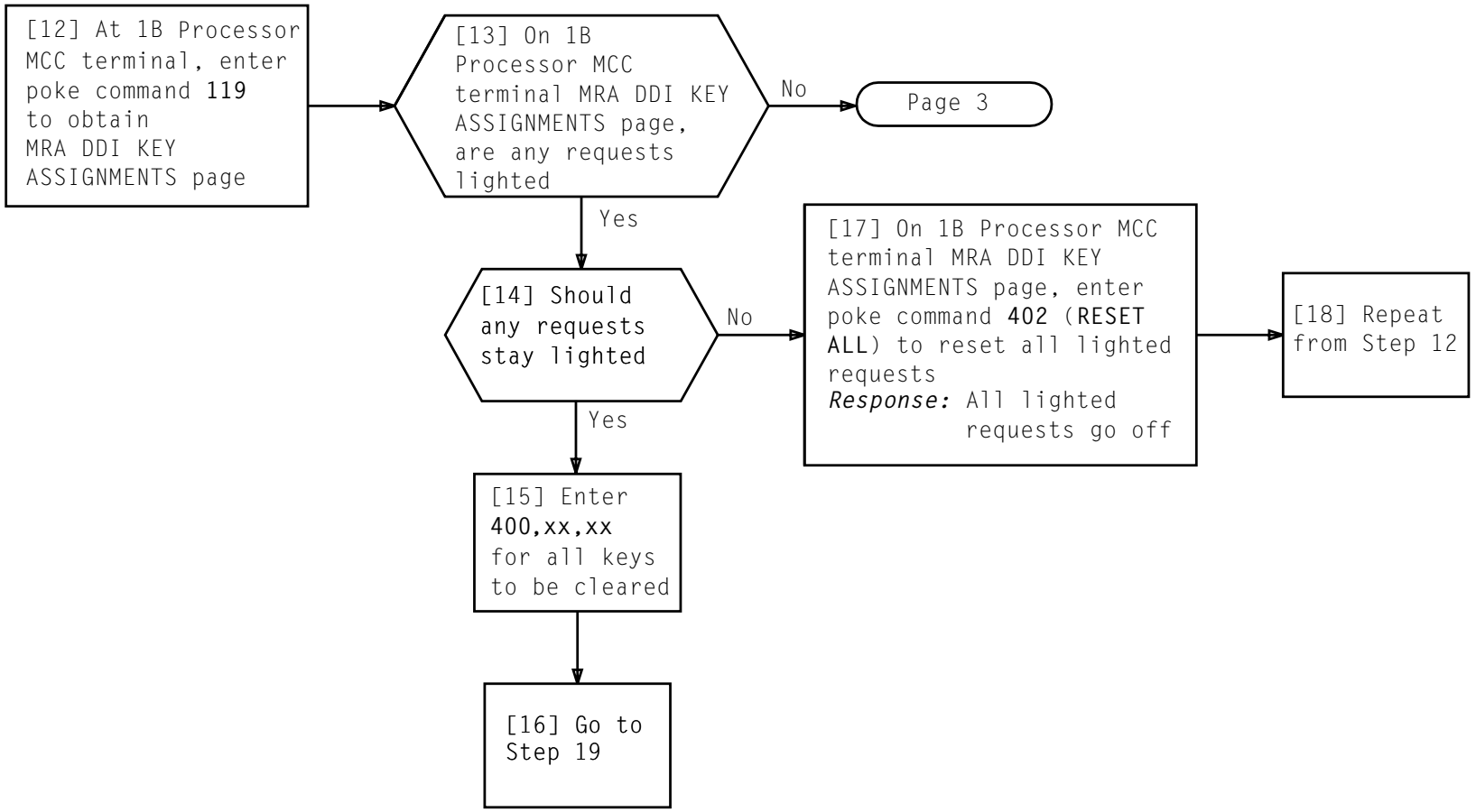
NOTE 2
After each input message, wait for COMPLETED message before proceeding to next step



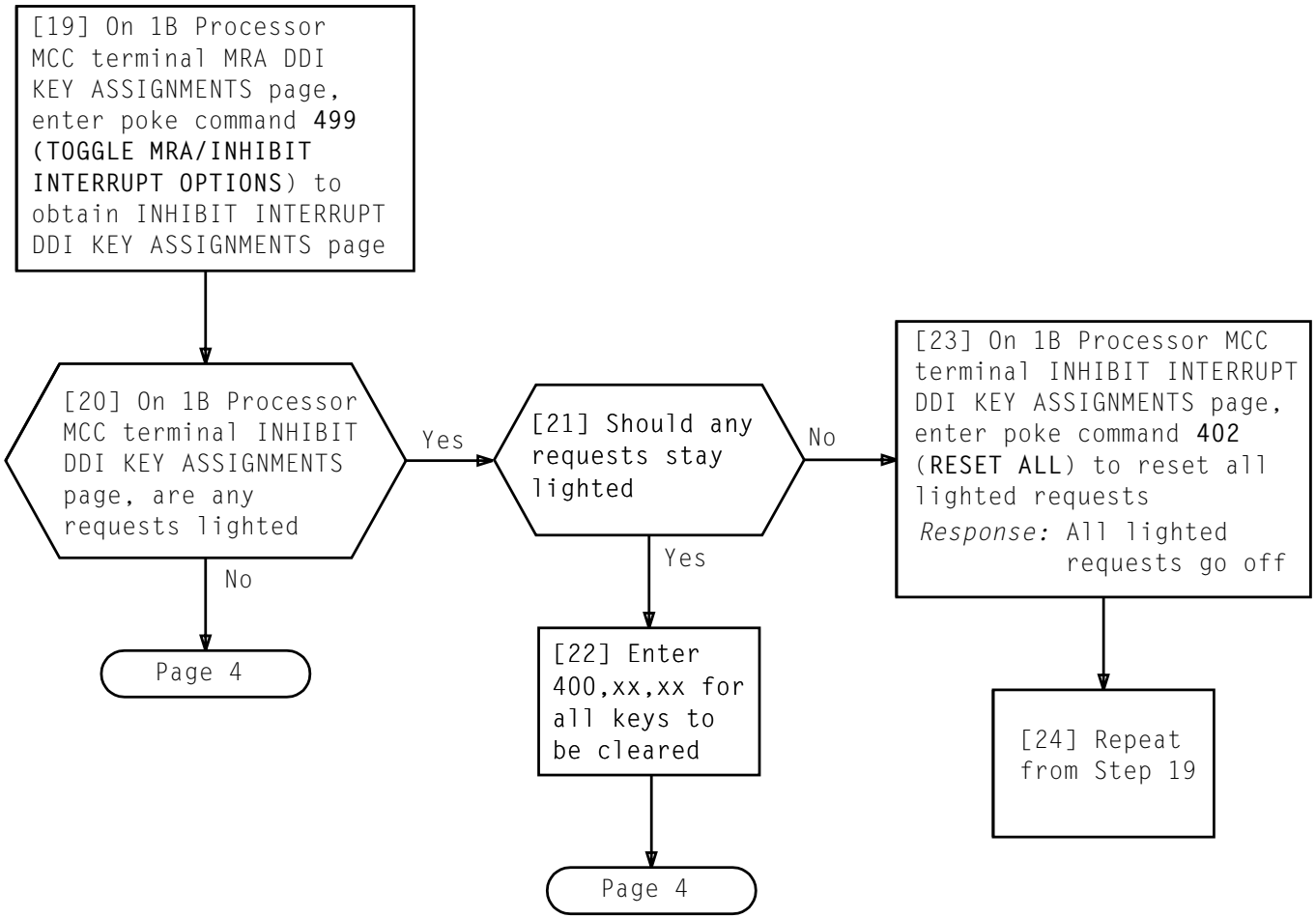
COPY ATTACHED PROCESSOR SYSTEM (APS) ROOT TO BROOT OR BROOT TO ROOT



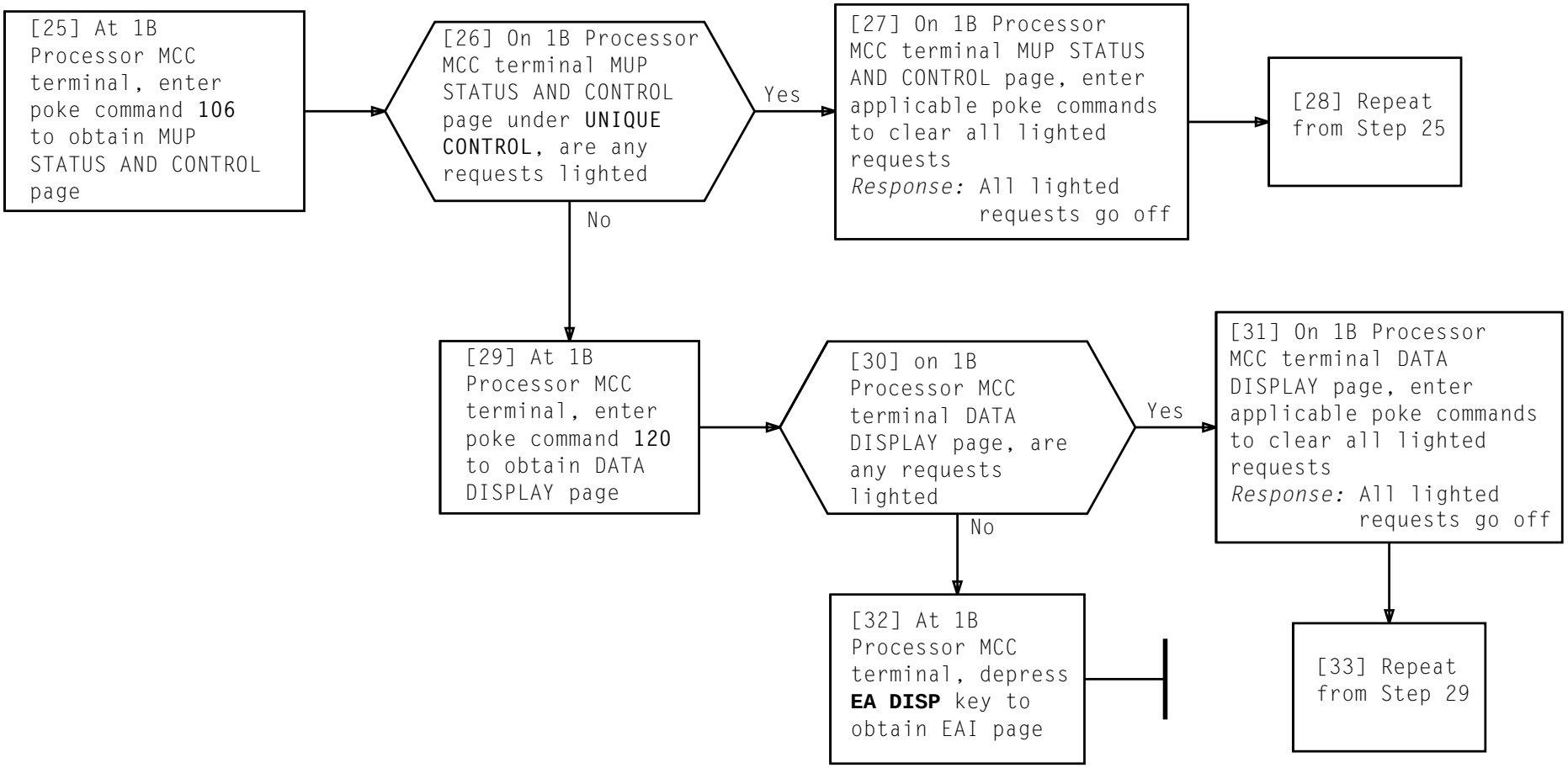
CLEAR ALL 1B PROCESSOR MCC TERMINAL FORCES AND/OR REQUESTS



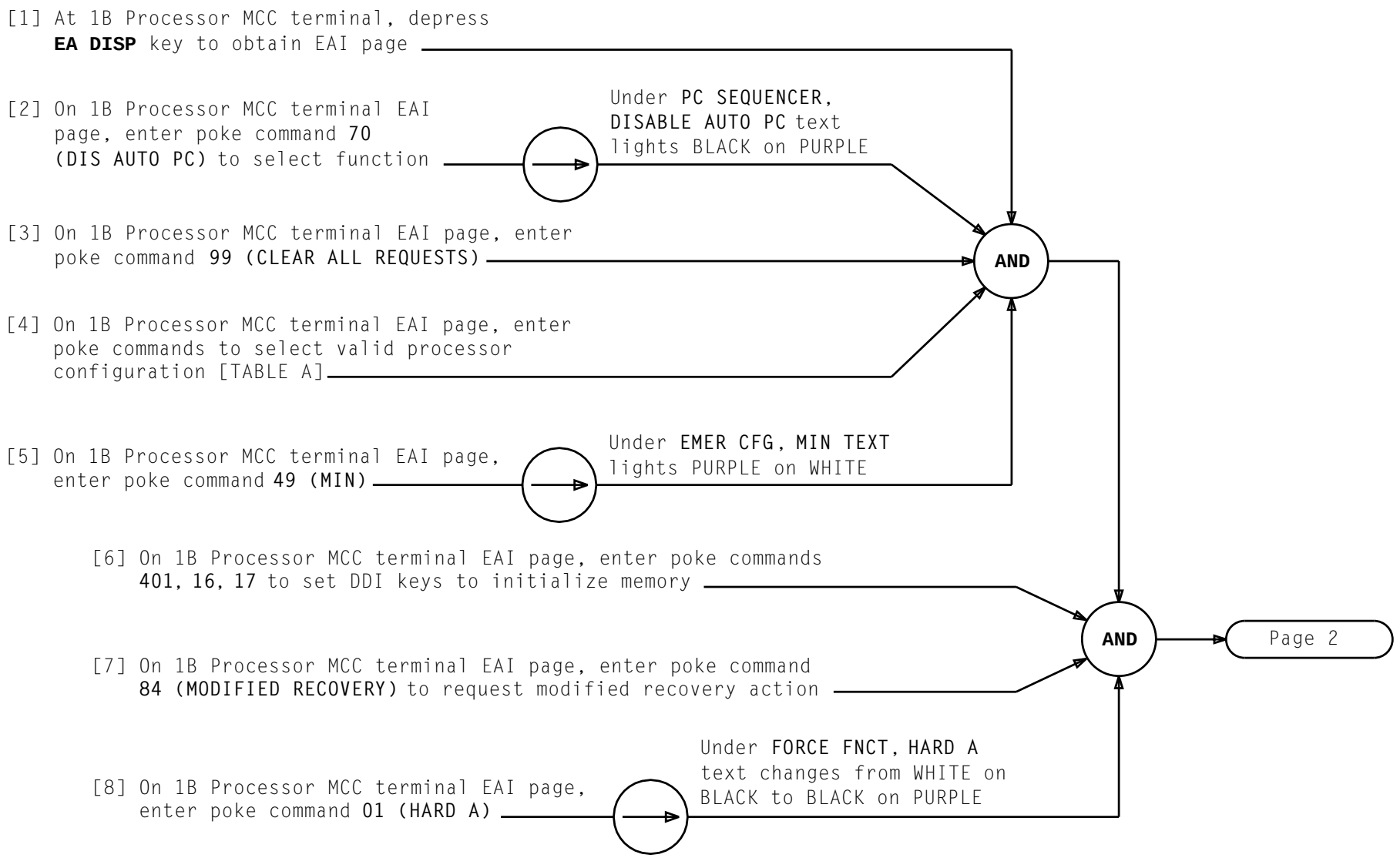
CLEAR ALL 1B PROCESSOR MCC TERMINAL FORCES AND/OR REQUESTS



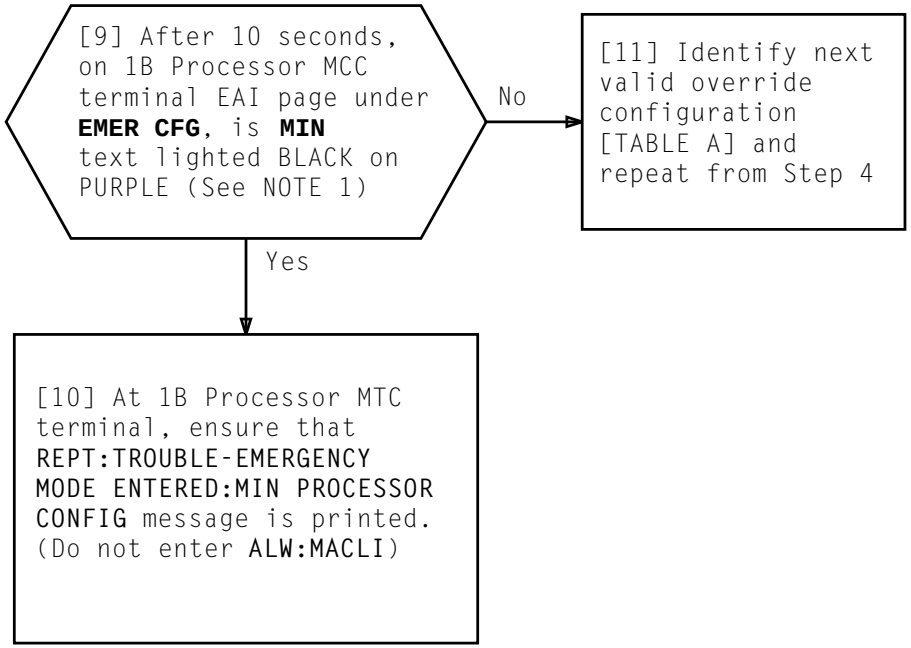
CLEAR ALL 1B PROCESSOR MCC TERMINAL FORCES AND/OR REQUESTS



CLEAR ALL 1B PROCESSOR MCC TERMINAL FORCES AND/OR REQUESTS



ENTER 1B PROCESSOR EMERGENCY MODE (MIN CONFIGURATION) BY FORCING AN OVERRIDE CONFIGURATION



86-CODE: 0'000aaabbbbb
87-DATA:
88-ADDR:

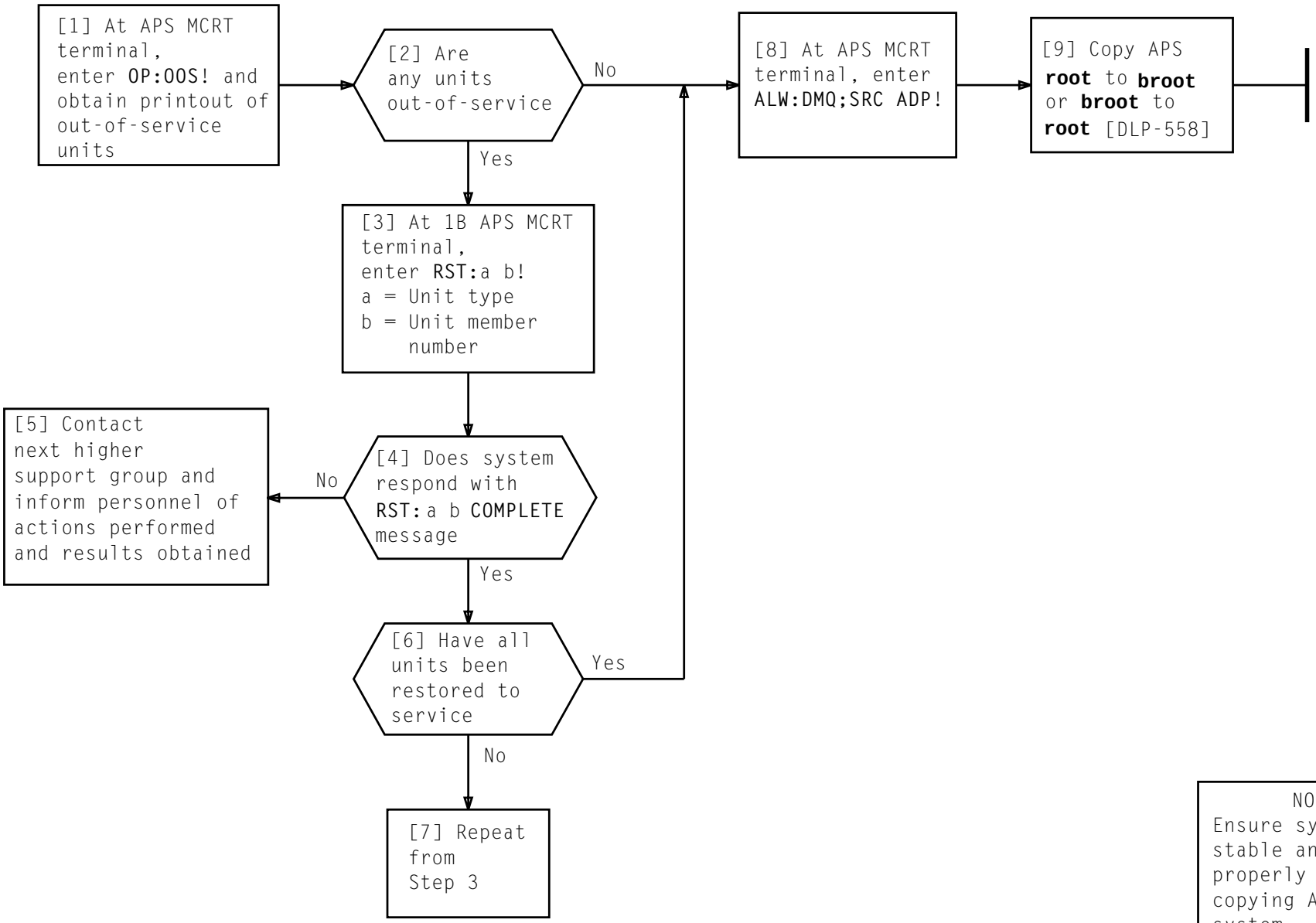
FIG. 1 - 86-CODE Field Layout

NOTE 1

In EAI DATA DISPLAY section, octal digits **"aaa"** and "bbbbb" [FIG. 1] in **86-CODE** field must begin incrementing within 10 seconds after entering poke command **702** (RUN CC) 1B Processor. **"bbbbb"** indicates the 1B Processor is attempting to pump and **"aaa"** indicates memory range that is being pumped. **"aaa"** and **"bbbbb"** will continue to increment until **PC PROGRESSION - CMPL** colors BLACK on GREEN and **SAM_01** fires (color WHITE on RED), approximately 2 minutes after entering poke command **702** (RUN CC). If **"aaa"** does not begin to increment and **"bbbbb"** does begin to increment, this is a failure. If at any time **"aaa"** stops incrementing while **"bbbbb"** continues to increment, this is a failure. If 87 and 88 fields are not blank, this is a failure. If these fields are blank, the 1B Processor successfully pumped

ENTER 1B PROCESSOR EMERGENCY MODE (MIN CONFIGURATION) BY FORCING AN OVERRIDE CONFIGURATION

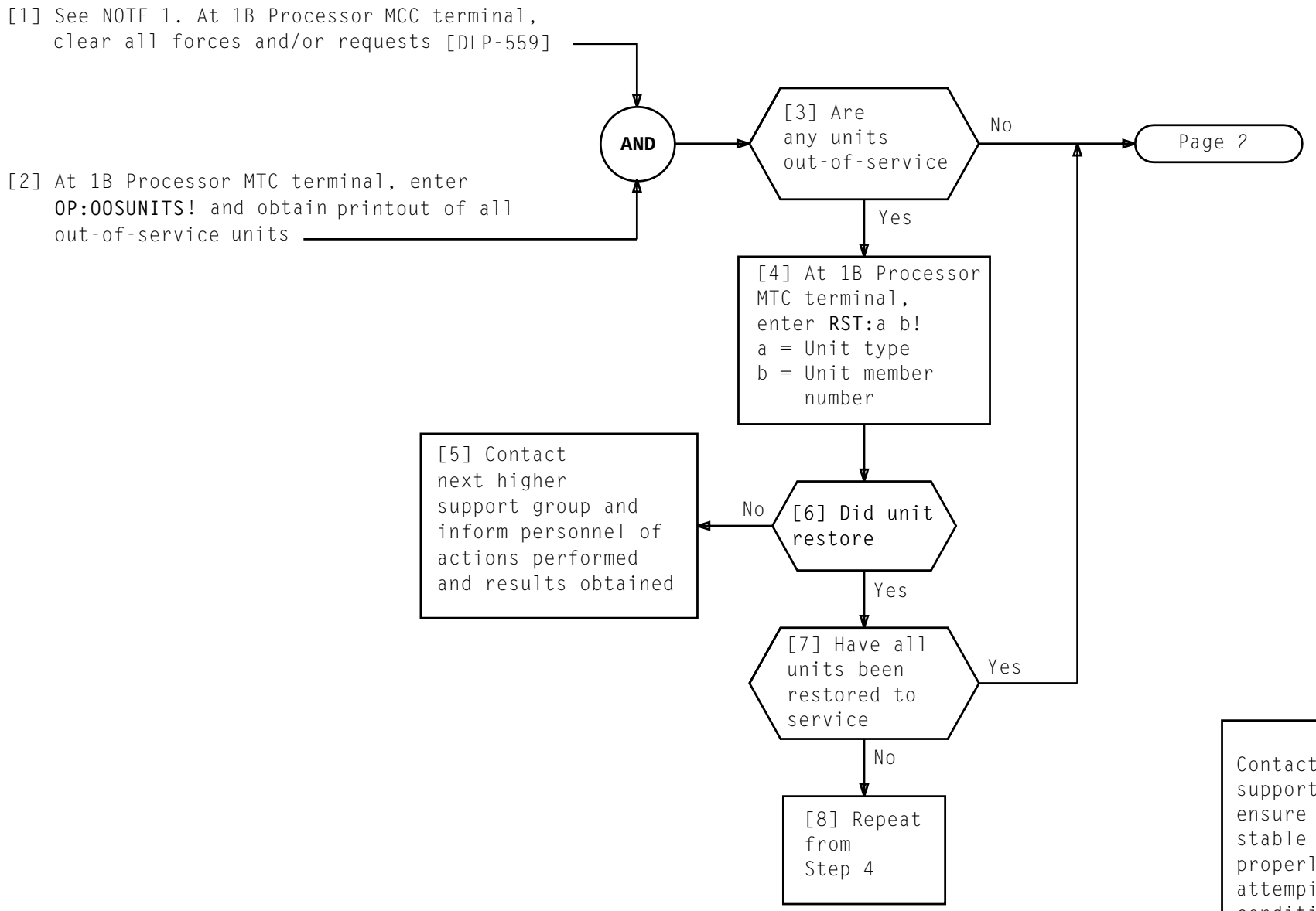
TABLE A 1B PROCESSOR MANUAL CONFIGURATIONS AND ASSOCIATED POKE COMMANDS													
MANUAL SEQUENCE	OVERRIDE CONTROL SELECTIONS												
	PC STATE	CC0	CC1	PS0	PS1	PSB0	PSB1	CSB0	CSB1	IFB0	IFB1	AUB0	AUB1
1	40	10		20		22		30		40		42	
2	41		11		21		23		31		41		43
3	52		11	20			23	30			41	42	
4	53		11		21	22			31	40			43
5	66		11	20			23		31	40			43
6	50	10		20		22		30			41	42	
7	51	10			21		23		31	40			43
8	65	10			21	22		30			41	42	
9	67	10			21	22		30			41	42	
10	64		11	20		22			31	40			43
11	74		11	20		22			31		41		43
12	77		11		21	22		30		40		42	
13	76	10		20			23		31		41		43
14	75	10			21		23	30		40		42	
15	43	10			21	22			31		41		43
16	42		11	20			23	30		40		42	



RESTORE ATTACHED PROCESSOR SYSTEM (APS) CONDITIONS FOLLOWING APS SYSTEM REINITIALIZATION (SR)

NOTE 1
Ensure system is stable and operating properly before copying APS file system

RESTORE CONDITIONS FOLLOWING SYSTEM RECOVERY



NOTE 1
Contact technical support group and ensure system is stable and operating properly before attemping to restore conditions following system recovery

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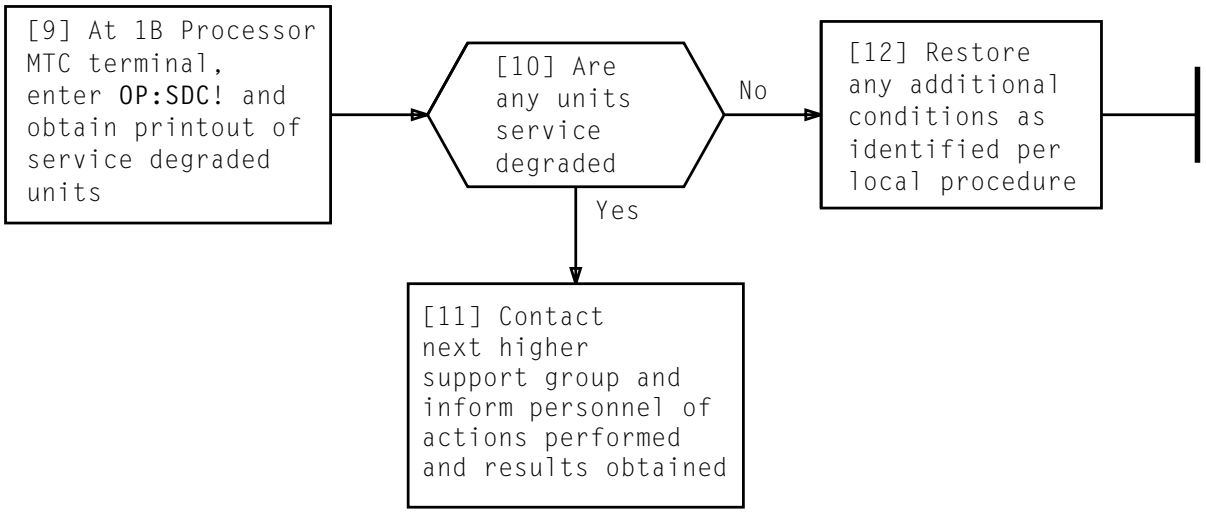
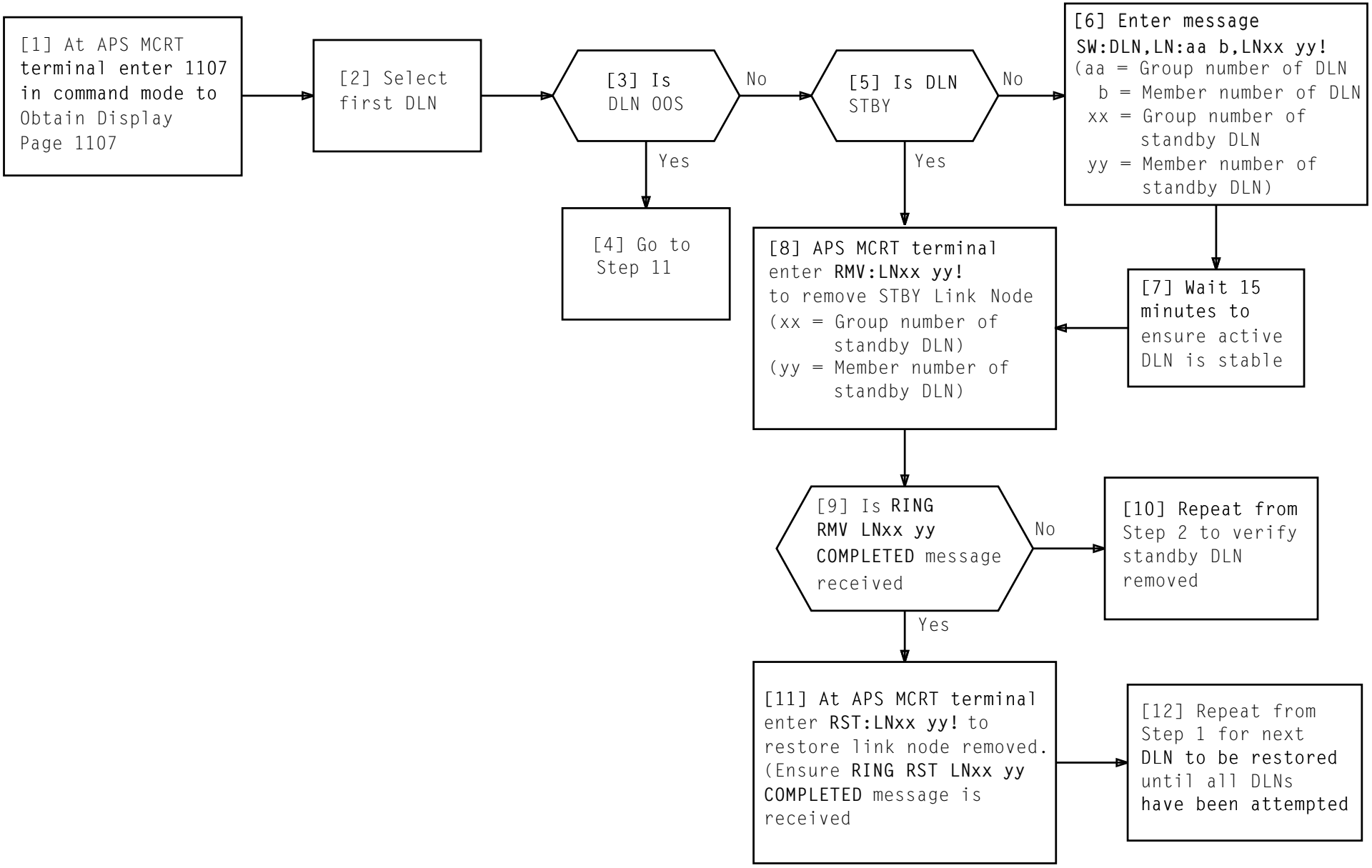
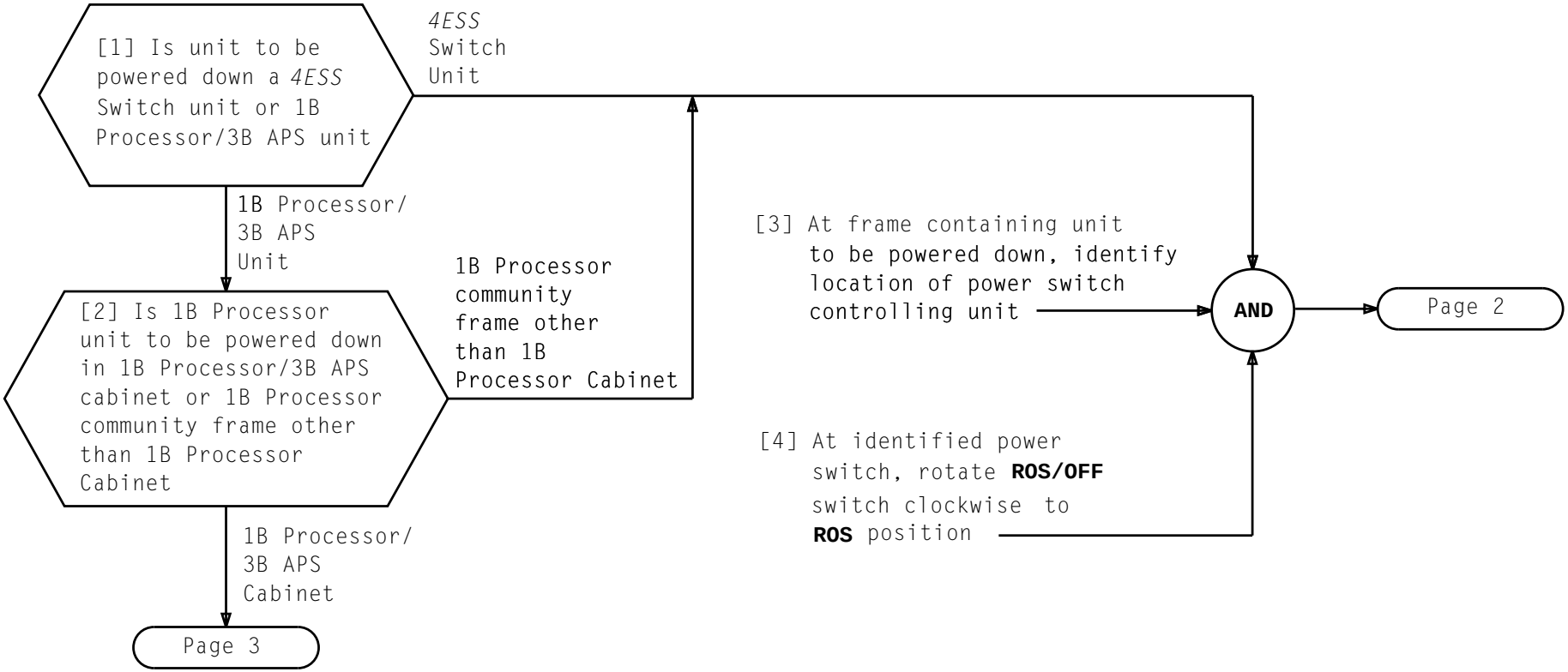


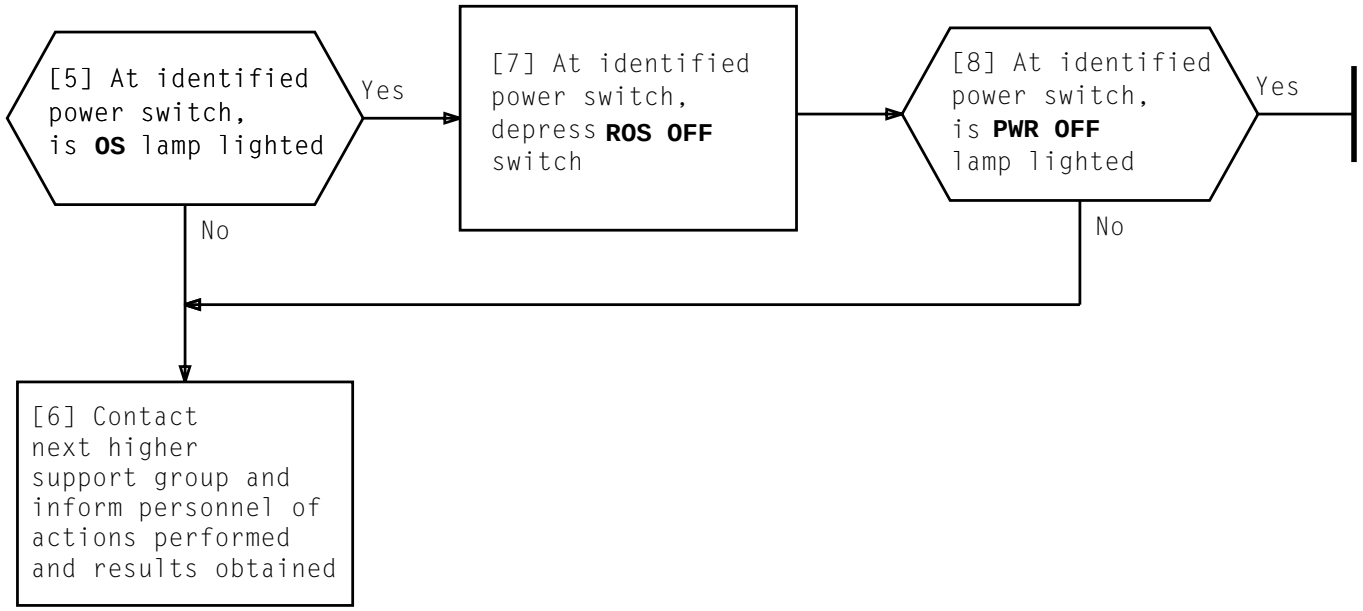
RESTORE CONDITIONS FOLLOWING SYSTEM RECOVERY



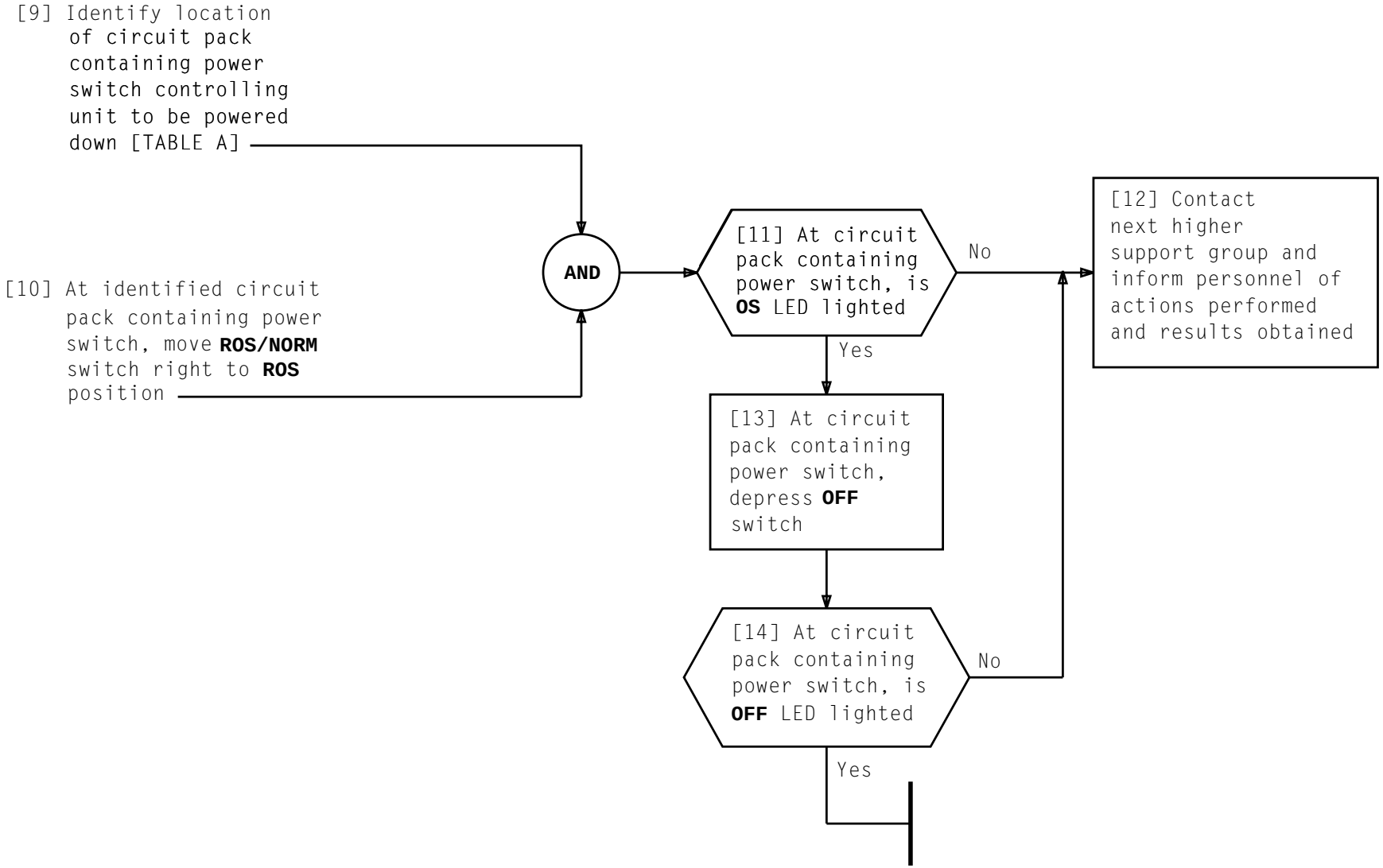
RESTORE ATTACHED PROCESSOR SYSTEM (APS) DIRECT LINK NODES (DLNs)



POWER DOWN *4ESS* SWITCH/1B PROCESSOR UNIT



POWER DOWN *4ESS* SWITCH/1B PROCESSOR UNIT

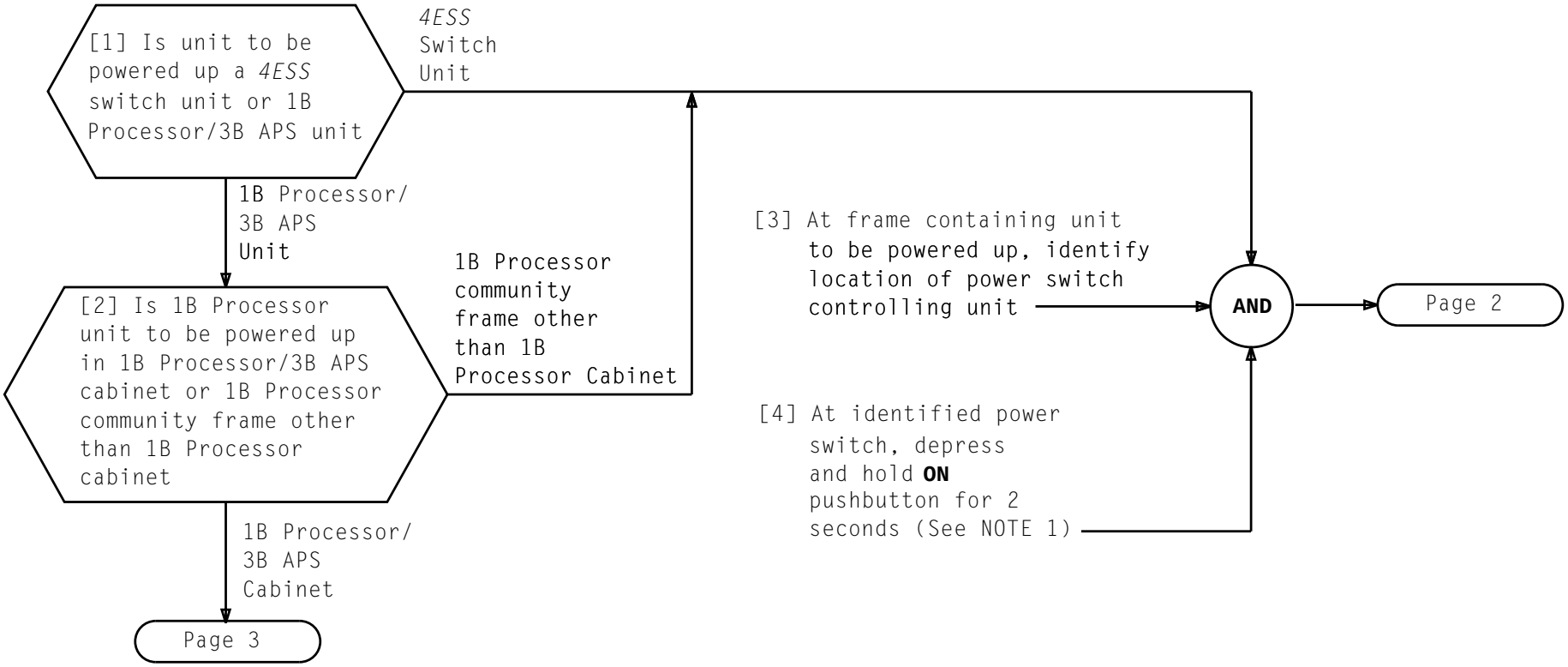


POWER DOWN *4ESS* SWITCH/1B PROCESSOR UNIT

TABLE A
POWER SWITCH IDENTIFIERS AND LOCATIONS

UNIT TO BE POWERED DOWN	CIRCUIT PACK CONTAINING POWER SWITCH		UNIT TO BE POWERED DOWN	CIRCUIT PACK CONTAINING POWER SWITCH	
	IDENTIFIER	LOCATION		IDENTIFIER	LOCATION
1B PROCESSOR UNIT					
CC	**KLW11**	41-014	CS 14	**KLW01**	24-152
			CS 10	**KLW01**	24-160
AUI	**KLW18**	58-120	CS 6	**KLW01**	24-168
			CS 2	**KLW01**	24-176
MUP	**KLW25**	58-086	PS 0	**KLW02**	41-128
			PS 2	**KLW02**	41-136
CS 0	**KLW01**	24-006	PS 4	**KLW02**	41-144
CS 4	**KLW01**	24-014	PS 6	**KLW02**	41-152
CS 8	**KLW01**	24-022	PS 8	**KLW02**	41-160
CS 12	**KLW01**	24-030	PS 10	**KLW02**	41-168
CS 16	**KLW01**	24-038	PS 12	**KLW02**	41-176
CS 20	**KLW01**	24-046			
CS 24	**KLW01**	24-054	SSD	**KLW15**	58-168
CS 28	**KLW01**	24-062			
CS 32	**KLW01**	24-070	XPWR	**KLW23**	58-030
CS 36	**KLW01**	24-078	CS BUS 0 BUFFER	**KLW26**	24-086
CS 38	**KLW01**	24-104			
CS 34	**KLW01**	24-112			
CS 30	**KLW01**	24-120			
CS 26	**KLW01**	24-128	CS BUS 1 BUFFER	**KLW27**	24-096
CS 22	**KLW01**	24-136			
CS 18	**KLW01**	24-144			
3B21D PROCESSOR UNIT					
DFC 0	**UN580B**	58-178	DFC 1	**UN580B**	28-178

POWER DOWN *4ESS* SWITCH/1B PROCESSOR UNIT



NOTE 1
Some units have interlocks that may prevent pressing a unit to power it up. There may also be cases when a "known" unit is left in a powered down state

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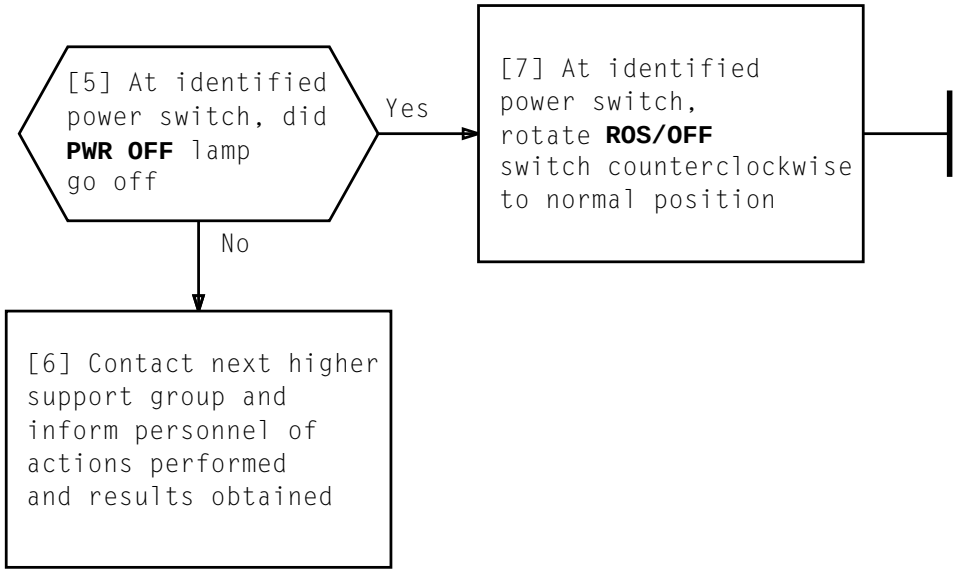
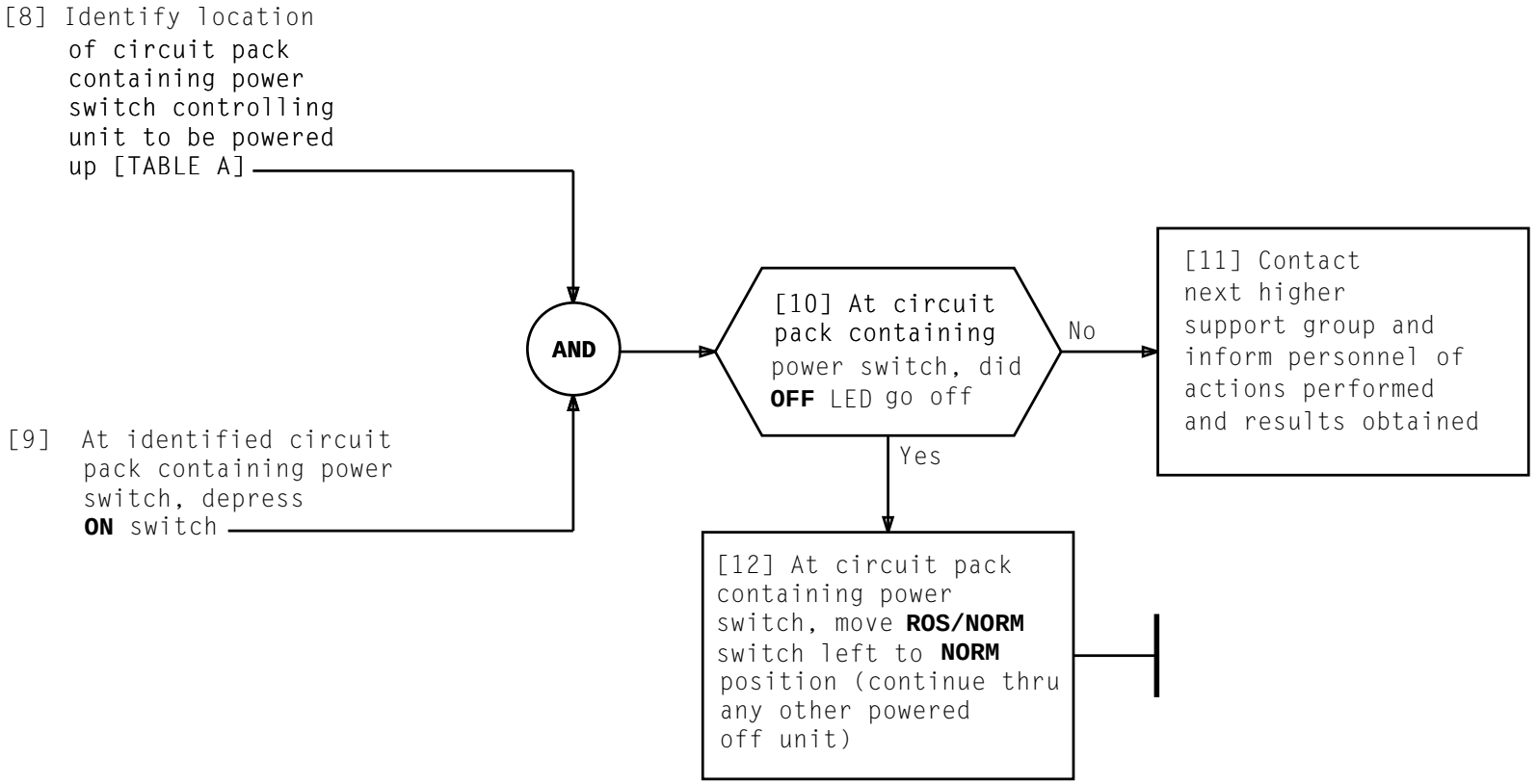
POWER UP *4ESS* SWITCH/1B PROCESSOR UNIT



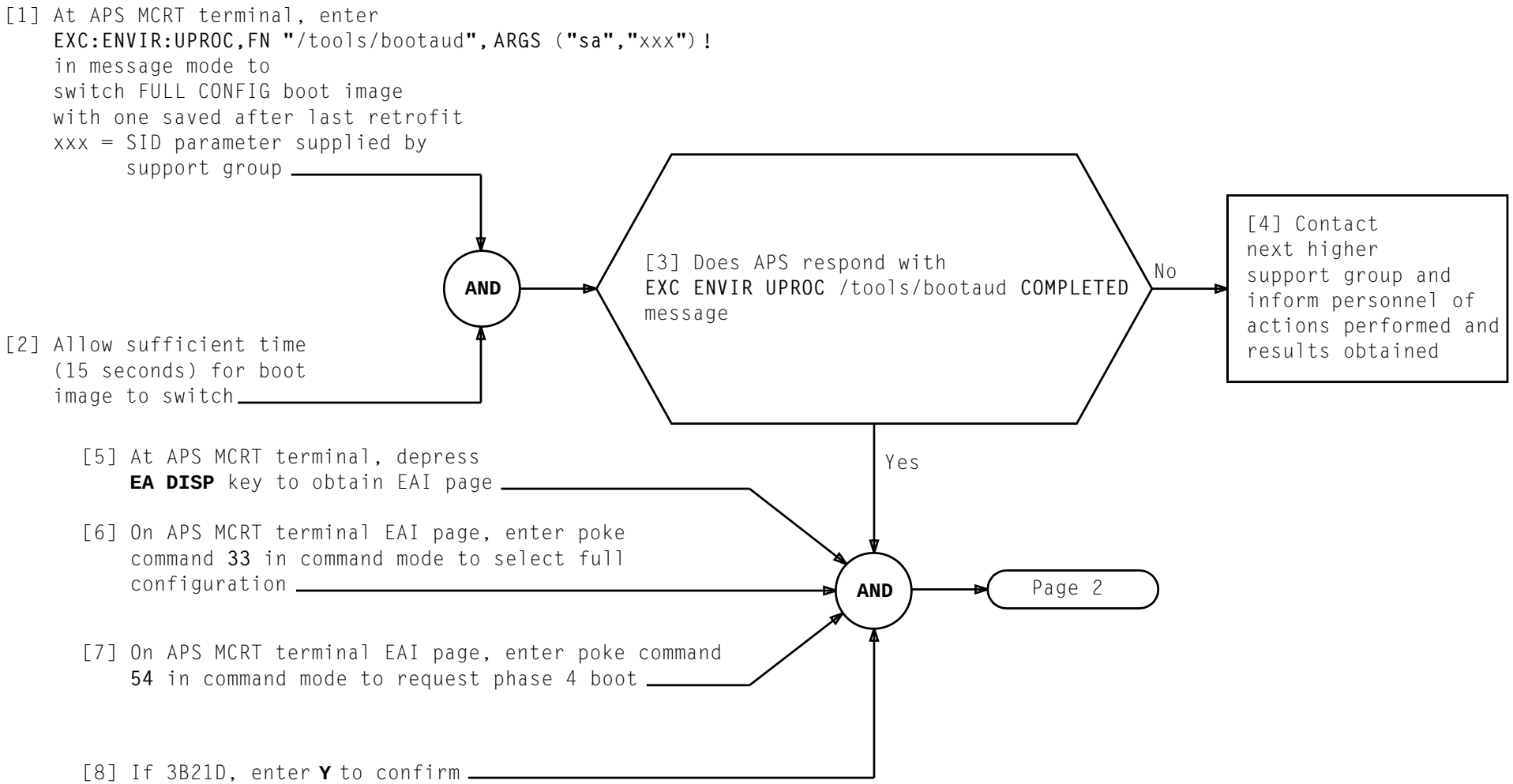
POWER UP *4ESS* SWITCH/1B PROCESSOR UNIT



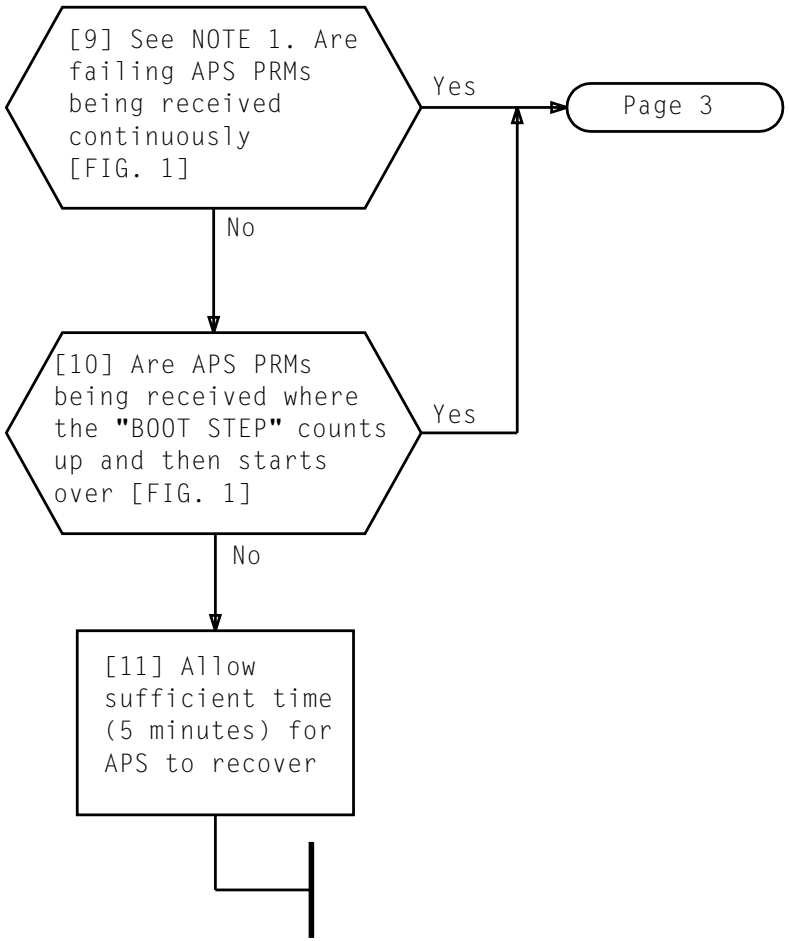
POWER UP *4ESS* SWITCH/1B PROCESSOR UNIT

TABLE A
POWER SWITCH IDENTIFIERS AND LOCATIONS

UNIT TO BE POWERED DOWN	CIRCUIT PACK CONTAINING POWER SWITCH		UNIT TO BE POWERED DOWN	CIRCUIT PACK CONTAINING POWER SWITCH	
	IDENTIFIER	LOCATION		IDENTIFIER	LOCATION
1B PROCESSOR UNIT					
CC	**KLW11**	41-014	CS 14	**KLW01**	24-152
			CS 10	**KLW01**	24-160
AUI	**KLW18**	58-120	CS 6	**KLW01**	24-168
			CS 2	**KLW01**	24-176
MUP	**KLW25**	58-086	PS 0	**KLW02**	41-128
			PS 2	**KLW02**	41-136
CS 0	**KLW01**	24-006	PS 4	**KLW02**	41-144
CS 4	**KLW01**	24-014	PS 6	**KLW02**	41-152
CS 8	**KLW01**	24-022	PS 8	**KLW02**	41-160
CS 12	**KLW01**	24-030	PS 10	**KLW02**	41-168
CS 16	**KLW01**	24-038	PS 12	**KLW02**	41-176
CS 20	**KLW01**	24-046	SSD	**KLW15**	58-168
CS 24	**KLW01**	24-054			
CS 28	**KLW01**	24-062	XPWR	**KLW23**	58-030
CS 32	**KLW01**	24-070			
CS 36	**KLW01**	24-078	CS BUS 0 BUFFER	**KLW26**	24-086
CS 38	**KLW01**	24-104			
CS 34	**KLW01**	24-112			
CS 30	**KLW01**	24-120			
CS 26	**KLW01**	24-128	CS BUS 1 BUFFER	**KLW27**	24-096
CS 22	**KLW01**	24-136			
CS 18	**KLW01**	24-144			
3B21D PROCESSOR UNIT					
DFC 0	**UN580B**	58-178	DFC 1	**UN580B**	28-178



PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY — MINIMUM CONFIGURATION



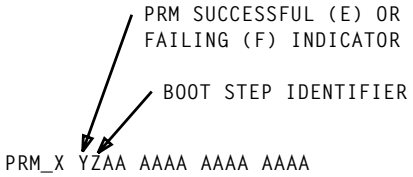
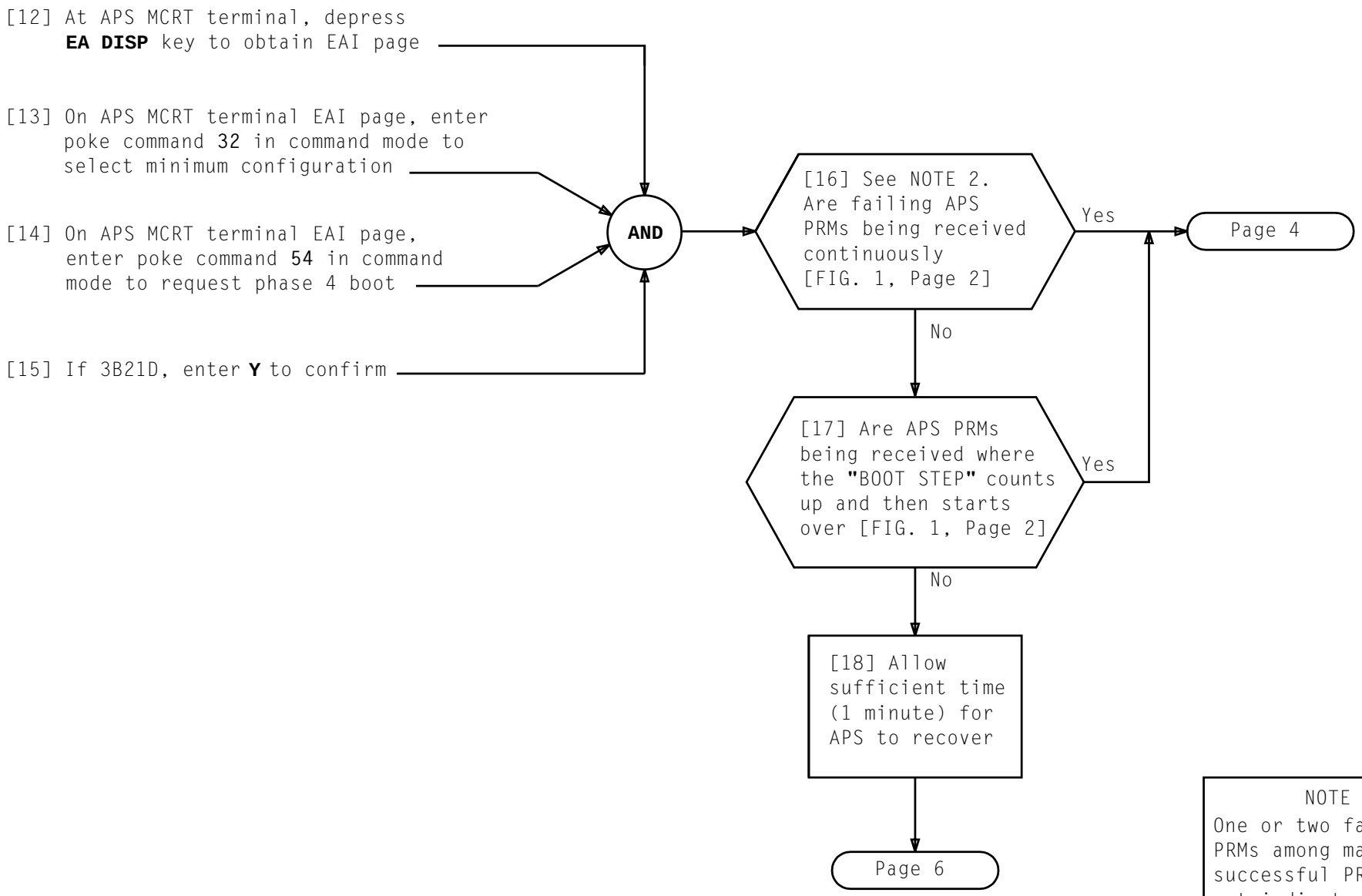


FIG. 1 – Sample Layout of Attached Processor System (APS) Processor Recovery Message (PRM)

NOTE 1

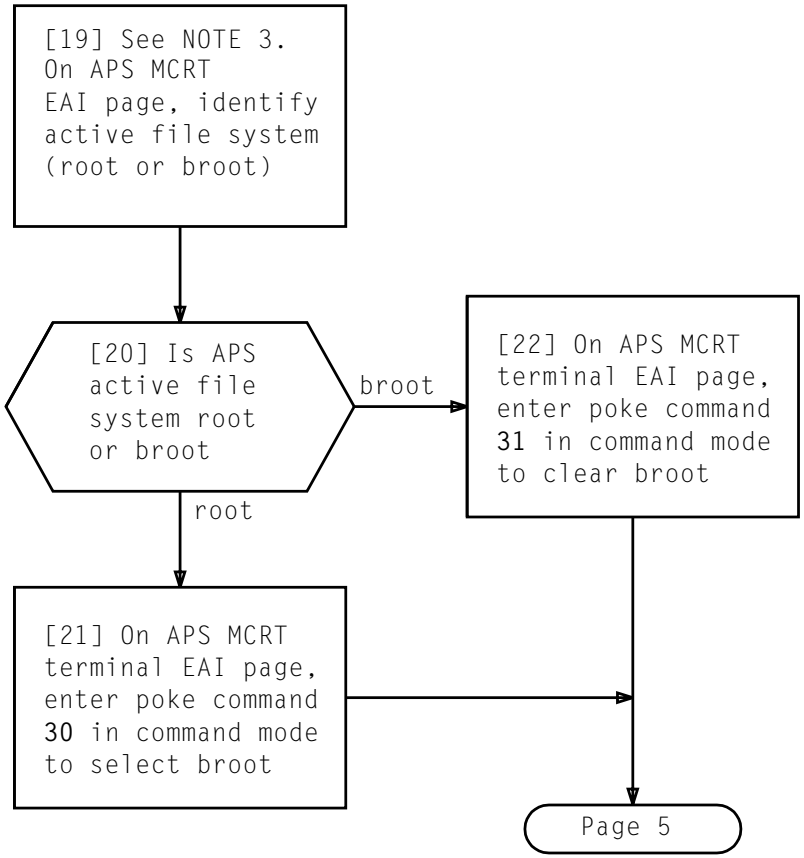
One or two failing PRMs among many successful PRMs does not indicate system sanity is in jeopardy

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY – MINIMUM CONFIGURATION



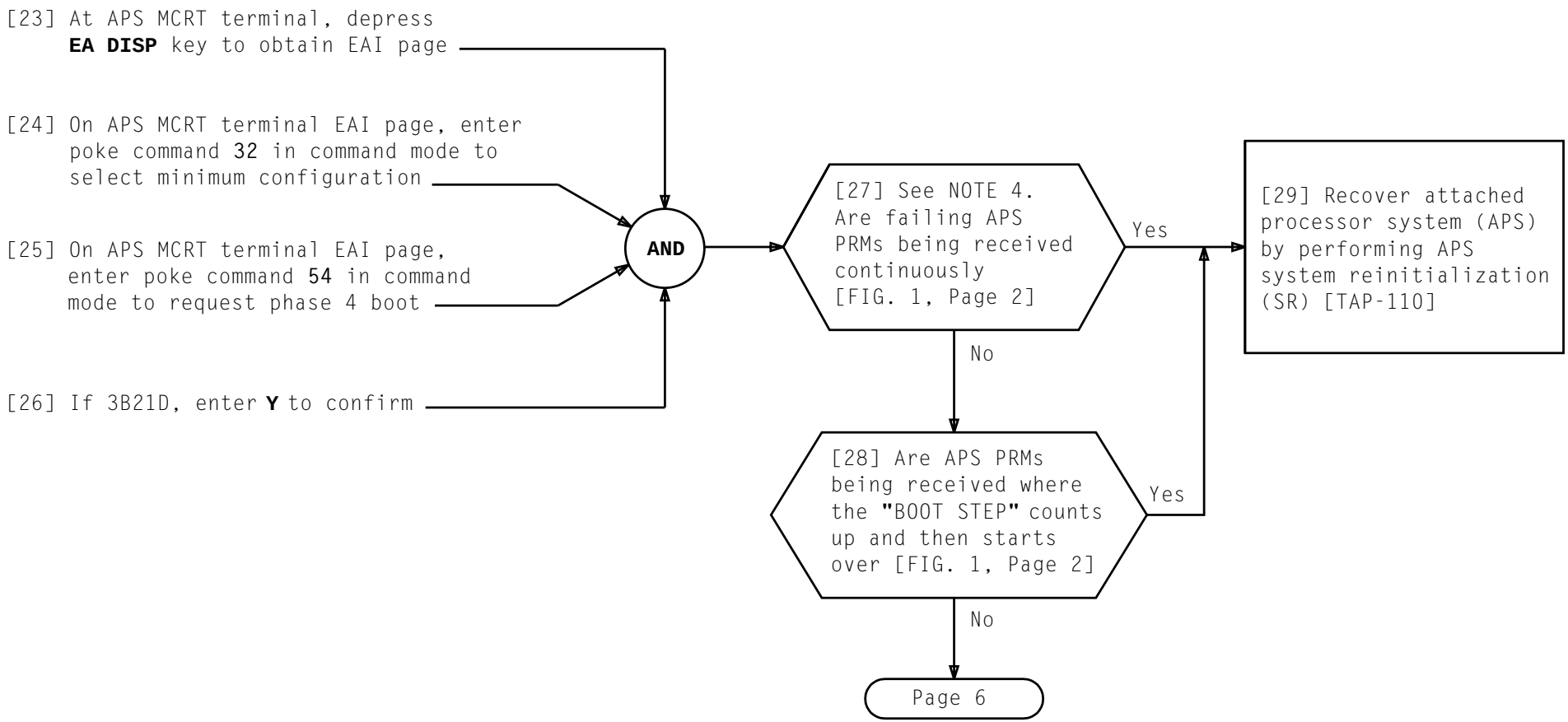
NOTE 2
One or two failing PRMs among many successful PRMs does not indicate system sanity is in jeopardy

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY — MINIMUM CONFIGURATION



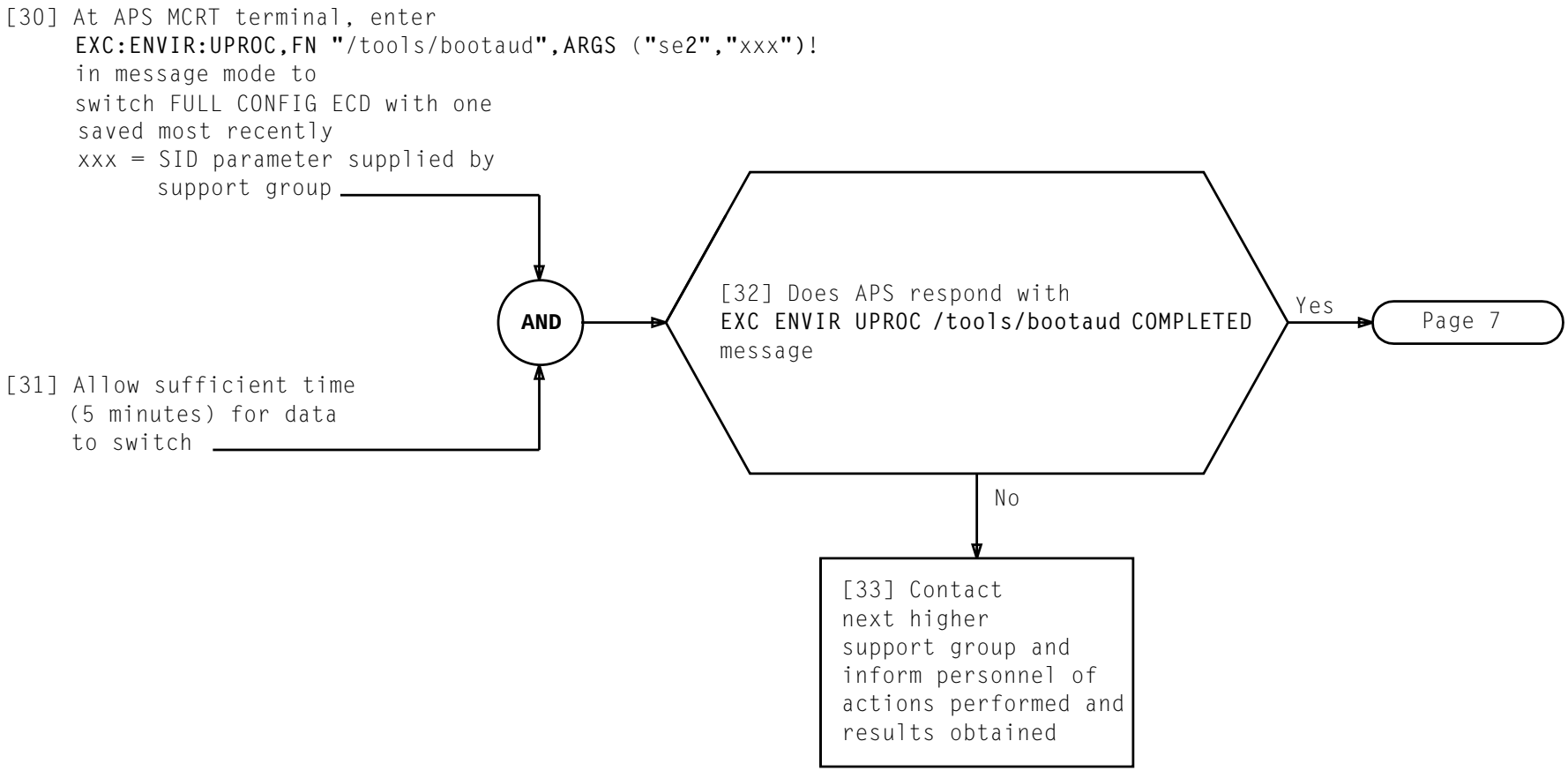
NOTE 3
The active file system is determined if **SET** is lighted on the **Backup Root** line, then the active file system is broot. If not the file system is "root"

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY – MINIMUM CONFIGURATION

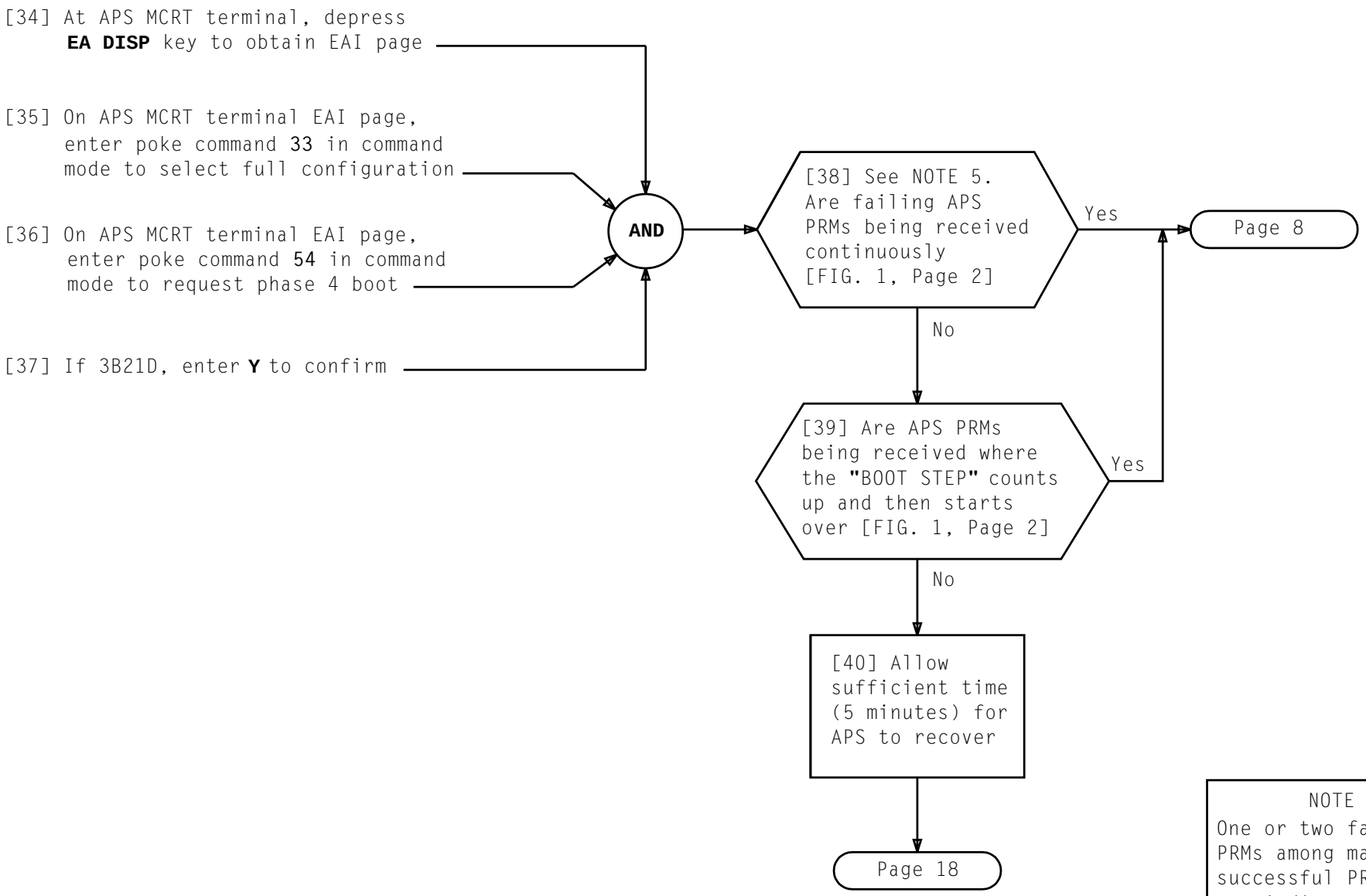


NOTE 4
One or two failing PRMs among many successful PRMs does not indicate system sanity is in jeopardy

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY — MINIMUM CONFIGURATION



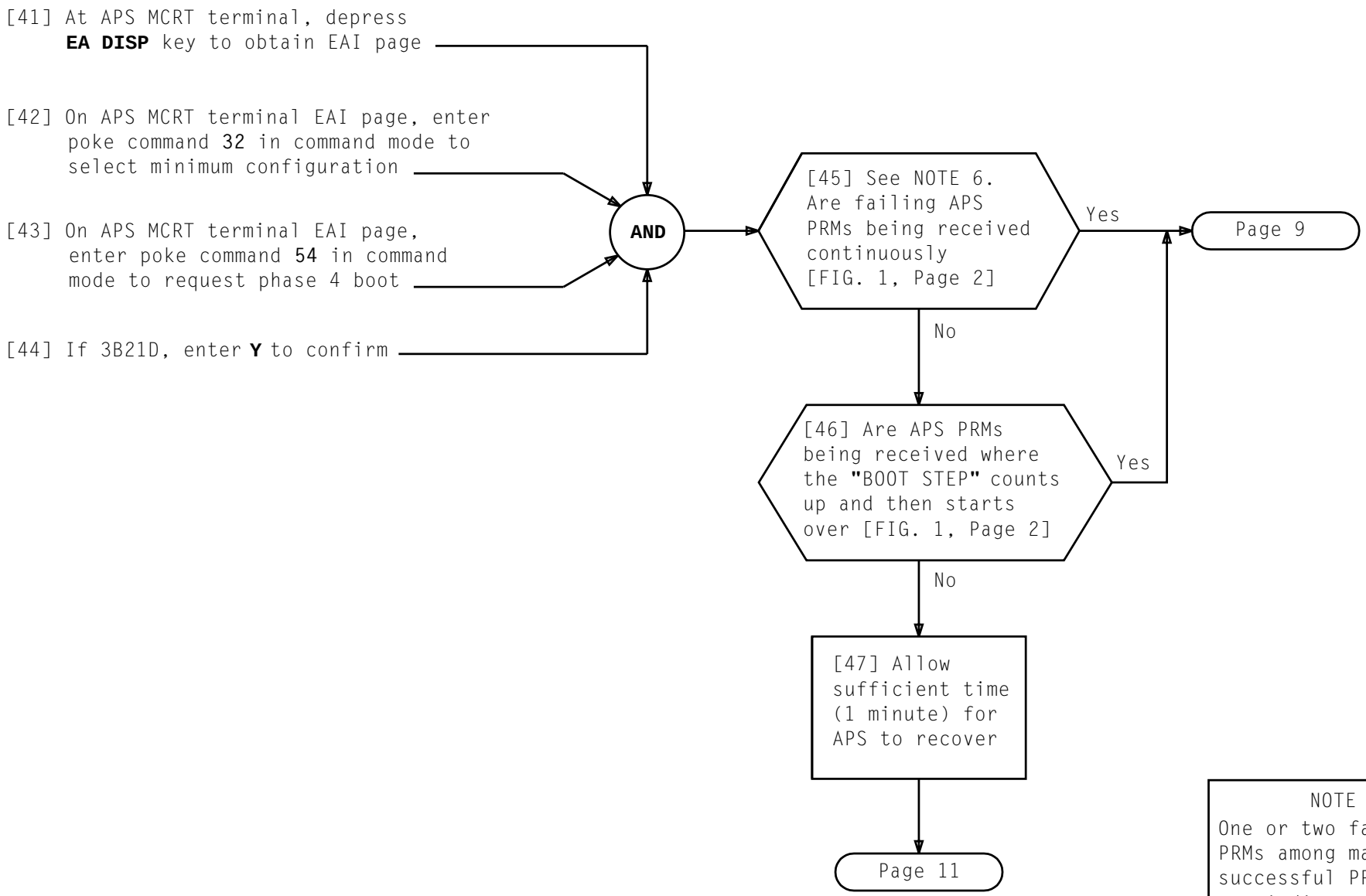
PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY – MINIMUM CONFIGURATION



NOTE 5

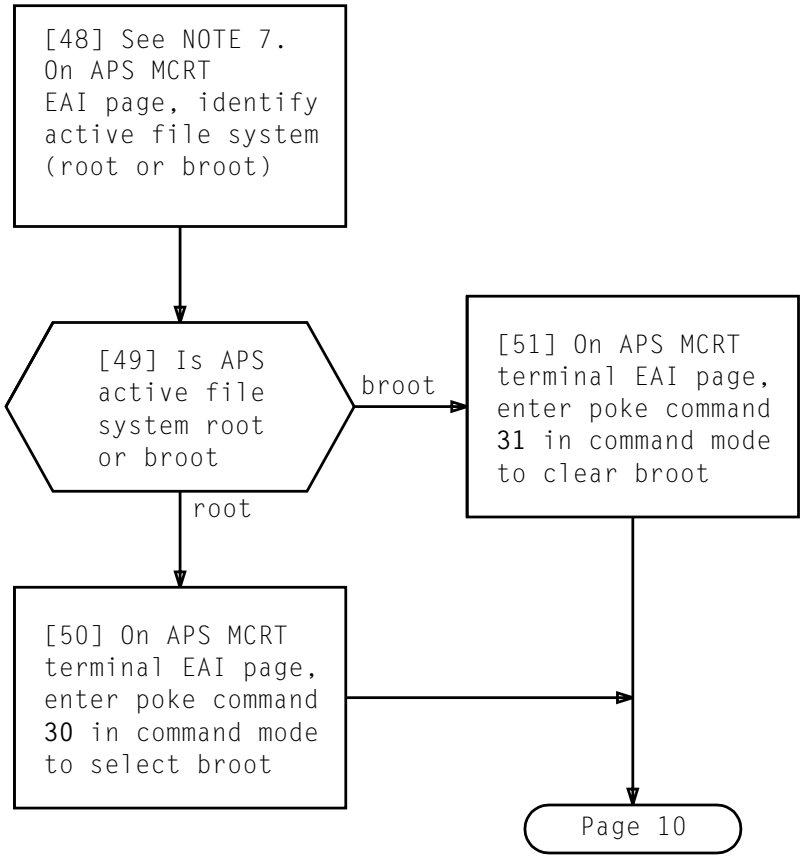
One or two failing PRMs among many successful PRMs does not indicate system sanity is in jeopardy

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY — MINIMUM CONFIGURATION



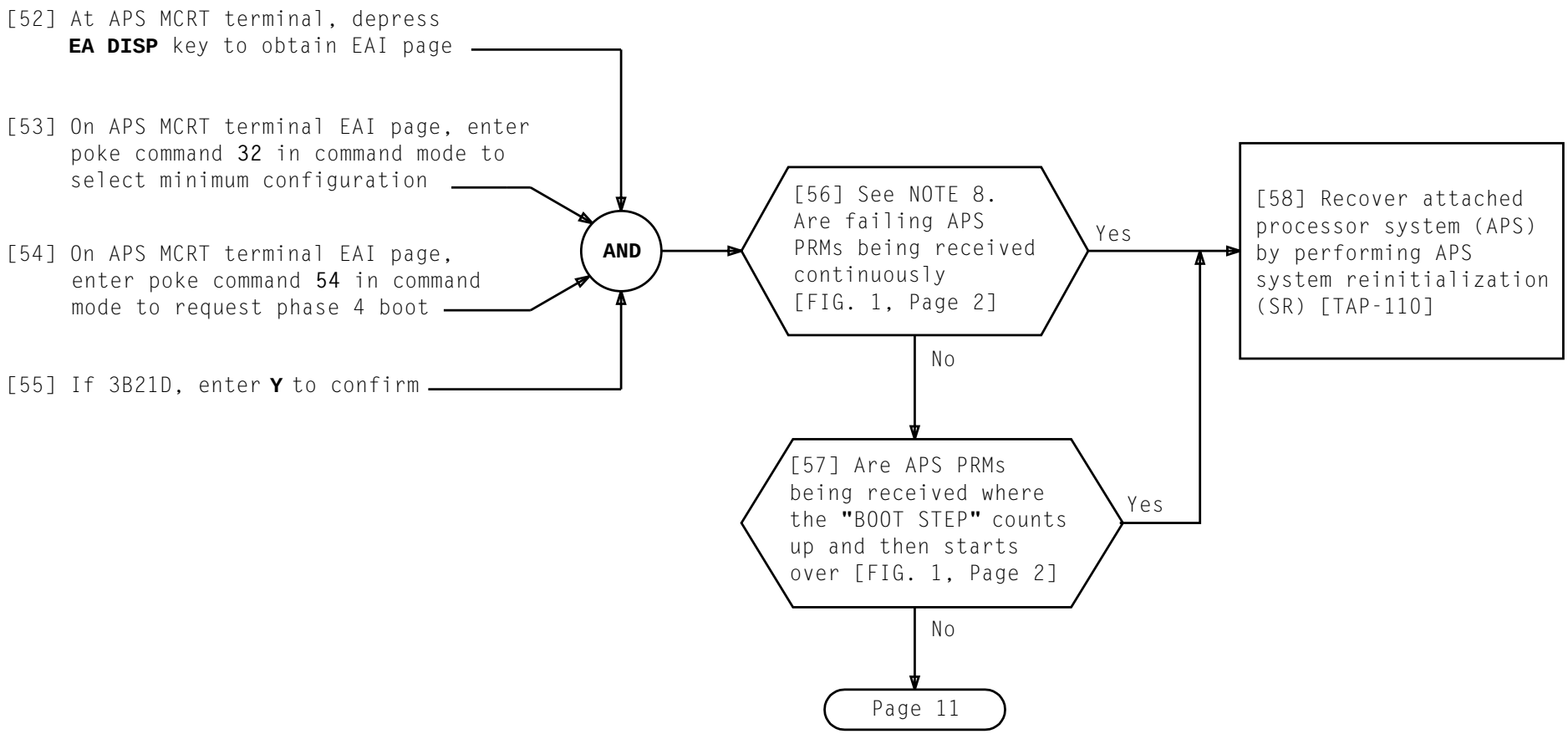
NOTE 6
One or two failing PRMs among many successful PRMs does not indicate system sanity is in jeopardy

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY — MINIMUM CONFIGURATION



NOTE 7
The active file system is determined if **SET** is lighted on the **Backup Root** line, then the active file system is broot. If not the file system is "root"

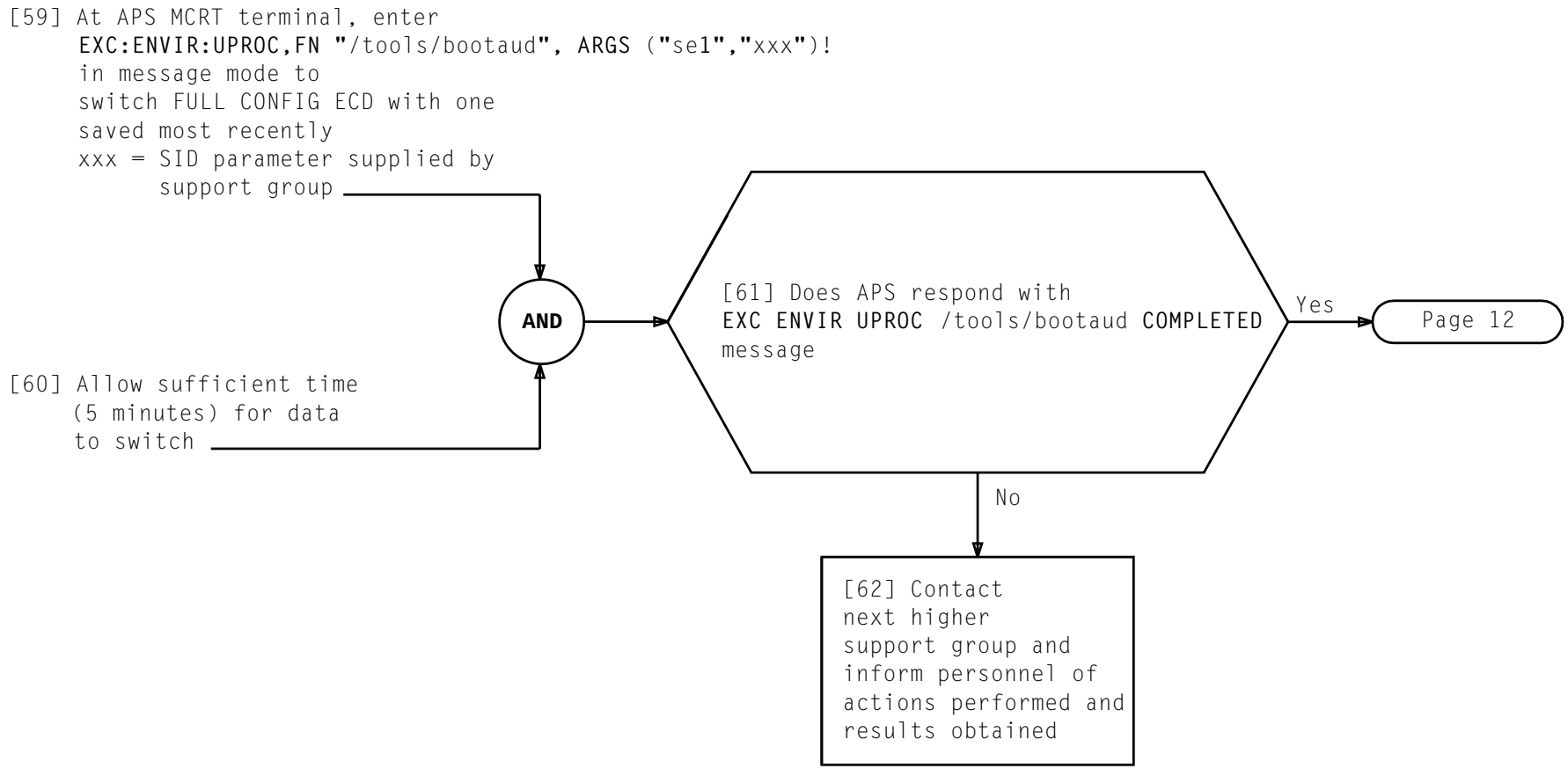
PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY — MINIMUM CONFIGURATION



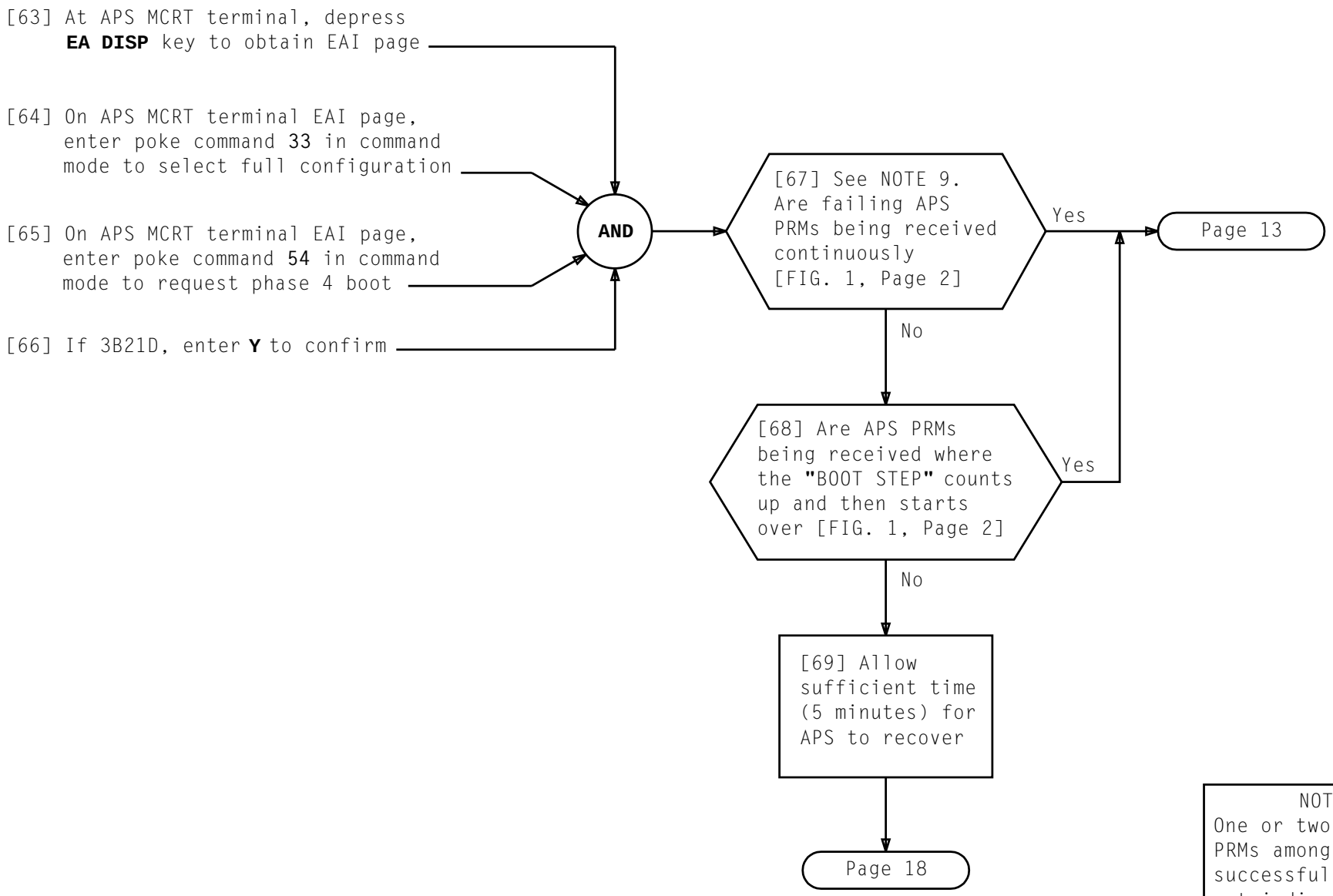
NOTE 8

One or two failing PRMs among many successful PRMs does not indicate system sanity is in jeopardy

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY — MINIMUM CONFIGURATION

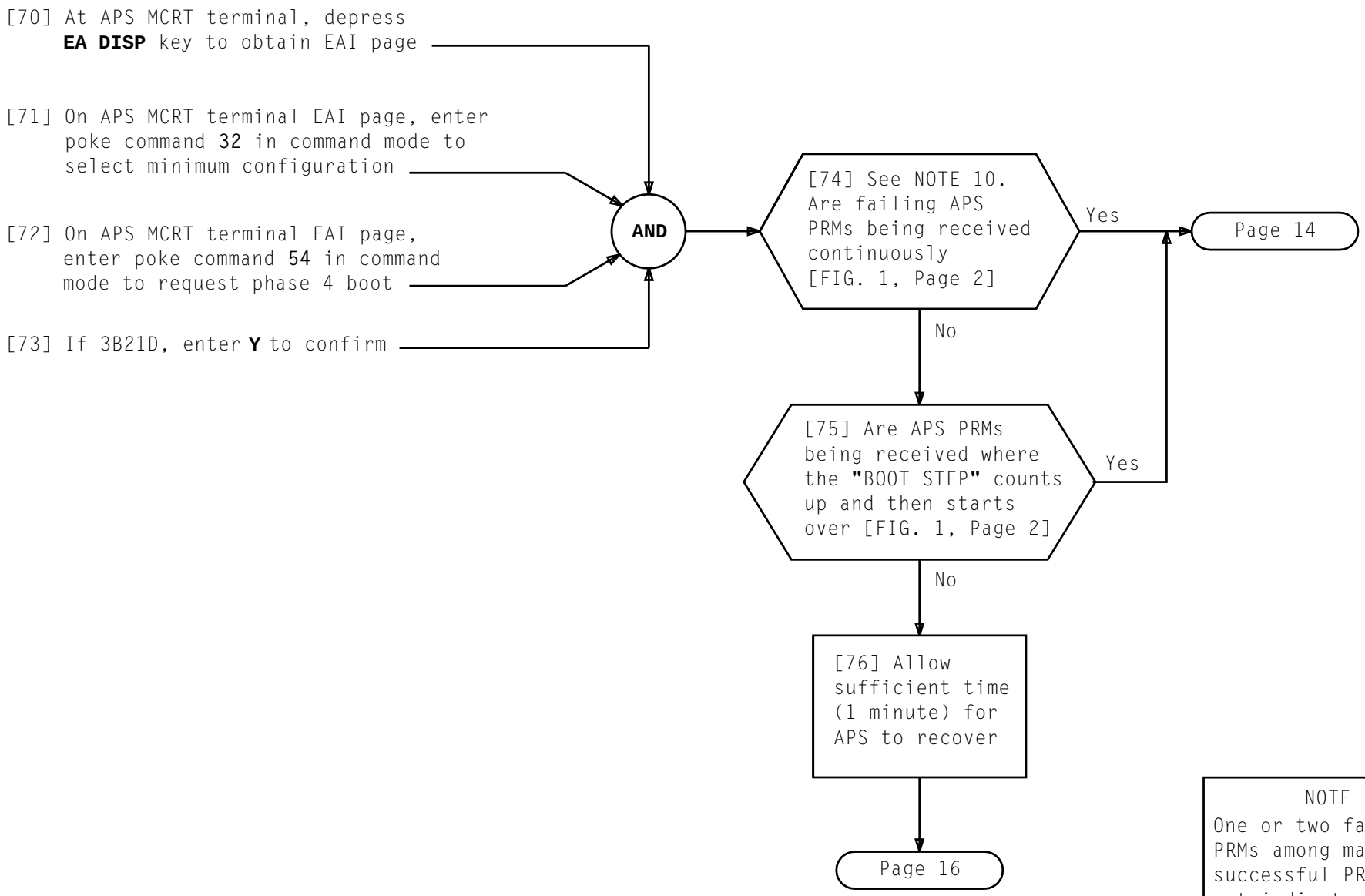


PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY — MINIMUM CONFIGURATION



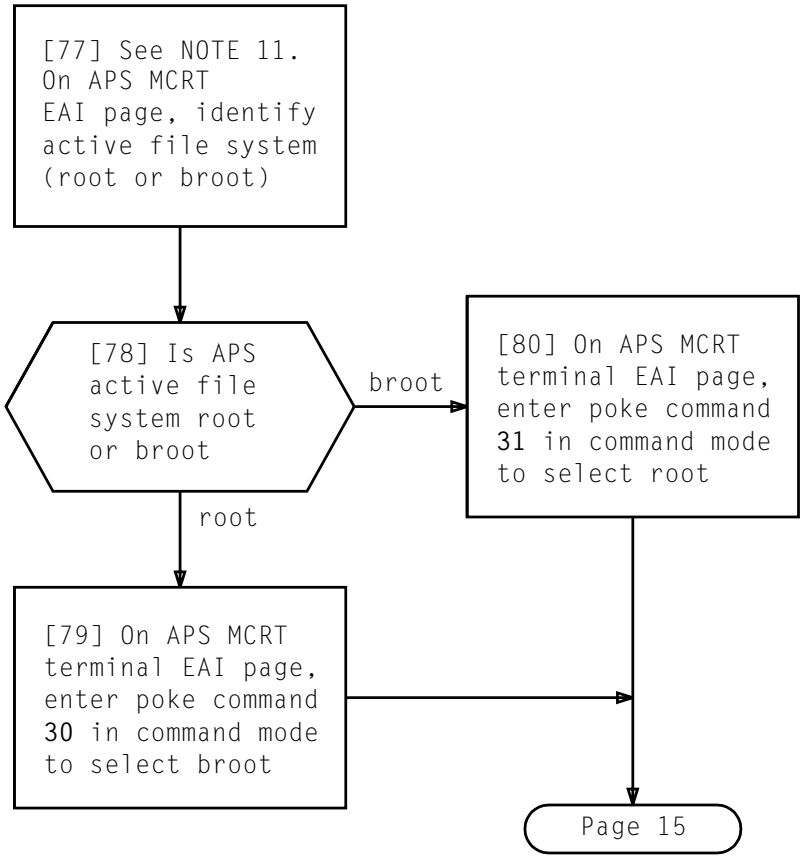
NOTE 9
One or two failing PRMs among many successful PRMs does not indicate system sanity is in jeopardy

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY — MINIMUM CONFIGURATION



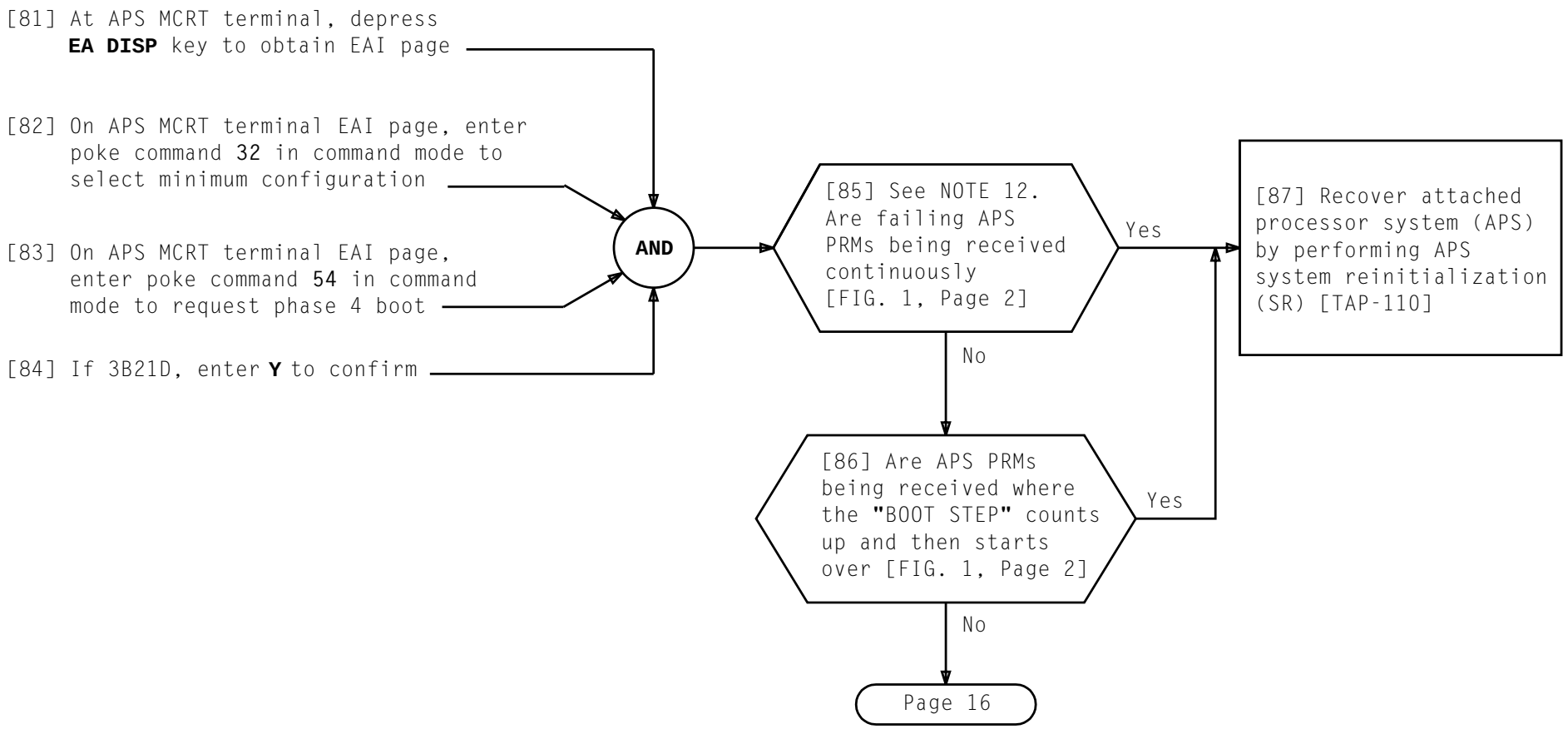
NOTE 10
One or two failing PRMs among many successful PRMs does not indicate system sanity is in jeopardy

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY — MINIMUM CONFIGURATION



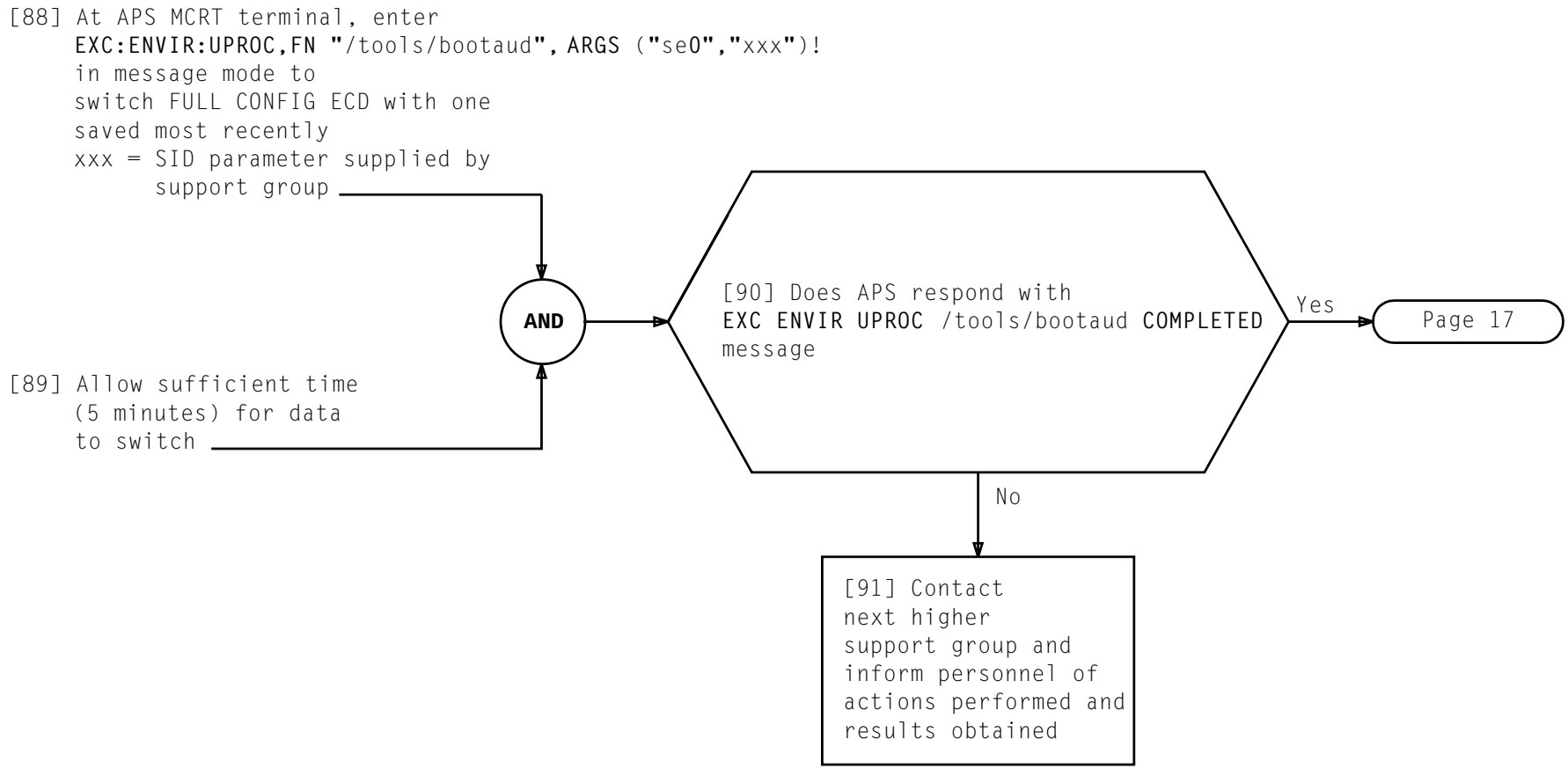
NOTE 11
The active file system is determined if **SET** is lighted on the **Backup Root** line, then the active file system is broot. If not the file system is "root"

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY — MINIMUM CONFIGURATION

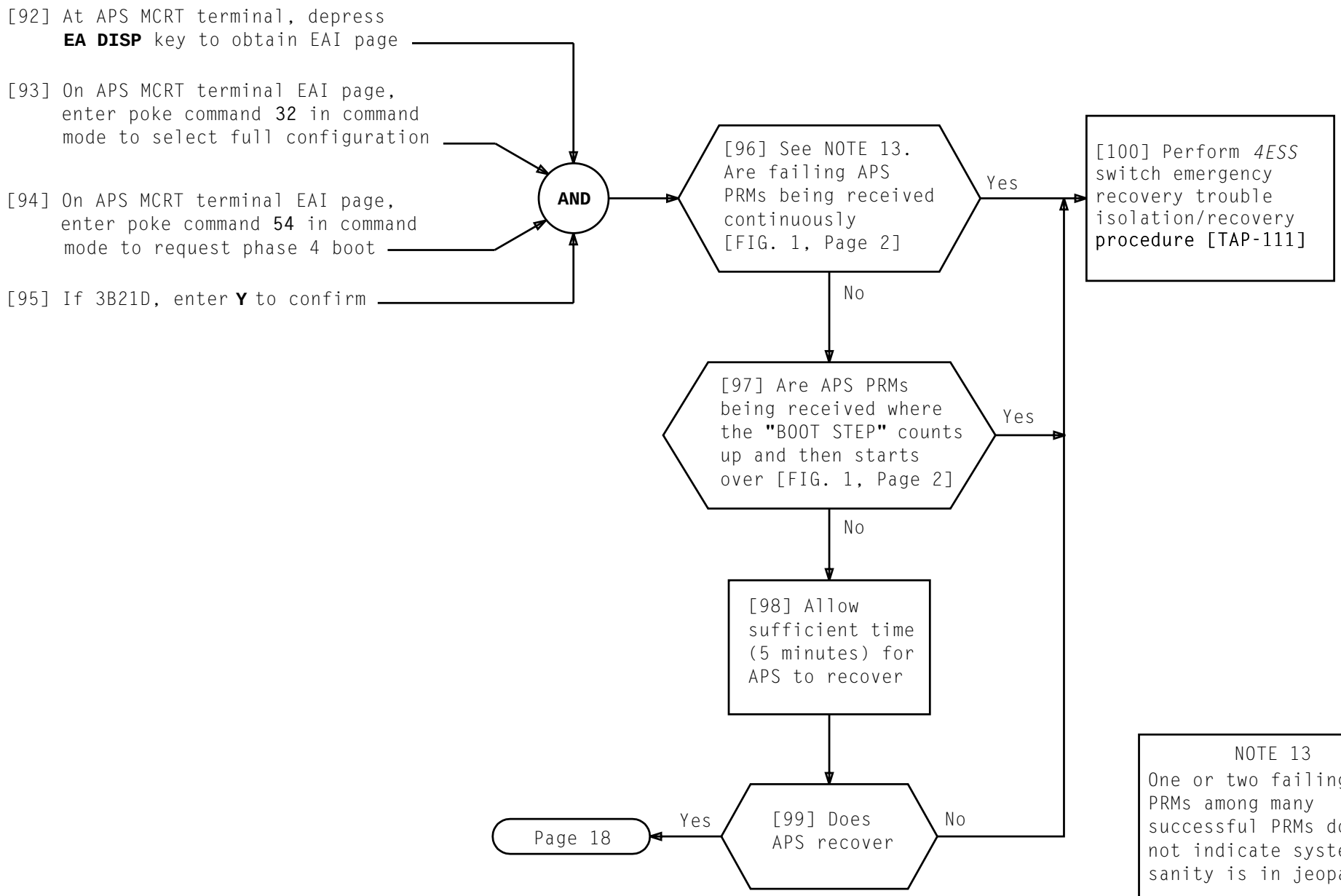


NOTE 12
One or two failing PRMs among many successful PRMs does not indicate system sanity is in jeopardy

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY — MINIMUM CONFIGURATION



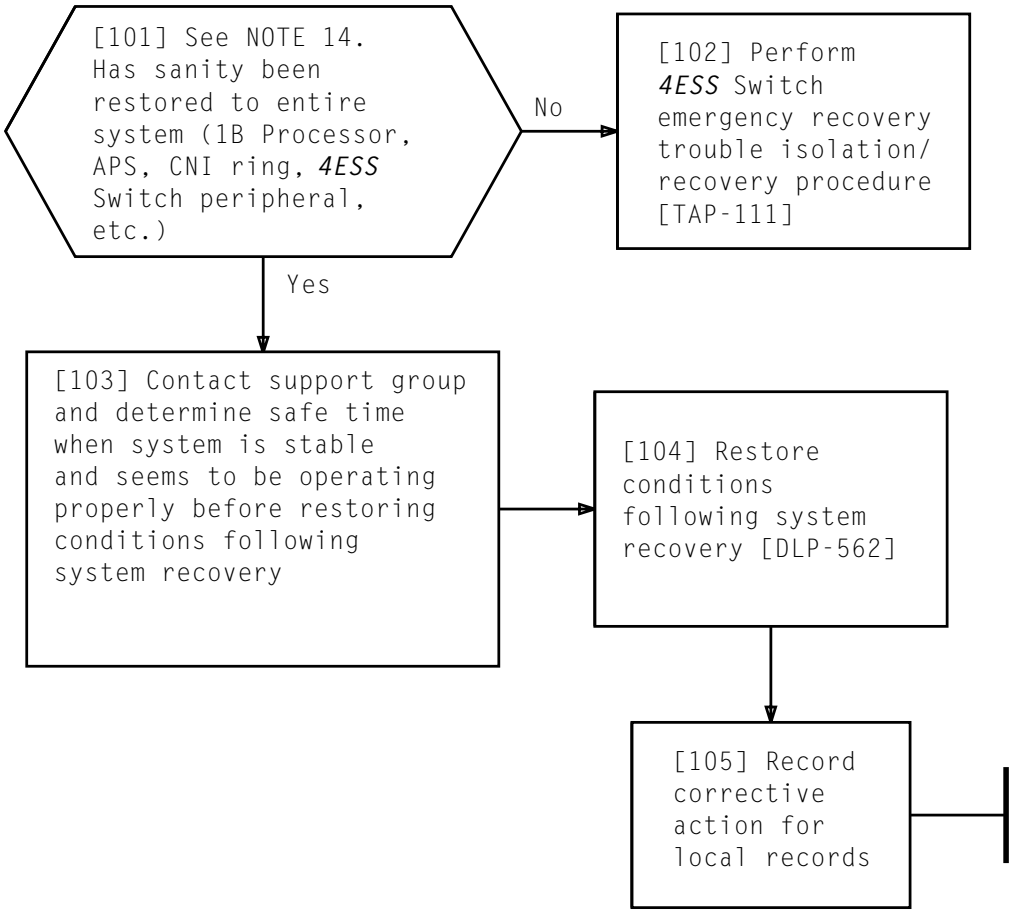
PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY – MINIMUM CONFIGURATION



NOTE 13

One or two failing PRMs among many successful PRMs does not indicate system sanity is in jeopardy

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY — MINIMUM CONFIGURATION

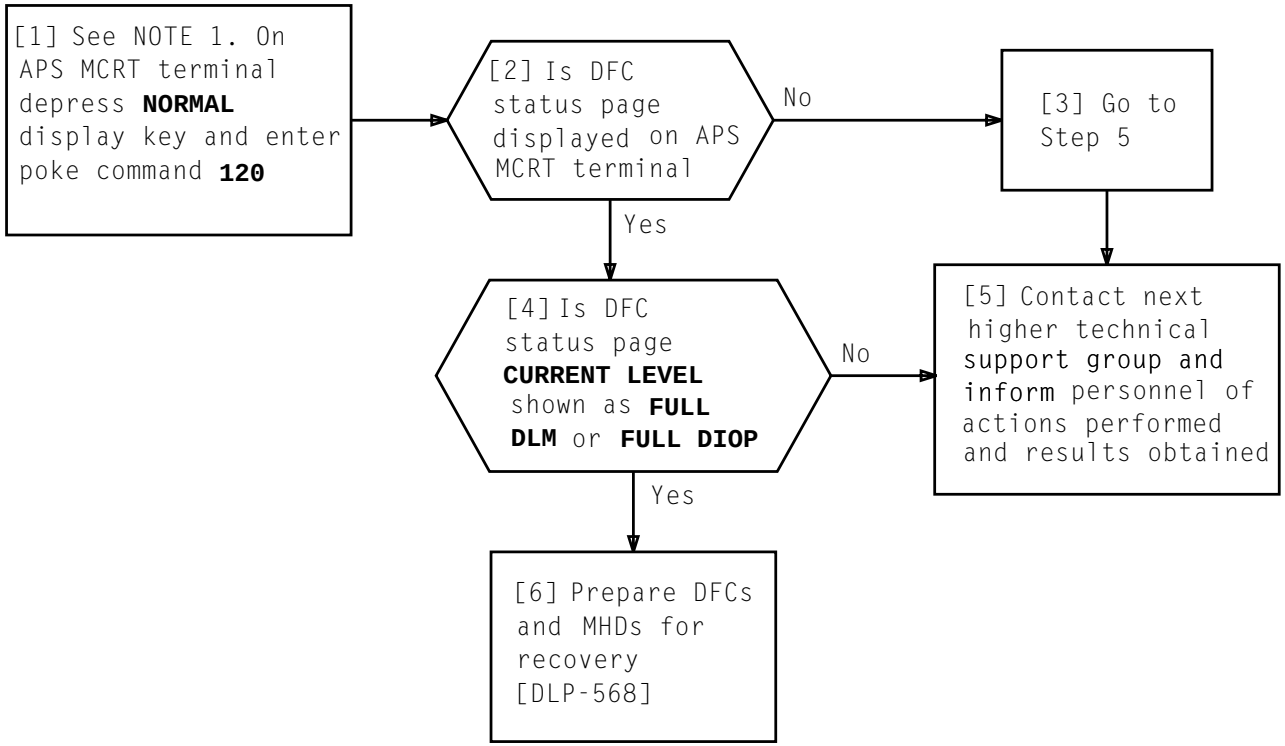


NOTE 14

System has recovered if following conditions have been met:

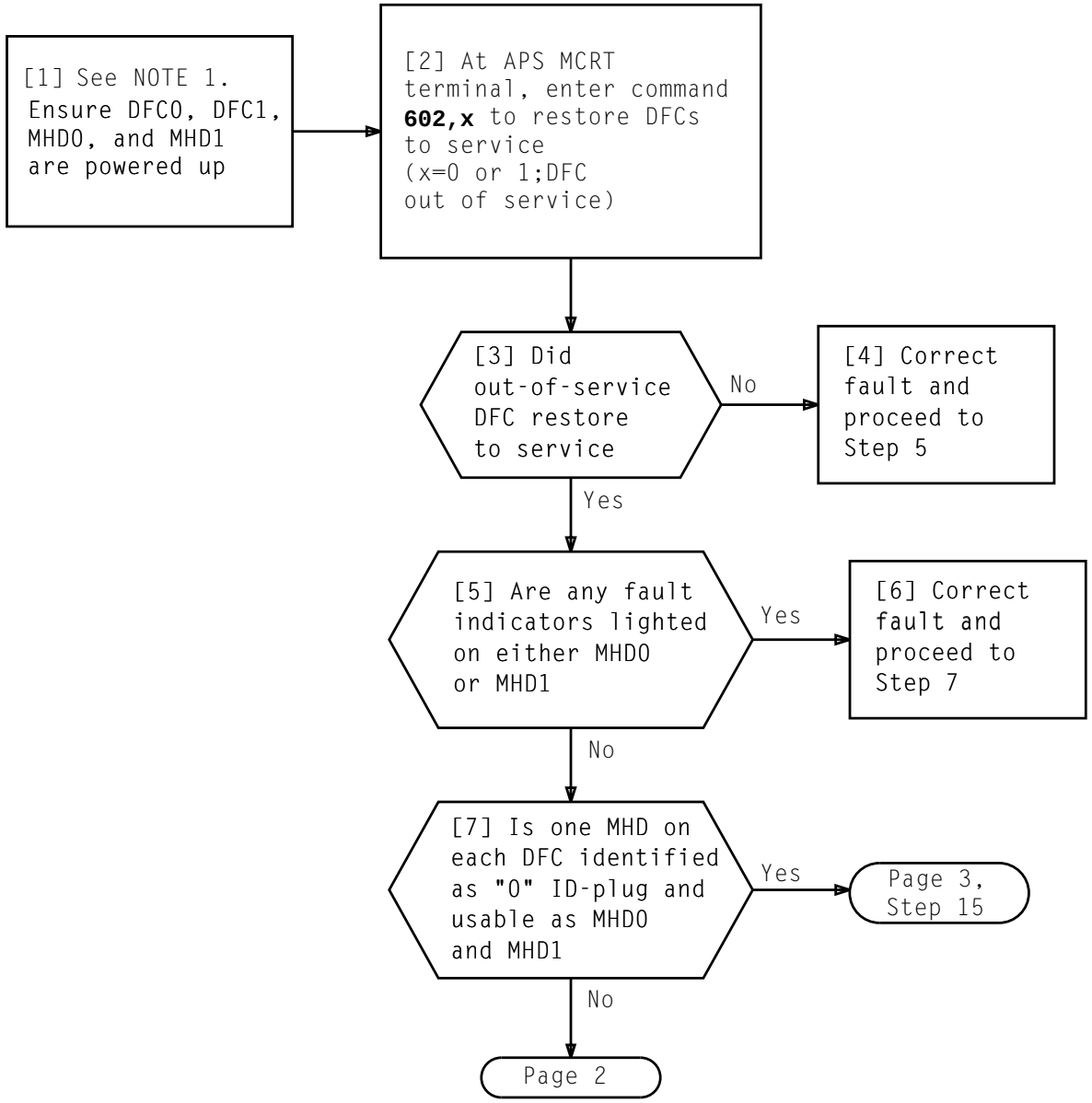
A. On 1B Processor MCC terminal EAI Page under **PC PROGRESSION, CMPL** text is lighted BLACK on GREEN
B. On 1B Processor MCC terminal EAI Page, **PHASE IN PROG** text has not lighted in last few minutes
C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY**, displayed data is normal for time of day (takes 3 minutes for data to be updated)

PERFORM ATTACHED PROCESSOR SYSTEM (APS) RECOVERY — MINIMUM CONFIGURATION



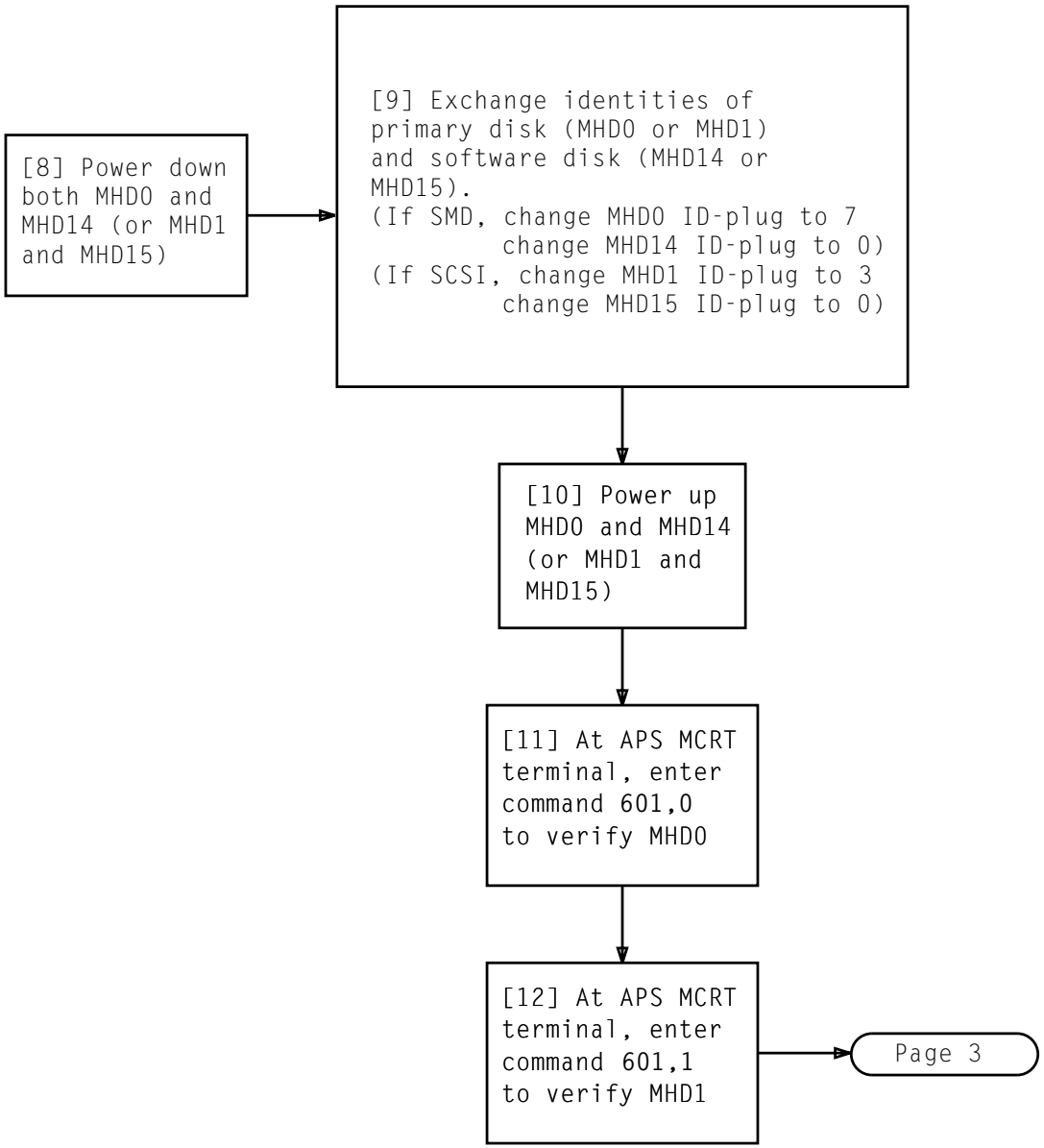
VERIFY DIOP

NOTE 1
This procedure assumes the switch is performing all essential activities (call processing, etc.). If essential activities are not working, this procedure **SHOULD NOT** be used



NOTE 1
The strategy for recovery from DIOP is to maximize the potential for a successful and quick boot. This is done by preparing each system MHD (and software backup disk, if equipped) for the boot attempt

PREPARE DFCs AND MHDs FOR RECOVERY



PREPARE DFCs AND MHDs FOR RECOVERY

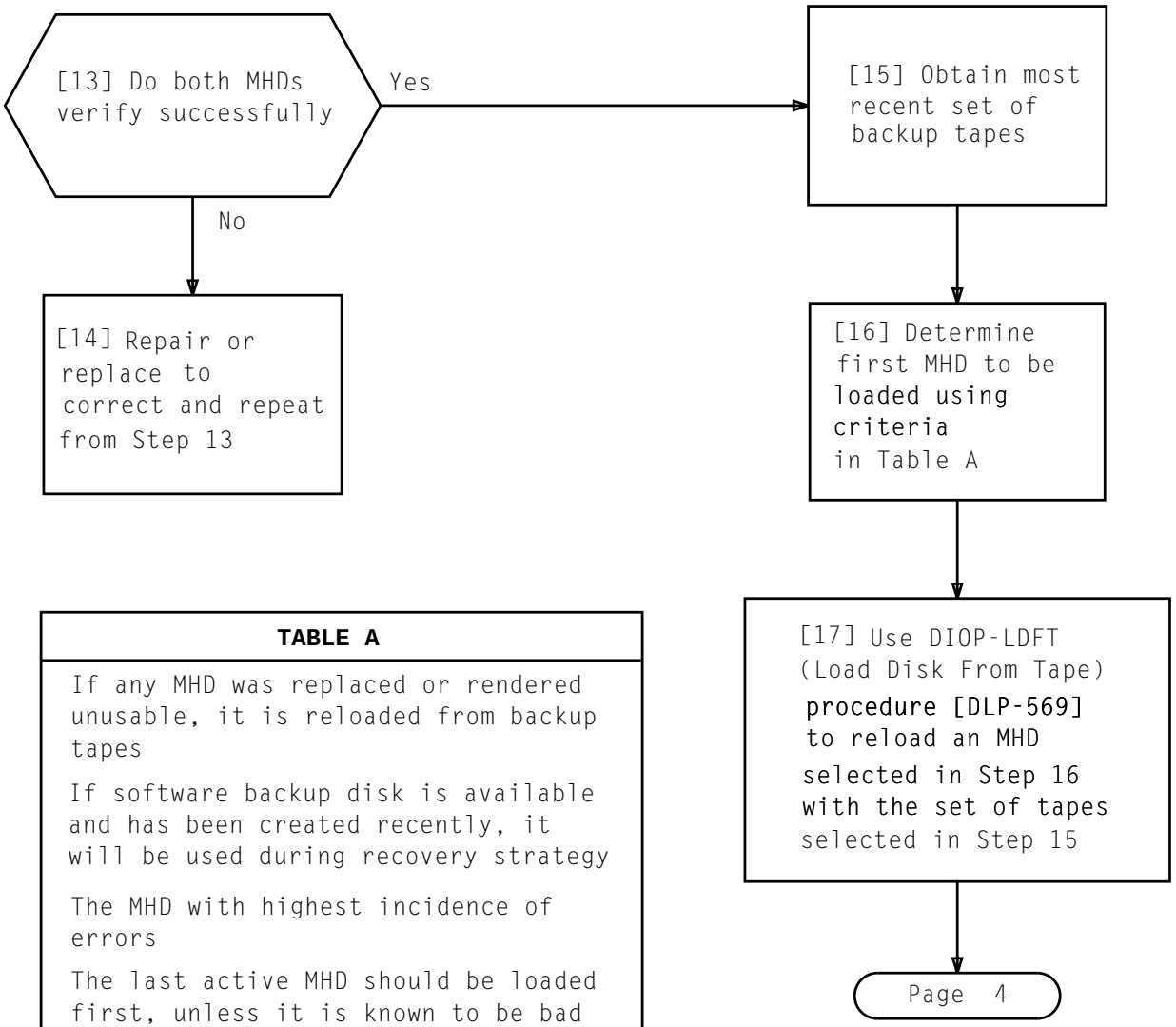
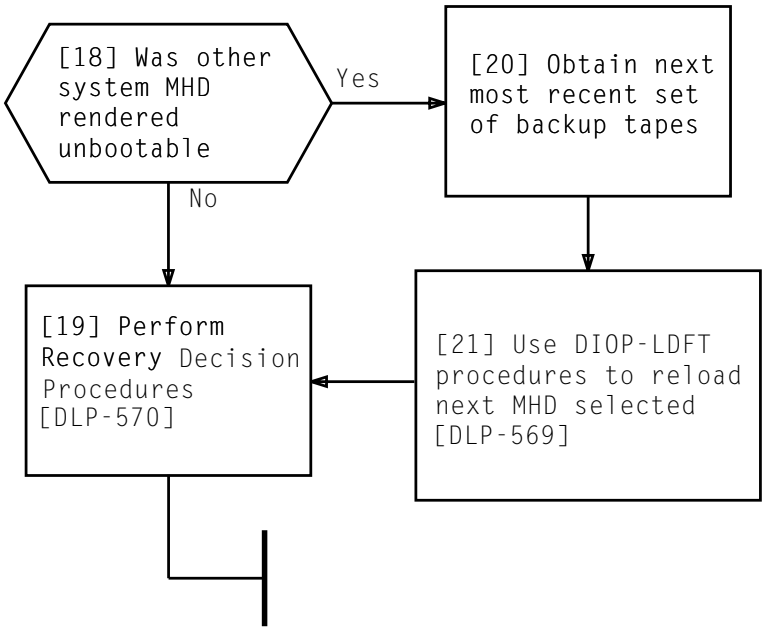


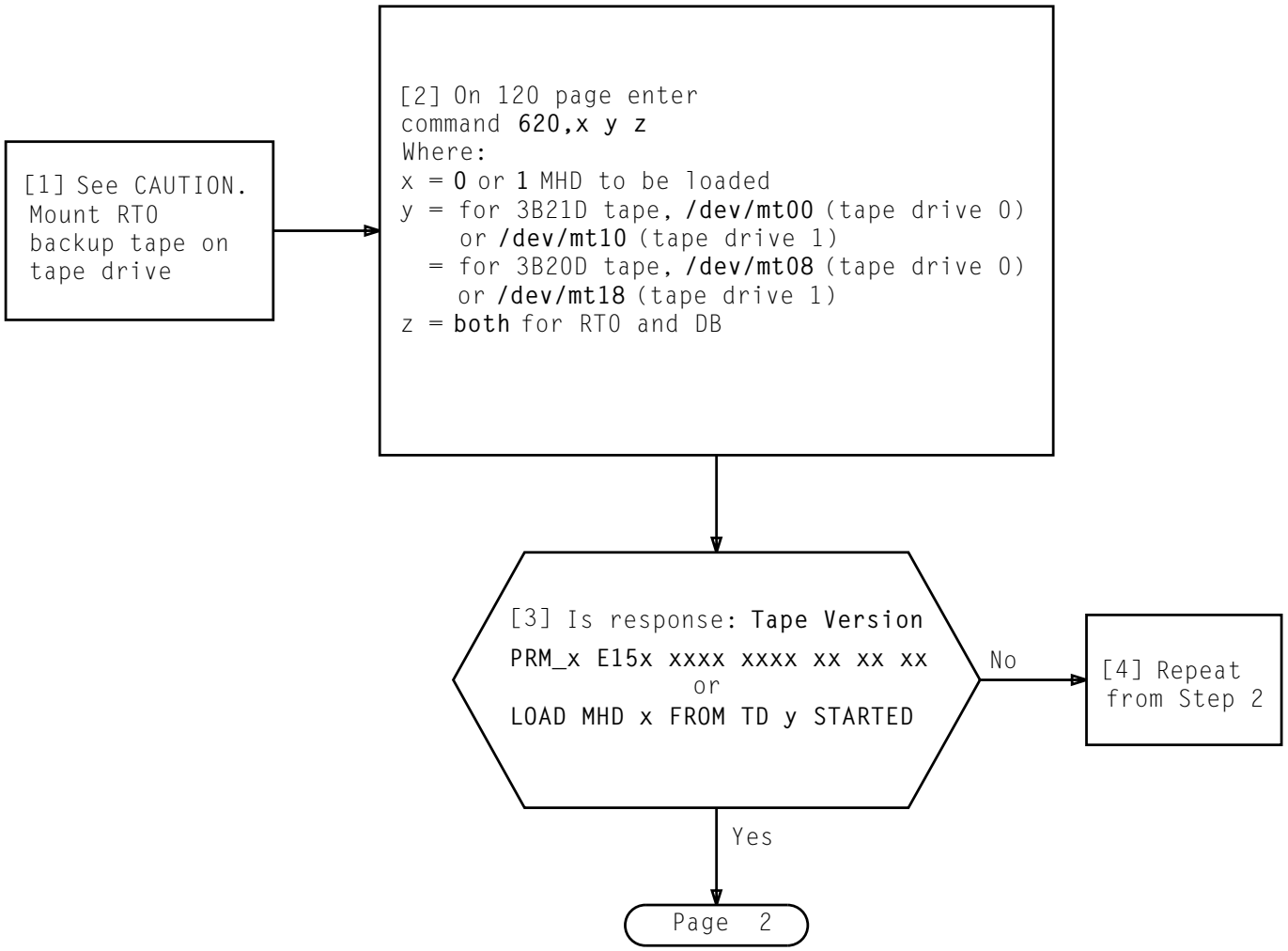
TABLE A

If any MHD was replaced or rendered unusable, it is reloaded from backup tapes
If software backup disk is available and has been created recently, it will be used during recovery strategy
The MHD with highest incidence of errors
The last active MHD should be loaded first, unless it is known to be bad
Seek technical assistance

PREPARE DFCs AND MHDs FOR RECOVERY



PREPARE DFCs AND MHDs FOR RECOVERY



CAUTION
***Maintain a record of which** backup tapes are loaded on each drive so that post-recovery steps to resolve problems using "old" application data will be easier to resolve*

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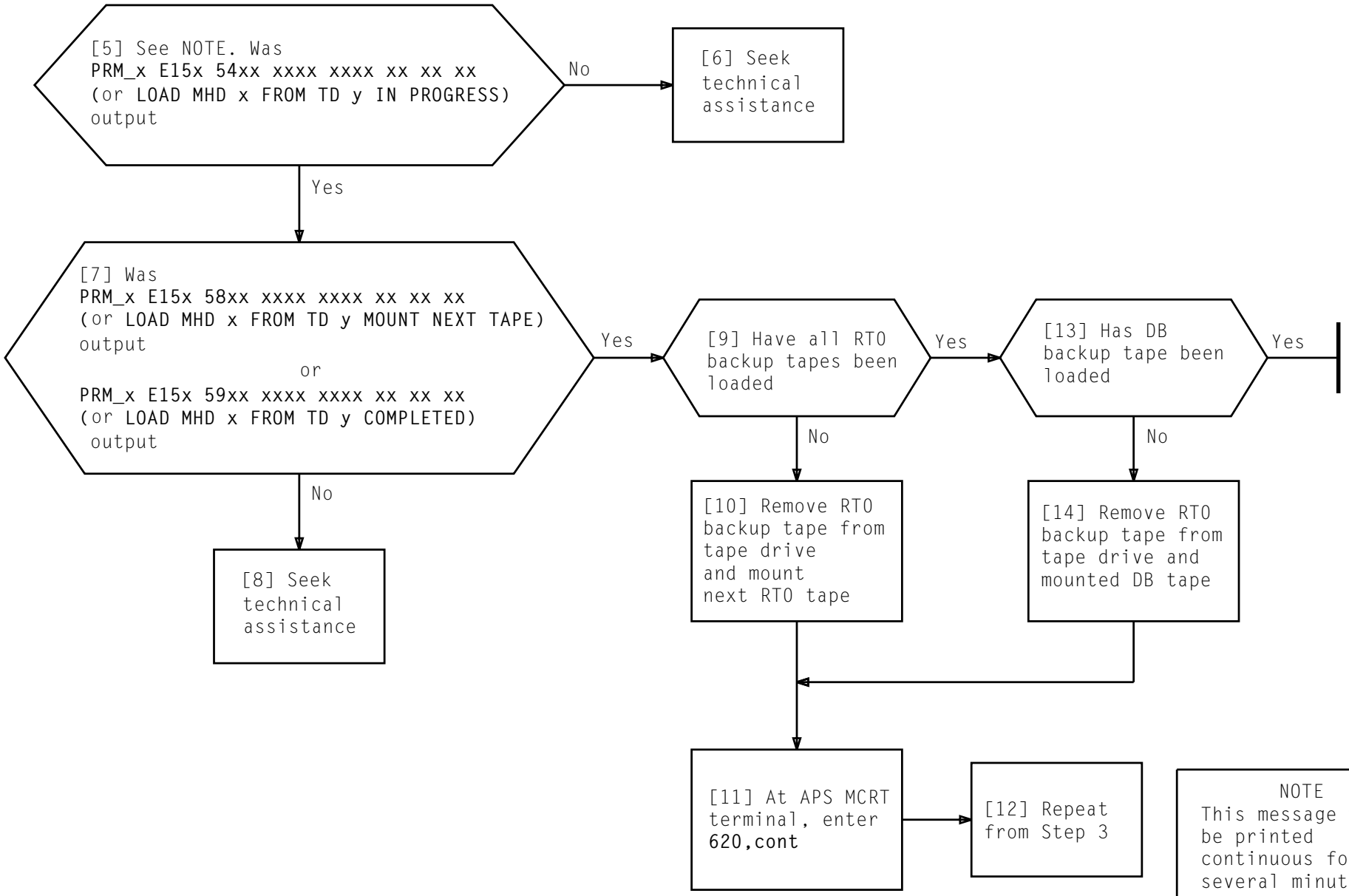
PERFORM DIOP LOAD DISK FROM TAPE PROCEDURE



PERFORM DIOP LOAD DISK FROM TAPE PROCEDURE

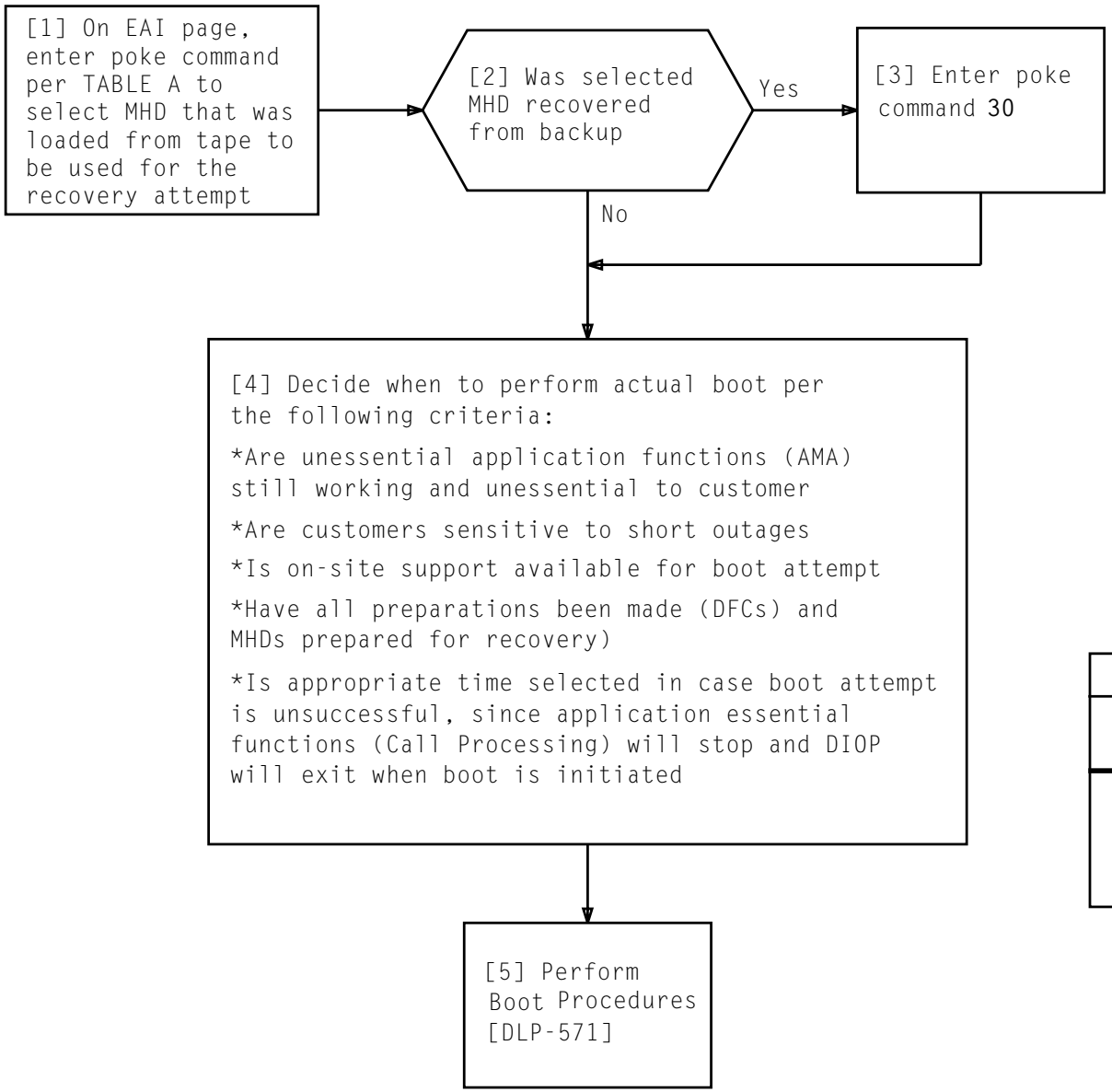
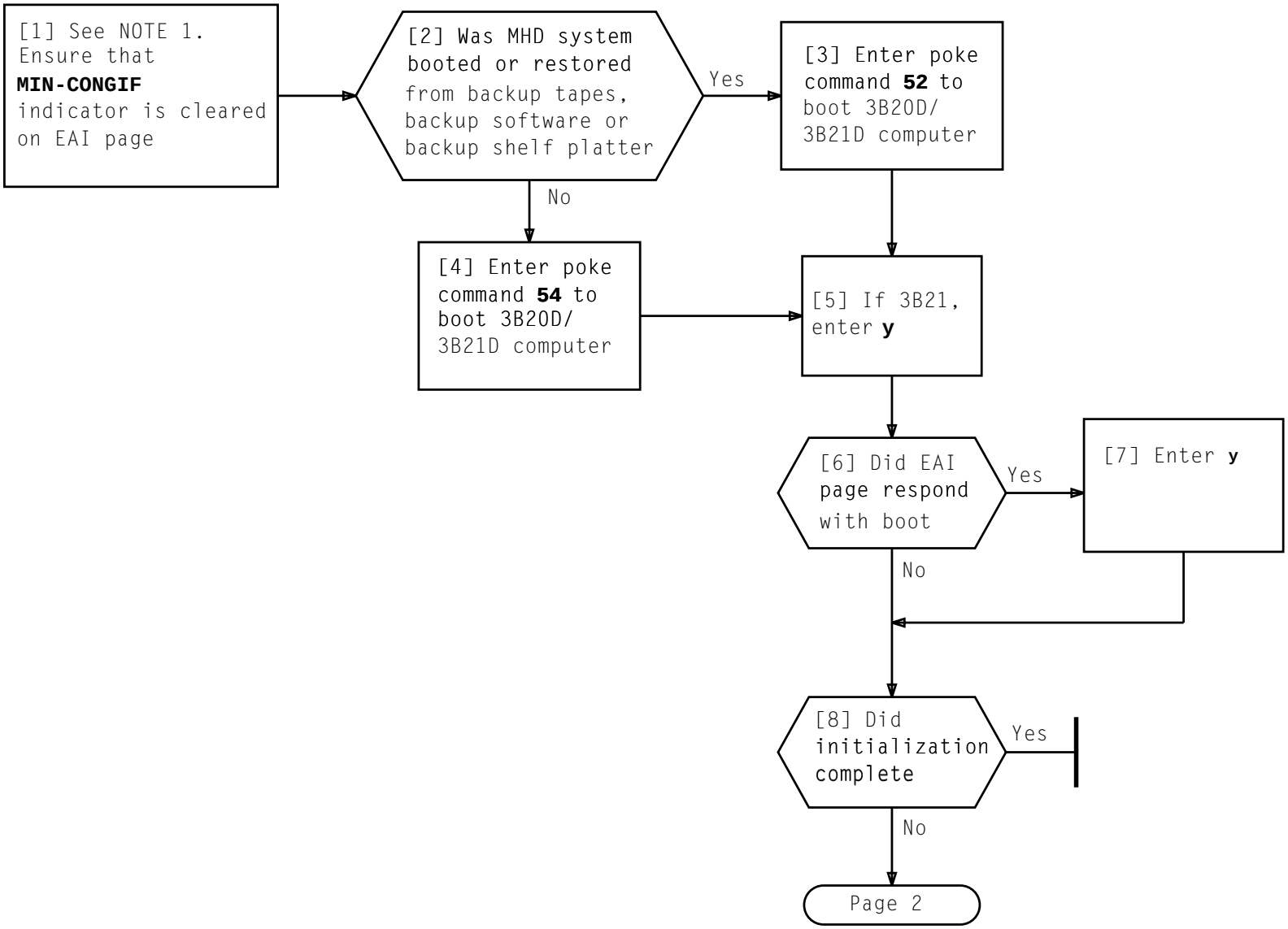


TABLE A

Chosen MHD	Active CU	Active Disk	Poke
0	0	Primary	20
0	0	Secondary	22
1	0	Secondary	22
1	1	Primary	20

PERFORM RECOVERY DECISION



NOTE 1

The object of this procedure is to successfully boot the 3B20D/3B21D computer with the most recent disk possible. This procedure also assumes that craft has prepared the system for recovery

BOOT PROCEDURES

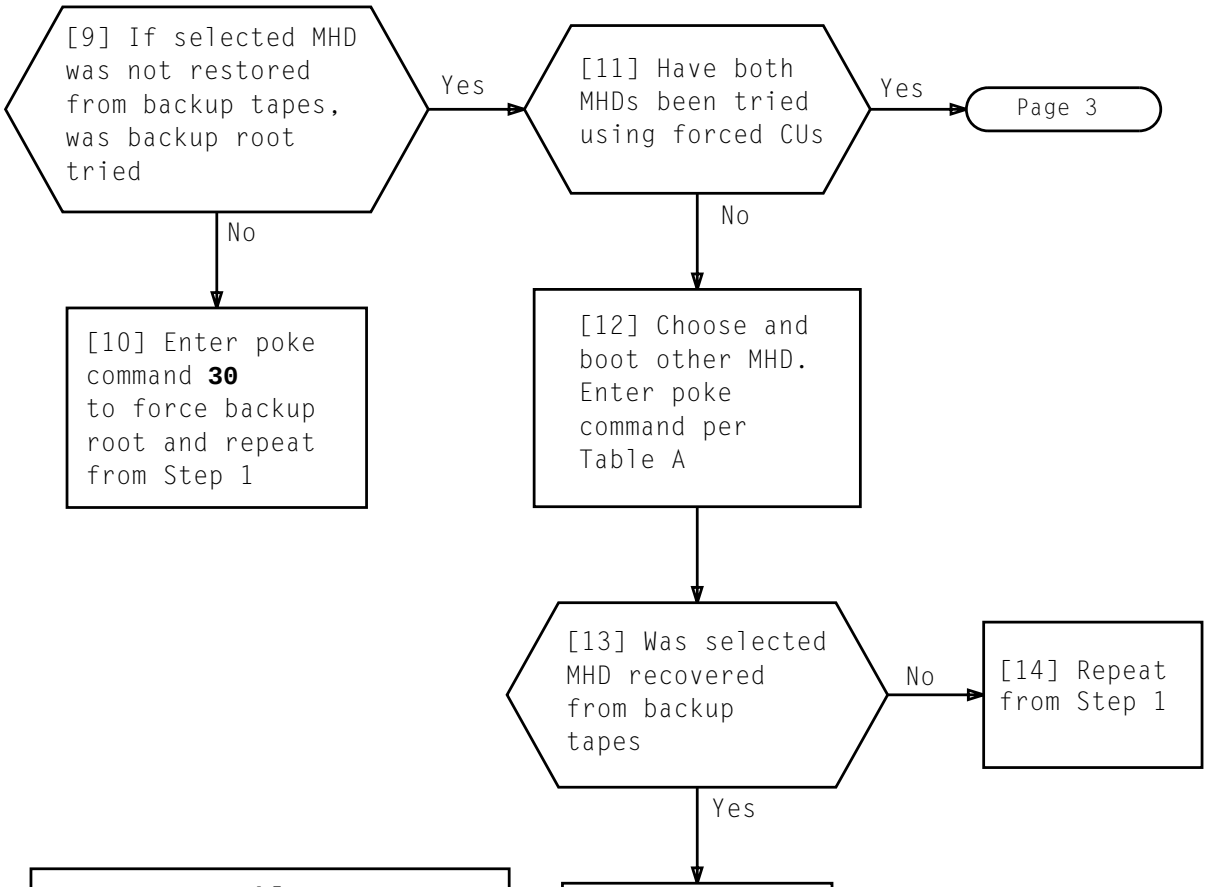
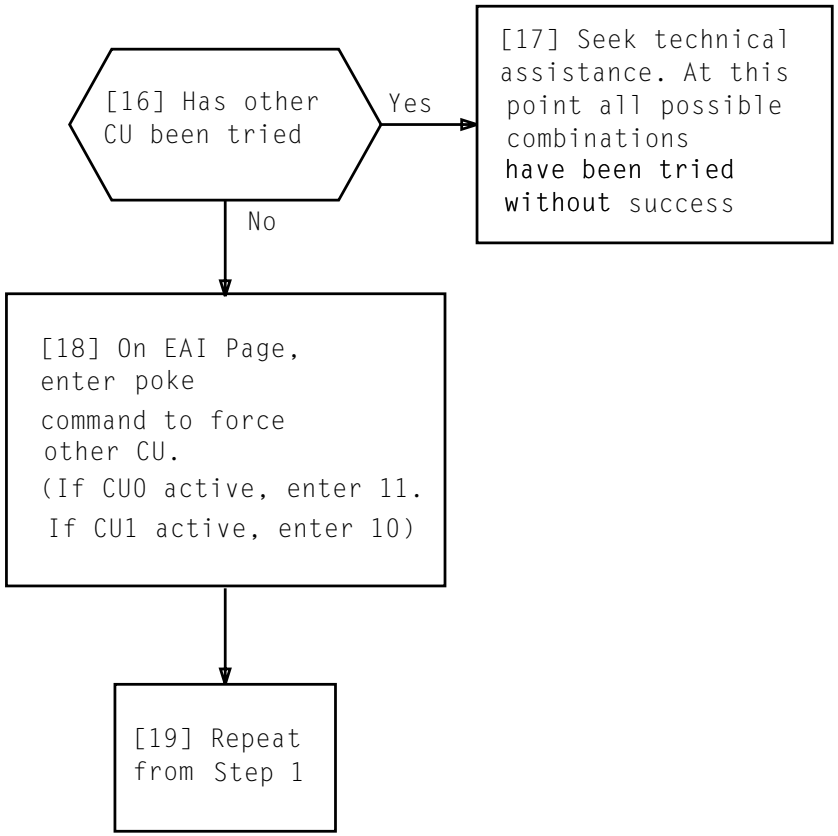
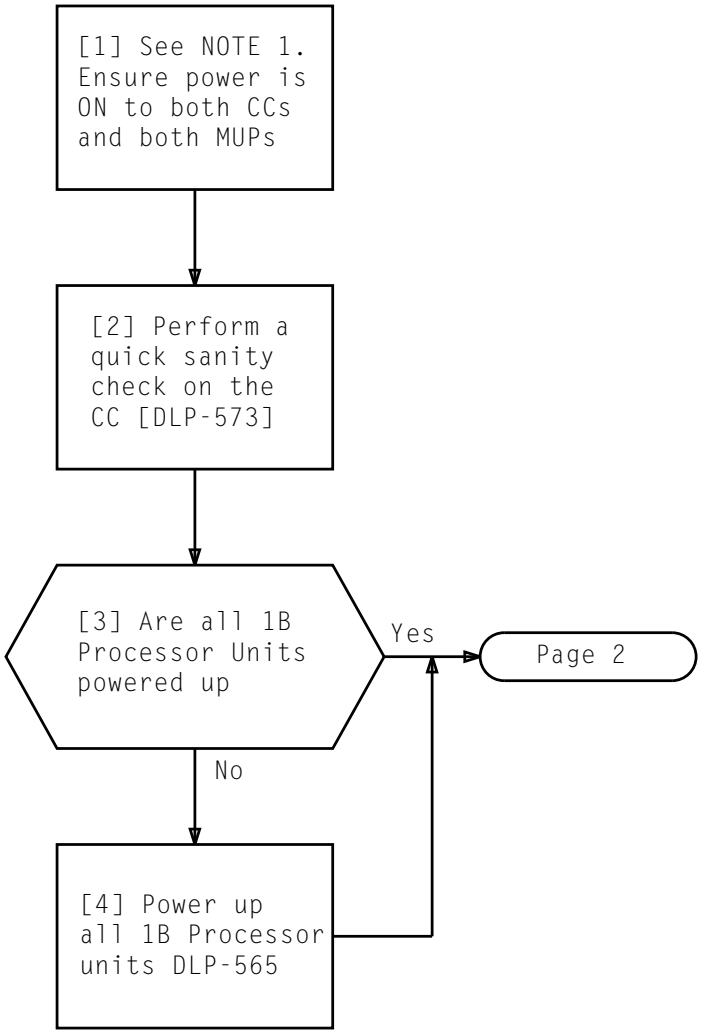


Table A

Chosen MHD	Active CU	Active Disk	Poke
0	0	Primary	20
0	1	Secondary	22
1	0	Secondary	22
1	1	Primary	20


[16] Has other CU been tried
Yes
[17] Seek technical assistance. At this point all possible combinations have been tried without success
No
[18] On EAI Page, enter poke command to force other CU.
(If CU0 active, enter 11.
If CU1 active, enter 10)
[19] Repeat from Step 1



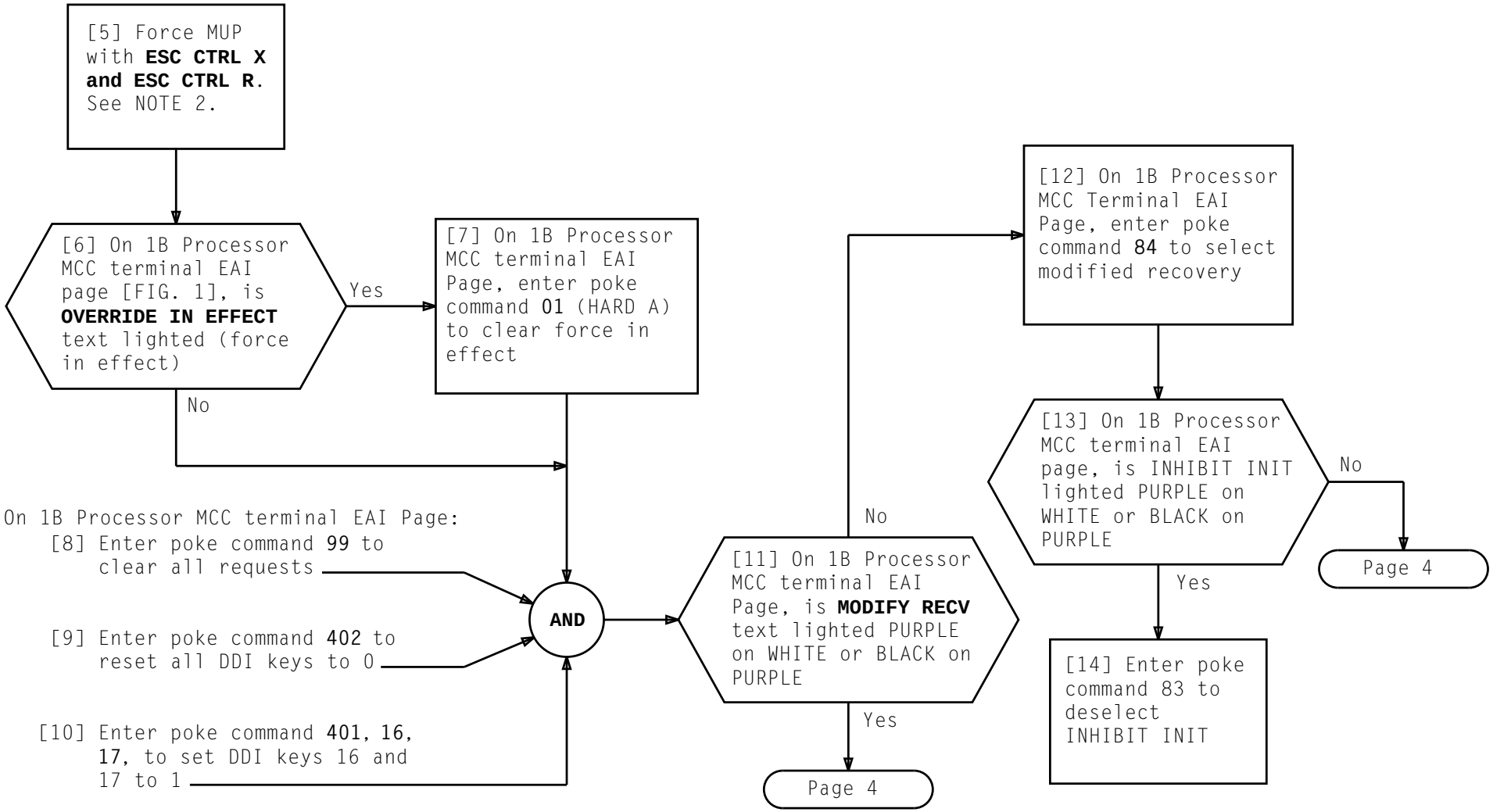
NOTE 1

The 1B Processor is in deadstart if the following conditions occur:

A. Critical alarms have gone off and field support contacted
B. No calls are being processed (MCC display page 108 and System Status indicate no calls are being processed)
C. MCC is duplex failed (flashing in RED on MCC EAI Page)
D. Entering **OP:OOSUNITS!** on Maintenance Channel gets no response
E. A Soft A entry (**02**) with **RST:IO is ignored**
F. A Soft A entry (**02**) with a Phase 1 (***51***) is ignored
G. **PC STATE** indicator on MCC EAI Page is rolling through Repeated PCs
H. PCRV Failed or PCRVBOOT when Hard A (**01**) tried to pump 1B Processor or Hard A (01) with both configurations (0 and 1) failed to get 80k memory pumped

Contact next higher technical support group and inform personnel of actions performed and results obtained. Deadstart will lose all transient and stable calls. It can destroy all call store and program store

PERFORM 1B PROCESSOR DEADSTART



NOTE 2
MUP should come up on EAI Page. If not, reset MUP with ESC CTRL R

PERFORM 1B PROCESSOR DEADSTART

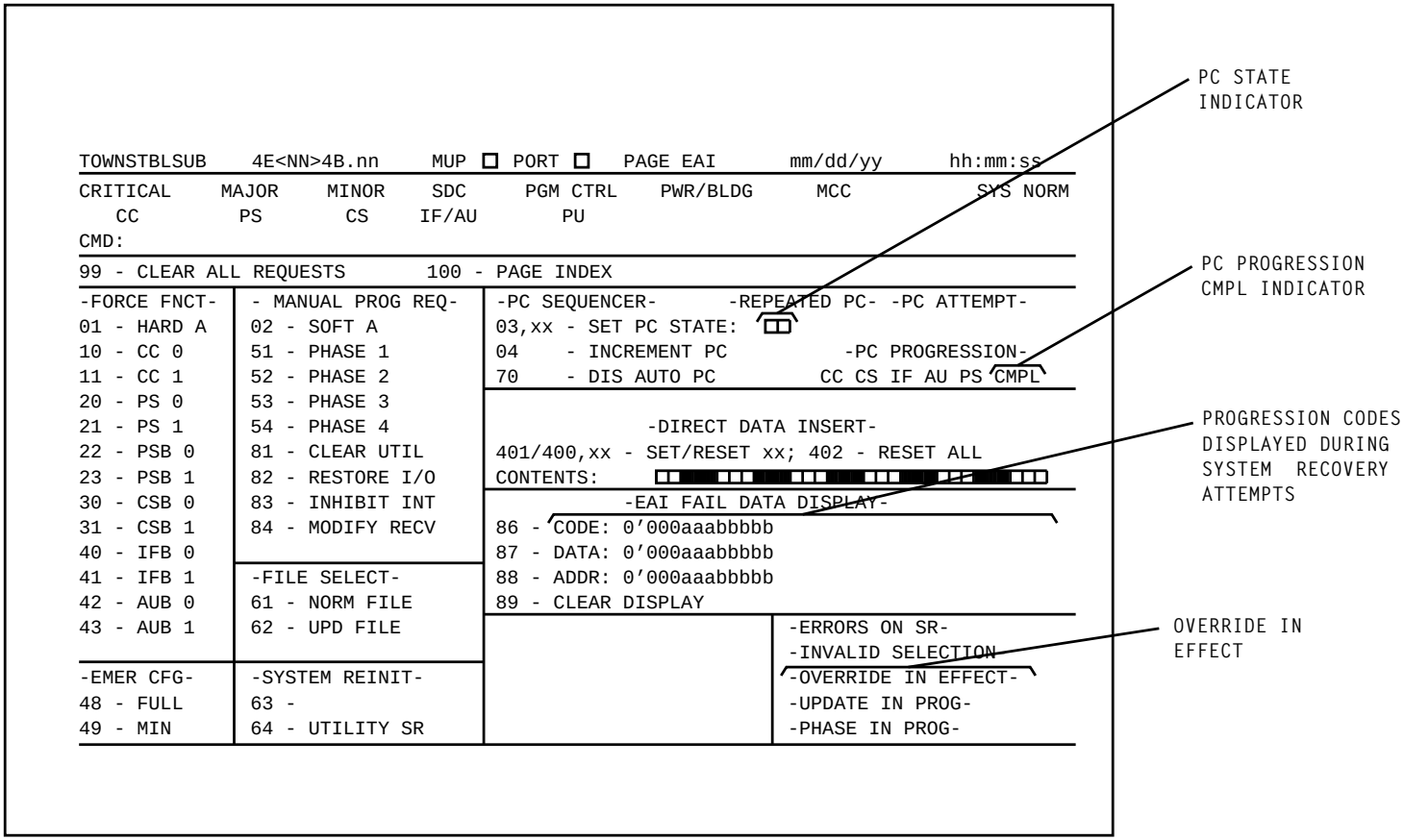
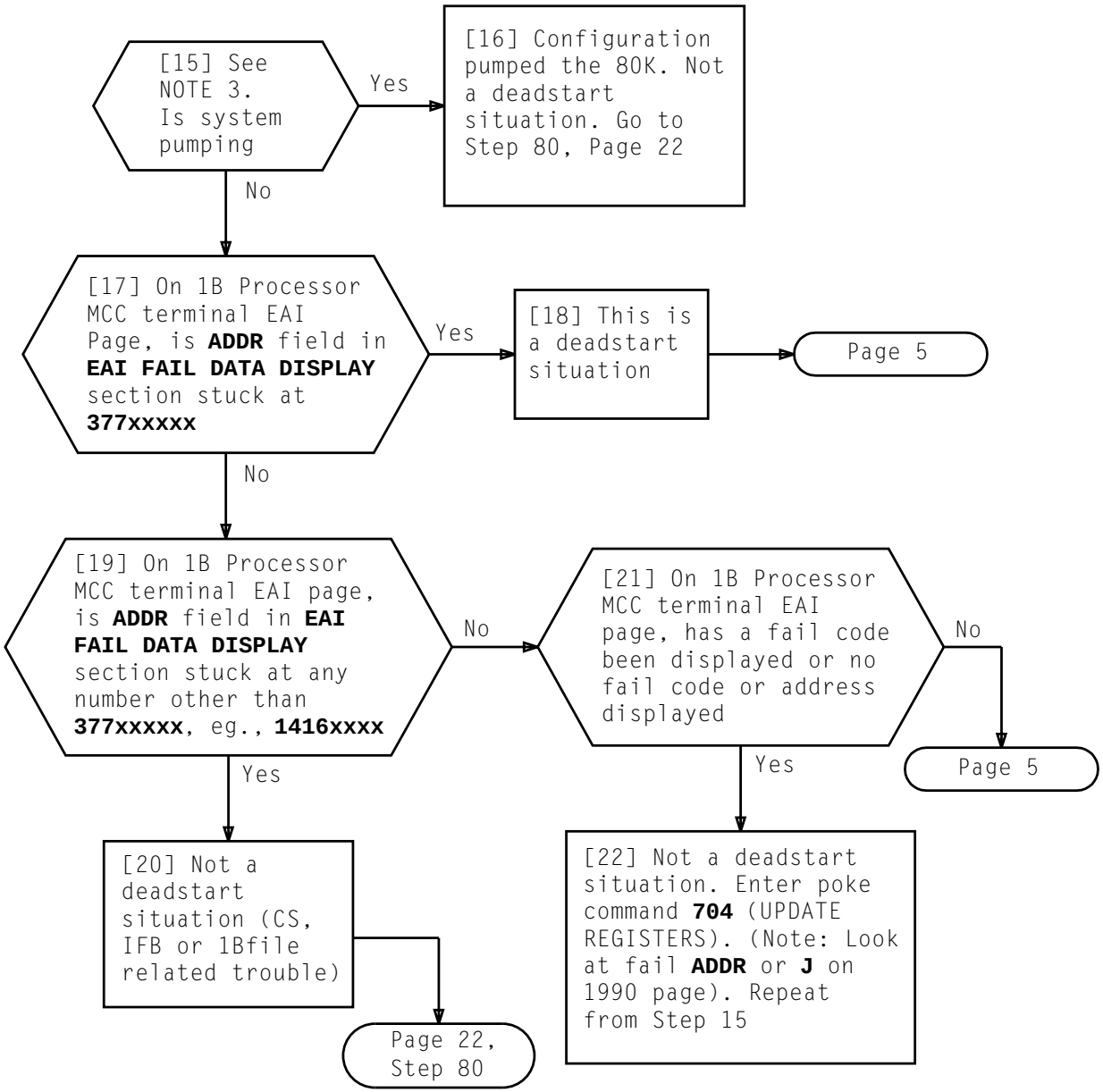


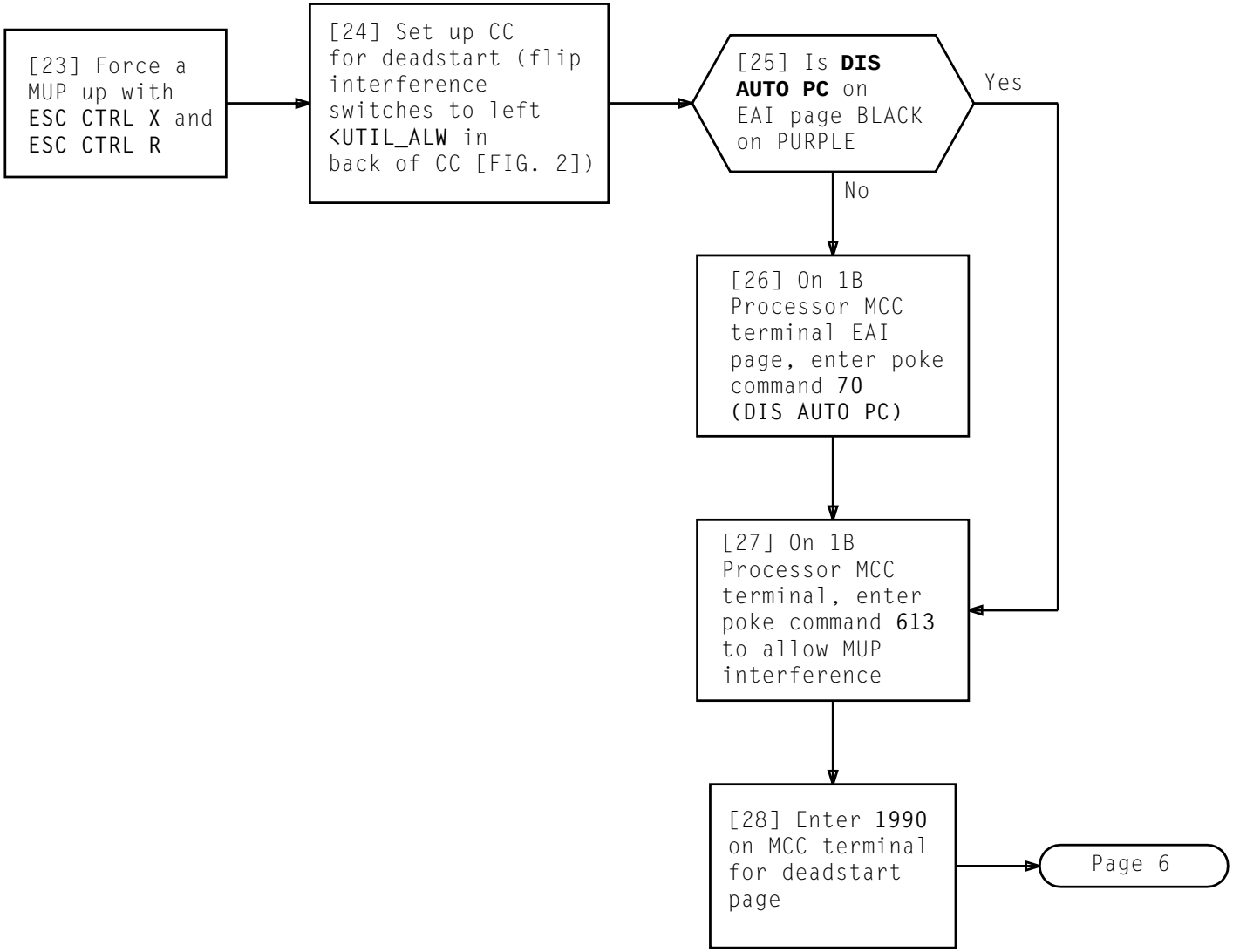
FIG. 1 – Layout of 1B Processor MCC Terminal EAI Page



NOTE 3

In EAI DATA DISPLAY section, octal digits **"aaa"** and **"bbbbb"** [FIG. 1] in **86-CODE** field must begin incrementing within 10 seconds after entering poke command **702** (RUN CC) 1B Processor. **"bbbbb"** indicates that 1B Processor is attempting to pump and **"aaa"** indicates memory range that is being pumped. **"aaa"** and **"bbbbb"** will continue to increment until **PC PROGRESSION - CMPL** colors BLACK on GREEN and **SAM_01** fires (color WHITE on RED), approximately 2 minutes after entering poke command **702** (RUN CC). If **"aaa"** does not begin to increment and **"bbbbb"** does begin to increment, this is a failure. If at any time **"aaa"** stops incrementing while **"bbbbb"** continues to increment, this is a failure. If 87 and 88 fields are not blank, this is a failure. If these fields are blank, the 1B Processor successfully pumped

PERFORM 1B PROCESSOR DEADSTART



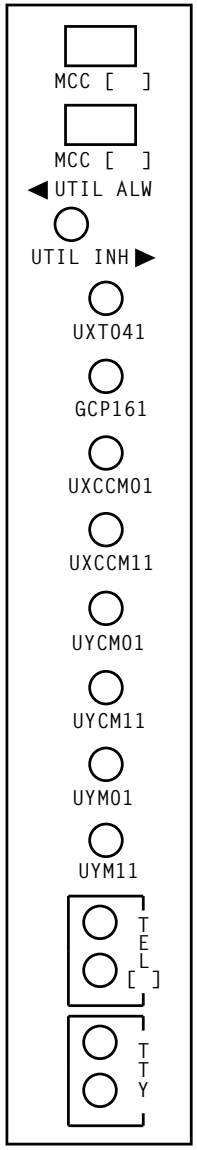
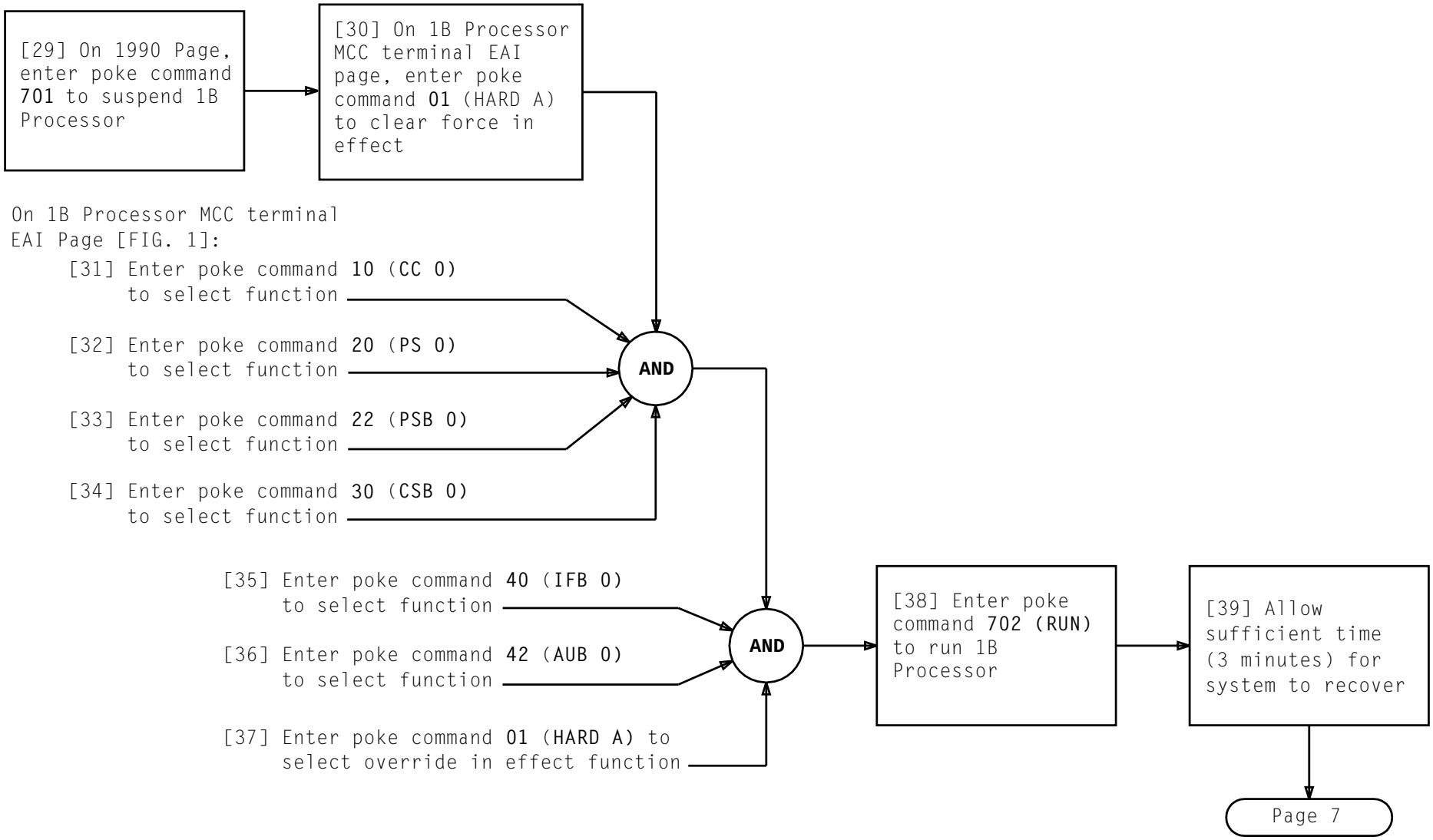
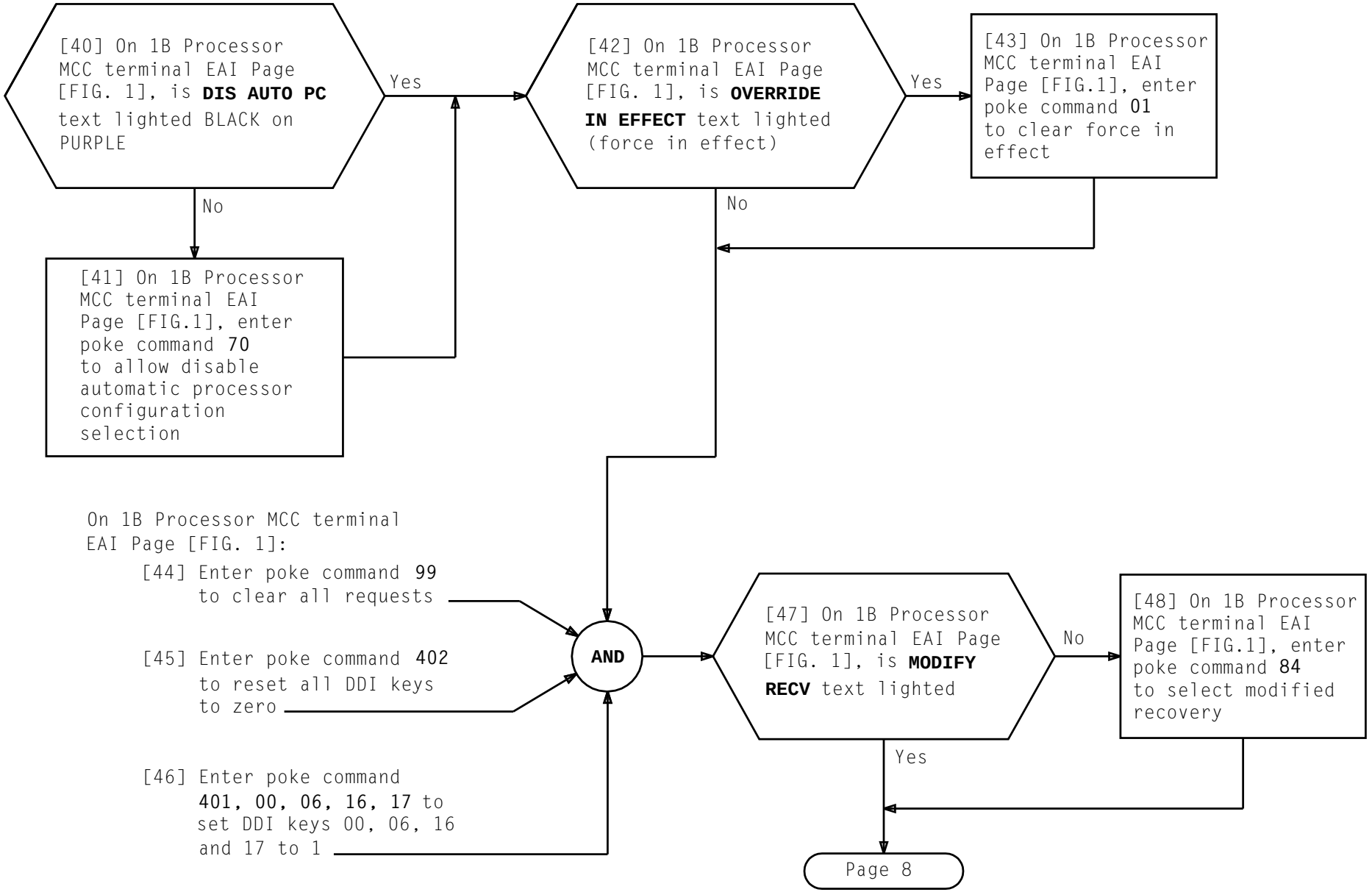


FIG. 2 — 1B Processor Cabinet Utility Access Panel

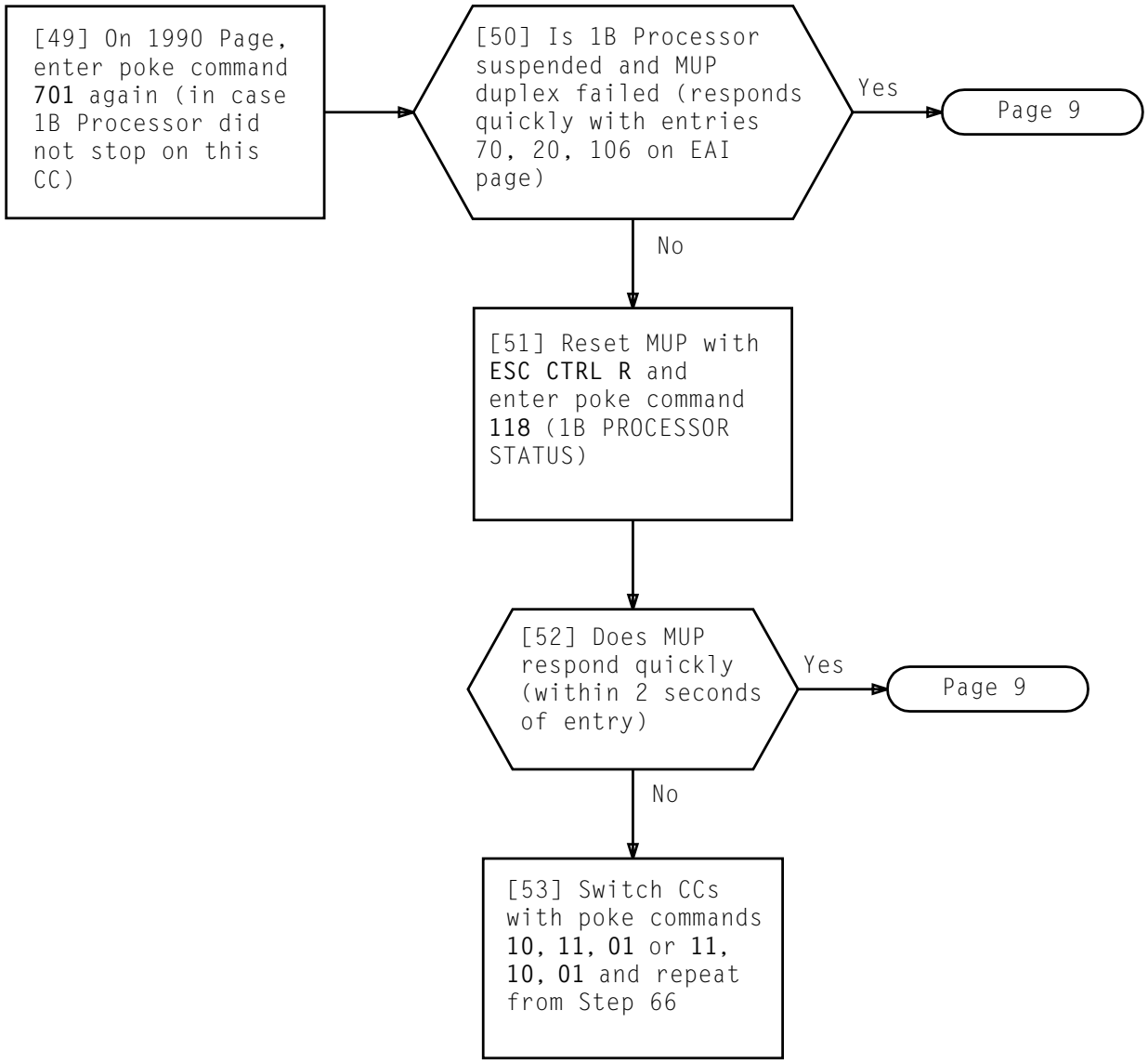
PERFORM 1B PROCESSOR DEADSTART



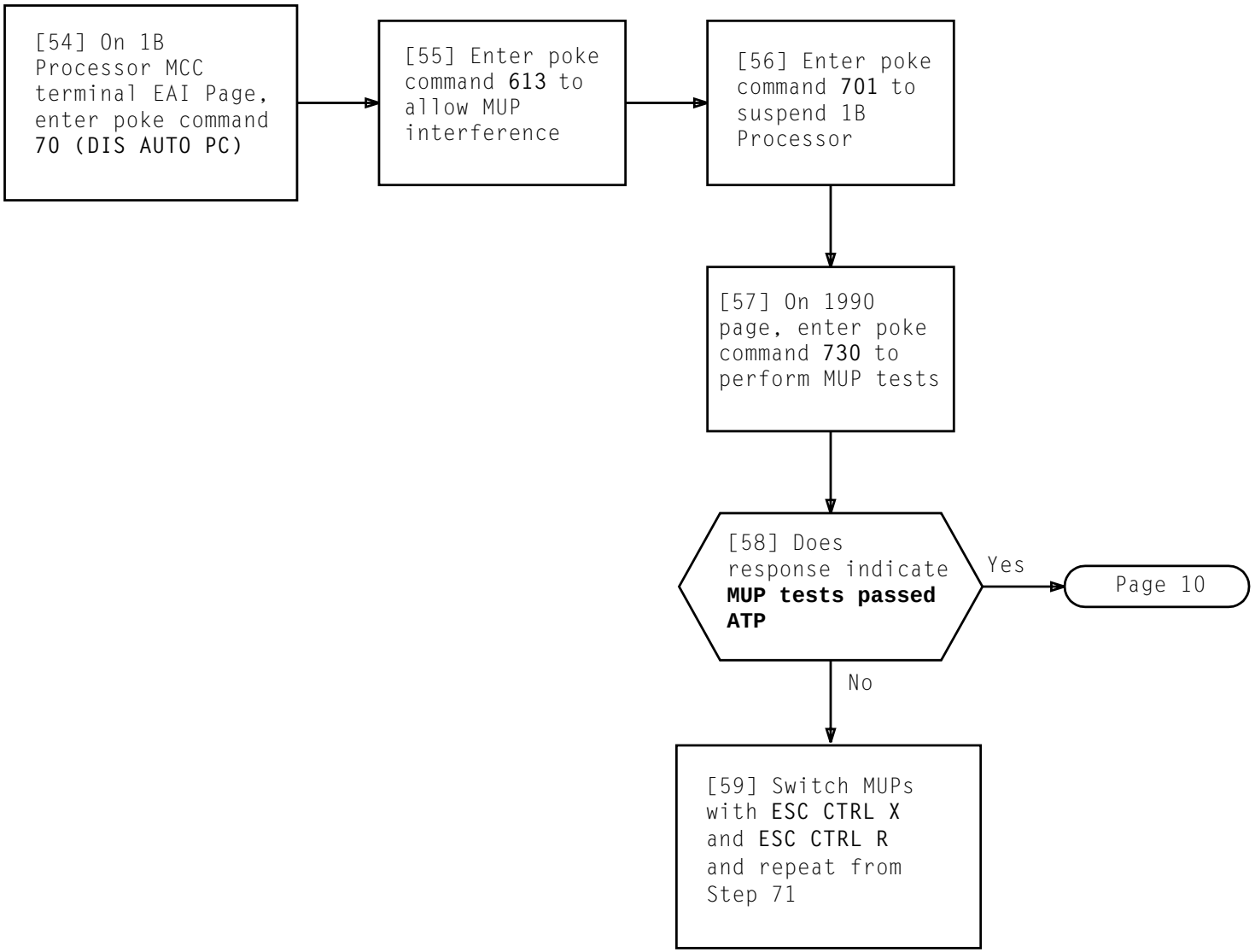
PERFORM 1B PROCESSOR DEADSTART



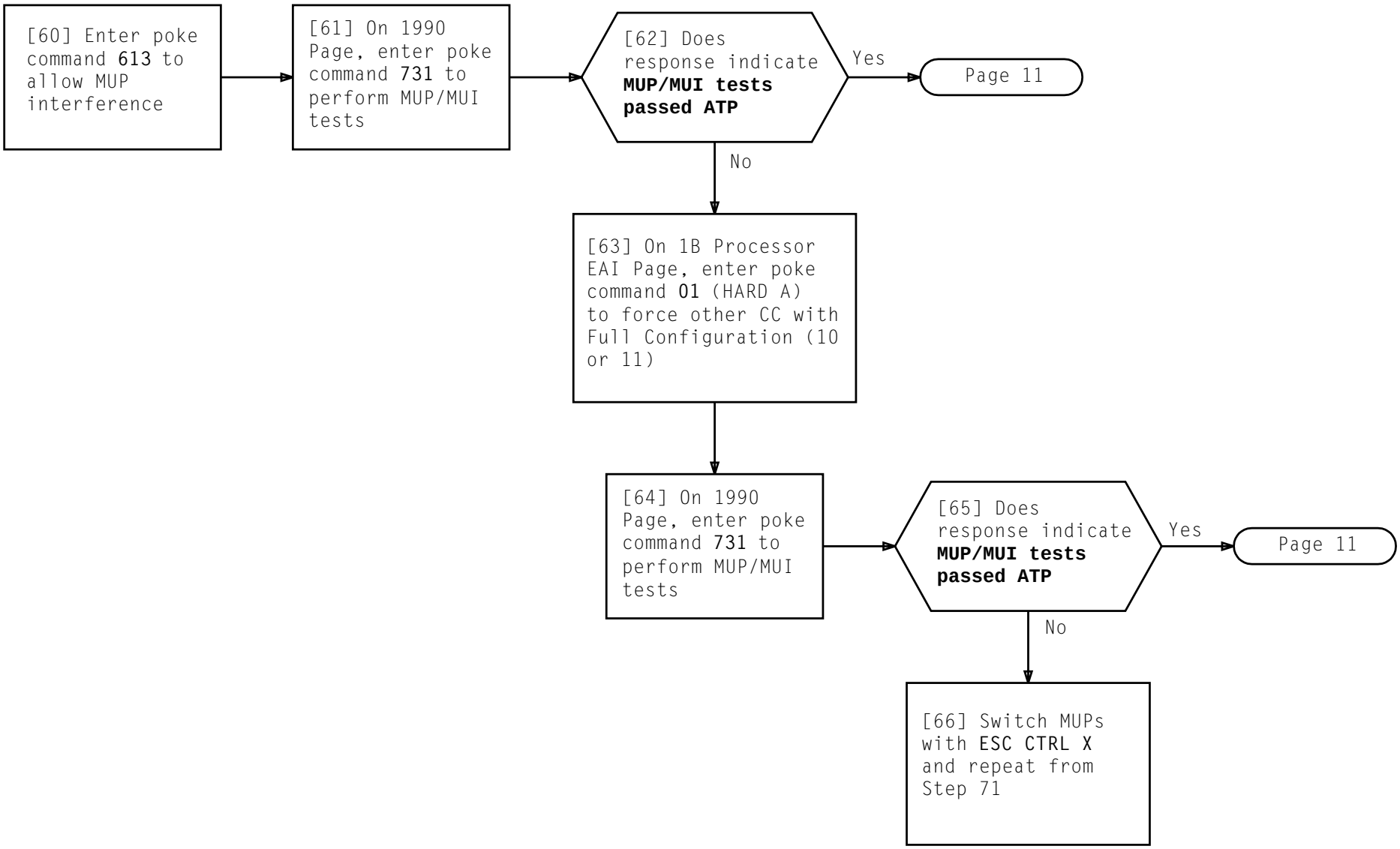
PERFORM 1B PROCESSOR DEADSTART



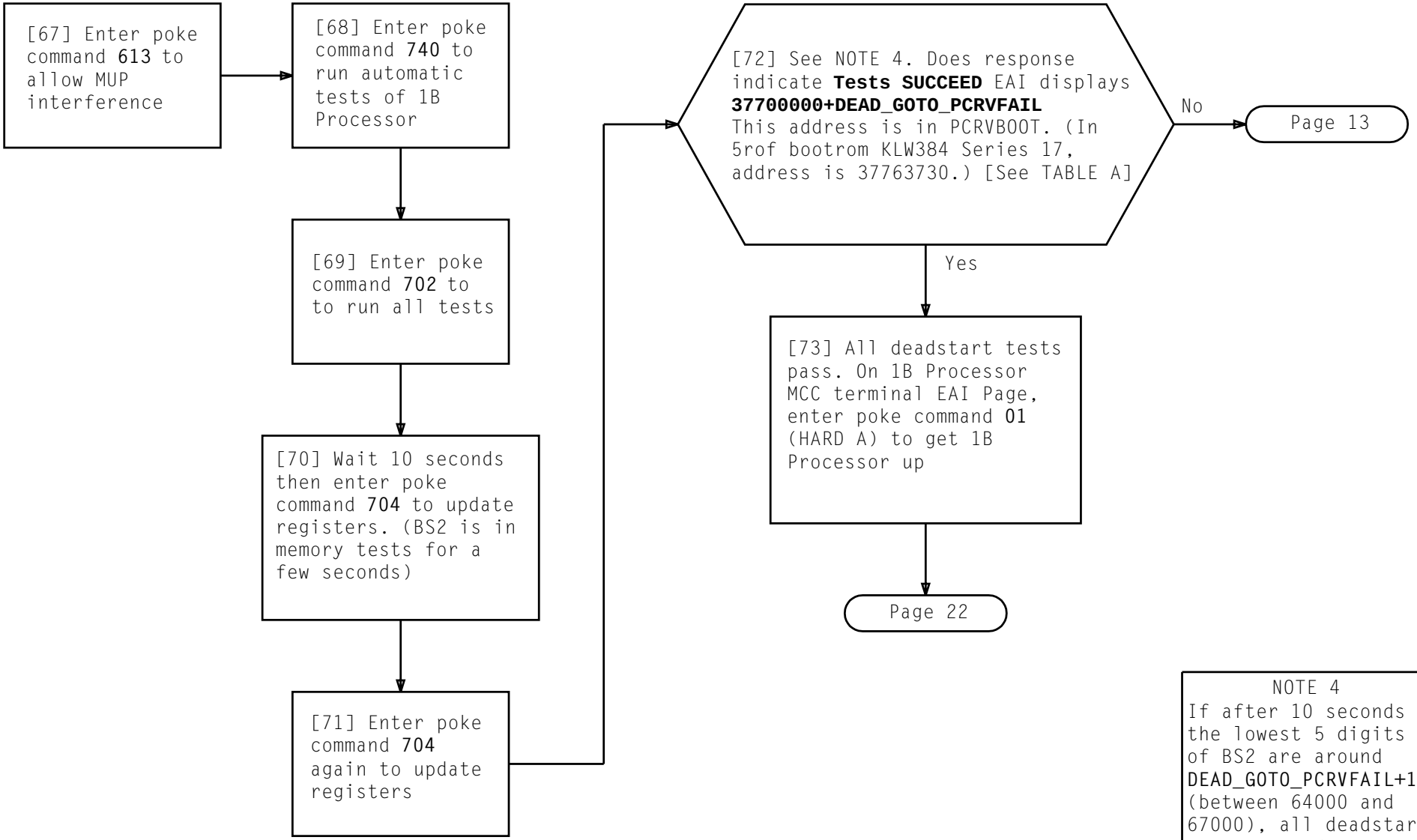
PERFORM 1B PROCESSOR DEADSTART



PERFORM 1B PROCESSOR DEADSTART



PERFORM 1B PROCESSOR DEADSTART



NOTE 4
If after 10 seconds the lowest 5 digits of BS2 are around DEAD_GOTO_PCRVFAIL+1 (between 64000 and 67000), all deadstart tests passed. Try HARD A (01) to get 1B Processor up

PERFORM 1B PROCESSOR DEADSTART

TABLE A
MCC PAGE 1990 DISPLAY-INTERPRETING RESULTS WITH AC1BS2

????????		
critical cc		
CMD: 740! OK		
-CC CONTROL- 701 - SUSPEND 702 - RUN 703 - SINGLE STEP 704 - UPDATE REGS	- CC REG ACCESS - 720,X - READ CC REG 721,X,Y - WRITE CC REG 722,X,Y - WRITE BOL BOR ADDR: DATA:	730 - DIAG MUP 731 - DIAG MUP MUI INT 732,X - READ MUP MEMORY ADDR: DATA:
- MISCELLANEOUS - 710 - INIT US 711 - AUTO HARD A 712 - BOL/BOR LOCK 713 - BASE: OCTAL	- STATUS - = INTF HW ENABLED = = UAS NORMAL UTIL =	- 1B PROCESSOR TEST - 740 - ALL TESTS 741,X - SINGLE TEST

BR=	FR=	GR=	JR=	KR=
LR=	XR=	YR=	ZR=	TR=
CAR=	DAR=	SH= SC=	BOL=	BOR=
FLA=	FLD=	FLT=	BS0=	BS1=
BS2=**xxxADDRS**	BS3=	BS4=	BS5=	CSC=

[74] See NOTE 5. Replace routine that failed or select unit mate with Hard A (01). [See FIG. 3]

[75] Does system response indicate **Tests SUCCEED**, EAI displays 37700000+DEAD_GOTO_PCRVFAIL

Yes

[76] On 1B Processor MCC terminal EAI Page, enter poke command 01 to get 1B Processor up

Page 22

No

[77] On 1B Processor MCC terminal EAI Page, enter poke commands per TABLE B for Individual tests. (Deadstart setup (741,1) must be run to set up the configuration word in AC1BS5 so Hard A (01) forces are picked up). Setup test must be run first with inputs 741,242+BS# data

[78] On 1990 Page, enter poke command 740 to clear the **red** indication that all tests are still running

[79] Run test setups per TABLE C for individual deadstart tests

TABLE B
1B PROCESSOR MCC ENTRIES FOR INDIVIDUAL TESTS IN DEADSTART

70	DISABLE AUTO PC
613	ALLOW MUP INTERFERENCE
741,1	SETUP
742,2	PSB AND PS
741,10	IFB
741,11	AUI
741,12	AUB AND API
(THESE ENTRIES SET UP PUMP PATH TO THE APS VIA PSB,PS,IFB,AUI, AUB,API)	

NOTE 5

If tests did not get to **PCRVFAIL (BS2)** then a test failed. A look at BS2 last 5 digits and the PCRVBOOT deadstart vector table (67000) [FIG. 3] identifies the last test run. This is the probable cause of deadstart. Replace routine or switch to unit mate with Hard A (01)

PERFORM 1B PROCESSOR DEADSTART

bootrom deadstart table has:

```
          0067000                       -002- 04 DEAD_SETUP_MUP_LOOPBACK EQU *
                                        -002- 05 # 'SETUPS- NONE'
                                        -002- 06 # 'RESULT IS F = - G'
067000 3330001077763527R 52530L         -002- 07  T  DEAD_MUP_LOOPBACK         # TEST 0
          0067002                       -002- 08 DEAD_NEXT_MUP_LOOPBACK EQU *

          0067002                       -002- 12 DEAD_SETUP_DEAD_SETUP EQU *
                                        -002- 13 # 'SETUPS- NONE'
                                        -002- 14 # 'INHIBITS = BS1 (X)'
067002 3330001077763707R 52712L         -002- 15  T  DEAD_DEAD_SETUP           # TEST 1
          0067004                       -002- 16 DEAD_NEXT_DEAD_SETUP EQU *

          0067004                       -002- 20 DEAD_SETUP_CONFIG_PSB_PS EQU *
                                        -002- 21 # 'SETUPS-1
                                        -002- 22 # ' '
067004 3330001077764073R 53100L         -002- 23  T  DEAD_CONFIG_PSB_PS         # TEST 2
          0067006                       -002- 24 DEAD_NEXT_CONFIG_PSB_PS EQU *

          0067006                       -002- 28 DEAD_SETUP_TEST_CC EQU *
                                        -002- 29 # 'SETUPS- 1 2'
                                        -002- 30 # ' '
067006 3330001077764251R 53260L         -002- 31  T  DEAD_TEST_CC               # TEST 3
          0067010                       -002- 32 DEAD_NEXT_TEST_CC EQU *

          0067010                       -002- 36 DEAD_SETUP_HASH_PCRVBOOT EQU *
                                        -002- 37 # 'SETUPS- NONE'
                                        -002- 38 # ' '
067010 3330001077764433R 53444L         -002- 39  T  DEAD_HASH_PCRVBOOT         # TEST 4
          0067012                       -002- 40 DEAD_NEXT_HASH_PCRVBOOT EQU *
```

FIG. 3 – Deadstart Test Address Table Listing From PCRVBOOT (5r0f)

TABLE C DEADSTART TEST SETUPS		
SETUP	**TEST REQUIREMENT**	**EXPLANATION**
Test 1 - SETUP	No setup Input:BS1=pest_inh	DEAD_SETUP must be run (once) before individual tests are run. Sets up configuration word from Hard A forces on MCC via AC1MC0 into AC1BS5 and shadow Z register
Test 2 - PS_CONF	Setup:1 No inputs	CONFIG_PSB_PS configures the Program Store Bus and the Program Store (MCODE 773). Needed for all tests to run. Fails go to PCRVFAIL at PCRVBOOT+20000
Test 3 - CC_TESTS	Setup:1 and 2 No inputs	TEST_CC runs CC tests, including memory access tests. Same routine is used in normal Boot. Fails go to PCRVFAIL at PCRVBOOT+20000
Test 4 - HASH_ROM	No setup No inputs	HASH_PCRVBOOT is a self-hashing test of Bootrom validity. Does NOT need memory. Same routine is used in normal Boot. Fails go to PCRVFAIL at PCRVBOOT+20000
Test 5 - MEMORY	Setup:1 and 2 Input:BS0=start_addr BS1=end_addr	MEMORY_TESTS runs memory access tests (24 bits). Verifies uniqueness of each address and that each bit in every location can be written to both 1 and 0. CANNOT be run without PS_CONFIG. Same routine is used in SR Boot, but will run without either SR selected for deadstart. Fails go to PCRVFAIL at PCRVBOOT+20000
Test 6 - WRITEMEM	Setup:1and 2 Input:BS0=start_addr BS1=end_addr BS3=pattern0 BS4=pattern1 (also C,M,W,R and 32 bit)	MEMORY_TEST_EXTEND can be used to write memory
Test 7 - ZERO	Setup:1 and 2 Input:BS0=start BS1=end	ZERO_PS_LOOP zeroes memory. CANNOT be run without PS_CONFIG. Same routine used in SR Boot, but will run without either SR selected for deadstart. Fails go to PCRVFAIL at PCRVBOOT+20000
Test 8 - COPY	Setup:1 and 2 Input:BS0=source BS1=destination Bs3=length	Copies a block of memory. CANNOT be run without PS_CONFIG Deadstart only routine. Fails go to PCRVFAIL at PCRVBOOT+20000

TABLE C DEADSTART TEST SETUPS (CONTD)		
SETUP	**TEST REQUIREMENT**	**EXPLANATION**
Test 9 - CSB_CONF	Setup:1 No inputs	CONFIG_CSB configures the Call Store Bus. Same routine is used in normal Boot. Does not check for failure
Test 10 - IFB_CONF	Setup:1 and 2 No inputs	CONFIG_IFB configures the Interface Bus. Same routine is used in normal Boot. Does not check for failure
Test 11 - AUI_CONF	Setup:1,2 and 10 No inputs	CONFIG_AUI configures the Auxiliary Interface Unit. Same routine is used in normal Boot. Fails go to PCRVFAIL at PCRVBOOT+20000
Test 12 - API_CONF	Setup:1,2,10 and 11 No inputs	CONFIG_API configures the Auxiliary Unit Bus and Attached Processor Interface Unit. Same routine is used in normal Boot. Fails go to PCRVFAIL at PCRVBOOT+20000
Test 13 - SEL_FILE	Setup:1,2,10,11 and 12 Input:BS3=api_kcode BS4=aui_base	SEL_FILE selects NORM or UPDATE file (NORM is default) and sends that information to APS. Same routine is used in normal Boot. Does not check for failure
Test 14 - PUMP_80K	Setup:1,2,10,11 and 12 Input:BS3=api_kcode BS4=aui_base	Pumps the 80K from the APS with 516 "Quadrants" starting at quadrant 2: 2,3,4,5,1 are pumped; each quadrant can time out. Same routine is used in normal Boot. Does not check for failure
Test 15 - DISPLAY	Setup:1,2 and 10 Input:BS3=mup77602000 BS4=cmd0720310 k=data	SEND_TO_MUP sends data to the MUP. Default is a command to write BS2 to the display code on the MCC EAI Page. Same routine is used in normal Boot. Does not check for failure
Test 16 - MUP_CONF	Setup:1,2 and 19 No inputs (UTIL SR)	CONFIG_MUP configures the Maintenance and Utility Processor Unit. Same routine is used in UTIL SR. This routine only runs if UTIL SR is selected on the MCC EAI Page. Fails go to PCRVFAIL at PCRVBOOT+20000
Test 17 - SRIOINIT	Setup:1,2,10, and 16 No inputs (SR)	SR_IO_BUFFER_INIT sets up the buffers used by SR. It clears out buffers 2-8 and sets up buffer 1 for single buffer use. Same routine is used in SR. This routine only runs if NORM or UTIL SR is selected on MCC EAI Page. Does not check for failure

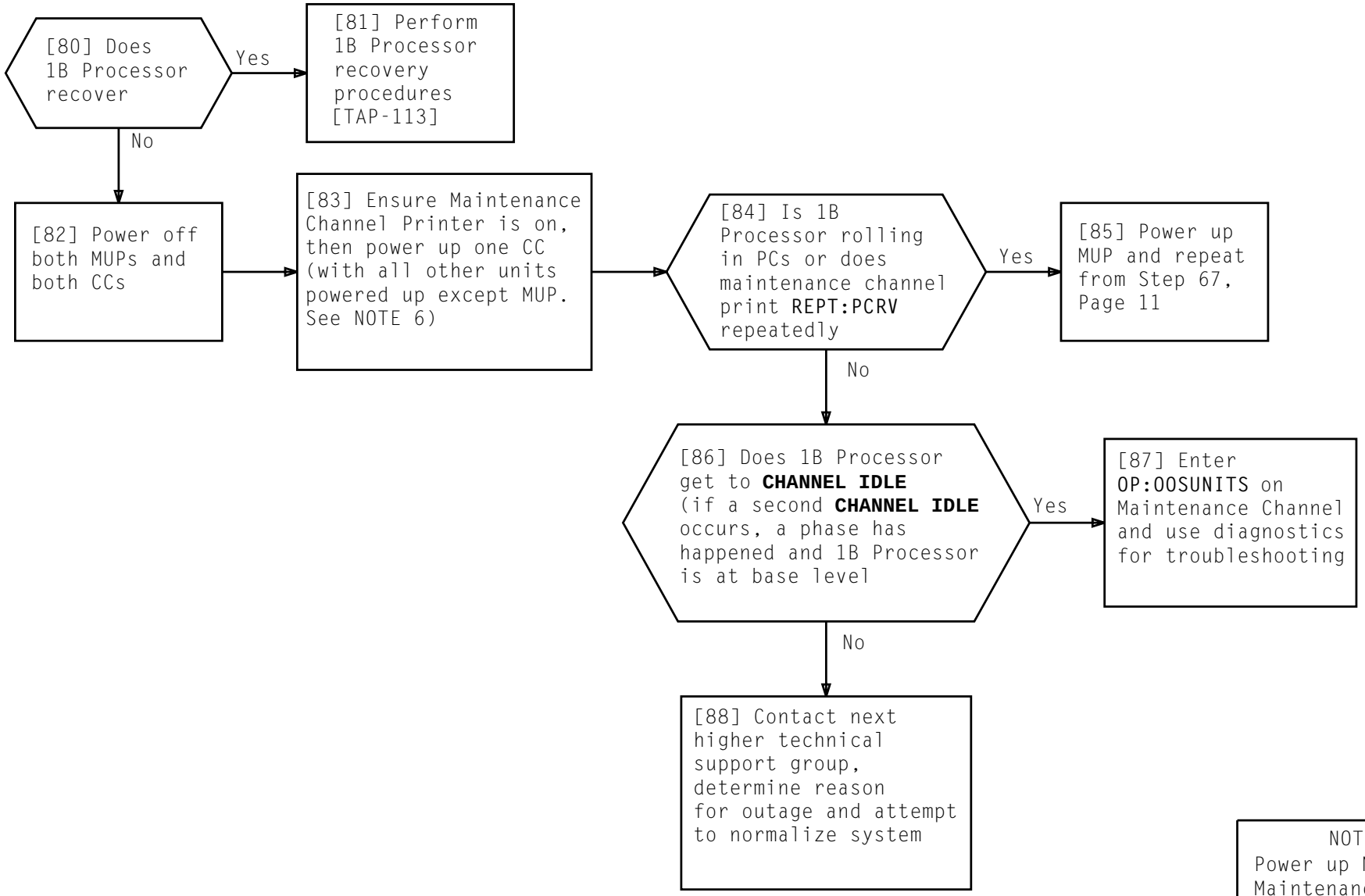
TABLE C DEADSTART TEST SETUPS (CONTD)		
SETUP	**TEST REQUIREMENT**	**EXPLANATION**
Test 18 - UTILHAND	Setup:1,2,10 and 16 No inputs (UTIL SR)	INFORM_UTL informs the Maintenance and Utility Processor Unit that a UTIL SR is starting. Same routine is used in UTIL SR. This routine only runs if UTIL SR is selected on the MCC EAI Page. Fails go to PCRVFAIL at PCRVBOOT+2000
Test 19 - DUS_CONF	Setup:1,2,10 and 11 No inputs (aui_base) (NORM SR)	CONFIG_DUS_TUC configures the Device Unit Selector, Device Unit Controller and Tape Unit Controller. It does a call to READ_HDR_TUC to start reading the SR Tape Header and returns the address of the responding TUC. Same routine is used in NORM SR. This routine only runs if NORM SR is selected on the MCC EAI Page. Fails go to PCRVFAIL at PCRVBOOT+20000
Test 20 - READ_HDR	Setup:1,2,10,11 and 19 No inputs (NORM SR)	READ_HDR_TUC reads the Header (682 words long) from the TUC into 14020000. It is automatically run by CONFIG_DUS_TUC
Test 21 - VERIFYSR	Setup:1,2,10 and 16/17/18 or 19 No inputs (SR)	VERIFY_HEADER verifies the data in the header of lot 1 used by SR. The last 2 bytes of the first word of the header should be ascii SR, or 51522 in octal. Same routine is used in SR, this routine only runs if NORM or UTIL SR is selected on the MCC EAI Page. Fails go to PCRVFAIL at PCRVBOOT+20000
Test 22 - PUMP_SR	Setup:1,2,10 and 16/17/18/21 or 19/21, No inputs (SR)	BRING_IN_SYSR reads in all remaining portion of SYSR after the header block
Test 23 - READ_515	Setup:1,2,10 and 16/17/18/21 or 19/21, Input:BS0=buf0 BS1=req1 base_tuc sr1buf_num (SR)	READ_SR_515 reads a block of 515 words from either tape of the utility system. Same routine is used in SR. This routine only runs if NORM or UTIL SR is selected on the MCC EAI Page. Does not check for failure

TABLE C DEADSTART TEST SETUPS (CONTD)		
SETUP	**TEST REQUIREMENT**	**EXPLANATION**
Test 24 - IFFRTIBC	Setup:1,2,10 and 11 No inputs	IFFRTIBC tests the IFB Controller in the CC. This is a deadstart only routine. Fails lock up in a tight deadstart loop, with started and finished bits both set in AC1BS2
Test 25 - AUFRTIFC	Setup:1,2,10 and 11 No inputs	AUFRTIFC tests AUI Client Access via CC MMIO Operations. This is a deadstart only routine. Fails lock up in a tight deadstart loop, with started and finished bits both set in AC1BS2. This test should be run with defaults
Test 26 - DMA_CORE	Setup:1,2,10 and 11 Input:BS0-client 77624000 BS1=source14000000 BS3=dest16000000 BS4=length	WORD_DMA_C2C tests core-to-core word dma via AUI or MUP. This is a deadstart only routine. Fails lock up in a tight deadstart loop with started and finished bits both set in AC1BS2
Test 27 - DMA_CLI	Setup:1,2,10,11 and 12 or 19 Input:BS0=client BS1=quadrant BS3=dest BS4=subclient	WORD_DMA_CLI tests client source to core word dma via AUI. If APS pump, BS1 and 3 are set to the 5th quadrant of the 80K pump, or BS1=01305000 for API and BS3=14200000, BS0=77624000 or 77626000 is the AUI, BS4=17600000 for the API base address
Test 28 - AUI_READ	Setup:1,10 and 11 Input:BS1=aui_register (offset)	AUI_READ_REG reads registers in the AUI. It adds an offset from the AUI base address for the register location. This is a deadstart only routine. No failure branch
Test 29 - API_READ	Setup:1,10,11 and 12 Input:BS0=cmd(read=0) BS1=api_reg(esr=65) BS3=aui7762000 BS4=api17604000	API_READ_REG reads registers in the API. Executes command from BS0 via F, with register offset from BS1 and returns the register contents in Z
Test 30 - DUS_WRIT	Setup:1,2,10,11 and 19 No inputs (NORM SR)	DUS_WRITE_REG writes registers in the DUS. This is a deadstart only routine. It only runs when NORM SR is set up on the MCC EAI Page. No failure branch
Test 31 - DUS_READ	Setup:1,2,10,11 and 19 No inputs (NORM SR)	DUS_READ_REG reads registers in the DUS. BS1 is the register offset in the DUS, response is returned in K. This is a deadstart only routine. It only runs when NORM SR is set up on the MCC EAI Page. No failure branch

TABLE C DEADSTART TEST SETUPS (CONTD)		
SETUP	**TEST REQUIREMENT**	**EXPLANATION**
Test 32 - TUC_WRIT	Setup:1,2,10,11 and 19 No inputs (NORM SR)	TUC_WRITE_REG reads registers in the DUC/TUC. This is a deadstart only routine. It is only run when NORM SR is set up on the MCC EAI page. No failure branch
Test 33 - TUC_READ	Setup:1,2,10 and 11 No inputs	TUC_READ_REG reads registers in the DUC/TUC. This is a deadstart only routine. It is only run when NORM SR is set up on the MCC EAI Page. No failure branch
Test 34 - AUFRTDMA	Setup:1,2,10,11 and 19 No inputs (NORM SR)	AUFRTDMA tests AUI DMA into Stores (Program). This test should be run with defaults. This is a deadstart only routine. Fails lock up in a tight deadstart loop, with started and finished bits both set in AC1BS2
Test 35 - AUFRAUIL	Setup:1,2,10 and 11 No inputs	AUFRAUIL tests AUI logic to the AUB. It puts the AUs in a troubled state and expects no replies. This test should be run with defaults. This is a deadstart only routine. Fails lock up in a tight deadstart loop with started and finished bits set in AC1BS2
Test 36 - AUFRAUIC	Setup:1,10,11 and 12 Input:BS3=api_base	AUFRAUIC tests AUI Control to the AUs. This test should be run with defaults. This is a deadstart only routine. Fails lock up in a tight deadstart loop with started and finished bits both set in AC1BS2
Test 37 - STATUS	No setup No inputs	LOOK_AT_STATUS reads status of error source registers. This is a deadstart only routine. No failure branch
Test 38 - PC_DISP	Setup:1,2 and 10 No inputs	PC_DISP does a one time page 120 display. The page 120 entries MUST be done BEFORE running the test if any page 120 output is needed. Same routine is used in normal Boot. No failure branch
Test 39 - PCRVFAIL	Setup:1 No inputs	PCRVFAIL displays failure data on the MCC EAI page. This is the last test automatically run with "All Tests." Same routine is used in normal Boot. No failure branch
Test 40 - 2K_PUMP	Setup:1,2,10,11 and 12 No inputs	GCP_BOOT2K_PUMP pumps in the PCRVPUMP file to 14020000 via a hardware GCP to the API. This is a deadstart only routine. No failure branch

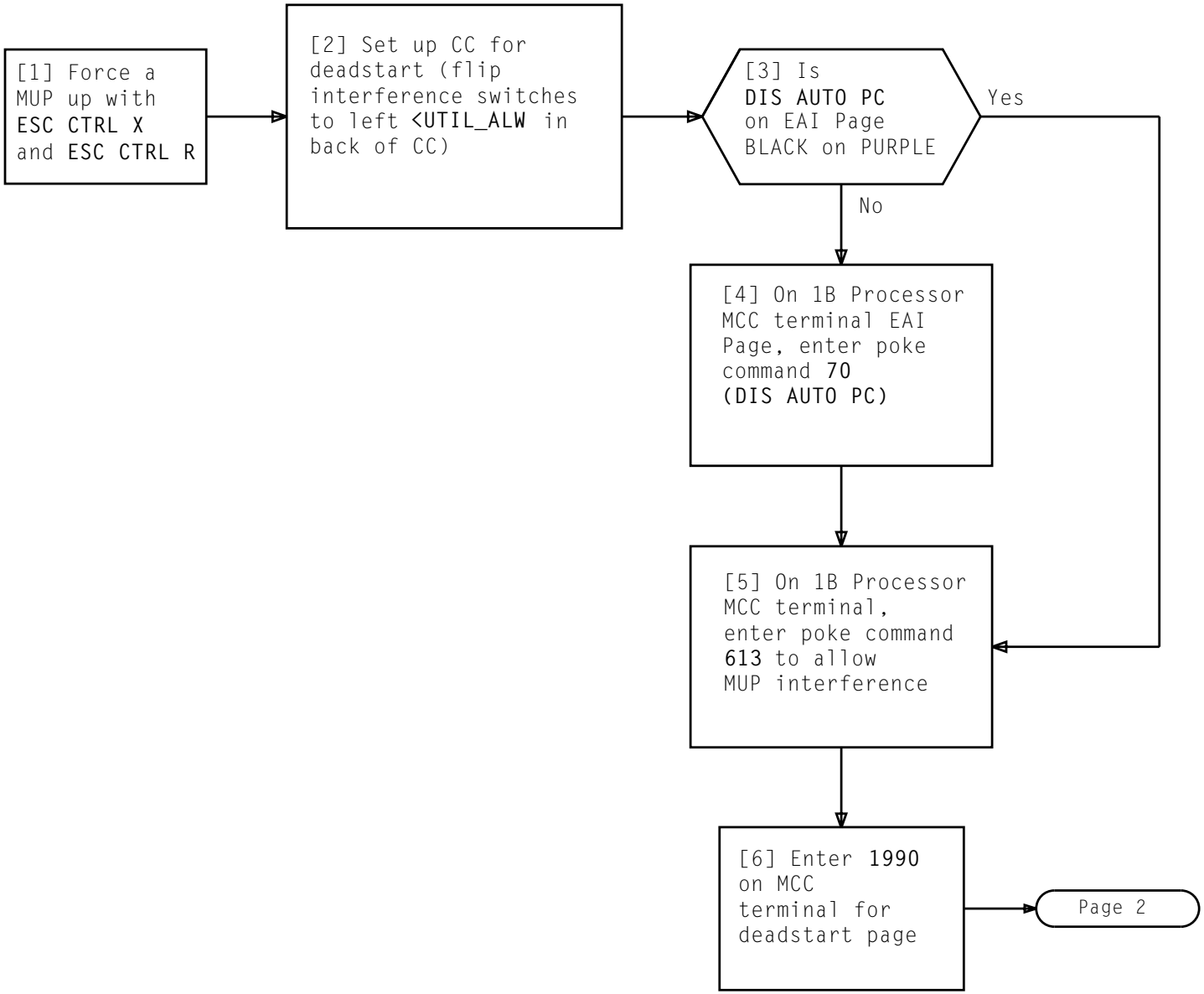
TABLE C DEADSTART TEST SETUPS (CONTD)		
SETUP	**TEST REQUIREMENT**	**EXPLANATION**
Test 41 - SETBREAK	Setup:2 Input: BS0 = Breakpoint Address	Intended for use when memory is available. CANNOT work on Bootrom. Only the last breakpoint set can be cleared by CLEAR_BREAKPOINT. Multiple single address breakpoints can be set up with this test failure (This is usually used for Returns on J, J+1 and J+2.) The success leg is saved for last, so the breakpoint can be cleared. This is a deadstart only routine. There is no failure branch
Test 42 - CLRBREAK	Setup:2 and 41 No inputs	CLEAR_BREAKPOINT clears a breakpoint in memory. This only clears the last breakpoint set up with SET_BREAKPOINT. If no breakpoint is set up, it will destory the memory location pointed to by AC1ASA. This is a deadstart only routine. There is no failure branch
Test 43 - READ_MEM	Setup:2 Input:BS0 = Start Address	READ_MEM_TO_REG reads memory into registers. Four locations are read starting from AC1BS0. Display is in F, G, J and K. This is a deadstart only routine
Test 44 - READ_MEM+	Setup:2 and 43 No inputs	READ_MEM_TO_REG_INCR reads memory into registers and increments the start pointer by 4. Reads 4 locations in memory starting at location from READ_MEM, then increments so the next read will be 4 locations higher. This is a deadstart only routine. There is no failure branch
Test 45 - AUIWRITE	Setup:1,10 and 11 Input: BS1=aui_register (offset) BS3=aui_data (via map)	AUI_WRITE_REG writes registers in the AUI. It adds an offset from the AUI base address for the register location. This is a deadstart only routine. No failure branch
Test 46 - APIWRITE	Setup:1,10,11 and 12 Input: BS0=cmd(write=0) BS1=api_reg(esr=65) BS3-api_data BS4=api17604000	API_WRITE_REG writes registers in the API. Executes command from BS0 via F, with register Offset from BS1 (typically 65 for esr), and returns the register contents in Z. BS3=data for API register (via aui map), BS4-17600000 or API client. This is a deadstart only routine. No failure branch

TABLE C DEADSTART TEST SETUPS (CONTD)		
SETUP	**TEST REQUIREMENT**	**EXPLANATION**
Test 47 - IEPIFB	Setup:1 Input: BS3=FRL(command BS4=Y(device)	This is an infinite monitor loop (IEP or IEPIFB). It is recommended to rerun Test 1 after this test to assure the configuration setup in AC1BS5 is correct. IEPIFB is a program to test IFB clients and memory. It initializes the IFBC and IFB clients. It reads the FRL register in the IFBC to determine what test to run. This is a deadstart only routine. No failure branch
Test 48 - MUPREAD0	Setup:1,2 No inputs(ifbsetup 0)	IFBSETUP0 sets up MUP 0 to read and write 1B Processor memory. It works even if the other IFB is selected for the configuration. Use only after testing has proceeded to a fail point. This is a deadstart only routine. No failure branch
Test 49 - MUPREAD1	Setup:1 and 2 No inputs (ifbsetup 1)	IFBSETUP1 sets up the MUP to read and write 1B Processor memory. It works even if the other IFB is selected for the configuration. Use only after testing has proceeded to a fail point. This is a deadstart only routine. No failure branch
Test 50 - MABS CONTROL	Setup:1 Inputs: BS3=MABS_bit (1=set, 0=reset)	Setting MABS allows a Call Store address to be sent over the Program Store Bus (in case a PS was accidentally set to a CS address, for example, 0)

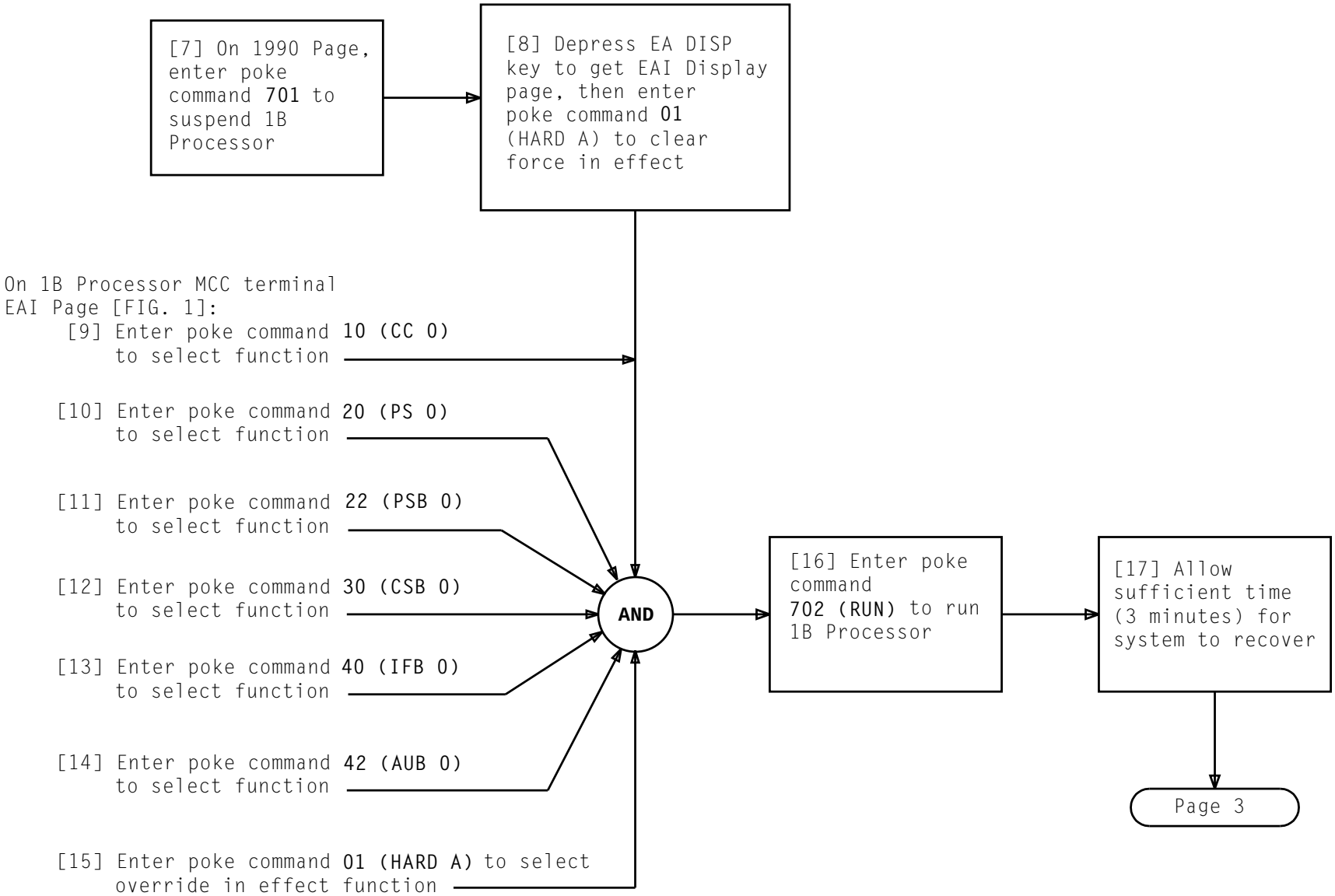


NOTE 6
Power up MUP if Maintenance Channel Printer does not print

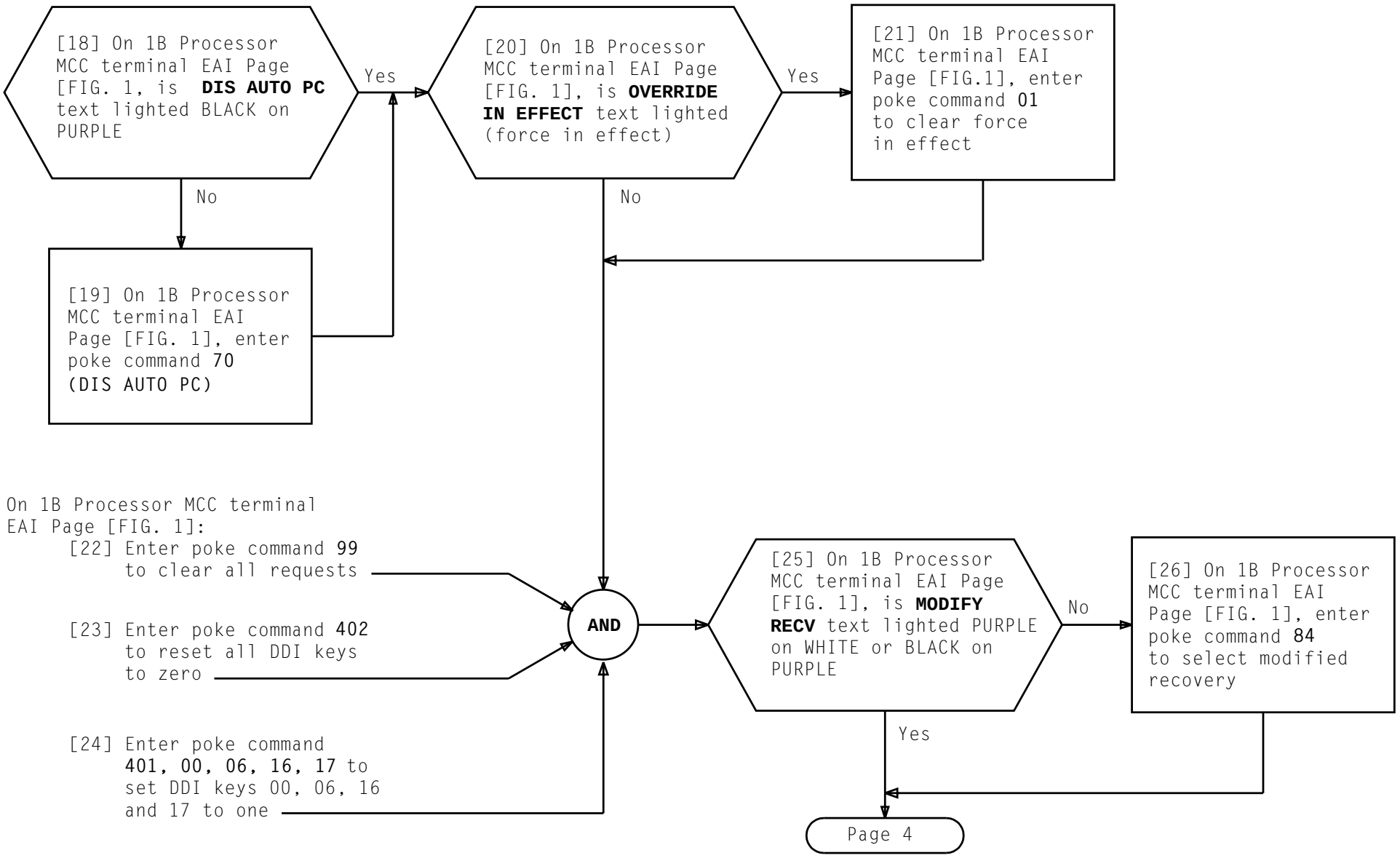
PERFORM 1B PROCESSOR DEADSTART



PERFORM CC SANITY CHECK

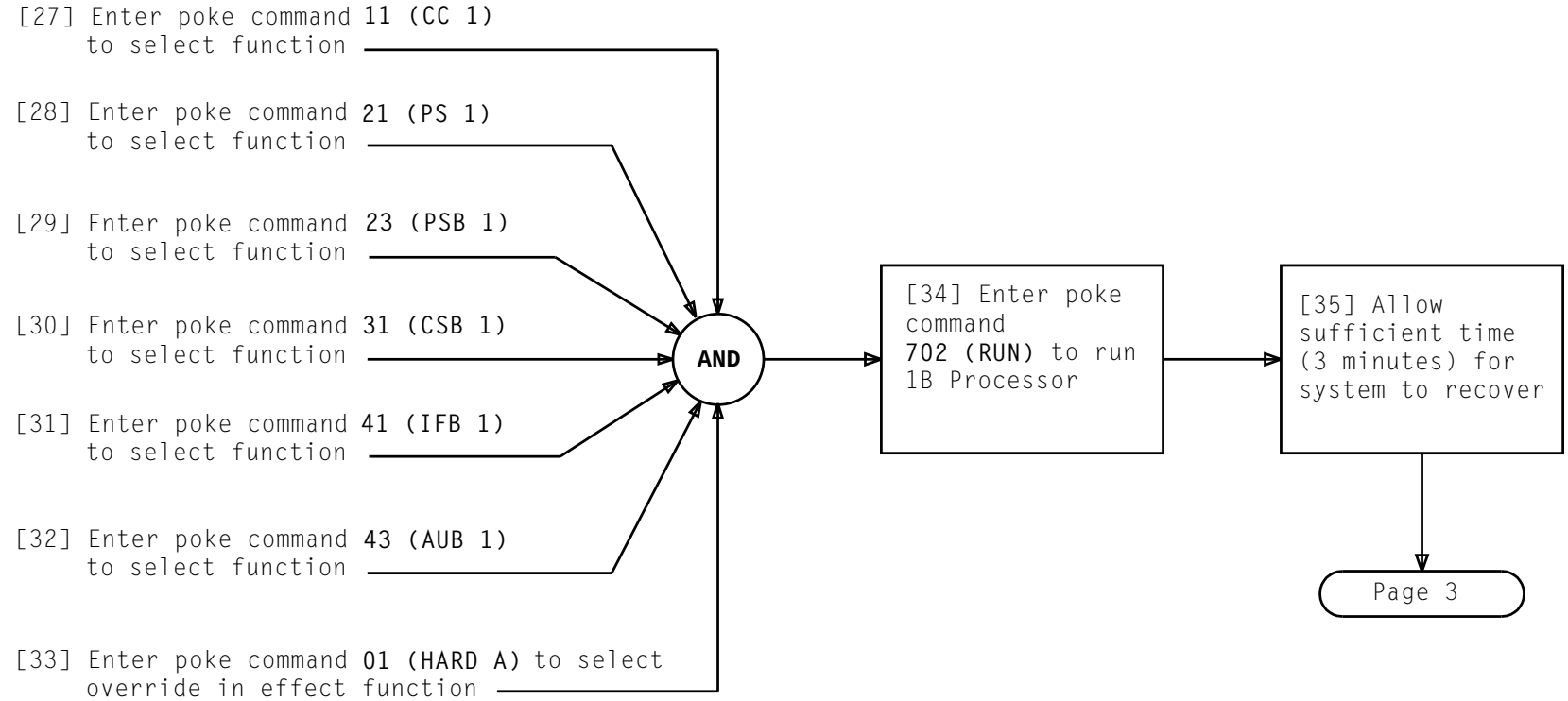


PERFORM CC SANITY CHECK

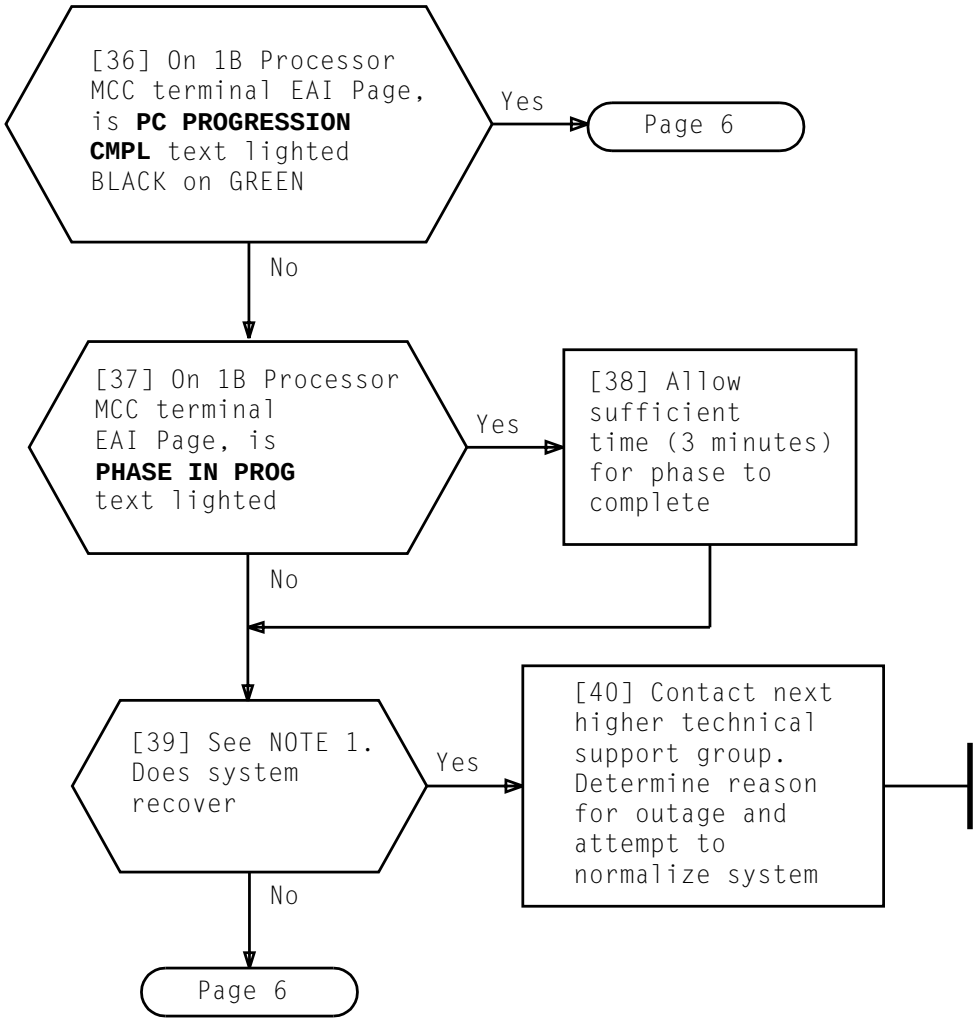


PERFORM CC SANITY CHECK

On 1B Processor MCC terminal
EAI Page [FIG. 1]:



PERFORM CC SANITY CHECK

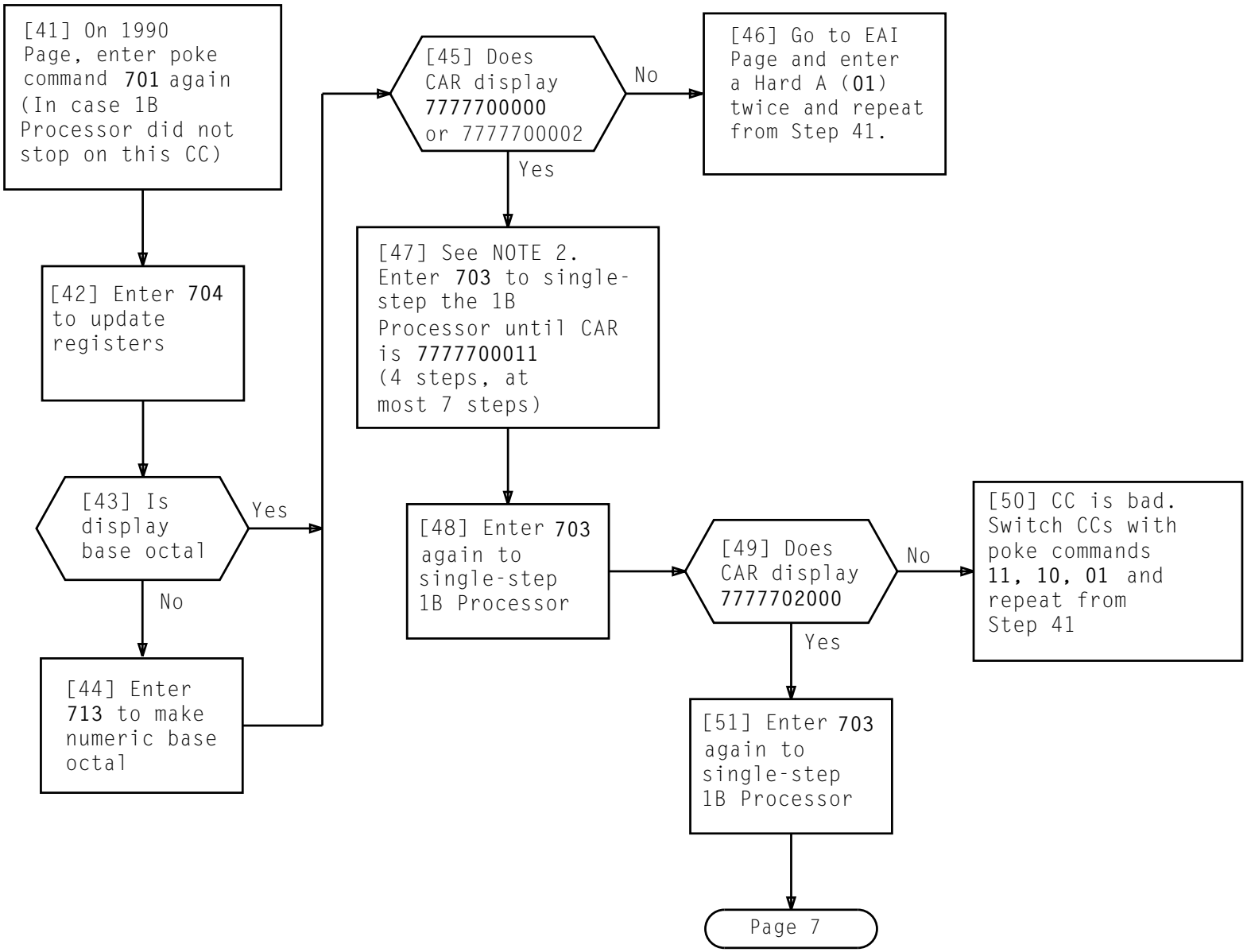


NOTE 1

System has recovered if following conditions have been met:

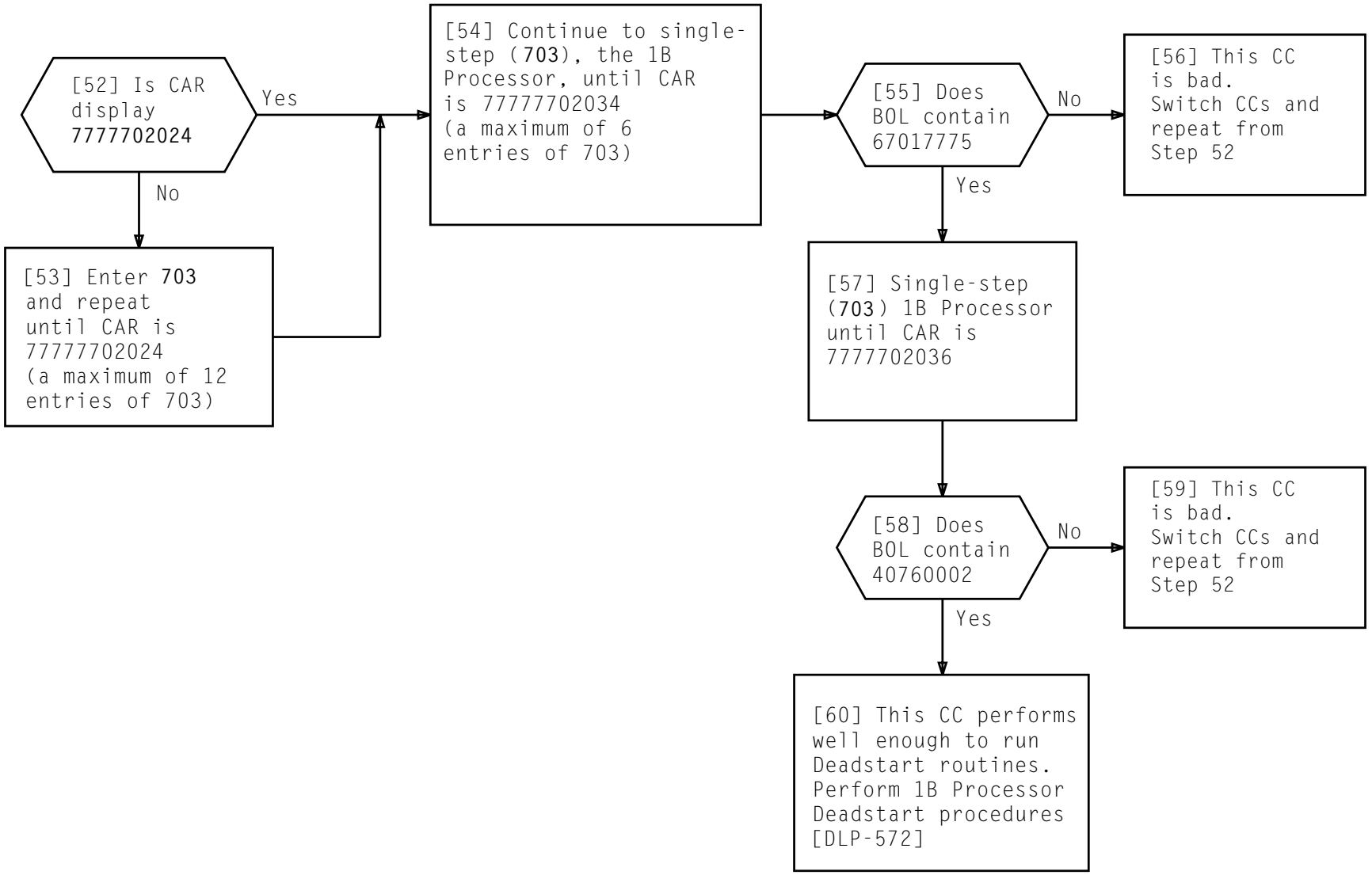
A. On 1B Processor MCC terminal EAI Page under **PC PROGRESSION, CMPL** text is lighted BLACK on GREEN
B. On 1B Processor MCC terminal EAI Page **PHASE IN PROG** text has not lighted in last few minutes
C. On 1B Processor MCC terminal SYSTEM STATUS page under **SYSTEM ACTIVITY,** displayed data is normal for time of day (takes 3 minutes for data to be updated)
D. Calls are being processed

PERFORM CC SANITY CHECK

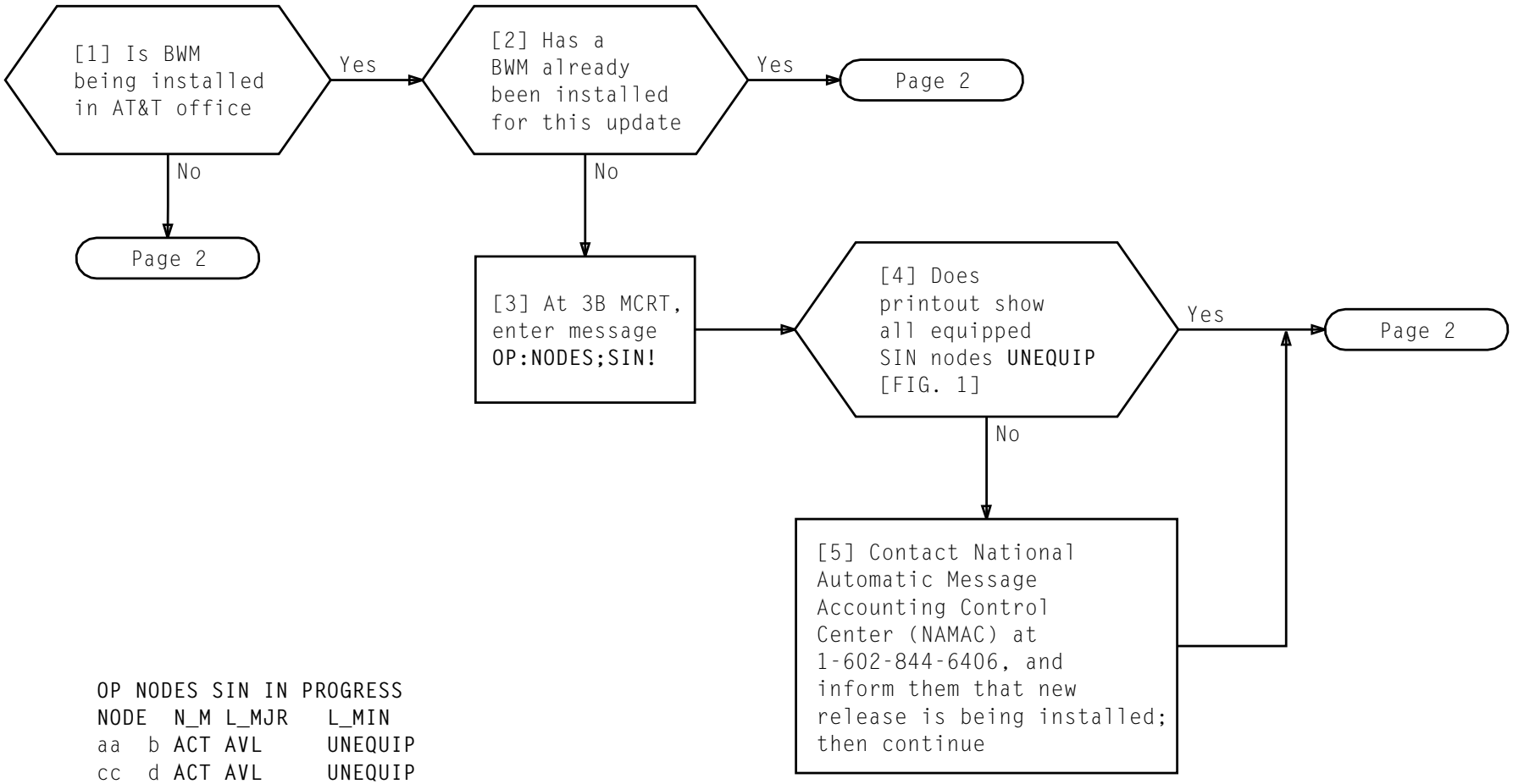


NOTE 2
After single-stepping (703), the 1B Processor CAR should be 1 or 2 above the previous CAR (0000 to 0002). If it jumps more than 2 (23), the CC is bad. Switch CCs and repeat procedure with full configuration (10 or 11). If CC is able to execute and fetch BOL, start using regular Deadstart procedures after doing Steps 41-60 in this procedure

PERFORM CC SANITY CHECK



PERFORM CC SANITY CHECK




```
OP NODES SIN IN PROGRESS
NODE  N_M L_MJR   L_MIN
aa   b ACT AVL    UNEQUIP
cc   d ACT AVL    UNEQUIP
```

FIG. 1 - SIN Node Status Printout

INSTALL BWM FOR QUARTERLY OFFICE UPDATE (1B BIG GULP)

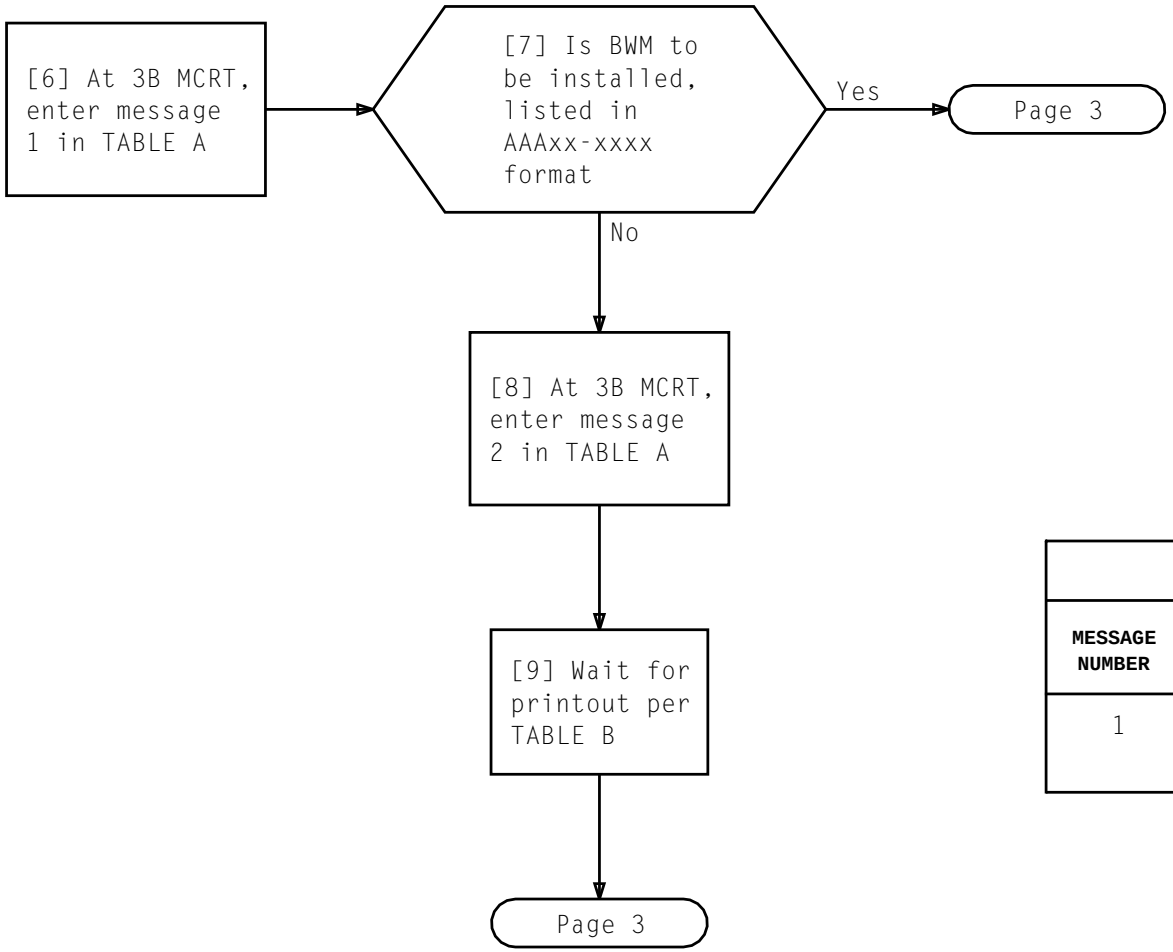


TABLE A

MESSAGE NUMBER	INPUT MESSAGES
1	OP:STATUS:LISTDIR,FN"/etc/bwm"!
2	COPY:BWM xxxxxx!

xxxxxx = BWM, CFT, or DMT number to be installed

TABLE B

MESSAGE NUMBER	OUTPUT MESSAGE
1	MOVING /etc/bwm/xxxxxx TO /etc/bwm/AAAxx-xxxx COPY BWM COMPLETED

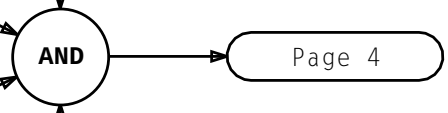
INSTALL BWM FOR QUARTERLY OFFICE UPDATE (1B BIG GULP)

[10] At 3B MCRT, press **NORM DISP** (**PF2**) key
and enter **1960** in command mode to obtain
display page 1960

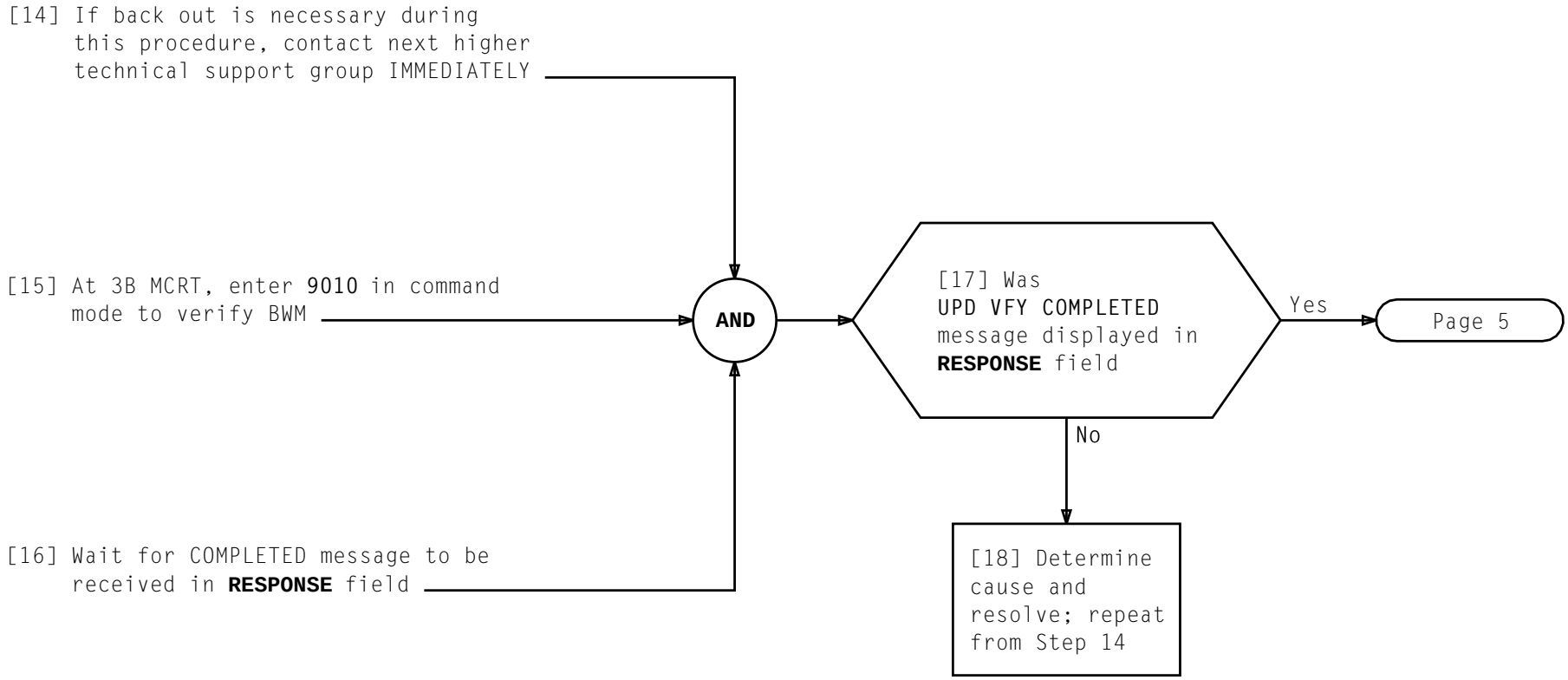
[11] Enter **9000,**AAAxx-xxxx in command
mode to select BWM
AAAxx-xxxx = BWM number to be
installed

[12] At 3B MCRT, enter **9260,SCANS**
in command mode to obtain printout
of SCANS file

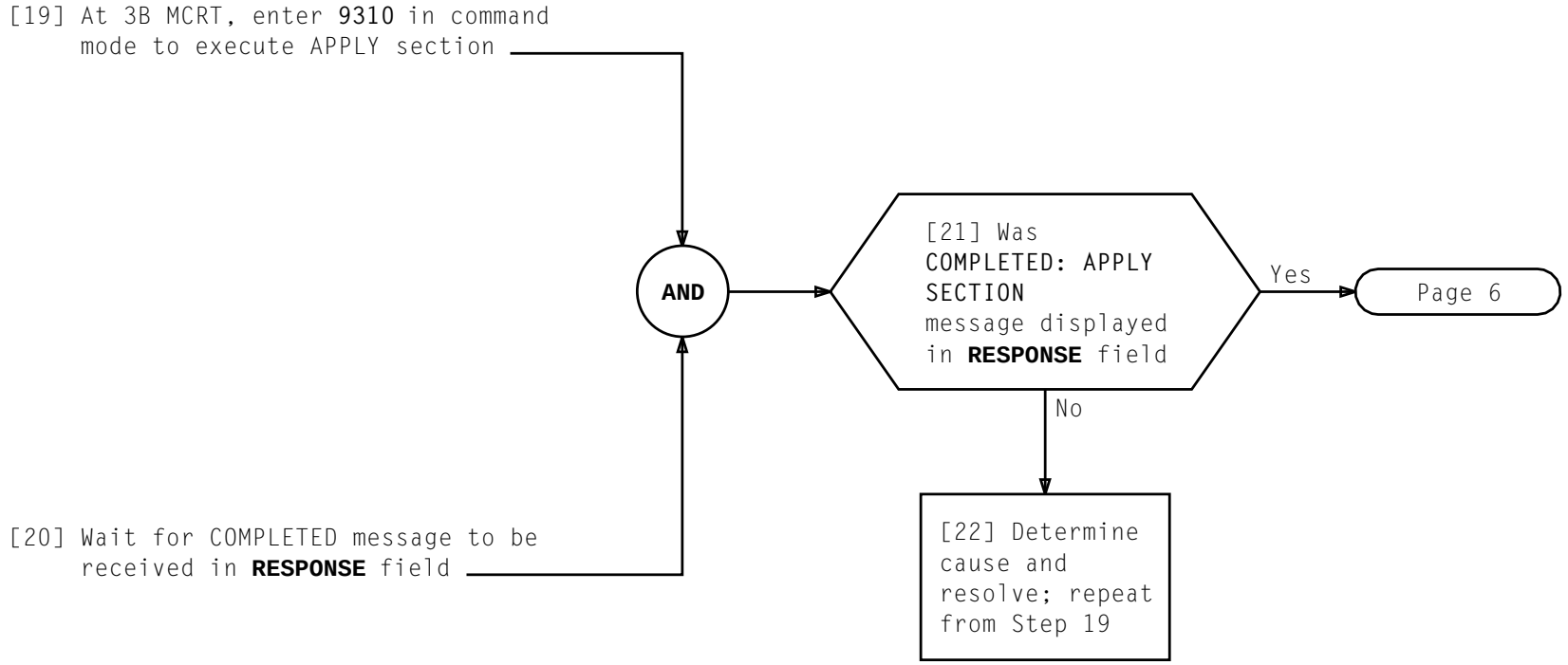
[13] Using printout, determine if special instructions
are required for this BWM. Save printout for later
use if special procedures required after BWM
are applied



INSTALL BWM FOR QUARTERLY OFFICE UPDATE (1B BIG GULP)



INSTALL BWM FOR QUARTERLY OFFICE UPDATE (1B BIG GULP)



INSTALL BWM FOR QUARTERLY OFFICE UPDATE (1B BIG GULP)

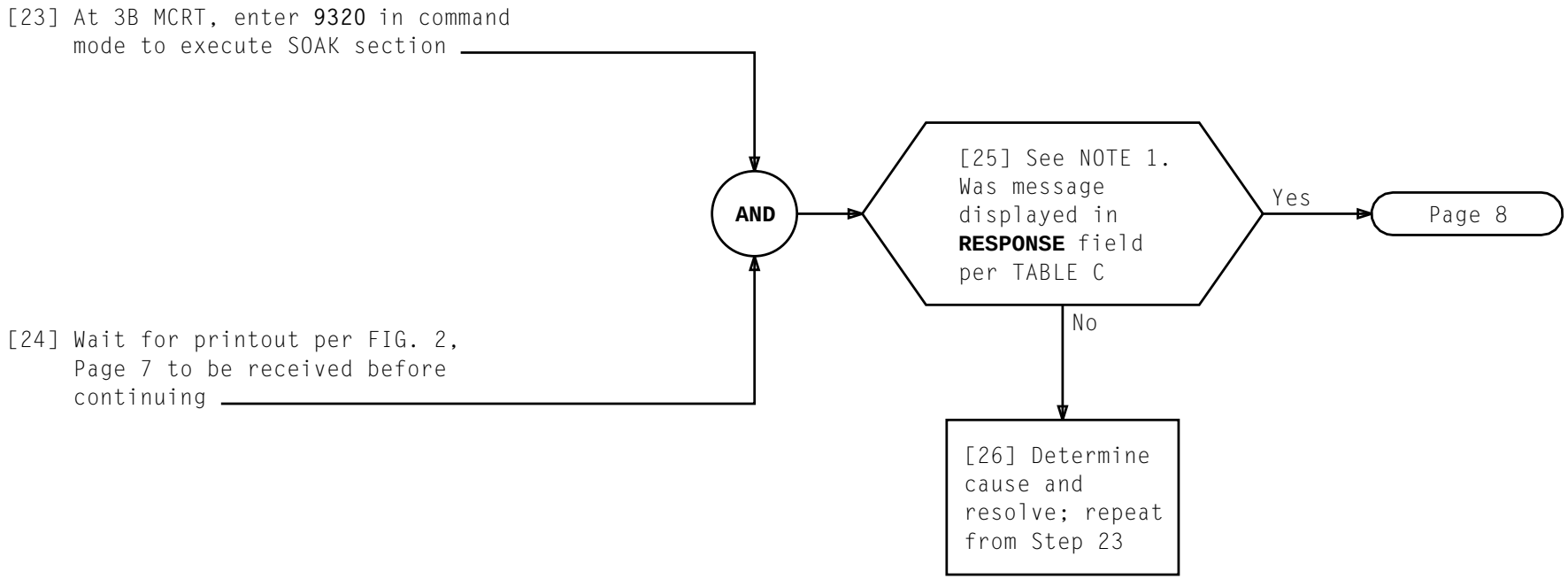


TABLE C	
MESSAGE NUMBER	**OUTPUT MESSAGE**
1	SOAK PERIOD COMPLETED: SOAK SECTION

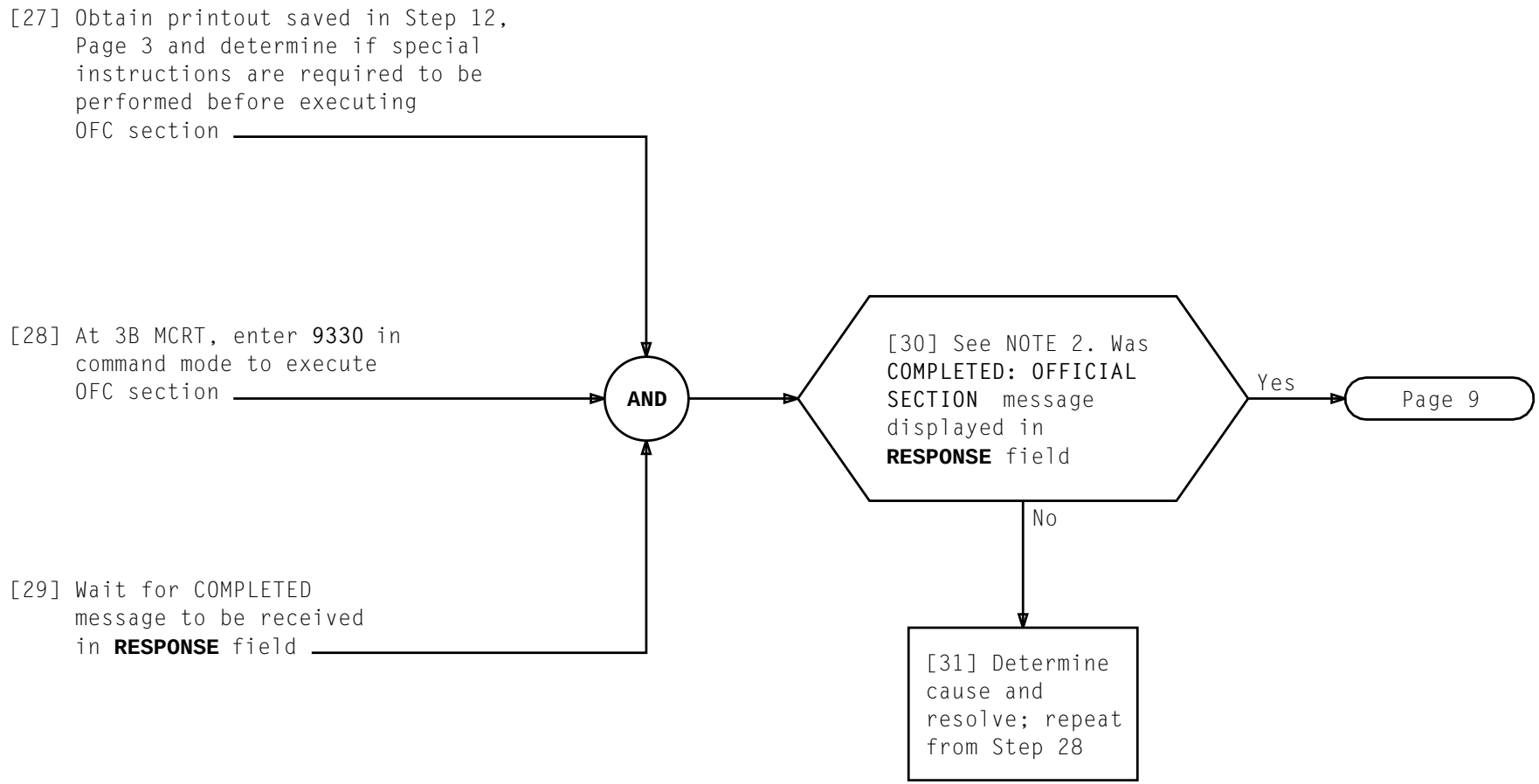
NOTE 1

The **END** field under **CURRENT SOAK TIMER** section (FIG. 2, Page 7) indicates the time response should be received

INSTALL BWM FOR QUARTERLY OFFICE UPDATE (1B BIG GULP)

```
-----------------UPD PRINT SOAK TIMER IN PROGRESS---------------
BWM NAME = AAAxx-xxxx             REMAINING SOAK PERIOD = (HH:MM)


        CURRENT SOAK TIMER
START       (DD MM dd hh:mm:ss YY)
END         (DD MM dd hh:mm:ss YY)
DURATION    (HH:MM)

        PREVIOUS SOAK TIMER
START       (DD MM dd hh:mm:ss YY)
END         (DD MM dd hh:mm:ss YY)
DURATION    (HH:MM)
-----------------END OF BWM SOAK TIMER INFORMATION--------------
UPD PRINT SOAK TIMER COMPLETED
```

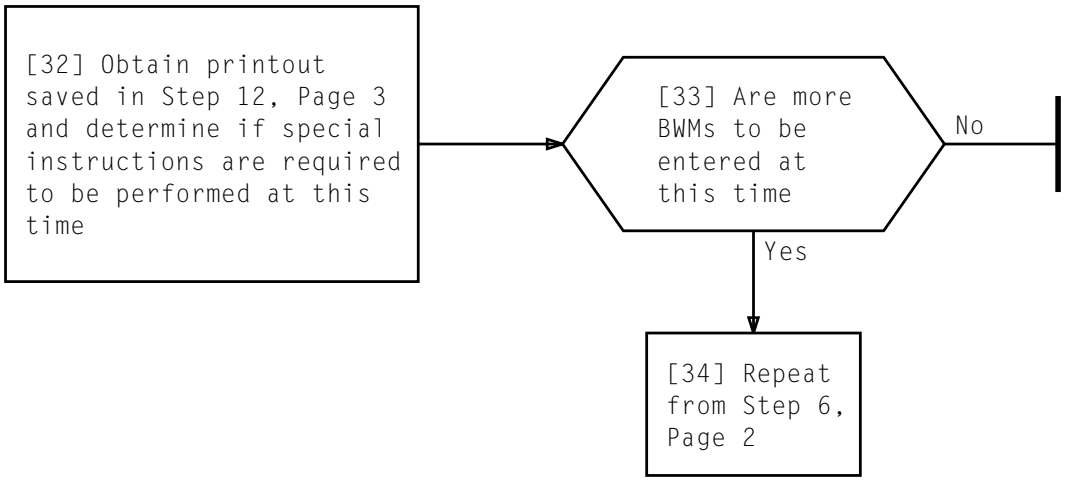
FIG. 2 – System Update Soak Printout



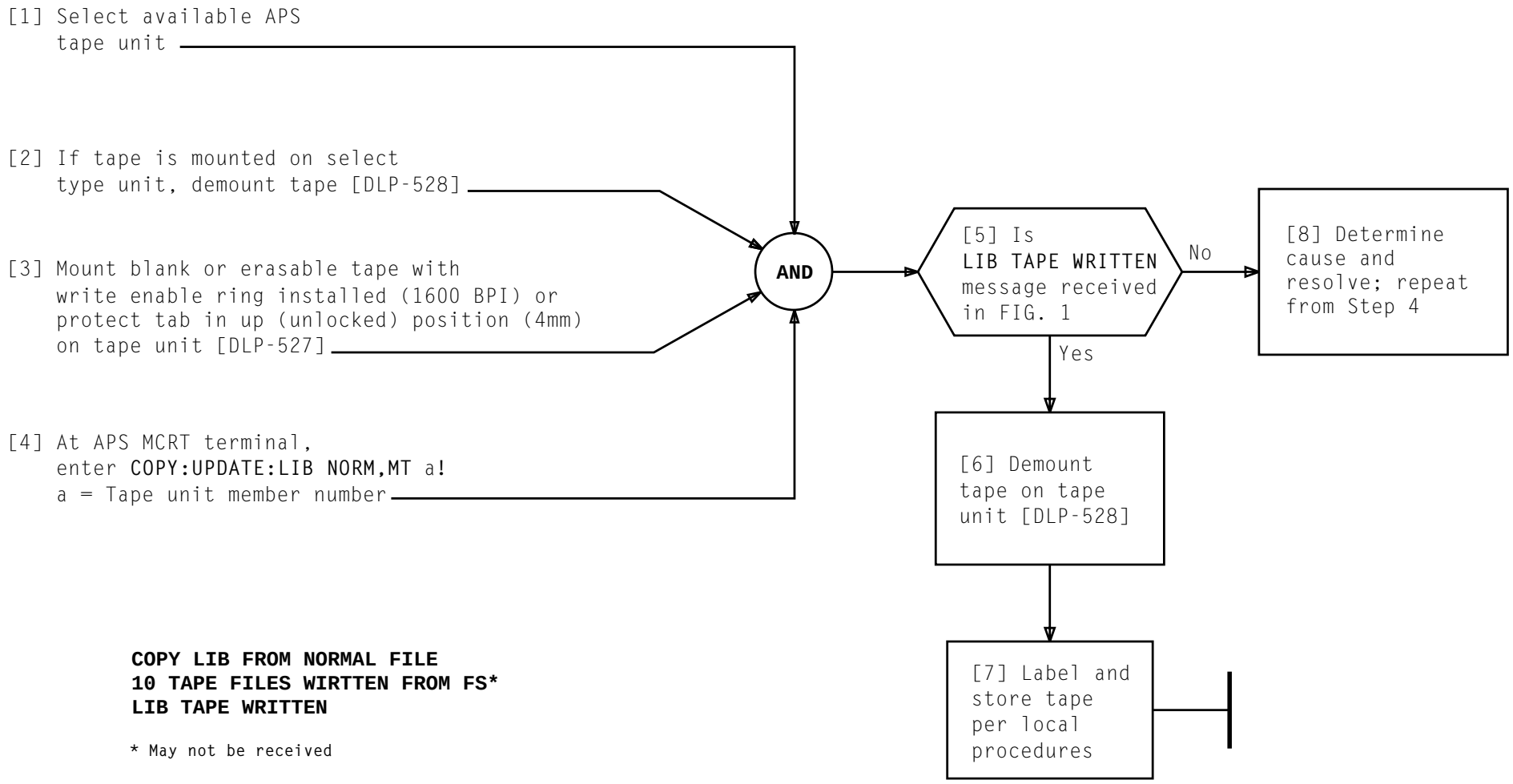
NOTE 2

Time to finish OFC section is dependent on BWM size

INSTALL BWM FOR QUARTERLY OFFICE UPDATE (1B BIG GULP)



INSTALL BWM FOR QUARTERLY OFFICE UPDATE (1B BIG GULP)

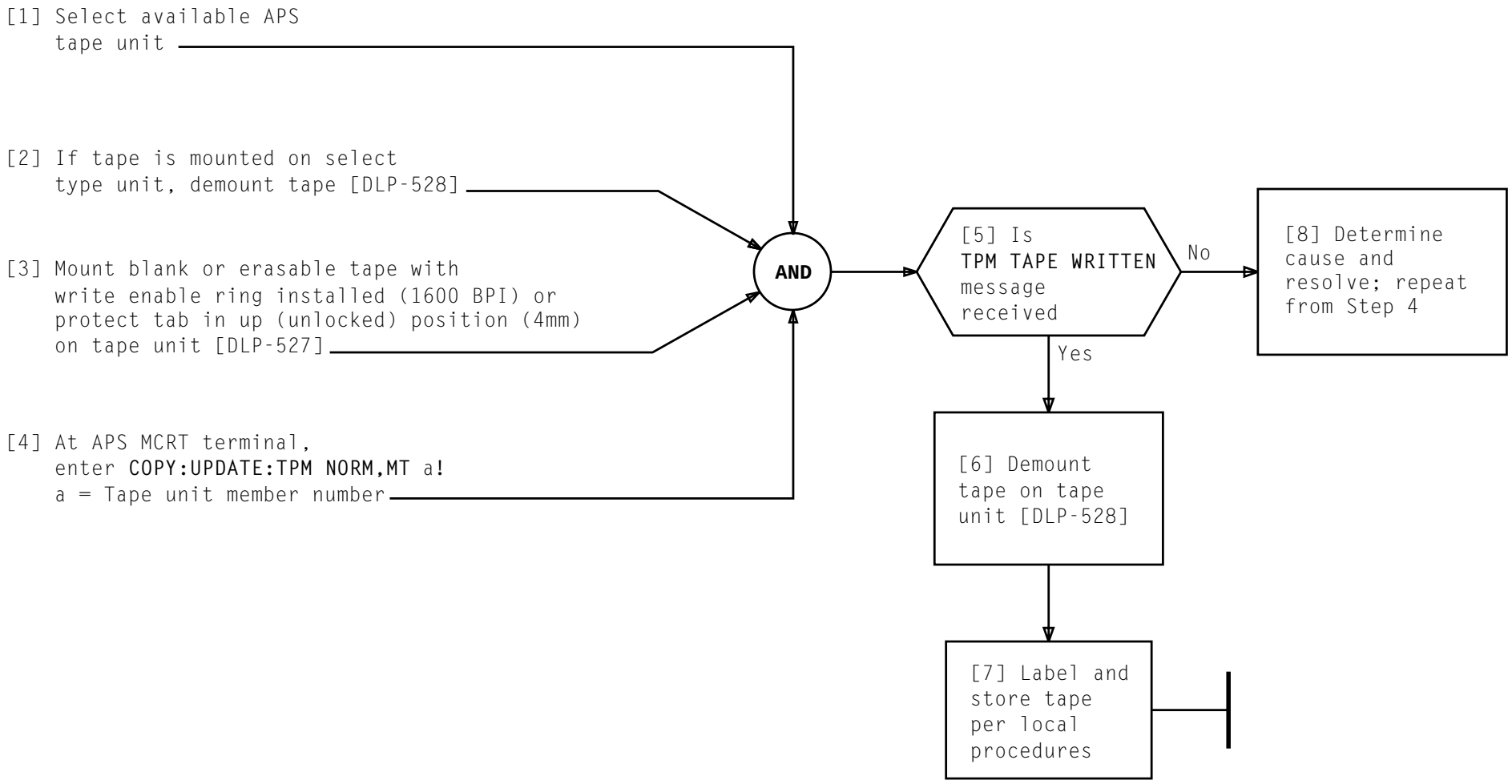


COPY LIB FROM NORMAL FILE
10 TAPE FILES WIRTTEN FROM FS*
LIB TAPE WRITTEN

* May not be received

FIG. 1 – Sample of Library Tape Message

WRITE 1B PROCESSOR LIBRARY (LIB) BACKUP TAPE



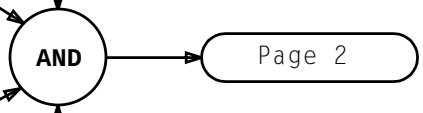
WRITE 1B PROCESSOR TRAFFIC AND PLANT MEASUREMENTS (TPM) TAPE

[1] Select available
APS tape unit

[2] If tape is mounted on
selected tape unit,
demount tape [DLP-528]

[3] Mount blank or erasable tape with
write enable ring installed (1600 BPI) or
protect tab in up (locked) position (4mm)
on tape unit [DLP-527]

[4] At APS MCRT terminal, enter
COPY:APPTAPE:ERAP,MT a!
a = Tape unit member number



WRITE ERROR ANALYSIS PROGRAM (ERAP) TAPE

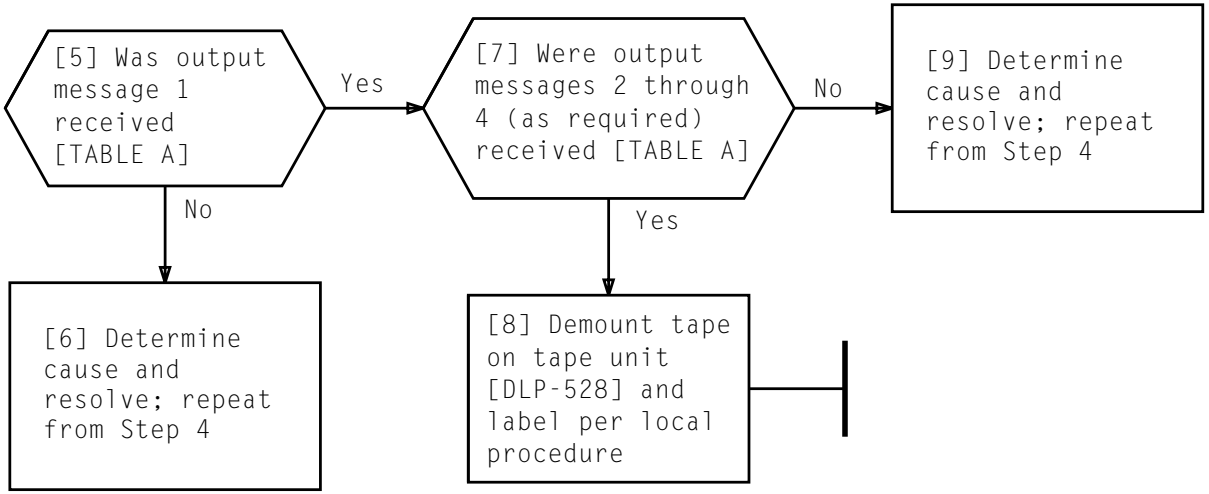


TABLE A

MESSAGE NUMBER	OUTPUT MESSAGES
1	APPTAPE TYPE:ERAP,WRITTEN mm/dd/yy hh:mm
2	APPTAPE ADDRESS RANGE aaaaaaaa – bbbbbbbb STARTED
3	APPTAPE ADDRESS RANGE aaaaaaaa – bbbbbbbb COMPLETED
4	APPTAPE COMPLETED

aaaaaaaa = Starting ERAP address
bbbbbbbb = Ending ERAP address
mm/dd/yy hh:mm = Month/day/year hour:minute tape was written

WRITE ERROR ANALYSIS PROGRAM (ERAP) TAPE

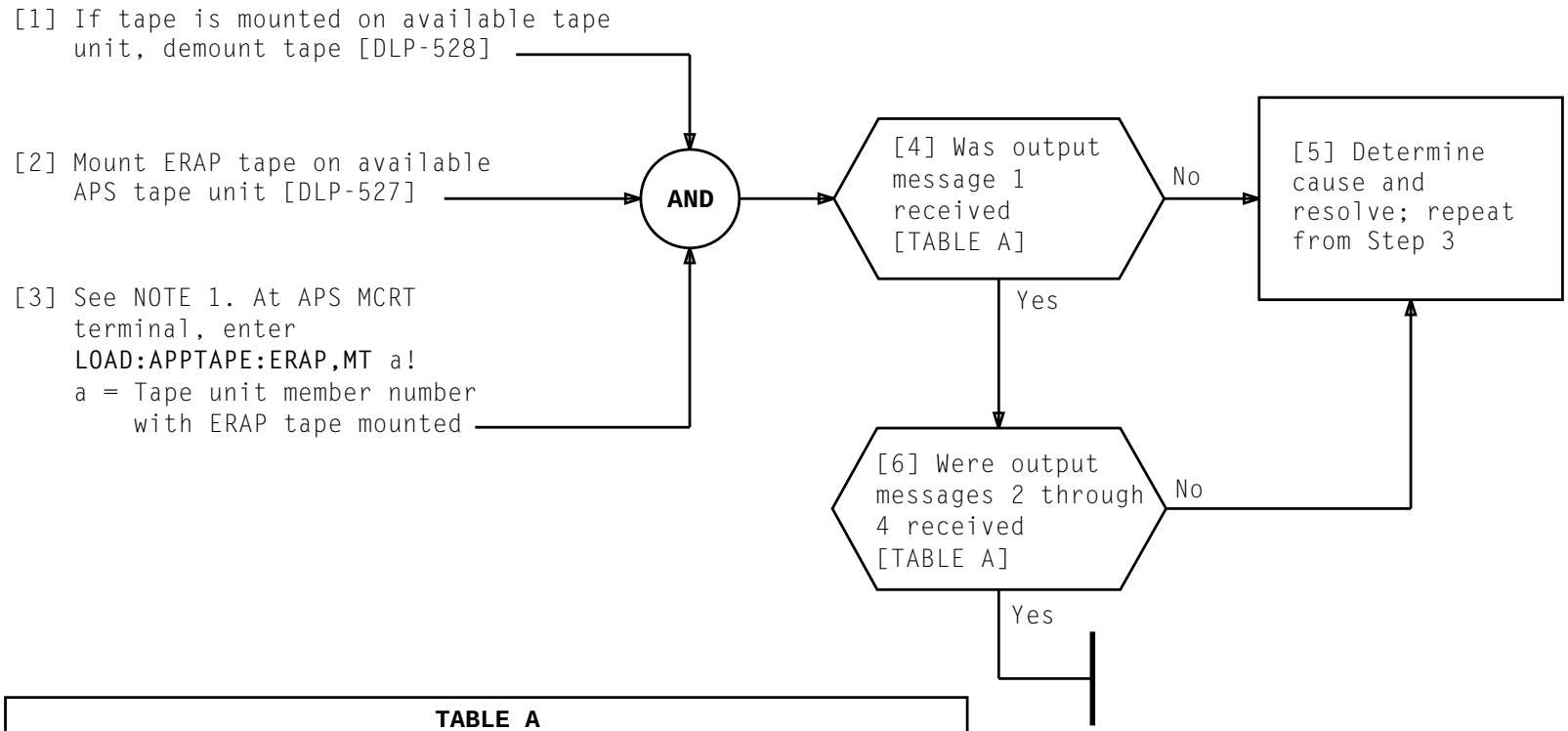


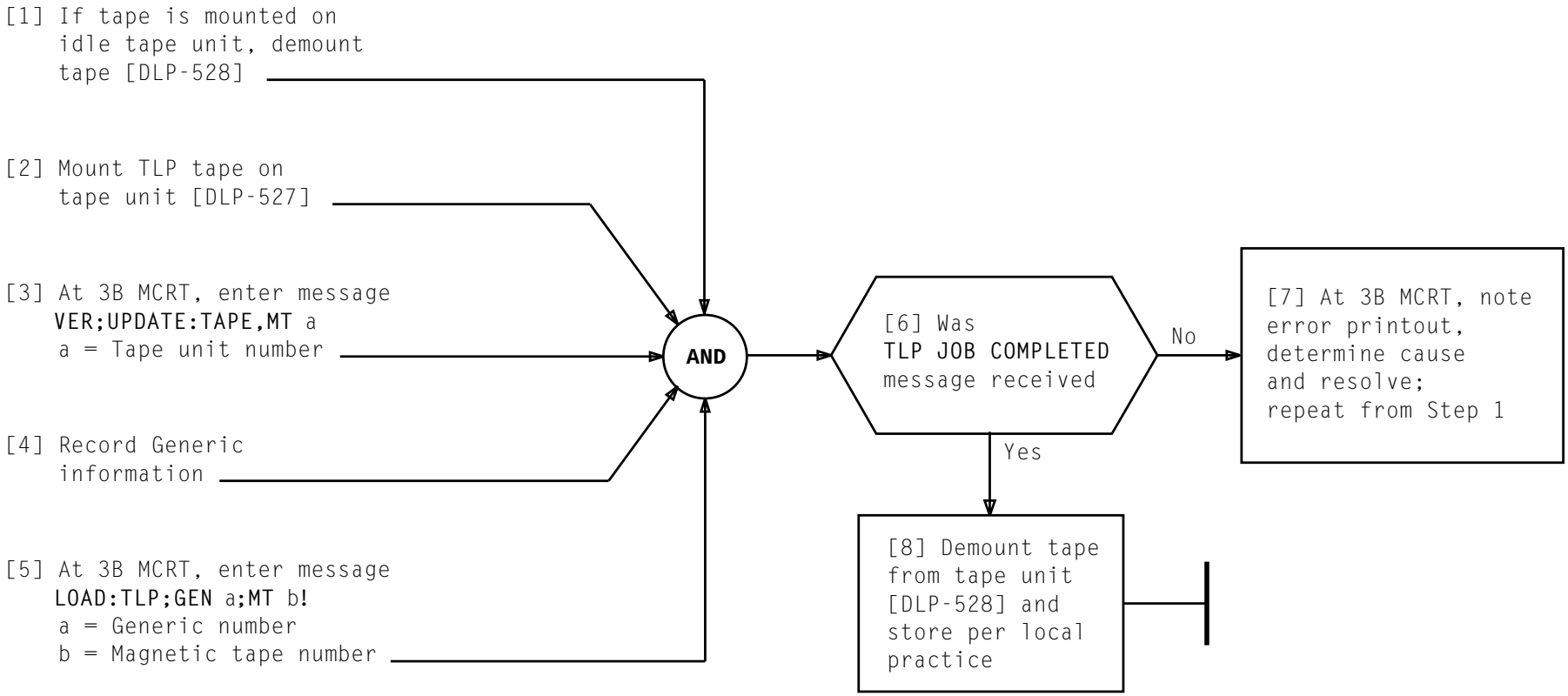
TABLE A
LTS TAPE LOADING OUTPUT MESSAGES

MESSAGE NUMBER	OUTPUT MESSAGES
1	APPTAPE TYPE: ERAP, WRITTEN mm/dd/yy hh:mm
2	APPTAPE ADDRESS RANGE aaaaaaaa – bbbbbbbb STARTED
3	APPTAPE ADDRESS RANGE aaaaaaaa – bbbbbbbb COMPLETED
4	APPTAPE COMPLETED

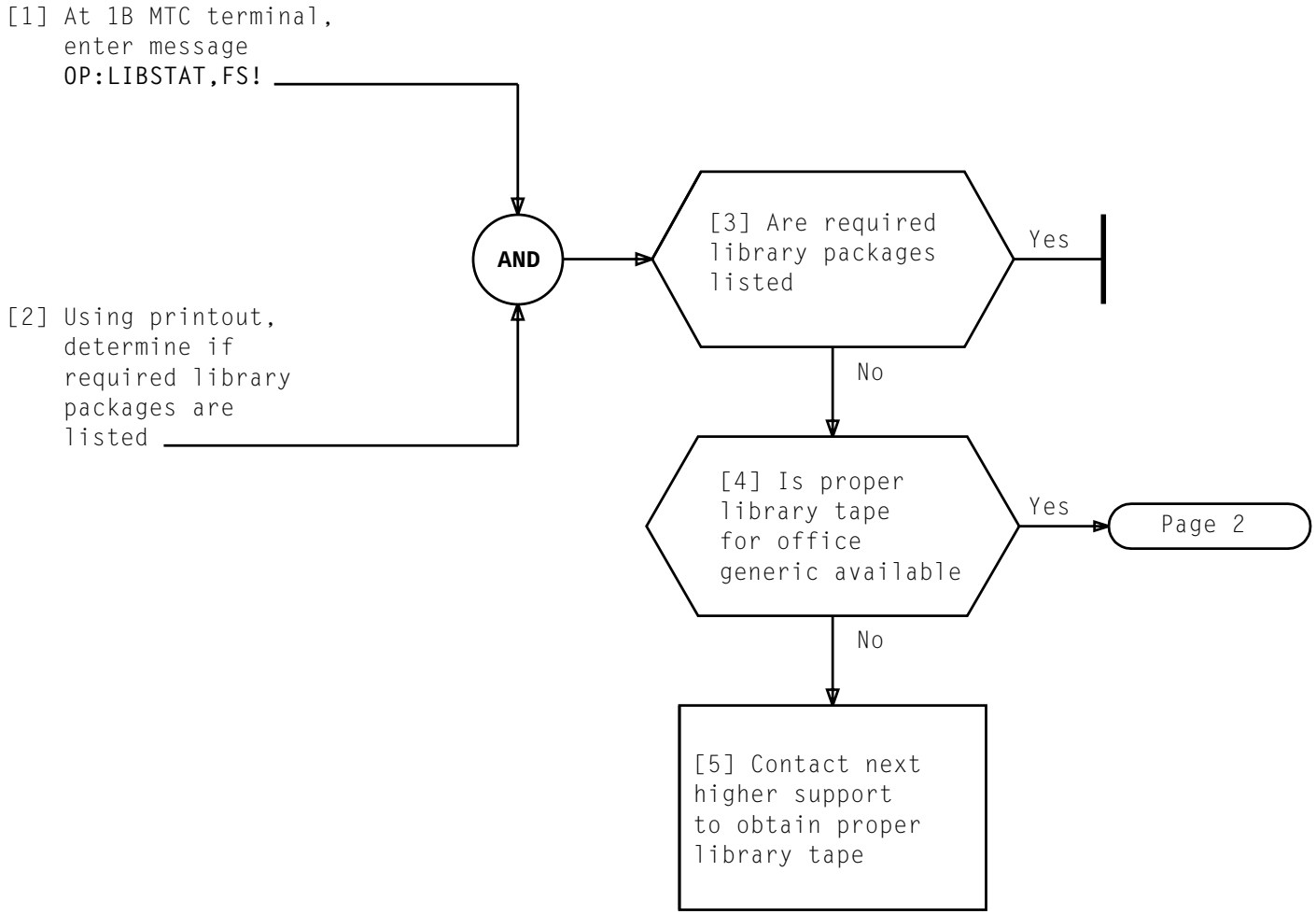
mm/dd/yy hh:mm = Month/day/year hour:minute tape was written
aaaaaaaa = Starting ERAP address
bbbbbbbb = Ending ERAP address

NOTE 1
Loading of ERAP tape must be initiated during 7-minute window beginning 4 minutes past any quarter hour. If LOAD message is not entered during this window, a repeat later (RL) response will be received

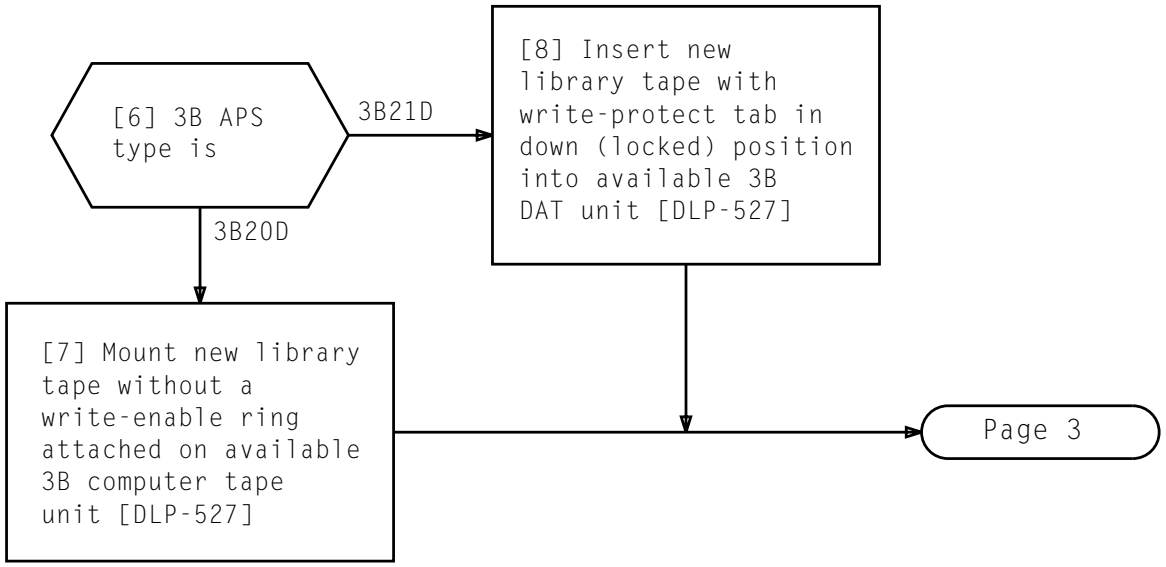
LOAD 1B PROCESSOR ERROR ANALYSIS PROGRAM (ERAP) DATA FROM TAPE



LOAD NEW TLP FROM TAPE ONTO DISK



LOAD LIBRARY PROGRAM PACKAGES FROM BACKUP TAPE ONTO DISK



LOAD LIBRARY PROGRAM PACKAGES FROM BACKUP TAPE ONTO DISK

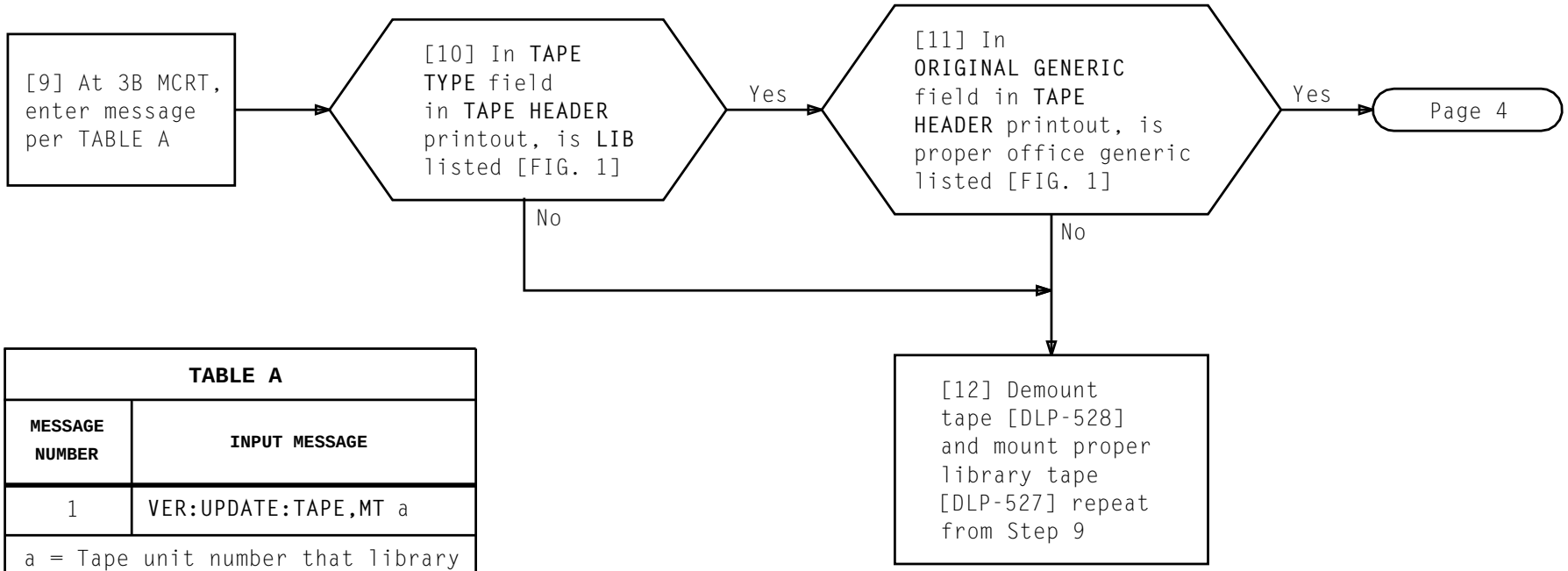


TABLE A

MESSAGE NUMBER	INPUT MESSAGE
1	VER:UPDATE:TAPE,MT a

a = Tape unit number that library tape is mounted

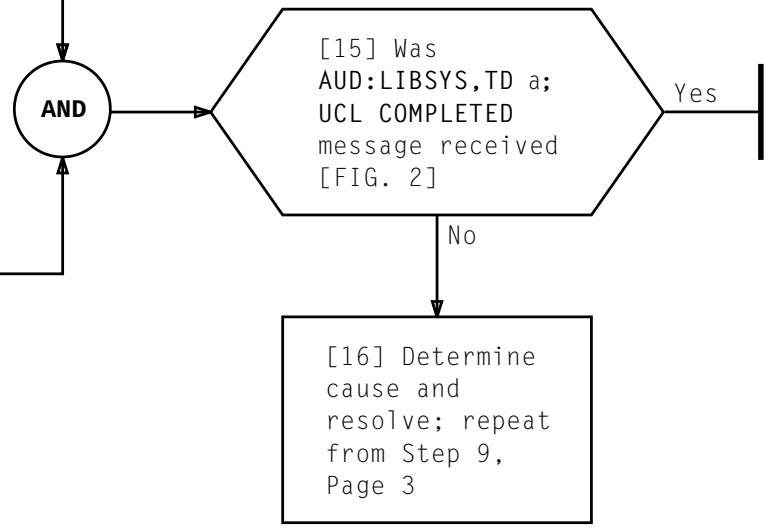
```
                                    THIS VALUE MUST BE
                                    SAME AS GENERIC OFFICE
TAPE HEADER                         IS RUNNING ON

TAPE TYPE: LIB
ORIGINAL GENERIC 4E<(xx)>5A.00 R1
MOST RECENT OFL GENERATION: . . . . .
THIS TAPE WRITTEN: . . . . .
FS IDS: . . . . .
PARTL UPD FLG: . . . . .
```

FIG. 1 - Example of TAPE HEADER Printout

LOAD LIBRARY PROGRAM PACKAGES FROM BACKUP TAPE ONTO DISK

[13] At 1B MTC terminal, enter message AUD:LIBSYS,TD a;UCL!
a = Tape unit number that library tape is mounted

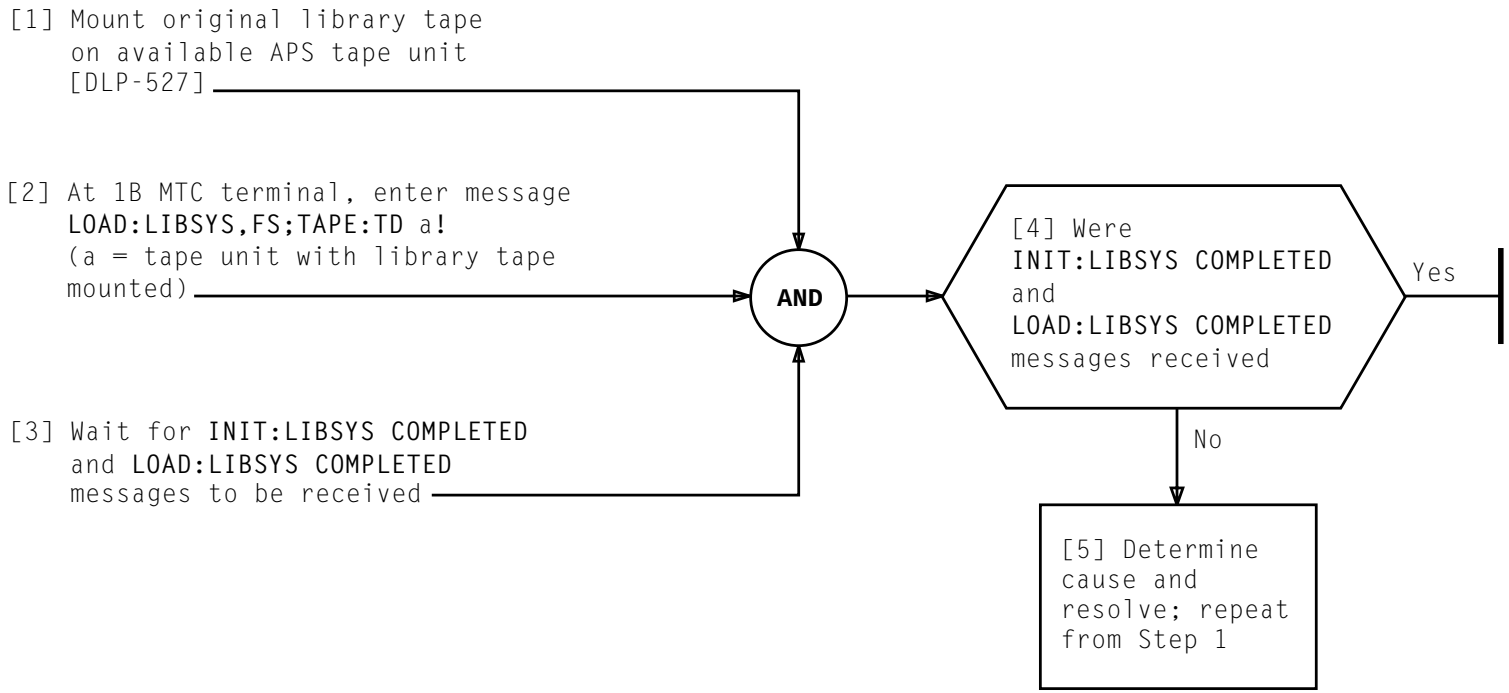
[14] At 1B MTC terminal, follow loading progress per FIG. 2



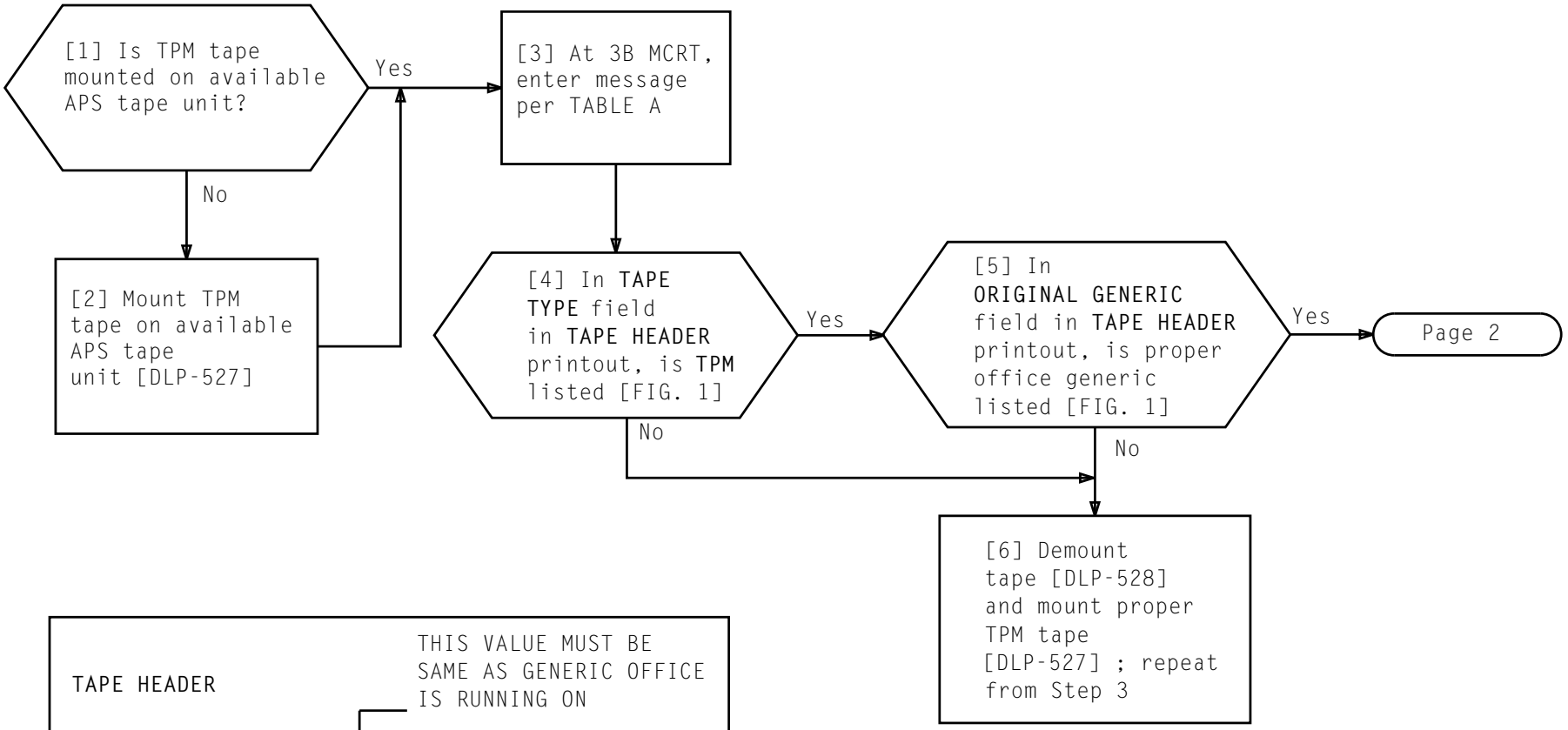

```
AUD:LIBSYS,TD a;UCL IN PROGRESS
0 ERROR(S) IN CS2FS MAP DETECTED

AUD:LIBSYS,TD a;UCL IN PROGRESS
0 ERROR(S) IN ID2SEG MAP DETECTED

AUD:LIBSYS,TD a;UCL IN PROGRESS
0 ERROR(S) IN SEGPRTRS MAP DETECTED

AUD:LIBSYS,TD a;UCL IN PROGRESS
0 ERROR(S) IN ID2FS MAP DETECTED

AUD:LIBSYS,TD a;UCL COMPLETED
```

FIG. 2 - Load Library Printout

LOAD LIBRARY PROGRAM PACKAGES FROM BACKUP TAPE ONTO DISK



LOAD LIBRARY PROGRAM PACKAGES FROM ORIGINAL TAPE ONTO DISK




```
TAPE HEADER                          THIS VALUE MUST BE
                                     SAME AS GENERIC OFFICE
                                     IS RUNNING ON

TAPE TYPE: TPM
ORIGINAL GENERIC 4E<(xx)>5A.00 R1
MOST RECENT OFL GENERATION: . . . . .
THIS TAPE WRITTEN: . . . . .
FS IDS: . . . . .
PARTL UPD FLG: . . . . .
```

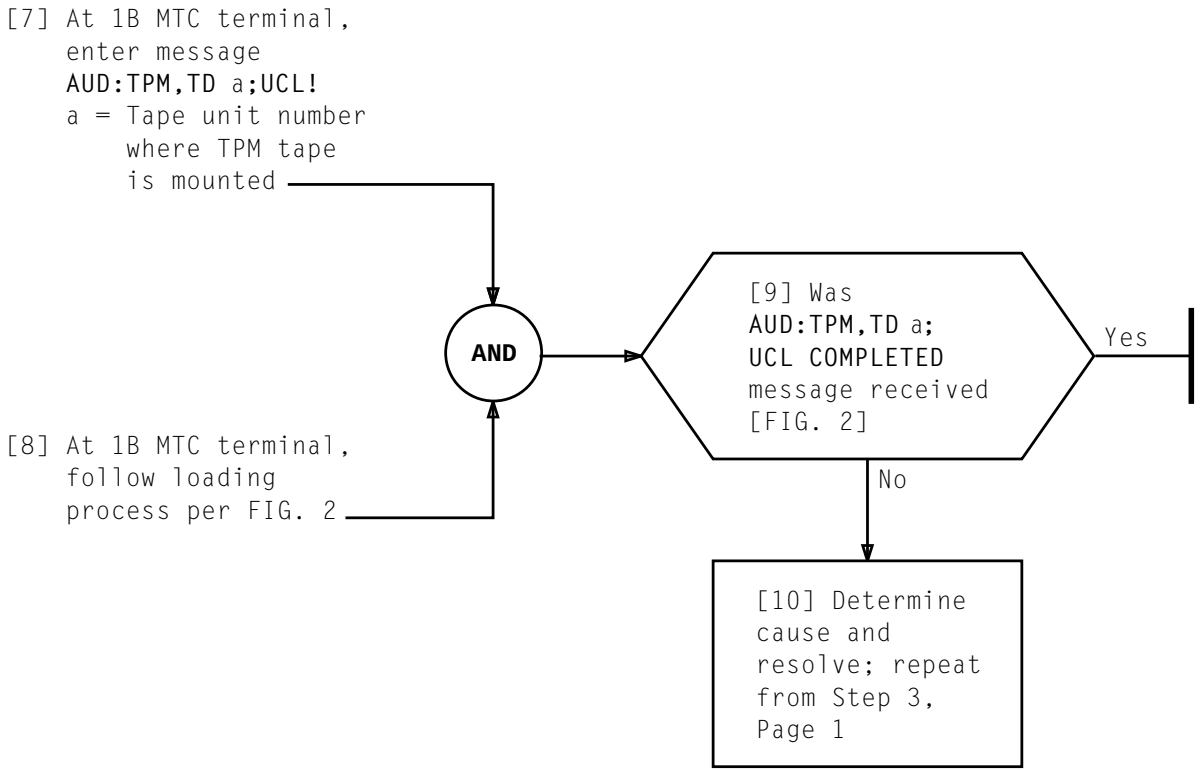
FIG. 1 - Example of TAPE HEADER Printout

TABLE A

MESSAGE NUMBER	INPUT MESSAGE
1	VER:UPDATE:TAPE,MT a

a = Tape unit number that TPM tape is mounted

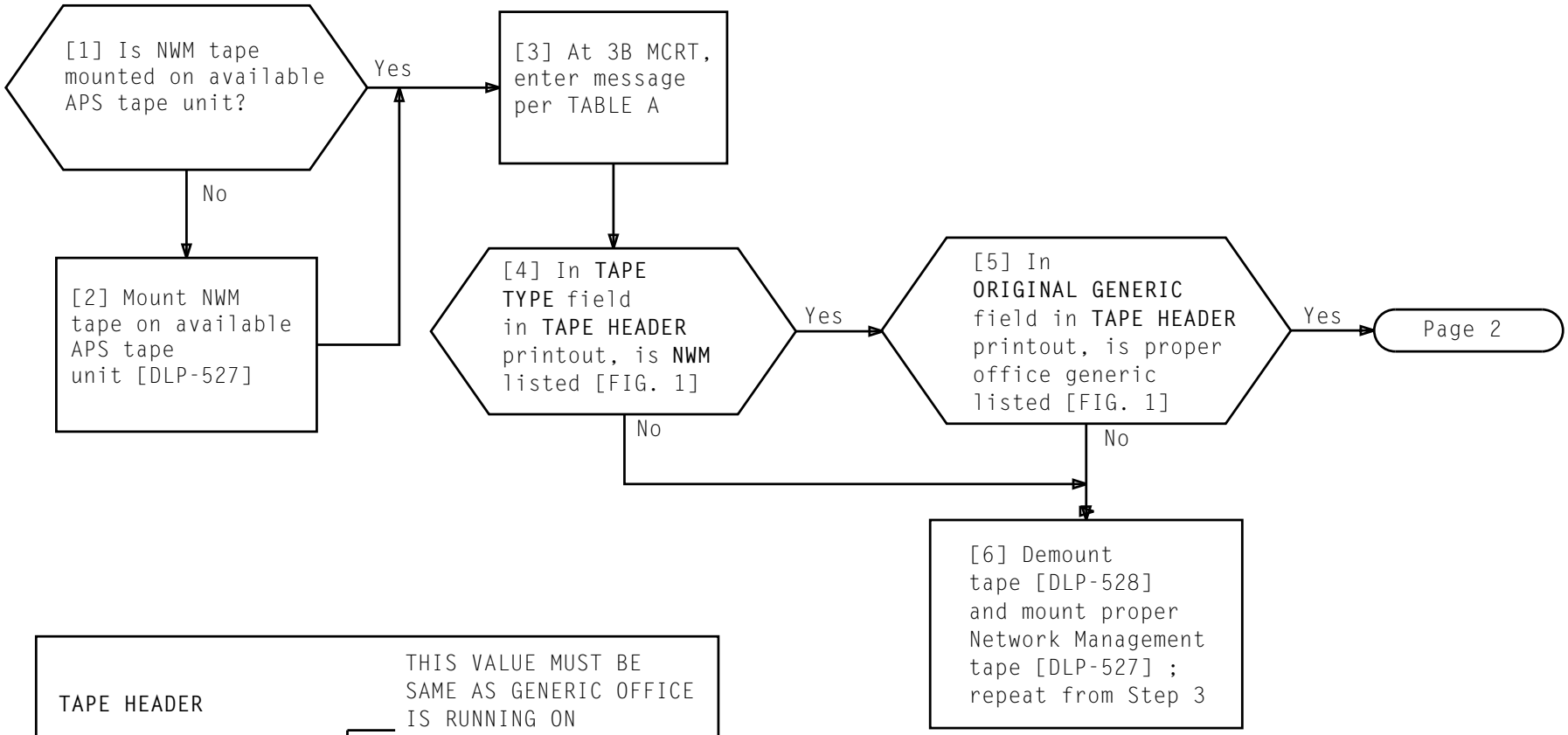
LOAD 1B PROCESSOR TRAFFIC AND PLANT MEASUREMENT (TPM) TAPE




```
AUD:TPM,TD a;UCL IN PROGRESS
0 ERROR(S) IN CS2FS MAP DETECTED

AUD:TPM,TD a;UCL IN PROGRESS
0 ERROR(S) IN ID2SEG MAP DETECTED

AUD:TPM,TD a;UCL IN PROGRESS
0 ERROR(S) IN SEGPRTRS MAP DETECTED

AUD:TPM,TD a;UCL IN PROGRESS
0 ERROR(S) IN ID2FS MAP DETECTED

AUD:TPM,TD a;UCL COMPLETED
```

FIG. 2 - Load TPM Printout

LOAD 1B PROCESSOR TRAFFIC AND PLANT MEASUREMENT (TPM) TAPE




```
TAPE HEADER                          THIS VALUE MUST BE
                                     SAME AS GENERIC OFFICE
                                     IS RUNNING ON
TAPE TYPE: NWM
ORIGINAL GENERIC 4E<xx>5A.00 R1
MOST RECENT OFL GENERATION: . . . . .
THIS TAPE WRITTEN: . . . . .
FS IDS: . . . . .
PARTL UPD FLG: . . . . .
```

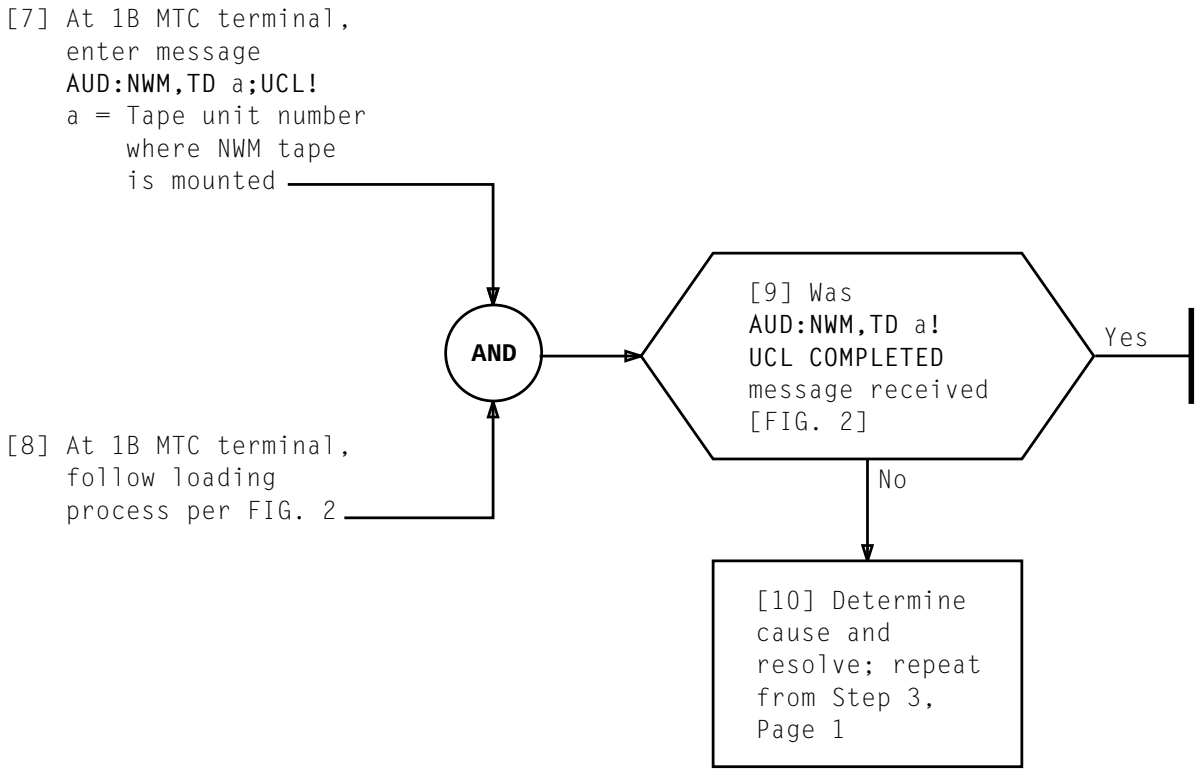
FIG. 1 - Example of TAPE HEADER Printout

TABLE A

MESSAGE NUMBER	INPUT MESSAGE
1	VER:UPDATE:TAPE,MT a

a = Tape unit number where Network Management tape is mounted

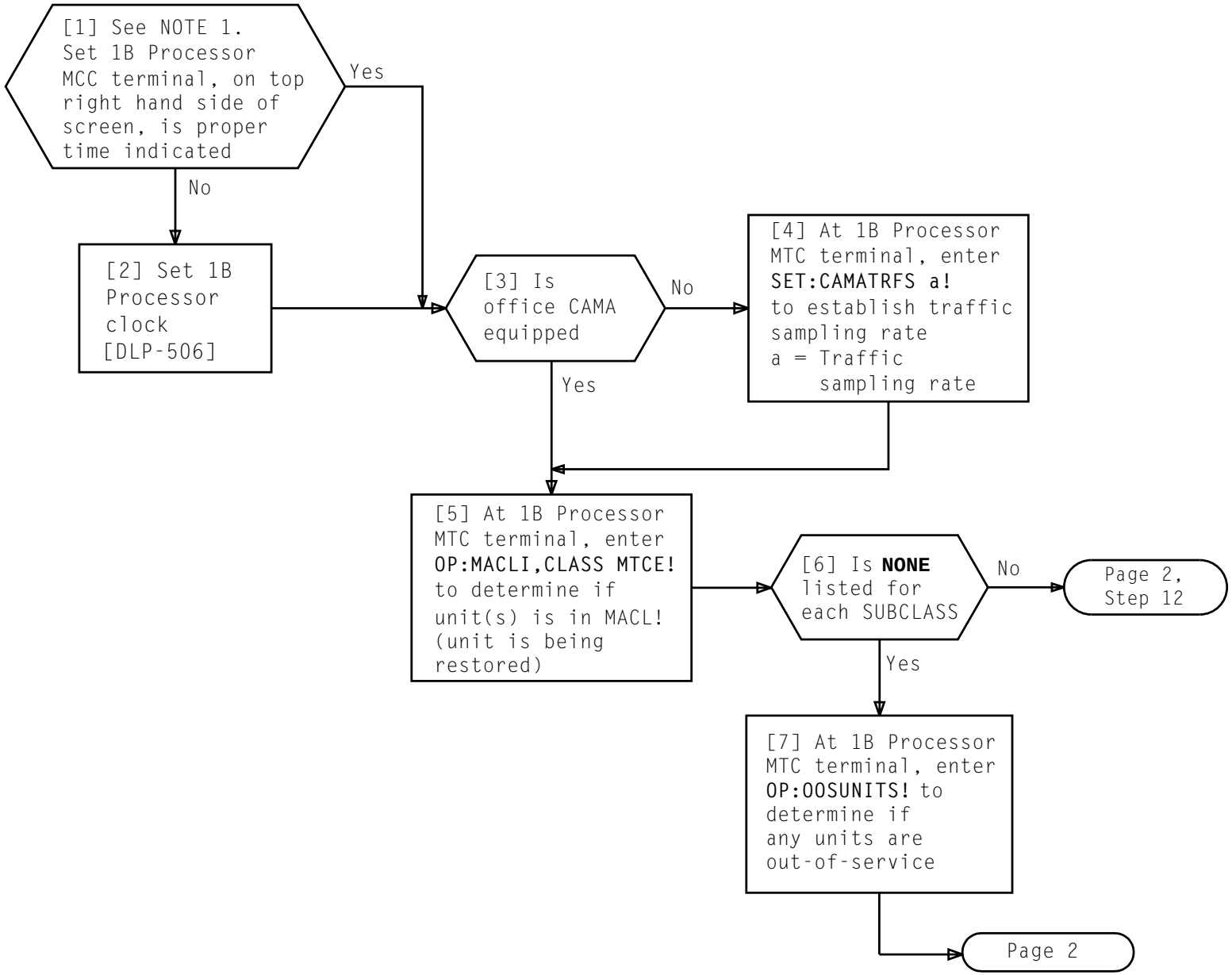
LOAD 1B PROCESSOR NETWORK MANAGEMENT (NWM) TAPE




```
AUD:NWM,TD a;UCL IN PROGRESS
0 ERROR(S) IN CS2FS MAP DETECTED

AUD:NWM,TD a;UCL IN PROGRESS
0 ERROR(S) IN ID2SEG MAP DETECTED

AUD:NWM,TD a;UCL IN PROGRESS
0 ERROR(S) IN SEGPRTRS MAP DETECTED

AUD:NWM,TD a;UCL IN PROGRESS
0 ERROR(S) IN ID2FS MAP DETECTED

AUD:NWM,TD a;UCL COMPLETED
```

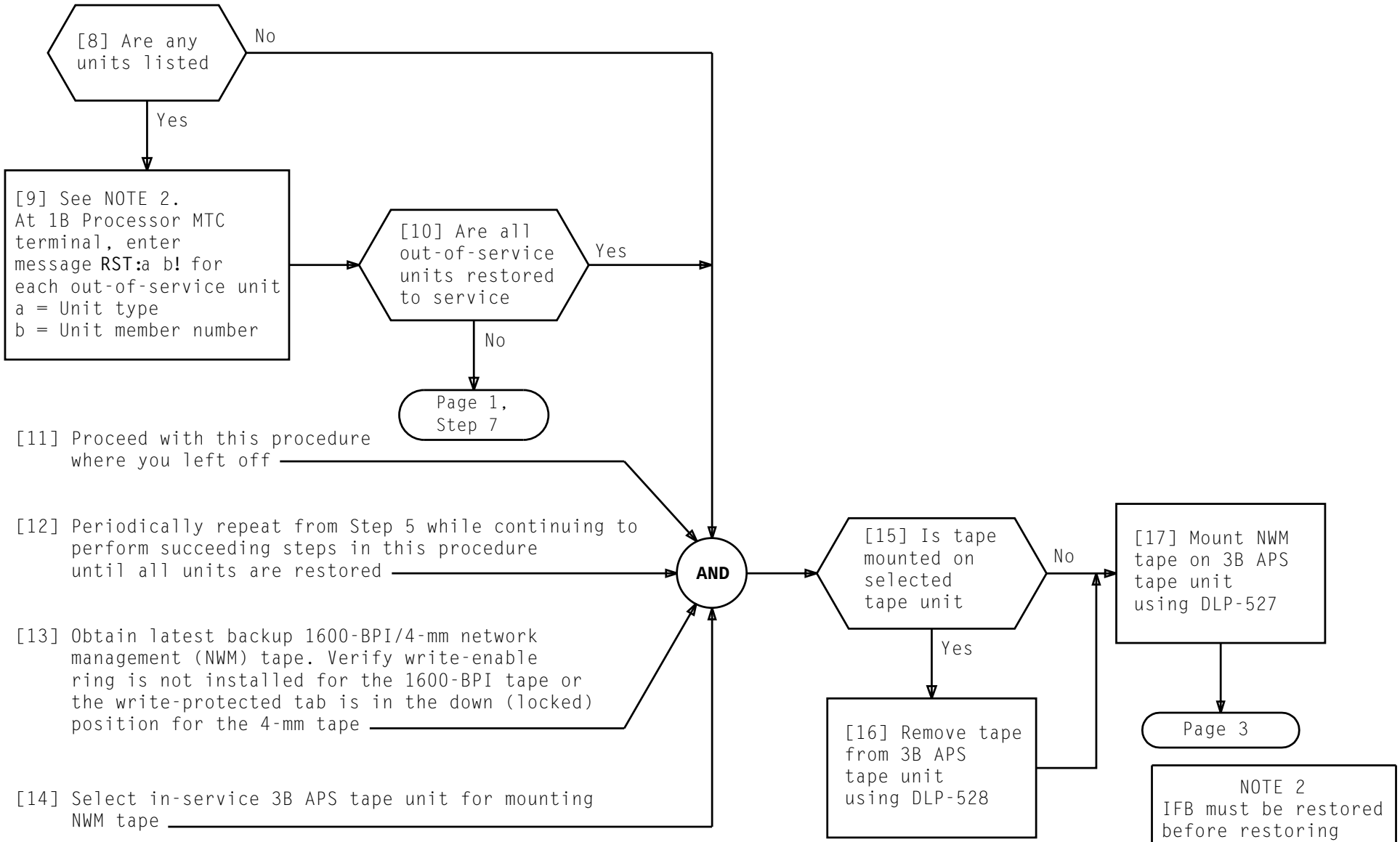
FIG. 2 - Sample of NWM Printout

LOAD 1B PROCESSOR NETWORK MANAGEMENT (NWM) TAPE

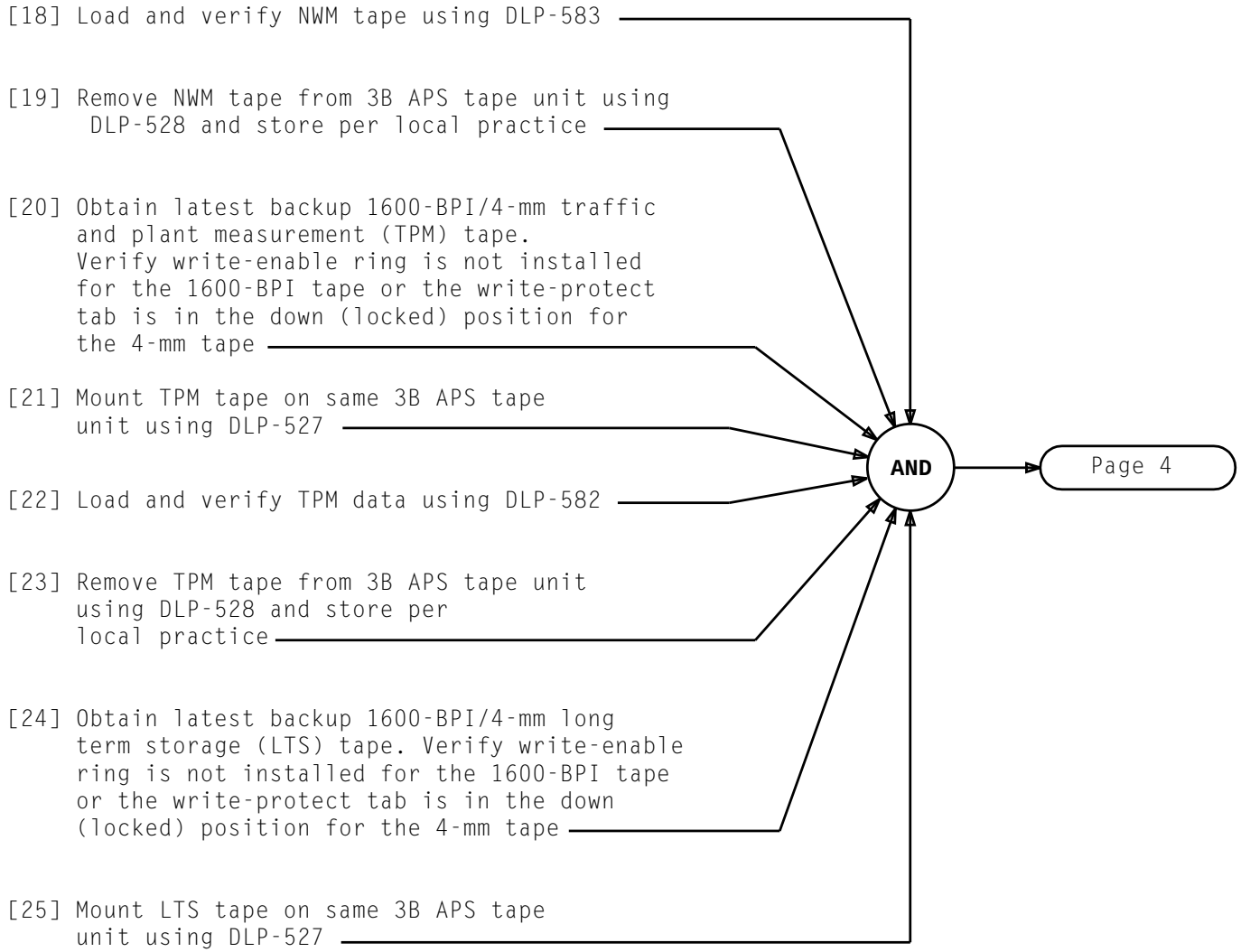


NOTE 1
Notify technical support and ensure system sanity is at a safe point where system conditions can be restored

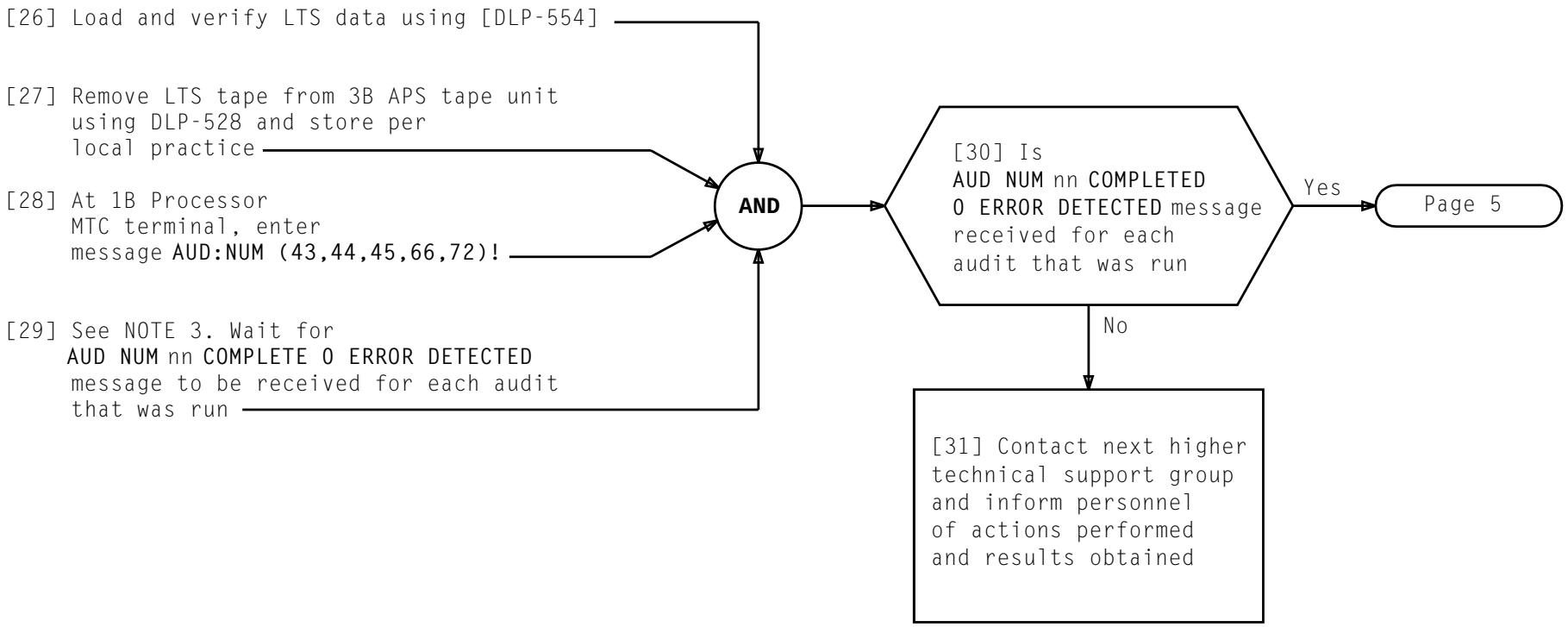
RESTORE 1B PROCESSOR CONDITIONS FOLLOWING SYSTEM REINITIALIZATION (SR) USING TAPES



RESTORE 1B PROCESSOR CONDITIONS FOLLOWING SYSTEM REINITIALIZATION (SR) USING TAPES

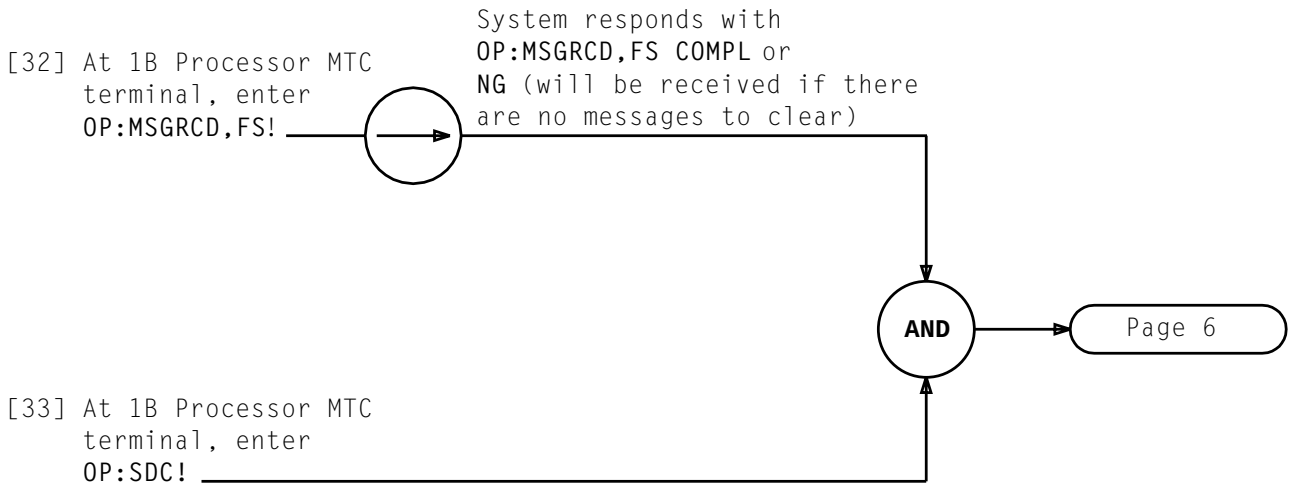


RESTORE 1B PROCESSOR CONDITIONS FOLLOWING SYSTEM REINITIALIZATION (SR) USING TAPES

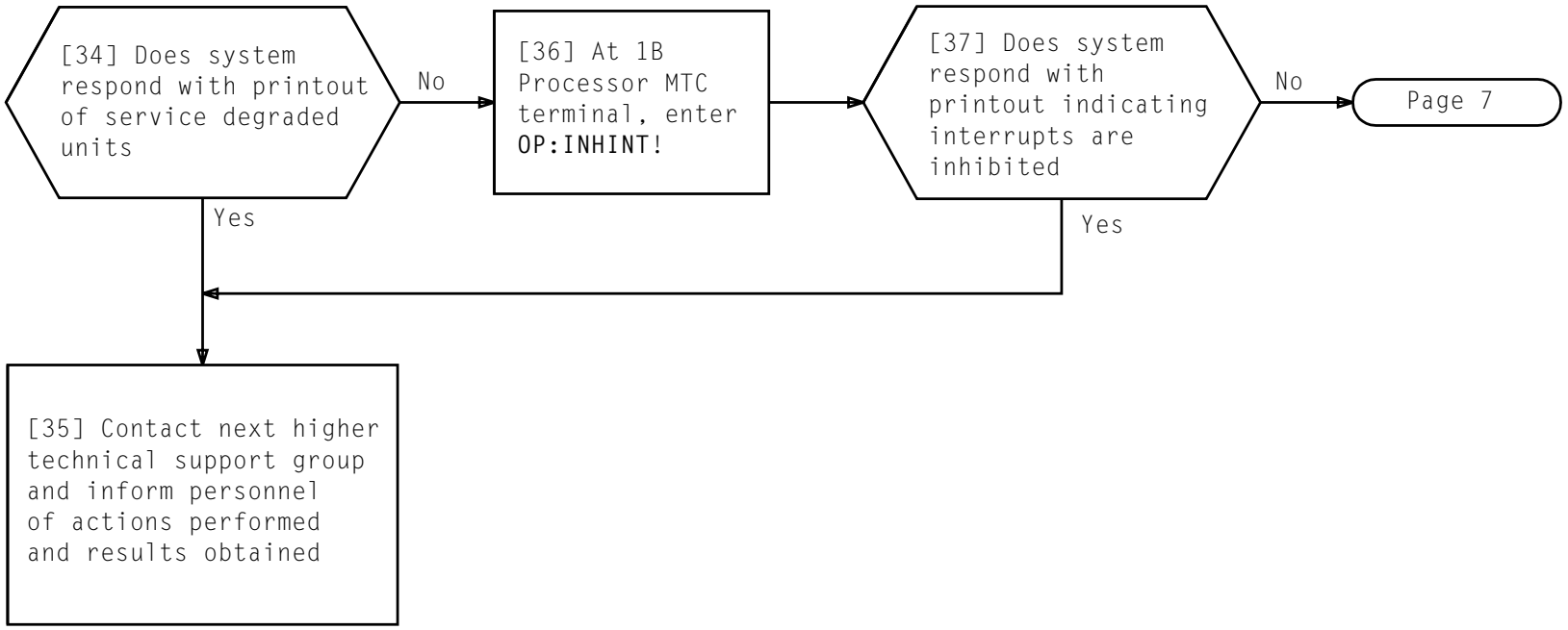


NOTE 3
Audit 43 and 66 takes approximately 20 to 40 minutes to complete, depending on office size

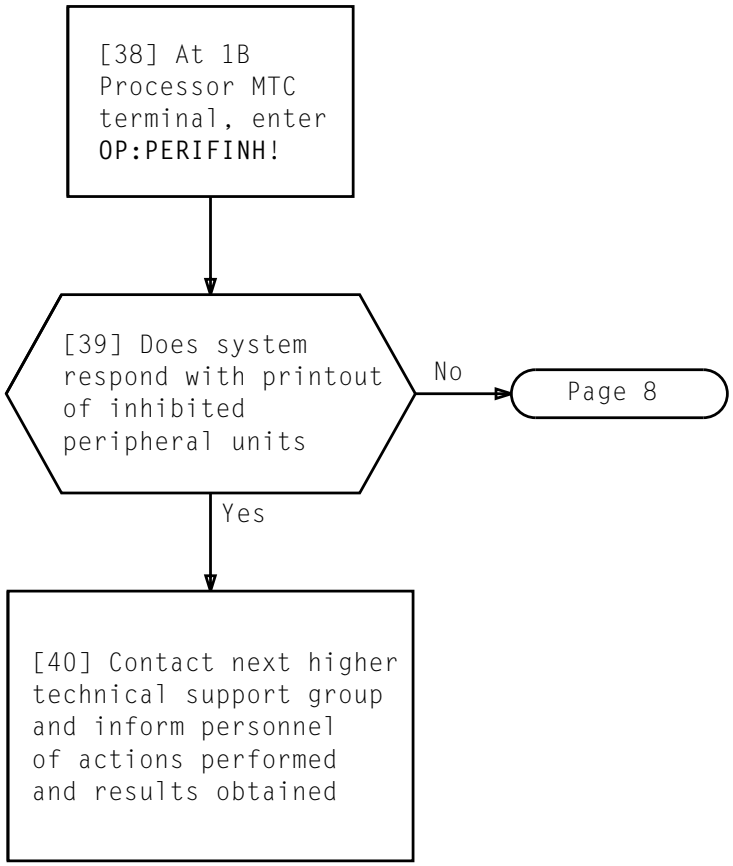
RESTORE 1B PROCESSOR CONDITIONS FOLLOWING SYSTEM REINITIALIZATION (SR) USING TAPES



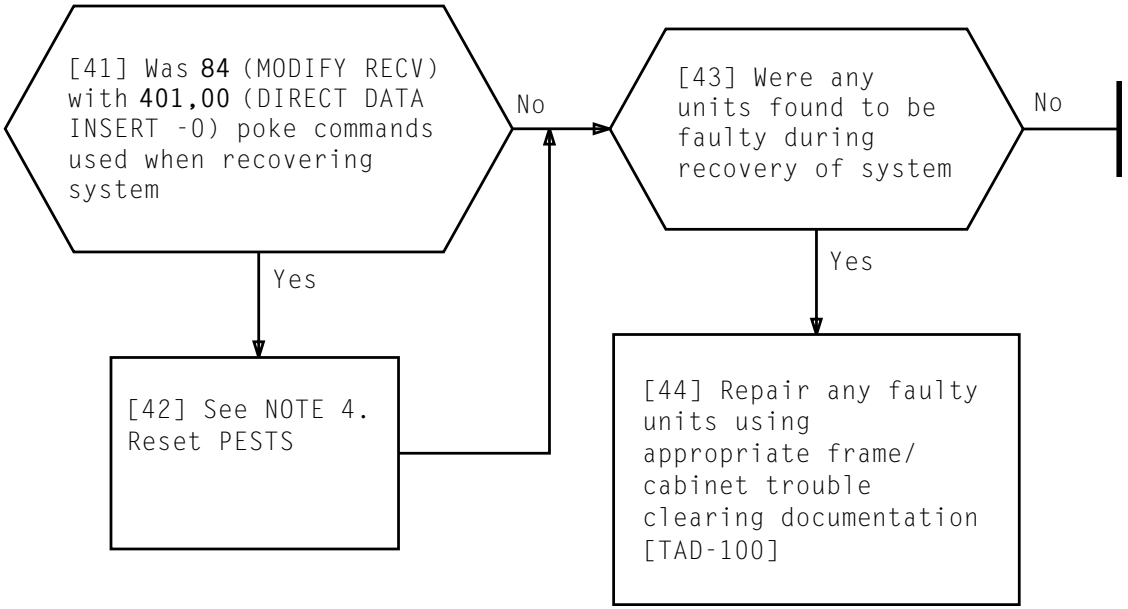
RESTORE 1B PROCESSOR CONDITIONS FOLLOWING SYSTEM REINITIALIZATION (SR) USING TAPES



RESTORE 1B PROCESSOR CONDITIONS FOLLOWING SYSTEM REINITIALIZATION (SR) USING TAPES



RESTORE 1B PROCESSOR CONDITIONS FOLLOWING SYSTEM REINITIALIZATION (SR) USING TAPES



RESTORE 1B PROCESSOR CONDITIONS FOLLOWING SYSTEM REINITIALIZATION (SR) USING TAPES

NOTE 4

If **MODIFY RECOVERY ACTIONS** function and **DIRECT DATA INSERT** bit 0 were used during recovery, all prevent error source transmissions (PESTs) should be reset only after consulting with appropriate support organization

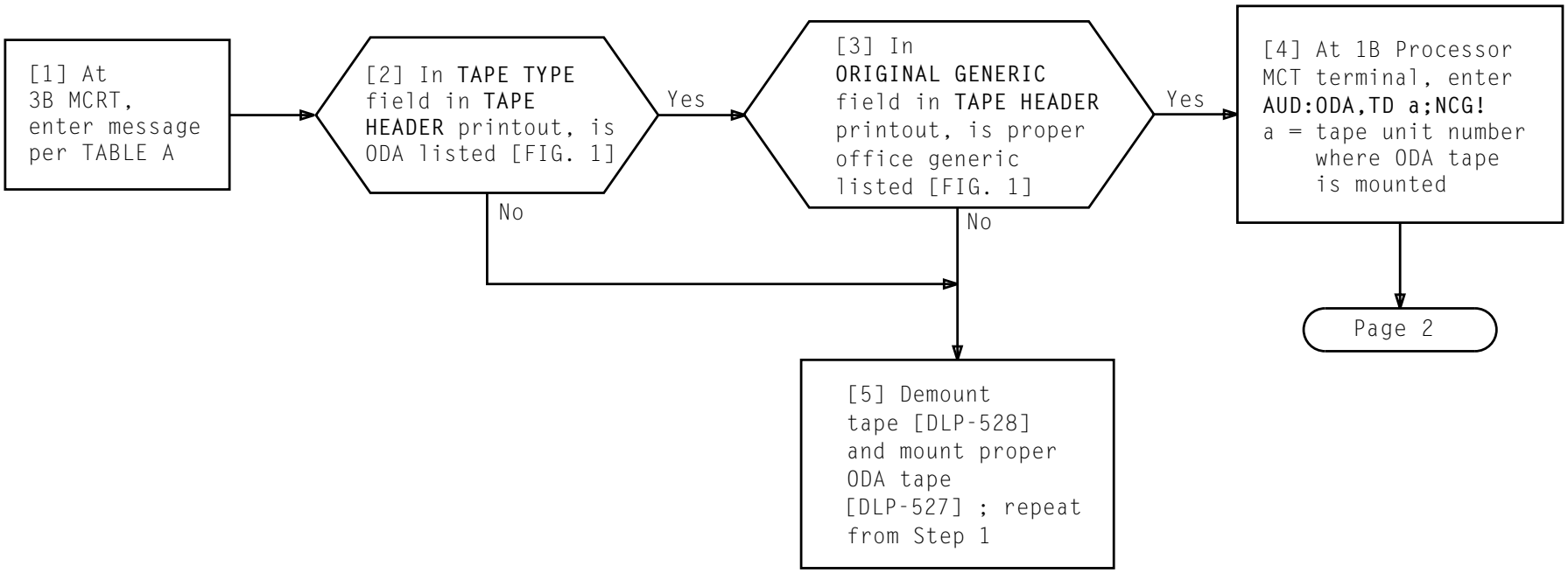
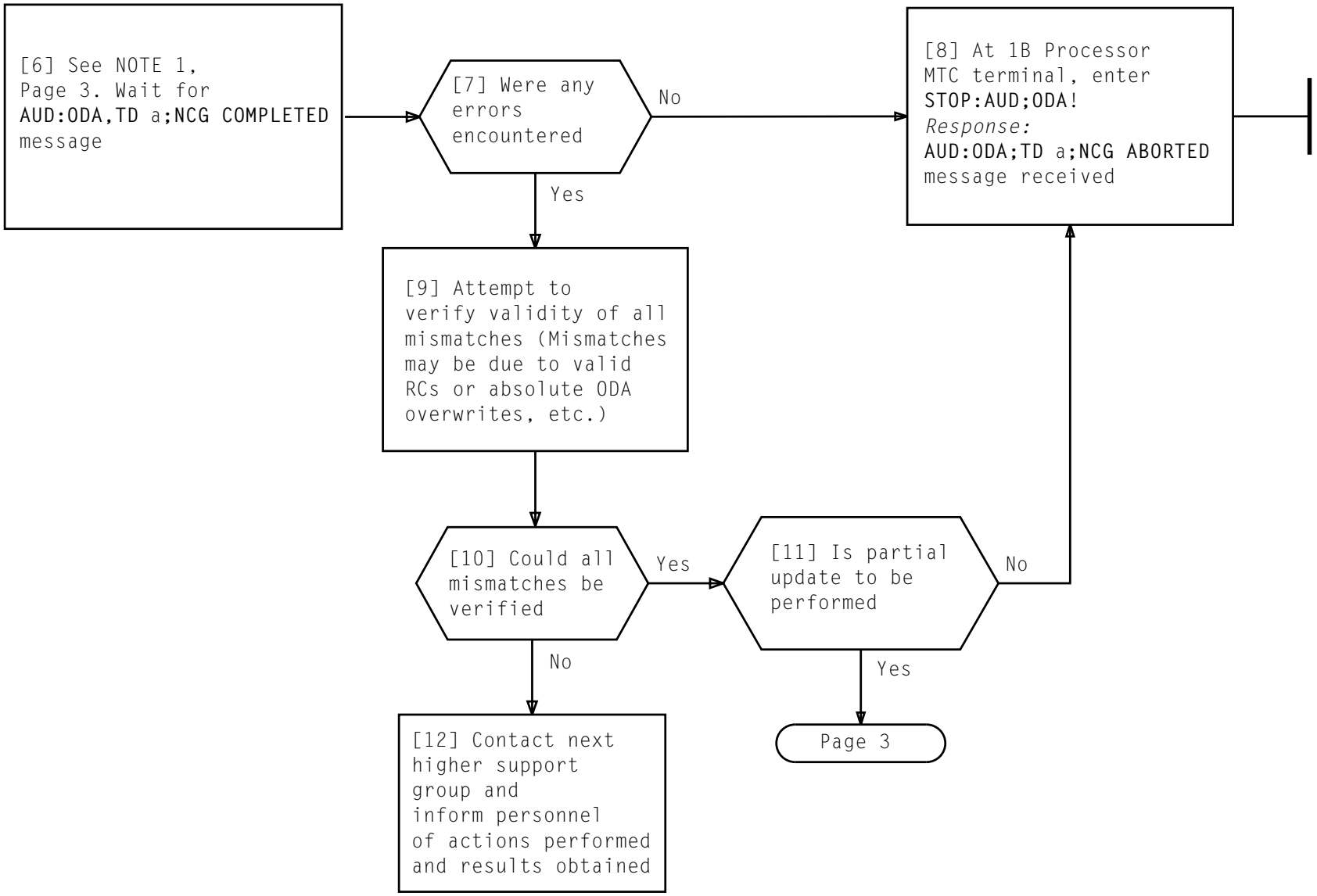


TABLE A	
MESSAGE NUMBER	**INPUT MESSAGE**
1	VER:UPDATE:TAPE,MT a
a = Tape unit number that ODA tape is mounted	

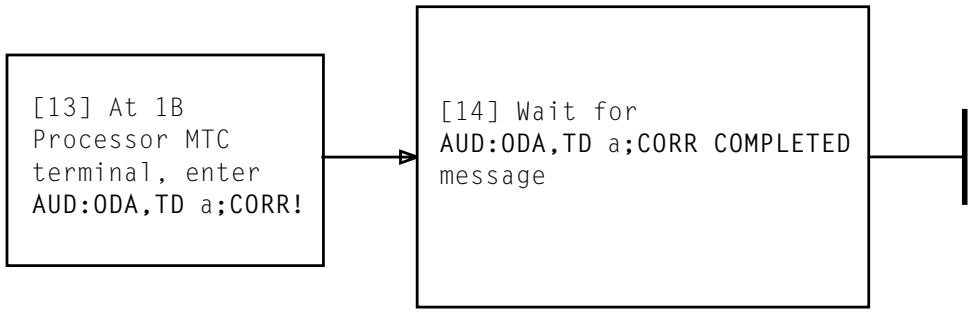
```
                                THIS VALUE MUST BE
TAPE HEADER                     SAME AS GENERIC OFFICE
                                IS RUNNING ON

TAPE TYPE: ODA
ORIGINAL GENERIC 4E<(xx)>5A.00 R1
MOST RECENT OFL GENERATION: . . . . .
THIS TAPE WRITTEN: . . . . .
FS IDS: . . . . .
PARTL UPD FLG: . . . . .
```

FIG. 1 - Example of TAPE HEADER Printout

PERFORM 1B PROCESSOR ODA SYSTEM AUDIT OF STORES (SAST)



PERFORM 1B PROCESSOR ODA SYSTEM AUDIT OF STORES (SAST)



NOTE 1

SAST will time out 30 minutes after noncorrecting audit completes. As audit is being run, the following messages will be printed if no errors are encountered:

```
AUD:ODA,TD a;NCG IN PROGRESS
 0 ERROR(S) IN CS2FS MAP DETECTED
AUD:ODA,TD a;NCG IN PROGRESS
 0 ERROR(S) IN ID2SEG MAP DETECTED
AUD:ODA,TD a;NCG IN PROGRESS
 0 ERROR(S) IN SEGPTRS MAP DETECTED
AUD:ODA,TD a;NCG IN PROGRESS
0 ERROR(S) IN ID2FS MAP DETECTED
AUD:ODA,TD a;NCG IN PROGRESS
0 ERROR(S) IN HASH TABLES DETECTED
AUD:ODA,TD a;NCG IN PROGRESS TAPE DONE
AWAITING INSTRUCTIONS
REPT:DEMOUNT TAPE FROM TD a
```


PERFORM 1B PROCESSOR ODA SYSTEM AUDIT OF STORES (SAST)

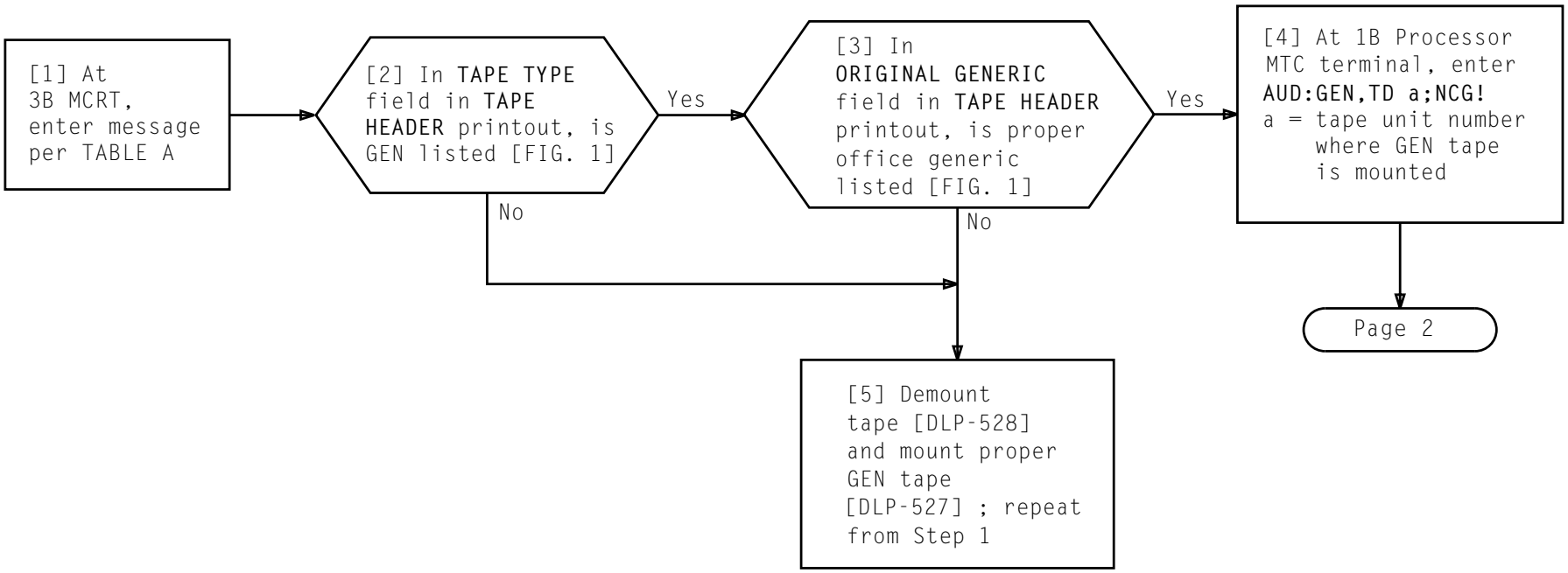
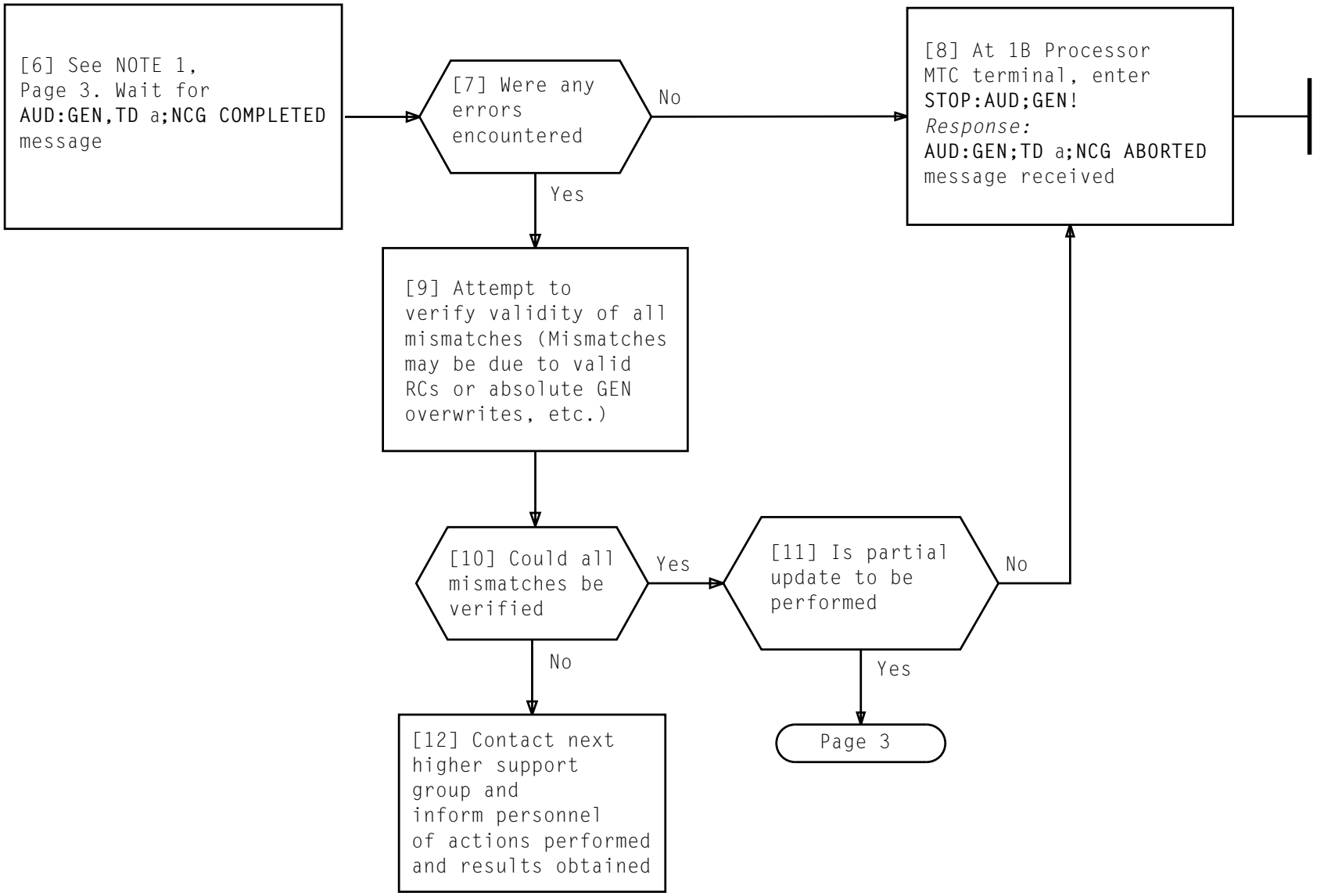


TABLE A	
MESSAGE NUMBER	**INPUT MESSAGE**
1	VER:UPDATE:TAPE,MT a
a = Tape unit number that GEN tape is mounted	

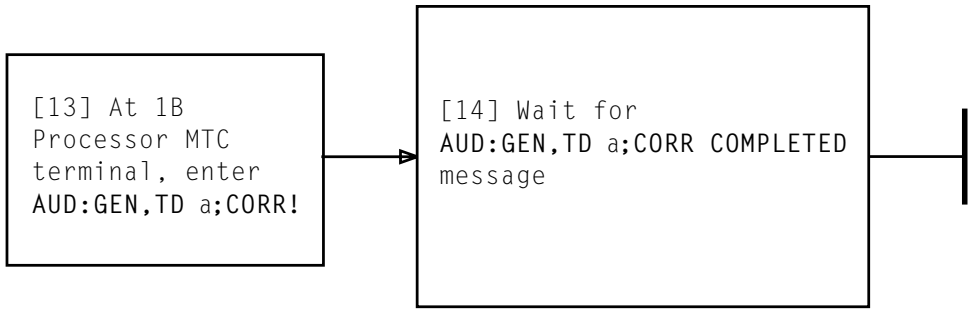
```
                                THIS VALUE MUST BE
TAPE HEADER                     SAME AS GENERIC OFFICE
                                IS RUNNING ON

TAPE TYPE: GEN
ORIGINAL GENERIC 4E<(xx)>5A.00 R1
MOST RECENT OFL GENERATION: . . . . .
THIS TAPE WRITTEN: . . . . .
FS IDS: . . . . .
PARTL UPD FLG: . . . . .
```

FIG. 1 - Example of TAPE HEADER Printout

PERFORM 1B PROCESSOR GENERIC SYSTEM AUDIT OF STORES (SAST)



PERFORM 1B PROCESSOR GENERIC SYSTEM AUDIT OF STORES (SAST)



NOTE 1

SAST will time out 30 minutes after noncorrecting audit completes. As audit is being run, the following messages will be printed if no errors are encountered:

```
AUD:GEN,TD a;NCG IN PROGRESS
 0 ERROR(S) IN CS2FS MAP DETECTED
AUD:GEN,TD a;NCG IN PROGRESS
 0 ERROR(S) IN ID2SEG MAP DETECTED
AUD:GEN,TD a;NCG IN PROGRESS
 0 ERROR(S) IN SEGPTRS MAP DETECTED
AUD:GEN,TD a;NCG IN PROGRESS
0 ERROR(S) IN ID2FS MAP DETECTED
AUD:GEN,TD a;NCG IN PROGRESS
0 ERROR(S) IN HASH TABLES DETECTED
AUD:GEN,TD a;NCG IN PROGRESS TAPE DONE
AWAITING INSTRUCTIONS
REPT:DEMOUNT TAPE FROM TD  a
```


PERFORM 1B PROCESSOR GENERIC SYSTEM AUDIT OF STORES (SAST)

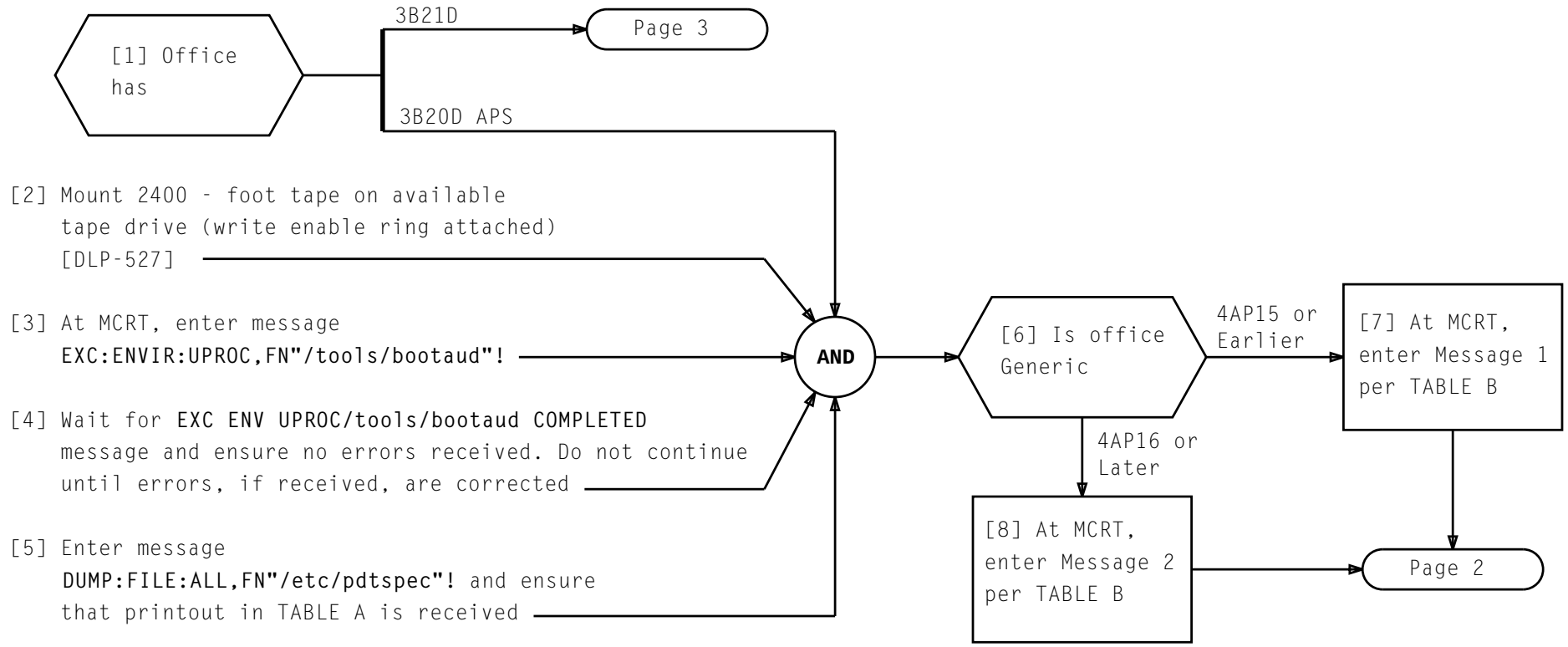


TABLE A

MESSAGE NUMBER	OUTPUT MESSAGE
1	DUMP FILE ALL COMPLETED /dev/lboot21 /dev/lboot /dev/vtoc /dev/boot /dev/bboot /dev/root /dev/etc /dev/db /dev/amafiles /dev/amabfiles

TABLE B

MESSAGE NUMBER	INPUT MESSAGES
1	COPY:BKDISK;START:SRC"/dev/vtoc",TD"/dev/mtX8",TPSIZE 2200!
2	COPY:BKDISK;START:SRC"/dev/vtoc",TD"/dev/mtX8",TPSIZE 2200,COM!
X = tape drive number used in Step 2	

WRITE BACKUP TAPES

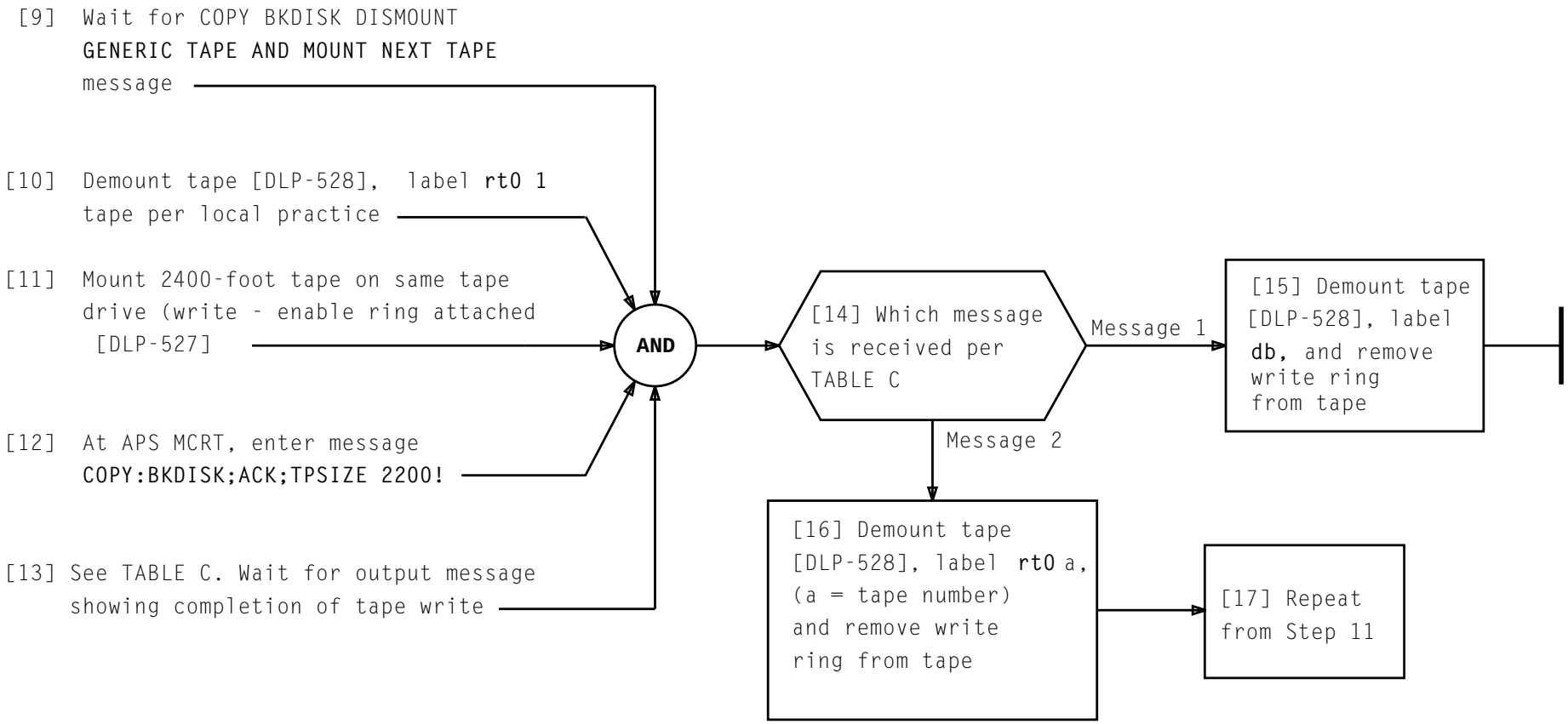


TABLE C	
MESSAGE NUMBER	**OUTPUT MESSAGE**
1	COPY BKDISK COMPLETED DISMOUNT DATABASE TAPE AND LABEL
2	COPY DISMOUNT GENERIC TAPE LABEL AND MOUNT NEXT TAPE

WRITE BACKUP TAPES

[18] Insert blank or erasable 4-mm tape with write-protect tab is up (unlocked) position into available APS DAT unit [DLP-527]

[19] At APS MCRT, enter message **DUMP:FILE:ALL, FN"/etc/pdtspec"!** to dump the /etc/pdtspec file

[20] Wait for **DUMP FILE ALL COMPLETED** message and ensure that printout in TABLE D is received

[21] At APS MCRT, enter message
COPY:BKDISK;START:SRC"/dev/vtoc",TD"/dev/mtX0",TPSIZE 90,COM!
[Where X = DAT unit number with backup tape inserted (0 or 1)]

[22] Wait for
COPY BKDISK DISMOUNT GENERIC TAPE LABEL AND MOUNT NEXT TAPE
message

[23] Remove tape from DAT unit [DLP-528], label the tape **rt0 1**, and put write-protect tab in down (locked) position

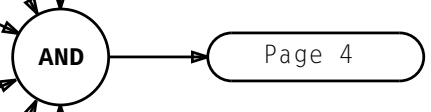


TABLE D

MESSAGE NUMBER	OUTPUT MESSAGE
1	DUMP FILE ALL COMPLETED /dev/lboot21 /dev/lboot /dev/vtoc /dev/boot /dev/bboot /dev/root /dev/etc /dev/db /dev/amafiles /dev/amabfiles /dev/update (4AP18 and later) /dev/appdb0 (4AP18 and later)

WRITE BACKUP TAPES

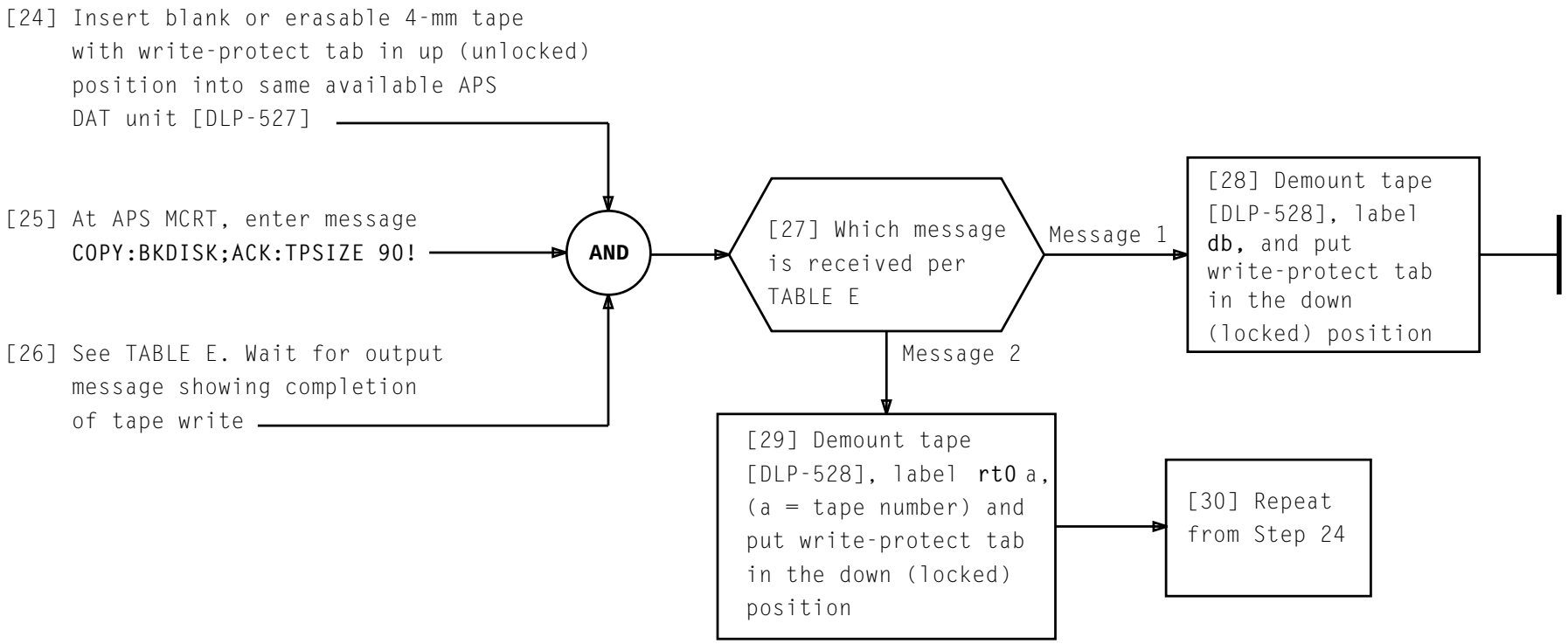


TABLE E

MESSAGE NUMBER	OUTPUT MESSAGE
1	COPY BKDISK COMPLETED DISMOUNT DATABASE TAPE AND LABEL
2	COPY DISMOUNT GENERIC TAPE LABEL AND MOUNT NEXT TAPE

WRITE BACKUP TAPES

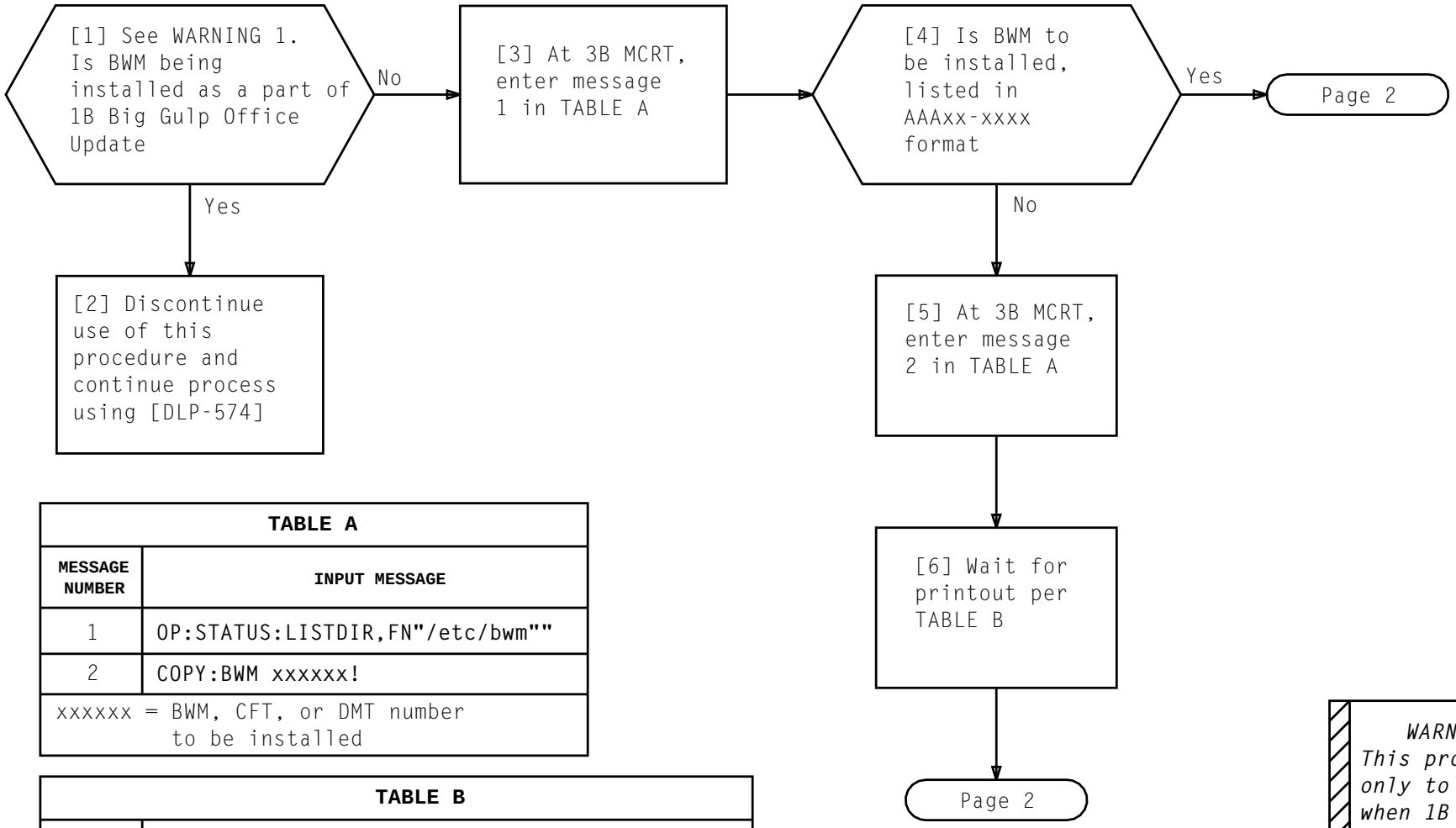


TABLE A

MESSAGE NUMBER	INPUT MESSAGE
1	OP:STATUS:LISTDIR,FN"/etc/bwm""
2	COPY:BWM xxxxxx!

xxxxxx = BWM, CFT, or DMT number to be installed

TABLE B

MESSAGE NUMBER	OUTPUT MESSAGE
1	MOVING /etc/bwm/xxxxxx TO /etc/bwm/AAAxx-xxxx COPY BWM COMPLETED

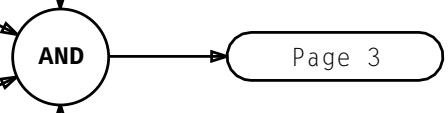
WARNING 1
This procedure is only to be used when 1B Big Gulp Office Updates are not being used. Certain constraints must be followed when Big Gulp updates are being made

PERFORM BROADCAST WARNING MESSAGE (BMW) INSTALLATION

[7] At 3B MCRT, press **NORM DISP** (**PF2**) key and enter 1960 in command mode to obtain display page 1960

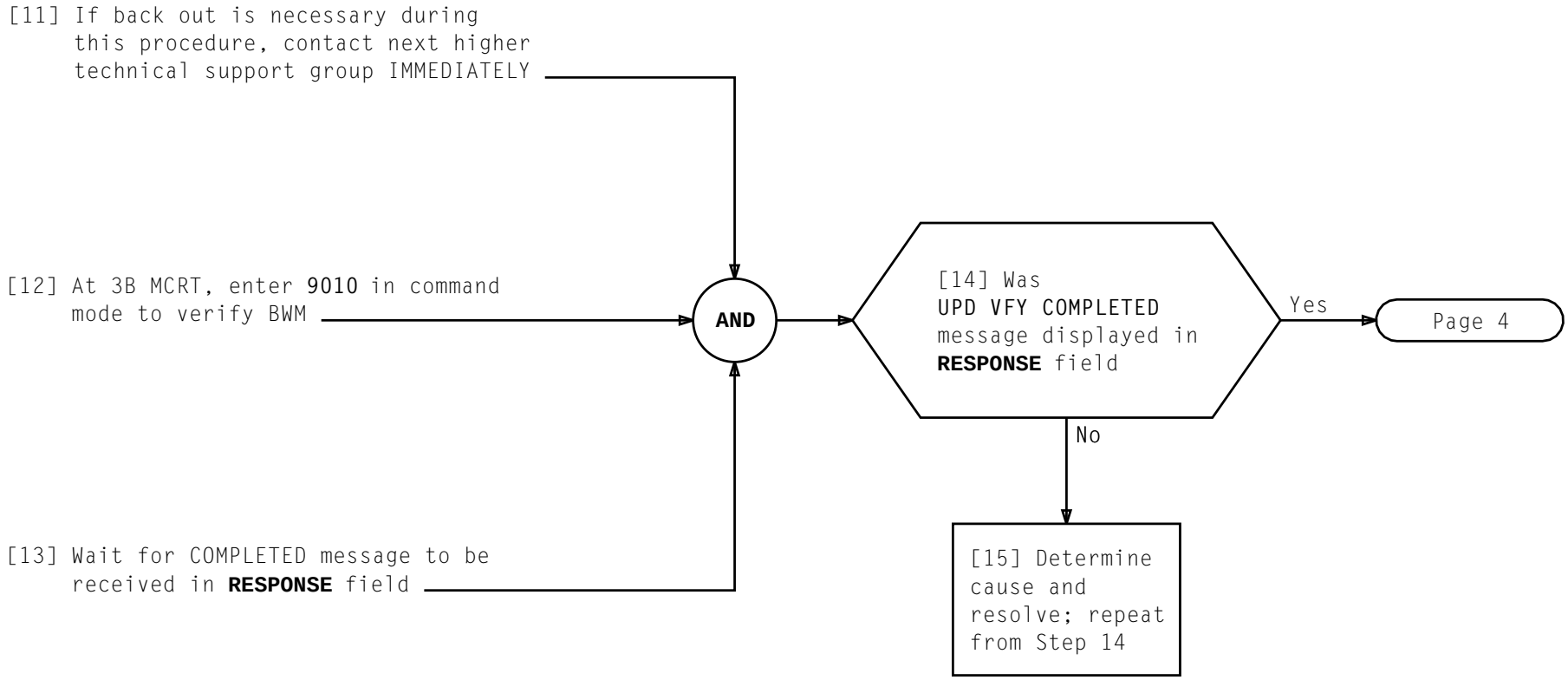
[8] Enter 9000,AAAxx-xxxx in command mode to select BWM
AAAxx-xxxx = BWM number to be installed

[9] At 3B MCRT, enter 9260,SCANS in command mode to obtain printout of SCANS file

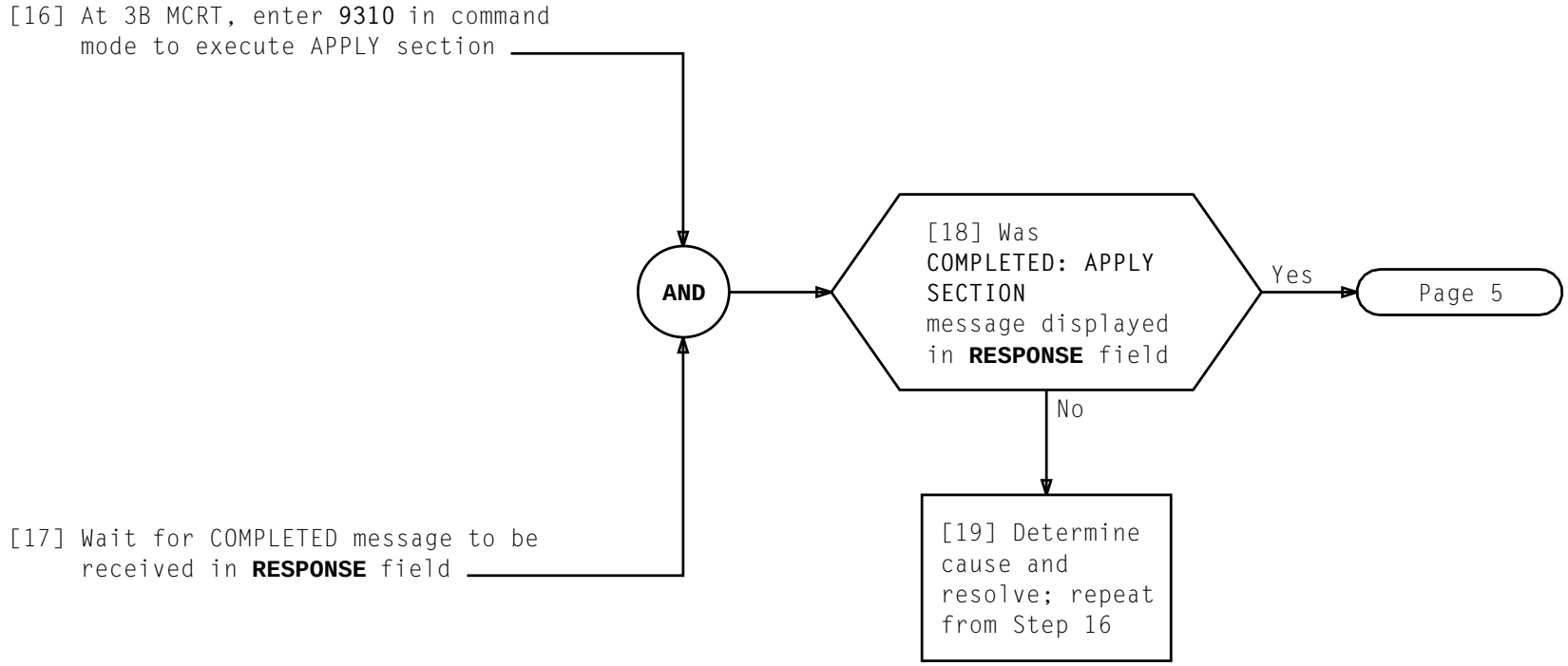


[10] Using printout, determine if special instructions are required for this BWM. Save printout for later use if special procedures required after BWM are applied

PERFORM BROADCAST WARNING MESSAGE (BMW) INSTALLATION



PERFORM BROADCAST WARNING MESSAGE (BMW) INSTALLATION



PERFORM BROADCAST WARNING MESSAGE (BMW) INSTALLATION

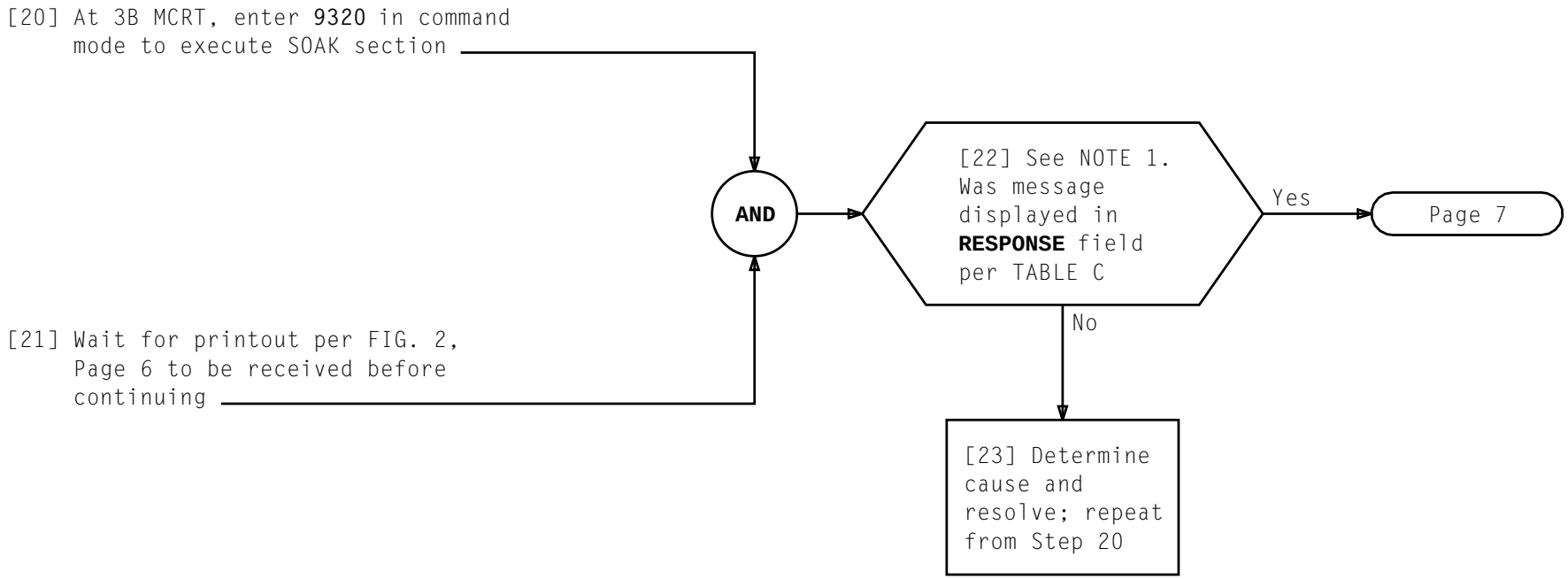


TABLE C	
MESSAGE NUMBER	**OUTPUT MESSAGE**
1	SOAK PERIOD COMPLETED: SOAK SECTION

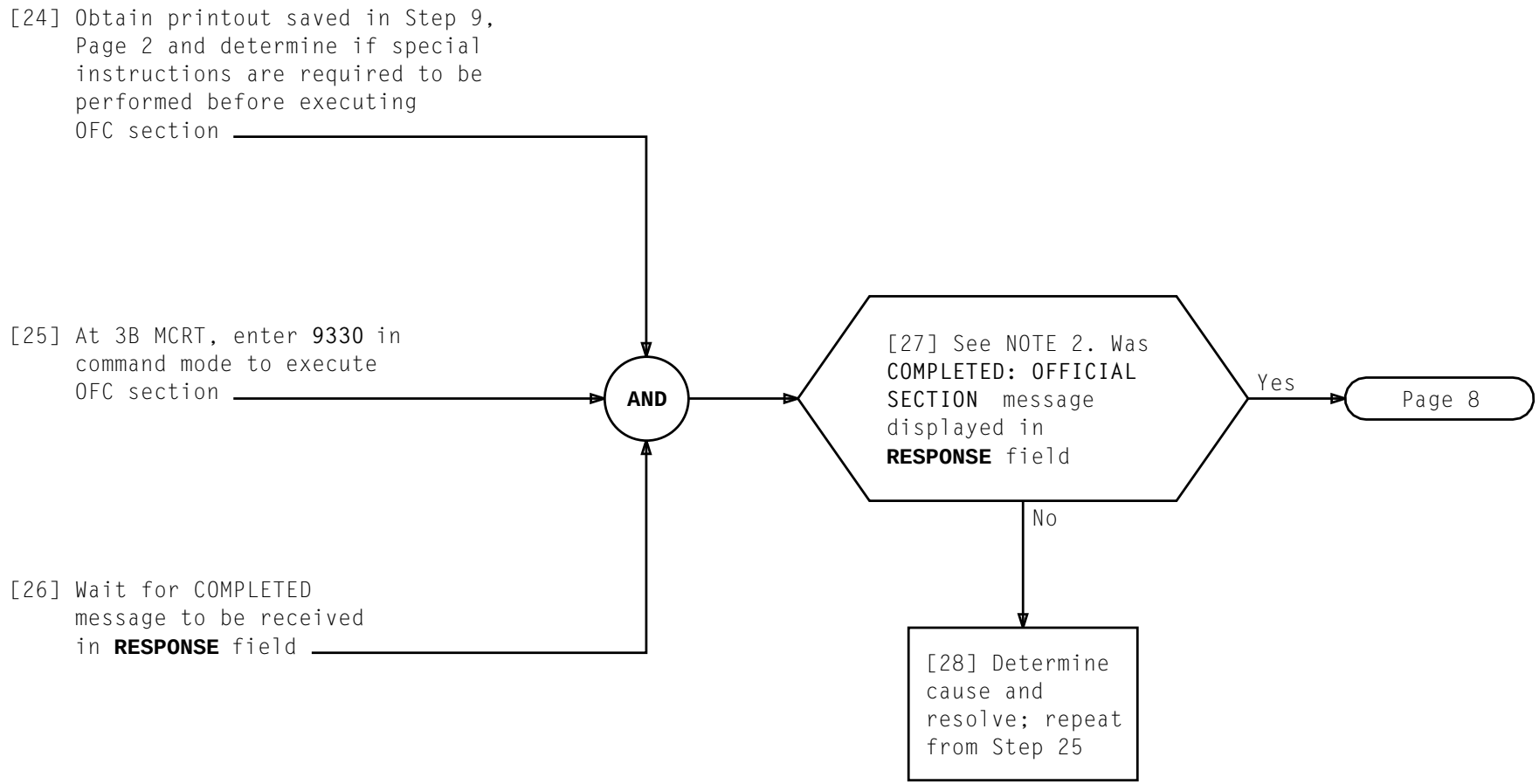
NOTE 1

The **END** field under **CURRENT SOAK TIMER** section (FIG. 2, Page 6) indicates the time response should be received

PERFORM BROADCAST WARNING MESSAGE (BMW) INSTALLATION

```
-----------------UPD PRINT SOAK TIMER IN PROGRESS---------------
BWM NAME = AAAxx-xxxx             REMAINING SOAK PERIOD = (HH:MM)


        CURRENT SOAK TIMER
START       (DD MM dd hh:mm:ss YY)
END         (DD MM dd hh:mm:ss YY)
DURATION    (HH:MM)

        PREVIOUS SOAK TIMER
START       (DD MM dd hh:mm:ss YY)
END         (DD MM dd hh:mm:ss YY)
DURATION    (HH:MM)
-----------------END OF BWM SOAK TIMER INFORMATION--------------
UPD PRINT SOAK TIMER COMPLETED
```

FIG. 2 – System Update Soak Printout



NOTE 2	
Time to finish OFC section is dependent on BWM size	
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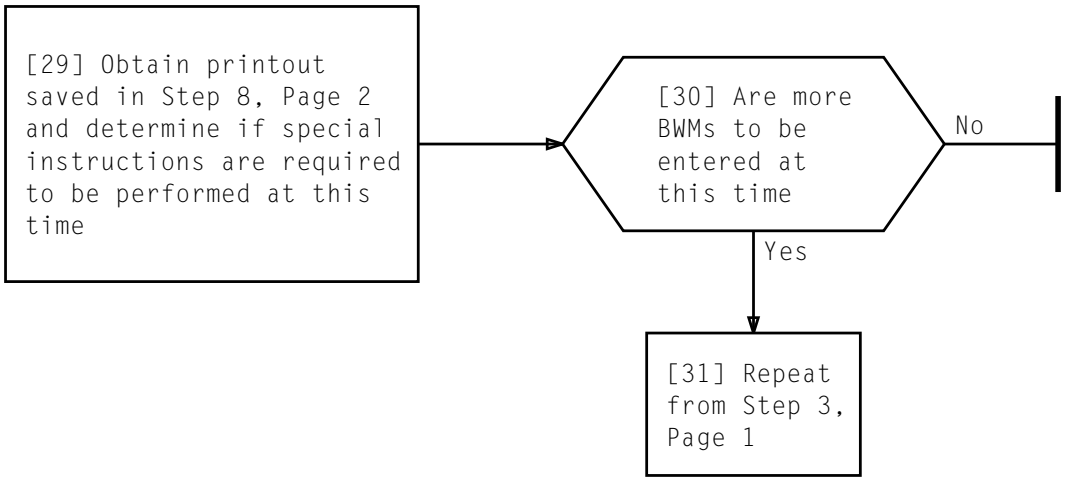
PERFORM BROADCAST WARNING MESSAGE (BMW) INSTALLATION



PERFORM BROADCAST WARNING MESSAGE (BMW) INSTALLATION

1. Remove this procedure and Reproduce page each time a Big GULP BWM is done

2. See Figure 1, Page 2 (For Reference Only). At 1B Processor MCC Terminal, depress **EAI** page key to display EAI page

3. See Figure 2, Page 3. Enter Poke Command 118 to display Active Units

4. Using TABLE A, record ACTIVE CC, PSB, CSB

5. Using TABLE A, record ACTIVE IFB, by using ACTIVE MUP value

6. Using TABLE A, record ACTIVE AUB, by using ACTIVE API value

7. See Figure 3, Page 4, PS0 or PS1 are only PS's that contain generic program. Enter Poke Command 109 to display Program Store Status

8. Using TABLE A, record ACTIVE PS

TABLE A

Active	Unit	Poke Value
	CC 0	10
	CC 1	11
	PS 0	20
	PS 1	21
	PSB 0	22
	PSB 1	23
	CSB 0	30
	CSB 1	31
	IFB 0	40
	IFB 1	41
	AUB 0	42
	AUB 1	43

RECORD ACTIVE UNITS AND VERIFY POKE VALUES FOR BIG GULP BWM UPDATE

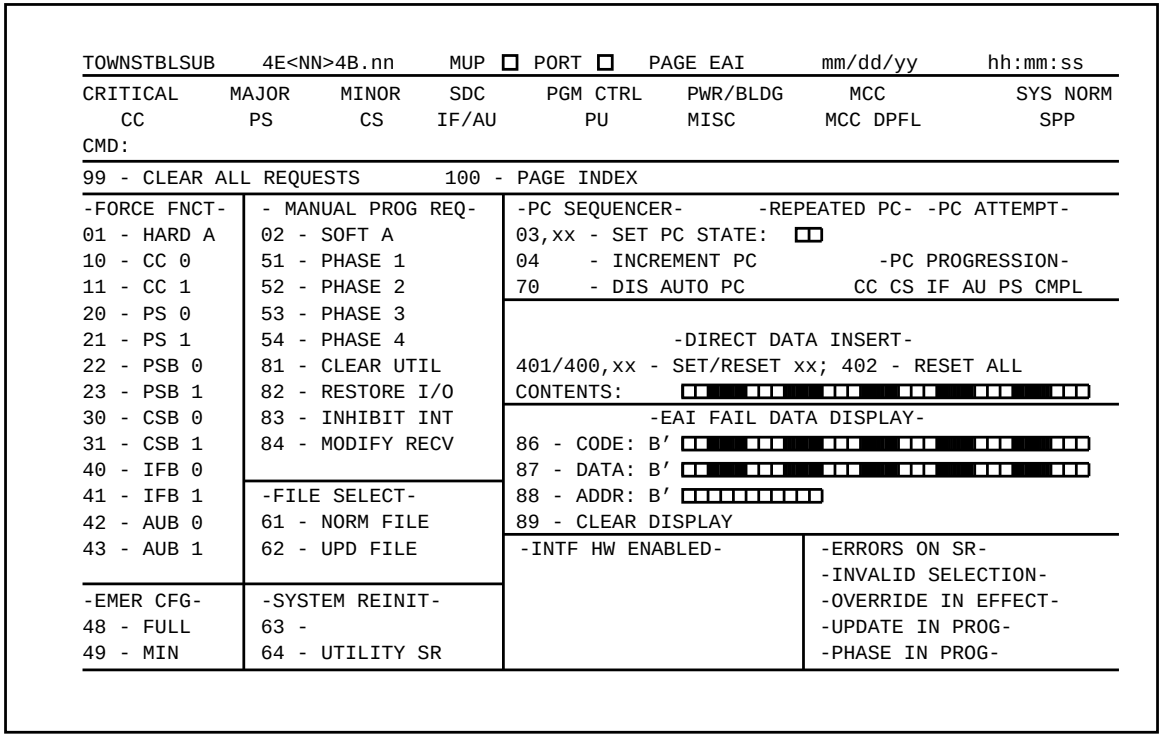


Figure 1 – 1B Processor MCC Terminal EAI Page

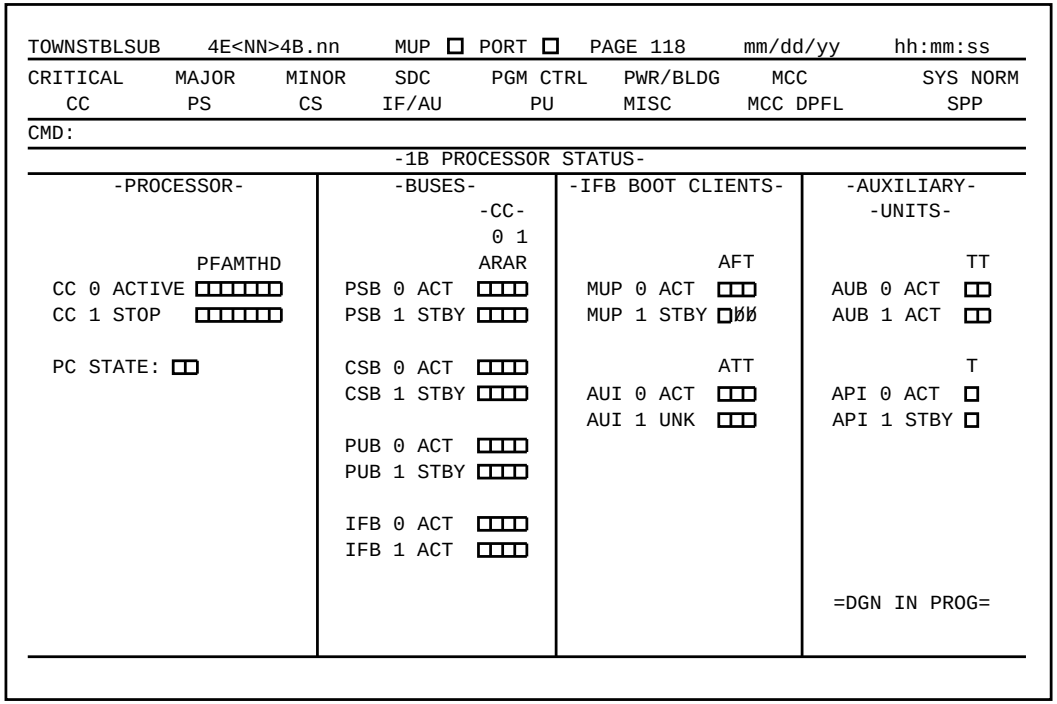


Figure 2 – 1B Processor Status Display Page

RECORD ACTIVE UNITS AND VERIFY POKE VALUES FOR BIG GULP BWM UPDATE

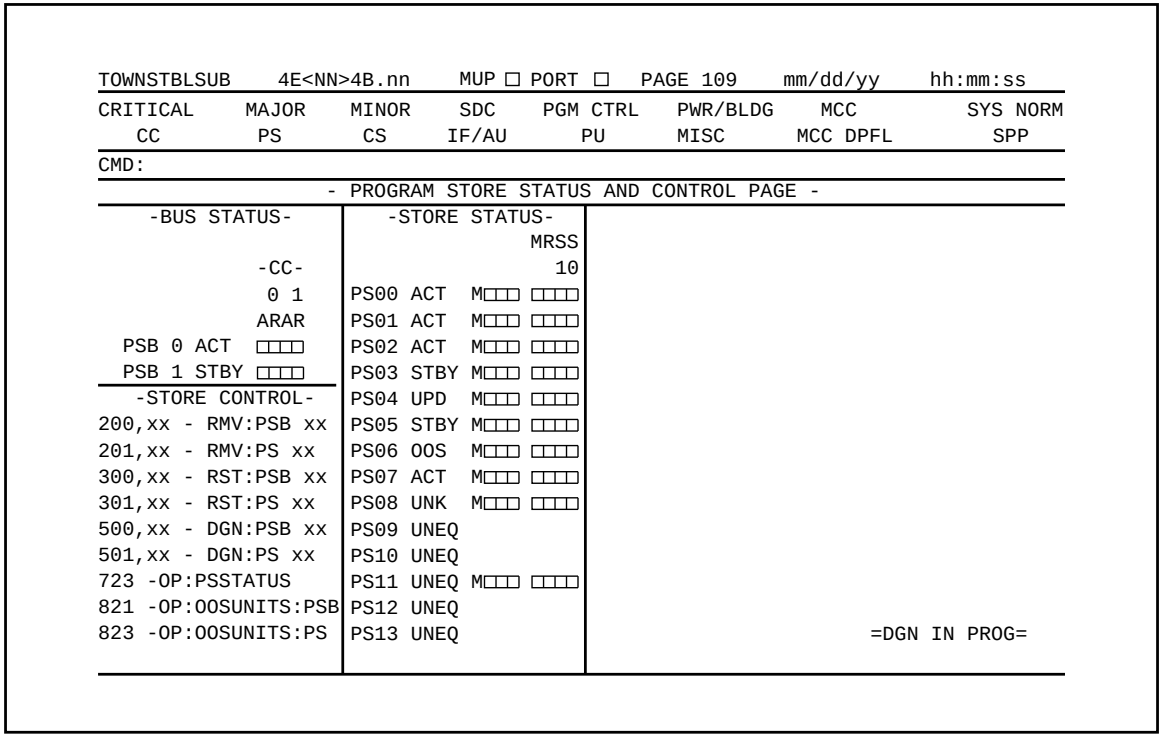


Figure 3 – Program Store Status and Control Page

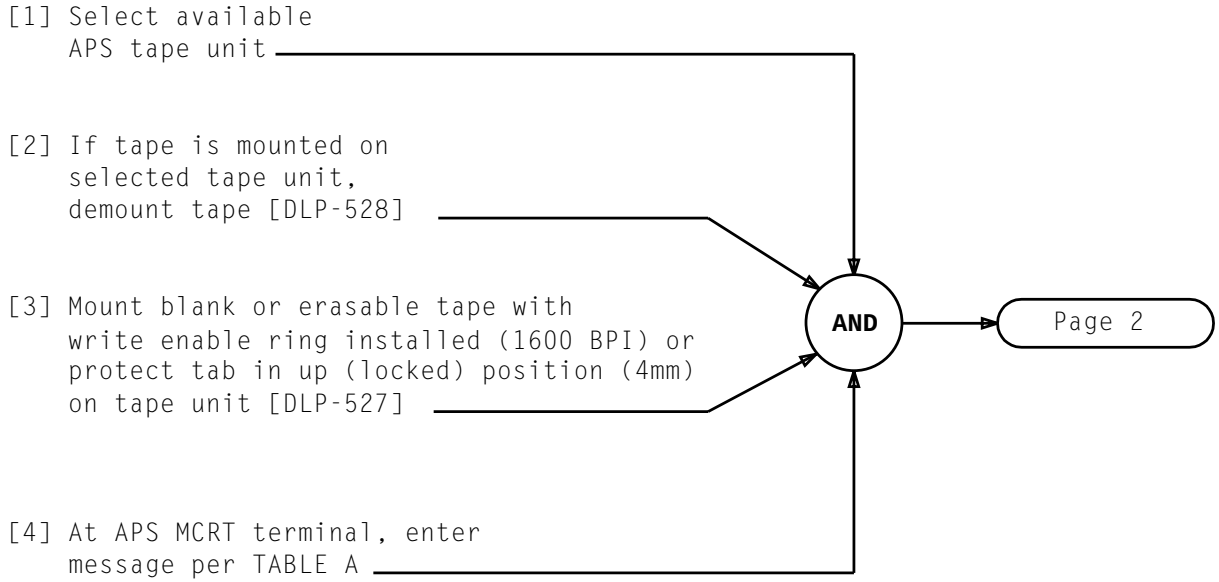


TABLE A	
MESSAGE NUMBER	**INPUT MESSAGE**
1	EXC:ENVIR:UPROC,FN"/bin/dd",ARGS("if=etc/topfile21","of=/dev/mtx0")!
x = DAT unit number where backup tape is inserted (0 or 1)	

WRITE TAPE ONLY PROGRAM (TOP) TAPE

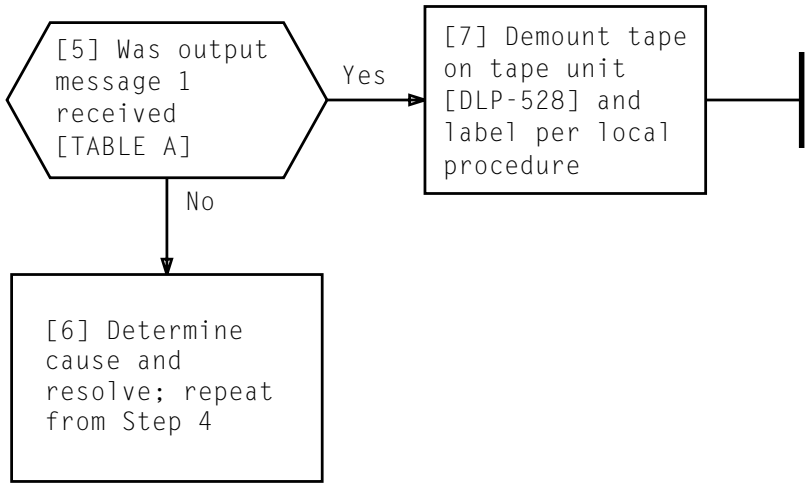


TABLE B

MESSAGE NUMBER	OUTPUT MESSAGES
1	EXC ENVIR UPROC /bin/dd STOPPED x+y record in x+y record out

x+y = whole and partial number of input and output blocks

WRITE TAPE ONLY PROGRAM (TOP) TAPE

ITEM	ISSUE	ITEM	ISSUE	ITEM	ISSUE	ITEM	ISSUE	ITEM	ISSUE	ITEM	ISSUE
• IXL-001		DLP-511		DLP-546		DLP-581					
NTP-002		DLP-512		DLP-547		• DLP-582					
NTP-003		DLP-513		DLP-548		• DLP-583					
NTP-004		DLP-514		DLP-549		DLP-584					
NTP-005		DLP-515		• DLP-550		DLP-585					
NTP-006		DLP-516		DLP-551		DLP-586					
NTP-007		DLP-517		DLP-552		DLP-587					
NTP-008		DLP-518		• DLP-553		DLP-588					
NTP-009		DLP-519		• DLP-554		DLP-589					
NTP-010		DLP-520		• DLP-555		• DLP-590					
TAD-100		DLP-521		DLP-556		• CKL-891					
TAP-101		DLP-522		DLP-557		TNG-893					
TAP-102		DLP-523		• DLP-558							
• TAP-103		DLP-524		DLP-559							
TAP-104		DLP-525		DLP-560							
TAP-105		DLP-526		• DLP-561							
TAP-106		• DLP-527		• DLP-562							
TAP-107		DLP-528		DLP-563							
TAP-108		DLP-529		DLP-564							
TAP-109		DLP-530		• DLP-565							
TAP-110		DLP-531		• DLP-566							
• TAP-111		DLP-532		DLP-567							
• TAP-112		DLP-533		• DLP-568							
• TAP-113		DLP-534		• DLP-569							
DLP-500		DLP-535		DLP-570							
DLP-501		DLP-536		• DLP-571							
DLP-502		DLP-537		DLP-572							
DLP-503		DLP-538		DLP-573							
DLP-504		DLP-539		DLP-574							
DLP-505		• DLP-540		• DLP-575							
DLP-506		• DLP-541		• DLP-576							
DLP-507		• DLP-542		• DLP-577							
DLP-508		• DLP-543		• DLP-578							
DLP-509		DLP-544		DLP-579							
DLP-510		DLP-545		DLP-580							

• REVISED OR ADDED ITEM ☐ CANCELED ITEM

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CHECKLIST

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This book is called a Task Oriented Practice or "TOP." It is a programmed document that gives step-by-step instructions to enable you to do a job (or task). If used correctly, a TOP can be a very useful aid when completing everyday tasks.

Since TOP instructions are given in the order that they must be done, you cannot enter a procedure except at the beginning. You *must* do the step-by-step instructions in the order given. Failure to follow the instructions in the proper order may cause service interruptions.

Remember, a TOP contains all the instructions needed to do a task. If you are doing the job for the first time, you are given step-by-step instructions with all detail that enables you to complete the job. Remember, TOP can provide you the information you need regardless of your experience in doing a job.

The work that you do can be classified into two broad job categories — *Trouble Clearing* and *Non-Trouble Clearing*. The following are the TOP definitions for these two job categories:

Trouble Clearing

Trouble clearing may be done in answering a customer complaint or in responding to an office alarm, a trouble report, or an abnormal printout, etc.

Non-Trouble Clearing

Non-trouble clearing procedures are performed to accept a system after a system has been installed, turn up a system for service, maintain a system according to a controlled maintenance plan, etc.

Glance briefly at the front cover. In the upper right corner is a 9-digit number which identifies the volume. Near the center is the title of the volume which tells you something about the contents, such as the system (or subsystem) name and perhaps what kind of jobs are included in the volume. Next is the decision-action-logic diagram which directs you either to this training package or to 001 depending on your ability to use TOP.

Turn to Figure 1 which shows a typical page of 001. In the lower left is the title, "TASK INDEX LIST" which tells it is a listing of tasks arranged in alphabetical order. The tasks are also permuted on key words to simplify locating a task. On the right side of the page is a column of reference numbers under the heading "THEN GO TO." To use this list, locate the job to be done and turn to the reference number in the "THEN GO TO" column.

Assume that you have been assigned the task of performing a system test on a system covered by a TOP. On 001 in Figure 1, locate the job "System Test." Notice that this entry tells you to go to NTP-016 (Non-Trouble Procedure) under the "THEN GO TO" column. Next you locate the procedure, NTP-016. All procedures in a TOP are arranged in numerical sequence. In actual use of TOP, you would simply turn to the procedure.

FIND YOUR JOB IN THE LIST BELOW . . . . . THEN GO TO	
Alert; External — Horn, Ringer, Etc. — Remove	NTP-028
Amplifiers; Channel — Recorded Announcement Frame — Test	NTP-009
ARO3 PWR ALM RA bb — bb = 16-30	TAP-105
BRDG LED — Does Not Light — Correct	TAP-117
Bridging Controller; Trunk — J1CO15MB — Replace	DLP-572
Channel Amplifiers — Recorded Announcment Frame — Test	NTP-009
Drum Wiper — Common Systems Recorded Announcement Frame — Inspect	NTP-010
Extended Station Capability — Nonkey Set Only — Reported Failure	TAP-123
External Alert — Horn, Ringer, Etc. — Remove	NTP-028
Interchange Two Working Station Numbers	NTP-081
LED; **BRDG** — Does Not Light — Correct	TAP-117
Loudspeaker Paging — Add	NTP-059
Loudspeaker; — Remove	NTP-006
Station Capability; Extended — Nonkey Set Only — Reported Failure	TAP-123
System Test — Perform	NTP-016
Trunk Bridging Controller — J1CO15MB — Replace	DLP-572
TTY Printout — ARO3 PWR ALM RA bb — bb = 16-30	TAP-105
Wiper; Drum — Common Systems Recorded Announcment Frame — Inspect	NTP-010

TASK INDEX LIST (Contd)	Issue 1	DEC 1980
	123-456-789	IXL
	PAGE 2 of 2	001

Figure 1

Look over the following example which shows a typical page of NTP-016. Note that the items are numbered in the left column. They *must* be completed in that order. In item 2 there are some lettered (A, B, C) items. These lettered items are optional ways to do an item; that is, you only have to do one of the lettered items.

Remember that this procedure gives all the items that must be done and the order in which they must be done to complete the job. If you know how to do a task, you should proceed without going to the referenced details in the "FOR DETAILS, GO TO" column. If, on the other hand, you need additional details on how to do the task, turn to the procedure listed in the "FOR DETAILS, GO TO" column. In either case, after completing a task continue with the next task.

A TOP is designed so that you have to read only what is necessary to get your job done. If you know how to do a task, look no further for the "how to" information — just do the task and go on to the next task. This idea is called "bypassing" in TOP. In addition to not having to

DO THE ITEMS BELOW IN THE ORDER LISTED	FOR DETAILS, GO TO
1 Obtain Support Apparatus Listed Below: • Hewlett-Packard 3531A Transmission Measuring Set • 2P4C Patching Cord	—
2 Place SEC/SEB in Off-Line Mode	—
A. If in On-Line Mode, Change System From On-Line to Off-Line	DLP-509
B. If Powered Down, Condition System for Off-Line Operation as Follows:	—
1. Power up Minicomputer	DLP-503
2. Power up Line Printer	DLP-528
3. Power up Maintenance Terminal	DLP-510
7 Run Computer Display Terminal Test for All Positions	DLP-513
8 Mount Tape	DLP-500

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PERFORM SYSTEM TEST

look further for details, three other ways of "bypassing" are provided in TOP to help you bypass information you already know (see Figure 2):

Summary Statement

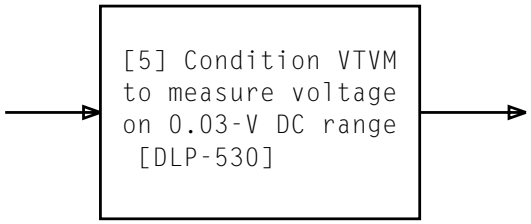
A summary statement is used with a procedure to tell you briefly how to do the procedure and what type measurement or result can be observed. If you can do the procedure after reading the summary, perform the procedure without reading any further. Simple procedures may not have summaries.

Result Statement

A result statement may be used in a flow-charted procedure along with the AND symbol. If, after reading the results statement, you know how to do the action indicated, perform the procedure without reading the steps associated with the AND symbol.

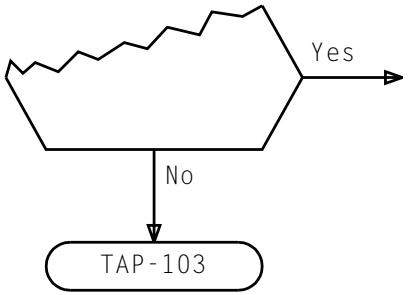
Support Procedures

The following reference in TOP refers to a support procedure:
The support procedure [DLP-530] (Detailed Level Procedure) provides the information on how to operate the VTVM. Here again, if you already know how to operate the VTVM, perform the procedure without looking up any further information.



Assume that you are doing a system test on a system covered by a TOP. In the process of doing this test, you are instructed to mount a tape. For the purposes of this example, assume that you do not know how to mount the tape and must look up additional details. Figure 2 on Page 5 shows you examples of bypassing that can be used. Take a few moments to examine this figure and make sure you understand the techniques of bypassing.

While using a TOP, you will probably run across a reference similar to the following:



This reference to TAP-103 (Trouble Analysis Procedure) indicates that the equipment is not operating correctly, and that you should refer to TAP-103 and clear this trouble condition. After clearing the trouble, you should re-enter the flowchart at the beginning (Step 1).

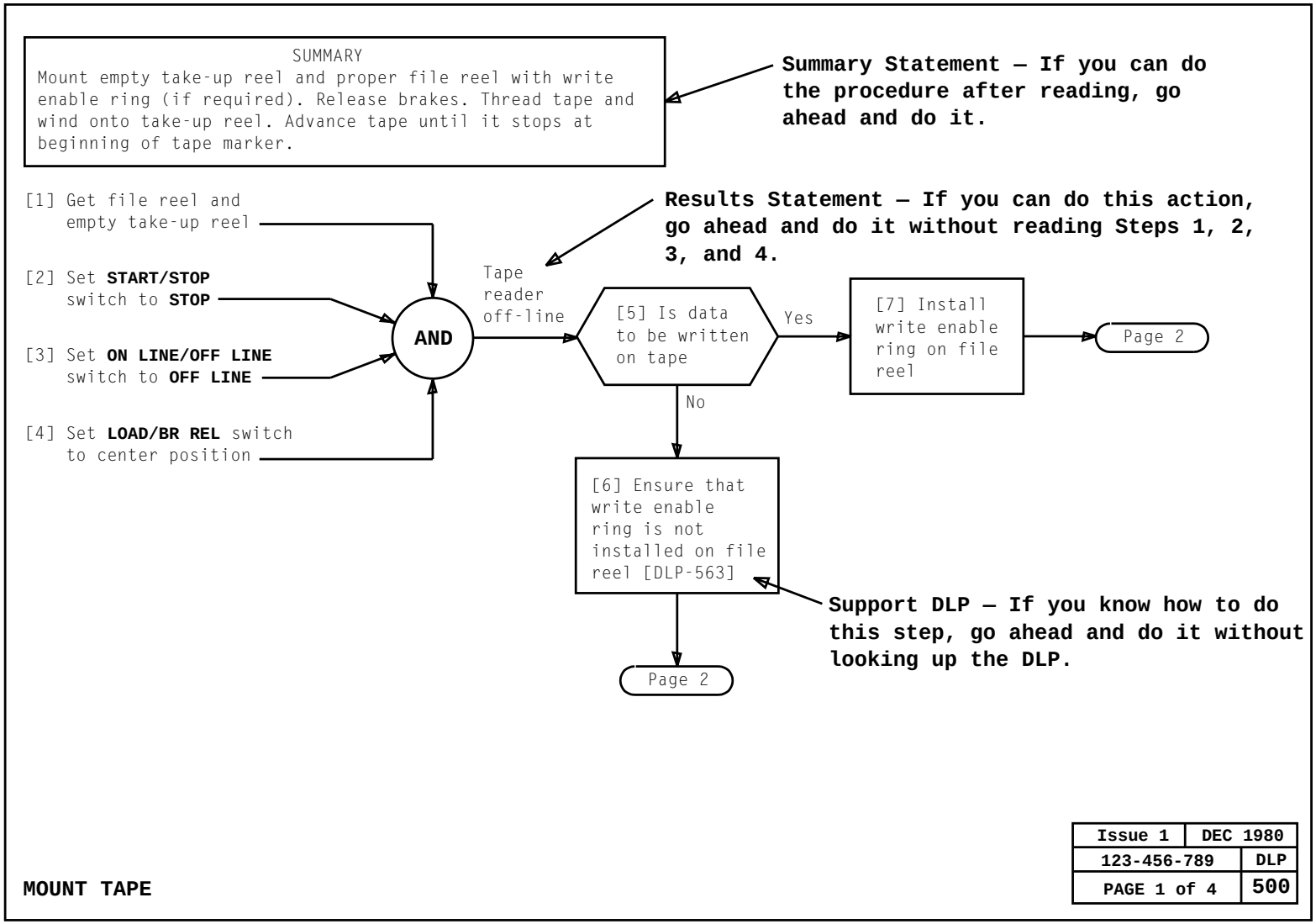
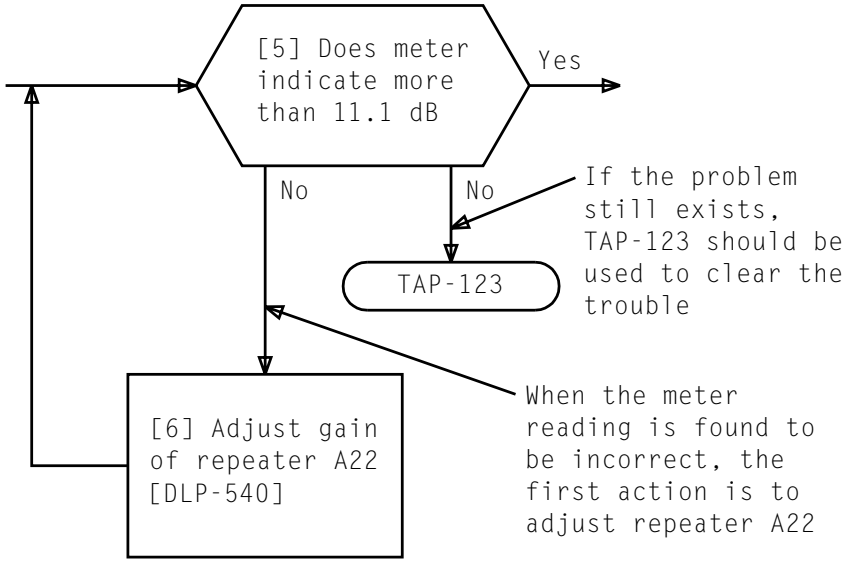

SUMMARY
Mount empty take-up reel and proper file reel with write enable ring (if required). Release brakes. Thread tape and wind onto take-up reel. Advance tape until it stops at beginning of tape marker.
Summary Statement – If you can do the procedure after reading, go ahead and do it.
[1] Get file reel and empty take-up reel
[2] Set START/STOP switch to STOP
[3] Set ON LINE/OFF LINE switch to OFF LINE
[4] Set LOAD/BR REL switch to center position
AND
Results Statement – If you can do this action, go ahead and do it without reading Steps 1, 2, 3, and 4.
Tape reader off-line
[5] Is data to be written on tape
Yes
[7] Install write enable ring on file reel
Page 2
No
[6] Ensure that write enable ring is not installed on file reel [DLP-563]
Support DLP – If you know how to do this step, go ahead and do it without looking up the DLP.
Page 2
MOUNT TAPE
Issue 1 DEC 1980
123-456-789 DLP
PAGE 1 of 4 500

Figure 2

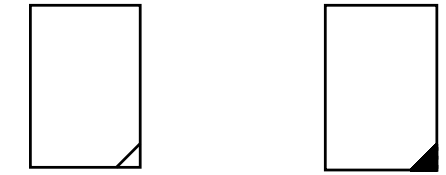
This idea can be carried further. In some cases, a decision block may have more than one abnormal output. This means that you should try more than one solution to the problem. See the following example.



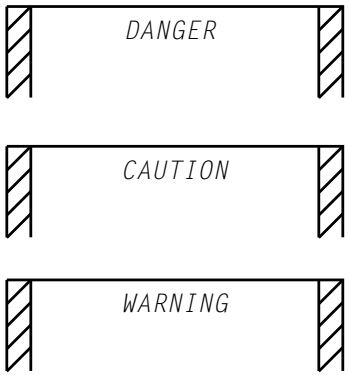
Trouble-clearing information in TOP is used basically the same way as non-trouble-clearing information. When an alarm or trouble report requires you to troubleshoot a system covered by a TOP, the TASK INDEX LIST (IXL-001) is the place to start. After locating your task on IXL-001, you are referenced to a Trouble Analysis Procedure (TAP) to find the information to aid in the location of the trouble. The TAP may reference to other information, such as Trouble Analysis Data (TAD) or Isolation Diagram (ISD) as an aid in the trouble-clearing process.

Now assume that you have to clear a major alarm on a terminal in a system covered by a TOP. Figure 3 on Page 7 shows how to access and how to use trouble-clearing information.

A TOP shows hard-wired and plug-in units on Isolation Diagrams (ISD) in the following manner:



Always do a job safely. Below are three things you should heed in TOP:



— *means there is a possibility of personal injury*

— *means there is a possibility of service interruptions*

— *means there is a possibility of equipment damage*

TABLE A on Page 8 shows some of the more important symbols and definitions.

While using TOP, if you find errors, or if a procedure is inadequate or missing, call the TOP HOTLINE number shown on the front cover and title page. Your comments are greatly needed to help prepare better documentation. Comments may also be forwarded using the form provided in the front of this TOP.

Now that you know how to use TOP, return to IXL-001 and find the task you need to do.

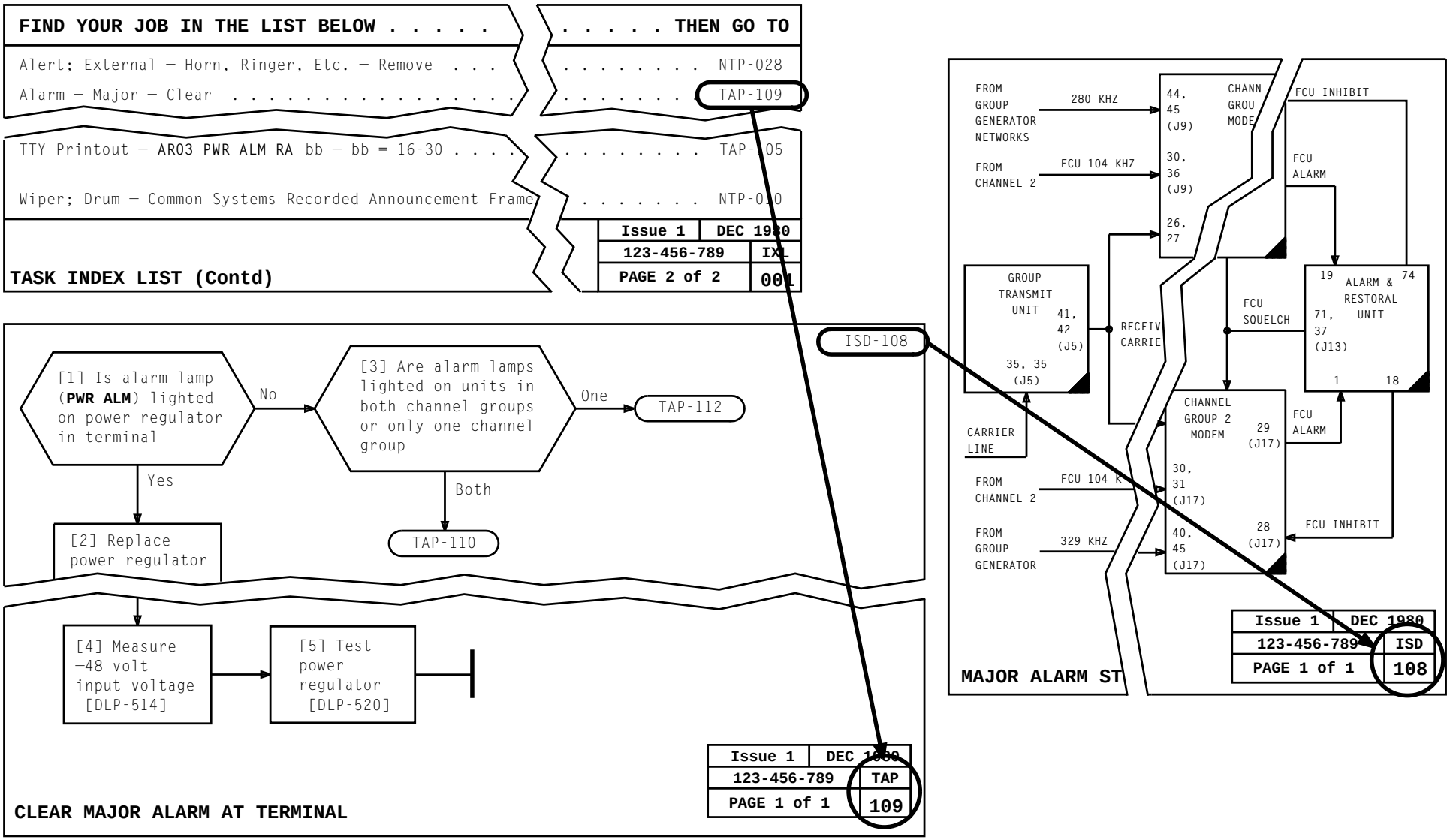
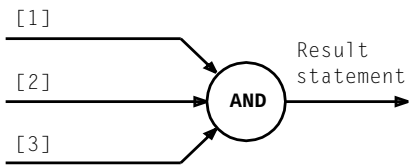
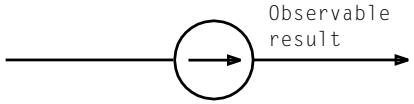
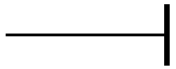

FIND YOUR JOB IN THE LIST BELOW . . . . .
. . . . . THEN GO TO
Alert; External — Horn, Ringer, Etc. — Remove NTP-028
Alarm — Major — Clear TAP-109
TTY Printout — AR03 PWR ALM RA bb — bb = 16-30 . . . . . TAP-105
Wiper; Drum — Common Systems Recorded Announcement Frame NTP-010
Issue 1 DEC 1980
123-456-789 IXL
PAGE 2 of 2 001
TASK INDEX LIST (Contd)
ISD-108
[1] Is alarm lamp (PWR ALM) lighted on power regulator in terminal
No
[3] Are alarm lamps lighted on units in both channel groups or only one channel group
One
TAP-112
Yes
Both
[2] Replace power regulator
TAP-110
[4] Measure −48 volt input voltage [DLP-514]
[5] Test power regulator [DLP-520]
Issue 1 DEC 1980
123-456-789 TAP
PAGE 1 of 1 109
CLEAR MAJOR ALARM AT TERMINAL
FROM GROUP GENERATOR NETWORKS
280 KHZ
FROM CHANNEL 2
FCU 104 KHZ
44, 45 (J9)
30, 36 (J9)
26, 27
CHANN GROU MODE
FCU INHIBIT
FCU ALARM
GROUP TRANSMIT UNIT
41, 42 (J5)
35, 35 (J5)
RECEIV CARRIE
FCU SQUELCH
19
ALARM & RESTORAL UNIT
74
71, 37 (J13)
1
18
CHANNEL GROUP 2 MODEM
29 (J17)
CARRIER LINE
30, 31 (J17)
FROM CHANNEL 2
FCU 104 K
FCU ALARM
FROM GROUP GENERATOR
329 KHZ
40, 45 (J17)
28 (J17)
FCU INHIBIT
Issue 1 DEC 1980
123-456-789 ISD
PAGE 1 of 1 108
MAJOR ALARM ST

Figure 3

TABLE A
IMPORTANT TOP SYMBOLS AND DEFINITIONS

SYMBOL	DEFINITION
	The AND operation symbol is used where the successful completion of a group of instructions accomplishes a meaningful result that can be defined. The symbol indicates that each input instruction must be performed in the order given to accomplish the output (result statement). In instances where results cannot be defined, results statements are not provided.
	The flow-through symbol relates graphically a single instruction to the expected observable result(s).
	The end-of-procedure symbol denotes that the procedure has been completed.
	The reference bubble symbol indicates an exit from a page (either to a continuation page or to trouble-clearing data) or indicates the starting point of a procedure.
Acceptance (NTP-002)	Acceptance gives an overview of the acceptance techniques and facilities.
Maintenance Philosophy (TAD-100)	The maintenance philosophy, when provided, gives an overview of the considerations designed into the trouble-clearing procedures.
Checklist (CKL-891)	The checklist reflects the volume content (inventory) at any given time, the issue identifier of each data element therein, those data elements revised and/or added, and those data elements deleted from a previous issue.