POWER AVAILABLE

PERMISSIVE WHEN RWM OPERATOR DISPLAY KEYLOCK SWITCH IN "TEST"
J600 | CR

PERMISSIVE WHEN RWM COMPUTER KEYLOCK SWITCH IN "OPERATE"
J601 | CR

RWM IN ROD TEST
J600 | CR

RWM SELF-TEST OK

ZONE F7

RPIS OPERATION NORMAL

ZONE F7

PERMISSIVE WHEN ALL RODS WERE FULL-IN

CONTROL ROD SELECTED
J600 | CR

RWM PROGRAM ROD TEST

PERMISSIVE WHEN "EXIT" SOFT KEY NOT PRESSED

POWER AVAILABLE

RWM SEQUENCE PROGRAM AND OPERATOR DISPLAY SCREEN INITIALIZED

RWM COMPUTER FRONT PANEL ANY PUSHBUTTON PRESSED
J601 | CR

P THIS DWG ZONES C4,C6,C7

RWM COMPUTER DISPLAY SCREEN INITIALIZED

PERMISSIVE WHEN RWM OPERATOR DISPLAY KEYLOCK SWITCH IN "OPERATE"
J600 | CR

PERMISSIVE WHEN RWM COMPUTER KEYLOCK SWITCH IN "OPERATE"
J601 | CR

ZONES B4,B6,B7,F8

RWM SELF-TEST OK

"CRITICAL SELF-TEST FAILURE"
J600 | CR

RPIS OPERATION NORMAL

"RPIS FAILED"
J600 | CR

T THIS DWG ZONES H4,H3

REACTOR POWER LEVEL BELOW LPSP

REF. 3

PERMISSIVE WHEN RWM ROD SEQUENCE PROGRAM IS SELECTED

ZONE E5

REACTOR POWER LEVEL BETWEEN LPSP & LPAP

REF. 3

B THIS DWG ZONES C3,C5,E1

REACTOR POWER LEVEL IN "TRANSITION"
J600 | CR

REACTOR POWER LEVEL ABOVE LPAP

REF. 3

R THIS DWG ZONES C3,C5,E1

REACTOR POWER LEVEL ABOVE LPAP
J600 | CR

RWM SEQUENCE PROGRAM IDENTIFICATION
J600 | CR

RWM "STEP" IDENTIFICATION
J600 | CR

RWM PROGRAM SELECT CONTROL PERMISSIVE

RWM OUTPUT INTERLOCK PERMISSIVE

SELECT ERROR
J600 | CR

P THIS DWG ZONE G6

PERMISSIVE WHEN RWM OPERATOR DISPLAY KEYLOCK SWITCH IN "BYPASS"
J600 | CR

PERMISSIVE WHEN RWM COMPUTER KEYLOCK SWITCH IN "OPERATE"
J601 | CR

RWM SELECT CONTROL

RWM PROGRAM WITHDRAW CONTROL PERMISSIVE

RWM OUTPUT INTERLOCK PERMISSIVE

WITHDRAW ERROR COORDINATE XX-YY
J600 | CR

P THIS DWG ZONE G6

PERMISSIVE WHEN RWM OPERATOR DISPLAY KEYLOCK SWITCH IN "BYPASS"
J600 | CR

PERMISSIVE WHEN RWM COMPUTER KEYLOCK SWITCH IN "OPERATE"
J601 | CR

PERMISSIVE WHEN AUXILIARY SIGNAL IS PRESENT

B THIS DWG ZONE D7

R THIS DWG ZONE D6

RWM WITHDRAW CONTROL

61-2110-3 ZONE E4

RWM PROGRAM INSERT CONTROL PERMISSIVE

RWM OUTPUT INTERLOCK PERMISSIVE

INSERT ERROR COORDINATE XX-YY
J600 | CR

P THIS DWG ZONE G6

PERMISSIVE WHEN RWM OPERATOR DISPLAY KEYLOCK SWITCH IN "BYPASS"
J600 | CR

PERMISSIVE WHEN RWM COMPUTER KEYLOCK SWITCH IN "OPERATE"
J601 | CR

PERMISSIVE WHEN AUXILIARY SIGNAL IS PRESENT

B THIS DWG ZONE D7

R THIS DWG ZONE D6

RWM INSERT CONTROL

61-2110-3,ZONE E2
61-2110-4,ZONES E4/D2

ROD SEQUENCE DOWNLOADING/UPLOADING

POWER AVAILABLE

RWM ROD SEQUENCE PROGRAM DOWNLOAD/UPLOAD (IBM-PC/AT)

PERMISSIVE WHEN RWM COMPUTER KEYLOCK SWITCH IN "INOP"
J601 | CR

RWM ROD BLOCK APPLIED

PERMISSIVE WHEN "DOWNLOAD SEQUENCE" SOFTKEY IS PRESSED

"EXIT" SOFTKEY IS PRESSED
J601 | CR

PERMISSIVE WHEN AUXILIARY SIGNAL IS NOT PRESENT

RWM ROD SEQUENCE PROGRAM DOWNLOADED

DOWNLOAD PROCESS ABORTED
J601 | CR

PROGRAM UPLOAD PERMISSIVE

SINGLE ROD SCRAM

REACTOR FULL SCRAM

(RPIS ROD POSITION)
T THIS DWG ZONE D5

RWM SCRAM TIMING INITIATED

RWM SCRAM TIMING PROGRAM PERMISSIVE

UPLOAD IBM-PC COMPUTER
J800 | CR

PRINT IBM-PC COMPUTER
J800 | CR

SCRAM IN PROGRESS
J600 | CR

ROD SCRAM TIMING OPTION

(RPIS ROD POSITION)
T THIS DWG ZONE D5

DRIVE-IN BUS PERMISSIVE

DRIVE-OUT BUS PERMISSIVE

ROD SELECTED & DRIVING PERMISSIVE

PERMISSIVE UNLESS SCRAM IS IN PROGRESS

RWM ROD DRIVE TIMING SELECTED

ROD DRIVE TIMING
J600 | CR

ROD DRIVE TIMING OPTION

CRITICAL OR NON-CRITICAL SELF-TEST FAULT

MORE THAN ONE ERROR

SELECTED ROD ERROR EXCEEDS TWO NOTCHES

INSERT OR WITHDRAW ERROR EXISTS

SELECTED ROD IS NOT THE ERROR ROD

PERMISSIVE WHEN AUXILIARY SIGNAL IS NOT PRESENT

B THIS DWG ZONE D7

R THIS DWG ZONE D6

RWM OPERATOR DISPLAY KEYLOCK SWITCH IN "BYPASS"
J600 | CR

RWM INSERT NOT PERMISSIVE

PERMISSIVE WHEN AUXILIARY SIGNAL IS NOT PRESENT

RWM INSERT BLOCK
J600 | CR

RWM WITHDRAW CONTROL NOT PERMISSIVE

PERMISSIVE WHEN AUXILIARY SIGNAL IS NOT PRESENT

RWM WITHDRAW BLOCK
J600 | CR

A "RWM BLOCKING" H1P603 3D117

61721-2110-07
LATEST REVISION
B

NOTES:

1. SEE DWG. 61721-2110-01 FOR GENERAL NOTES, REFERENCES AND LEGEND.
2. FCD SHOWN ON THIS DWG. IS BASED ON GEK-94901,NUMAC-RWM OPERATION AND MAINTENANCE INSTRUCTIONS, (DSN #VMR1-73.1)
3. FOR DETAILED FUNCTIONAL OPERATION AND DISPLAY FEATURES OF NUMARC-RWM SYSTEM, REFER TO VENDOR MANUAL VMR1-73.1.
4. B ROD WORTH MINIMIZER FIRMWARE CONTROLLED LOGIC IS SPECIFIED IN THE RWM DESIGN SPECIFICATION, 23A5100KH, R4-758 (REF 14.).

NON-NUCLEAR SAFETY RELATED

THIS IS AN AUTOCAD PRODUCED DRAWING. CHANGES OR REVISIONS MUST BE BROUGHT TO THE ATTENTION OF THE PLANT ENGINEERING DESIGN GROUP TO ENSURE THAT CONFIGURATION CONTROL IS MAINTAINED.

THIS DRAWING WAS REFORMATTED BY AUTOCAD AT REVISION A. ALL PREVIOUS APPROVAL SIGNATURES ARE ON FILE ON MICROFILM IN DOCUMENT CONTROL.

B DCD'S INCORPORATED: EDP-26182, REV. Ø

OTHER REVISIONS:

PREPARED BY: RON GONIA 4-11-95 DATE 4-95
APPROVED BY: Don Bramblett for DM CONTROL DATE 4/11/95

A PORTION OF THIS DRAWING IS AFFECTED BY THE FOLLOWING:

TC	CHANGE DOCUMENT

EDP POSTING ENTRIES REQUIRE THE ADDITION OF THE ARMS STATUS CODE: EITHER "APC" OR "ARF"

PREPARED BY		DATE
CHECKED BY		DATE
APPROVED BY		DATE
OTHER APPROVALS		DATE

INC.CODE	U
TITLE	LOGIC DIAGRAM CONTROL ROD DRIVE HYDRAULIC SYSTEM PART 7
APERTURE CARD TITLE	LOGIC DIAG CRD SYSTEM
PLANT IDENTIFICATION SYSTEM NUMBER	C1100
ARMS RECIPIENT #	
DOCUMENT TYPE CODE	DDDINC
NUC OPS FILE NO.	1601
DATE ISSUED TO IS	4-17-95
DRAWING NUMBER	61721-2110-07
REV.	B

Detroit Edison Fermi 2