REVISION
USE .1 SIZE TEXT ONLY

INSIDE CONTAINMENT BLDG.
INSIDE PRIMARY AUXILIARY BLDG.
INSIDE WASTE DISPOSAL AREA

REFERENCES

1. PROCESS FLOW DIAGRAM (W) DWG. 540 F 896.
2. DEFINITION OF SYMBOLS (W) E. SPEC. G675176 REV. 2
3. INSTRUMENTATION & CONTROL STANDARDS (W) SYMBOL & APPLICATIONS FOR INSTRUMENT DIAGRAMS. SECTION 1.1 ISSUED AUG. 12TH, 1966 (W) INSTRUMENT INSTALLATION SECTION 3.0 ISSUED NOV. 16TH, 1966
4. MATERIAL SPEC. & FITTINGS (W) E. SPEC. G569866 REV. 2 (W) E. SPEC. G676398 REV. 0

REFERENCE DRAWINGS

RCS - 9321-F-2738 - REACTOR COOLANT SYS.
ACS - 9321-F-2720 - AUXILIARY COOLANT SYSTEM. A227781
CVCS - 9321-F-2736 - CHEMICAL & VOLUME CONTROL SYS. 9321-F-2737 - CHEMICAL & VOLUME CONTROL SYS. A208168 - CHEMICAL & VOLUME CONTROL SYS.
SIS - 9321-F-2735 - SAFETY INJECTION SYS.
SS - 9321-F-2745 - SAMPLING SYS. A227178
IVSWS-9321-F-2726 - ISOLATION VALVE SEAL WATER SYS.
PW - 9321-F-2724 - PRIMARY WATER SYS.
WDS - 9321-F-2730 - WASTE DISPOSAL SYS. A188852 - INTEGRATED WASTE DISPOSAL SYS.
N2 - 9321-F-2723 - NITROGEN TO NUCLEAR EQUIP. 9321-F-2728 - NUCLEAR EQUIP. DRAIN A209762 - SERVICE WATER SYS. 9321-C-2016 -FLOW DIAGRAM SYMBOLS

EVERYTHING ON THIS DRAWING (EXCLUDING THOSE PORTIONS SHOWN WITH DASH LINES) IS PART OF THE LIQUID WASTE PROCESSING SYSTEM (LWPS) LISTED IN EXHIBIT A,CI-240-1, EXCEPT AS SPECIFICALLY INDICATED HEREIN

- N2 NITROGEN SUPPLY SYSTEM
- PW PRIMARY WATER SYSTEM
- GWPS GASEOUS WASTE PROCESSING SYSTEM
- SIS SAFETY INJECTION SYSTEM
- NOTE A BOUNDS THE CONTAINMENT SUMP SYS. AS LISTED IN EXHIBIT A, CI-240-1
- NOTE B BEYOND THIS POINT LINE IS THE PART OF SAMPLING SYSTEM NOT LISTED IN CI-240-1

NOTES

1. FOURTEEN DIAMETERS OF STRAIGHT PIPE REQUIRED BETWEEN FLOW METER AND UP-STREAM TEE.
2. SCREEN SUPPLIED TO PREVENT RESIN BEADS FROM ENTERING SYSTEM. APPROX. 12" OVERALL LENGTH AND MOUNTED IN VERTICAL ORIENTATION IN DRUMMING ROOM.
3. BUBBLER TUBE 3/4" O.D. CLASS 153. FOLLOWING VALVES REQUIRED FIELD INSTALLED 3/4" TUBE BY 3/4" PIPE INSERTS TO MATCH. 1741, 1703, 1698, 1735, 1697, 1768 & 1769
4. VALVE ACTUATED BY GAS ANALYZER, I & C CHANNEL AC-1067
5. WDS BUBBLERS OPERATE ON INSTRUMENT AIR EXCEPT SPENT RESIN STORAGE TANK CHANNEL LT-1005 WHICH USES NITROGEN (SEE SHEET 2, WDS).
6. ORIFICE PLATE AND FLANGE SUPPLIED WITH PUMP AND STAMPED WITH CORRESPONDING ITEM NUMBER.
7. SEE DWG'S D226016, D226020, D226074, D260110 & D260111.
8. *** INDICATES CONTROL VALVE HAS ADDITIONAL ASSOCIATED CONTROL EQUIPMENT & IS REPRESENTED ON CONTROL VALVE HOOK-UP DETAIL DWG. 9321-F-7056.
9. THE QUALITY GROUP A,B,C, & SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN
10. ISOLATION VALVE FOR RACK 20 BLOWDOWN DRAIN IS VALVE #563.
11. LEAK-OFF LINES FROM PCV-455 A & B ARE CUT AND CAPPED IN PLACE PER ER-05-2-114.

INSERVICE INSPECTION NOTES:

1.CP=CONTAINMENT PENETRATIONS, ASME CLASS MC APPLIES.
2.FOR NON-CODE PIPING PENETRATING CONTAINMENT & NOT CLASSIFIED QUALITY GROUP 'A', 'B' OR 'C' QUALITY GROUP 'MC' DESIGNATION SHALL BE APPLIED.

DWG. NO. 9321-F-2719-136
DWG. SIZE A
DWG. TYPE COMPANY
STATION
Entergy Nuclear Northeast
INDIAN POINT
BORO: WESTCHESTER
TITLE: FLOW DIAGRAM
WASTE DISPOSAL SYSTEM
- UFSAR FIGURE No. 11.1-1 (SHT. 1)

APPROVALS

ENGINEERING		
PROJECT MANAGER:		
DISCIPLINE CHIEF:		
DESIGN		
DESIGN MANAGER:	W.J.KING	10-26-87
DESIGN SUPERVISOR:	F.A.	10-26-87
DESIGN BY:	B.JOHN	10-26-87
DESIGN CHECKER:	E.D.	10-26-87
SCALE: NONE	DISCIPLINE CODE:	MY

NO.	DESCRIPTION	DATE	BY	CHK'D	APPR.
136	INCORPORATED EC 46008	8/13/13	AI		

APPROVAL SIGNATURES ON FILE

COMPUTER GENERATED DRAWING NOT TO BE HAND REVISED

REV	DESCRIPTION	DATE	BY	CHK'D	APP.
75	INCORPORATED EC-36847	05/08/12	RM		
REVISIONS					

APPROVAL SIGNATURES ON FILE

REVISION
USE .1 SIZE TEXT ONLY

THIS REVISION IS NON CLASS PER CI-240-1.
UPDATED DRAWING TO SHOW RETIRED BORON RECOVERY EQUIPTMENT PER CRS #199806527
RELEASED AS CONSTRUCTED
P.N. 69901-AF.
D.B./Y.J. 02/09/01

71

REFERENCES:

1. PROCESS FLOW DIAGRAM Ⓚ DWG.540.F 897.
2. DEFINITION OF SYMBOLS SEE Ⓚ E.SPEC.067517G REV2 AND Ⓚ ION E. SPEC. 676164 REV.0.
3. INSTALLATION OF INSTRUMENTATION Ⓚ PROC. SPEC. CAP.294367.REV.1

UE&C DWG. NO. REFERENCE DRAWINGS

9321-F-2720.....AUXILIARY COOLANT SYS. SH.1. Ⓚ84J793
9321-F-2738.....REACTOR COOLANT SYSTEM..... Ⓚ110E014
9321-F-2736.....CHEM.& VOLUME CONT. SYS. SH. Ⓚ84J627
9321-F-2737.....CHEM.&VOLUME CONT SYS. SH.2 Ⓚ84J871(SH2)
9321-F-2745.....SAMPLING SYSTEM..... Ⓚ541F236(SH3)
9321-F-2719.....WASTE DISPOSAL SYS. SH.1. Ⓚ540F902
9321-F-2522.....SAFETY INJECTION SYSTEM..... Ⓚ84J729
9321-F-2728.....NUCLEAR EQUIPMENT DRAINS..... Ⓚ84J730
9321-F-2723.....NITROGEN TO NUCLEAR EQUIP... Ⓚ84J918
9321-F-2727.....NUCLEAR EQUIPMENT VENTS.....
9321-F-2725.....AUTOMATIC GAS ANALYZER SYSTEM.....
9321-C-2016.....FLOW DIAGRAM SYMBOLS

LEGEND:

T - TRIP CLOSED ON HIGH CONTAINMENT PRESSURE.
○ - NO'S. IN HEXAGON ARE NASH ENGR. CO. NOS.

NOTES:

2. ALL PIPING IN THIS AREA IS ONE INCH CLASS 152R UNLESS OTHERWISE NOTED.
3. VALVE ACTUATED AUTOMATICALLY BY GAS ANALYZER I & C CHANNEL NO. AC-1067.
4. ••• INDICATES CONTROL VALVE HAS ADDITIONAL ASSOCIATED CONTROL EQUIPMENT & IS REPRESENTED ON CONTROL VALVE HOOK-UP DETAIL DWG. 9321-F-7056.

   AND ZC-10398-1S ARE NOT ELECTRICALLY CONNECTED.
5. THE QUALITY GROUP A, B, C AND SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN.

NOTE:
EVERYTHING ON THIS DRAWING IS PART OF GASEOUS WASTE PROCESSING SYSTEM(GWPS). LISTED IN EXHIBIT "A" CI-240-1 EXCEPT AS SPECIFICALLY INDICATED HEREIN
H2 HYDROGEN SUPPLY TO NUCLEAR EQUIPMENT.

RETIRED IN PLACE

OUTSIDE GAS DECAY TANK CUBICLE
INSIDE GAS DECAY TANK CUBICLE
LARGE GAS DECAY TANKS

SMALL GAS DECAY TANKS

9321-F-2723 NITROGEN

HYDROGEN SUPPLY MANIFOLD #21

SOUTH

NORTH

REVISION SIGNATURES

REV.	DES	ENG
71		G. BHALLA 02/09/2001

DWG. NO: 9321-F-2730-75
DWG. SIZE: A
DWG. TYPE: COMPANY
Entergy Nuclear Northeast
STATION: INDIAN POINT
BORO: WESCHESTER
TITLE: FLOW DIAGRAM WASTE
DISPOSAL SYSTEM SHT. No. 2
UFSAR FIG. No. 11.1-1 (SHT. 2)

APPROVALS

ENGINEERING

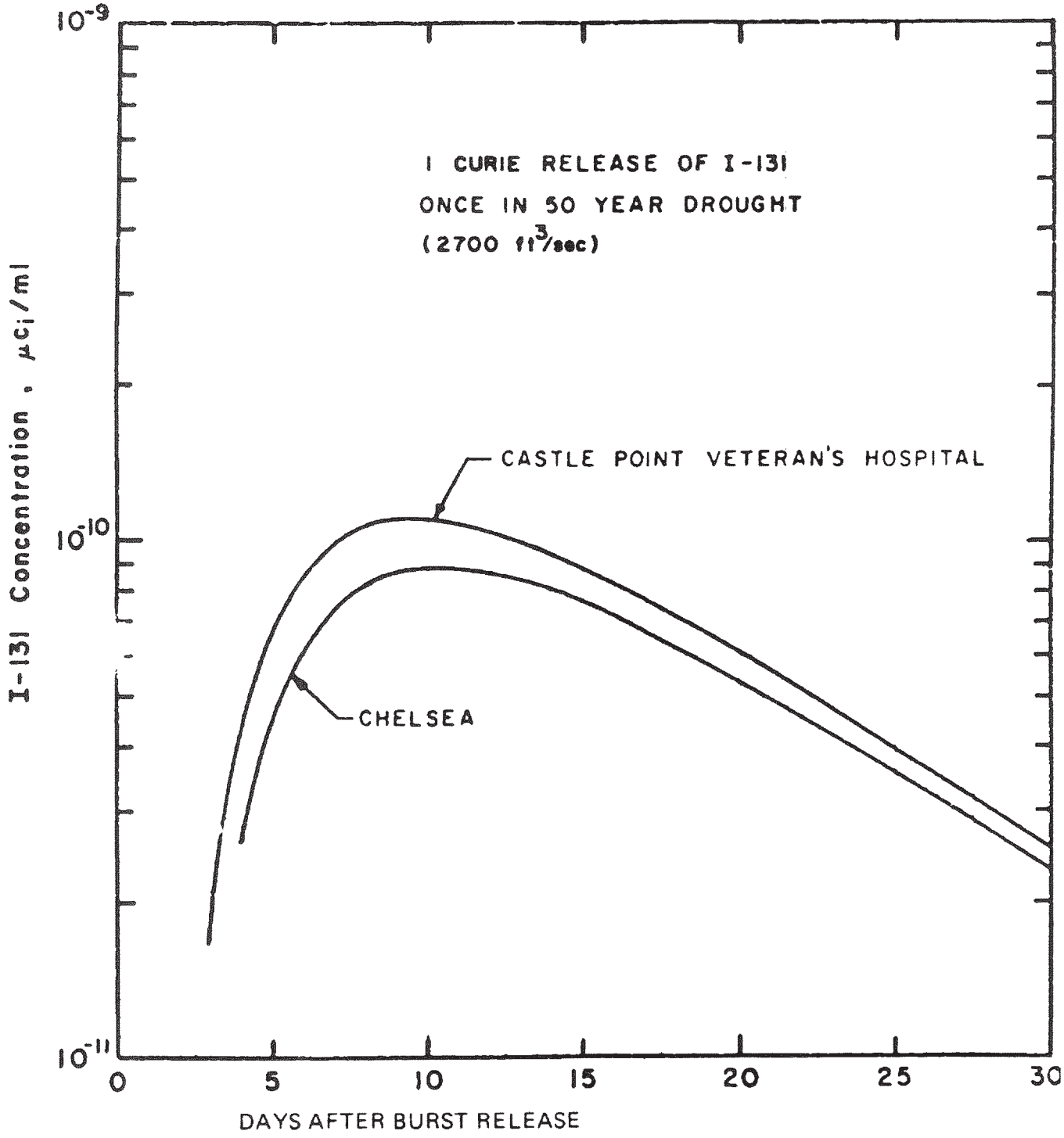
ENGINEER MANAGER:
DISCIPLINE ENGINEER:

DESIGN

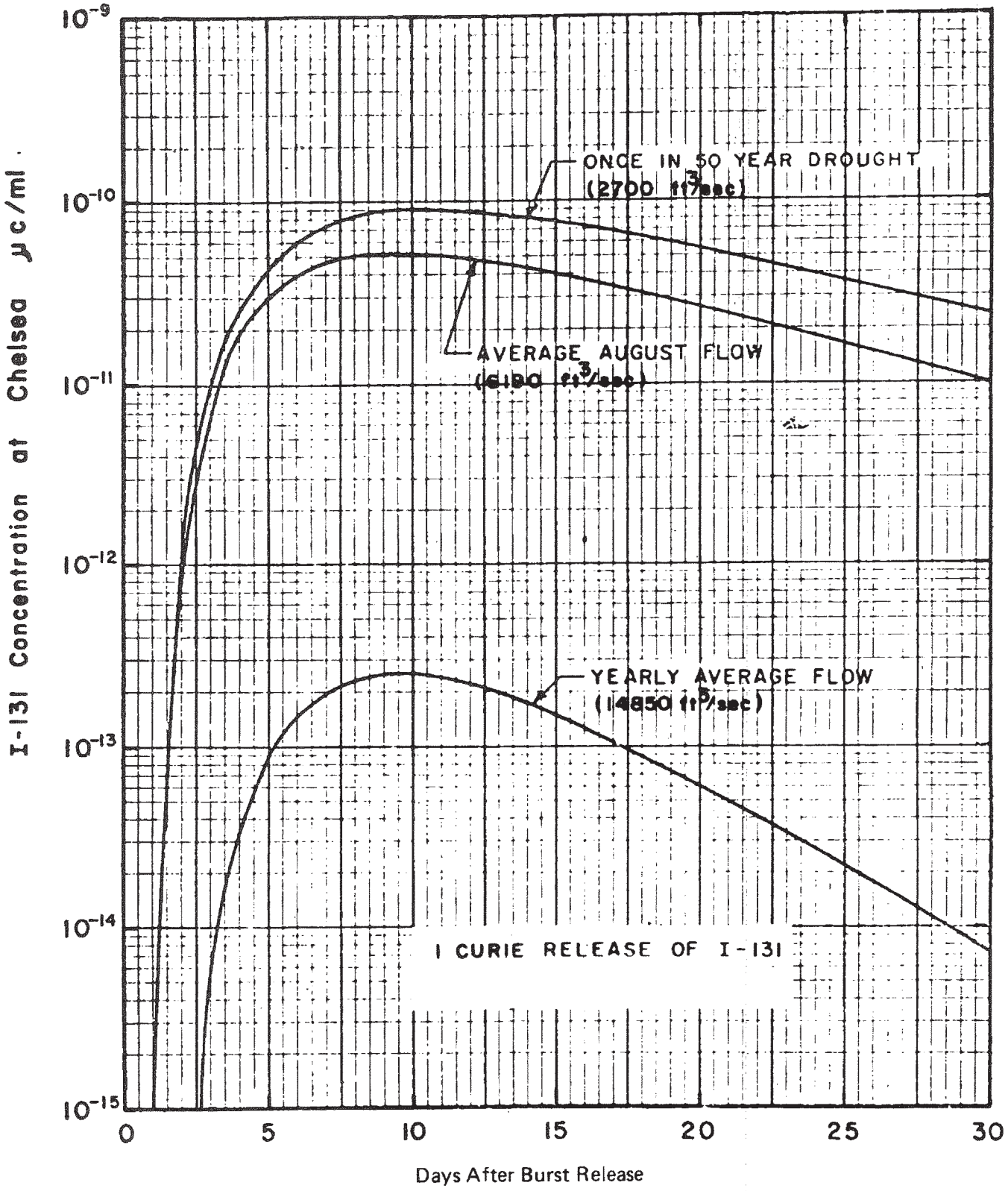
DESIGN MANAGER: W.J. KING/G.C. 1-13-88
DESIGN SUPERVISOR: F.A. 1-13-88
DRAWN BY: GIBBS & HILL
DESIGN CHECKER: A.G. 1-13-88
SCALE: NONE
DISCIPLINE CODE: MY

COMPUTER GENERATED DRAWING NOT TO BE HAND REVISED

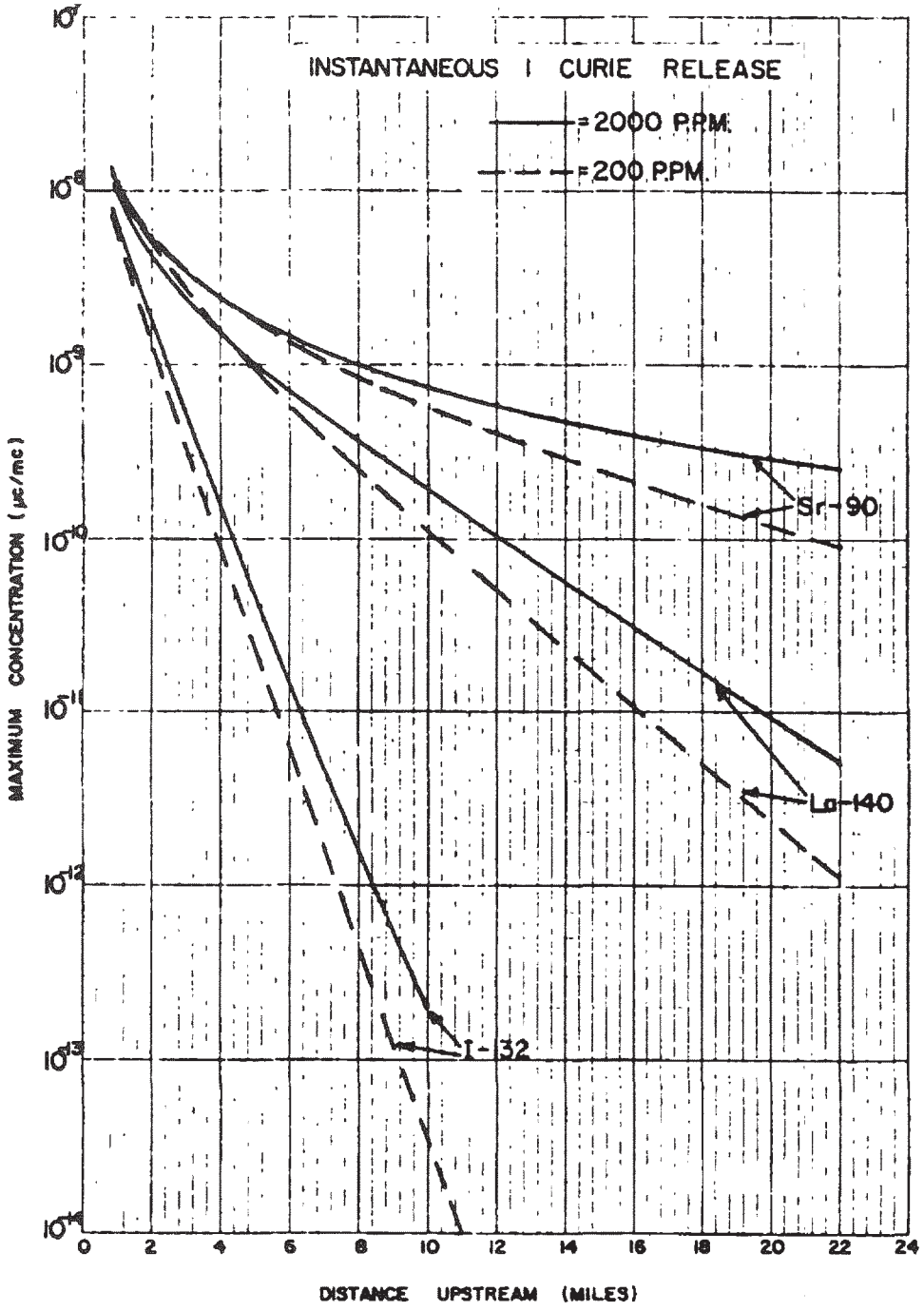
9321-F-2730-75



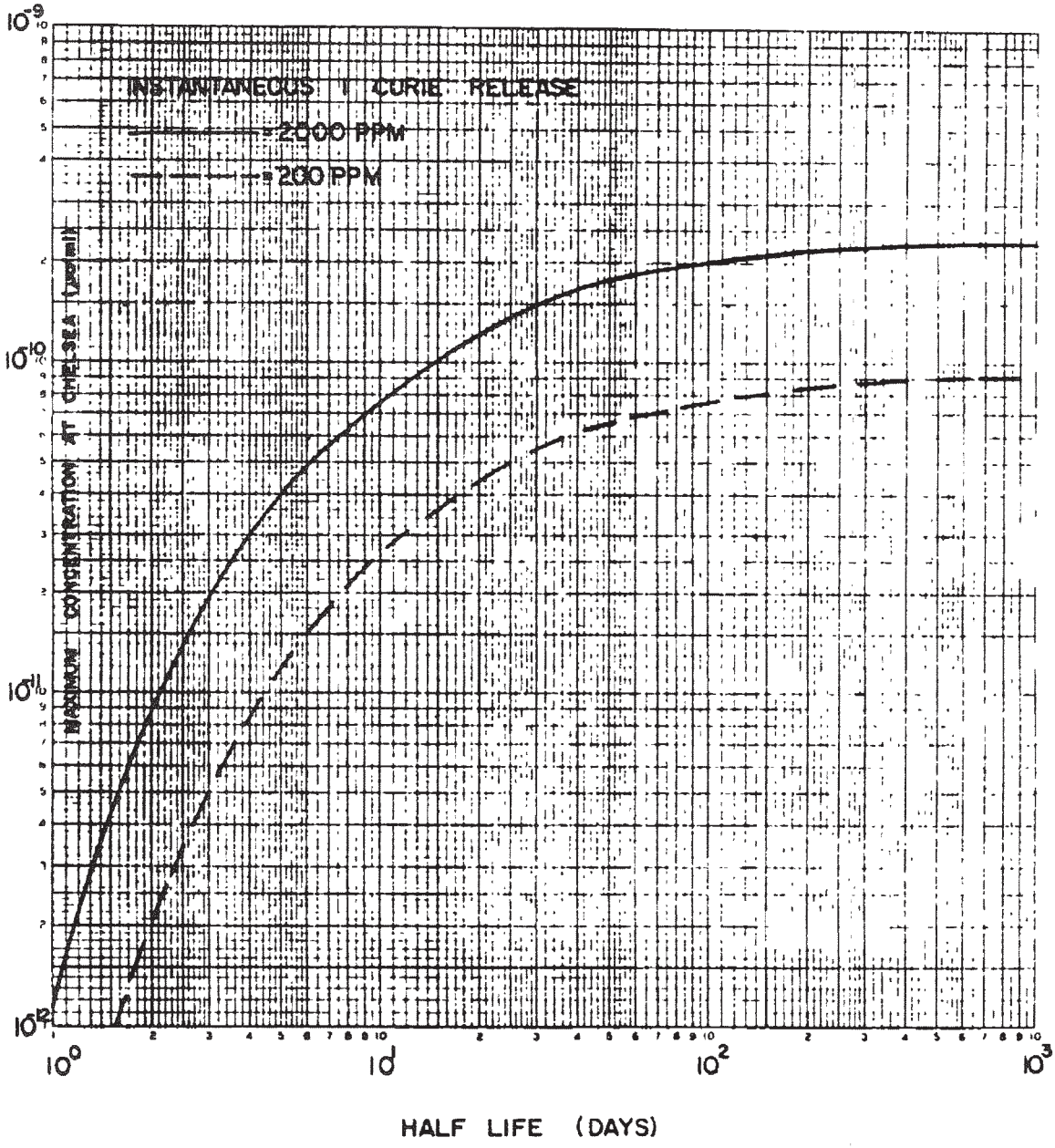
INDIAN POINT UNIT No. 2	
UFSAR FIGURE 11B-1 IODINE-131 CONCENTRATION VS DAYS AFTER BURST RELEASE FROM INDIAN POINT FOR 1 CURIE RELEASE	
MIC. No. 1999MC3945	REV. No. 17A



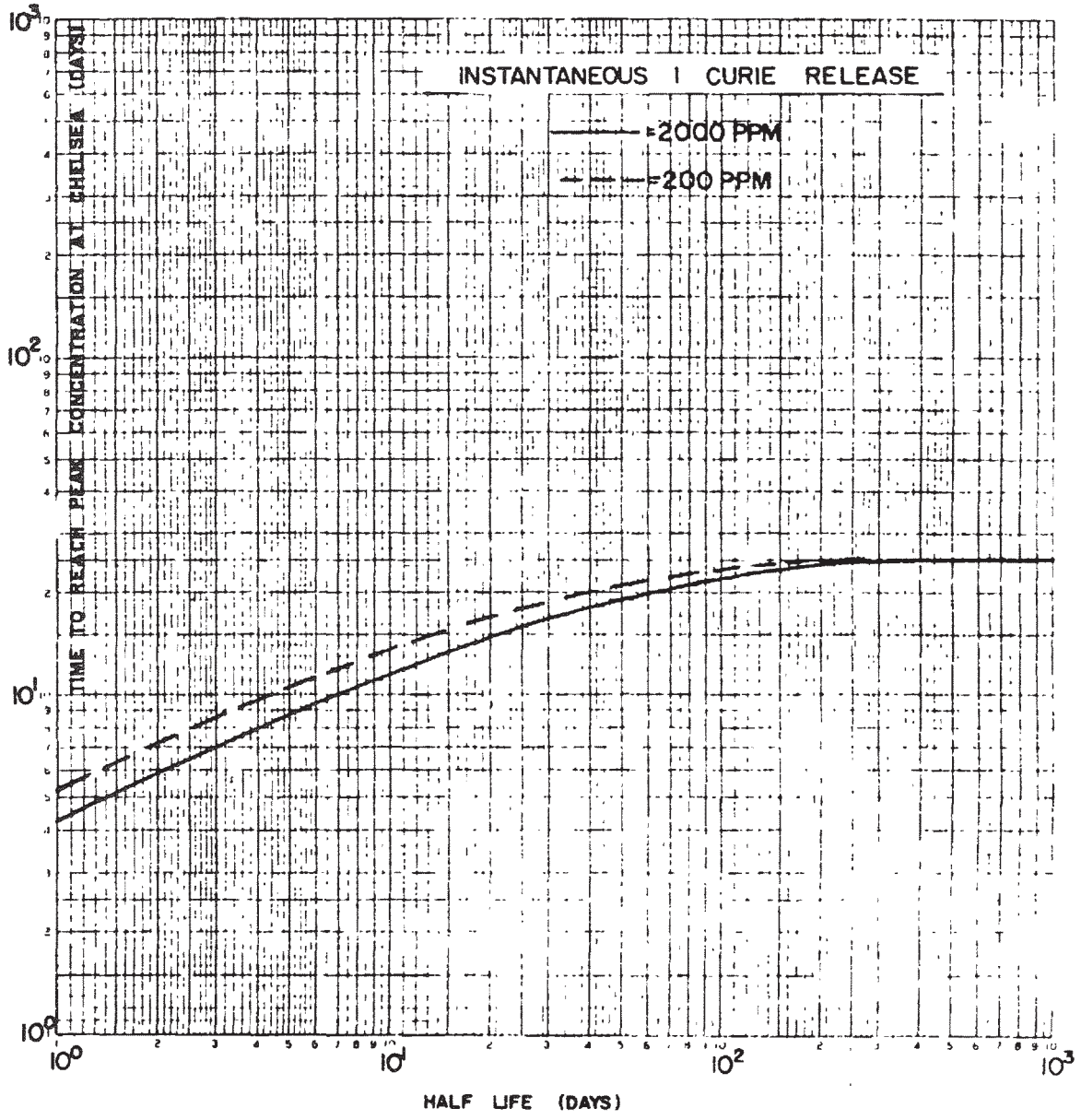
INDIAN POINT UNIT No. 2	
UFSAR FIGURE 11B-2	
IODINE-131 CONCENTRATION AT CHELSEA vs DAYS AFTER BURST RELEASE FROM INDIAN POINT FOR 1 CURIE RELEASE	
MIC. No. 1999MC3946	REV. No. 17A



INDIAN POINT UNIT No. 2	
UFSAR FIGURE 11B–3	
MAXIMUM CONCENTRATION vs DISTANCE UPSTREAM FOR 1 CURIE RELEASE	
MIC. No. 1999MC3947	REV. No. 17A



INDIAN POINT UNIT No. 2	
UFSAR FIGURE 11B-4 MAXIMUM CONCENTRATION AT CHELSEA vs HALF-LIFE FOR 1 CURIE RELEASE	
MIC. No. 1999MC3948	REV. No. 17A



INDIAN POINT UNIT No. 2	
UFSAR FIGURE 11B–5 TIME TO REACH PEAK CONCENTRATION AT CHELSEA vs HALF–LIFE FOR 1 CURIE RELEASE	
MIC. No. 1999MC3949	REV. No. 17A