2008 RO License Exam

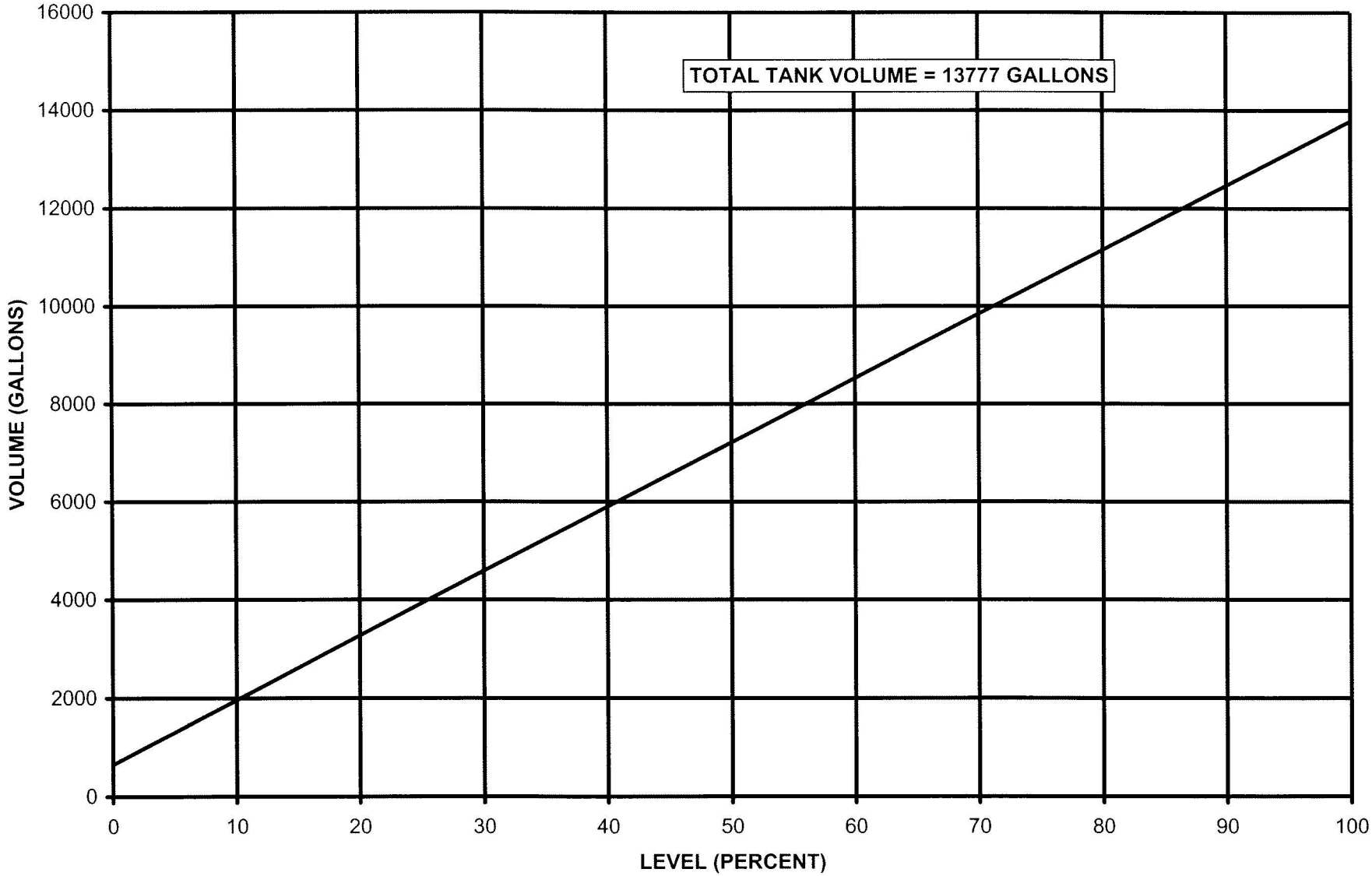
References

Table of Contents

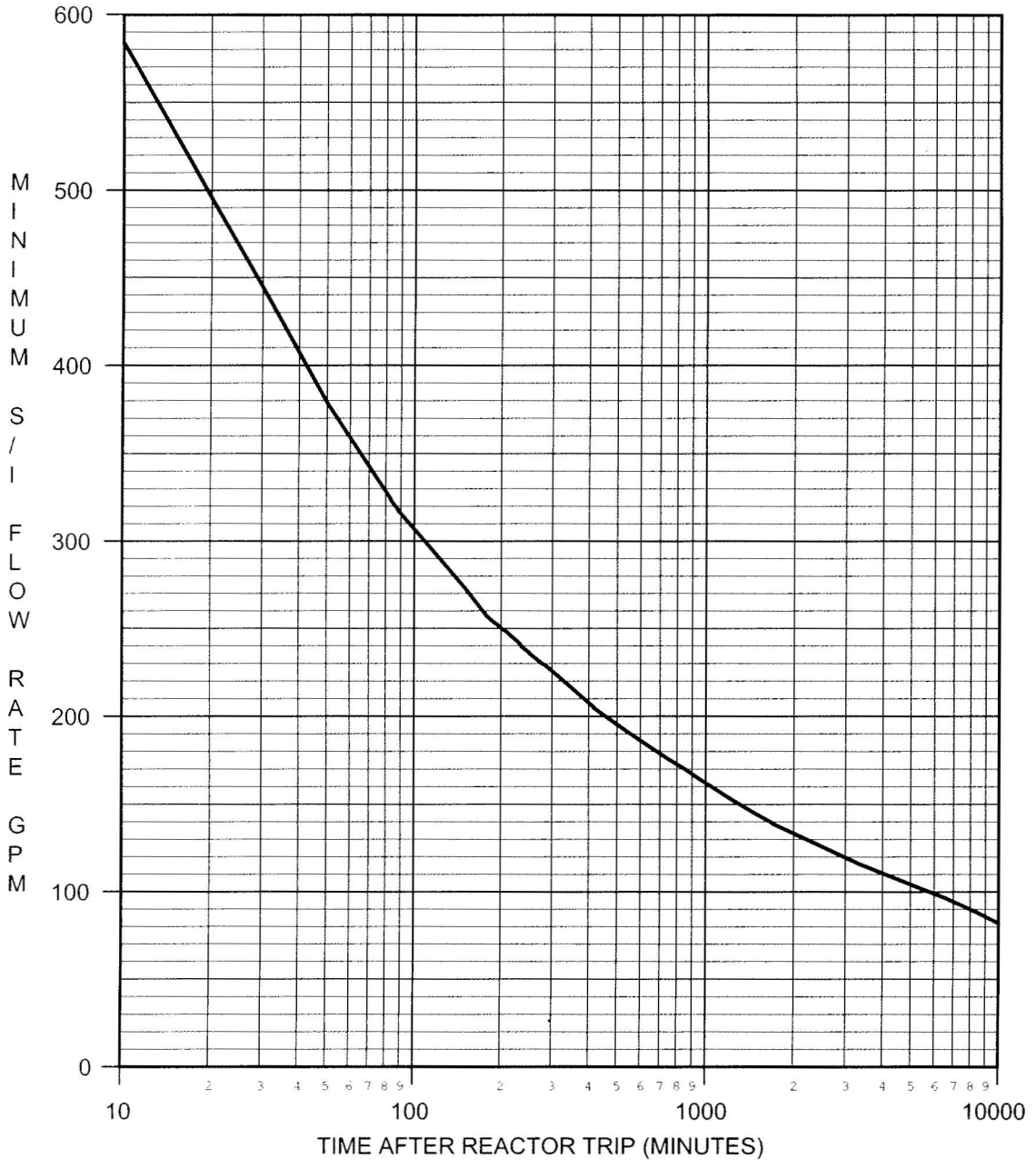
The following references are provided:

- MNS U-1 Data Book Curve 7.38
- Copy of the Steam Tables
- EP/1/A/5000/ECA-1.1 Enc. 9

OP/1/A/6100/22
ENCLOSURE 4.3
CURVE 7.38
PRESSURIZER
(VOLUME vs. TANK LEVEL)



This data is also available on the OAC.


600
500
400
300
200
100
0
MINIMUM S/I FLOW RATE GPM
10
100
1000
10000
TIME AFTER REACTOR TRIP (MINUTES)

2008 SRO License Exam

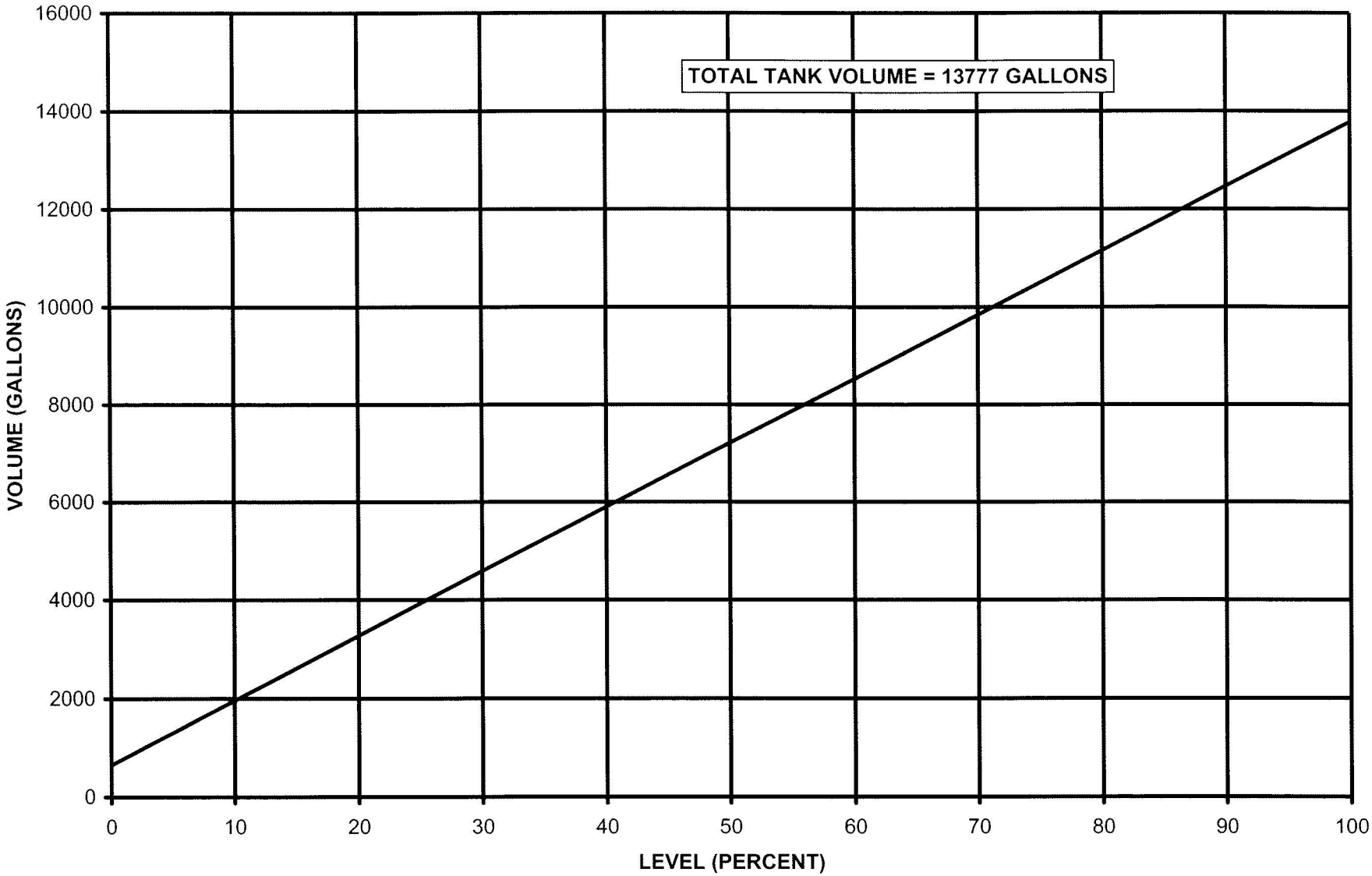
References

Table of Contents

The following references are provided:

- MNS U-1 Data Book Enc 4.3 Curve 7.38
- Copy of the Steam Tables
- EP/1/A/5000/ECA-1.1 Enc. 9
- MNS U-1 Data Book Enc 4.3 Curve 7.31
- Copy of Tech Spec 3.8.6
- Tech Spec Figure 3.4.16-1

OP/1/A/6100/22
ENCLOSURE 4.3
CURVE 7.38
PRESSURIZER
(VOLUME vs. TANK LEVEL)



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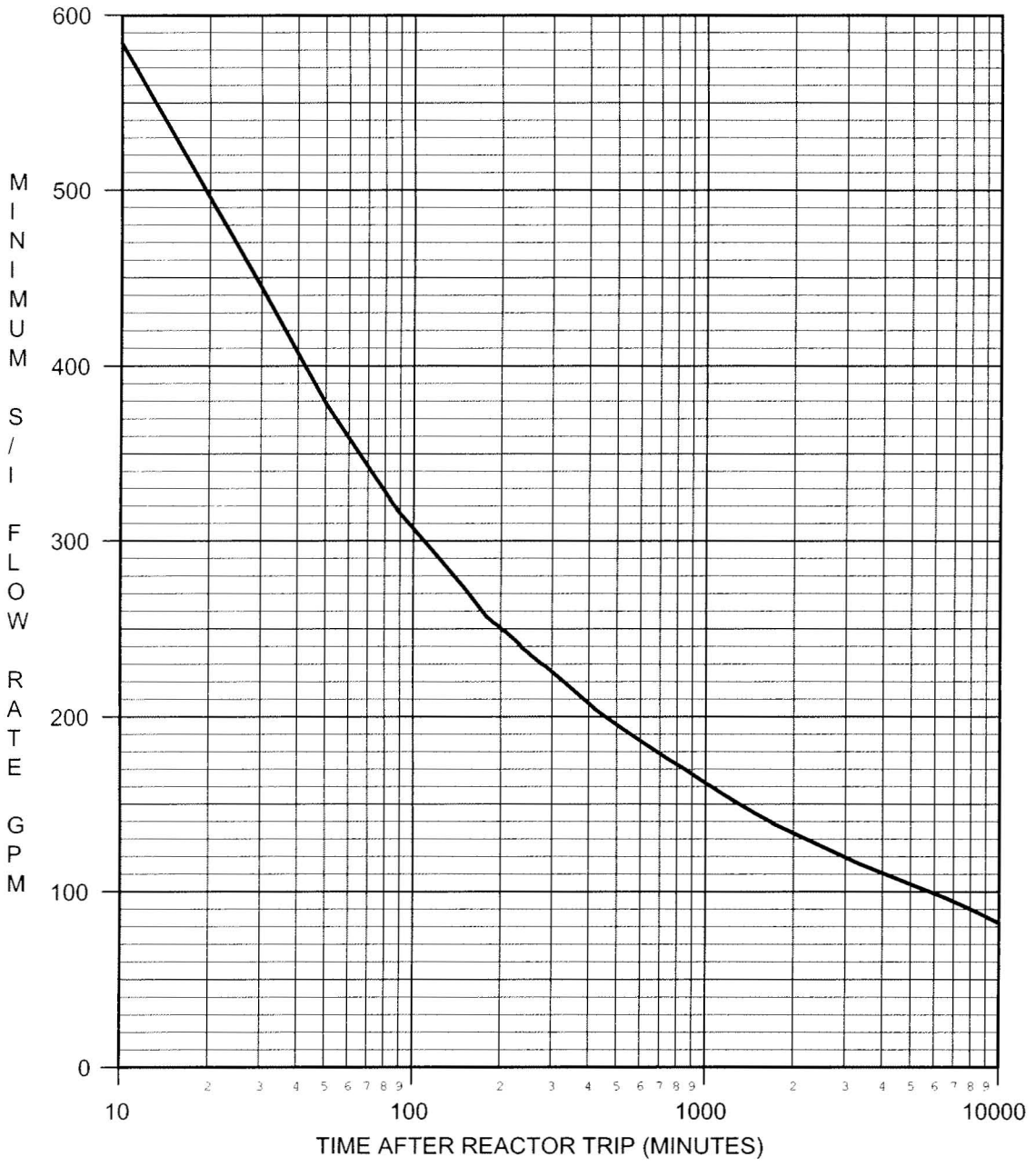
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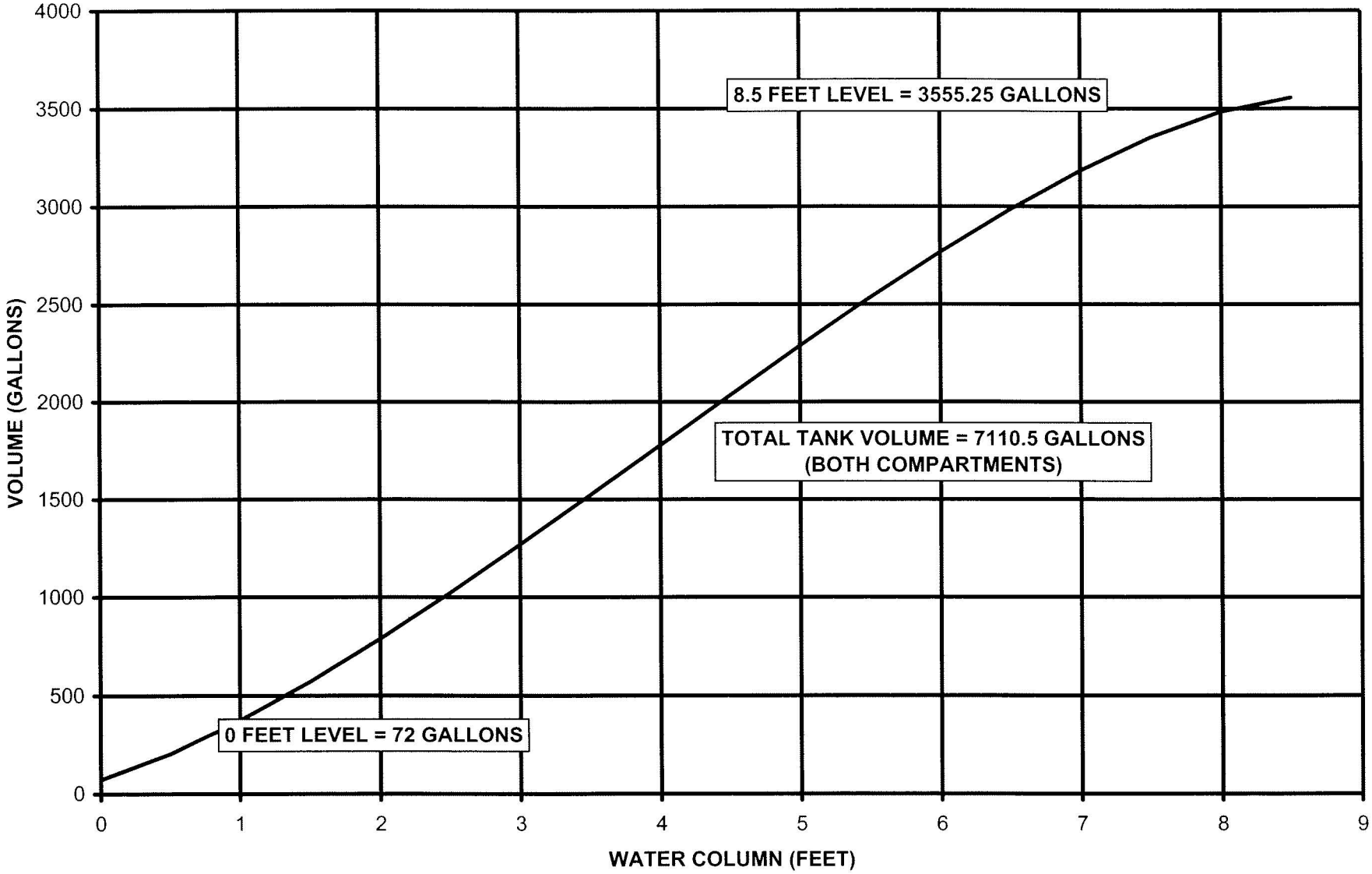
500
400
300
200
100
0
MINIMUM S/I FLOW RATE GPM
10
100
1000
10000
TIME AFTER REACTOR TRIP (MINUTES)

OP/1/A/6100/22
ENCLOSURE 4.3
CURVE 7.31
COMPONENT COOLING SURGE TANK
(VOLUME vs. COMPARTMENT LEVEL)



This data is also available on the OAC.

3.8 ELECTRICAL POWER SYSTEMS

3.8.6 Battery Cell Parameters

LCO 3.8.6 Battery cell parameters for the channels of DC batteries shall be within the limits of Table 3.8.6-1.

APPLICABILITY: When associated channels of DC sources are required to be OPERABLE.

ACTIONS

----------NOTE----------
Separate Condition entry is allowed for each battery.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more batteries with one or more battery cell parameters not within Category A or B limits.	A.1 Verify pilot cells electrolyte level and float voltage meet Table 3.8.6-1 Category C limits.	1 hour
	AND	
	A.2 Verify battery cell parameters meet Table 3.8.6-1 Category C limits.	24 hours AND Once per 7 days thereafter
	AND	
	A.3 Restore battery cell parameters to Category A and B limits of Table 3.8.6-1.	31 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Required Action and associated Completion Time of Condition A not met. OR One or more batteries with average electrolyte temperature of the representative cells < 60°F. OR One or more batteries with one or more battery cell parameters not within Category C values.	B.1 Declare associated battery inoperable.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.6.1	Verify battery cell parameters meet Table 3.8.6-1 Category A limits.	7 days

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.6.2	Verify battery cell parameters meet Table 3.8.6-1 Category B limits.	92 days AND Once within 7 days after a battery discharge < 110 V AND Once within 7 days after a battery overcharge > 150 V
SR 3.8.6.3	Verify average electrolyte temperature of representative cells is ≥ 60°F.	92 days

Table 3.8.6-1 (page 1 of 1)
Battery Cell Parameters Requirements

PARAMETER	CATEGORY A: LIMITS FOR EACH DESIGNATED PILOT CELL	CATEGORY B: LIMITS FOR EACH CONNECTED CELL	CATEGORY C: ALLOWABLE LIMITS FOR EACH CONNECTED CELL
Electrolyte Level	> Minimum level indication mark, and ≤ ¼ inch above maximum level indication mark[a]	> Minimum level indication mark, and ≤ ¼ inch above maximum level indication mark[a]	Above top of plates, and not overflowing
Float Voltage	≥ 2.13 V	≥ 2.13 V	> 2.07 V
Specific Gravity[b][c]	≥ 1.200	≥ 1.195 <u>AND</u> Average of all connected cells > 1.205	Not more than 0.020 below average of all connected cells or ≥ 1.195 <u>AND</u> Average of all connected cells ≥ 1.195

(a) It is acceptable for the electrolyte level to temporarily increase above the specified maximum during equalizing charges provided it is not overflowing.

(b) Corrected for electrolyte temperature and level. Level correction is not required, however, when battery charging is < 2 amps when on float charge.

(c) A battery charging current of < 2 amps when on float charge is acceptable for meeting specific gravity limits following a battery recharge, for a maximum of 7 days. When charging current is used to satisfy specific gravity requirements, specific gravity of each connected cell shall be measured prior to expiration of the 7 day allowance.

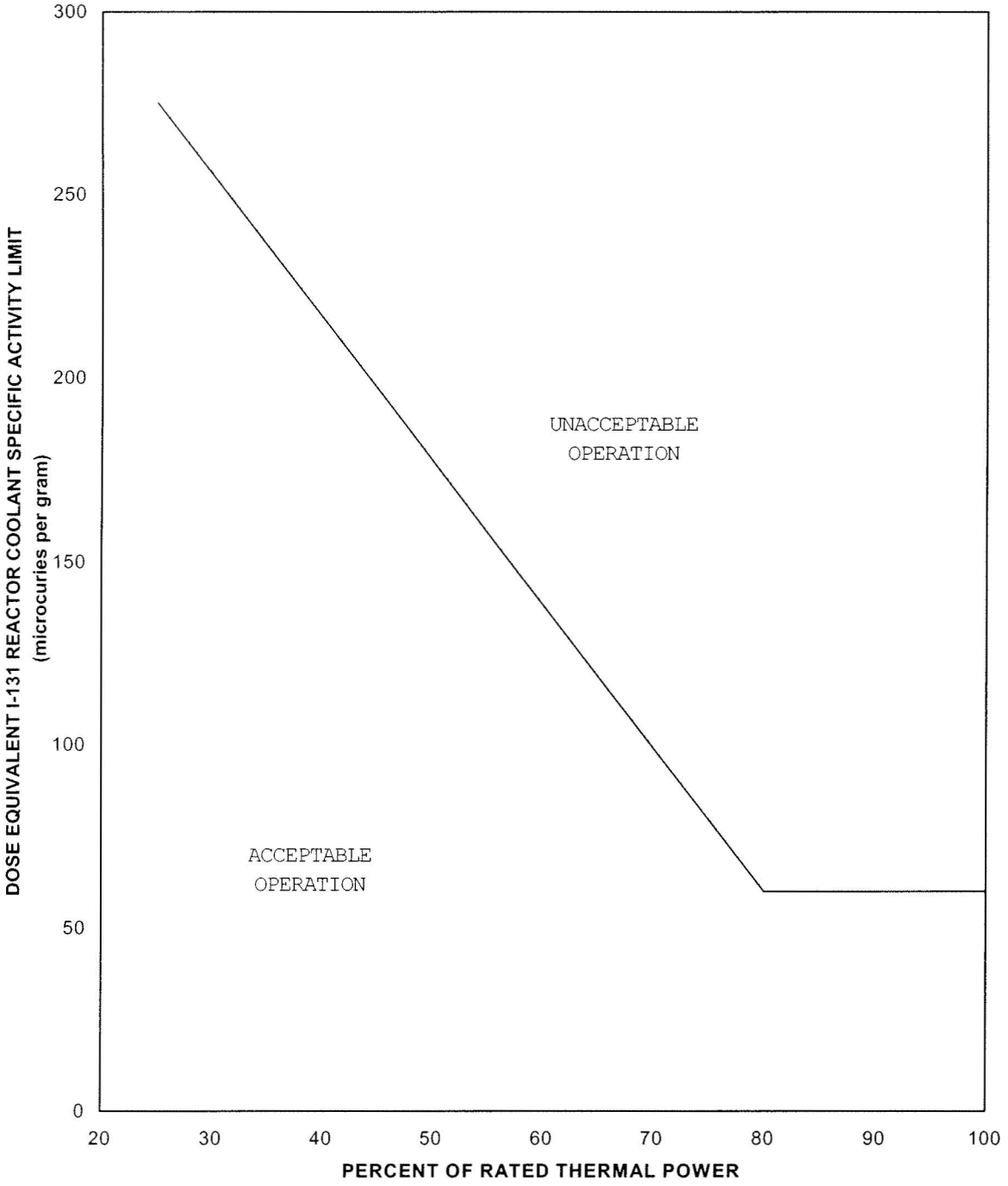


Figure 3.4.16-1 (page 1 of 1)
Reactor Coolant DOSE EQUIVALENT I-131 Specific Activity
Limit Versus Percent of RATED THERMAL POWER