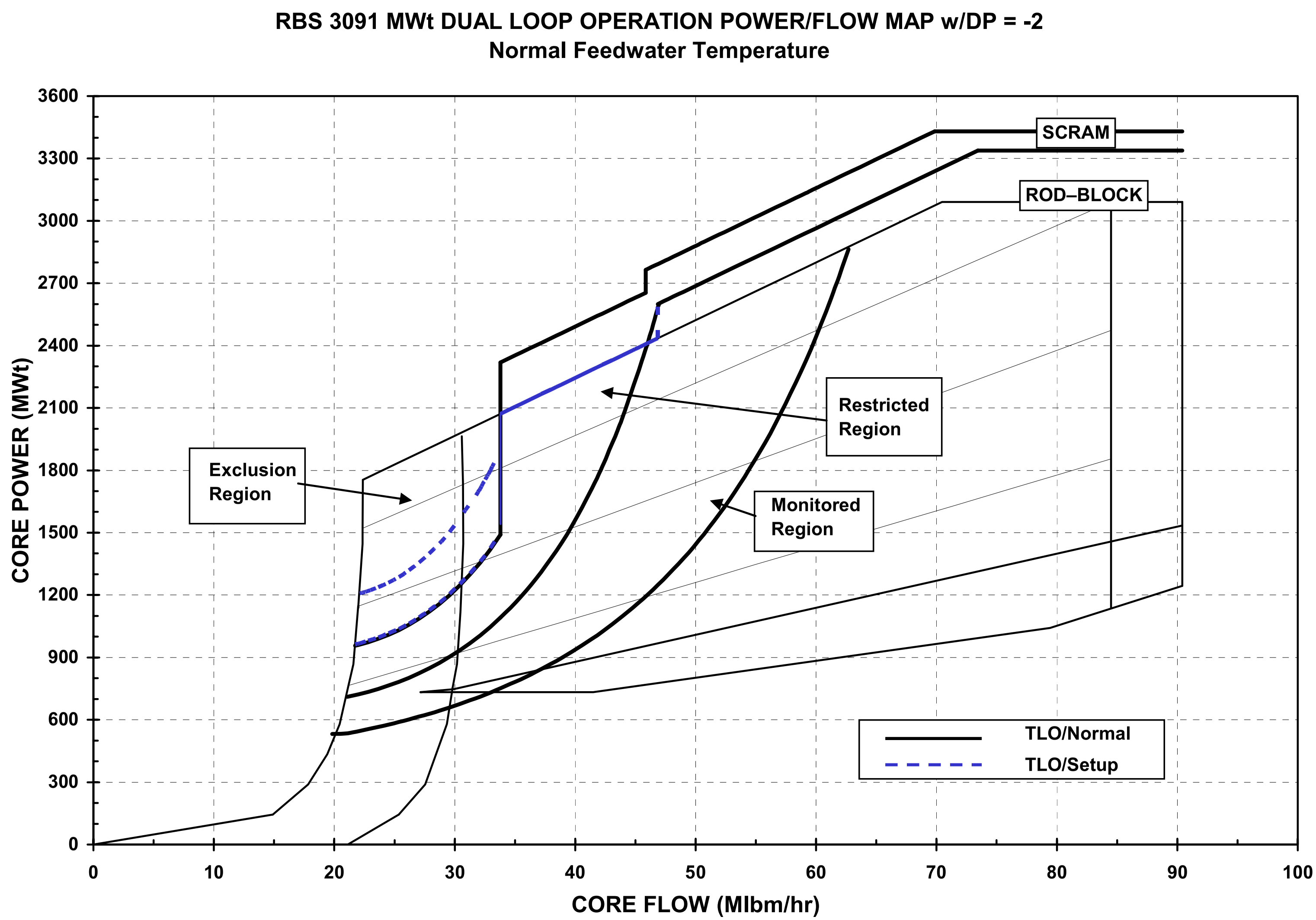
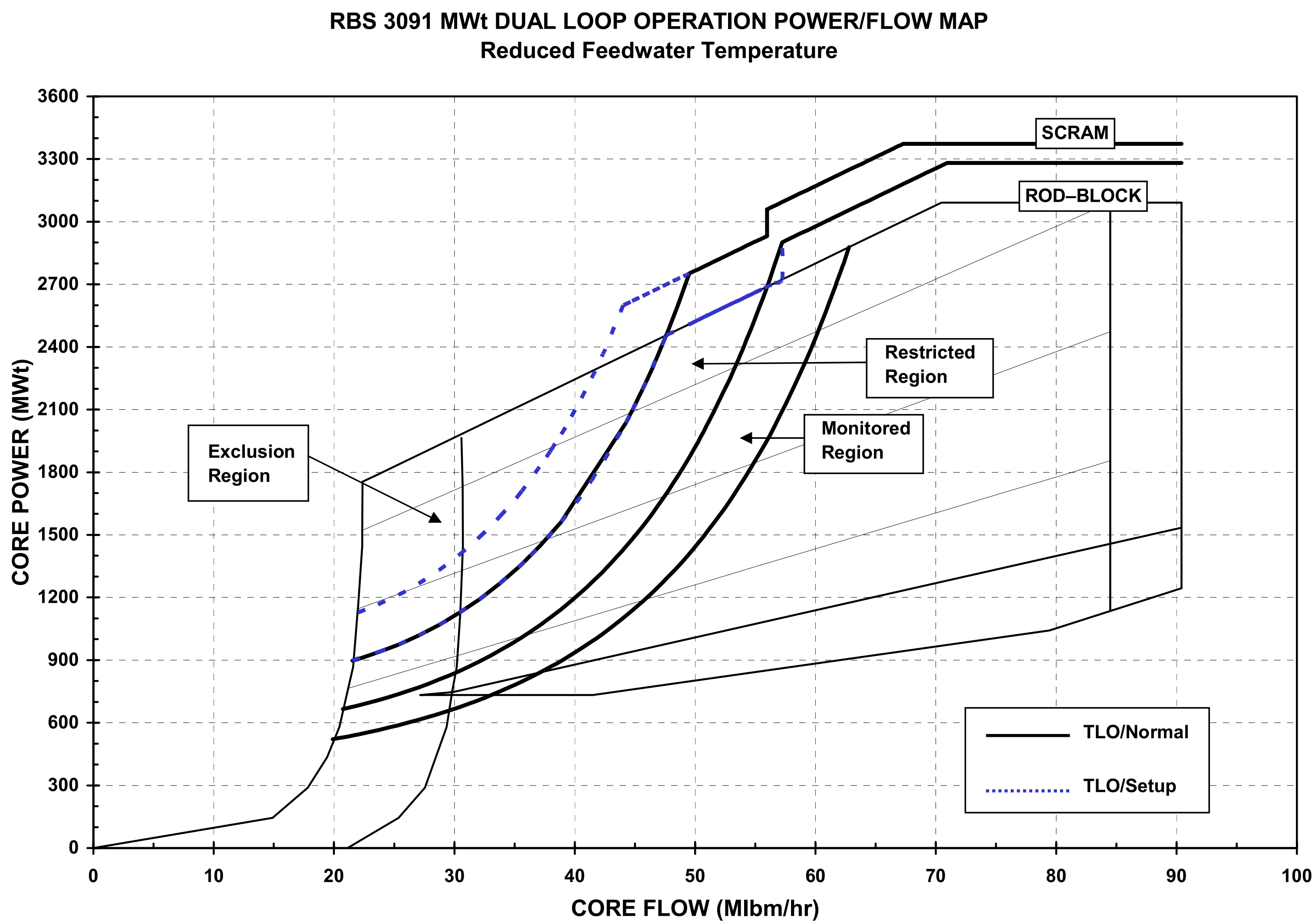
During the exam review process for the written exam, there were two questions that required open references as documented in ES-401-9 form from the draft submittal. However, during the subsequent changes to the written exam for final approval, there were 8 questions that required an open reference on the written exam. These references are included in the references file uploaded to Adams with this note to file.

RBS DUAL LOOP OPERATION POWER/FLOW MAPS



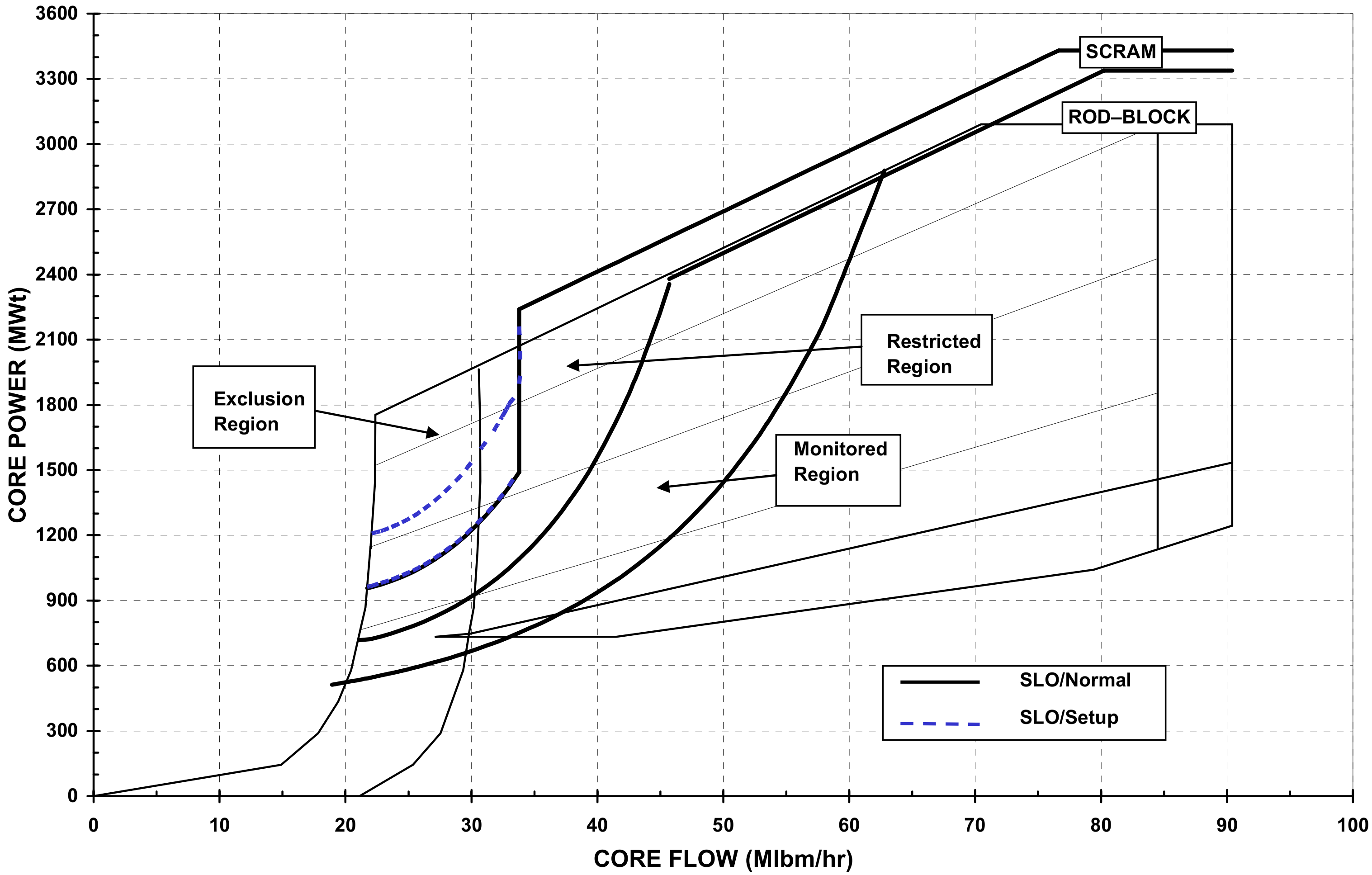
RBS DUAL LOOP OPERATION POWER/FLOW MAPS



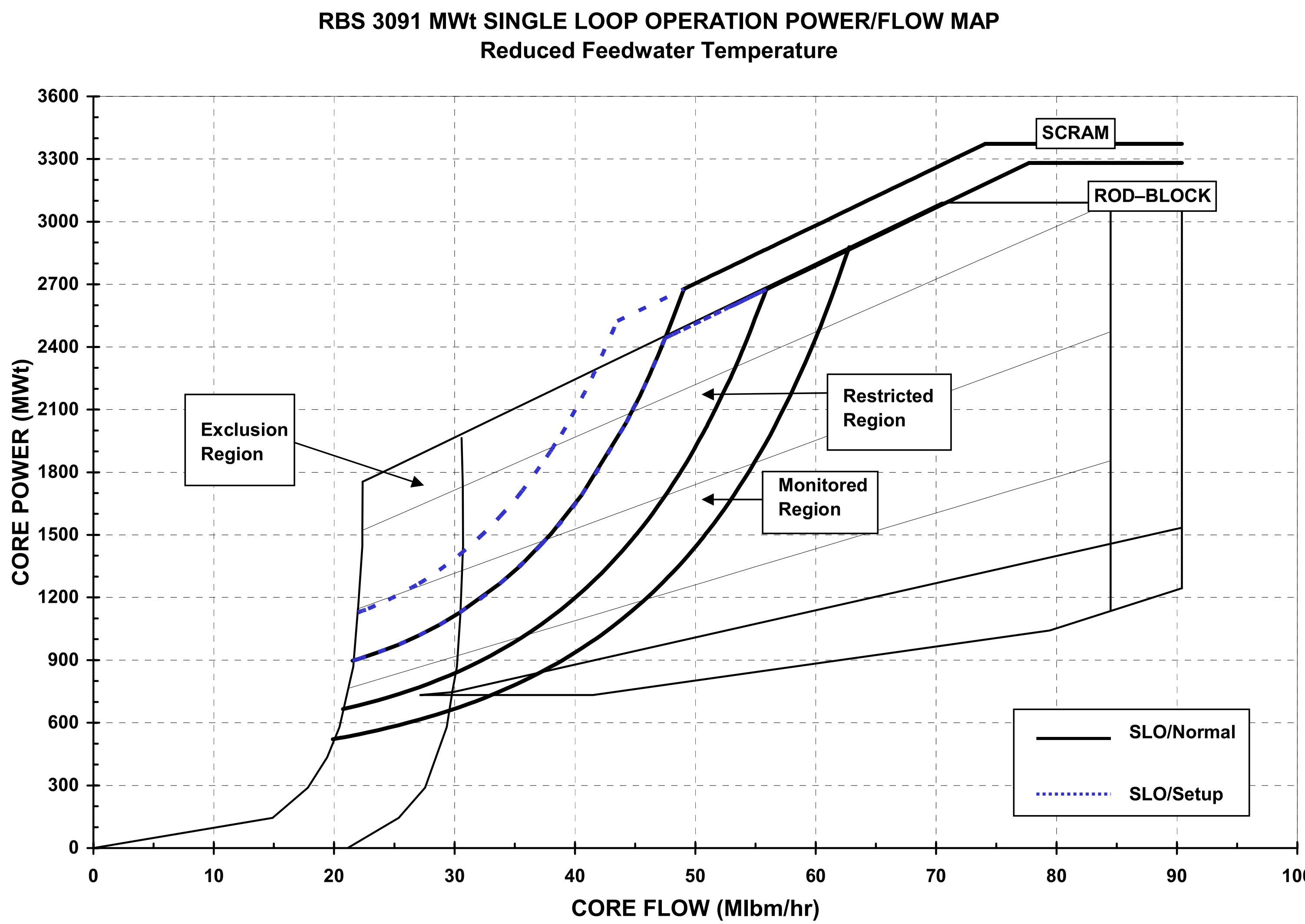
(Used when below the - 50°F Curve of AOP-0007, Loss of Feedwater Heating)

RBS SINGLE LOOP OPERATION POWER/FLOW MAPS

RBS 3091 MWt SINGLE LOOP OPERATION POWER/FLOW MAP w/DP=-2
Normal Feedwater Temperature

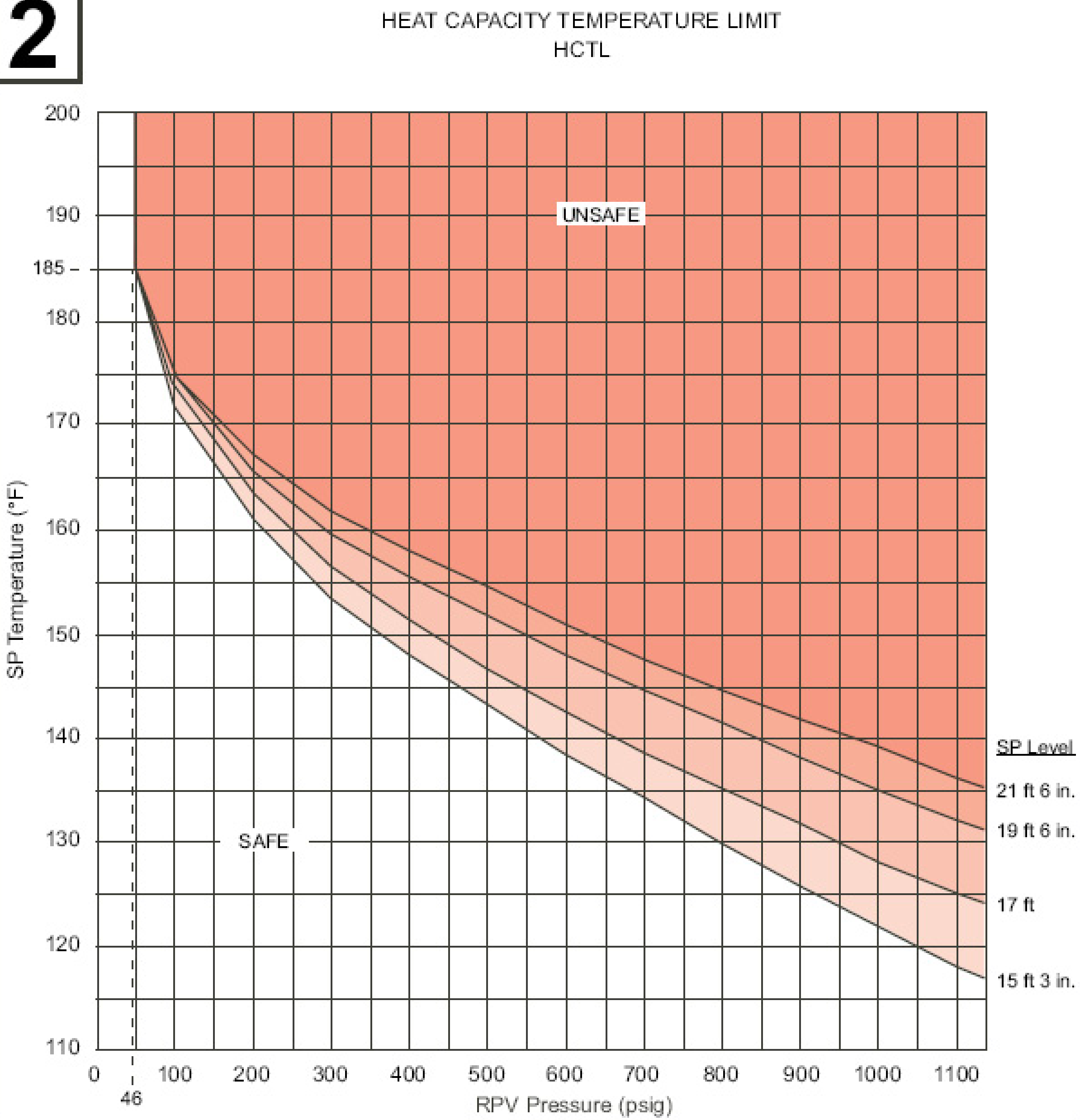


RBS SINGLE LOOP OPERATION POWER/FLOW MAPS



(Used when below the - 50°F Curve of AOP-0007, Loss of Feedwater Heating)

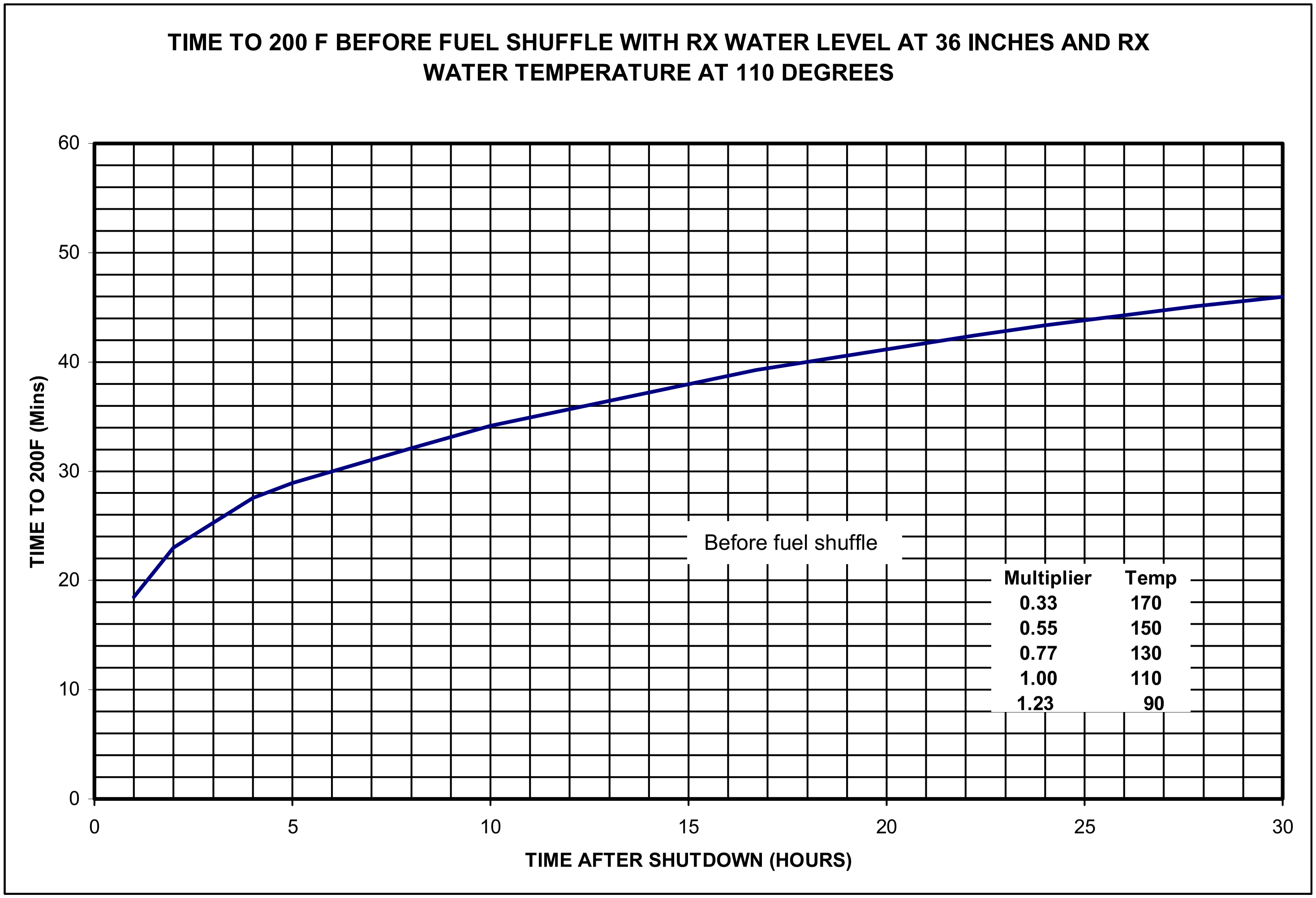
2


HEAT CAPACITY TEMPERATURE LIMIT
HCTL
UNSAFE
SAFE
SP Temperature (°F)
200
190
185 –
180
170
160
150
140
130
120
110
0
46
100
200
300
400
500
600
700
800
900
1000
1100
RPV Pressure (psig)
SP Level
21 ft 6 in.
19 ft 6 in.
17 ft
15 ft 3 in.

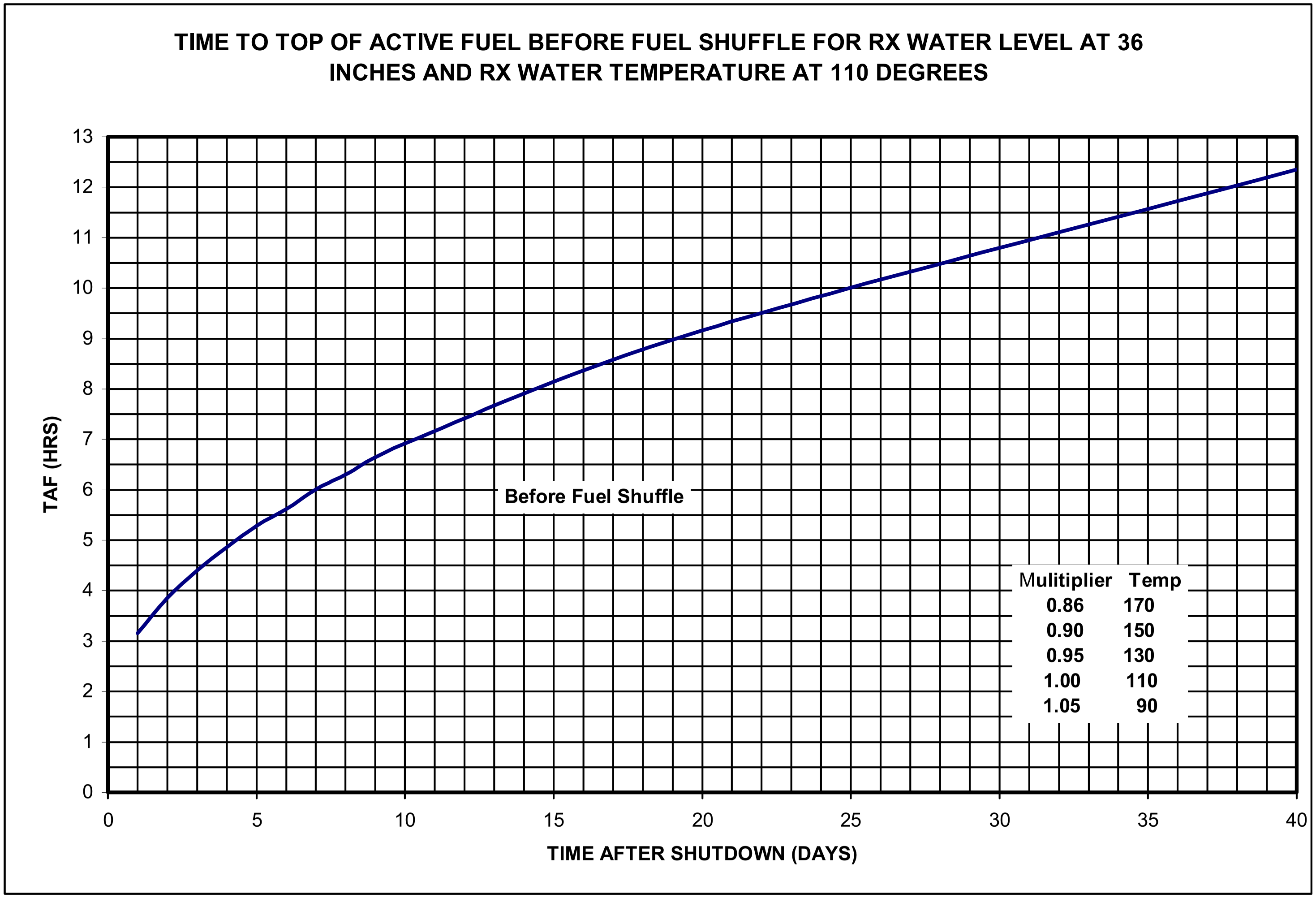
REACTOR COOLDOWN DATA

STEAM TABLE	
RPV Pressure (psig)	Sat. Steam Temperature (°F)
1100	557
1050	552
1000	546
950	540
900	533
850	527
800	520
750	513
700	505
650	497
600	489
550	479
500	470
450	459
400	448
350	435
300	421
250	406
200	388
150	366
100	338
50	298

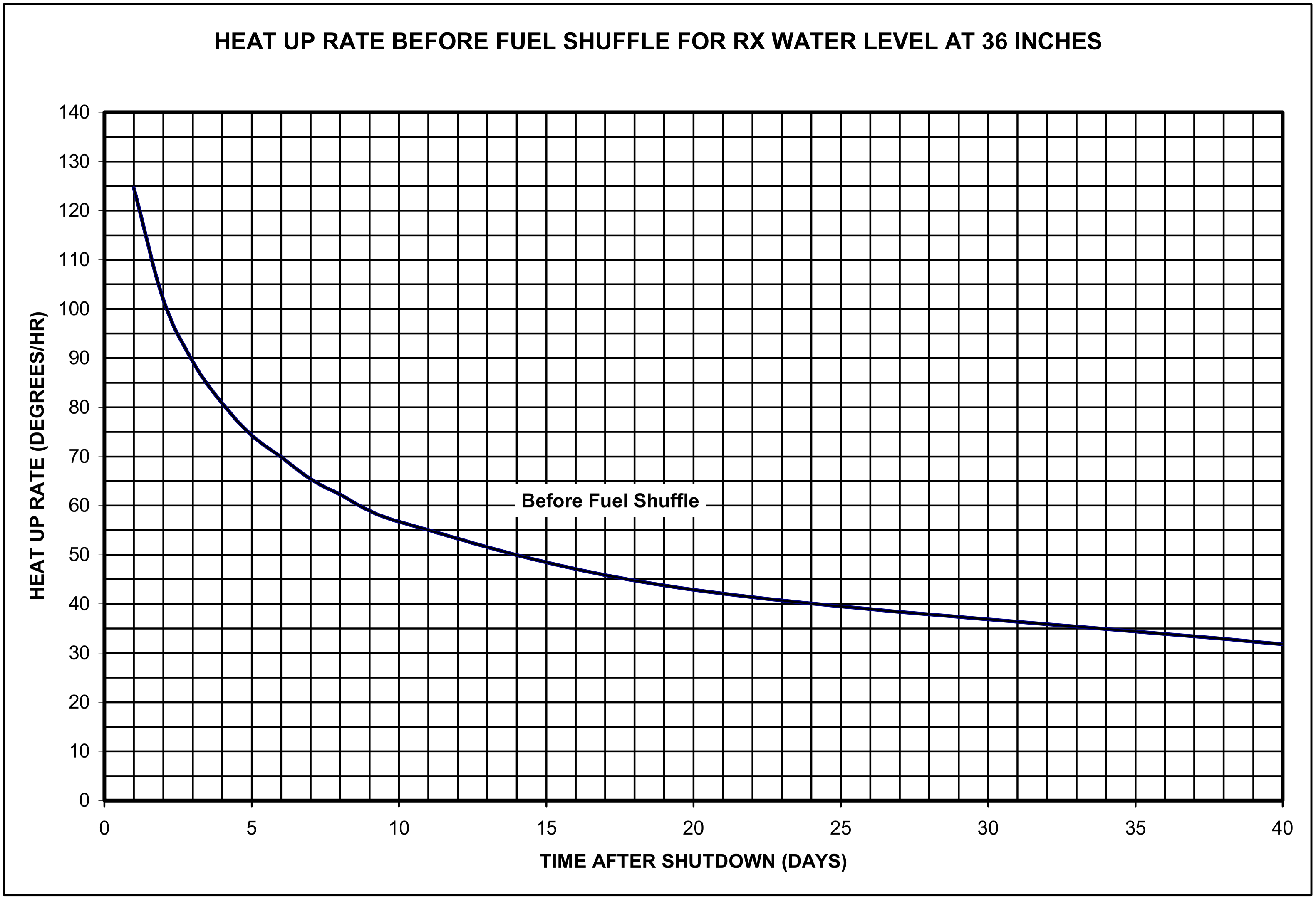
THERMAL HYDRAULIC CURVES



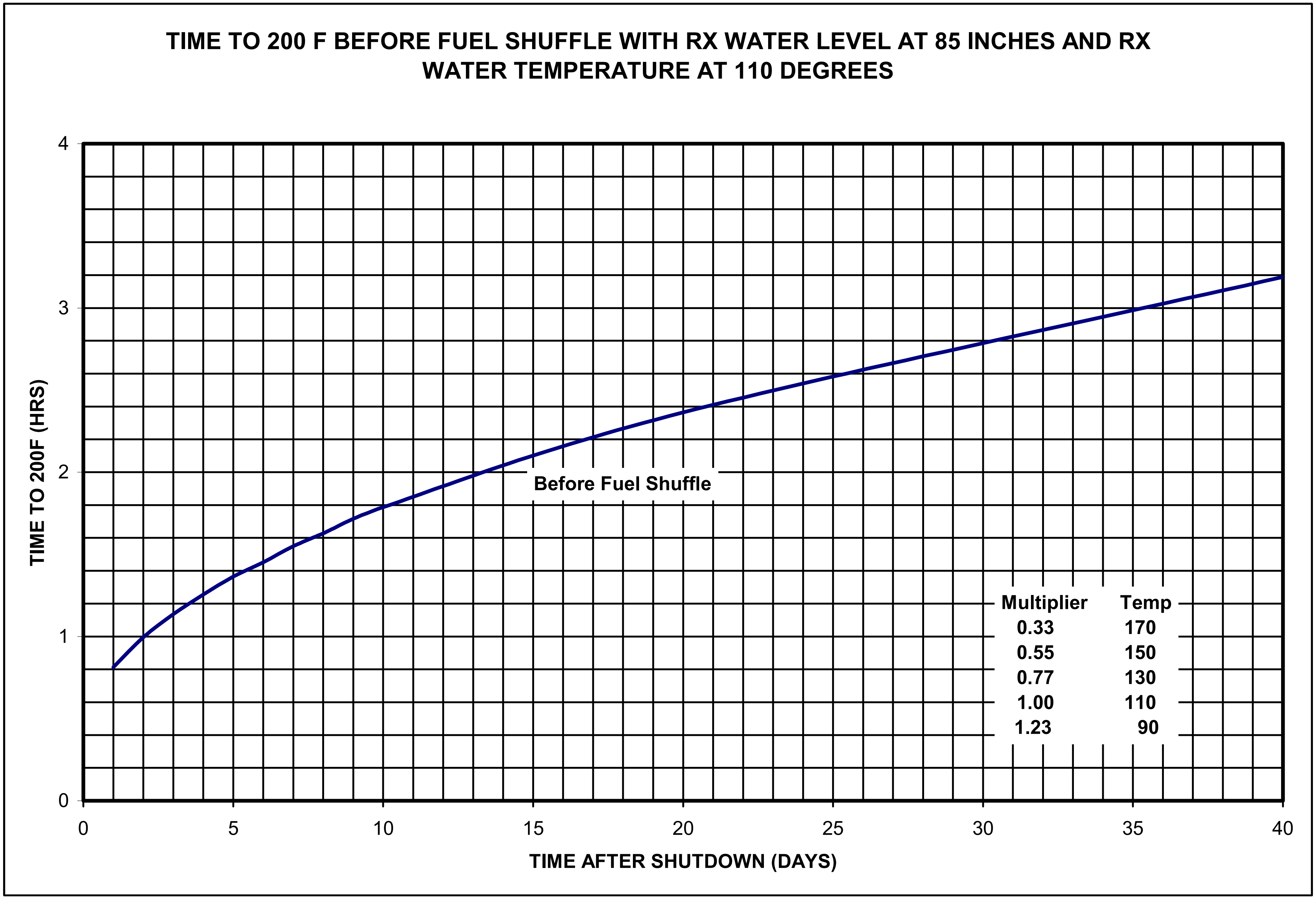
THERMAL HYDRAULIC CURVES



THERMAL HYDRAULIC CUVES

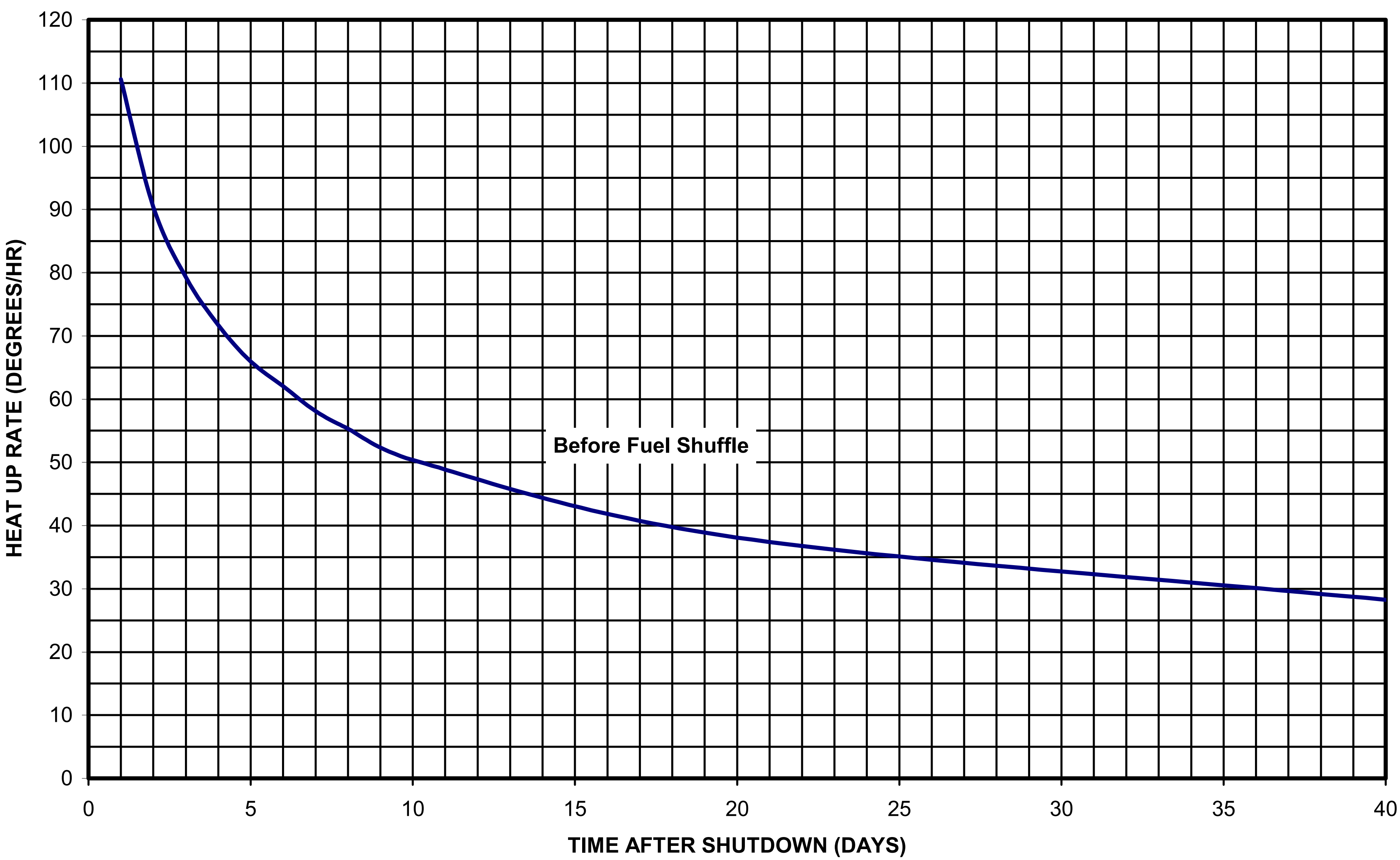


THERMAL HYDRAULIC CURVES

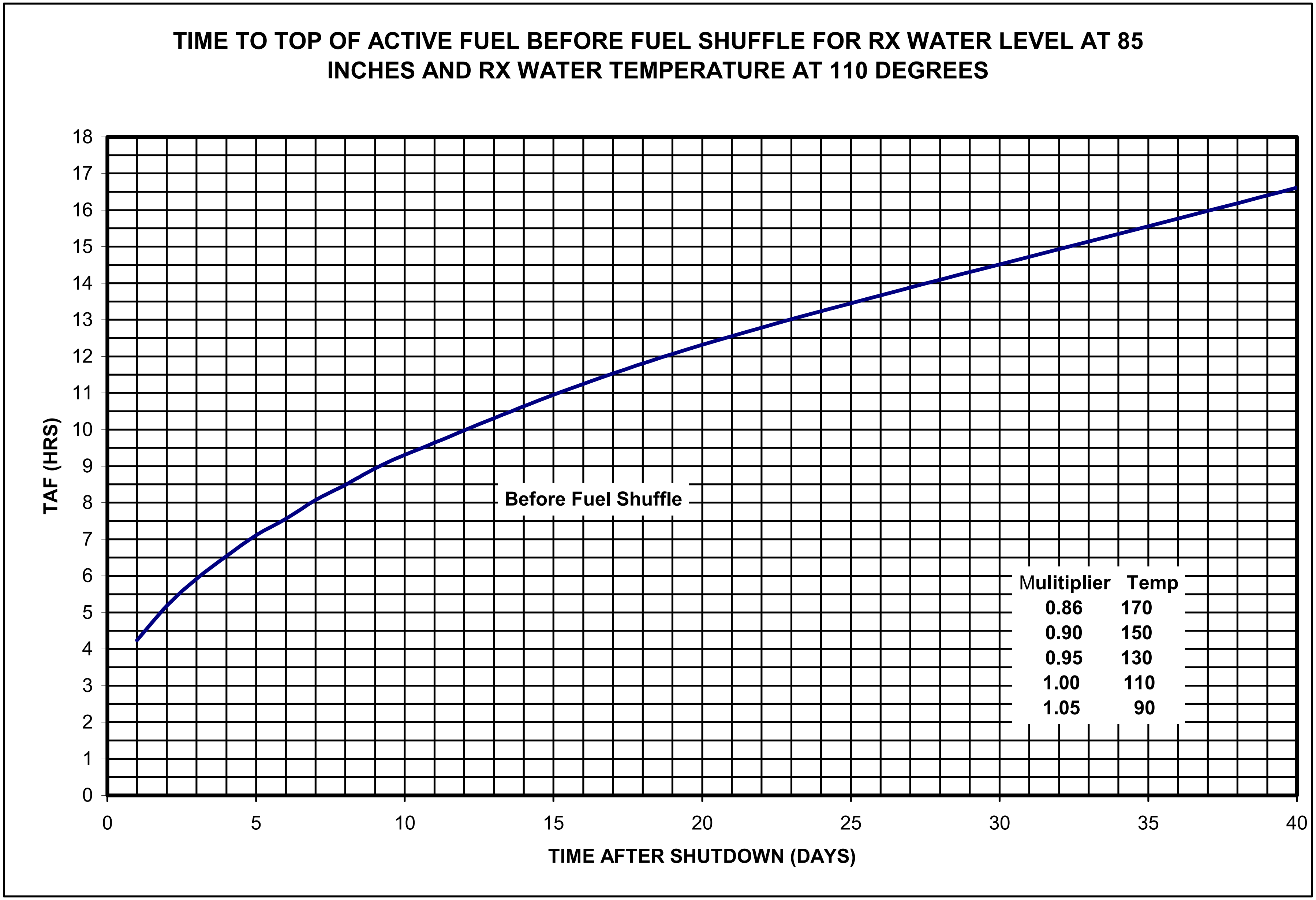


THERMAL HYDRAULIC CURVES

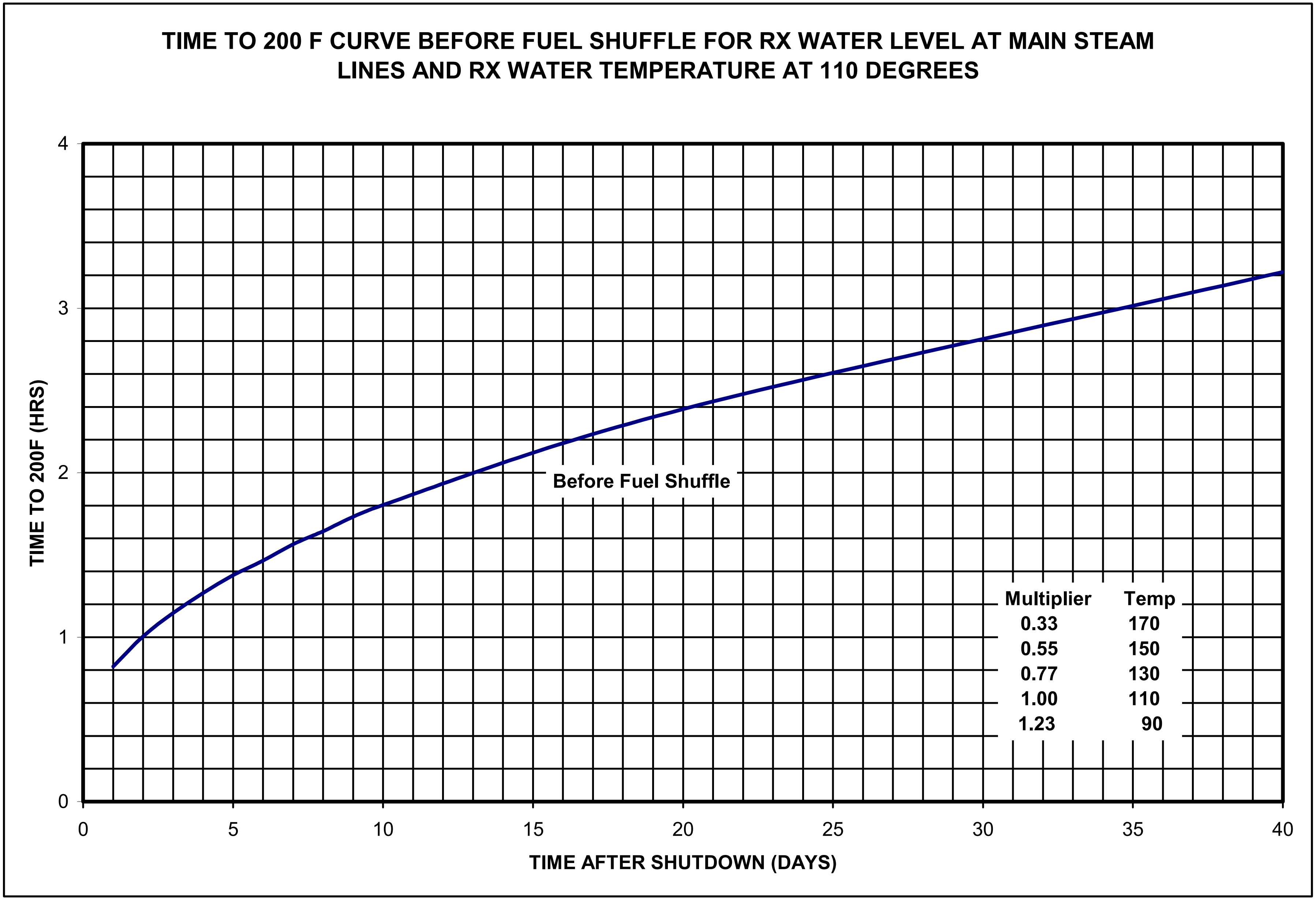
HEAT UP RATE BEFORE FUEL SHUFFLE FOR RX WATER LEVEL AT 85 INCHES



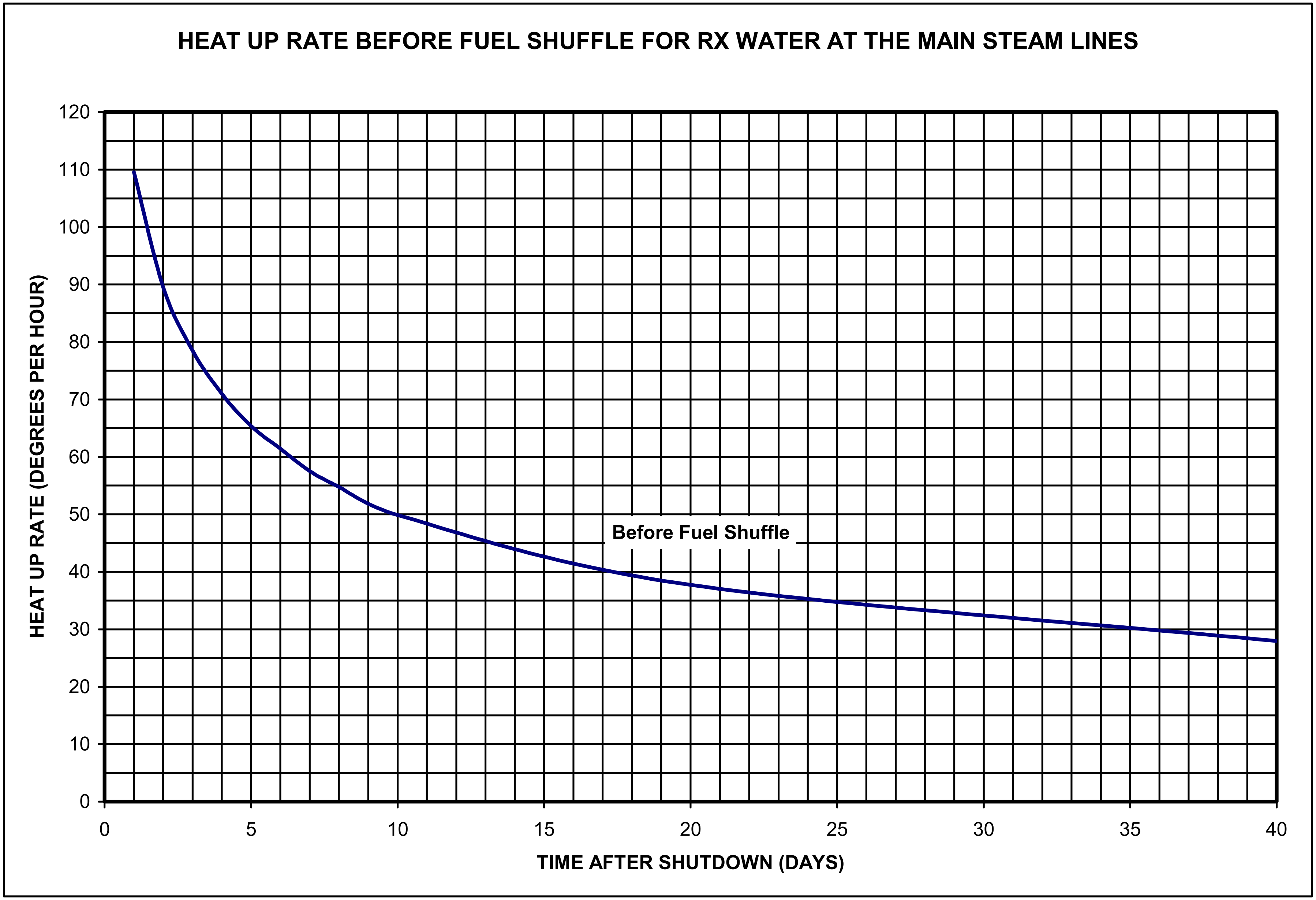
THERMAL HYDRAULIC CURVES



THERMAL HYDRAULIC CURVES

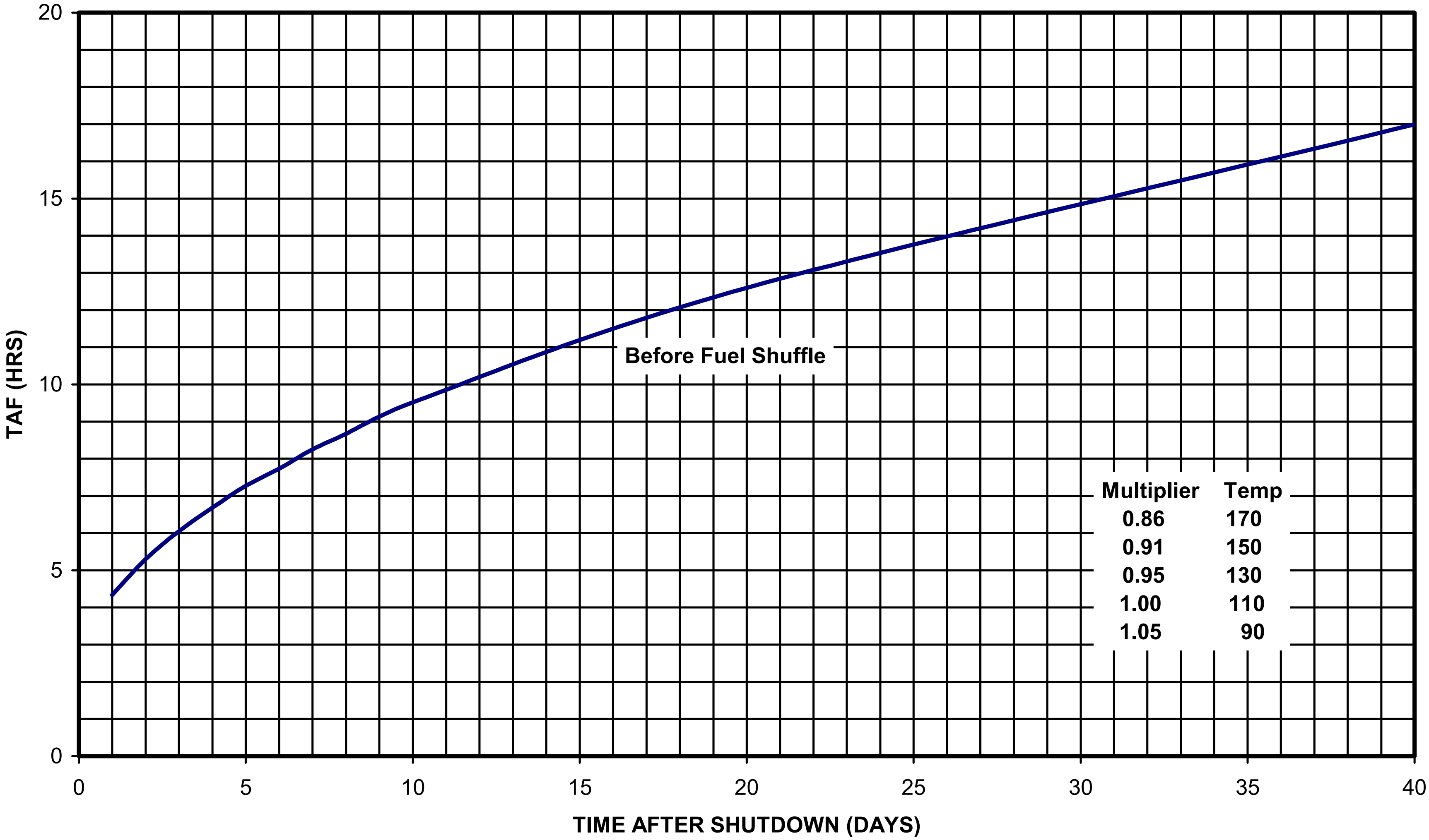


THERMAL HYDRAULIC CURVES



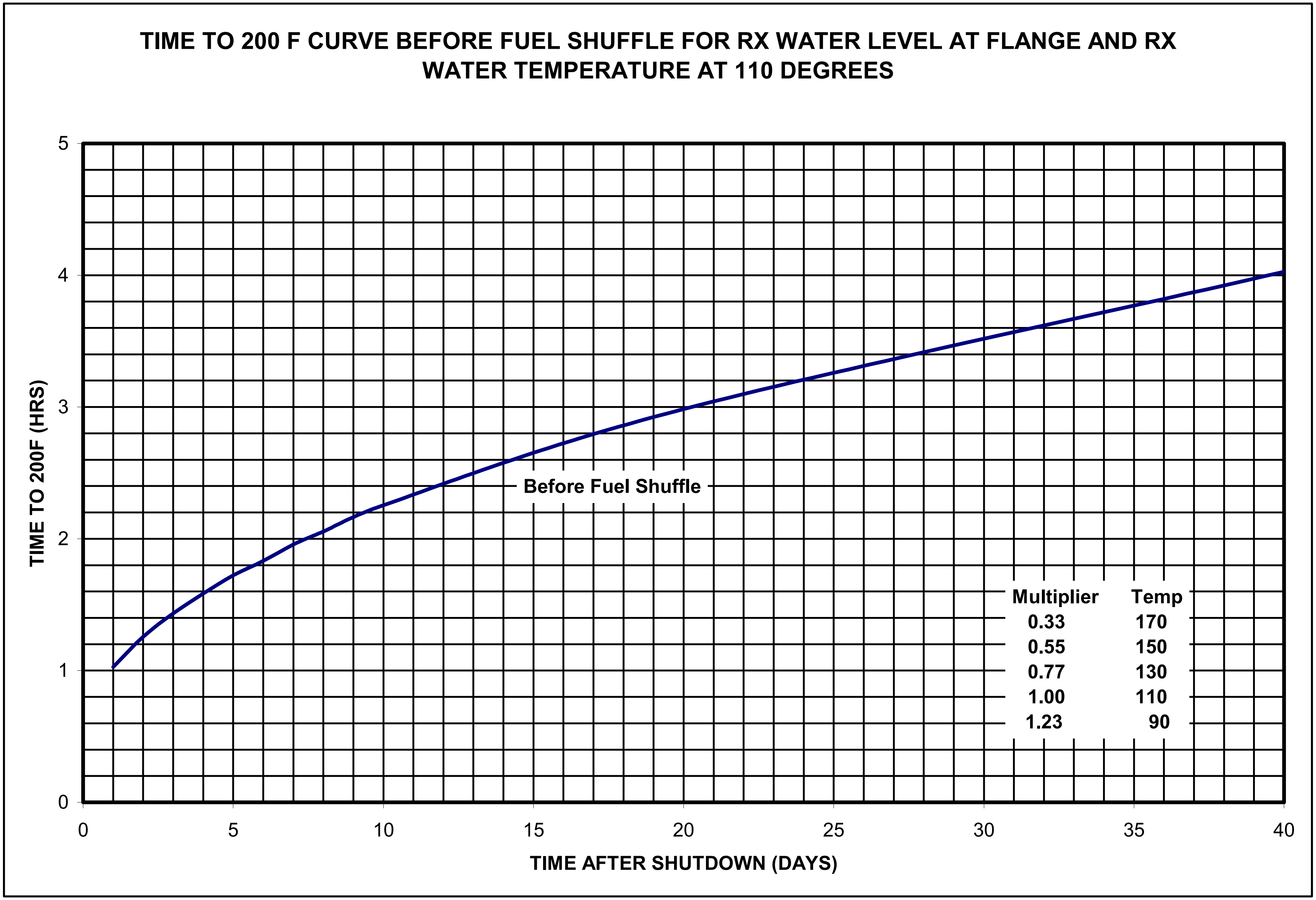
THERMAL HYDRAULIC CURVES

TIME TO TOP OF ACTIVE FUEL BEFORE FUEL SHUFFLE FOR RX WATER LEVEL AT MAIN STEAM LINES AND RX WATER TEMPERATURE AT 110 DEGREES

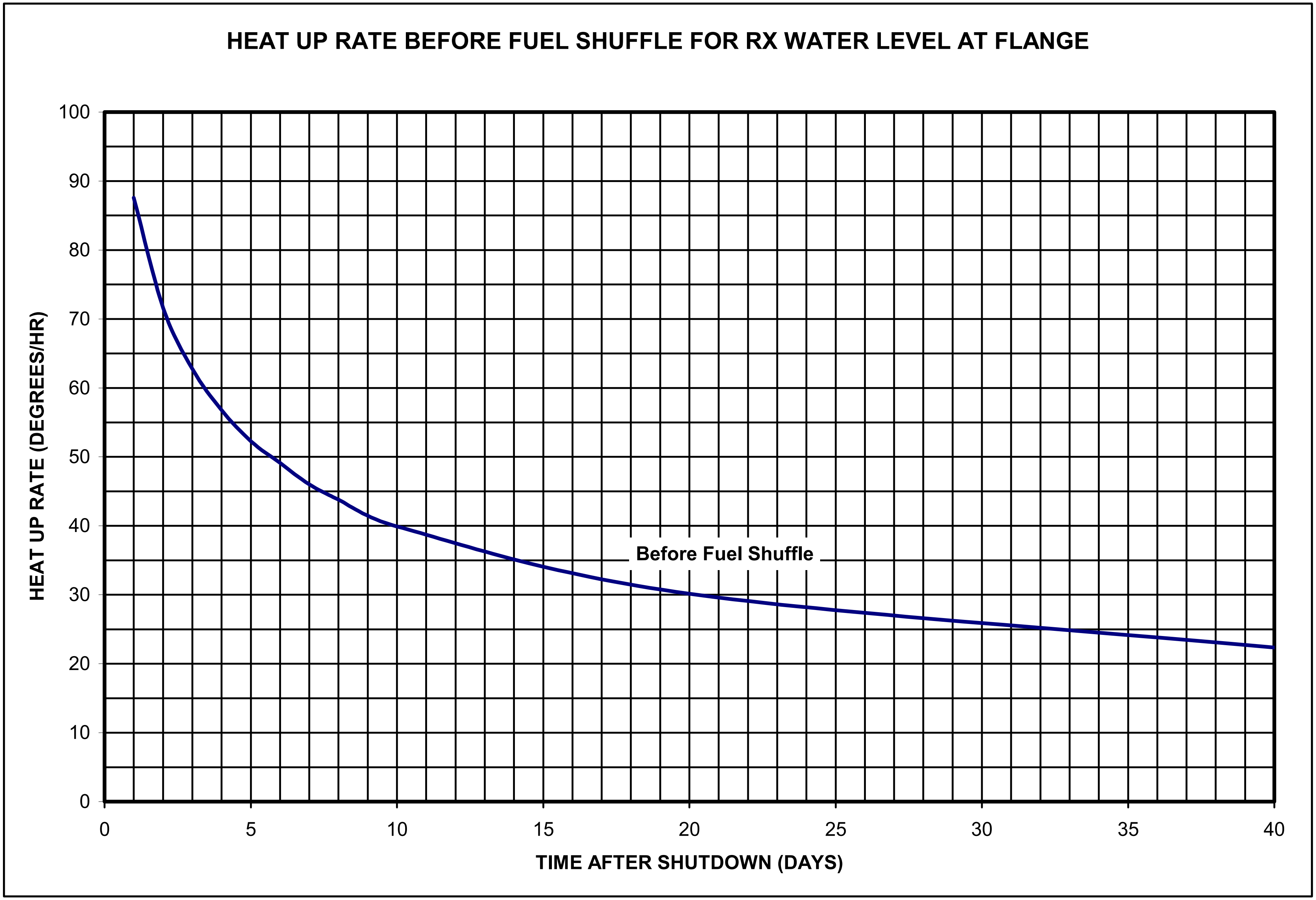


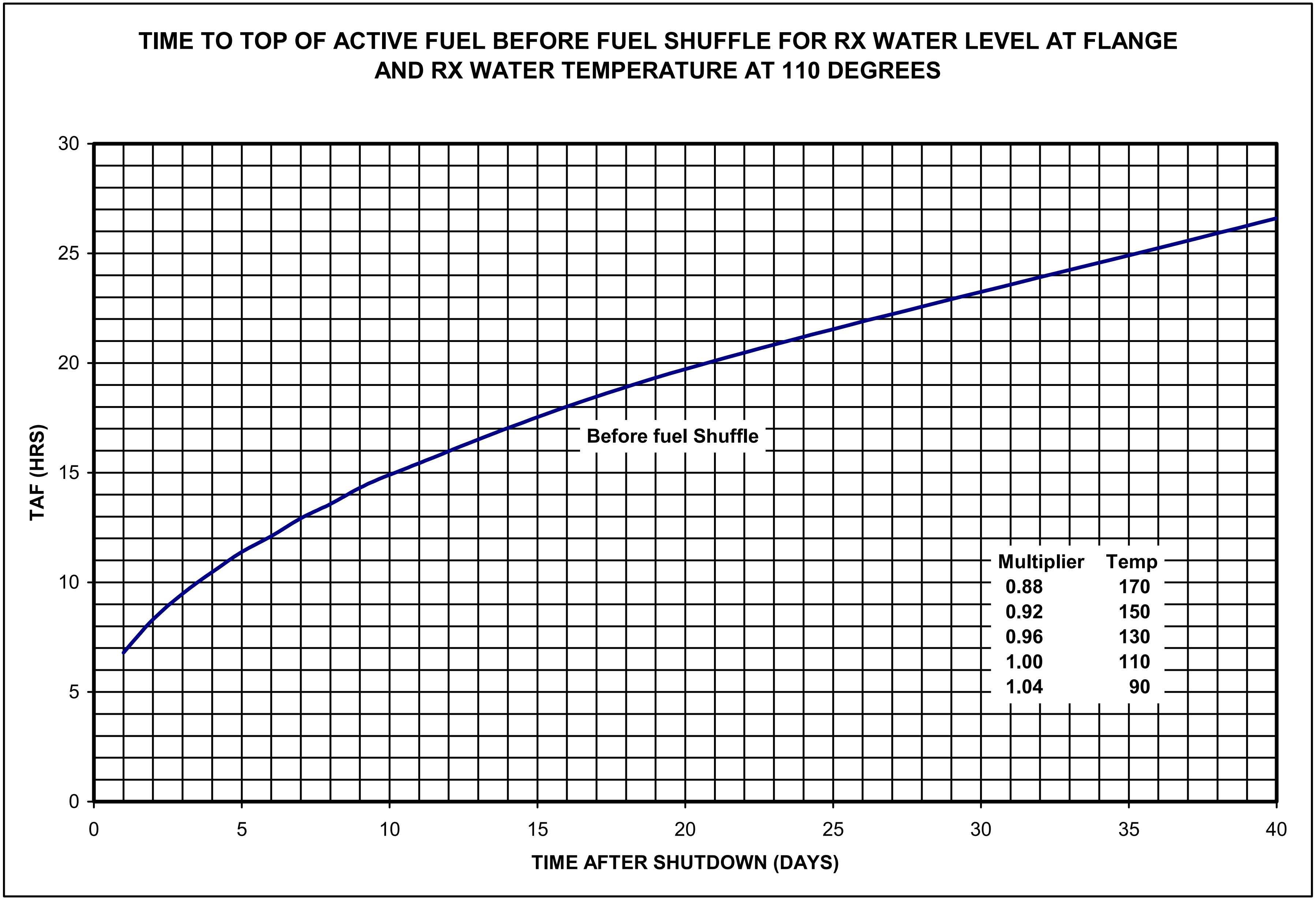
Multiplier	Temp
0.86	170
0.91	150
0.95	130
1.00	110
1.05	90

THERMAL HYDRAULIC CURVES

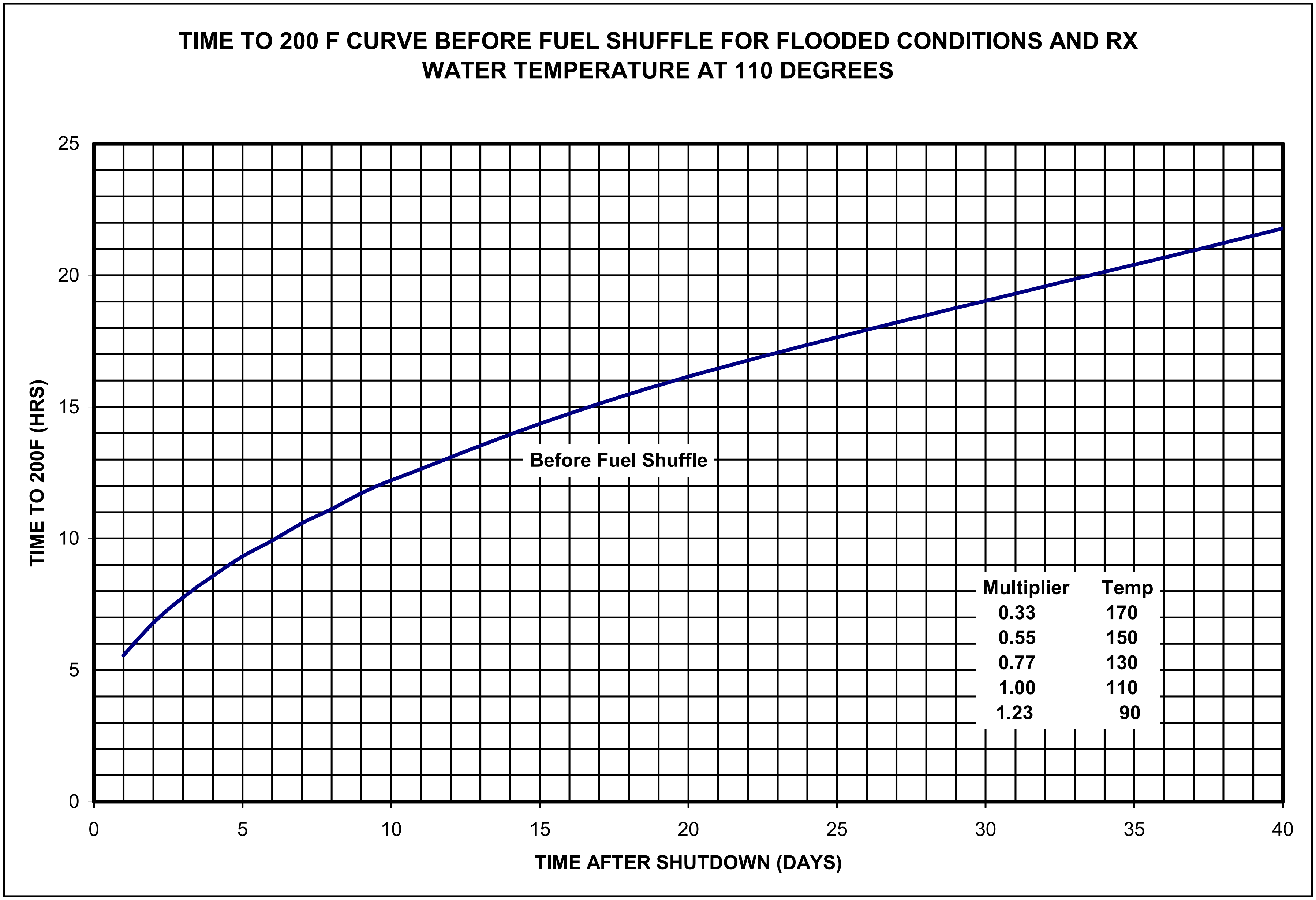


THERMAL HYDRAULIC CURVES

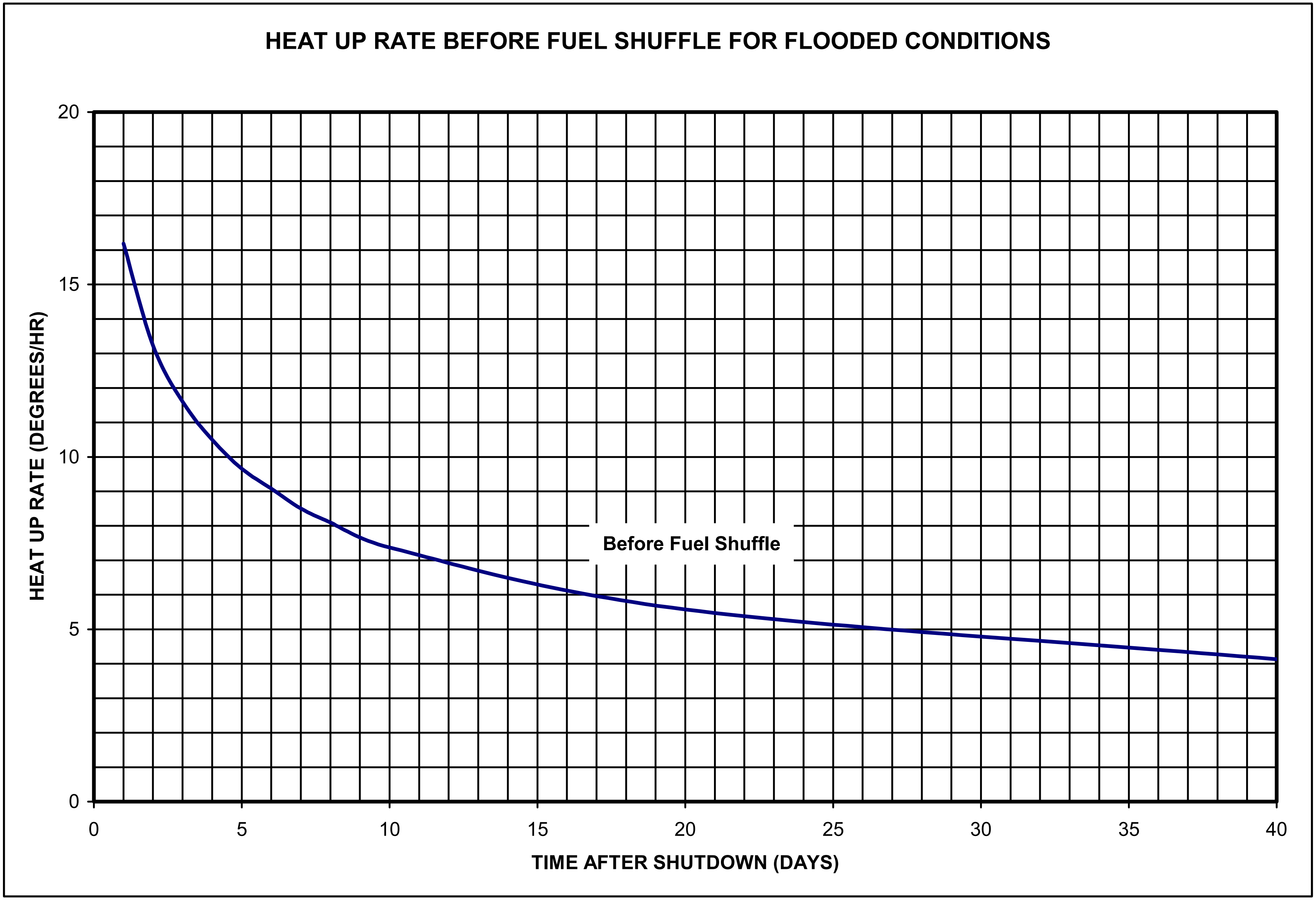



TIME TO TOP OF ACTIVE FUEL BEFORE FUEL SHUFFLE FOR RX WATER LEVEL AT FLANGE
AND RX WATER TEMPERATURE AT 110 DEGREES
TAF (HRS)
30
25
20
15
10
5
0
TIME AFTER SHUTDOWN (DAYS)
0
5
10
15
20
25
30
35
40
Before fuel Shuffle
Multiplier Temp
0.88 170
0.92 150
0.96 130
1.00 110
1.04 90

THERMAL HYDRAULIC CURVES

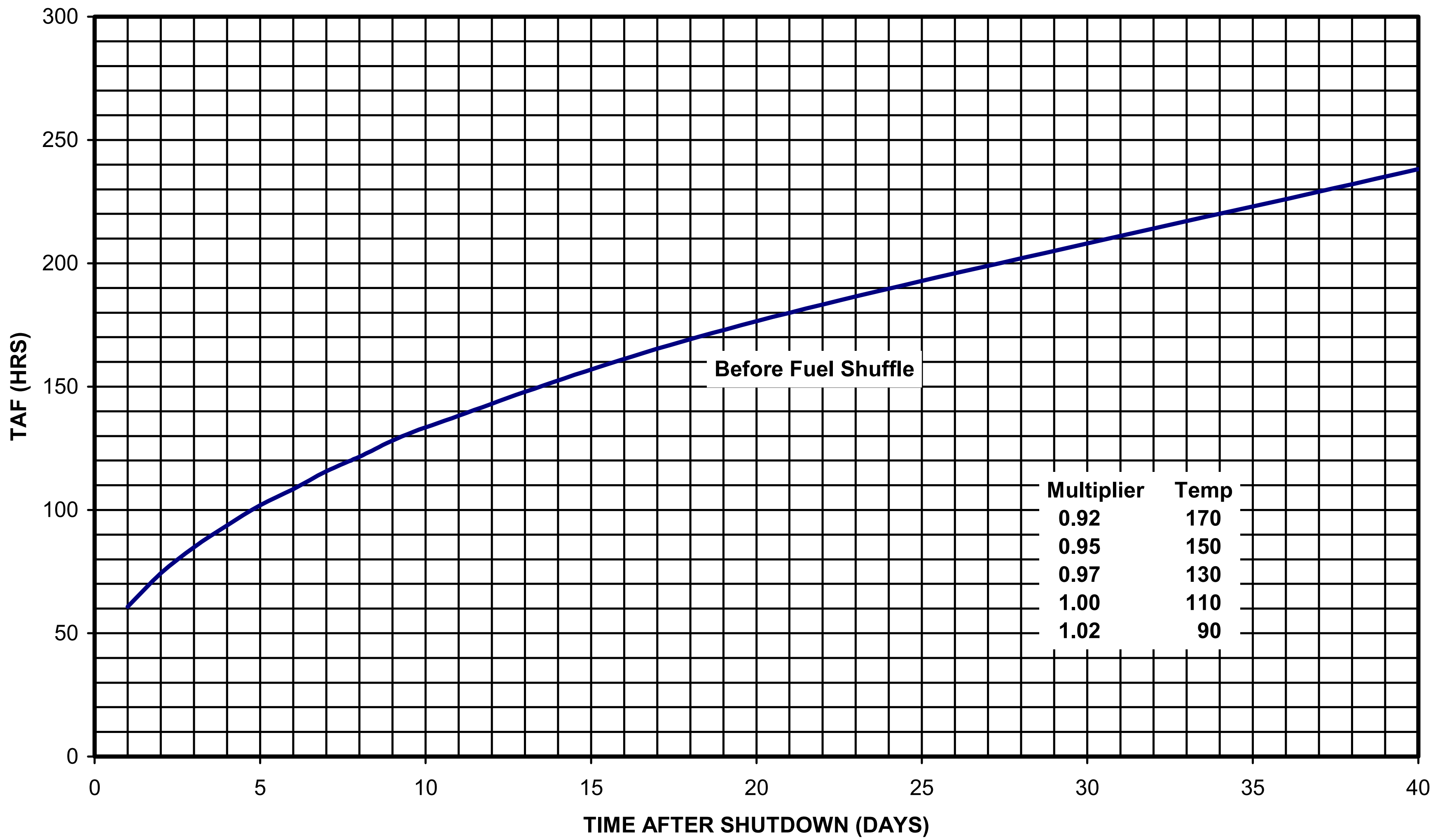


THERMAL HYDRAULIC CURVES

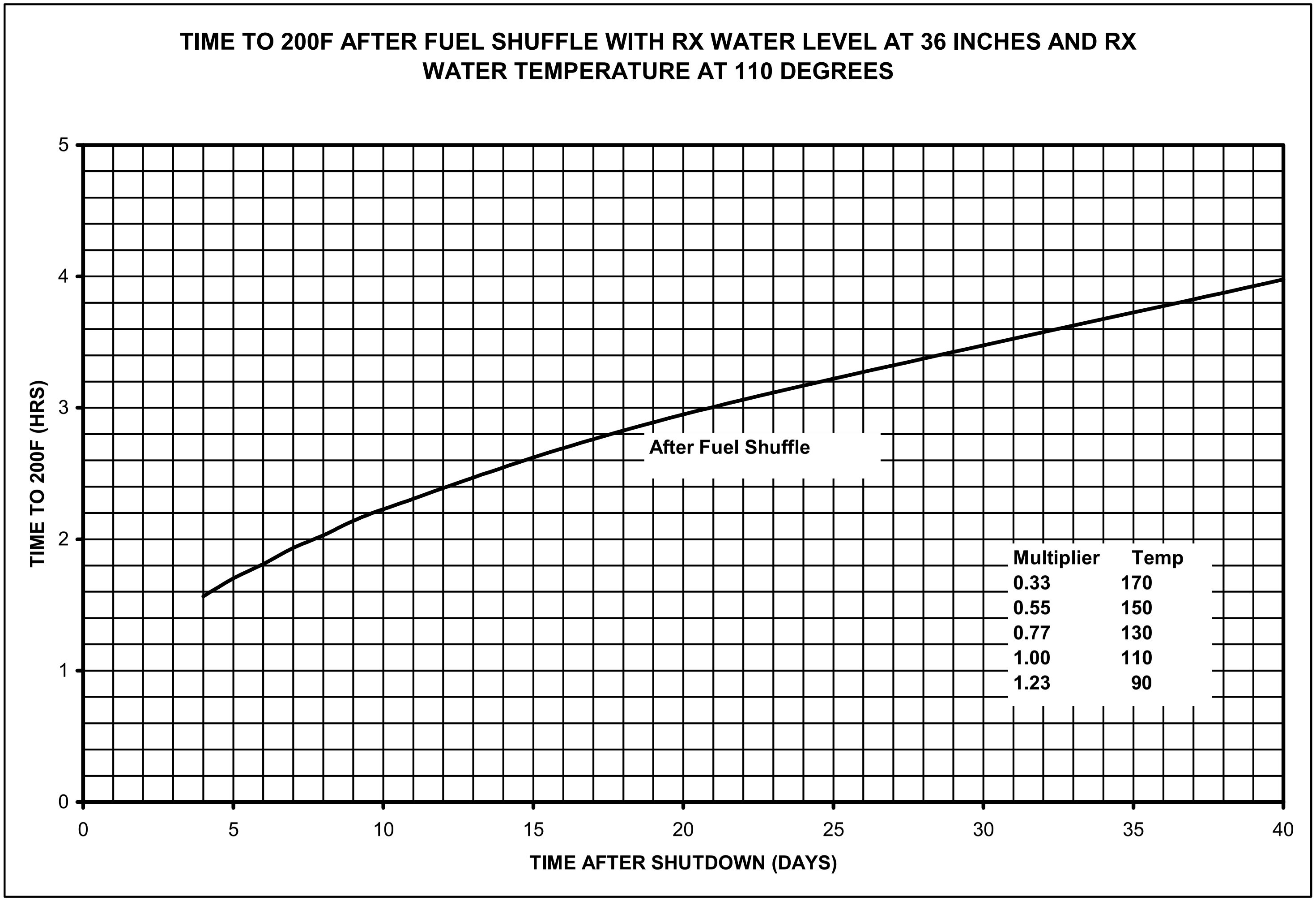


THERMAL HYDRAULIC CURVES

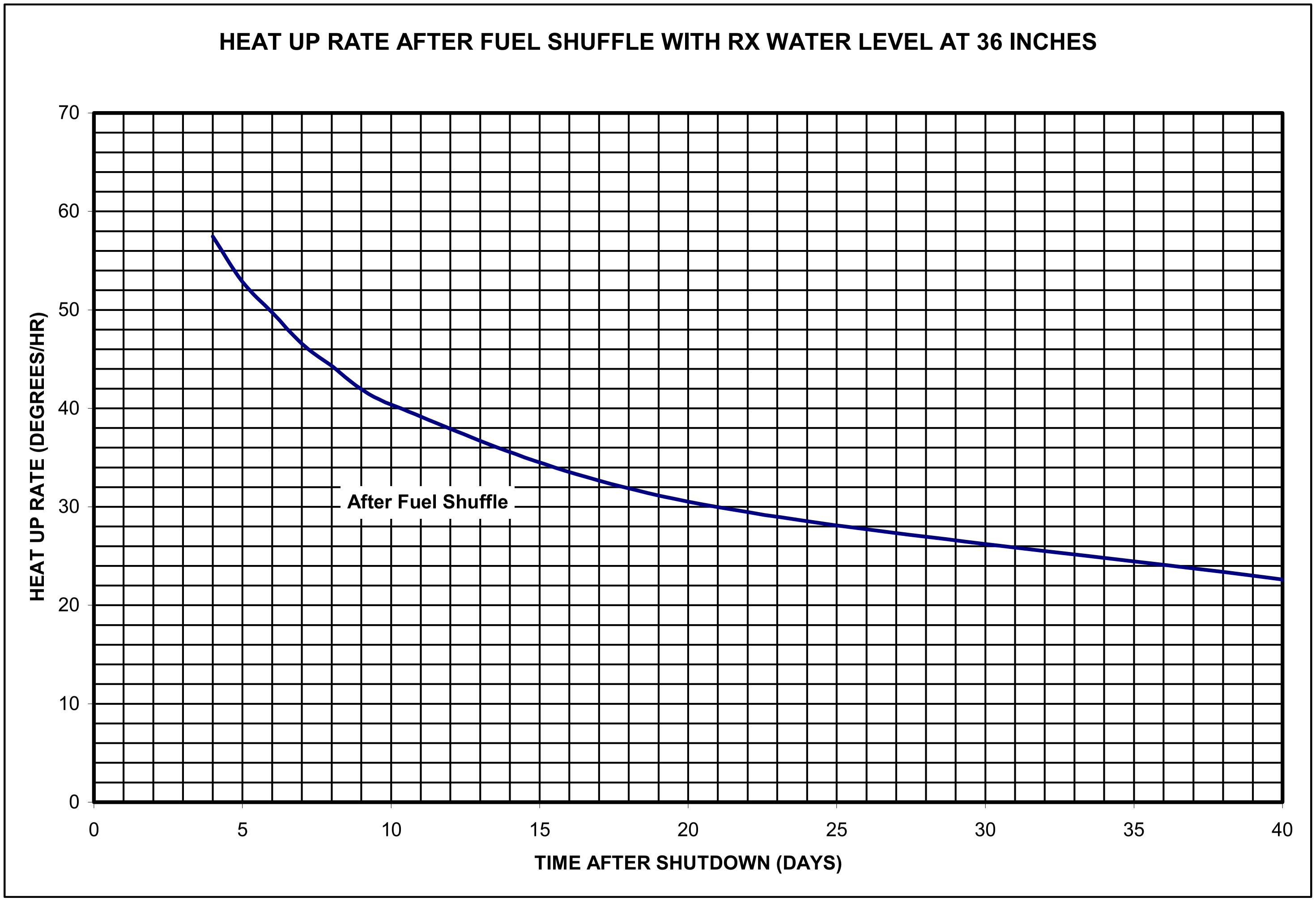
TIME TO TOP OF ACTIVE FUEL BEFORE FUEL SHUFFLE FOR FLOODED CONDITIONS AND RX WATER TEMPERATURE AT 110 DEGREES



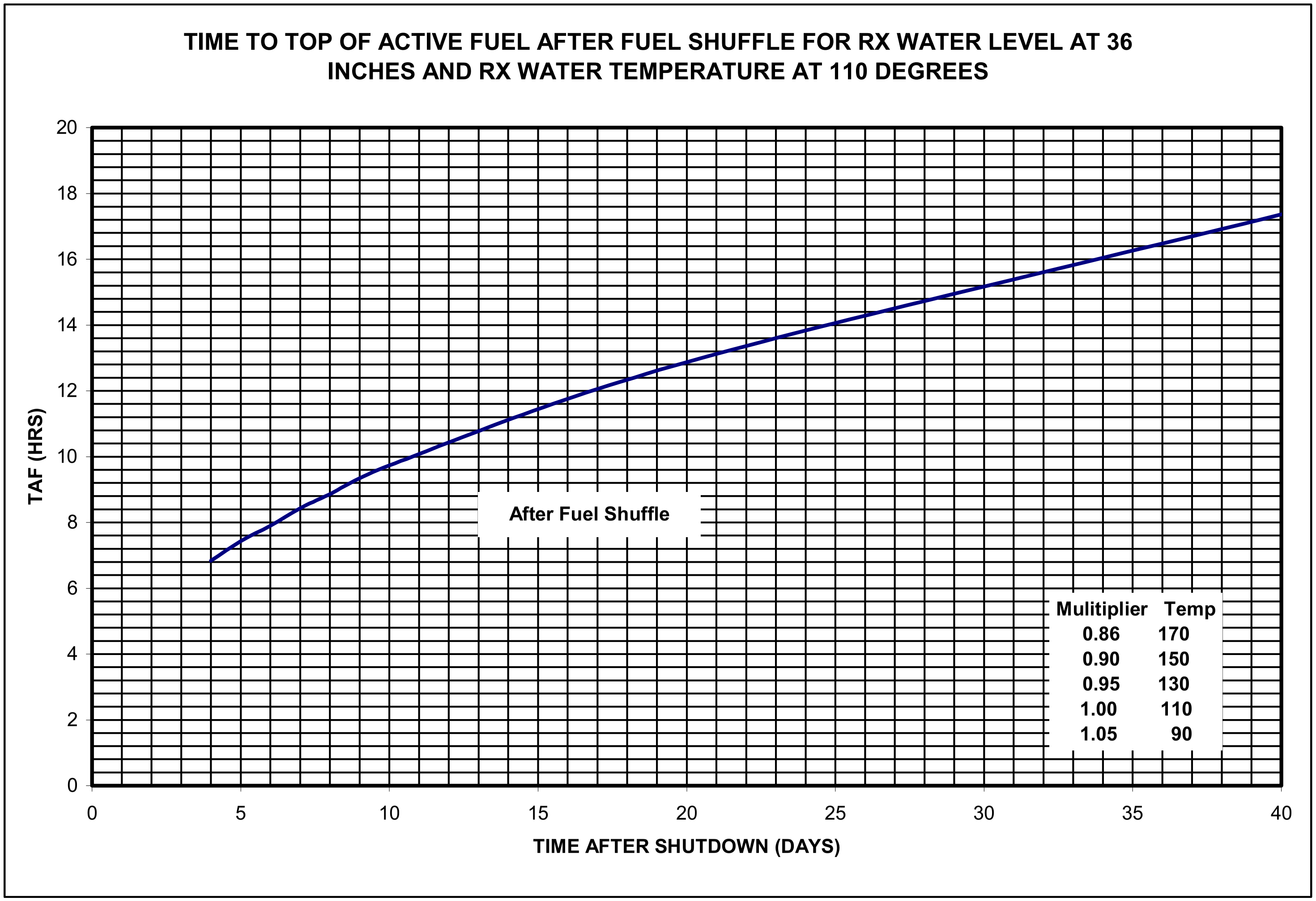
THERMAL HYDRAULIC CURVES



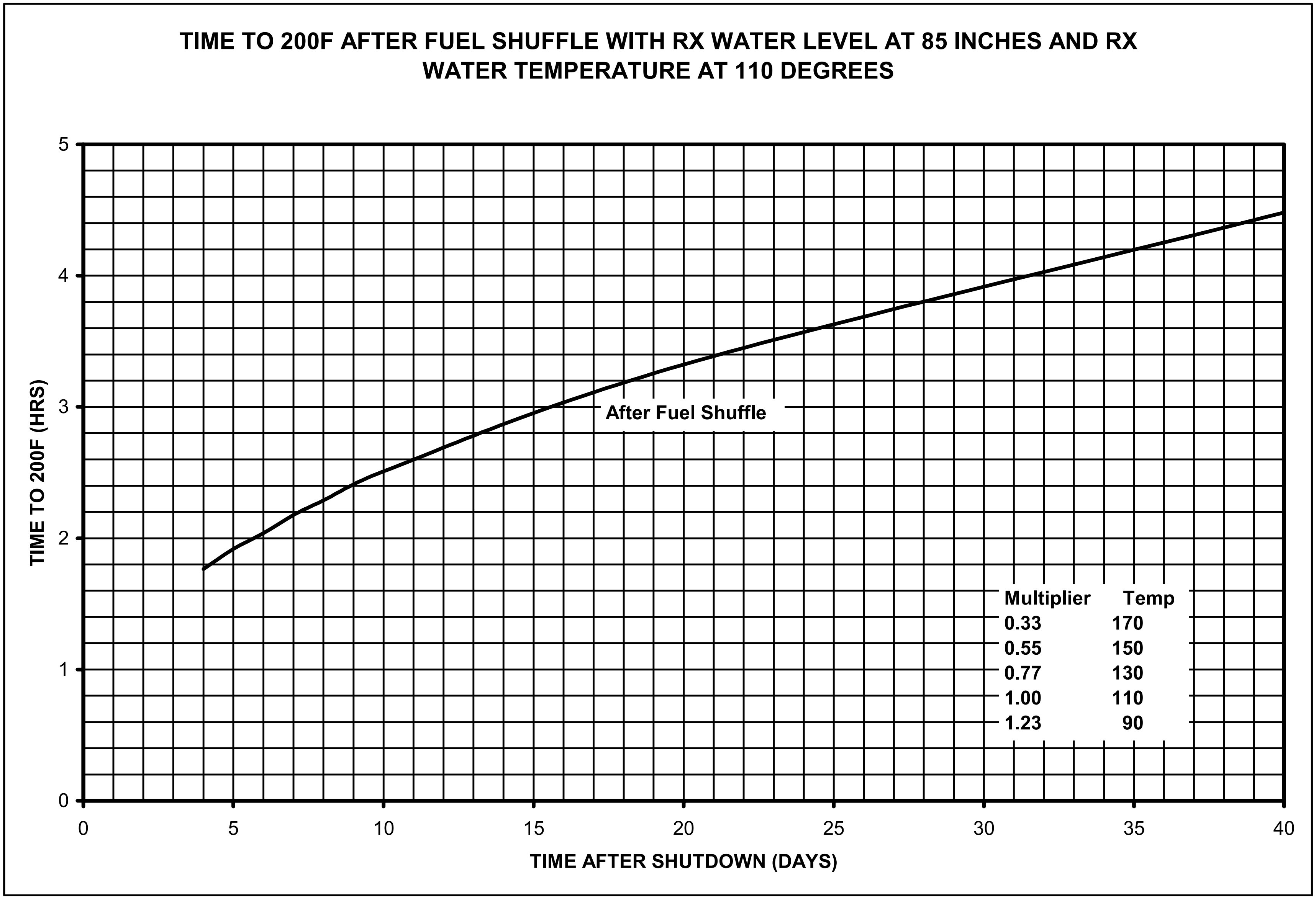
THERMAL HYDRAULIC CURVES



THERMAL HYDRAULIC CURVES

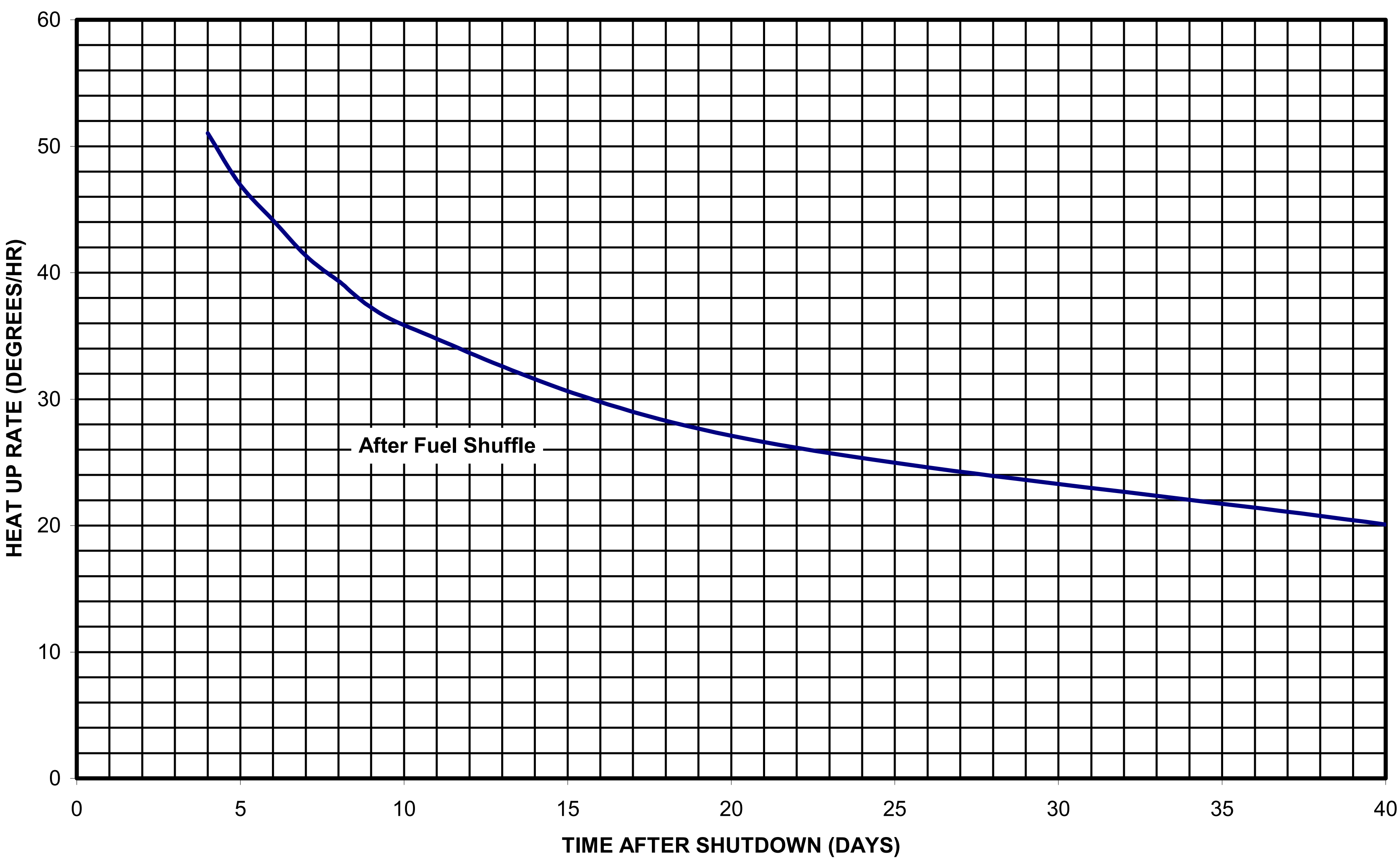


THERMAL HYDRAULIC CURVES

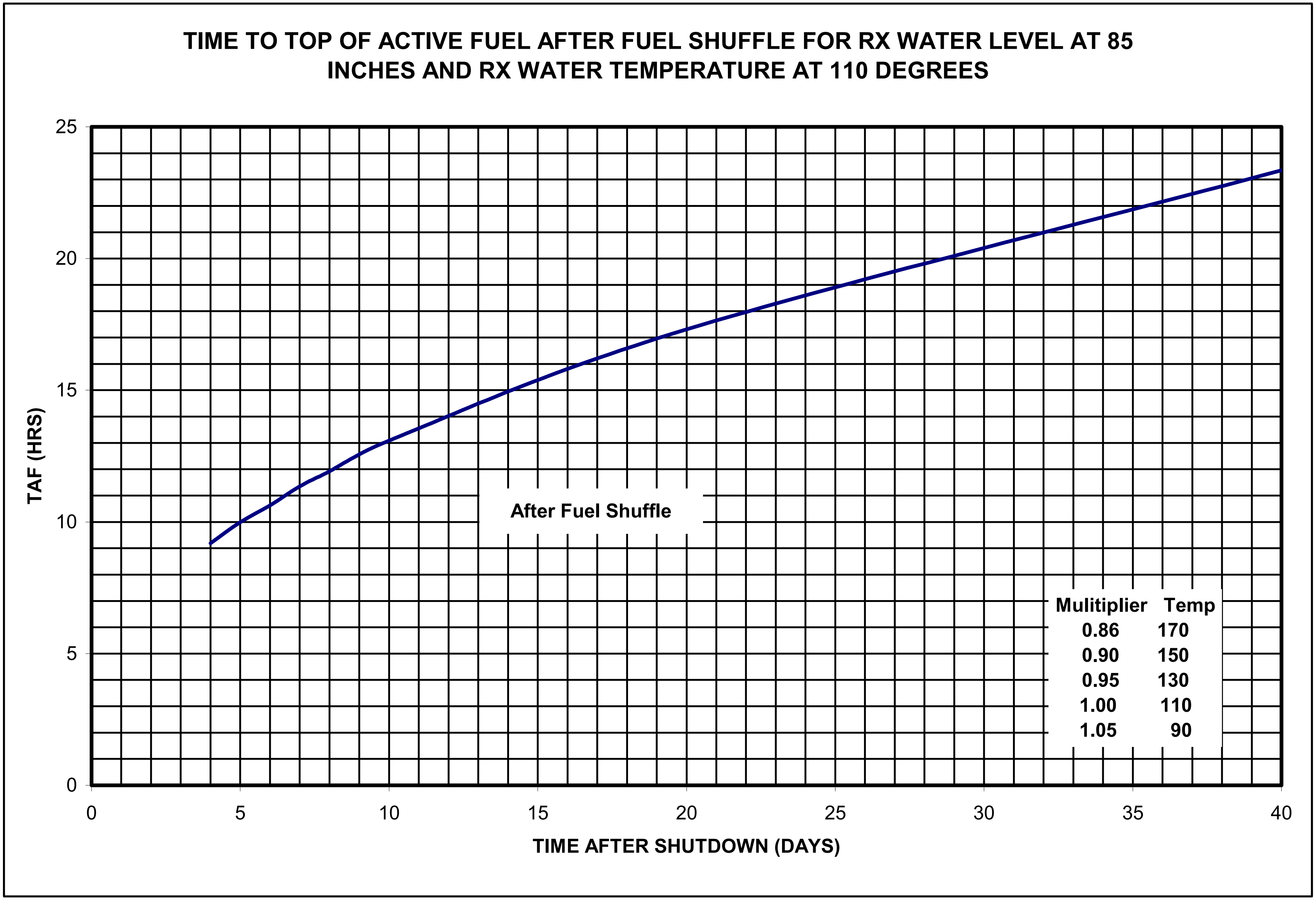


THERMAL HYDRAULIC CURVES

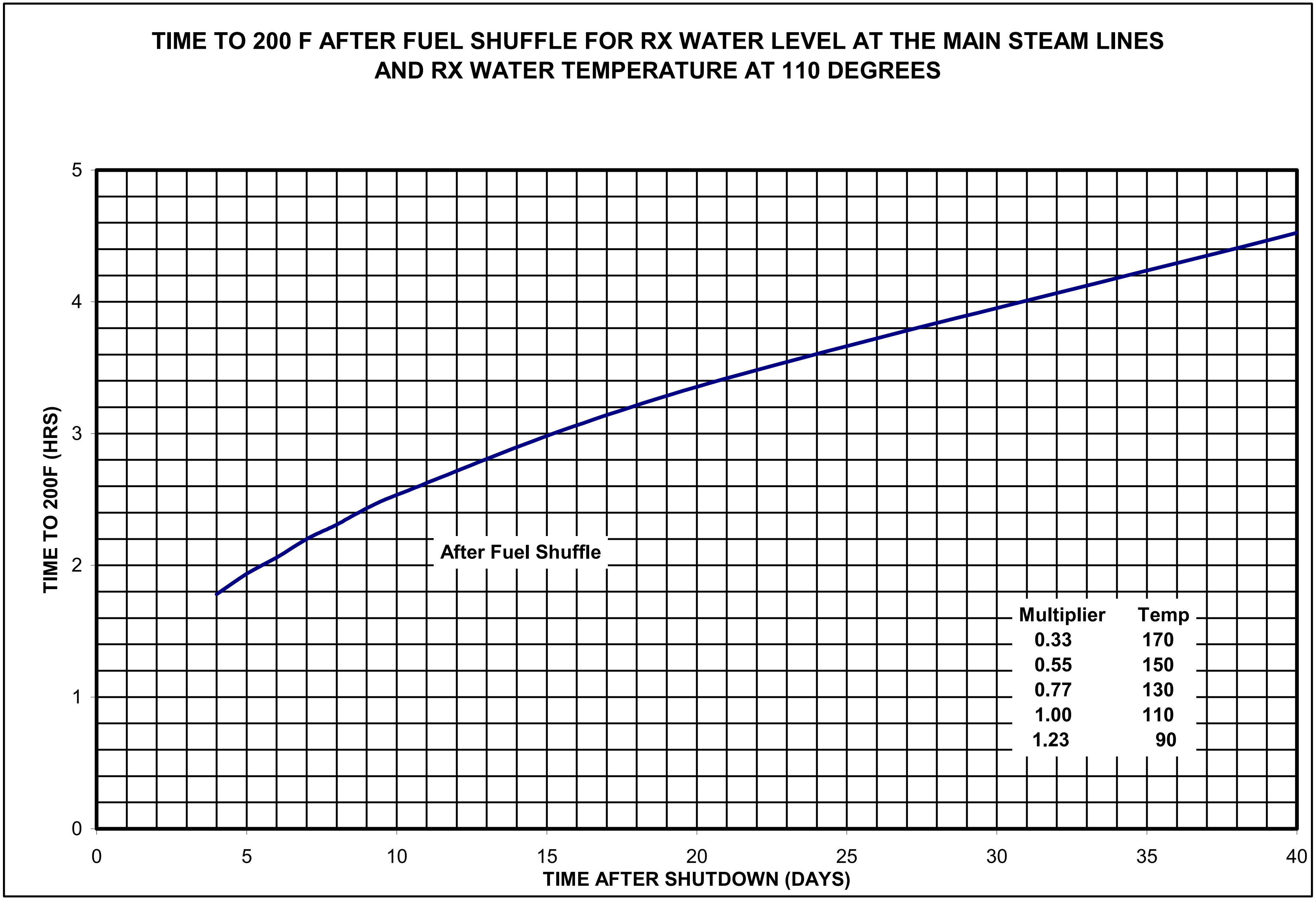
HEAT UP RATE AFTER FUEL SHUFFLE WITH RX WATER LEVEL AT 85 INCHES



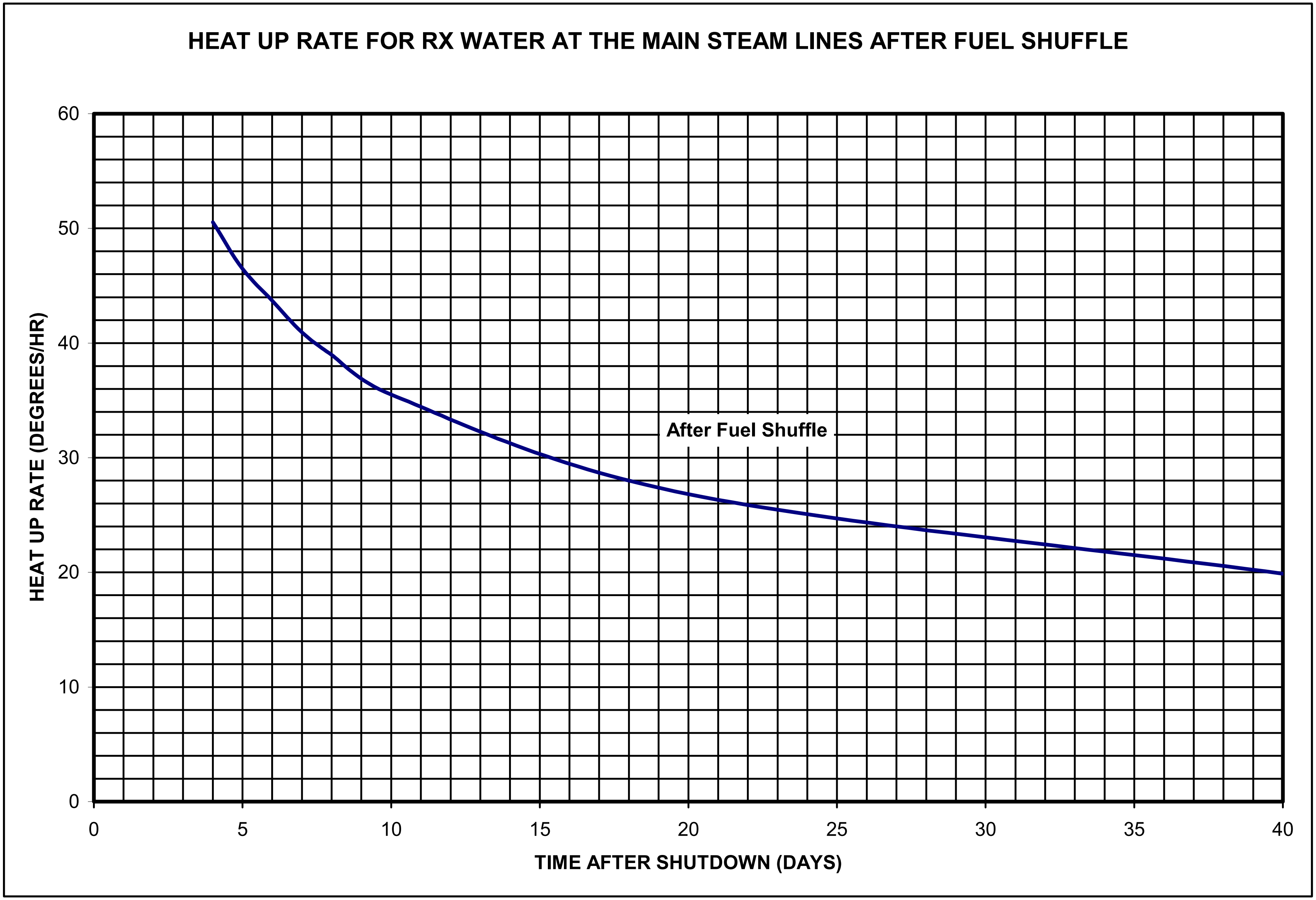
THERMAL HYDRAULIC CURVES



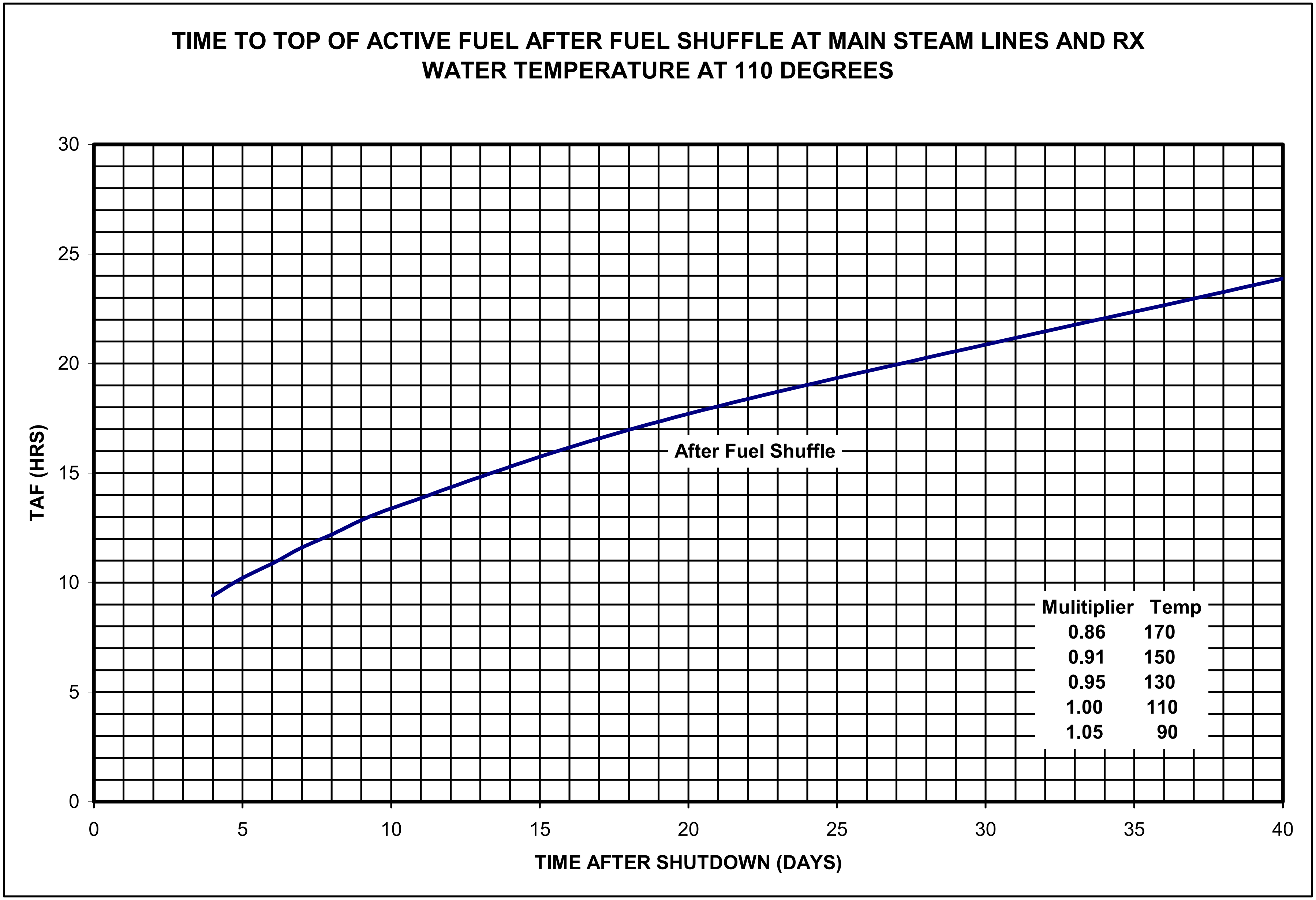
THERMAL HYDRAULIC CURVES



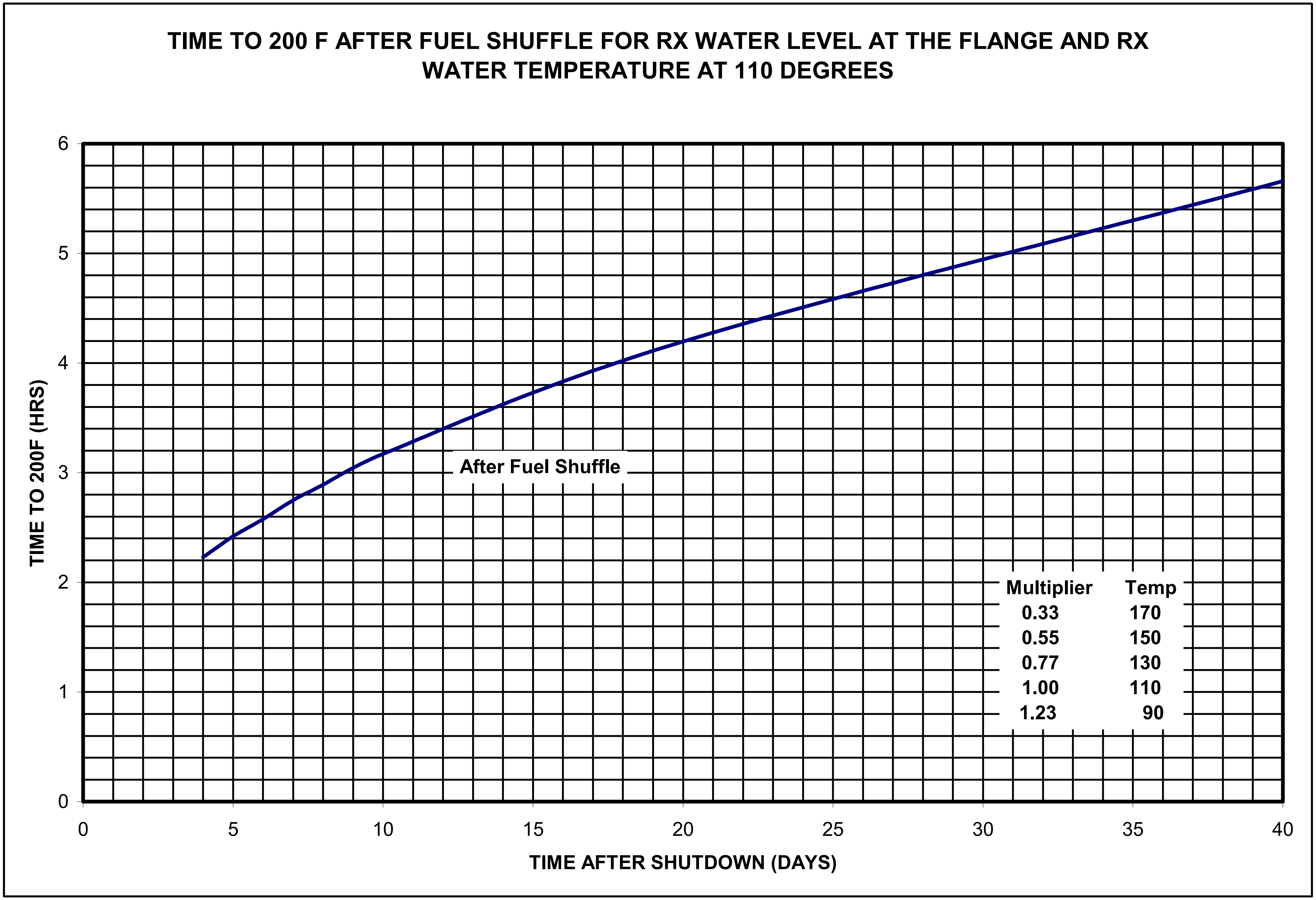
THERMAL HYDRAULIC CURVES



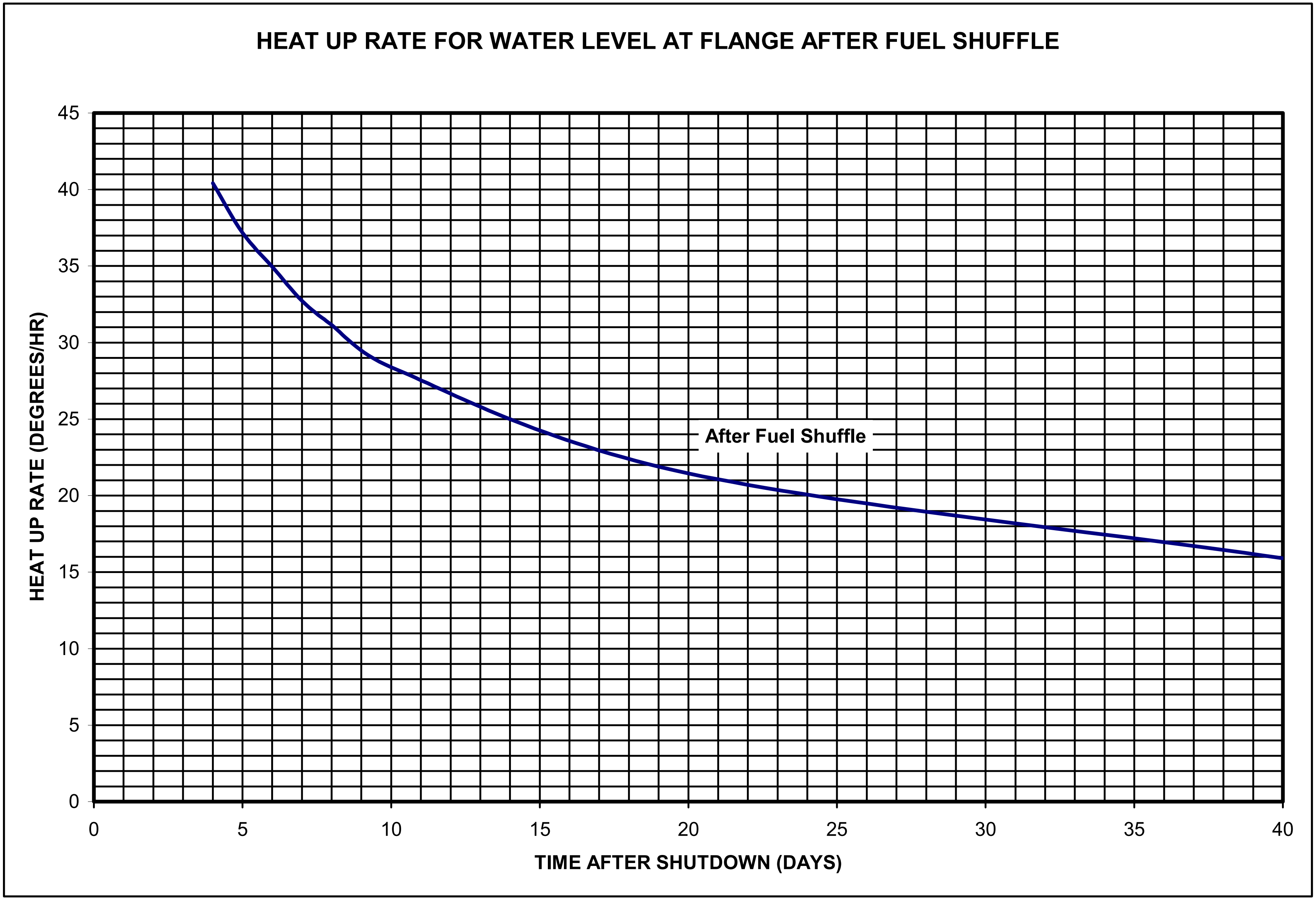
THERMAL HYDRAULIC CURVES



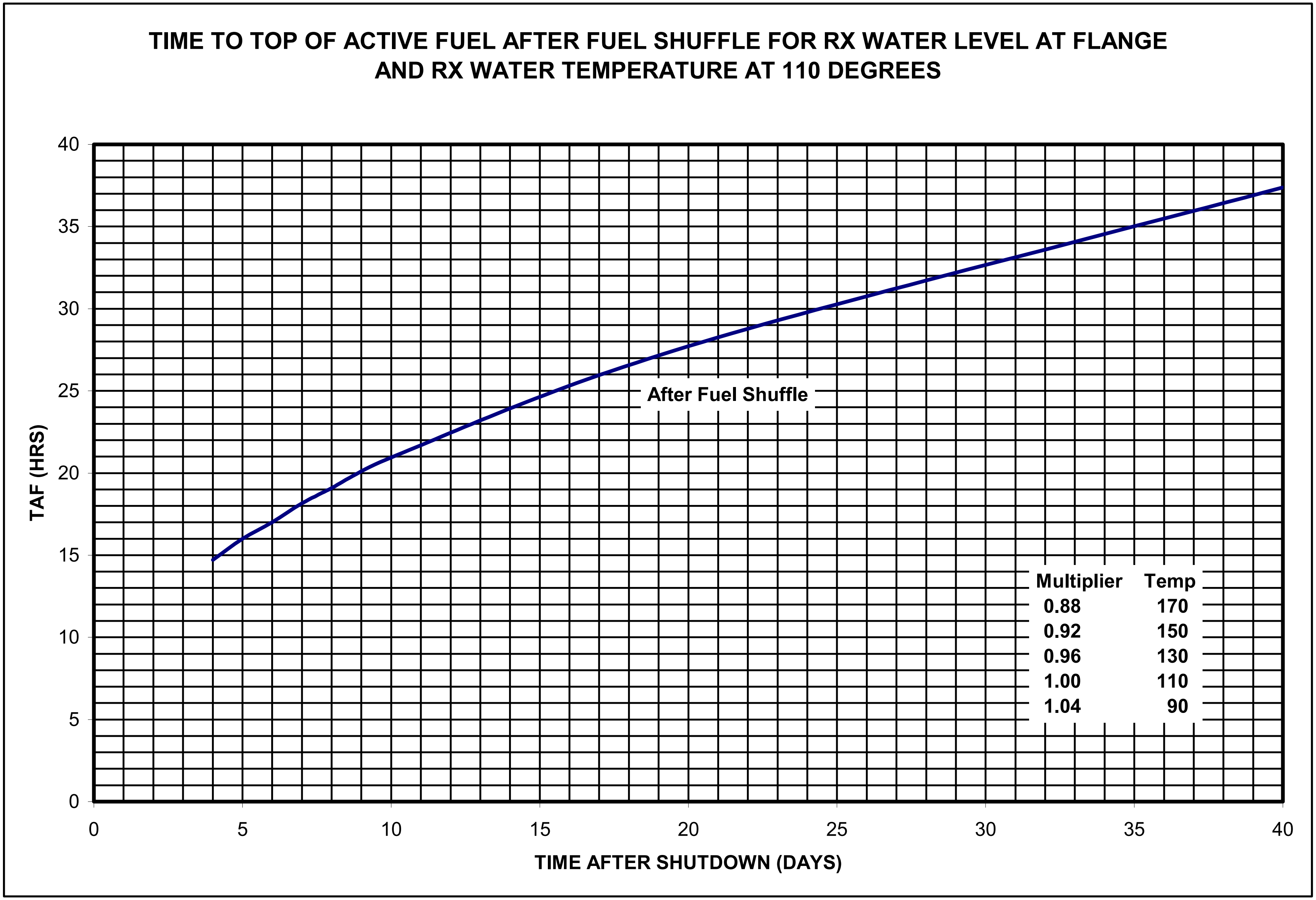
THERMAL HYDRAULIC CURVES



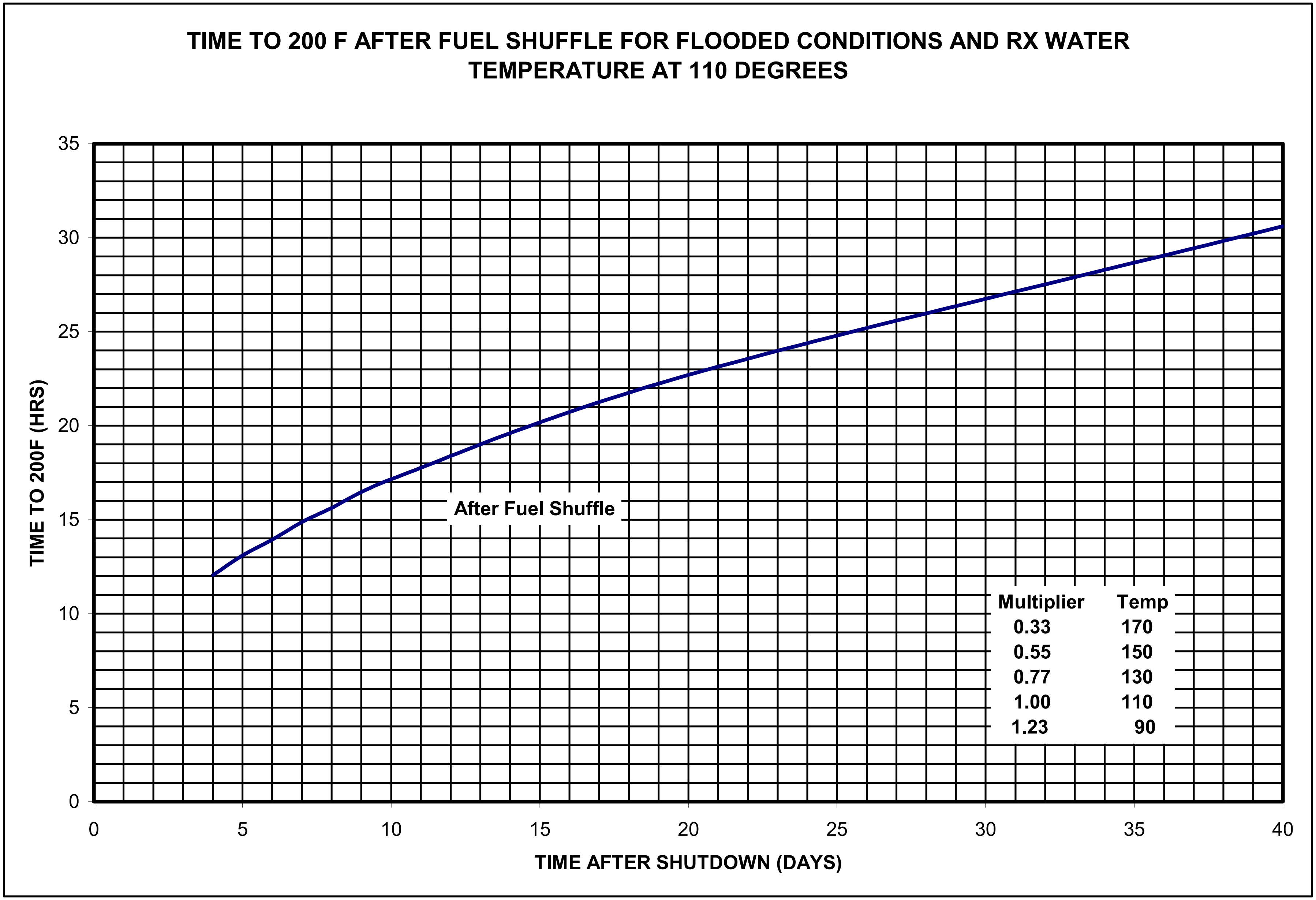
THERMAL HYDRAULIC CURVES



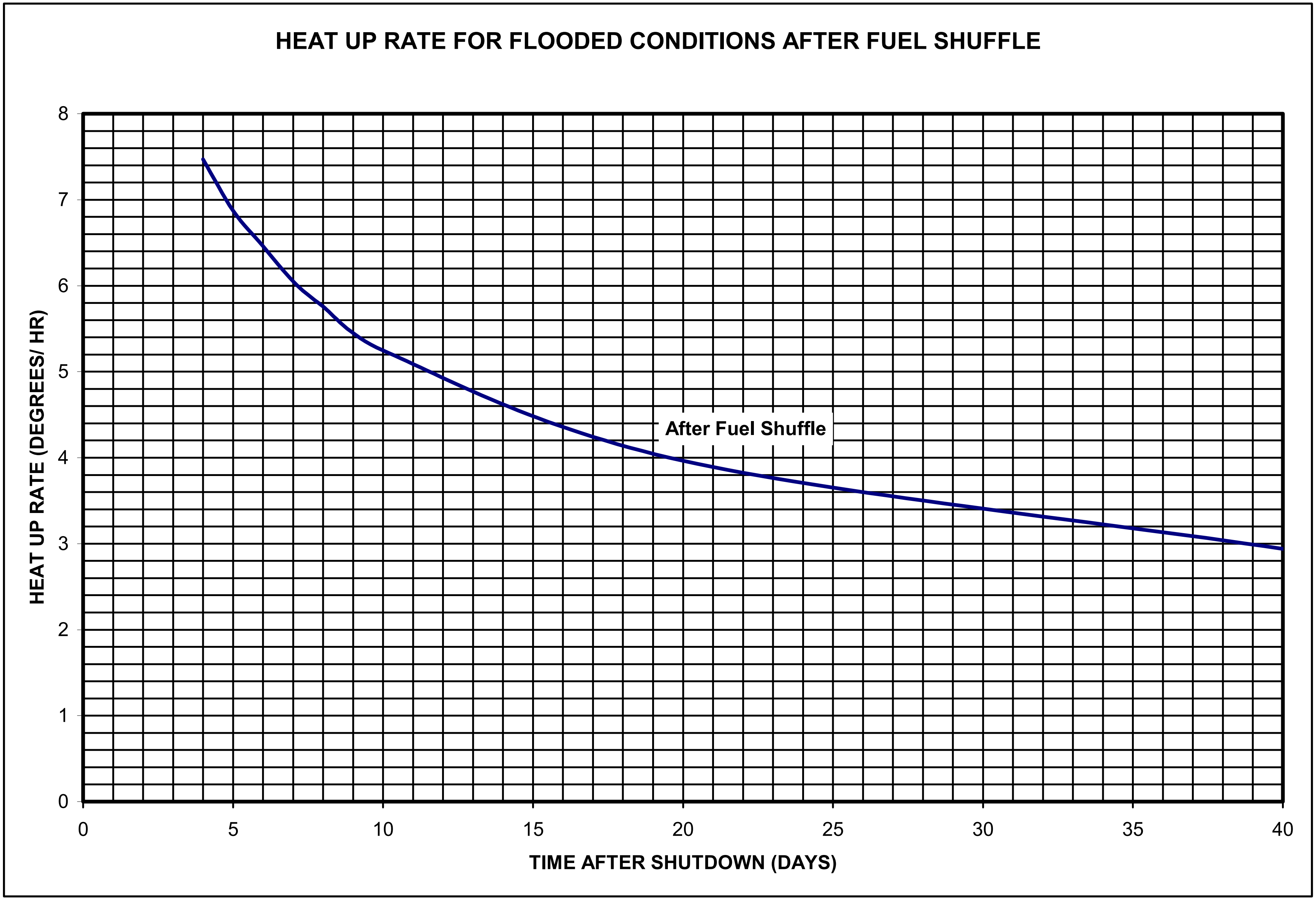
THERMAL HYDRAULIC CURVES



THERMAL HYDRAULIC CURVES

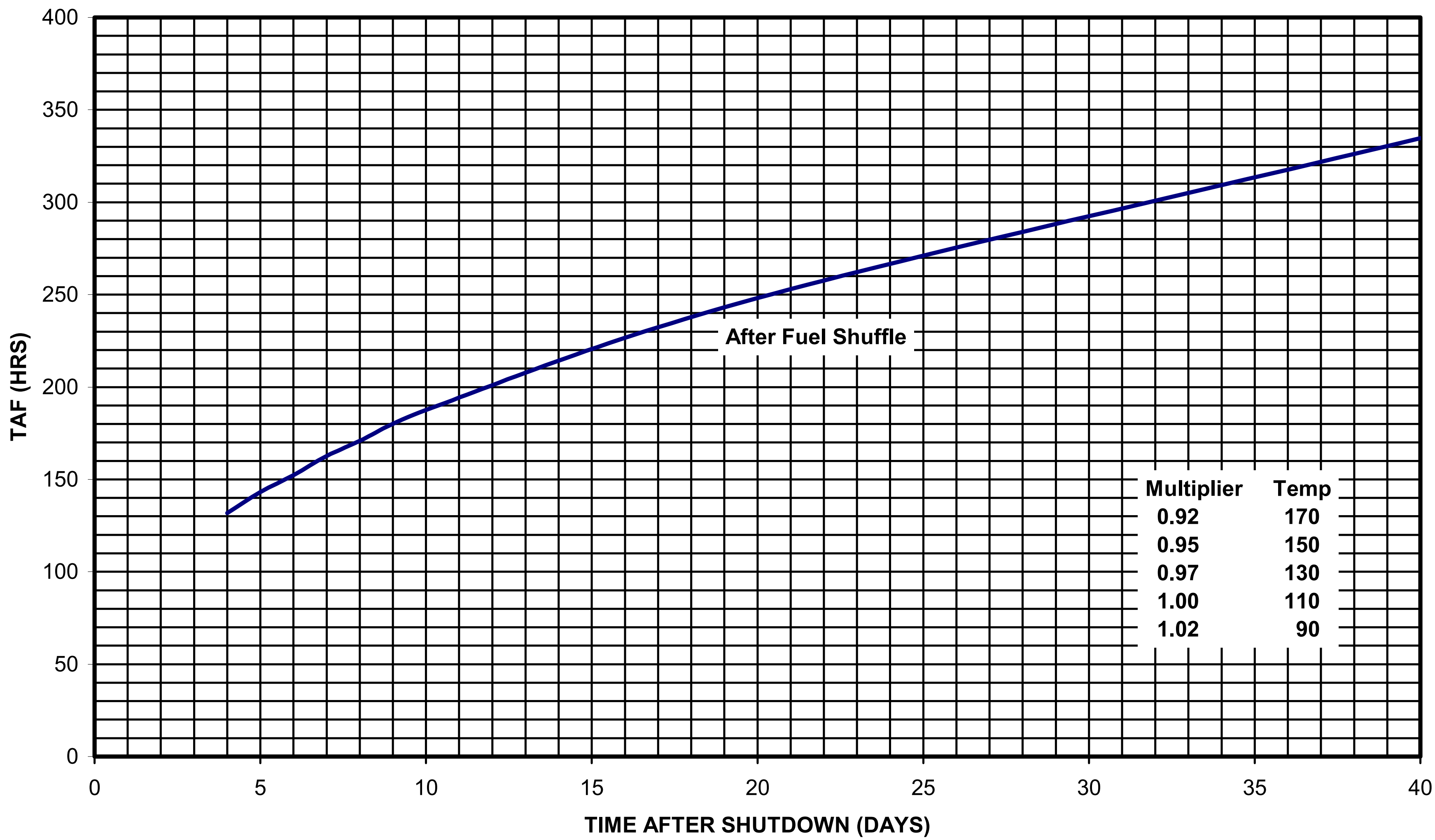


THERMAL HYDRAULIC CURVES



THERMAL HYDRAULIC CURVES

TIME TO TOP OF ACTIVE FUEL AFTER FUEL SHUFFLE FOR FLOODED CONDITIONS AND RX WATER TEMPERATURE AT 110 DEGREES



THERMAL HYDRAULIC CURVES

BEFORE FUEL SHUFFLE

Days After Shutdown	Decay Heat	Heat Up Rate Flooded	Heat Up Rate Flange	Heat Up Rate MSL	Heat Up Rate 85 in.	Time To Mode Change Flooded	Time To Mode Change Flange	Time To Mode Change MSL	Time To Mode Change 85 in.	Time To Top of Active Fuel Flooded	Time To Top of Active Fuel Flange	Time To Top of Active Fuel MSL	Time To Top of Active Fuel 85 in.
Days	**MBtu/hr**	**(F/HR)**	**(F/HR)**	**(F/HR)**	**(F/HR)**	**hrs**	**hrs**	**hrs**	**hrs**	**hrs**	**hrs**	**hrs**	**hrs**
1	67.4	16.19	87.59	109.54	110.61	5.56	1.03	.82	.81	60.78	6.79	4.34	4.24
2	55.1	13.24	71.61	89.55	90.43	6.8	1.26	1.01	1.00	74.35	8.30	5.30	5.19
3	48.3	11.6	62.77	78.5	79.27	7.76	1.43	1.15	1.14	84.81	9.47	6.05	5.92
4	43.7	10.5	56.79	71.02	71.72	8.57	1.58	1.27	1.25	93.74	10.47	6.69	6.54
5	40.2	9.66	52.24	65.33	65.98	9.32	1.72	1.38	1.36	101.9	11.38	7.27	7.11
6	37.8	9.08	49.12	61.43	62.04	9.91	1.83	1.47	1.45	108.37	12.1	7.73	7.56
7	35.4	8.5	46.01	57.53	58.1	10.58	1.96	1.56	1.55	115.72	12.92	8.26	8.07
8	33.7	8.1	43.8	54.77	55.31	11.12	2.05	1.64	1.63	121.56	13.58	8.67	8.48
10	30.7	7.37	39.9	49.89	50.38	12.2	2.26	1.8	1.79	133.44	14.9	9.52	9.31
20	23.2	5.57	30.15	37.7	38.08	16.15	2.99	2.39	2.36	176.57	19.72	12.6	12.32
40	17.2	4.13	22.35	27.95	28.23	21.78	4.03	3.22	3.19	238.17	26.6	16.99	16.62

THERMAL HYDRAULIC CURVES

AFTER FUEL SHUFFLE

Days After Shutdown	Decay Heat	Heat Up Rate Flooded	Heat Up Rate Flange	Heat Up Rate MSL	Heat Up Rate 85 in.	Time To Mode Change Flooded	Time To Mode Change Flange	Time To Mode Change MSL	Time To Mode Change 85 in.	Time To Top of Active Fuel Flooded	Time To Top of Active Fuel Flange	Time To Top of Active Fuel MSL	Time To Top of Active Fuel 85 in.
Days	MBtu/hr	(F/hr)	(F/hr)	(F/hr)	(hrs)	(hrs)	(hrs)	(hrs)	(hrs)	(hrs)	(hrs)	(hrs)	(hrs)
4	31.09	7.47	40.41	50.53	51.03	12.05	2.23	1.78	1.76	131.74	14.71	9.40	9.19
5	28.60	6.87	37.17	46.49	46.94	13.10	2.42	1.94	1.92	143.21	16.00	10.22	9.99
6	26.90	6.46	34.95	43.71	44.14	13.93	2.57	2.06	2.04	152.31	17.01	10.87	10.63
7	25.19	6.05	32.73	40.94	41.34	14.87	2.75	2.20	2.18	162.63	18.16	11.60	11.35
8	23.98	5.76	31.16	38.97	39.35	15.63	2.89	2.31	2.29	170.84	19.08	12.19	11.92
10	21.84	5.25	28.39	35.50	35.85	17.15	3.17	2.54	2.51	187.53	20.95	13.38	13.08
20	16.51	3.97	21.45	26.83	27.09	22.70	4.20	3.35	3.32	248.15	27.72	17.70	17.31
40	12.24	2.94	15.90	19.89	20.09	30.61	5.66	4.52	4.48	334.72	37.38	23.88	23.35

3.3 INSTRUMENTATION

3.3.1.2 Source Range Monitor (SRM) Instrumentation

LCO 3.3.1.2 The SRM instrumentation in Table 3.3.1.2-1 shall be OPERABLE.

APPLICABILITY: According to Table 3.3.1.2-1.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required SRMs inoperable in MODE 2 with intermediate range monitors (IRMs) on Range 2 or below.	A.1 Restore required SRMs to OPERABLE status.	4 hours
B. Three required SRMs inoperable in MODE 2 with IRMs on Range 2 or below.	B.1 Suspend control rod withdrawal.	Immediately
C. Required Action and associated Completion Time of Condition A or B not met.	C.1 Be in MODE 3.	12 hours
D. One or more required SRMs inoperable in MODE 3 or 4.	D.1 Fully insert all insertable control rods. <u>AND</u>	1 hour (continued)

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
D. (continued)	D.2	Place reactor mode switch in the shutdown position.	1 hour
E. One or more required SRMs inoperable in MODE 5.	E.1	Suspend CORE ALTERATIONS except for control rod insertion.	Immediately
	AND		
	E.2	Initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies.	Immediately

SURVEILLANCE REQUIREMENTS

---NOTE---
Refer to Table 3.3.1.2-1 to determine which SRs apply for each applicable MODE or other specified conditions.

SURVEILLANCE		FREQUENCY
SR 3.3.1.2.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.1.2.2	---------------------------NOTES---------------------------- 1. Only required to be met during CORE ALTERATIONS. 2. One SRM may be used to satisfy more than one of the following. --- Verify an OPERABLE SRM detector is located in: a. The fueled region; b. The core quadrant where CORE ALTERATIONS are being performed when the associated SRM is included in the fueled region; and c. A core quadrant adjacent to where CORE ALTERATIONS are being performed, when the associated SRM is included in the fueled region.	12 hours
SR 3.3.1.2.3	Perform CHANNEL CHECK.	24 hours

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.1.2.4	---NOTE--- Not required to be met with less than or equal to four fuel assemblies adjacent to the SRM and no other fuel assemblies in the associated core quadrant. --- Verify count rate is: a. ≥ 3.0 cps, or b. ≥ 0.7 cps with a signal to noise ratio ≥ 2:1.	12 hours during CORE ALTERATIONS AND 24 hours
SR 3.3.1.2.5	---NOTE--- Not required to be performed until 12 hours after IRMs on Range 2 or below. --- Perform CHANNEL FUNCTIONAL TEST.	31 days
SR 3.3.1.2.6	---NOTES--- 1. Neutron detectors are excluded. 2. Not required to be performed until 12 hours after IRMs on Range 2 or below. --- Perform CHANNEL CALIBRATION.	24 months

Table 3.3.1.2-1 (page 1 of 1)
Source Range Monitor Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS
1. Source Range Monitor	2[(a)]	3	SR 3.3.1.2.1 SR 3.3.1.2.4 SR 3.3.1.2.5 SR 3.3.1.2.6
	3,4	2	SR 3.3.1.2.3 SR 3.3.1.2.4 SR 3.3.1.2.5 SR 3.3.1.2.6
	5	2[(b),(c)]	SR 3.3.1.2.1 SR 3.3.1.2.2 SR 3.3.1.2.4 SR 3.3.1.2.5 SR 3.3.1.2.6

(a) With IRMs on Range 2 or below.

(b) Only one SRM channel is required to be OPERABLE during spiral offload or reload when the fueled region includes only that SRM detector.

(c) Special movable detectors may be used in place of SRMs if connected to normal SRM circuits.

3.6 CONTAINMENT SYSTEMS

3.6.3.2 Primary Containment and Drywell Hydrogen Igniters

LCO 3.6.3.2 Two divisions of primary containment and drywell hydrogen igniters shall be OPERABLE, each with > 90% of the associated igniter assemblies OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One primary containment and drywell hydrogen igniter division inoperable.	A.1 Restore primary containment and drywell hydrogen igniter division to OPERABLE status.	30 days
B. Two primary containment and drywell hydrogen igniter divisions inoperable.	B.1 Verify by administrative means that the hydrogen control function is maintained. <u>AND</u> B.2 Restore one primary containment and drywell hydrogen igniter division to OPERABLE status.	1 hour 7 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3.	12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.3.2.1	Energize each primary containment and drywell hydrogen igniter division and perform current versus voltage measurements to verify required igniters in service.	184 days
SR 3.6.3.2.2	----------------------NOTE--------------------------------- Not required to be performed until 92 days after discovery of four or more igniters in the division inoperable. --- Energize each primary containment and drywell hydrogen igniter division and perform current versus voltage measurements to verify required igniters in service.	92 days
SR 3.6.3.2.3	Verify each required igniter in inaccessible areas develops sufficient current draw for a ≥ 1700°F surface temperature.	24 months

(continued)

SURVEILLANCE REQUIREMENTS (continued

SURVEILLANCE		FREQUENCY
SR 3.6.3.2.4	Verify each required igniter in accessible areas develops a surface temperature of ≥ 1700°F.	24 months

B 3.6 CONTAINMENT SYSTEMS

B 3.6.3.2 Primary Containment and Drywell Hydrogen Igniters

BASES

BACKGROUND

The primary containment and drywell hydrogen igniters are a part of the combustible gas control required by 10 CFR 50.44 (Ref. 1) and GDC 41, "Containment Atmosphere Cleanup" (Ref. 2), to reduce the hydrogen concentration in the primary containment following a degraded core accident. The hydrogen igniters ensure the combustion of hydrogen in a manner such that containment overpressure failure is prevented as a result of a postulated degraded core accident.

10 CFR 50.44 (Ref. 1) requires boiling water reactor units with Mark III containments to install suitable hydrogen control systems. The hydrogen igniters are installed to accommodate an amount of hydrogen equivalent to that generated from the reaction of 75% of the fuel cladding with water. This requirement was placed on reactor units with Mark III containments because they were not designed for inerting and because of their low design pressure. Calculations indicate that if hydrogen equivalent to that generated from the reaction of 75% of the fuel cladding with water were to collect in primary containment, the resulting hydrogen concentration would be far above the lower flammability limit such that, without the hydrogen igniters, if the hydrogen were ignited from a random ignition source, the resulting hydrogen burn would seriously challenge the primary containment.

The hydrogen igniters are based on the concept of controlled ignition using thermal igniters designed to be capable of functioning in a post accident environment, seismically supported and capable of actuation from the control room. Igniters are distributed throughout the drywell and primary containment in which hydrogen could be released or to which it could flow in significant quantities. The hydrogen igniters are arranged in two independent divisions such that each containment region has two igniters, one from each division, controlled and powered redundantly so that ignition would occur in each region even if one division failed to energize.

(continued)

BASES

BACKGROUND (continued)

When the hydrogen igniters are energized they heat up to a surface temperature ≥ 1700°F. At this temperature, they ignite the hydrogen gas that is present in the airspace in the vicinity of the igniter. The hydrogen igniters depend on the dispersed location of the igniters so that local pockets of hydrogen at increased concentrations would burn before reaching a hydrogen concentration significantly higher than the lower flammability limit.

APPLICABLE SAFETY ANALYSES

The hydrogen igniters cause hydrogen in containment to burn in a controlled manner as it accumulates following a degraded core accident (Ref. 3). Burning occurs at the lower flammability concentration, where the resulting temperatures and pressures are relatively benign. Without the system, hydrogen could build up to higher concentrations that could result in a violent reaction if ignited by a random ignition source after such a buildup.

The hydrogen igniters are not included for mitigation of a Design Basis Accident (DBA) because an amount of hydrogen equivalent to that generated from the reaction of 75% of the fuel cladding with water is far in excess of the hydrogen calculated for the limiting DBA loss of coolant accident (LOCA). The hydrogen concentration resulting from a DBA can be maintained less than the flammability limit using the hydrogen recombiners. However, the hydrogen igniters have been shown by probabilistic risk analysis to be a significant contributor to limiting the severity of accident sequences that are commonly found to dominate risk for units with Mark III containment.

The hydrogen igniters are considered to be risk significant in accordance with the NRC Policy Statement.

LCO

Two divisions of primary containment and drywell hydrogen igniters must be OPERABLE, each with more than 90% of the igniters OPERABLE (i.e., no more than 5 inoperable).

This ensures operation of at least one igniter division, with adequate coverage of the primary containment and

(continued)

BASES

LCO (continued)

drywell, in the event of a worst case single active failure. This will ensure that the hydrogen concentration remains near 4.0 v/o.

APPLICABILITY

In MODES 1 and 2, the hydrogen igniter is required to control hydrogen concentration to near the flammability limit of 4.0 v/o following a degraded core event that would generate hydrogen in amounts equivalent to a metal water reaction of 75% of the core cladding. The control of hydrogen concentration prevents overpressurization of the primary containment. The event that could generate hydrogen in quantities sufficiently high enough to exceed the flammability limit is limited to MODES 1 and 2.

In MODE 3, both the hydrogen production rate and the total hydrogen produced after a degraded core accident would be less than that calculated for the DBA LOCA. Also, because of the limited time in this MODE, the probability of an accident requiring the hydrogen igniter is low. Therefore, the hydrogen igniter is not required in MODE 3.

In MODES 4 and 5, the probability and consequences of a degraded core accident are reduced due to the pressure and temperature limitations. Therefore, the hydrogen igniters are not required to be OPERABLE in MODES 4 and 5 to control hydrogen.

ACTIONS

A.1

With one hydrogen igniter division inoperable, the inoperable division must be restored to OPERABLE status within 30 days. In this Condition, the remaining OPERABLE hydrogen igniter division is adequate to perform the hydrogen burn function. However, the overall reliability is reduced because a single failure in the OPERABLE subsystem could result in reduced hydrogen control capability. The 30 day Completion Time is based on the low probability of the occurrence of a degraded core event that would generate hydrogen in amounts equivalent to a metal water reaction of 75% of the core cladding, the amount of time available after the event for operator action to prevent hydrogen accumulation from exceeding the flammability limit, and the low probability of failure of the OPERABLE hydrogen igniter division.

(continued)

BASES

ACTION

B.1 and B.2

With two primary containment and drywell igniter divisions inoperable, the ability to perform the hydrogen control function via alternate capabilities must be verified by administrative means within 1 hour. The alternate hydrogen control capabilities are provided by at least one hydrogen recombiner and one hydrogen mixing subsystem. The 1 hour Completion Time allows a reasonable period of time to verify that a loss of hydrogen control function does not exist. The verification may be performed as an administrative check by examining logs or other information to determine the availability of the alternate hydrogen control capabilities. It does not mean to perform the Surveillances needed to demonstrate OPERABILITY of the alternate hydrogen control capabilities. If the ability to perform the hydrogen control function is maintained, continued operation is permitted with two igniter divisions inoperable for up to 7 days. Seven days is a reasonable time to allow two igniter divisions to be inoperable because the hydrogen control function is maintained and because of the low probability of the occurrence of a LOCA that would generate hydrogen in the amounts capable of exceeding the flammability limit.

C.1

If any Required Action and required Completion Time cannot be met, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours. The allowed Completion Time of 12 hours is reasonable, based on

(continued)

BASES

ACTIONS

C.1 (continued)

operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS

SR 3.6.3.2.1 and SR 3.6.3.2.2

These SRs verify that there are no physical problems that could affect the igniter operation. Since the igniters are mechanically passive, they are not subject to mechanical failure. The only credible failures are loss of power or burnout. The verification that each required igniter is energized is performed by circuit current versus voltage measurement of each circuit.

The Frequency of 184 days has been shown to be acceptable through operating experience because of the low failure occurrence, and provides assurance that hydrogen burn capability exists between the more rigorous 24 month Surveillances. Operating experience has shown these components usually pass the Surveillance when performed at a 184 day Frequency. Additionally, these surveillances must be performed every 92 days if four or more igniters in any division are inoperable. The 92 day Frequency was chosen, recognizing that the failure occurrence is higher than normal. Thus, decreasing the Frequency from 184 days to 92 days is a prudent measure, since only two more inoperable igniters (for a total of six) will result in an inoperable igniter division. SR 3.6.3.2.2 is modified by a Note that indicates that the Surveillance is not required to be performed until 92 days after four or more igniters in the division are discovered to be inoperable.

SR 3.6.3.2.3 and SR 3.6.3.2.4

These functional tests are performed every 24 months to verify system OPERABILITY. The current draw to develop a surface temperature of ≥ 1700°F is verified for igniters in inaccessible areas. Inaccessible areas are defined as areas that have high radiation levels during the entire refueling outage period. These areas are the heat exchanger, filter demineralizer, backwash, and holding pump rooms of the RWCU system. Additionally, the surface temperature of each accessible igniter is verified to be ≥ 1700°F to demonstrate

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.6.3.2.3 and SR 3.6.3.2.4 (continued)

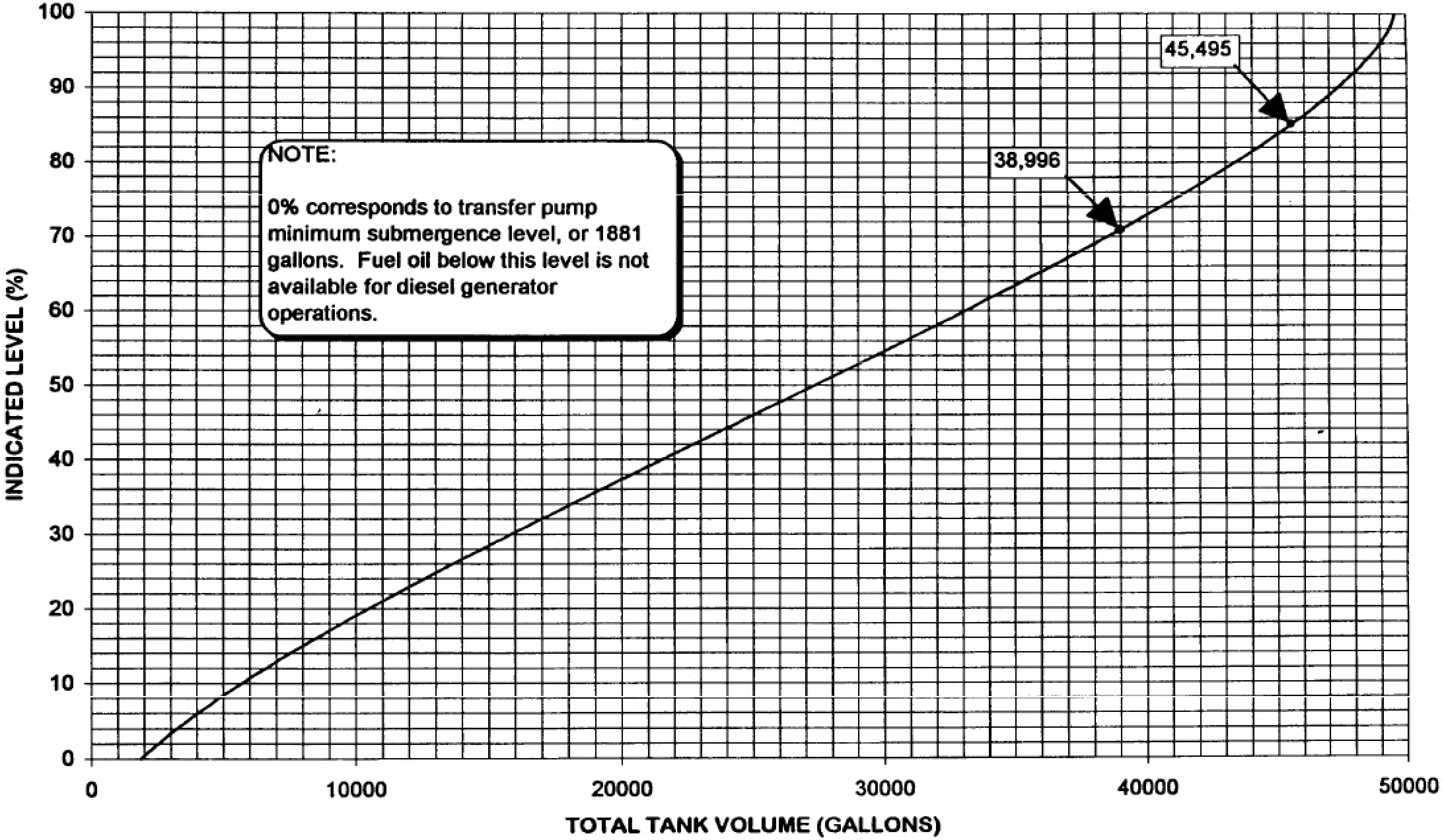
that a temperature sufficient for ignition is achieved. The 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power.

REFERENCES

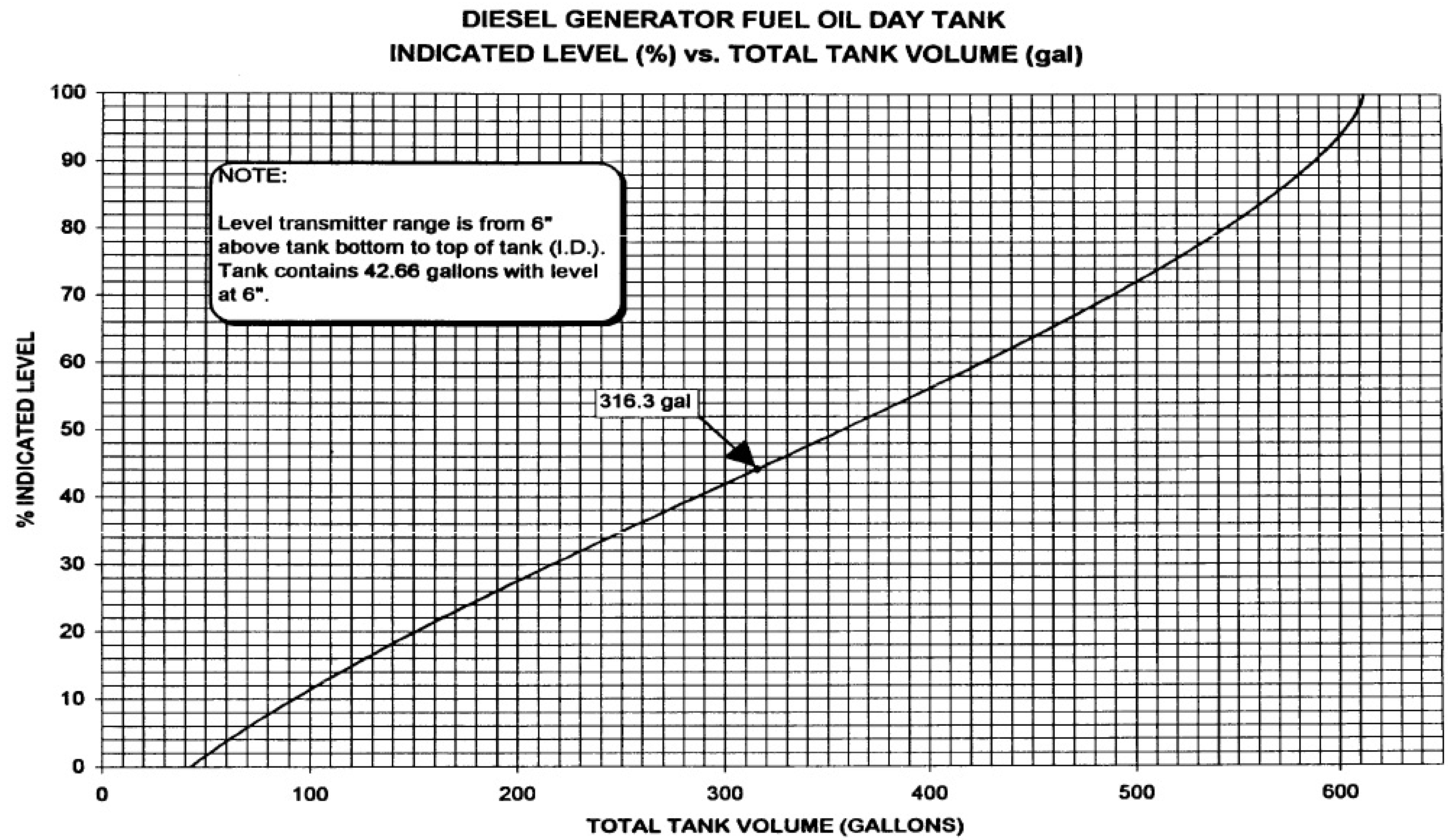
1. 10 CFR 50.44.
2. 10 CFR 50, Appendix A, GDC 41.
3. USAR, Section 6.2.5.

STORAGE TANK FUEL OIL LEVEL INDICATION

DIESEL GENERATOR FUEL OIL STORAGE TANK
INDICATED LEVEL (%) vs. TOTAL TANK VOLUME (gal)



FUEL OIL DAY TANK LEVEL INDICATION



NOTE: *This graph shows the Tech Spec Limit of 316.3 gals as 44%. However, due to indication errors the minimum Tech Spec level will be 45%.*

3.8 ELECTRICAL POWER SYSTEMS

3.8.3 Diesel Fuel Oil, Lube Oil, and Starting Air

LCO 3.8.3 The stored diesel fuel oil, lube oil, and starting air subsystem shall be within limits for each required diesel generator (DG).

APPLICABILITY: When associated DG is required to be OPERABLE.

ACTIONS

---NOTE---

Separate Condition entry is allowed for each DG.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more DGs with fuel oil level < 45,495 gal and ≥ 38,996 gal.	A.1 Restore fuel oil level to within limits.	48 hours
B. One or more DGs with lube oil inventory: 1. For DG 1A or 1B, < 367 gal and ≥ 350 gal; and 2. For DG 1C, < 295 gal and ≥ 265 gal.	B.1 Restore lube oil inventory to within limits.	48 hours
C. One or more DGs with stored fuel oil total particulates not within limit.	C.1 Restore fuel oil total particulates to within limit.	7 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
D. One or more DGs with new fuel oil properties not within limits.	D.1	Restore stored fuel oil properties to within limits.	30 days
E. Required Actions and associated Completion Time not met. <u>OR</u> One or more DGs with diesel fuel oil, lube oil, or starting air subsystem not within limits for reasons other than Condition A, B, C, or D.	E.1	Declare associated DG inoperable.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.3.1	Verify each fuel oil storage tank contains ≥ 45,495 gal of fuel.	31 days
SR 3.8.3.2	Verify lube oil inventory is: a. ≥ 367 gal for DGs 1A and 1B; and b. ≥ 295 gal for DG 1C.	31 days
SR 3.8.3.3	Verify fuel oil properties of new and stored fuel oil are tested in accordance with, and maintained within the limits of, the Diesel Fuel Oil Testing Program.	In accordance with the Diesel Fuel Oil Testing Program
SR 3.8.3.4	Verify each required DG air start receiver pressure is a. ≥ 160 psig for DGs 1A and 1B; and b. ≥ 200 psig for DG 1C.	31 days
SR 3.8.3.5	Check for and remove accumulated water from each fuel oil storage tank.	31 days
SR 3.8.3.6	Deleted	

3.6 CONTAINMENT SYSTEMS

3.6.1.7 Primary Containment Unit Coolers

LCO 3.6.1.7 Two primary containment unit coolers shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One required primary containment unit cooler inoperable.	A.1 Restore required primary containment unit cooler to OPERABLE status.	7 days
B. Two required primary containment unit coolers inoperable.	B.1 Restore one required primary containment unit cooler to OPERABLE status.	8 hours
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3. AND C.2 Be in MODE 4.	12 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.1.7.1	Verify each required primary containment unit cooler pressure relief and backdraft damper in the flow path that is not locked, sealed, or otherwise secured in position, is in the correct position.	31 days
SR 3.6.1.7.2	Verify each required primary containment unit cooler develops a flow rate of ≥ 50,000 cfm on recirculation flow through the unit cooler.	92 days
SR 3.6.1.7.3	Verify each required primary containment unit cooler actuates throughout its emergency operating sequence on an actual or simulated automatic initiation signal.	24 months