

Draft Submittal

**SEQUOYAH RETAKE EXAM
50-327 & 50-328/2003-301**

FEBRUARY 27, 2003

1. Operating Test Simulator Scenarios

Facility: Sequoyah Scenario No.: 1 Op-Test No.: 1

Examiners: _____ Operators: _____

Initial Conditions: Plant is at 94% power following a trip after a refueling outage. 10gpd leakage in #3 S/G.

Turnover: Maintain current plant power level and place excess letdown in service. A Severe Thunderstorm Warning is in effect for Hamilton and Rhea counties for the next 2 hours. There is general increased security due to validated threats in the US.

Event No.	Mal. No.	Event Type*	Event Description
			Set up simulator to IC- 9.
Preinsert			"B" Containment Spray Pump OOS
Preinsert			"B" MDAFW Pump OOS
Preinsert	RH01A	C	"A" RHR Pump Fails
Preinsert	RP16K 605A	C	Phase "A" fails to actuate
1	-	N (RO)	Place Excess Letdown in Service
2	RX18 100%	I (RO)	Tavg Channel fails High
3	FW05B	C (BOP)	"B" MFP trips
4	TH01A	M (All)	Large Break LOCA Loop 1

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor, (P)RA, (L)ow Power

Op-Test No.: _____ Scenario No.: 1 Event No.: 1 Page 1 of 1Event Description: Removing Letdown from Service/Place Excess Letdown in Service

Time	Position	Applicant's Actions or Behavior
		SO-62-1 Steps
	OATC	OBTAIN permission from Unit 1 SRO to remove letdown from service
	OATC	IF excess letdown is to be put in service, THEN PERFORM 1-SO-62-6, AND RETURN .
	OATC	ENSURE following letdown orifice valves CLOSED : [1-FCV-62-72], [1-FCV-62-73], [1-FCV-62-74]
	OATC	CLOSE following letdown isolation valves: 1-FCV-62-69, 1-FCV-62-70
		SO-62-6 Steps
	OATC	ENSURE [1-FCV-62-93] is in MANUAL AND OPERATE as needed to regulate charging flow to keep pressurizer level on program
	US	NOTIFY RADCON that Excess Letdown is being PLACED in SERVICE
	CRO	ENSURE [1-FCV-70-143] CCS water to the excess letdown heat exchanger is OPEN
	CRO	ENSURE [1-FCV-70-85] Excess Letdown Heat Exchanger CCS flow control valve is OPEN
	CRO	ENSURE [1-FI-70-84] is indicating greater than 230 gpm
	OATC	ENSURE Excess Letdown 3-way divert valve [1-FCV-62-59] is in NORMAL
	OATC	OPEN [1-FCV-62-54] Cold Leg Loop #3 Excess Letdown isolation valve
	OATC	OPEN [1-FCV-62-55] Excess Letdown containment isolation valve
	OATC	OPEN [1-FCV-62-56] slowly to increase excess letdown flow to desired amount, not to exceed 240°F heat exchanger outlet temperature, as indicated on 1-TI-62-58
	US	NOTIFY RADCON that Excess Letdown has been placed in service

Op-Test No.: _____ Scenario No.: 1 Event No.: 2 Page 1 of 1Event Description: Tavg Channel Fails High

Time	Position	Applicant's Actions or Behavior
		AOP-C.01 Steps
	US	EVALUATE the following Tech Specs for applicability
	US	EVALUATE EPIP-1, Emergency Plan Classification Matrix
	CREW	DIAGNOSE the failure: Continuous control bank movement , Section 2.2
	OATC	CHECK rod control: ENSURE rod control in MAN, CHECK rod motion STOPPED (YES) <i>critical task</i>
	OATC	CHECK for instrumentation malfunction
	OATC	CHECK nuclear instrumentation OPERABLE
	OATC	CHECK RCS RTDs OPERABLE
	CRO	CHECK turbine impulse pressure channels OPERABLE
	OATC	CHECK T-ref OPERABLE, USING TR-68-2B
	OATC	CHECK Auct T-avg OPERABLE, USING TR-68-2B
	CRO	PLACE Steam Dumps in Steam Pressure Mode
	OATC	IF pressurizer level does not control in automatic, THEN CONTROL pressurizer level manually
	OATC	DETERMINE Program T-avg for current reactor power USING TI-28 Figure A.9
	US	NOTIFY MIG of T-avg failure
	OATC/CRO	RESTORE T-avg. to T-Ref: POSITION control rods, ADJUST turbine load, ADJUST RCS boron concentration
	OATC	CHECK for steam line or feedwater line break/leak: CHECK for rising reactor power with dropping T-avg (NO)
	OATC	CHECK for inadvertent boration flow: CHECK evidence of boration flow INDICATED (NO)
	OATC	CHECK for inadvertent dilution flow: CHECK evidence of dilution flow INDICATED (NO)
	OATC	CHECK for rod control system integrity, VERIFY T-avg. and T-Ref matched, PLACE control rods in AUTO (NO)
	US	NOTIFY Duty Operations Manager of the situation
	US	NOTIFY IM to determine and correct cause of rod control circuit failure

Op-Test No.: _____		Scenario No.: <u> 1 </u>	Event No.: <u> 3 </u>	Page <u> 1 </u> of <u> 2 </u>
Event Description: <u> "B" MFP Trips </u>				
Time	Position	Applicant's Actions or Behavior		
		AR-M3B (A2) Steps		
	CRO	IF unit > 80% load, THEN , VERIFY all auxiliary feedwater pumps start		
	US	IF unit > 80% load and one MFP trips, THEN, GO TO AOP-S.01, <i>Loss of Normal Feedwater</i>		
		AOP-S.01 Steps		
	CRO	VERIFY turbine runback to less than 73% load (~880 Mwe).		
	OATC	VERIFY control rods inserting automatically to match T-avg and T-ref		
	CRO	ENSURE running main feedwater pump FULLY LOADED, speed controller output at maximum [M-3, SIC-46-20A or SIC-46-20B].		
	CRO	ENSURE the following for Auxiliary Feedwater Pumps		
	CRO	MDAFW Pumps RUNNING [M-4]:		
	CRO	TDAFW Pump RUNNING [M-3].		
	CRO	TDAFW Pump LCVs OPEN [M-3].		
	CRO	MDAFW Pump recirculation valves CLOSED [M-4]: FCV-3-400, FCV-3-401		
	CRO	ENSURE affected Main Feedwater Pump Turbine Condenser isolation valves CLOSED, Condenser B		
	CRO	ENSURE the steam generator blowdown valves CLOSED [M-4]:		
	CRO	RESTORE steam generator levels to program level		
	US	EVALUATE placing additional condensate pumps IN SERVICE as necessary (N/A)		
	CRO	ENSURE unit STABILIZED		
	US	DISPATCH an operator to investigate cause of main feedwater pump trip		
	CRO	CLOSE Turbine Driven Auxiliary Feedwater Pump LCVs as required [M-3]:		
	CRO	RESET Steam Dump Load Rejection Signal:		
	CRO	PLACE HS-1-103A and 103B, Steam Dump Control, in OFF.		
	CRO	PLACE HS-1-103D, Steam Dump Control, in RESET and VERIFY spring return to TAVG.		
	CRO	VERIFY C-7, LOSS OF LOAD INTERLOCK alarm, DARK [M-4A, 5E]		

Op-Test No.: _____		Scenario No.: <u> 1 </u>	Event No.: <u> 3 </u>	Page <u> 2 </u> of <u> 2 </u>
Event Description : <u> "B" MFP Trips </u>				
Time	Position	Applicant's Actions or Behavior		
		AOP-S.01 Steps Continued		
	CRO	ENSURE Steam Dump demand is zero (Will have to place in Steam Press Mode due to previous failure) <i>critical task</i>		
	CRO	PLACE HS-1-103A and 103B, Steam Dump Control, in ON.		
	CRO	RESTORE following systems to NORMAL		
	CRO	Auxiliary Feedwater USING 1,2-SO-3-2		
	CRO	Steam Generator Blowdown USING 1,2-SO-15-1		
		SO-3-2 Steps		
	CRO	ENSURE all automatic AFW start signals clear		
	CRO	IF shutdown of A-A AFW pump is required, THEN		
	CRO	PLACE [1-HS-3-118A] to STOP		
	CRO	ENSURE [1-FCV-3-400] recirc isolation valve is CLOSED		
	CRO	IF shutdown of B-B AFW pump is required, THEN		
	CRO	PLACE [1-HS-3-128A] to STOP		
	CRO	ENSURE [1-FCV-3-401] recirc isolation valve is CLOSED		
	CRO	IF the AFW system is to be put in standby, THEN		
	CRO	PLACE the system in standby readiness per Section 5.1 and Appendix A of this Instruction		

Time	Position	Applicant's Actions or Behavior
Op-Test No.: _____ Scenario No.: <u>1</u> Event No.: <u>4</u> Page <u>1</u> of <u>5</u>		
Event Description : <u>Large Break LOCA Loop 1</u>		
		E-0 Actions
	OATC	VERIFY reactor TRIPPED
	CRO	VERIFY turbine TRIPPED
	CRO	VERIFY shutdown boards ENERGIZED
	CRO/OATC	DETERMINE if SI actuated (Yes)
	CRO	VERIFY CCS pumps RUNNING
	CRO	CHECK ERCW system operation, VERIFY at least four ERCW pumps RUNNING, VERIFY D/G ERCW supply valves OPEN
	CRO/OATC	VERIFY ECCS pumps RUNNING
	OATC	VERIFY CCP flow through CCPIT
	OATC	* CHECK RCS pressure less than 1500 psig (YES)
	OATC	VERIFY ESF systems ALIGNED, Phase A ACTUATED, Containment Ventilation Isolation ACTUATED, Status monitor panels, Train A status panel 6K, Train B status panel 6L <i>critical task</i>
	OATC	MONITOR containment spray NOT required (NO)
	OATC	ENSURE containment spray INITIATED
	OATC	Containment spray pumps RUNNING
	OATC	Containment spray header isolation valves FCV-72-39 and FCV-72-2 OPEN
	OATC	Containment spray recirculation valves to RWST FCV-72-34 and FCV-72-13 CLOSED
	OATC	Containment spray header flow greater than 4750 gpm per train
	OATC	Panel 6E LIT
	OATC	ENSURE Phase B valves CLOSED, Panel 6K PHASE B GREEN, Panel 6L PHASE B GREEN
	OATC	STOP RCPs
	OATC	MONITOR containment air return fans
	OATC	WHEN 10 minutes have elapsed, THEN ENSURE containment air return fans are running

Time	Position	Applicant's Actions or Behavior
Op-Test No.: ___ Scenario No.: ___1___ Event No.: ___4___ Page <u>2</u> of <u>5</u>		
Event Description : ___Large Break LOCA Loop 1___		
	OATC	CHECK if main steam lines should be isolated (YES), VERIFY MSIVs and MSIV bypass valves CLOSED
	CRO	VERIFY MFW Isolation
	CRO	VERIFY AFW pumps RUNNING, MDAFW , TDAFW
	CRO	CHECK AFW valve alignment
	CRO	DETERMINE if secondary heat sink available (Yes)
	OATC	MONITOR RCS temperatures
	OATC	IF any RCP running, THEN CHECK T-avg stable at or trending to between 547°F and 552°F (NO)
	OATC/CRO	IF temperature less than 547°F and dropping, THEN PERFORM the following; ENSURE steam dumps and atmospheric reliefs CLOSED (NO)
	CRO	IF cooldown continues, THEN, PERFORM the following; CONTROL total feed flow USING EA-3-8, Manual Control of AFW Flow, MAINTAIN total feed flow greater than 440 gpm UNTIL narrow range level greater than 10% [25% ADV] in at least one S/G
	US/CRO	IF cooldown continues, THEN, CLOSE MSIVs and MSIV bypass valves
	CRO	DISPATCH personnel to perform EA-0-1, Equipment Checks Following ESF Actuation
	OATC	CHECK pressurizer PORVs, safeties, and spray valves
	EXAMINER NOTE	* Depending on crew speed, the crew may go back to step 7c when RCS pressure goes below 1500 psig
	OATC	MONITOR RCP trip criteria; At least one CCP OR SI pump RUNNING AND RCS pressure less than 1250 psig (NO*)
		A phase B signal should be generated during this portion of the procedure
	OATC	STOP RCPs
	CRO	CHECK if S/G secondary pressure boundaries are INTACT: All S/G pressures controlled or rising, All S/G pressures greater than 140 psig (YES)
	CRO	CHECK if S/G tubes are INTACT (YES)
	OATC	CHECK if RCS is INTACT: Containment pressure NORMAL (NO)
	US	PERFORM the following: MONITOR status trees, GO TO E-1, Loss of Reactor or Secondary Coolant
	EXAMINER NOTE	<i>STA Should Identify a Transition to FR-P.1 is required</i>

Time	Position	Applicant's Actions or Behavior
Op-Test No.: _____ Scenario No.: <u> 1 </u> Event No.: <u> 4 </u> Page <u> 3 </u> of <u> 5 </u>		
Event Description : <u> Large Break LOCA Loop 1 </u>		
		FR-P.1 Steps
	OATC	MONITOR RWST level greater than 27%.
	CRO	MONITOR CST level greater than 10%.
	OATC	CHECK RCS pressure greater than 180 psig (NO)
	OATC	IF at least one RHR pump flow greater than 1500 gpm, THEN RETURN TO procedure and step in effect
	<i>EXAMINER NOTE</i>	<i>STA Should Identify a Transition to FR-Z.1 is required</i>
		FR-Z.1 Steps
	OATC	MONITOR RWST level greater than 27%.
	OATC	VERIFY containment ventilation dampers CLOSED, Panel 6K CNTMT VENT GREEN, Panel 6L CNTMT VENT GREEN
	OATC	VERIFY Phase A valves CLOSED, Panel 6K PHASE A GREEN, Panel 6L PHASE A GREEN (Action should be taken to close valves that failed to actuate)
	OATC	VERIFY Phase B valves CLOSED, Panel 6K PHASE B GREEN, Panel 6L PHASE B GREEN
	OATC	VERIFY containment spray operation
	OATC	STOP RCPs
	OATC	CHECK procedure applicability for containment spray operation, RHR sump recirculation capability AVAILABLE
	OATC	VERIFY containment spray pumps RUNNING
	OATC	MONITOR RWST level greater than 8%.
	OATC	VERIFY containment spray suction ALIGNED to RWST
	OATC	VERIFY containment spray discharge alignment
	OATC	VERIFY EGTS operation, VERIFY EGTS fans RUNNING, VERIFY EGTS operation NORMAL
	OATC	MONITOR containment air return fans, WHEN 10 minutes have elapsed, THEN VERIFY containment air return fans RUNNING
	OATC	VERIFY MSIVs and MSIV bypass valves CLOSED
	OATC	DETERMINE if any S/G Intact, CHECK at least one S/G pressure, Controlled or rising, and Greater than 140 psig
	CRO	DETERMINE if any S/G Faulted (NO)

Op-Test No.: _____ Scenario No.: <u>1</u> Event No.: <u>4</u> Page <u>4</u> of <u>5</u>		
Event Description : <u>Large Break LOCA Loop 1</u>		
Time	Position	Applicant's Actions or Behavior
		FR-Z.1 steps continued
	OATC	MONITOR if RHR spray should be placed in service (NO)
	OATC	MONITOR if containment spray should be stopped
	OATC	CHECK any containment spray pump RUNNING
	OATC	CHECK containment pressure less than 2.0 psid
	OATC	RESET Containment Spray
	OATC	STOP containment spray pumps and PLACE in A-AUTO
	OATC	CLOSE containment spray discharge valves FCV-72-2 and FCV-72-39.
	OATC	MONITOR if containment vacuum control should be returned to normal, CHECK containment pressure less than 1.5 psid
	OATC	VERIFY containment vacuum relief isolation valves OPEN, FCV-30-46 OPEN, FCV-30-47 OPEN, FCV-30-48 OPEN
		E-1 Steps
	OATC	MONITOR RCP trip criteria; At least one CCP OR SI pump RUNNING AND RCS pressure less than 1250 psig
	CRO	CHECK if S/G secondary pressure boundaries are INTACT: All S/G pressures controlled or rising, All S/G pressures greater than 140 psig (YES)
	CRO	MAINTAIN intact S/G narrow range levels: > 25%, Between 25 - 50%
	CRO	VERIFY secondary radiation NORMAL: CHECK the following radiation monitors, including available trends prior to isolation: Main steamline NORMAL, Condenser exhaust NORMAL, S/G blowdown recorder RR-90-120, pen #1 and pen #2 NORMAL, Post-Accident Area Radiation Monitor recorder RR-90-268B, points 3 (blue), 4 (violet), 5 (black), and 6 (brown) NORMAL. [M-31 (back of M-30)]
	US	NOTIFY chem lab to take S/G activity samples every 60 minutes
	US	NOTIFY RADCON to survey main steamlines and S/G blowdown
	OATC	MONITOR pressurizer PORVs and block valves: Power to block valves AVAILABLE, Pressurizer PORVs CLOSED, At least one block valve OPEN
	CRO	ENSURE Reactor Building auxiliary floor and equipment drain sump pumps (pocket sump pumps) STOPPED

Op-Test No.: _____ Scenario No.: 1 Event No.: 1 Page 5 of 5 Event Description : Large Break LOCA Loop 1

Time	Position	Applicant's Actions or Behavior
		E-1 Steps
	OATC	MONITOR SI termination criteria
	OATC	RCS subcooling based on core exit T/Cs greater than 40°F
	CRO	Secondary heat sink: Narrow range level in at least one Intact S/G greater than 10% [25% ADV]. Or Total feed flow to Intact S/Gs greater than 440 gpm
	OATC	RCS pressure stable or rising (NO)
	OATC	MONITOR if containment spray should be stopped
	OATC	CHECK any containment spray pump running.
	OATC	CHECK containment pressure less than 2.0 psid.
	OATC	RESET containment spray.
	OATC	STOP containment spray pumps and PLACE in A-AUTO.
	OATC	CLOSE containment spray discharge valves FCV-72-2 and FCV-72-39.
	OATC	MONITOR if containment vacuum control should be returned to normal
	OATC	CHECK containment pressure less than 1.5 psid.
	OATC	VERIFY containment vacuum relief isolation valves OPEN: FCV-30-46, FCV-30-47, FCV-30-48
		TERMINATE THE EXERCISE AT TRANSITION TO ES-1.3

CONSOLE OPERATOR'S INSTRUCTIONS

ELAP. TIME	IC/MF/RF/OR #	DESCRIPTION
<p>Sim. Setup</p>	<p>Reset IC-9 Perform switch check. Allow the simulator to run for at least 3 minutes before loading CAE or starting the exercise. This will initialize ICS. Load cae ! nrcexamsb Place simulator momentarily in RUN, Place OOS equipment in required position with tags, Clear alarms and Return to FREEZE.</p>	<p>Initialize simulator at 95% RTP. Place Mode 1 placards on panel. Update M-5 placard with RCS C_B from Chemistry Report.</p>
	<p>Disable override "RCR". RCR Off Important Note --></p>	<p>Steps control banks to proper position. Shutdown banks should be fully withdrawn. Ensure operator aid placard is marked NO to core burnup greater than 12000 MWD/MTU. Place B Train Week sign on the simulator.</p>
<p>This remote function is inserted when the CAE file is loaded.</p>	<p>MRF csr04 off IOR zlohs7220a[1] off IOR zlohs7220a[2] off IOR zdihs7220a close IOR zlohs7213a[1] off IOR zlohs7213a[2] off IOR zdihs7213a close IOR zlohs7221a[1] off IOR zlohs7221a[2] off IOR zdihs7221a close</p>	<p>1B-B Cntmt Spray breaker racked out and pump tagged for maintenance. Place a hold order on the 1B-B CS handswitch and valves HS-72-20/21 & 13.</p>
<p>This remote function is active when the CAE file is loaded.</p>	<p>MRF fwr35 out IOR zlohs3126aa[1] off IOR zlohs3126aa[2] off IOR zlohs3126aa[3] off IOR zlohs3126aa[4] off IOR zdihs3126aa close</p>	<p>1B-B MDAFW pump breaker racked out and pump tagged for maintenance. <u>Place a hold order on the 1B-B MDAFW pump & HS-3-126 handswitches.</u></p>

CONSOLE OPERATOR'S INSTRUCTIONS

This malfunction is active when the CAE file is loaded	imf rh01a (none 0)	RHR PUMP 1A-A TRIPs or Fails to Start <i>When the Support ASOS/AUO are dispatched to investigate, wait ~ 5 min. and report that the relay target is instantaneous overcurrent and the pump smells hot.</i>
This malfunction is active when the CAE file is loaded	imf rp16k605a (none 0)	Tr A Phase A Relay Failure.(SYS 77/blowdown/sample)
This malfunction is active when the CAE file is loaded	imf rp16k605b (none 0)	Tr B Phase A Relay Failure.(SYS 77/blowdown/sample)
At examiner discretion, after TS reviewed, insert this malfunction	imf rx18 (none 20000) 100 1 asis	T-AVE CONTROL SIGNAL FAILURE
At examiner discretion, after TS reviewed, insert this malfunction	imf fw05b (none 20000)	MAIN FEED PUMP 1B TRIP <i>When personnel dispatched to investigate, wait ~ 3 minutes and report that appears to be a problem with oil pressure switch.</i> <i>Steam dumps should be put in steam pressure mode not Tavg due to previous failure.</i>
At examiner discretion, before S/G blowdown restored, insert this malfunction	imf th01a (none 20000) 100 1 0	LOCA Hot Leg Break Loop 1

1. Ensure recorders are inking and recording and ICS is active and updating.
2. Assign Crew Positions: (Assign positions based on evaluation requirements for personnel) Log positions in Attachment A.

 PR - Procedure Reader
 OATC - Reactor Operator
 CRO - Balance of Plant Operator
3. Provide the PR with a copy of the Shift Turnover.
4. Direct the shift crew to review the control board and take note of present conditions, alarms, etc.
5. Critical Tasks (CTs) are noted with **(CT #)** under the event header for each page. The crew position which should perform specific actions to ensure a CT is satisfied will be noted with the symbol .

SIMULATOR EXERCISE GUIDE

Unit <u> 1 </u>	Rx Power <u> 95 </u>	MWD/MTU <u> 5085 </u>
Train B Week		
Place excess letdown in service in preparation for maintenance on NRHX then maintain current Power Level.		
3.6.2.1 for 1B-B CS pump.; Tagged for maintenance to replace motor.		
3.7.1.2.a for 1B-B MD AFW pump.; Tagged for maintenance to replace pump.		
There is general increased security due to validated threats in the US.		
The National Weather Service has announced a severe storm warning for Hamilton and Rhea counties. It is to remain in effect for 2 more hours.		
There is a small (40 gpd) S/G tube leak in #3 S/G. Chem lab is sampling and monitoring.		

SIMULATOR EXERCISE GUIDE

Operations Chemistry Information

Boron Results					
Sample Point	Units	Boron	Date / Time	Goal	Limit
U1 RCS	ppm	998	Today / Now	Variable	Variable
U2 RCS	ppm	1109	Today / Now	Variable	Variable
U1 RWST	ppm	2611	Today / Now	2550 - 2650	2500 - 2700
U2 RWST	ppm	2588	Today / Now	2550 - 2650	2500 - 2700
BAT A	ppm	6706	Today / Now	Variable	Variable
BAT B	ppm	6847	Today / Now	Variable	Variable
BAT C	ppm	6311	Today / Now	Variable	Variable
Spent Fuel Pool	ppm	2418	Today / Now	≥ 2050	≥ 2000

Lithium Results					
Sample Point	Units	Lithium	Date / Time	Goal	Midpoint
U1 RCS	ppm	1.84	Today / Now	1.71-2.01	1.86
U2 RCS	ppm	3.19	Today / Now	3.02-3.34	3.18

Primary to Secondary Leakrate Information (Total CPM RM-90-99/119)					
Indicator	Units	U1	Date / Time	U2	Date/Time
SI 50 S/G Leakage?	Yes/No	No	Today / Now	No	Today / Now
SI 137.5 CVE Leakrate	gpd	< 0.1	Today / Now	< 0.1	Today / Now
5 gpd leak equivalent	cpm	248	Today / Now	1282	Today / Now
15 gpd (30 min increase)	cpm	625	Today / Now	3726	Today / Now
30 gpd leak equivalent	cpm	1290	Today / Now	7492	Today / Now
75 gpd leak equivalent	cpm	3166	Today / Now	18670	Today / Now
150 gpd leak equivalent	cpm	6292	Today / Now	37300	Today / Now
CVE Air Inleakage	cfm	10	Today / Now	21	Today / Now
Background onRM-99-119		40	Today / Now	40	Today / Now

Key Parameters are RCS Lithium & Hydrogen, SGBD Sodium, Sulfate & Molar Ratio, and FW Iron

Task Description	Date Complete
1. Facility written exam comments or graded exams received and <i>verified complete</i>	N/A
2. Facility written exam comments reviewed and incorporated and NRC grading completed, if necessary	N/A
3. <i>Operating tests graded by NRC examiners</i>	N/A
4. NRC Chief examiner review of written exam and operating test grading completed	3/3/03
5. Responsible supervisor review completed	3/4/03
6. Management (licensing official) review completed	3/7/03
7. License and denial letters mailed	
8. Facility notified of results	3/7/03
9. Examination report issued (refer to NRC MC 0610)	3/7/03
10. Reference material returned after final resolution of any appeals	N/A