٠. 7- 892 -POINDID NINE MILE Inaining Department Find ANDINITIALS **APPROVAL** ON 2 Operations Training Supervisor Unit II • R. T. Seifried Assistant Superintendent Nuclear -Training 90 M. J. Colomb Operations M.J.Cohn 5 2/13/90 Superintendent Unit II Summary of Pages Revision: _2 (Effective Date:) Number of Pages:<u>102</u> Date Pages 1-111,1-199 January 1990 IAGARA MOHAWK POWER

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Revision 2 of the Reactor Operator Candidates OJT Manual serves to incorporate existing OJT sections into a single Reactor Operator OJT Manual, as well as to make revisions to update these respective sections. These sections existed as separate documents before incorporation, each with its own revision number.

Revision 2 of the Reactor Operator Candidate OJT Manual incorporates the following documents:

Reactor Operator Candidate OJT Manual -System 200 Emergency Tasks Rev. 1 + Revisions System 201 Control Rod Drive Rev. 1 + Revisions System 202 Reactor Recirculation System Rev. 1 + Revisions System 204 Reactor Water Cleanup System Rev. 1 + Revisions System 205 Residual Heat Removal System Rev. 2 + Revisions System 206 High Pressure Core Spray Rev. 1 + Revisions System 208 Reactor Building Closed Loop Cooling Rev. 1 + Revisions System 209 Low Pressure Core Spray System Rev. 1 + Revisions System 211 Standby Liquid Control System Rev. 1 + Revisions System 212 Reactor Protection System Rev. 1 + Revisions System 214 Rod Position Indication System Rev. 0 + Revisions System 215 Nuclear Instrumentation System Rev. 1 + Revisions System 217 Reactor Core Isolation Cooling System Rev. 1 + Revisions System 218 Automatic Depressurization System Rev. 1 + Revisions System 221 Containment Entry and Exit System Rev. 0 + Revisions System 222 Drywell Cooling System Rev. 1 + Revisions System 223 Containment System Rev. 1 + Revisions System 224 Primary Containment Isolation System Rev. 1 + Revisions System 226 Safety Parameter Display System Rev. 1 + Revisions System 233 Spent Fuel Pool Cooling System Rev. 1 + Revisions System 234 Fuel Handling Equipment Rev. 1 + Revisions System 239 Main Steam System Rev. 1 + Revisions System 242 Auxiliary Steam Rev. 0 + Revisions System 243 Extraction Steam System Rev. 1 + Revisions System 245 Main Turbine Generator Rev. 1 + Revisions System 246 Main Turbine Steam Seal System Rev. 1 + Revisions System 247 Main Lube Oil System Rev. 1 + Revisions System 248 Main Turbine EHC System Rev. 1 + Revisions System 250 Seal Oil System Rev. 1 + Revisions System 252 Generator H_2 and CO_2 System Rev. 1 + Revisions System 253 Stator Water Cooling System Rev. 1 + Revisions System 254 Generator Bus Duct Cooling System Rev. 1 + Revisions System 255 Condenser Air Removal System Rev. 1 + Revisions System 256 Condensate System Rev. 1 + Revisions System 259 Reactor Feedwater System Rev. 1 + Revisions System 260 Feedwater Heater Vent & Drain System Rev. 0 + Revisions System 261 Standby Gas Treatment System Rev. 1 + Revisions System 262 AC Electrical Distribution System Rev. 2 + Revisions System 263 DC Electrical Distribution System Rev. 1 + Revisions System 264 Emergency Diesel Generator System Rev. 1 + Revisions

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System 271 Off-Gas System Rev. 1 + Revisions System 272 Radiation Monitoring System Rev. 0 + Revisions System 273 Meterological Monitoring System Rev. 1 + Revisions System 274 Turbine Building Closed Loop Cooling System Re. 1 + Revisions System 275 Circulating Water System Rev. 1 + Revisions System 276 Service Water System Rev. 1 + Revisions System 277 Loose Parts Monitoring System Rev. 1 + Revisions System 278 Instrument and Service Air System Rev. 1 + Revisions System 279 Breathing Air System Rev. 0 + Revisions System 283 Plant Computer Rev. 1 + Revisions System 284 Seismic Monitoring System Rev. 1 + Revisions System 285 Communications System Rev. 1 + Revisions System 286 Fire Protection System Rev. 0 + Revisions System 288 Plant Ventilation System Rev. 1 + Revisions System 291 Sump and Drain System Rev. 2 + Revisions System 294 Redundant Reactivity Control System Rev. 1 + Revisions System 296 Remote Shutdown System Rev. 1 + Revisions System 298 Miscellaneous Rev. 1 + Revisions System 299 Administrative System Rev. 1 + Revisions

The revisions to these documents, where they occur, will be marked with a revision bar, and labeled as Revision 2.

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UNIT II OPERATIONS REACTOR OPERATOR CANDIDATE OJT MANUAL

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- 1-4 Introduction Cover Letter
- 1-1 Evaluator Certification Sheet
- 1-b Progress Report/Evaluator Certification Matrix
- 1-c Progress Report/Evaluator Certification Matrix

SYSTEM NO. SYSTEM NAME

- 200 Emergency Tasks
- 201 Control Rod Drive
- 202 Reactor Recirculation System
- 204 Reactor Water Cleanup System
- 205 Residual Heat Removal System
- 206 High Pressure Core Spray System
- 208 Reactor Building Closed Loop Cooling Water System
- 209 Low Pressure Core Spray System
- 211 Standby Liquid Control System
- 212 Reactor Protection System
- 214 Rod Position Indication System
- 215 Nuclear Instrumentation System
- 217 Reactor Core Isolation Cooling System
- 218 Automatic Depressurization System
- 221 Containment Entry and Exit
- 222 Drywell Cooling System
- 223 Containment Systems
- 224 Primary Containment Isolation System

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SYSTEM NO.	. <u>SYSTEM NAME</u>
226	Safety Parameter Display System
233	Spent Fuel Pool Cooling System
234	Fuel Handling Equipment System
239	Main Steam System
242	Auxiliary Steam System
243	Extraction Steam System
245	Main Turbine Generator
246	Main Turbine Steam Seal System
247	Main Lube Oil System
248	Electro-Hydraulic Control System
250	Seal Oil System
252	Generator H ₂ and CO2 Systems
253	Stator Water Cooling System
254	Generator Bus Duct Cooling System
255	Condenser Air Removal System
256	Condensate System
259	Reactor Feedwater System
260	Feedwater Heater Vents and Drains
261	Standby Gas Treatment System
262	AC Electrical Distribution System
263	DC Electrical Distribution System
264	Emergency Diesel Generator System
271	Off-Gas System
272	Radiation Monitoring System
273	Meteorological Monitoring System
274	Turbine Building Closed Loop Cooling System

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SYSTEM NO.	SYSTEM NAME
275	Circulating Water System
276	Service Water System
277	Loose Parts Monitoring System
278	Instrument and Service Air System
279	Breathing Air System
283	Plant Computer System
284	Seismic Monitoring Equipment
285	Communications System
286	Fire Protection System
288	Plant Ventilation System
291	Sumps and Drains Systems
294	Redundant Reactivity Control System
296	Remote Shutdown System
298	Miscellaneous
299	Administrative

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RO REACTIVITY CHANGES RECORD SHEET

NINE MILE POINT UNIT II REACTOR OPERATOR CANDIDATE OJT PERFORMANCE MANUAL

PURPOSE:

- OSE: The purpose of the Reactor Operator Candidate OJT Performance Manual is to provide a systematic method for Reactor Operator Candidates to demonstrate proficiency in the performance of job tasks which have been identified in their working environment.
- SCOPE: The Reactor Operator Candidate OJT Performance Manual identifies tasks for which Reactor Operator Candidates must demonstrate satisfactory performance prior to being considered qualified to perform that task without supervisory aid. The satisfactory performance of each identified task will be witnessed and documented in each RO Candidate's OJT Manual by a qualified evaluator. Qualified evaluators shall be identified by the Operations Superintendent or his designee.

DESCRIPTION:

- A. Each Reactor Operator Candidate will be provided with an OJT Performance Manual. The proper use of this manual is described herein. Each system for which tasks are written is given a three-digit system identification number which is followed by a decimal point. Each task performed within or on this system receives a sequential number, e.g. 200.1, 200.2, 200.3. In this example, 200 represents the system number and .1, .2 and .3 represent their separate task.
- B. The Instructor Signature for Knowledge may be obtained from the instructor after you have successfully completed the system lecture, and have attained an 80% or higher on a written examination on the lecture material.
- C. The satisfactory performance of each task will be witnessed, dated and signed off by a Qualified Evaluator on the Task Evaluator Sheet. The level of performance, "P" perform, "S" simulate, "D" discuss will be identified by the evaluator by circling the appropriate letter designator. After the Instructor Signature for Knowledge and all task signatures are obtained, the Unit Training Supervisor or his Designee will date and sign the Task Complete space on the Task Evaluator Sheet. The Training Supervisor will then send the Task Evaluator Sheet and, if the individual has successfully completed Evaluator Training as specified in NTI 4.4.6, the Evaluator Certification Sheet to the Operations Superintendent.
- D. The Operations Superintendent should then date and sign the Task Qualified space on the Task Evaluator Sheet. He may or may not complete the Evaluator Certification Sheet, but in either circumstance return the forms to the Unit II Training Supervisor.

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- E. The Unit II Training Supervisor will then file the original Task Evaluator Sheet in the individual's training file and return the Evaluator Certification Sheet to the individual's OJT Manual. This program will be reviewed monthly.
- F. Qualified evaluators shall be identified by the Operations Superintendent or his designee as specified in NTI 4.4.6, Section 5.

RESPONSIBILITY:

The primary responsibility for the completion of this manual is with the individual. The Operations Superintendent and Training Department will provide assistance as required to aid the Reactor Operator in the completion of the manual.

Task Qualification Format

- 1. The following sections are contained in each task qualification section:
 - a. Cover Sheet
 - Identifies task module
 - Approvals and revision number
 - b. References
 - Provides a comprehensive list of procedures, applicable classroom text and other references as needed in order to satisfactorily perform identified job tasks for that qualification module.
 - c. Tasks Performance Criteria and Objectives
 - Each task has a task code number for tracking the progress of Reactor Operator Candidates.
 - Task performance criteria and objectives are listed.
 - d. Task checkoff Sheet
 - Each task requires an evaluator's signature to document satisfactory performance of that task and the level of performance circled.
 - This checkoff sheet serves as a record of satisfactory completion of the tasks listed in a module.
 - A copy of the Task Evaluator Sheet is kept with training records.
 - The Task Evaluator Sheet is periodically reviewed to update status of qualification.

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Instructions to Reactor Operator Candidates

- 1. The manual has Knowledge Requirements and Practical Requirements that must <u>all</u> be completed <u>prior</u> to the task completion signature being obtained.
- 2. The Knowledge Requirement where required is satisfied by the operator attending the regularly scheduled lecture on each task and <u>SATISFACTORILY</u> completing a written exam on that subject. The exam will be given at a time designated by the Training Supervisor and satisfactory results are shown by obtaining 80% or greater on the exam. At this time, the Training Supervisor or designee will sign and date the appropriate place on the Task Summary Sheet.
- 3. PRACTICAL REQUIREMENT
 - This requirement has an action code associated with each of the Α. items listed. These action codes (either P or S or D) designate the level of performance required for satisfactory completion of that item. "P" designates actual performance which must be accomplished by the operator and witnessed by a cognizant evaluator prior to obtaining the signature required. "S" designates simulation may be done in lieu of actual performance and witnessed by the cognizant evaluator prior to meeting the requirements for that signature. A "D" designates discussion of the task with a Qualified evaluator prior to obtaining the evaluator signature. Action code "P/S" will be driven by common sense and present plant conditions. If present plant conditions prohibit system operation to perform the task, then simulation is an acceptable criteria for task completion. Tasks followed by a + sign indicate that in plant performance is required for that specific task.
 - B. The designation "perform" (P) shall be understood to pertain to only those actions actually performed by the student in the routine performance of the task. Tasks performed in the simulator shall be considered a "perform".
 - C. The designation "simulate" (S) shall be understood as a walk-through of the steps necessary to perform a task. Switch locations, system indication locations, expected system responses and system operational constraints shall be discussed in a chronological order during the course of the simulation.
 - D. The designator (D) "discussion" shall be understood to pertain to those tasks which are not readily performed or simulated. The action code "discussion" shall be done with a qualified evaluator. In evaluating the trainee for a task, the evaluator should include a discussion of, but not limited to, personnel safety (including ALARA), proper use of procedures when operating equipment, correct application of appropriate Site Procedures (SP, SEPP, RPP, RAP, or others as appropriate), proper use of Technical Specifications and the proper use and routing of reports or documentation as required by procedures related to the task.

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- E. The candidate should review appropriate referenced procedures and material for identified job tasks prior to performing those tasks for the OJT evaluator.
- F. The candidate should review the performance criteria and performance objective for each qualification task. Be prepared to answer questions based on the performance criteria for that task. The performance objective for that task shall be considered met if all actions performed are in accordance with referenced procedures.
- For all tasks governed by a procedure, or procedures, compliance G. to said procedures shall be required by the evaluator in order to consider you qualified to perform that task.
- H. Notify a qualified evaluator of the job tasks you are assigned to perform for evaluation so that he can prepare and make necessary arrangements to evaluate you in a timely manner.
- Task Qualification Modules are to be retained in your OJT Manual. Ι. When not in use, the Manual shall be kept such that the Training | 2 Supervisor or Operations Superintendent may have access to it as necessary.
- Task Complete signature blocks will be signed when <u>all</u> other items J. on the Task Evaluator Sheet are signed off. Upon obtaining the Task complete signature the Record Sheet will be turned in to the cognizant Training Department personnel to be entered in the individual's personal training record.
- Κ. The candidate must perform at least five (5) significant control manipulations in the plant that effect reactivity or power level. Manipulations of the controls of the plant must be documented in the RO Reactivity Changes Record Sheet. Manipulations of the controls simulated in the plant simulator may also be recorded in | 2 the RO Reactivity Changes Record Sheet.
- EVALUATORS: Task evaluators on Nine Mile Point Unit II must hold an RO or SRO license and have completed the TSD, OJT evaluators course. Qualified simulator instructors may also sign-off tasks when performed in the simulator.

Instructions to Evaluator

- 1. Review appropriate referenced procedures and material for the applicable gualification tasks prior to evaluating the operator.
- Review the performance criteria and performance objective for each 2. qualification task. Questions based on the performance criteria for each qualification task may be used to measure the operator's knowledge level for performing that task. The performance objective shall be considered met if all actions by the operator are performed for that task in accordance with referenced procedures or industry standards.

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- 3. For all tasks governed by a procedure, or procedures, compliance to said procedures shall be required by the evaluator in order to consider an operator qualified to perform that task.
- 4. If any of the task performance criteria and/or performance objectives are not satisfactorily met, indicate the problem area to the operator. Do not sign the task qualification block of that task on the Task Evaluator Sheet section.
- 5. The evaluator will indicate satisfactory performance for each task by signing and dating the Task Evaluator sheet that follows each section.
 - a. Ensure the student's name is written at the top of the Task Summary Sheet.
 - b. Legibly sign the task on the "Evaluator" line in black ink.
 - c. Circle the applicable "Action Code" to denote the level of performance.
 - d. Include the date the evaluation was performed.

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Name

The above-named individual has successfully completed evaluator training.

Unit II Training Supervisor or Designee

I designate the above-named person as a certified evaluator for the following systems by initialing and dating the blanks.

Operations Superintendent

<u>System No.</u>	<u>System Name</u>	<u>Initials</u>	<u>Date</u>	
200	Emergency Tasks			·····
201	Control Rod Drive		<u></u>	
202	Reactor Recirculation System			
204	Reactor Water Cleanup System		я	
205	Residual Heat Removal System			<u></u>
206	High Pressure Core Spray System			
208	Reactor Building Closed Loop Coo Water System	ling		
209	Low Pressure Core Spray System	,	<u> </u>	
211	Standby Liquid Control System		·	
212	Reactor Protection System			
215	Nuclear Instrumentation System		<u></u>	
217	Reactor Core Isolation Cooling S	ystem		
218	Automatic Depressurization Syste	m		

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<u>System No.</u>	<u>System Name</u>	<u>Initials</u>	<u>Date</u>
222	Drywell Cooling System	<u> </u>	
223	Containment Systems	<u></u>	
224	Primary Containment Isolation System		
226	Safety Parameter Display System		
233	Spent Fuel Pool Cooling System		
234	Fuel Handling Equipment System	<u> </u>	
239	Main Steam System		
243	Extraction Steam System	<u> </u>	
245	Main Turbine Generator	<u> </u>	
246	Main Turbine Steam Seal System		
247	Main Lube Oil System ,		
248	Electro-Hydraulic Control System	<u> </u>	
250	Seal Oil System	<u> </u>	<u> </u>
252	Generator H ₂ and CO2 Systems	<u> </u>	
253	Stator Water Cooling System	<u> </u>	
254	Generator Bus Duct Cooling System		
255	Condenser Air Removal System		<u></u>
256	Condensate System		
259	Reactor Feedwater System	<u> </u>	
261	Standby Gas Treatment System	<u></u>	
262	AC Electrical Distribution System	<u> </u>	<u> </u>
263	DC Electrical Distribution System	<u></u>	
264	Emergency Diesel Generator System		
271	Off-Gas System	<u> </u>	

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<u>System No.</u>	<u>System Name</u>	<u>Initials</u>	<u>Date</u>
273	Meteorological Monitoring System	<u> </u>	
274	Turbine Building Closed Loop Cooling System		
275	Circulating Water System		
276	Service Water System		<u>-</u>
277	Loose Parts Monitoring System		
278	Instrument and Service Air System		, ,
283	Plant Computer System		<u></u>
284	Seismic Monitoring Equipment		
285	Communications System		
286	Fire Protection System		
288	Plant Ventilation System		<u></u>
291	Sump and Drain Systems		
294	Redundant Reactivity Control System		
296	Remote Shutdown System		ı
298	Miscellaneous		
299	Administrative		

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		FILE CODE:		
DATE		INITIAL	FINAL	PLANT/
INITIAL	EVOLUTION PERFORMED	POWER LEVEL	POWER LEVEL	SIMULATOR
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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 200 EMERGENCY TASKS

II. SYSTEM REFERENCES

Due to broad spectrum of tasks identified under this system, it is not practical to list all references. The list of references for this system would include, but are not limited to, the following:

Operating Procedures for NMPII Final Safety Analysis Report Technical Specifications Simulator Systems Manual Emergency Plan and Procedures Radiation Protection Procedures FSK, LSK, ESK Drawings

Therefore, individual task references are listed in the reference section of the OJT Task Manual for the appropriate system.

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

There are no specific testable knowledge requirements for this section due to the broad scope of topics covered. Knowledge will be gained by satisfactory performance of practicals as required by the evaluator responsible for signing the specific task.

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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C. Practical Requirements

	ITEM	ACTION CODE
200 1	Perform actions for Reactor High Pressure	Р
200.2	Perform actions required for a Loss of Coolant Accident (Small Leak) inside the Primary Containment	Ρ
200.3	Perform actions required for an anticipated transient without scram	Р
200.4	Perform actions required on a fire	· P/S
200.5	Perform actions for a loss of Condenser Vacuum	Ρ
200.6	Perform actions for a Steam Line Rupture	Р
200.7	Perform actions for a Radiation Monitoring System Alarm (High airborne activity or high radiator in a general area and for a local area)	P/S
200.8	Perform actions for a Loss of DC Power	P/S
200.9	Perform actions for a Loss of Off-site Power	Р
200.10	Discuss actions for a Fuel Handling Incident	D
200.11	Perform actions for a inadvertant criticality during Fuel Loading	D
200.12	Perform actions for a High Drywell Pressure	P/S
200.13	Perform actions for an Emergency Electrical System failure	Ρ
200.14	Perform actions for a Reactor Water Level High	P/S
200.15	Determine that power oscillations following two Recirc. Pump Trip are occurring and take required actions	. Р
200.16	Performs actions for a Main Steam Isolation Valve Closure	P/S
200.17	Perform actions for a Reactor Water Level Low	P/S
200.18	Perform actions for a Normal Electrical System failure	Ρ
200.19	Perform actions for a single Feedwater Pump Trip	Ρ
200.20	Perform actions for a Condensate System or Component Failure	P/S

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C. Prac	tical Requirements (Cont'd.)	ACTION
	ITEM	CODE
200.21	Perform actions for a Safety Relief Valve Opening	Ρ
200.22	Perform actions for a Loss of RPS Channel	Р
200.23	Perform actions for an APRM/LPRM Failure	р
200.24	Perform actions for an EHC Failure	Ρ
200.25	Perform actions for a Fuel Cladding Failure	Р
200.26	Perform actions for a Turbine Trip without Bypass	Ρ
200.27	Perform actions for a complete loss of Feedwater	Ρ
200.28	Perform actions for a Generator Load Reject	P/S
200.29	Perform actions for a Loss of all Feedwater and HPCS	Ρ
200.30	Discuss what a Loss of Containment Integrity is and perform the actions required	D/P/S
200.31	Perform the actions required for a Loss of Shutdown Cooling	Ρ
200.32	Perform the actions required for a large break LOCA outside the Primary Containment	Ρ
200.33	Perform the actions required for a small break LOCA outside the Primary Containment	Ρ
200.34	Perform the actions required for an Unexplained Core Reactivity Change	Р ,
200.35	Perform the actions required for a Large Break LOCA inside the Primary Containment	Ρ
200.36	As CSO perform required duties when the S.S.S. becomes incapacitated	Ρ
200.37	Perform the duties of CSO during a High Airborne Activity in a Local or General area	Ρ
200.38	Perform the duties of the CSO during a High Radiation condition in a Local or General area	Ρ
200.39	Perform the duties of the CSO when notified of a fire in the plant	P

+Indicates tasks required to be performed/simulated in the Plant. Unit II Rx Oper OJT -12 January 1990 UNIT 2 OPS/488

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200.40	Perform the duties of the CSO when notified of a missing person	Р
200.41	Perform the duties of the CSO when notified of an injured and contaminated person in the plant	Р
200.42	Take the actions required of the CSO during a security contingency event	P
200.43	Respond to a CRD system failure (SDV High Level)	P
200.44	Perform the actions required for a High Drywell Temperature	Ρ
200.45	Perform the actions required for a High Suppression Pool Water Level	Ρ
200.46	Perform the actions required for a Reactor Building sump level HI-HI	Ρ

+Indicates tasks required to be performed/simulated in the Plant.

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Student's Name

SYSTEM 200 EMERGENCY TASKS Ρ 200.1 Evaluator Ρ 200.2 Evaluator Ρ 200.3 Evaluator P/S 200.4 Evaluator Ρ 200.5 Evaluator Ρ́ 200.6 Evaluator P/S 200.7 Evaluator P/S 200.8 Evaluator Ρ 200.9 Evaluator D 200.10 Evaluator D 200.11 Evaluator P/S 200.12 Evaluator Ρ 200.13 Evaluator P/S 200.14 Evaluator 200.15 Ρ Evaluator P/S 200.16 Evaluator P/S 200.17 Evaluator Ρ 200.18 Evaluator 200.19 Ρ Evaluator P/S 200.20 Evaluator 200.21 Ρ Evaluator Ρ 200.22 Evaluator 200.23 Ρ Evaluator

Date Date

Unit II Rx Oper OJT -14

Evaluator

January 1990

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Student's Name

SYSTEM 200 EMERGENCY TASKS Ρ 200.25 Evaluator Ρ 200.26 Evaluator Ρ 200.27 Evaluator P/S 200.28 Evaluator Ρ 200.29 Evaluator 200.30 D Evaluator Ρ 200.31 Evaluator Ρ 200.32 Evaluator P 200.33 Evaluator Ρ 200.34 Evaluator 200.35 Ρ Evaluator Ρ 200.36 Evaluator 200.37 Evaluator 200.38 Evaluator 200.39 Evaluator Ρ 200.40 Evaluator 200.41 Ρ Evaluator 200.42 Evaluator 200.43 Ρ Evaluator 200.44 p Evaluator Ρ 200.45 Evaluator

Date / Date Date Date Date Date Date Date Date Date Date

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	tudent's Name	- <u></u>	
	SYSTEM 200 E	MERGENCY_TASKS	
200.	46Evaluator	Р	Date
Task	Complete:T	raining Supervisor	Date
Task	Qualified:		
	D	epartment Supervisor	Date

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 201 CONTROL ROD DRIVE

II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedure N2-OP-30, 95A, 95B, 96, 101A
- C. NMPII Technical Specifications
- D. NMPII Licensed Operator Text CRD, RMC, CRDH, RPS

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Control Rod Drive System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

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- 1. OLT-6 2. OLT-7
- 3. OLT-31
- 4. OLT-35

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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UNIT 2 OPS/488

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Unit II Rx Oper OJT -17 January 1990

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C. Prac	tical Requirements	ACTION
	ITEM	CODE
201.1	Startup the CRD System from P603 and monitor/control during all modes of plant operation	Ρ
201.2	Perform an approach to criticality, heatup and vessel pressurization	Р
201.3	Perform RSCS Startup	P/S
201.4	Perform Mode Switch Transfer(s) in accordance with requirements of OP-101A, B, C	Ρ
201.5	Perform a normal and emergency power reduction using the CRD System	Ρ
201.6	Perform a Reactor Cooldown IAW N2-OP-101C	Р
201.7	Bypass a Control Rod in the Rx Manual Control System	P/S+
201.8	Bypass and unbypass a Control Rod in the Rod Sequence Control System	P/S+
201.9	Bypass RSCS Interlock for Rod Insertion	S
201.10	Perform actions required for a stuck rod	P/S
201.11	Perform actions in response to loss of Rod Position Indication or Control Rod Display	P/S
201.12	Perform actions in response to a Control Rod Drift	P/S
201.13	Perform actions associated with uncoupled Control Rod	P/S
201.14	Scram the Reactor manually and take immediate actions	Ρ
201.15	Perform Post Scram Recovery actions IAW N2-OP-101C	Р
201.16	Performs actions for plant operation with RWM inoperable	P/S
201.17	Perform actions for a loss of CRD pump(s) during plant operation	Ρ
201.18	Perform actions for a mispositioned control rod	P/S
201.19	Conduct Rod Worth Minimizer Operability Test (N2-OSP-RMC-@003)	P/S

+Indicates tasks required to be performed/simulated in the Plant.

Unit II Rx Oper OJT -18 January 1990

UNIT 2 OPS/488

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C. Practical Requirements (Cont'd.)

	ITEM	ACTION CODE
201.20	Conduct Control Rod movement and position indicator verification (N2-OSP-RMC-W@001)	P/S+
201.21	Conduct Rod Sequence Control Functional Test (N2-OSP-RMC-@004)	P/S
201.22	Conduct Control Rod Coupling Integrity Test (N2-OSP-RMC-@002)	P/S
201.23	Perform CRD Stablizing Valve change over at P-603	P/S
201.24	Increase CRD System flow to the Reactor after the Reactor is shut down during an emergency	P/S

+Indicates tasks required to be performed/simulated in the Plant.

UNIT 2 OPS/488

Unit II Rx Oper OJT -19 January 1990

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Student's Name

SYSTEM 201 CONTROL ROD DRIVE

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20111	Evaluator	·	Date
201.2	Fueluetor	P	Date
201.3		P/S	
203 4	Evaluator	D	Date
201.4	Evaluator	r	Date
201.5		P	
201.6	Evaluator	Р	Dale
	Evaluator	P / C	Date
201./	Evaluator	P/S+	Date
201.8		P/S+	
201.9	Evaluator	S	Date
201.5	Evaluator		Date
201.10	Fvaluator	P/S	Date
201.11		P/S	
201 12	Evaluator	P/S	Date
201.12	Evaluator		Date
201.13	Evaluator	P/S	Date
201.14		р	
201 15	Evaluator	P	Date
201.13	Evaluator	•	• Date
201.16	Evaluator	P/S	Date
201.17		Р	
201 18	Evaluator	P/S	Date
201.10	Evaluator		Date
201.19	Fvaluator	P/S	Date
201.20		P/S+	
201 21	Evaluator	P/S	Date
201121	Evaluator		• Date
201.22	Evaluator	P/S	Date
201.23		P/S	
201.24	Evaluator	P/S [.]	Date
	Evaluator		Date

Unit II Rx Oper OJT -20 January 1990

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UNIT 2 OPS/488

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Student's Name

SYSTEM 201 CONTROL ROD DRIVE

Knowledge Complete:____ OLT-6

Instructor Signature

Date

Date

Date

Knowledge Complete:_____ OLT-31 Instructor Signature

Knowledge Complete:_____ OLT-35 Instructor Signature

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Task Complete:____

Training Supervisor

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Date

Task Qualified:

Department Supervisor

Date

Unit II Rx Oper OJT -21 January 1990

UNIT 2 OPS/488

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 202 REACTOR RECIRCULATION SYSTEM

II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedures, N2-OP-29 101A, B,C
- C. NMPII Licensed Operator Text, RRS, RRFC
- D. NMPII Surveillance Test Procedures
- E. NMPII Technical Specifications

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Reactor Recirculation System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-8

- 2. OLT-9
- B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper OJT -22 January 1990

UNIT 2 OPS/488

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C. Practical Requirements

6.	FIALI	<u>ITEM</u>	ACTION CODE
202	.1	Monitor Recirc Pump Performance Parameters	P+
202	.2	Increase Power to Rated using Reactor Recirc. Flow and Rods	Ρ
202	.3	Startup the hydraulic power unit from the Control Room and transfer to alternate subloop	Ρ
202	.4	Startup a Recirculation Pump from no flow and monitor pump for normal operation	Р
202	.5	Adjust the Recirculation Flow using Loop Manual Control	Ρ
202	.6	Transfer Recirculation Pump Speed from Low (15 Hz) to High Speed (60 Hz)	P
202	.7	Transfer Flow Control from Loop Manual to Loop Auto (Flux Manual) and Control Flow in Loop Auto	Ρ
202	.8	Transfer Flow Control from Loop Auto to Flux Auto	Ρ
202	.9	Restart a Tripped Recirculation Pump from single loop operation	Ρ
202	.10	Reduce Recirc Flow as necessary and Transfer a Recirculation Pump from High Speed (60 Hz) to Low Speed (15 Hz)	Ρ
202	.11	Operate the Recirculation System in Single Loop Mode	Ρ
202	.12	Secure a Recirculation Pump	Р
202	.13	Perform necessary actions for a Jet Pump Failure	D
202	.14	Perform and discuss actions required for a loss of seal purge and/or RBCLC cooling to the Recirc Pump	Ρ
202	.15	Perform actions required for one Recirculation Pump Trip	P/S
202	.16	Perform actions required for two Recirculation Pumps Trip	P/S
202	2.17	Discuss actions required and possible causes for an increase in Recirculation flow not caused by operator action	D
+In	ndicat	es tasks required to be performed/simulated in the Plant	•

Unit II Rx Oper OJT -23 January 1990

UNIT 2 OPS/488

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[°]C. Practical Requirements (Cont'd.)

	ITEM	ACTION CODE
202.18	Perform actions required for a Recirculation Pump Seal Malfunction	P/S
202.19	Conduct RCS Pressure/Temperature Verification (N2-OSP-RCS-@001)	Ρ
202.20	Start up a second Recirc Pump (N2-OSP-RCS-@001)	P/S
202.21	Perform the actions required for Recirc Pump High Vibration	Ρ
202.22	Perform the actions required for FCV Runback and Low Speed Recirc Pump operation	P/S

+Indicates tasks required to be performed/simulated in the Plant.

UNIT 2 OPS/488

Unit II Rx Oper OJT -24 January 1990

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Student's Name

	<u>SYSTEM 202</u>	REACTOR REC	IRCULATION SYSTEM	
202.1	•	*	P+	
202.2	Evaluator		P ,	Date
202 3	Evaluator		 P	Date
202.5	Evaluator		·	Date
202.4	Evaluator			Date
202.5	Evaluator		P	Date
202.6	Evaluator	پ 	P	Date
202.7	Evaluator		P	Date
202.8	Evaluator		P	Date
202.9	Evaluator		P	 Date
202.10	Evaluator		P	Date
202.11	Evaluator		Ρ	Date
202.12	Evaluator		P	
202.13	Evaluator		D	Date
202.14	Evaluator		P	Date
202 15	Evaluator		P/S	Date
202.15	Evaluator	•	P/S	Date
202.10	Evaluator		N	Date
202.17	Evaluator		U	Date
202.18	Evaluator		P75	Date
202.19	Evaluator	· · · · · · · · · · · · · · · · · · ·	P	Date
202.20	Evaluator		P/S	Date
202.21	Evaluator	· · · · · · · · · · · · · · · · · · ·	P	Date
202.22	Evaluator	· · · · · · · · · · · · · · · · · · ·	P/S	Date

Unit II Rx Oper OJT -25 January 1990

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UNIT 2 OPS/488

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Student's Name

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SYSTEM 202 REACTOR RECIRCULATION SYSTEM

Knowledge Complete:_ OLT-8

Instructor Signature

Date

Date

Knowledge Complete:_____OLT-9

Instructor Signature

Task Complete:____

Training Supervisor

Date

Task Qualified:____

Department Supervisor

Date

UNIT 2 OPS/488

Unit II Rx Oper OJT -26 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 204 REACTOR WATER CLEANUP SYSTEM

II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedures N2-OP-37
- C. NMPII Licensed Operator Text WCS
- D. NMPII Surveillance Test Procedures
- E. NMPII Technical Specifications

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all . evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Reactor Water Cleanup System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-10

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

UNIT 2 OPS/488

Unit II Rx Oper OJT -27 January 1990

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C. Practical Requirements

ACTION ITEM CODE 204.1 Perform lineups on the RWCU System from the Control р Room * 204.2 ρ Startup the RWCU Pump from the Control Room with system flow return to feedwater or full flow reject 204.3 Place and remove a filter/demineralizer in service Ρ from the Control Room with flow return to feedwater Perform normal Reject of Primary System Water to the 204.4 Ρ Main Condenser Hotwell/Radwaste 204.5 Perform full reject to prevent feedwater Ρ stratification 204.6 Transfer RWCU return to feedwater ρ 204.7 Restore the Reactor Water Cleanup System to operation р following isolation 204.8 Shut down the RWCU System with the Reactor at rated P/S pressure 204.9 Maximize RWCU cooling to assist RPV pressure control P/S per EOP-RP

Unit II Rx Oper OJT -28 January 1990

UNIT 2 OPS/488

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Student's Name

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Knowledge Complete: OLT-10	Instructor Signature	Date
Task Complete:	Training Supervisor	Date
Task Complete:	Department Supervisor	Date

UNIT 2 OPS/488

Unit II Rx Oper OJT -29 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 205 RESIDUAL HEAT REMOVAL SYSTEM

II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedures N2-OP-31
- C. NMPII Licensed Operator Text RHR
- D. NMPII Technical Specifications
- E. NMPII Surveillance Test Procedures

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Residual Heat Removal System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-15

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper OJT -30 January 1990

UNIT 2 OPS/488

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C. Practical Requirements

U. 1	actival requirements	ACTION
	ITEM	CODE
205.	Perform Control Panel Standby Condition Status Checks	P+
205.2	Discuss actions required for an automatic initiation of LPCI	D
205.3	Startup the RHR System in shutdown cooling mode, monitor for proper operation from the Control Room and shutdown	Ρ
205.4	S/U Suppression Pool Cooling Mode, monitor for proper operation from the Control Room and shutdown	Ρ
205.	Manually initiate and shutdown the Containment/Drywell Spray Mode and monitored for proper operation from the Control Room	P/S
205.0	Manually initiate and shutdown the Suppression Pool Spray Mode and monitor for proper operation from the Control Room	Ρ
205.	Startup and shutdown the Steam Condensing Mode of RHR and monitor for proper operation from the Control Room	Ρ
205.8	Start and shutdown RHR supplemental Fuel Pool Cooling Mode and monitor for proper operation from the Control Room	P/S+
205.9	Perform RPV/Containment Service Water Flooding from the Control Room	P/S
205.	Throttle LPCI injection flow from the Control Room	P/S+
205.	Control Reactor Water Level using RHR with RWCU isolated	Ρ
205.	Discuss precautions associated with the LPCI injection during emergency conditions from the Control Room	D
205.	Perform RHR Suppression Pool Alternate fill from the Control Room	P/S

+Indicates tasks required to be performed/simulated in the Plant.

Unit II Rx Oper OJT -31 January 1990

UNIT 2 OPS/488

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C. Practical Requirements

	ITEM	ACTION CODE
205.14	Pump the Suppression Pool water to Radwaste	P/S
205.15	Perform RHR Alternate Shutdown Cooling from the Control Room	P/S
205.16	Perform the RHR keep fill pump, alternate RPV injection from the Control Room	P/S
205.17	Perform RHR emergency fill from the Control Room	P/S

UNIT 2 OPS/488

Unit II Rx Oper OJT -32 January 1990

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Student's Name

	SYSTEM 205 RESIDUAL HEAT	REMOVAL SYSTEM	
205.1		P+	Date
205.2		D	
205.3	Evaluator	Р	Date
205 4	Evaluator	p	Date
203.4	Evaluator	·	Date
205.5	Evaluator	P75	Date
205.6	Evaluator	P	Date
205.7 🕐	Fualuator	P	Date
205.8		P/S+	
205.9	Evaluator	P/S	Date
205 10	Evaluator	P/S	Date
203.10	Evaluator	· · · ·	Date
205.11	Evaluator	Y	Date
205.12	Evaluator	D	Date .
205.13	Fualuator	P/S	 Date
205.14		P/S	Date
205.15	Evaluator	P/S	
205.16	Evaluator	P/S	Date
205 17	Evaluator	P/S	Date
205.17	Evaluator	F73 ·	Date
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Knowledg OLT-15	e Complete: Instructor Si	gnature	Date
Task Com	plete:Training Supe	ervisor	Date
Task Qua	lified: Department Su Unit II Ry Oper O	Ipervisor JT -33 January 1990	Date
UNIT 2 O	PS/488	c. ce candary i bo	

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. <u>SYSTEM 206</u> <u>HIGH PRESSURE CORE SPRAY</u>

II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedures N2-OP-31
- C. NMPII Licensed Operator Text CSH
- D. NMPII Technical Specifications
- E. NMPII Surveillance Test Procedures

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the High Pressure Core Spray System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-12

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

UNIT 2 OPS/488

Unit II Rx Oper OJT -34 January 1990

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C. Practical Requirements

	ITEM	ACTION CODE	T
206.1	Return the HPCS System to standby after Automatic Initiation	Ρ	
206.2	Manually initiate HPCS from the Control Room	Р	
206.3	Monitor the Automatic Initiation of the HPCS System during a LOCA with normal power available and/or not available.	P	,
206.4	Inject water to the Vessel using the HPCS keep fill pump	P/S]

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Unit II Rx Oper OJT -35 January 1990

UNIT 2 OPS/488

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Stude	ent's Name		
	SYSTEM 206	HIGH PRESSURE CORE SPRAY	
5.1		Р	
c 0	Evaluato	or , B	Date
).2	Evaluato	or F	Date
5.3	Fvaluato	P	Date
6.4		P/S	
	Evaluato	or ·	Date
owledg T−12	ge Complete:	Instructor Signature	Date
sk Con	nplete:	Training Supervisor	Date
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Unit II Rx Oper OJT -36 January 1990

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UNIT 2 OPS/488

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 208 REACTOR BUILDING CLOSED LOOP COOLING SYSTEM

II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedures N2-OP-13
- C. NMPII Licensed Operator Text CCP
- D. NMPII Surveillance Test Procedures

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Reactor Building Closed Cooling System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-58

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper OJT -37 January 1990

UNIT 2 OPS/488

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C. Practical Requirements

C. 1140		ACTION
	ITEM	CODE
208.1	Startup the RBCLC System from no pumps running and monitor for proper operation	Р
208.2	Shift Operating RBCLC Pumps from the Control Room	Р
208.3	Discuss actions to shift the Spent Fuel Pool Cooling Heat Exchangers from RBCLC Cooling to Service Water Cooling	D+
208.4	Discuss actions to shift RHR Pump Seal Coolers from RBCLC Cooling to Service Water Cooling	D+
208.5	Perform actions for a loss of all RBCLC Pumps from the Control Room	Р
208.6	Restore RBCLC to DRS Unit coolers following automatic Isolation from the Control Room	Ρ

+Indicates tasks required to be performed/simulated in the Plant.

Unit II Rx Oper OJT _38 January 1990

UNIT 2 OPS/488

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<u>31316H 20</u>	8 REACTOR BUILDING	CLUSED LOOP COULT	
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, Eval	uator "	Π.	Date
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Eval	uator		Date
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edge Complete 8	: Instructor Signa	ture	Date
Complete:	Training Supervi	sor	Date

Unit II Rx Oper OJT -39 January 1990

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UNIT 2 OPS/488

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NINE MILE POINT UNIT II .

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 209 LOW PRESSURE CORE SPRAY SYSTEM

II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedures N2-OP-32
- C. NMPII Surveillance Test Procedures
- D. NMPII Licensed Operator Text CSL
- E. NMPII Technical Specifications

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Low Pressure Core Spray System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-14

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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UNIT 2 OPS/488

Unit II Rx Oper OJT -40 January 1990

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C. Practical Requirements

	ITEM	ACTION CODE
209.1	Perform.manual injection of LPCS from the Control Room	Ρ
209.2	Shutdown the LPCS System to Standby from the Control Room following Automatic Operation	Ρ
209.3	Discuss actions to throttle LPCS Injection Flow into the vessel from the Control Room	D+
209.4	Monitor the automatic operation of the LPCS system from the Control Room	Р
209.5	Inject water into the Vessel with the LPCS-A/keep fill pump	P/S

+Indicates tasks required to be performed/simulated in the Plant.

Unit II Rx Oper OJT -41 January 1990

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Studen	t's Name			
	SYSTEM 209	LOW PRESSURE	CORE SPRAY SYSTEM	
209.1	······································		Р	
209.2	Evaluato	or	р	Date
	Evaluato	or .	·	Date
209.3	Evaluato	br	U+	Date
209 4			Р	
	Evaluato	or	·	Date
209.5			P/S	
•	Evaluato	or		Date
Knowledge OLT-14	Complete:	Instructor Si	gnature .	Date
Task Comp	lete:	Training Super	rvisor	Date
Task Qual	ified:	Department Su	pervisor	Date
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Unit II Rx Oper OJT –42 January 1990

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UNIT 2 OPS/488

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 211 STANDBY LIQUID CONTROL SYSTEM

II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedure N2-OP-35
- C. NMPII Surveillance Test Procedures
- D. NMPII Technical Specifications
- E. NMPII Licensed Operator Test SLC

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Standby Liquid Control System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-34

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

UNIT 2 OPS/488

Unit II Rx Oper OJT -43 January 1990

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C. Practical Requirements

	ITEM	ACTION CODE
211.1	Manually inject poison solution into the Reactor Vessel from the Control Room	Ρ
211.2	Monitor automatic initiation of SLC from the Control Room	Ρ
211.3	Shutdown from operating condition, the SLC System from the Control Room	P
211.4	Inject boron utilizing a hydro pump locally	P/S+
211.5	Shift the SLC System from inoperable to standby and monitor for proper operation	P/S
211.6	Perform SLC Manual Initation Actuation Test N2-OSP-SLS-ROO1	P/S
211.7	Flood the RPV utilizing the SLC storage tank from the Control Room	P/S

+Indicates tasks required to be performed/simulated in the Plant.

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Unit II Rx Oper OJT -44 January 1990

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Student's Name

SYSTEM 211 LIQUID POISON SYSTEM Ρ 211.1 Date Evaluator 211.2 Ρ Date Evaluator Ρ 211.3 Date Evaluator P/S+ 211.4 Date Evaluator P/S 211.5 Date Evaluator P/S 211.6 Evaluator Date 211.7 . P/S Evaluator Date . Knowledge Complete:_____OLT-34 Instructor Signature Date Task Complete: Training Supervisor Date Task Qualified:_ Department Supervisor Date

UNIT 2 OPS/488

Unit II Rx Oper OJT -45 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 212 REACTOR PROTECTION SYSTEM

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-97
- B. NMPII Licensed Operator Text RPS
- C. NMPII FSK, LSK, ESK Drawings
- D. NMPII Surveillance Test Procedure
- E. NMPII Technical Specifications

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Reactor Protection System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-35

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

UNIT 2 OPS/488

Unit II Rx Oper OJT -46 January 1990

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C. Practical Requirements

	ITEM	CODE
212.1	Discuss procedure to Energize and Deenergize the RPS System	D+
212.2	Place a Reactor Protection channel in the tripped condition	Ρ
212.3	Operate the Reactor Mode Switch during plant startup or shutdown	Ρ
212.4	Shift the RPS bus to the alternate power supply	Р
212.5	Conduct manual scram channel functional test (N2-OSP-RPS-M004)	P/S+
212.6	Perform manually functional test of the RPS Turbine Control Valve Closure (N2-OSP-RPS-M001)	P/S+
212.7	Perform monthly functional test of the RPS Turbine Stop Valve Closure logic (N2-OSP-RPS-M002)	P/S+
212.8	Perform the RPS Weekly Turbine Valve Cycling Test (N2-OSP-RPS-W001)	P/S+

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+Indicates tasks required to be performed/simulated in the Plant.

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Unit II Rx Oper OJT -47 January 1990

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UNIT 2 OPS/488

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UNIT 2 OPS/488

Unit II Rx Oper OJT -48 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

ROD POSITION INDICATION SYSTEM I. SYSTEM 214

II. SYSTEM REFERENCES

- NMPII Operating Procedure N2-OP-96 Α.
- NMPII Licensed Operator Text RMC NMPII FSK, LSK, ESK Drawings Β.
- с.
- NMPII Surveillance Test Procedure D.
- Ε. NMPII Technical Specifications

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

Knowledge Requirements Α.

> The student will have demonstrated satisfactory knowledge of the Rod Position Indication System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. **OLT-31**

Standards for Acceptable Task Performance Β.

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

UNIT 2 OPS/488

Unit II Rx Oper OJT -49 January 1990

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C. Practical Requirements

	ITEM	÷.	ACTION CODE
214.1	Monitor the Rod Position Indication System		Р
214.2	Demand a Control Rod Indication Print Out from Process Computer during a Rx S/U	i	Р

UNIT 2 OPS/488

Unit II Rx Oper OJT -50 January 1990

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Student's Name		
SYSTEM_214	ROD POSITION INDICATION SYSTEM	
214.1 Evaluat 214.2 Evaluat	P or P	Date Date
Knowledge Complete: OLT-31	Instructor Signature	Date
Task Complete:	Training Supervisor	Date
Task Qualified:	Department Supervisor	Date

Unit II Rx Oper OJT -51 January 1990

UNIT 2 OPS/488

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 215 NUCLEAR INSTRUMENTATION SYSTEM

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-92
- B. NMPII Licensed Operator Text SRM, IRM, LPRM, APRM, TIP, RBM
- C. NMPII FSK, LSK, ESK Drawings
- D. NMPII Surveillance Test Procedure
- E. NMPII Technical Specifications

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Nuclear Instrumentation System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-26 2. OLT-27 3. OLT-28 4. OLT-29 5. OLT-30 6. OLT-32

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper OJT -52 January 1990

UNIT 2 OPS/488

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C. Practical Requirements

	ITEM	ACTION CODE
215.1	Perform line ups on the Nuclear Instrumentation System in the Control Room	` P+
215.2	Operate the Nuclear Instrumentation System during Reactor startup	Ρ
215.3	Place a Nuclear Instrumentation in or out of bypass	Ρ
215.4	Operate the Nuclear Instrumentation System during Reactor shutdown	Ρ
215.5	Locate Nuclear Instrumentation System power supplies	P+
215.6	Evaluate plant performance indications (Pl)	Р
215.7	Perform actions necessary when the RBM fails to Null	Ρ
215.8	Discuss actions required for a failure of TIP Ball Valve to close following containment isolation	D
215.9	Perform SRM/IRM overlap check N2-OSP-NMS-SU001	P/S

+Indicates tasks required to be performed/simulated in the Plant.

Unit II Rx Oper OJT -53 January 1990

UNIT 2 OPS/488

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

REACTOR CORE ISOLATION COOLING SYSTEM (RCIC) I. SYSTEM 217

II. SYSTEM REFERENCES

- Α.
- NMPII FSK, LSK, ESK Drawings NMPII Operating Procedure N2-OP-35 Β.
- NMPII Licensed Operator Text ICS С.
- NMPII_Surveillance Test Procedure D.
- NMPII Technical Specifications Ε.

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all. evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

Knowledge Requirements Α.

> The student will have demonstrated satisfactory knowledge of the Reactor Core Isolation Cooling System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. 0LT-16

Β. Standards for Acceptable Task Performance

> Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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UNIT 2 OPS/488

Unit II Rx Oper OJT -55 January 1990

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C. Practical Requirements

	ITEM	ACTION CODE
217.1	Line-up the RCIC System from the Control Room for standby from inoperable and monitor for proper operation	Ρ
217.2	Perform a manual startup of the RCIC System from the Control Room	P/S
217.3	Manually initiate the RCIC System from the Control Room and monitor operation	Ρ
217.4	Operate the RCIC System following an Automatic Initiation	Ρ
217.5	Control RPV pressure using the RCIC System	Р
217.6	Operate RCIC pump in the steam condensing mode	Ρ
217.7	S/D RCIC System from the Control Room to Standby Condition	P
217.8	Shutdown the RCIC System from Standby to inoperable	P/S
217.9	Manually isolate the RCIC System from the Control Room	Q
217.10	Reset the RCIC Turbine following mechanical overspeed or local manual trip from the Control Room	Р

Unit II Rx Oper OJT _-56 January 1990

UNIT 2 OPS/488

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Student's Name

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	Evaluator	0/5	Date
1.2	Fueluator	P75	Date
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	Evaluator		Date
7.4	Fue lue too	р	Data
75	Evaluator	Р	Date
	Evaluator	· ·	Date
7.6		Р	
7 7	Evaluator	р	Date
	Evaluator	·	Date
7.8		P/S	
7 0	Evaluator	D	Date
/.9	Evaluator	F	Date
7.10		Р	
	Evaluator		Date
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sk comp	Training	Supervisor	Date
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sr yuai	Departmen	t Supervisor	Date

UNIT 2 OPS/488

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Unit II Rx Oper OJT -57 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

AUTOMATIC DEPRESSURIZATION SYSTEM I. SYSTEM 218

II. SYSTEM REFERENCES

- NMPII FSK, LSK, ESK Drawings Α.
- NMPII Operating Procedure N2-OP-34 Β.
- NMPII Licensed Operator Text ADS С.
- D. NMPII Surveillance Test Procedure
- NMPII Technical Specifications Ε.

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

Knowledge Requirements Α.

> The student will have demonstrated satisfactory knowledge of the Automatic Depressurization System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

OLT-13 1.

Standards for Acceptable Task Performance Β.

> Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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Unit II Rx Oper OJT -58

January 1990

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C. Prac	tical Requirements	ACTION
	ITEM	CODE
218.1	Manually initiate the ADS System and Monitor System while activated	Ρ
218.2	Conduct ADS/SRV Manual Valve Operation and monitor indications	Ρ
218.3,	Attempt to close a stuck open Safety/Relief Valve	P/S
218.4	Monitor indications following auto initiation of ADS and perform a reset	Р
218.5	Perform ADS manual inhibit functional test (N2-OSP-ADS-MOO1)	P/S+
218.6	Perform the monthly channel functional test of ADS automatic initiation time delay relays (N2-OSP-ADS-M002)	P/S+
218.7	Start up the ADS System to stand by and monitor indications	P/S

+Indicates tasks required to be performed/simulated in the Plant.

Unit II R× Oper OJT -59 January 1990

UNIT 2 OPS/488

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Student's Name



Unit II Rx Oper OJT -60 January 1990

UNIT 2 OPS/488

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 221 CONTAINMENT ENTRY AND EXIT SYSTEM

II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedure N2-OP-61A
- C. NMPII Licensed Operator Text PSC
- D. NMPII Technical Specifications

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Containment Entry and Exit System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-91

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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Unit II Rx Oper OJT -61 January 1990

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C. Practical Requirements

	ITEM	ACTION CODE
221.1	Operate the Personnel Entry Hatch/Air Lock	P/S+
221.2	Perform Containment Entry & Exit	P/S+

UNIT 2 OPS/488

Unit II Rx Oper OJT -62 January 1990

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Studen	it's Name			
	SYSTEM 221	CONTAINMENT ENTRY A	ND EXIT SYSTEM	
221.1	Fvaluator		P/S+ _	Date
221.2	LVardator		P/S+	
	Evaluator			Date
Knowledge	e Complete:	Instructor Signatur	<u> </u>	Date
021-91		Instructor Signatur	-	5400
Task Comr	olete:			
	· · · · · · · ·	Training Supervisor		Date
Task Qual	lified:	Department Supervis	or –	Date

Unit II Rx Oper OJT -63 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. <u>SYSTEM 222</u> <u>DRYWELL COOLING SYSTEM</u>

II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedure N2-OP-60
- C. NMPII Licensed Operator Text DRS
- D. NMPII Technical Specifications

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Drywell Cooling System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-20

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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Unit II Rx Oper OJT -64 January 1990

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C. Practical Requirements

	ITEM	ACTION CODE
222.1	Place Drywell Cooling System in operation from the Control Room and monitor for proper operation	ρ
222.2	Operate the Drywell Cooling System with a LOCA signal present	P/S
222.3	Operate the Drywell Cooling System with a loss of RBCLC, and return to normal after RBCLC return	P/S
222.4	Secure the Drywell Cooling System	P/S
222.5	Operate the Drywell Cooling System in response to a high drywell temperature	P/S

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Unit II Rx Oper OJT -65 January 1990

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Student's Name

	SYSTEM 222 DRYWELL COOLING SYSTEM	
222.1	<u></u> Р	
222.2	Evaluator P/S	Date
222.2	Evaluator P/S	Date
222.3	Evaluator . P/S	Date
222.4	Evaluator P/S	Date
222.J	Evaluator	Date
Knowled	ge Complete:	Date
021-20		
Task Co	mplete:	
٩	Training Supervisor	Date

Task Qualified:_____

Department Supervisor

Date

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Unit II Rx Oper OJT -66 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 223 CONTAINMENT SYSTEM

II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedure 61A, 62, 81, 82, 83
- C. NMPII Licensed Operator Text PSC, ACC
- D. NMPII Technical Specifications
- E. NMPII Surveillance Test Procedures

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Containment System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-19 2. OLT-23

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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UNIT 2 OPS/488

Unit II Rx Oper OJT -67 January 1990

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C. Practical Requirements

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		ITEM	ACTION CODE
223	3.1	Conduct containment inerting from the Control Room	P/S
223	3.2	. Transfer from High Flow N $_2$ Supply to Low Flow Makeup and Supply Makeup as necessary	P/S
223	3.3	Startup primary containment purge with air	P/S
223	3.4	Operate the Primary Containment System is response to a LOCA/High Drywell Pressure condition from the Control Room	P/S
223	3.5	Utilize the Primary Containment Purge System as a back-up to H ₂ recombiners in response to a high H ₂ concentration	P/S
22:	3.6	Determine containment level indication using Containmen Atmosphere Monitoring	t P/S
223	3.7	Fill out the Containment Purge System Vent and Purge Log (N2-OSP-CPS-0001)	P/S+
223	3.8	Perform Cold Shutdown Primary Containment Penetration Test (N2-OSP-CNT-CSOOl)	P/S+
223	3.9	Startup and shutdown the Containment/Drywell Purge System from the Control Room	P/S
22	3.10	Rotate In-Service Nitrogen System equipment	P/S+
223	3.11	Raise Drywell Pressure/Suppression Chamber when a low pressure condition exists while deinerted	P/S
22	3.12	Perform a startup of the Hydrogen Recombiner from standby to operating monitor for proper operation, and shutdown to standby	P/S
22	3.13	Line-up the Containment Atmosphere Monitoring System for operation from the Control Room and monitor for proper operation	P/S+
22	3.14	Shutdown one division of Containment Atmosphere Monitoring	P/S+
22	3.15	Test Reactor Building isolation ventilation damper closure (N2-OSP-HVR-Q002)	P/S+
22	3.16	Conduct containment de-inerting	P/S

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C. Practical Requirements

	ITEM	ACTION CODE	
223.17	Monitor the containment atmosphere following a LOCA	P/S	
223.18	Transfer nitrogen makeup supply from high flow to low flow	P/S	2
223.19	Respond to an electrical penetration low pressure	P/S	

+Indicates tasks required to be performed/simulated in the Plant.

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Student's Name

	SYSTEM 223	CONTAINMENT SYSTEM	
223.1	•		P/S
223.2	Evaluator	-	P/S
223 3	Evaluator	· · · · · · · · · · · · · · · · · · ·	P/S
223.5	Evaluator		n/c
223.4	Evaluator	·	P/5
223.5		·	P/S
223.6	<u> </u>		P/S
223.7	Evaluator		P/S+
223.8	Evaluator		P/S+
222 0	Evaluator		D/C
223.9	Evaluator	<u> </u>	F73
223.10	Evaluator		P/S+
223.11		,	P/S
223.12			P/S
223.13	Evaluator		P/S+
223.14	Evaluator		P/S+
222 15	Evaluator		D/C.
223.13	Evaluator		r/3+
223.16	Evaluator		P/S
223.17	Evaluator		P/S

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Unit II Rx Oper OJT -70 January 1990

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Student's Name				
SYSTEM 223	CONTAINMENT SYSTEM			
223.18 Evaluato 223.19 Evaluato	r	P/S	Date Date	[·] 2
Knowledge Complete: OLT-19	Instructor Signature	2	Date	
Knowledge Complete: OLT-23	Instructor Signature	<u> </u>	Date	- .
Task Complete:	Training Supervisor	······	Date	
Task Qualified:	Department Superviso	or	Date	

UNIT 2 OPS/488

Unit II Rx Oper OJT -71 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 224 PRIMARY CONTAINMENT ISOLATION SYSTEM

II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedure N2-OP-83
- C. NMPII Licensed Operator Text PCIS
- D. NMPII Technical Specifications
- E. NMPII Surveillance Test Procedures

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Primary Containment Isolation System by attending the Operator 2 Training lecture and satisfactorily completing a written examination on the following:

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1. OLT-21

- B. Standards for Acceptable Task Performance
 - Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

UNIT 2 OPS/488

Unit II Rx Oper OJT -72 January 1990

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C. Practical Requirements

	ITEM	ACTION CODE
224.1	Manually isolate a selected system .	Ρ
224.2	Perform a manual PCIS isolation from the Control Room and reset	P/S
224.3	Perform Drywell Vacuum Breaker Operability Test (N2-OSP-ISC-M@002)	P/S+

+Indicates tasks required to be perfomred/simulated in the Plant.

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Unit II Rx Oper OJT -73 January 1990

UNIT 2 OPS/488

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Student's Name	
SYSTEM 224 PRIMARY CO	NTAINMENT ISOLATION SYSTEM
224.1	P
Evaluator 224.2	P/S Date
Evaluator	Date Date
Evaluator	Date
Knowledge Complete: OLT-21 Instructor	Signature Date
Task Complete: Training S	upervisor Date
Task Qualified: Department	Supervisor Date

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Unit II Rx Oper OJT -74 January 1990

UNIT 2 OPS/488

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 226 SAFETY PARAMETER DISPLAY SYSTEM

II. SYSTEM REFERENCES

- NMPII FSK, LSK, ESK Drawings Α.
- NMPII Operating Procedure N2-OP-91B Β.
- C. NMPII Licensed Operator Text
- NMPII Surveillance Test Procedures D.
- NMPII Technical Specifications Ε.

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

Knowledge Requirements Α.

> The student will have demonstrated satisfactory knowledge of the Safety Parameter Display System by attending the Operator Training 2 lecture and satisfactorily completing a written examination on the following:

OLT-37 1.

- Β. Standards for Acceptable Task Performance
 - Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

January 1990 Unit II Rx Oper OJT -75

UNIT 2 OPS/488

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C. Practical Requirements

	ITEM	ACTION CODE
226.1	Utilize the SPDS Computer and bring any desired display on the CRT Screen	P+
226.2	Discuss the color scheme and legend of the SPDS	D+

+Indicates tasks required to be perfomred/simulated in the Plant.

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UNIT 2 OPS/488

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Stude	ent's Name		
226.1 226.2	SYSTEM 224 Evaluator Evaluator	PRIMARY CONTAINMENT ISOLATION SYSTEM P+ D+	Date Date
Knowledg OLT-37	ge Complete:	Instructor Signature	Date
Task Con	nplete:	Training Supervisor	Date
Task Qua	alified:	Department Supervisor	Date

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UNIT 2 OPS/488

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Unit II Rx Oper OJT -77 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 233 SPENT FUEL POOL COOLING SYSTEM

II. REFERENCES

- NMPII FSK, LSK, ESK Drawings Α.
- NMPII Operating Procedure N2-OP-38 Β.
- NMPII Licensed Operator Text SFP С.
- NMPII Technical Specifications D.
- NMPII Surveillance Test Procedures Ε.

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all. evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

Knowledge Requirements Α.

> The student will have demonstrated satisfactory knowledge of the Spent Fuel Pool Cooling System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-1

Β. Standards for Acceptable Task Performance

> Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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Unit II Rx Oper OJT -78 January 1990

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C. Practical Requirements

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	ITEM	<u>CODE</u>
233.1	Lineup the Fuel Pool Cooling and Clean Up System from the Control Room	Р
233.2	Lineup the system to the Internal Storage Pit and Reactor cavity	P/S+
233.3	Start a second pump for additional cooling	P/S
233.4	Rotate in-service SFC pumps	P/S
233.5	Rotate in-service SFC Heat Exchangers	P/S
233.6	Lineup the Spent Fuel Pool Cooling System for RHR Cooling and return to normal	P/S+
233.7	Makeup with Service Water to the Fuel Pool	P/S+
233.8	Pump down the Internal Pit and Reactor Cavity	P/S+
233.9	Provide proper response to SFC off-line Rad Monitor Alarm	P/S+

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+Indicates tasks required to be performed/simulated in the Plant.

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UNIT 2 OPS/488

Unit II Rx Oper OJT -79 January 1990

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Student's Name

	SYSTEM 233 SPENT FUEL	POOL COOLING SYSTEM	
233.1	•	р	
233' 2	Evaluator	P/S+	Date
233.2	Evaluator	1731	Date
233.3	Evaluator	P/S	Date
233.4		P/S	
233.5	Evaluator	• P/S	Date
222 E	Evaluator	<u></u> р/с.	Date
233.0	Evaluator	F73+	Date
233.7	Evaluator	P/S+	Date
233.8		P/S+	
233.9	Evaluator	P/S+	Date
	Evaluator		Date

Task Complete:_____

Training Supervisor

Task Qualified:____

Department Supervisor

Date

Date

Unit II Rx Oper OJT -80 January 1990 UNIT 2 OPS/488

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 234 FUEL HANDLING EQUIPMENT

II. REFERENCES

- A. NMPII Operating Procedure N2-OP-39
- B. NMPII Licensed Operator Text FHE
- C. NMPII FSK, LSK, ESK Drawings

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Fuel Handling Equipment by attending the Operator Training lecture and satisfactorily completing a written examination on the followimg:

1. OLT-2

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper OJT -81 January 1990

UNIT 2 OPS/488

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C. Practical Requirements

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4	ITEM	ACTION CODE
234-1.	Operate the actuating pole	P/S+
234.2	Perform required bridge and grapple pre-operation test/checks	P/S+
234.3	Connect and disconnect the local underwater light	P/S+
234.4	Change position of fuel assembly or dummy bundle within fuel rod	P/S+
234.5	Operate the Fuel Handling Bridge Auxiliary Crane	P/S+
234.6	Channel/dechannel fuel bundles with fuel prep. machine	P/S+
234.7	Transfer fuel to/from Reactor to/from Spent Fuel Pool	P/S+
234.8	Operate the General Purpose Grapple	P/S+
234.9	Operate the Underwater Vacuum Cleaner	P/S+
234.10	Operate the Clamshell Retriever	P/S+
234.11	Operate the Manipulator Grapple	P/S+
234.12	Operate the Channel Transfer Grapple	P/S+
234.13	Operate the Control Rod Guide Tube Grapple	P/S+
234.14	Operate the Peripheral Orifice Grapple	P/S+
234.15	Insert/remove a Blade Guide	P/S+
234.16	Clean a Fuel Bail Handle	P/S+
234.17	Operate the Fuel Bundle Sampler	P/S+
234.18	Operate the Fuel Support Grapple	P/S+
234.19	Energize the Refuel Platform	P/S+
234.20	Place the Fuel Handling Grapple in the stored position	P/S+
234.21	Perform the Refueling Platform Cutoff and Interlock Operability Test (N2-OSP-FNR-@001)	P/S+
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+Indicates tasks required to be performed/simulated in the plant.

Unit II Rx Oper OJT -82 January 1990 UNIT 2 OPS/488

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Student's Name

	SYSTEM 234	FUEL HANDLING EQUI	<u>PMENT</u>
234.1	·		P/S+
234.2	Evaluator	1	P/S+
234.3	Evaluator		P/S+
234 4	Evaluator		D/C1
234.4	Evaluator		Г/ Э т
234.5	Evaluator		P/2+
234.6	Evaluator		P/S+
234.7	Fyaluator		P/S+
234.8			P/S+'
234.9			P/S+
234.10	Evaluator		P/S+
234.11	Evaluator		P/S+
224 12	Evaluator		D/C.
234.12	Evaluator		F/3+
234.13	Evaluator		P/S+
234.14	Evaluator		P/S+
234.15	Evaluator		P/S+
234.16			P/S+
234.17	Evaluator		P/S+
234.18	Evaluator		P/S+
234.19	Evaluator		P/S+
_ • · · · •	Evaluator		-

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UNIT 2 OPS/488

Unit II Rx Oper OJT -83 January 1990

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Student's Nar	16	
SYSTEM	234 FUEL HANDLING EQUIPMENT	
234.20Ev 234.21Ev	P/S+ valuator valuator	Date Date
Knowledge Comple OLT-2	ete: Instructor Signature	Date
Task Complete:	Training Supervisor	Date
Task Qualified:		Data

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Unit II Rx Oper OJT -84 January 1990

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UNIT 2 OPS/488

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 239 MAIN STEAM SYSTEM

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-1,2
- B. NMPII Surveillance Test procedures
- C. NMPII FSK, ESK, LSK Drawings
- D. NMPII Licensed Operator Text MSS
- E. NMPII Technical Specifications

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all . evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Main Steam System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-38

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper-OJT _85 January 1990

UNIT 2 OPS/488

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C. Practical Requirements

	ITEM	ACTION <u>CODE</u>
239.1	Perform Lineups and startup the Main Steam System from Control Room	Ρ
239.2	Perform and MSIV Slow Closure	Ρ
239.3	Startup the Moisture Separator Reheater System from the Control Room	Р
239.4	Open the MSIV's with the Reactor Pressurizer	P
239.5	Operate with one steam line isolated	Р
239.6	Prepare a MSIV for stroking during shutdown	P/S+
239.7	Shutdown the Main Steam System	Ρ
239.8	Shutdown the Moisture Separator Reheater System	P/S
239.9	Emergency Depressurize the Reactor using the Main Steam Lines	P/S
239.10	Backfill the MSL between the MSIV's	P/S+
239.11	Perform MSIV RPS Test (N2-OSP-MSS-M001)	P/S+
239.12	Perform MSIV Operability Test (N2-OSP-MSS-CS001)	P/S+
239.13	Remove from and Return to Service the Reheaters at Turbine Loads greater than 29%	P/S
239.14	Return the Reheaters to Service with the Main Turbine on line and scavenging steam inoperable	P/S
239.15	Perform MSIV fast closure test	P/S
239.16	Monitor the Main Steam System during normal operation	Ρ

+Indicates tasks required to be performed/simulated in the Plant.

UNIT 2 OPS/488

Unit II Rx Oper OJT -86 January 1990

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Student's Name

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239.1 239.2 239.3 239.4 239.5 239.6 239.7 239.8	Evaluator Evaluator Evaluator Evaluator Evaluator Evaluator Evaluator			_ P _ P _ P _ P _ P _ P _ P	
239.2 239.3 239.4 239.5 239.6 239.7 239.8	Evaluator Evaluator Evaluator Evaluator Evaluator Evaluator Evaluator			- P - P - P - P - P - P/S+	
239.3 _ 239.4 _ 239.5 _ 239.6 _ 239.7 _ 239.8 _	Evaluator Evaluator Evaluator Evaluator Evaluator Evaluator			- P - P - P - P - P/S+	
239.4 239.5 239.6 239.7 239.8	Evaluator Evaluator Evaluator Evaluator Evaluator	· · · · · · · · · · · · · · · · · · ·		- P - P - P - P/S+	
239.4 - 239.5 - 239.6 - 239.7 - 239.8 -	Evaluator Evaluator Evaluator Evaluator	······································		- 「 - P - P/S+	
239.5 _ 239.6 _ 239.7 _ 239.8 _	Evaluator Evaluator Evaluator			- ^P P/S+	
239.6 _ 239.7 _ 239.8 _	Evaluator Evaluator			P/S+	
239.7 _ 239.8 _	Evaluator				
239.8 _				_ P	
	F	. <u></u>		_ P/S	
239.9	Evaluator			_ P/S	
239.10	Evaluator			P/S+	
-	Evaluator			- P/S+	
220 12	Evaluator			- D/C	
233.12 <u>-</u>	Evaluator			- ^{г/ут}	
239.13	Evaluator			_ P/S	
239.14	Evaluator			_ P/S	
239.15 _	Evaluator		· · · · · · · · · · · · · · · · ·	_ P/S	
239.16	Evaluator		<u>.</u>	_ P	
Knowledge	Complete:				
OLT-38	Inst	ructor Sigr	ature		

Date Date Date Date Date I. Date Date Date Date Date Date , Date Date Date Date Date

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OLT-38	Instructor Signature	Date
Task Complete:		
	Training Supervisor	Date
Task Qualified.	· .	
145K Quarrineu	Department Supervisor	Date
UNIT 2 OPS/488	Unit II Rx Oper OJT -87 January 1990)

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 242 AUXILIARY STEAM SYSTEM

II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedures N2-OP-9
- C. NMPII Licensed Operator Text ASS

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Auxiliary Steam System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-39

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

January 1990

Unit II Rx Oper OJT -88

UNIT 2 OPS/488

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C. Practical Requirements

	ITEM	CODE
242.1	Lineup Steam Jet Air Ejector for Operation	Ρ
242.2	Monitor Steam Jet Air Ejector operation from Control Room	Р

UNIT 2 OPS/488

Unit II Rx Oper OJT -89 January 1990



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<u>SY</u>	STEM 242	LOW PRESSURE (AUXILIARY) STEAM	SYSTEM
2.1	¥		Ρ	
	Evaluato	or		Date
2.2			Ρ	
	Evaluato	or		Date
nowledge Co	omplete:			·
nowledge Co LT-39	omplete:	Instructor Sig	nature	Date
nowledge Co .T-39 isk Complet	omplete:	Instructor Sig	nature	Date
iowledge Co .T-39 isk Complet	omplete:	Instructor Sig Training Super	nature visor	Date
nowledge Co .T-39 Ask Complet Ask Qualif	omplete: te:	Instructor Sig Training Super	nature visor	Date Date

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Unit II Rx Oper OJT -90 January 1990

UNIT 2 OPS/488

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NINE MILE POINT UNIT II .

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 243 EXTRACTION STEAM SYSTEM

II. SYSTEM REFERENCES

- A. NMPII Operating Procedures N2-OP-8
- B. NMPII FSK, LSK, ESK Drawings
- C. NMPII Licensed Operator Text FWH

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Extraction Steam System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-40

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper OJT -91 January 1990

UNIT 2 OPS/488

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C. Practical Requirements

	ITEM	ACTION CODE
243.1	Perform a startup of the feedheaters and extraction steam	P/S
243.2	Monitor the Feedwater and Extraction Steam System operation from the Control Room	Ρ
243.3	Startup and place the fourth point heater drain pumps in service and the level controllers in automatic	Ρ
243.4	Shutdown the Feedheater and Extraction Steam System	P/S
243.5	Remove an L.P. Feedwater Heater String from service	Ρ
243.6	Remove a sixth point feedwater heater from service	Ρ
243.7	Perform actions necessary for a loss of feedwater heating	Р

UNIT 2 OPS/488

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Unit II Rx Oper OJT -92 January 1990

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Student's Name

SYSTEM 243 EXTRACTION STEAM SYSTEM 243.1 P/S Date Evaluator Ρ 243.2 Evaluator Date Ρ 243.3 Evaluator Date P/S 243.4 Evaluator Date Ρ 243.5 Date Evaluator 243.6 Ρ Evaluator Date 243.7 Ρ Evaluator Date Knowledge Complete: Instructor Signature Date 0LT-40 Task Complete: Training Supervisor Date Task Qualified:______
Department Supervisor Date

Unit II Rx Oper OJT -93 January 1990

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UNIT 2 OPS/488

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 245 MAIN TURBINE GENERATOR

II. SYSTEM REFERENCES

- A. NMPII Licensed Operator Text MGE, TMS, LOS
- B. NMPII Operating procedure N2-OP-21, 22a, 23, 68, 101A, B, C
- C. NMPII Turbine Generator Techical Manual
- D. NMPII FSK, LSK, ESK Drawings
- E. NMPII Surveillance Test Procedures

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Main Turbine Generator System by attending the Operator Training lecture and satisfactorily completing a written examination on the system.

- 1. OLT-42
- 2. OLT-43
- 3. OLT-44
- 4. OLT-46
- 5. OLT-66
- B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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Unit II Rx Oper OJT -94 January 1990

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C. Practical Requirements

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c. mac		ACTION
	ITEM	CODE
245.1	Perform actions for a Generator Core Monitor Alarm	Ρ
245.2	Startup the turbine to rated speed and monitor for proper operation from the Control Room	Ρ
245.3	Perform Overspeed Trip Test (CKT only) from the Control Room	Ρ
245.4	Startup the generator electrically from the Control Room, synchronize to grid, and load generator from the Control Room	Ρ
245.5	Shutdown the Main Generator (electrically) from the Control Room	Ρ
245.6	Perform Overspeed Trip Test (Actual)	P/S
245.7	Shutdown the Turbine Generator (locally mechanically)	P/S+
245.8	Perform Back-up Overspeed Trip Test (Actual)	P/S
245.9	Perform actions required on a Turbine Trip from the Control Room	Ρ
245.10	Shutdown the Main Turbine	Ρ
245.11	Perform the actions required for a generator core monitor alarm	P/S

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+Indicates tasks required to be performed/simulated in the plant.

Unit II Rx Oper OJT -95 January 1990 UNIT 2 OPS/488 • . . • • •

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Student's Name

<u>S</u>	YSTEM 245 MAIN_TURB	NE GENERATOR	
5.1	, *	β	N
	Evaluator	D	Date
	Evaluator	r	Date
5.3 _	Evaluator	P	Date
5.4 _	Evaluator	P	Date
5.5		Ρ	
5.6	Evaluator	P/S	Date
	Evaluator	P/S	Date
	Evaluator	F/3+	Date
5.8 _	Evaluator	P/S	Date
5.9 _	Fueluetor	Р	
5.10 _		Ρ	
5.11	Evaluator	P/S	Date
	Evaluator		Date

Unit II Rx Oper OJT -96 January 1990

UNIT 2 OPS/488

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Student's Name

SYSTEM 245 MAIN TURBINE GENERATOR

Knowledge Complete:___ Instructor Signature Date OLT-42 Knowledge Complete:____ Instructor Signature Date OLT-43 Knowledge Complete:_____ Instructor Signature Date OLT-44 Knowledge Complete:______ Instructor Signature Date Knowledge Complete:____ Instructor Signature Date OLT-66 Task Complete:_______Training Supervisor Date Task Qualified:____ Department Supervisor Date

UNIT 2 OPS/488

Unit II Rx Oper OJT -97 January 1990



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NINE MILE POINT UNIT II .

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. <u>SYSTEM 246</u> MAIN TURBINE STEAM SEAL SYSTEM

II. SYSTEM REFERENCES

- A. NMPII Licensed Operator Text TME
- B. NMPII Operating Procedure N2-OP-25
- C. NMPII FSK, LSK, ESK Drawings

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Main Turbine Steam Seal System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-41

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper OJT -98 January 1990

UNIT 2 OPS/488

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C. Practical Requirements

c. 1140	ITEM	ACTION CODE
246.1	Startup the Turbine Steam Seal System on Reboiler Steam Supply and monitor for normal operation	Ρ.
246.2	Startup the Reboiler and monitor for proper operation	P/S
246.3	Shutdown a Reboiler	P/S
246.4	Shutdown Gland Seal from the Control Room	P/S
246.5	Shift Gland Seal Supply from Main Steam to Reboiler Steam	P/S
246.6	Shift Gland Seal Supply from Reboiler Steam to Main Steam	P/S

UNIT 2 OPS/488

Unit II Rx Oper OJT -99 January 1990

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Student's Name

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188 min 218 21	SYSTEM 246	MAIN TURBINE STEAM	M SEAL SYSTEM		
246.1		0	_ Р		
246.2	Evaluator		P/S	Date	μ
640.6	Evaluator	· · · · · · · · · · · · · · · · · · ·		Date	
246.3	Fyaluator	· · · · · · · · · · · · · · · · · · ·	_ P/S	Date	
246.4			P/S		
246 5	Evaluator		D/C	Date	
240.5	Evaluator		- , F73	Date	''
246.6	Evaluator		_ P/S	Date	
Knowled	ge Complete:			Data	
OLT-41		Instructor Signati	ure	Uate	
Task Co	mplete:	Training Superviso	or .	Date	
Task Qu	alified:	Doorse through Company		Do to	<u></u>
		Department Superv	I SOF	Date	J

UNIT 2 OPS/488

Unit II Rx Oper OJT _100 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 247 MAIN LUBE OIL SYSTEM

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-22A, 22B
- B. NMPII Turbine Generator Technical Manual
- C. NMPII Licensed Operator Text LOS
- D. NMPII FSK, LSK, ESK Drawings

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Main Lube Oil System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-42 2. OLT-43

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper OJT -101 January 1990

UNIT 2 OPS/488

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C. Practical Requirements

-	ITEM	ACTION CODE
247.1	Place the Main Turbine on the turning gear and monitor for proper operation	Ρ
247.2	Secure the Main Turbine Lube Oil System from the Control Room	P/S
247.3	Operate the Main Lube Oil System without the Lube Oil Conditioners	P/S+
247.4	Perform actions for Lube Oil Temperature Abnormal from the Control Room	P/S
247.5	Control TBCLCW flow to heat exchanger manually	P/S 2

+Indicates tasks required to be performed/simulated in the Plant.

UNIT 2 OPS/488

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Unit II Rx Oper OJT -102 January 1990

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Student's Name		
SYSTEM 247	MAIN LUBE OIL SYSTEM	
247.1	Р	
Evaluator	۵/۹	Date
Evaluator		Date
247.3Evaluator	P/S	+ Date
Evaluator	P/S	Date
247.5Evaluator	P/S	Date
Knowledge Complete: OLT-42	Instructor Signature	Date
Knowledge Complete: DLT-43	Instructor Signature	Date
Fask Complete:	Training Supervisor	Date
Task Qualified:	Department Supervisor	Date

Unit II Rx Oper OJT –103 January 1990

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UNIT 2 OPS/488

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 248 MAIN TURBINE EHC SYSTEM

II. SYSTEM REFERENCES

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- A. NMPII Operating Procedure N2-OP-23
- B. NMPII Licensed Operator Text EHC
- C. NMPII Turbine Generator Technical Manual
- D. NMPII FSK, LSK, ESK Drawings

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Main . Turbine EHC System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-44

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper OJT -104 January 1990

UNIT. 2 OPS/488

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C. Practical Requirements

	ITEM	CODE
248.1	Shift control of EHC Pressure Regulators	P/S+
248.2	Startup EHC Electrical System	P/S+
248.3	Manually trip the Turbine from the front standard	P/S
248.4	Startup the EHC Hydraulic Power Units from the Control Room	P/S
248.5	Operate the Turbine overspeed test mechanism	P/S

+Indicates tasks required to be performed/simulated in the Plant.

UNIT 2 OPS/488

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Unit II Rx Oper OJT -105 January 1990

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Student's Name

SYSTEM 248	MAIN TURBINE EHC SYSTEM	
248.1	P/S+	<u> </u>
248.2	r P/S+	
Evaluato	r P/S	Date
Evaluato	r P/S	Date
Evaluato	r	Date
248.5Evaluato	r 7/5	Date
Knowledge Complete: OLT-44	Instructor Signature	Date
Task Complete:	Training Supervisor	Date
Task Qualified:	Department Supervisor	Date .

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Unit II R Oper OJT -106 January 1990

UNIT 2 OPS/488

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 250 SEAL OIL SYSTEM

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-22D
- B. NMPII Licensed Operator Text LOS
- C. NMPII Turbine Generator Technical Manual
- D. NMPII FSK, ESK, LSK Drawings

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Seal Oil System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-43

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

UNIT 2 OPS/488

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Unit II Rx Oper OJT -107 January 1990



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C. Practical Requirements

	ITEM	ACTION CODE
250.1	Startup the Seal Oil System from the Control Room and monitor operation	. Р
250.2	Isolate the Seal Oil Vacuum Tank and Return to Service	P/S+
250.3	Shutdown the Seal Oil System with no gas pressure and Turbine on turning gear	P/S
250.4	Perform actions required during loss of Seal Oil	P/S

+Indicates tasks required to be performed/simulated in the Plant.

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Unit II Rx Oper OJT -108 January 1990

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UNIT 2 OPS/488

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Student's Name SEAL OIL SYSTEM SYSTEM 250 -Ρ 250.1 Evaluator Date 250.2 P/S+ Evaluator Date 250.3 P/S Date Evaluator 250.4 P/S Evaluator Date Knowledge Complete:______OLT-43 Instructor Signature Date Task Complete:___ Training Supervisor Date Task Qualified:

Department Supervisor Date

Unit II Rx Oper OJT -109 January 1990

UNIT 2 OPS/488

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. <u>SYSTEM 252</u> <u>GENERATOR H2 AND CO2 SYSTEM</u>

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-27
- B. NMPII Licensed Operator Text GMH
- C. NMPII FSK, LSK, ESK Drawings
- D. NMPII Turbine Generator Technical Manual

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Generator H_2 and CO_2 System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-47

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

UNIT 2 OPS/488

Unit II Rx Oper OJT -110 January 1990

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C. • Practical Requirements

ACTION
<u>CODE</u>

T	т	EM	
<u> </u>			

252.1

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.1 Operate the Generator H₂ System during a loss of Seal P/S Oil pressure

UNIT 2 OPS/488

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Unit II Rx Oper OJT -111 January 1990

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Student's I	lame	
<u>SYST</u>	EM 252 GENERATOR H2 AND CO2 SYS	TEM
252.1	Evaluator P/S	Date
Knowledge Com OLT-47	olete: Instructor Signature	Date
Task Complete	Training Supervisor	Date
Task Qualified	i: Department Supervisor	Date

UNIT 2 OPS/488

Unit II Rx Oper OJT -112 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 253 STATOR WATER COOLING SYSTEM

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-26, N2-OP-68
- B. NMPII Licensed Operator Text GMC
- C. NMPII Turbine Generator Technical Manual
- D. NMPII FSK, LSK, ESK Drawings

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Stator Water Cooling System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-45

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

UNIT 2 OPS/488

Unit II Rx Oper OJT -113 January 1990

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C. Prac	tical Requirements	ACTION
	ITEM	CODE
253.1	Take actions for a partial loss of Stator Cooling Water Flow	P/S
253.2	Take actions for a total loss of Stator Cooling Water Flow	P/S
253.3	Shift the Stator Cooling Water Pumps from the Control Room	P/S
253.4	Perform the actions required for a leak in the Stator Water Cooler	P/S
253.5	Perform the actions required during a loss of Stator Cooling Water with armature current greater than 7006 amps	P/S
253.6	Startup the Stator Water Cooling System	P/S

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Unit II Rx Oper OJT -114 January 1990

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Student's Name

	SYSTEM 253 STATOR	WATER COOLING SYSTEM	
253.1	,	P/S	
253 2	Evaluator	P/S	Date
233.2	Evaluator	P/0	Date
253.3	Evaluator	P/S	Date
253.4	<u>Fuelueter</u>	P/S	Date
253.5	Evaluator	P/S	
253 6	Evaluator	P/S	Date
200.0	Evaluator		Date

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Knowledge Complete:_____OLT-45 Instructor Signature Date Task Complete:_____ Training Supervisor Date

Task Qualified:___

Department Supervisor

Date

UNIT 2 OPS/488

Unit II Rx Oper OJT -115

January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. <u>SYSTEM 254</u> <u>GENERATOR BUS DUCT COOLING SYSTEM</u>

II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedure N2-OP-24
- C. NMPII Licensed Operator Text MGE

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Stator Generator Bus Duct Cooling System by attending the Operator Training lectureand satisfactorily completing a written examination on the following:

1. OLT-46

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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C. Practical Requirements

ACTION CODE

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<u>ITEM</u>

254.1 Perform actions for a loss of both Bus Duct Cooling Fans

UNIT 2 OPS/488

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Student's Name	
254.1P	Data
Evaluator	Date "
Knowledge Complete: OLT-46 Instructor Signature	Date
Task Complete:	Date
Task Qualified:Department Supervisor	Date

Unit II Rx Oper OJT -118 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. <u>SYSTEM 255</u> <u>CONDENSER AIR REMOVAL SYSTEM</u>

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-9
- B. NMPII Licensed oeprator Text OFG
- C. NMPII FSK, LSK, ESK Drawings
- D. NMPII Technical Specifications

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Condenser Air Removal System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-52

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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C. Practical Requirements

	ITEM	CODE
255.1	Use the SJAE with Aux Boiler Steam	P/S+
255.2	Start and operate the Mechanical Vacuum Pump(s) from the Control Room	Р
255.3	Shutdown the Condenser Air Removal System from the Control Room	Ρ

ACTION

+Indicates tasks required to be performed/simulated in the plant.

Unit II Rx Oper OJT -120 January 1990

UNIT 2 JPS/488

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	5151EM 255	SENSER AIR REMOVAL STSTEM	
55.1	Evaluator	P/S+	Date
55.2		P	Data
55.3	Evaluator	Ρ	Dale
	Evaluator		Date
nowledge	Complete:	· · · · · · · · · · · · · · · · · · ·	
nowledge LT-52	Complete:	tructor Signature	Date
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Unit II Rx Oper OJT -121 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. <u>SYSTEM 256</u> <u>CONDENSATE SYSTEM</u>

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-3, 4, 101A, B, C
- B. NMPII Licensed Operator Text CNM, CNS
- C. NMPII FSK, LSK, ESK Drawings

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

- A. Knowledge Requirements
 - The student will have demonstrated satisfactory knowledge of the Condensate System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:
 - 1. OLT-49
 - 2. OLT-50
- B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper OJT -122 January 1990

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C. Practical Requirements

0		ACTION	
	ITEM	CODE	
256.1	Perform Condensate Pump Startup/Cleanup Operation from the Control Room	Ρ	
256.2	Perform Booster Pump Startup from the Control Room	Р	
256.3	Perform System Periodic Performance Checks	Ρ	
256.4	Deleted - NST#7		2
256.5	Start the third Condensate and Condensate Booster Pump	P/S	
256.6	Shutdown the Condensate System from the Control Room	Ρ	
256.7	Operate the Low Pressure Feedwater Heaters	P/S	
256.8	Restore Condensate System after Main Turbine Trip at Power	Р	
256.9	Perform actions for a Hotwell Level High/Low	Р	
256.10	Restore Condensate System after Turbine Trip at power	P/S	2

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Student's Name

SYSTEM 256 CONDENSATE SYSTEM 256.1 Ρ Date Evaluator 256.2 Ρ Evaluator Date Ρ 256.3 Evaluator Date P/S 256.5 Evaluator Date Ρ 256.6 Evaluator Date P/S 256.7 Date Evaluator 256.8 Ρ Evaluator Date Ρ 256.9 Evaluator Date P/S 256.10 Date Evaluator Knowledge Complete: Instructor, Signature OLT-49 Date Knowledge Complete: OLT-50 Instructor Signature Date Task Complete: Training Supervisor Date Task Qualified:_____ Department Supervisor Date Unit II Rx Oper OJT -124 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. <u>SYSTEM 259</u> <u>REACTOR FEEDWATER SYSTEM</u>

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-3, 4, 101A, B, C
- B. NMPII Licensed Operator Text FWS, FWC
- C. NMPII FSK, LSK, ESK Drawings
- D. NMPII Technical Specifications
- E. NMPII Surveillance Test Procedures

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Reactor Feedwater System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-53 2. OLT-54

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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C. Practical Requirements

	ITEM	ACTION CODE	
259.1	Perform Lineups on the Reactor Feedwater System to the Reactor from the Control Room	Р	
259.2	Start a Reactor Feedwater Pump from the Control Room	Ρ	
259.3	Perform periodic system performance checks in the Control Room	P	-
259.4	Perform Single Feed Pump Operation and Second Pump Start	P/S	
259.5	Place Feedwater Control in Automatic	Р	
259.6	Startup the Standby Feedwater Pump from the Control Room	Ρ	
259.7	Secure a Reactor Feedwater Pump from the Control Room	Р	
259.8	Secure the Reactor Feedwater System from the Control Room	Ρ	
259.9	Perform the required actions for a loss of Feedwater or Feedwater System Failure	Ρ	
259.10	Reset a Level Setpoint Setdown	Ρ	
259.11	Operate the Feed Pumps following a Turbine Trip	P	
259.12	Respond to a Feed Pump high vibration	P/S	2

+Indicates tasks required to be performed/simulated in the Plant.

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Unit II Rx Oper OJT -126 January 1990

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Student's Name

<u>S,</u>	<u>YSTEM 259</u>	REACTOR	R FEEDWAT	ER SYSTEM	
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2	. Evaluato	r		، P	Date
- <u>-</u>	Evaluato	r		'	Date
<u> </u>	Evaluato	r		P	Date
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5 _				Р	
5	Evaluato	r		Р	Date
- <u></u>	Evaluato	r		D	Date
	Evaluato	r	<u> </u>	r	Date
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)	Evaluato	r.		Р	Date
···	Evaluato	r		 D/C	Date
- 12	Evaluato	r		P75	Date
ledge (53	Complete:	Instruc	tor Signa	ature	 Date
ledge (54	Complete:	Instruc	tor Signa	ature	 Date
Comple	ete:	Trainin	ig Supervi	isor	 Date
Quali	fied:	Departm	ent Super	visor	 Date
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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 260 FEEDWATER HEATER VENT & DRAIN SYSTEM

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-8, 101A, B, C
- B. NMPII Licensed Operator Text -FWH
- C. NMPII FSK, LSK, ESK Drawings

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Feedwater Heater Vent & Drain System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-40

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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C. Practical Requirements

•••••		ACTION
	ITEM	CODE
260.1	Perform Lineups on the Feedwater Heater Vent and Drain System from the Control Room	Ρ
260.2	Startup the Feedwater Heater Vent and Drain System from the Control Room	p
260.3	Start a Heater Drain Pump from the Control Room	Ρ
260.4	Monitor Feedwater Heater Vent & Drain System Operation from the Control Room	Ρ
260.5	Shutdown the Feedwater Heater Vent & Drain System from the Control Room	Ρ
260.6	Remove a L.P. Feedwater Heater String from service from the Control Room	P/S
260.7	Stop a 4th Point Feed Heater Pump from the Control Room	Ρ
260.8	Remove a 6th Point Feed Heater from service from the Control Room	P/S
260.9	Perform actions necessary during a loss of Feedwater Heating from the Control Room	P/S

Unit II Rx Oper OJT -129 January 1990

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UNIT 2 OPS/488

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Student's Name

	SYSTEM 260	FEEDWATER HEATER VENT & DRAIN SYSTEM			
260.1	-	Р			
260.2	Evaluator	< P	Date		
20012	Evaluator	· · · · · · · · · · · · · · · · · · ·	Date		
260.3	Evaluator	P	Date		
260.4	<u> </u>	P	Dato		
260.5	Evaluator	Р	Date		
260 6	Evaluator		Date		
200.0	Evaluator	[73	Date		
260.7	Evaluator	P	Date		
260.8		P/S			
260.9	Evaluator	P/S	Date		
20000	Evaluator		Date		
Knowledg	ge Complete:	Instructor Signature	Date		
021-40					
Task Complete: Training Supervisor Date					
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Task Qua	alified:	Department Supervisor	Date		

UNIT 2 OPS/488

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Unit II Rx Oper OJT -130 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. <u>SYSTEM 261</u> <u>STANDBY GAS TREATMENT SYSTEM</u>

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-618
- B. NMPII Licensed Operator Text GTS
- C. NMPII FSK, LSK, ESK Drawings
- D. NMPII Surveillance Test Procedures
- E. NMPII Technical Specifications

III. TASK OBJECTIVES .

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

- A. Knowledge Requirements
 - The student will have demonstrated satisfactory knowledge of the Standby Gas Treatment System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-24

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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C. Practical Requirements

	ITEM	ACTION CODE
261.1	Place Standby Gas Treatment System in service manually with suction from HVR from the Control Room	Ρ
261.2	Shutdown both Standby Gas Treatment System Trains from the Control Room – following auto initiation	Ρ
262.3	Perform actions required for SGTS charcoal filter high temperature	P+
262.4	Discuss actions required for Off Normal SBGTS Events	D+

+Indicates tasks required to be performed/simulated in the Plant.

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Unit II Rx Oper OJT -132 January 1990

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Student's Name

и	SYSTEM 261 STANDBY GAS TREAT	MENT SYSTEM	
261.1	- Fue has here	_ P	Data
261.2	Evaluator	Ρ	Dale
	Evaluator		Date
261.3	Evaluator	_ ^{P+} D+	Date
2011 /	Evaluator		Date
Knowledg OLT-24	ge Complete: Instructor Signat	ure	Date
Task Con	nplete:Training Supervise	or	Date
Task Qua	lified: Department Superv	isor	Date

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Unit II Rx Oper OJT -133 January 1990

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NINE MILE POINT UNIT II ·

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 262 AC ELECTRICAL DISTRIBUTION SYSTEM

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-68, 70, 71, 72
- B. NMPII Licensed Operator Text NORM AC, EJS, ENS
- C. NMPII FSK, LSK, ESK Drawings
- D. NMPII Technical Specifications

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the AC Electrical Distribution System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

- 1. OLT-66 2. OLT-67
- B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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с.	Practical Requirements	ACTION
	ITEM	CODE
262.1	Manually operate Elect. Disconnect Switches	P/S+
262.2	Energize a 13.8 KV Bus	Ρ
262.3	Transfer station service from reserve to normal and back to reserve from the Control Room	P/S
262.4	Place a 115 KV Bus in service from the Control Room	Ρ
262.5	Transfer an Emergency Bus Normal Feed from Reserve Station Transformer 1A to 1B and Return to Normal	Р
262.6	Place a UPS in service from a de-energized condition	P/S+
262.7	Transfer the load from UPS to the Maintenance Source and shutdown the UPS	P/S+
262.8	Remove the Maintenance Supply to UPS 3A/3B with the UPS supplying the critical load	S/P+
262.9	Re-energize the Stub Buses following a loss of off-site power	Р
262.10	Perform actions required for a Transformer High Temperature	P/S
262.11	Remove and Return the #5 or #6 line from Service	Ρ

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+Indicates tasks required to be performed/simulated in the Plant.

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Unit II Rx Oper OJT -135 January 1990

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Student's Name



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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 263 DC ELECTRICAL DISTRIBUTION SYSTEM

II. SYSTEM REFERENCES

- A. NMPII Operating Procedures N2-OP-73A, 73B, 74A, 74B
- B. NMPII Licensed Operator Text BYS/BWS
- C. NMPII Technical Specifications
- D. NMPII FSK, LSK, ESK Drawings

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the DC Electrical Distribution System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-68

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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C. Prac	<u>ITEM</u>	ACTION CODE
263.1	Check the DC Electrical Distribution System for grounds	Ρ.
263.2	Discuss ground isolation	D+
263.3	Shift Battery Charger	P/S
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UNIT 2 OPS/488

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Unit II Rx Oper OJT -138 January 1990

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SYSTEM_2	<u>b</u> <u>DC ELECTRICAL I</u>	DISTRIBUTION SYSTE	<u>. M</u>
63.1	1	P	Data
53.2	Iuator	D+	Date
Eva	luator		Date
3.3Eva	luator	P/S	Date
owladge Complet	,		
owledge Complet T-68	e: Instructor Sign	nature	Date
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NINE MILE POINT .UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 264 EMERGENCY DIESEL GENERATOR SYSTEM

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-100A, 100B
- B. NMPII Licensed operator Text EGD, EGS
- C. NMPII TechnicalSpecification
- D. NMPII FSK, LSK, ESK Drawings
- E. NMPII Surveillance Test Procedures

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Emergency Diesel Generator System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-17 2. OLT-18

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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C. Practical Requirements

	ITEM	ACTION CODE
264.1	Perform a manual start of an emergency diesel and parallel to the bus from the Main Control Room	Ρ
264.2	Perform Diesel Generator shutdown in the parallel mode of operation	P/S
264.3	Perform HPCS Diesel Generator shutdown during. Isolated Bus Conditions from P852	P/S

Unit II Rx Oper OJT -141 January 1990

UNIT 2 OPS/489

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	SYSTEM 264	EMERGENCY DIESEL GENERATOR SYSTEM	
264.1		Р	
264.2	Evaluator	 D/C	Date
204.2	Evaluator	F73	Date
264.3		P/S	
	Evaluator		Date
	1		
Knowledge	e Complete:	Instructor Signature	Date
•=•			
Knowledge	e Complete:	Instructor Signature	
		Instructor Signature	Dute
Task Comp	plete:	Turing Curomicon	0.10
		Training Supervisor	Date
Task Quai	lified:		
		Department Supervisor	Date

Unit II Rx Oper OJT -142 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 271 OFF-GAS SYSTEM

II. SYSTEM REFERENCES

- NMPII Operating Procedure N2-OP-42 Α.
- NMPII Licensed Operator Text OFG Β.
- NMPII Technical Specifications NMPII FSK, LSK, ESK Drawings С.
- D.
- NMPII Surveillance Test Procedures Ε.

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

Knowledge Requirements Α.

> The student will have demonstrated satisfactory knowledge of the Off-Gas System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. **OLT-52**

Standards for Acceptable Task Performance Β.

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

> Unit II Rx Oper OJT -143 January 1990

UNIT 2 OPS/489

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C. Practical Requirements

	ITEM	ACTION CODE
271.1	Perform actions for an Off-Gas Hydrogen Explosion	P/S
271.2	Perform actions for a fire in the Charcoal Adsorbers of the Off-Gas System	P/S+

+Indicates tasks required to be performed/simulated in the Plant.

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Unit II Rx Oper OJT -144 January 1990

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Student's Name		
<u>SYSTEM 271</u> 271.1 271.2 Evaluato Evaluato	OFF-GAS SYSTEM P/S r P/S+	Date Date
Knowledge Complete: OLT-52	Instructor Signature	Date
Task Complete:	Training Supervisor	Date
Task Qualified:	Department Supervisor	Date

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Unit II Rx Oper OJT -145 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 272 RADIATION MONITORING SYSTEM

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-79
- B. NMPII Licensed Operator Text RMS
- C. NMPII FSK, LSK, ESK Drawings
- D. NMPII Technical Specifications

III.TASK_OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Radiation Monitoring System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-62

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper OJT -146 January 1990

UNIT 2 OPS/489

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C. Practical Requirements

	ITEM	CODE
272.1	Operate the Area Rad Monitor System	P/S+
272.2	Monitor Area Rad Monitoring System	P/S+
272.3	Perform Refueling Floor Exhaust Monitor Functional Test	P/S+

+Indicates tasks required to be performed/simulated in the Plant.

Unit II Rx Oper OJT -147 January 1990

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Student's Name SYSTEM 272 RADIATION MONITORING SYSTEM P/S+ 272.1 Evaluator Date 272.2 P/S+ Evaluator Date 272.3 P/S+ Evaluator Date Knowledge Complete: Instructor Signature OLT-62 Date Task Complete:____ Training Supervisor Date Task Qualified:____ Department Supervisor Date

Unit II Rx Oper OJT -148 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 273 METEOROLOGICAL MONITORING SYSTEM

II. <u>REFERENCES</u>

- A. NMPII Operating Procedure N2-OP-102
- B. NMPII Licensed Operator Text OLT-MMS
- C. NMPII FSK, LSK, ESK Drawings

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Meteorological Monitoring System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-61

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper OJT -149 January 1990

UNIT 2 OPS/489

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C. Practical Requirements

	<u>ITEM</u>	ACTION CODE
273.1	Perform the duties of CSO when a Tornado Warning/ALERT exists	P/S
273.2	Perform the duties of CSO when heavy snowfall is expected	P/S

Unit II Rx Oper OJT -150 January 1990



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Stude	ent's Name		
	SYSTEM 273	METEOROLOGICAL MONITORING SYSTE	M
273.1 273.2	Evaluato Evaluato	P/S P/S	Date Date
Knowledg OLT-61	ge Complete:	Instructor Signature	Date
Task Con	nplete:	Training Supervisor	Date
Task Qua	alified:	Department Supervisor	Date

Unit II Rx Oper OJT -151 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 274 TURBINE BUILDING CLOSED LOOP COOLING SYSTEM

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-14
- B. NMPII Licensed Operator Text CCS
- C. MMPII FSK, LSK, ESK Drawings

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Turbine Building Closed Loop Cooling System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-59

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper OJT -152 January 1990

UNIT 2 OPS/489

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C. Practical Requirements ACTION ITEM CODE Startup the TBCLC System and monitor for proper 274.1 Ρ Operation • Shutdown the TBCLC System P/S 274.2 Perform the actions required for a loss of all TBCLCW 274.3 P/S Perform actions required for a High CCS Temperature 274.4 P/S

Unit II Rx Oper OJT -153 January 1990

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Student's Name

	SYSTEM 274	TURBINE BUILDING CLOSED L	OOP COOLING SYSTEM	
274.1	•	Р		
271 2	Evaluator	Р/S	Date	1
2/4.2	Evaluator	1/5	Date	,
274.3	Evaluator	P/S	Date	
274.4		P/S		
•	Evaluator	•	Date	
Knowledg OLT-59	ge Complete:	Instructor Signature	Date	
Task Con	nplete:	Training Supervisor	, Date	
Task Qua	alified:	Department Supervisor	Date	<u> </u>

Unit II Rx Oper J'I -154 January 1990

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NINE MILE POINT UNIT II ·

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. <u>SYSTEM 275</u> <u>CIRCULATING WATER SYSTEM</u>

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-10A
- B. NMPII Licensed Operator Text CWS
- C. NMPI FSK, LSK, ESK Drawings

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Circulating Water System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-56

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper OJT -155 January 1990

UNIT 2 OPS/489

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C. Practical Requirements

ACTION CODE ITEM Ρ Startup, the Circulating Water System in any mode from 275.1 the Control Room and monitor for proper operation in all modes Monitor the Cooling Tower in any mode of Operation P/S+ 275.2 Locally Shutdown the Circulating Water System from Control Room P/S 275.3 Perform actions required for a Circulating Water Pump Ρ 275.4 Trip

+Indicates tasks required to be performed/simulated in the Plant.

Unit II Rx Oper OJT -156 January 1990

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Student's Name		ι. ·
SYSTEM 275	CIRCULATING WATER SYSTEM	
275.1	р	
Evaluato	pr	Date
Evaluato	pr P/S+	Date
275.3 Evaluato	P/S	Date
Evaluato)r	Date
,		
Knowledge Complete:		
OLT-56	Instructor Signature	Date
Task Complete:		
	Training Supervisor	Date
Task Qualified:		
	Department Supervisor	Date

Unit II Rx Oper OJT -157 January 1990

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UNIT 2 OPS/489

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NINE MILE POINT UNIT JI

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. <u>SYSTEM 276</u> <u>SERVICE WATER SYSTEM</u>

II. SYSTEM REFERENCES

- A. NMPII Operating Procdure N2-OP-11
- B. NMPII Licensed Operator Text SWP
- C. NMPII FSK, LSK, ESK Drawings
- D. NMPII Surveillance Test Procedures
- E. NMPII Technical Specifications

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Service Water System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-57

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

UNIT 2 OPS/489

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Practical Requirements

c. riac	creat Requirements	ACTION
	ITEM	CODE
276.1	Start up from full Shutdown, the Service Water System from the Control Room and monitor for proper operation	P/S
276.2	Reverse flow through either #1 or #2 Intake Shaft	P/S+
276.3	Perform actions required during a loss of all service water pumps	Ρ
276.4	Operate the Service Water System from the Control Room during a total loss of off-site power	P/S
276.5	Operate the Service Water System from the Control Room during a loss of one Division of off-site power	P/S
276.6	Perform Service Water Valve Operability Test (N2-OSP-SWP-Q001)	P/S+

Unit II R× Oper OJT -159 January 1990 · · ·

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UNIT 2 OPS/489

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	SYSTEM 276 SERVICE WAT	<u>ER_SYSTEM</u>
5.1		P/S
2	Evaluator	Date
	Evaluator	Date
.3	Fvaluator	P
5.4		P/S
5.5	Evaluator	Date P/S
	Evaluator	Date
		0.10
5.6	Evaluator	P/S+ Date
1edge -57	Evaluator Complete: Instructor S	P/S+ Date

Unit II Rx Oper OJT -160 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 277 LOOSE PARTS MONITORING SYSTEM

II. SYSTEM REFERENCES

- A. NMPII Operating procedure N2-OP-56
- B. NMPII Licensed Operator Text Loose Parts Monitor System
- C. NMPII FSK, LSK, ESK Drawings
- D. NMPII Surveillance Test Procedures

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Loose Parts Monitoring System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-77

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B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper OJT -161 January 1990

UNIT 2 OPS/489

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C. Practical Requirements

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	ITEM	ACTION CODE
277.1	Perform actions required for a seismic event	P/S+

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+Indicates tasks required to be performed/simulated in the Plant.

Unit II R× Oper Olt -162 January 1990

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UNIT 2 OPS/489

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27 LOOSE PARTS MONITORING SYSTEM	
P/S+	Date
: Instructor Signature	Date
Training Supervisor	Date
Department Supervisor	Date
	Z7 LOOSE PARTS MONITORING SYSTEM P/S+ uator Instructor Signature Training Supervisor Department Supervisor

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Unit II Rx Oper OJT -163 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 278 INSTRUMENT AND SERVICE AIR SYSTEM

II. SYSTEM REFERENCES

- A. NMPII Operating procedure N2-OP-19
- B. NMPII Licensed Operator Text IAS/SAS
- C. NMPII FSK, LSK, ESK Drawings
- D. NMPII Surveillance Test Procedures

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Instrument and Service Air System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-60

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

UNIT 2 OPS/489

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C. Practical Requirements

	ITEM	ACTION CODE
278.1	Monitor Instrument Air System from the Control Room	Р
278.2	Perform actions required during a loss of Instrument Air	Ρ
278.3	Operate the Instrument Air System during a LOCA	Р

+Indicates tasks required to be performed/simulated in the Plant.

Unit II Rx Oper OJT -165 January 1990

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Student's Name SYSTEM 278 INSTRUMENT AIR SYSTEM 278.1 Ρ Evaluator Date 278.2 Ρ Evaluator Date 278.3 P. Evaluator Date Knowledge Complete: Instructor Signature 0LT-60 Date Task Complete:_ Training Supervisor Date Task Qualified: Department Supervisor Date

Unit II Rx Oper OJT -166 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. <u>SYSTEM 279</u> <u>BREATHING AIR SYSTEM</u>

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-20
- B. NMPII Licensed Operator Text IAS/SAS
- C. NMPII FSK, LSK, ESK Drawings

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Breathing Air System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-60

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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Unit II R× Oper OJT -167 January 1990

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C. Practical Requirements

	ITEM	<u>CODE</u>
279.1	Operate and monitor Breathing Air System from Control Room	P/S

Unit II Rx Oper OJT _168 January 1990

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Student's name		
<u>SYSTEM 283</u> 279.1 Evaluate	BREATHING AIR SYSTEM P/S	Date
Knowledge Complete: OLT-60	Instructor Signature	Date
Tašk Complete:	Training Supervisor	Date
Task Qualified:	Department Supervisor	Date

Unit II Rx Oper OJT -169 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 283 PLANT COMPUTER

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-91
- B. NMPII Licensed Operator Text PCS
- C. NMPII FSK, LSK, ESK Drawings

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Plant Computer by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-64

B. Standards for Acceptable Task Performance

Unit II Rx Oper OJT -170

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

January 1990

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UNIT 2 OPS/489

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C. Practical Requirements

	ITEM	ACTION CODE
283.1	Use the Process Computer to obtain data as required for plant operation	Ρ
283.2	Perform an initialization of the Process Computer	P/S

Unit II Rx Oper OJT -171 January 1990

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Student's Name			
SYSTEM 283	PLANT_COMPUTER		
283.1 Evalu	ator	P	Date
283.2Evalu	ator	_ P/S	Date
Knowledge Complete: OLT-64	Instructor Signat	ure	Date
Task Complete:	Training Supervis	or	Date
Task Qualified:	Department Superv	isor	Date

Unit II Rx Oper OJT -172 January 1990

UNIT 2 OPS/489

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. <u>SYSTEM 284</u> <u>SEISMIC MONITORING SYSTEM</u>

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-90
- B. NMPII Technical Specifications
- C. NMPII Licensed Operator Text SMS

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Seismic Monitoring System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

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1. OLT-76

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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Unit II Rx Oper OJT -173 January 1990

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C. Practical Requirements

*	ITEM	•				CODE
284.1	Perform actions Operating Basis	required	for an	Earthquake	less than	P/S+
284.2	Perform actions Operating Basis	required	for an	Earthquake	greater than	P/S+
284.3	Monitor the Seis	smic Monit	toring S	System		P+

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+Indicates tasks required to be performed/simulated in the Plant.

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Unit II Rx Oper OJT -174 January 1990

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Stuc	lent's	Name
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	SYSTEM 284	SEISMIC MONITORING	SYSTEM	
284.1	Evaluator	•	P/S+	Date
284.2 284.3	Evaluator Evaluator	· · · · · · · · · · · · · · · · · · ·	P/S+ P+	Date Date
Knowled OLT-76	ge Complete:	Instructor Signatu	re	Date
Task Cor	nplete:	Training Supervison	·	Date
Task Qua	alified:	Department Supervis	sor	Date

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Unit II Rx Oper OJT -175 January 1990

UNIT 2 OPS/489

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NINE MILE POINT UNIT II ·

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 285 COMMUNICATIONS SYSTEM

II. SYSTEM REFERENCES

- A. NMPII Operating Procedure N2-OP-76
- B. NMPII Emergency Implementing Procedures EPP-17
- C. NMPII Licensed Operator Text Comm

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Communications System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-65

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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Unit II Rx Oper OJT -176 January 1990

UNIT 2 OPS/489

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C. Practical Requirements

	ITEM	ACTION CODE
285.1	Operate the Plant Alarm System from the Control Room or Remote Shutdown Room	P/S
285.2	Operate the Gai-Tronics System from the Control Room Console	P
285.3	Perform the duties of communications aide	P/S 2

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Unit II Rx Oper OJT -177 January 1990

UNIT 2 OPS/489

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Student's Name



Knowledge Complet	e:		
OLT-65	Instructor Signature	Date	
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Tack Complete.			
Task Comptete:	The last of Constant of Constant		_
	Iraining Supervisor	Date	
Task Oualified:			
·····	Department Supervisor	Date	
	Unit II Rx Oper OJT -178 January	1990	
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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 286 FIRE PROTECTION SYSTEM

II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedures N2-OP-43, 44, 45, 46, 47
- C. NMPII Licensed Operator Text FPS
- D. NMPII Fire Protection Procedures
- E. NMPII Emergency Implementing Procedure EPP-2
- F. NMPII Technical Specifications

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

· IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Fire Protection System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-75

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper OJT -179 January 1990

UNIT 2 OPS/489

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C. Practical Requirements

	ITEM	ACTION CODE
286.1	Operate and monitor the Fire Protection System from the Control Room Panel 849	P/S+
286.2	Perform the actions required on the Halon System . following a manual system actuation	P/S+
2,86.3	Shutdown the CO ₂ System following a manual discharge from Control Room Panel	P/S+
286.4	Perform the required actions on the Halon System following an Automatic System activation	P/S+

+Indicates tasks required to be performed/simulated in the Plant.

Unit II Rx Oper OJT -180 January 1990

UNIT 2 OPS/489

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Student's Name

	SYSTEM 286	FIRE PROTECTION S	YSTEM	
286.1	٩		P/S+	
286 2	Evaluato	r	P/S+	Date
200.2	Evaluato	r ,		Date
286.3	Evaluato	r	P/S+	Date
286.4		~	P/S+	
Knowlada	lo Completo:			
OLT-75	e comprete	Instructor Signat	ure	Date
Task Con	plete:			
		Training Supervis	or	Date

Task Qualified:_____

Department Supervisor

Date

Unit II Rx Oper OJT -181 January 1990

UNIT 2 OPS/489

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 288 PLANT VENTILATION SYSTEM

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II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedures N2-OP-52,53A, 54A, 54B, 55, 57, 58, 59A, 59B, 59C.1, 59C.2, 59C.3, 59C.4, 59C.5, 59C.6
- C. NMPII Licensed Operator Text HVR, HVT, CRE
- D. NMPII Surveillance Test Procedures
- E. NMPII Technical Specifications

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Plant Ventilation System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

- 1. OLT-70 2. OLT-71
- 3. OLT-95
- B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper OJT -182 January 1990

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Practical Requirements C

C. Prac	tical Requirements .	A OTT ON
	ITEM	ACTION CODE
288.1	Shift ventilation lineups for various modes from the Control Room	Р
288.2	Operate Control Room Special Filter Trains	P/S
288.3	Operate Air Conditioning Chiller Units from Control Room	Ρ
288.4	Perform required actions for an autostart of Emergency Recirculation Unit Coolers (Reactor Building Vent.)	P/S
288.5	Perform a Manual Isolation of Reactor Building Normal Ventilation	P/S
288.6	Restore Reactor Building Ventilation following an Automatic Isolation	P/S
288.7	Take actions required during a high radiation or LOCA signal on the Control Room Ventilation System	P/S
288.8	Operate the smoke removal portion of the Ventilation Systems	P/S+
288.9	Operate the Ventilation Systems in the Cold Weather Mode	P/S+
288.10	Manually startup and shutdown the Emergency Recirculation Unit	P/S
288.11	Startup and shutdown the Reactor Building Ventilation System	Ρ
288.12	Startup and shutdown the Control Building Ventilation	P/S
288.13	Restore HVT to Normal from the Recirculation Mode	P/S +
288.14	Startup and shutdown the Diesel Building Ventilation System	P/S
288.15	Perform a temperature change evoluation in one of the Diesel Rooms	P/S
288.16	Startup and shutdown the Control Building – Reactor Building Electrical Tunnel Ventilation	P/S+
+Indicat	es tasks required to be performed/simulated in the Plant.	

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	SYSTEM 288 PLANT VEN	TILATION SYSTEM	
288.1		ρ	
	Evaluator	'	Date
288.2	Evaluator	P/S	Date
288.3	Fualuator	P	Data
288.4		P/S	
288.5	Evaluator	P/S	Date
200 E	Evaluator	D/C	Date
200.0	Evaluator	r/J	Date
288.7	Evaluator	P/S	Date
288.8	Evolution	P/S+	
288.9		P/S+	
288.10	Evaluator	P/S	Date
200 11	Evaluator		Date
200.11	Evaluator	P	Date
288.12	Evaluator	P/S	Date
288.13	Eusluston	P/S	
288.14		P/S	Date
288.15	Evaluator	P/S	Date
200 16	Evaluator	D/S.	Date
200.10	Evaluator	P75+	Date
Knowledae	Complete:		
0LT-70	Instructor	Signature	Date
Knowledge	Complete:	Classification	
ULI-/1	Instructor	Signature	Date
Knowledge OLT-95	Complete:	Signature	Date
	113010000		
Task Comp	lete:		
	Training S	Supervisor	Date
Task Qual	ified:		

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 291 SUMP AND DRAIN SYSTEMS

II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedure N2-OP-67
- C. NMPII Licensed Operator Text Normal Building Drains
- D. NMPII Technical Specifications

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Sump and Drain Systems by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-74

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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C. Practical Requirements

ITEMACTION
CODE291.1Operate the Drywell Equipment and Floor Drains during
a LOCAP291.2Monitor the Drywell Equipment and Floor Drains
level and leak rates at P873P

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Student's-Name		
SYSTEM 291	SUMP AND DRAIN SYSTEMS	
291.1 Evaluato	Р rр	Date
Evaluato	<u>۲</u>	Date
Knowledge Complete: OLT-74	Instructor Signature	Date
Task Complete:	Training Supervisor	Date
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Task Qualified:	Department Supervisor	Date

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Unit II Rx Oper OJT -187 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 294 REDUNDANT REACTIVITY CONTROL SYSTEM

II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedure N2-OP-36B
- C. NMPII Licensed Operator Text RRCS
- D. NMPII Technical Specifications

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all • evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Redundant Reactivity Control System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-33

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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C. Practical Requirements

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1	ITEM	ACTION CODE
294.1 •	Startup the Redundant Reactivity Control System from inoperable status	P/S
294.2	Reset an ARI Initiation Signal from P603	P/S
294.3	Reset a SLC Initiation Signal from P603	P/S
294.4	Manually initiate an ARI from the Relay Room Panel	P/S+
294.5	Manually initiate RRCS from P603	Ρ
294.6	Verify proper operation of RRCS Auto Initiation due to RPV high pressure	Ρ
294.7	Verify proper operation of RRCS Auto Initiation due to RPV low water level	Ρ
294.8	De-energize and Re-energize one division of RRCS	P/S
294.9	Shutdown the RRCS System to Inoperable	P/S+

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+Indicates tasks required to be performed/simulated in the Plant.

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Student's Name

4.1		P/S	•
	Evaluator		Date
4.2	Evaluator	P/S	Dato
4.3		P/S	, Dale
	Evaluator		Date
4.4	Fvaluator	P/S+	Date
4.5		P	
A C	Evaluator		Date
4.0	Evaluator	r	Date
4.7		Р	
1 8	Evaluator	D/C	Date
	Evaluator	<u> </u>	f Date
4.9	Fue lue here	P/S+	
	Evaluator		Date
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owreage T-33	Lomplete:Instructo	r Signature	Date
sk Comp	lete:	Cupanyican	Data
	n a ming	Supervisor	Date
sk Qual	ified:		
	Departmen	t Supervisor	Date

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 296 REMOTE SHUTDOWN SYSTEM

II. SYSTEM REFERENCES

- A. NMPII FSK, LSK, ESK Drawings
- B. NMPII Operating Procedure N2-OP-78
- C. NMPII Licensed Operator Text RSS
- D. NMPII Technical Specifications

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

The student will have demonstrated satisfactory knowledge of the Remote Shutdown System by attending the Operator Training lecture and satisfactorily completing a written examination on the following:

1. OLT-36

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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C. Practical Requirements

	ITEM	ACTION CODE	
296.1	(Deleted)		
296.2	(Deleted)		ĺ
296.3	Return to normal operations following a Control Room Evacuation	P/S+	
296.4	(Deleted)		
296.5	(Deleted) `		
296.6	Perform actions of the In-Plant E during a Control Room Evacuation	P/S+	
296.7	Perform the actions of the CSO for a Control Room Evacuation with the Reactor S/D	P/S+	
296.8	Perform the actions of the CSO for a Control Room Evacuation with the Reactor <u>not</u> S/D	P/S+	
296.9	Perform the actions of the Control Room "E" for a Control Room Evacuation with the Reactor S/D	P/S+	
296.10	Perform the actions of the Control Room "E" for a Control Room Evacuation with the Reactor <u>not</u> S/D	P/S+	

+Indicates tasks required to be performed/simulated in the Plant.

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Student's Name

5.1	DELETED		
	Evaluator		-
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	Evaluator		
5.3			_ P/S+
	Evaluator		
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	Evaluator		
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c c	Evaluator		D/C.
0.0	Evolutor		- 8/3+
. 7	Evaluator		D/C+
	Evaluator		- 1754
5.8			P/S+
	Evaluator		-
5.9			P/S+
	Evaluator	'	-
5.10			P/S+
	Evaluator		

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Knowledge Complete:_____ OLT-36 Instructor Signature

• Task Complete:___

Training Supervisor

Task Qualified:_

Department Supervisor

Date

Date

Date -

Unit II Rx Oper OJT -193 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 298 MISCELLANEOUS

II. SYSTEM REFERENCES

Due to the broad spectrum of tasks identified under this system, it is not practical to list all references. The list of references for this system would include, but are not limited to, the following:

Operating Procedures for NMPII Final Safety Analysis Report Technical Specifications Emergency Plan and Procedures Emergency Operating Procedures Radiation Protection Procedures FSK, LSK, ESK Drawings Administrative Procedures Maintenance Procedures Surveillance Procedures

III. TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

There are no specific testable knowledge requirements for this section due to the broad Scope of Topics covered. Knowledge will be gained by satisfactory performance of practicals as required by the evaluator responsible for signing the specific task.

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

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C. Practical Requirements

-	ITEM	ACTION CODE
298.1	Perform daily checks (N2-OSP-LOG-D001)	P+
298.2 K	Perform shift checks (N2-OSP-LOG-S001) (N2-OSP-LOG-S@ALL)	P+
298.3	Perform monthly checks (N2-OSP-LOG-M001)	P+
298.4	Fill out the Shift Turnover Checklist	P+
298.5	Fill out NAOE Turnover Sheet and Perform Turnover	P/S+
298.6	Fill out CSO Turnover Sheet and Perform Turnover	P+
298.7	Change chart paper in Recording Instruments	Ρ
298.8	<pre>Perform weekly checks (N2-OSP-LOG-W001)</pre>	P+
298.9	Perform a Valve Operability Test on a selected system	P+
298.10	Perform a Pump Operability Test on a selected ECCS System	P+

+Indicates tasks required to be performed/simulated in the Plant.

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Student's Name

MISCELLANEOUS SYSTEM 298 298.1 P+ Evaluator 298.2 P+ Evaluator 298.3 P+ Evaluator 298.4 P+ Evaluator 298.5 P/S+ Evaluator 298.6 P+ Evaluator 298.7 Ρ Evaluator 298.8 P+ Evaluator 298.9 P+ Evaluator 298.10 P+ Evaluator

Task Complete:_

Training Supervisor

Date

Task Qualified:_

Department Supervisor

Date

Unit II Rx Oper OJT -196 January 1990

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NINE MILE POINT UNIT II

REACTOR OPERATOR CANDIDATE

OJT MANUAL

I. SYSTEM 299 ADMINISTRATIVE SYSTEMS

II. SYSTEM REFERENCES

Due to the broad spectrum of tasks identified under this system, it is not practical to list all references. The list of references for this system would include, but are not limited to, the following:

Operating Procedures NMPII Final Safety Analysis Report Technical Specifications Emergency Plan and Procedures Emergency Operating Procedures Radiation Protection Procedures FSK, LSK, ESK Drawings Administative Procedures

III.TASK OBJECTIVES

At the completion of this task, the student will be able to perform all evolutions associated with the system listed under Practical Requirements.

IV. TASK PERFORMANCE CRITERIA

A. Knowledge Requirements

There are no specific testable knowledge requirements for this section due to the broad Scope of Topics covered. Knowledge will be gained by satisfactory performance of practicals as required by the evaluator responsible for signing the specific task.

B. Standards for Acceptable Task Performance

Each practical requirement will be considered satisfied if all actions taken by the candidates are in accordance with approved NMPC procedures.

Unit II Rx Oper OJT -197 January 1990

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C. Prac	tical Requirements	ACTION
	ITEM .	CODE
299.1	Communicate with the System Dispatcher concerning generator information	P/S+
299.2	Fill out Switching Order	P+
299.3	Coordinate load changes with the System Dispatcher	P/S+
299.4	Perform an Inspection of System Components following maintenance	P+
299.5	Read the Operations Department orders/memos (i.e., night orders)	P+
299.6	Prepare Switching Order (In-plant or Switchyard)	P/S+
299.7	Fill out a Problem Report	P+
299.8	Discuss how to make Temporary Changes to Operating Procedures	D+
299.9	Discuss how to perform a Temp. Mod	D+
299.10	Discuss action to perform Jumpers and Lifted Leads	D+
299.11	Discuss actions required to defeat an Annunciator	P+
299.12	Discuss reasons for performing Mark-up Verification	D+
299.13	Discuss general scaffold requirements throughout the Plant	D+
299.14	Fill out a Maintenance Work Request	P+

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+Indicates tasks required to be performed/simulated in the Plant.

Unit II Rx Oper OJT -198 January 1990

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Student's Name

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	SYSTEM 299 ADMINISTRATIVE	SYSTEMS
299.1	•	P/S+
299.2	Evaluator	P+
	Evaluator	D/C
299.3	Evaluator	P/S+
299.1		P+
299.5	Evaluator	P+
200 6	Evaluator	 P/S.
299.0	Evaluator	F73+
299.7	Evaluator (P+
299.8		D+
299.9	Evaluator	D+
	Evaluator	
299.10	Evaluator	U+
299.11		P+
299.12	Evaluator	D+
200 12	Evaluator	 D,
299.13	Evaluator	U+
299.14	Evaluator	P+

Date
Date
Date .
Date

Task Complete:______ Training Supervisor

Date

Task Qualified:______ Department Supervisor

Unit II Rx Oper OJT _199 January 1990

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