

2002 INITIAL LIMITED SENIOR REACTOR OPERATOR LICENSE
OPERATING EXAMINATION FINAL OUTLINE

EXAM DATE: 11/18/02

FACILITIES: PVNGS UNITS 1, 2, & 3

A. CATEGORY A - ADMINISTRATIVE TOPICS OUTLINES

ES-301

ADMINISTRATIVE TOPICS OUTLINE

Form ES-301-1

Facility: <u>PVNGS Units 1,2,3</u>		Date of Examination: <u>11/18/02-11/22/02</u>
Examination Level: <u>LSRO</u>		Operating Test Number: _____
Administrative Topic / Subject Description		Method of Evaluation: 1. ONE Administrative JPM, or 2. TWO Administrative Questions
A.1	Shift Staffing Requirements JPM	2.1.5(3.4) Ability to locate and use procedures and directives related to shift staffing and activities. JPM: Evaluate the working hour history for the oncoming refuel crane operator and the oncoming LSRO and determine whether one or both individuals can work a full dayshift of 12 hours.
	Station Reference Material Interpretation JPM	2.1.5(3.4) Ability to locate and use procedures and directives related to shift staffing and activities JPM: In planning to recover a foreign object from the spent fuel pool, identify all controls that are required by the Sensitive Issues Manual.
A.2	FME Control JPM	2.2.18 (3.6) Knowledge of the process for managing maintenance activities during shutdown operations. JPM: Given that work is ongoing in a FME area, determine what actions must be taken for inadvertently losing an item into a FME area in accordance with 30DP-0WM12.
A.3	Radiation Work Permits JPM	2.3.1 (3.0) Knowledge of 10 CFR: 20 and related facility radiation control requirements. JPM: Given a copy of the refueling RWP, verify radiological entry requirements for the fuel floor RWP
A.4	Emergency Plan Questions	2.4.29 (4.0) Knowledge of the emergency plan. Questions: Identify Assembly/Accountability alarm and where to take escorted visitors.

B. CATEGORY B - SYSTEMS EXAMINATION OUTLINES

ES-301

INDIVIDUAL WALK-THROUGH TEST OUTLINE

Form ES-301-2

Facility: <u>PVNGS 1,2,3</u>		Date of Examination: <u>11/18/02-11/22/02</u>	
Examination Level: <u>LSRO</u>		Operating Test Number: _____	
System / JPM Title		Type Code*	Safety Function
a. Fuel Handling Equipment / Simulate Movement of fuel bundle in the refuel pool– alt path due to fuel bundle hitting adjacent bundle requiring realignment of Fuel Handling Machine.		DASR	FHE
b. Fuel Handling Equipment / Place fuel assembly from the upender into the correct spent fuel pool storage location.		DPR	FHE
c. Fuel Handling Equipment / Inspection of new fuel in the new fuel elevator – alt path due to high general area dose rates created by fuel bundle.		DAPR	FHE
d. Aux Systems / Response to loss of air to gate seals (Two questions related to loss of instrument air/loss of spent fuel pool level will be utilized to fulfill this JPM requirement)		NPR	AUX
e. Instrumentation & Control / Take corrective action for high NI count rate IAW 78OP-9FX01 and 72IC-RX03.		MAPR	IC
g.			
B.2 Facility Walk-Through			
a.			
b.			
c.			
<p>* Type Codes: (D) irect from bank, (M) odified from bank, (N) ew, (A) lternate path, (C) ontrol room, (S) imulator, (L) ow-Power, (P) lant, (R) CA</p> <p>Safety Function: FHE: Fuel Handling Equipment, AUX: Auxiliary Systems, IC: Instrumentation and Control; DHR: Decay Heat Removal, RM: Radiation Monitoring</p>			

C. CATEGORY C - INTEGRATED PLANT (REFUELING EQUIPMENT) EXAMINATION OUTLINE

Appendix D

SCENARIO OUTLINE

Form ES-D-1

Facility: <u>PVNGS 1,2,3</u> Scenario No. <u> 1 </u> Op-Test Number: <u> C1 </u>			
Examiners: _____		Operators: _____	
_____		_____	
_____		_____	
Initial Conditions: Core offload is in progress			
Turnover: A fuel bundle is in transit from the spent fuel pool to the containment			
Event No.	Malf No.	Event Type*	Event Description
1.	N/A	C	Minor leakage from Transfer Carriage Makeup Tank temporarily suspends fuel movement until tank is refilled.
2.	N/A	R	A fuel bundle is dropped onto spent fuel pool with significant fuel damage.

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

C. CATEGORY C - INTEGRATED PLANT (REFUELING EQUIPMENT) EXAMINATION OUTLINE

Appendix D

SCENARIO OUTLINE

Form ES-D-1

Facility: <u>PVNGS 1,2,3</u> Scenario No. <u>2</u> Op-Test Number: <u>C2</u>			
Examiners: _____		Operators: _____	
_____		_____	
_____		_____	
Initial Conditions: Core onload is in progress			
Turnover: A fuel assembly is in transit from the upender to the core			
Event No.	Malf No.	Event Type*	Event Description
1.	N/A	I	Startup Range Nuclear Monitoring (SRM) Instrument failure requires suspension of core alterations
2.	N/A	M	Severe Thunderstorm Warning issued with High ARM reading

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

RECORD OF REVISIONS

REVISION NUMBER	REVISION DATE	REASON REVISED	COMMENTS
1	9/18/02	6	<p>JPM A1-2 changed to state: recover a "foreign" material from the "spent fuel pool" vice "CEA" material from the refuel pool to coincide with the guidance in the Sensitive Issues Manual.</p> <p>JPM B5 was changed from a "Radiation Monitoring" category to an I&C category. The original item was considered an Admin JPM and not suitable. The new JPM "Take corrective action for high NI count rate" better reflects the criteria for this area.</p> <p>Scenario C-1 was altered such that the "fuel bundle is in transit from the spent fuel pool to containment" instead of containment to the spent fuel pool. This was necessary to support the original requirements for the JPM.</p> <p>Scenario C-2 second event was changed from "Loss of fuel pool level" to "Severe Thunderstorm Warning Issued with a High ARM reading". Loss of fuel pool level is already taken credit for in the written exam.</p>

REASON REVISED Enter the numbers corresponding to the reason revised in the Reason Revised column and brief description of changes in Comments Column. Comments are to be numbered consecutively in each revision.

1. Vendor reference document upgrade
2. Plant modification (include number)
3. Procedure upgrade
4. Internal or External Agency Commitment (indicate item number)
5. Technical Specification Change (indicate amendment number)
6. Other (explain in comments)