2009 KEWAUNEE POWER STATION

RETAKE EXAMINATION

OUTLINE SUBMITTAL

Dominion Energy Kewaunee, Inc.
N490 Highway 42, Kewaunee, WI 54216-9511

WITHHOLD FROM PUBLIC DISCLOSURE UNDER 10 CFR 2.390

Regional Administrator, Region III
U. S. Nuclear Regulatory Commission
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

Serial No. 09-151C
LIC/MH/RO
Docket No.: 50-305
License No.: DPR-43

Attention: Mr. Dell McNeil

DOMINION ENERGY KEWAUNEE, INC.
KEWAUNEE POWER STATION
RESPONSE TO FURNISH INTEGRATED EXAMINATION OUTLINES

In response to NRC Letter dated June 16, 2009, and as discussed with Mr. Dell McNeil of the Nuclear Regulatory Commission on June 25, 2009 regarding the administration of licensing examinations at KPS, enclosed are the integrated examination outlines and the following documents per NUREG 1021 Revision 9, Supplement 1:

ES-201-2 Exam Outline Quality Checklist
ES-201-3 Examination Security Agreement
ES-301-1 Administrative Topics Outline (SRO)
ES-301-2 Control Room/In-Plant Systems Outline (SRO)
ES-D-1 Scenario Outlines (2)
ES-301-5 Transient and Event Checklist

NUREG-1021 physical security provisions state that the enclosed examination materials must be withheld from public disclosure until after the examinations are complete.

If you have questions or require additional information, please feel free to contact Mr. Terry Evans at 920-388-8303.

Very truly yours,

Stephen E. Scace
Site Vice President, Kewaunee Power Station

NOTICE: Enclosures to this letter contain confidential information. Upon separation from the enclosures, this letter is DECONTROLLED.

Enclosures

Commitments made by this letter: NONE

cc: Without enclosures
NRC Senior Resident Inspector
Kewaunee Power Station

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Facility: Kewaunee Date of Examination: 08/6-7/09

Item	Task Description	Initials a	Initials b*	Initials c#
1. WRITTEN	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.	NA	NA	NA
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 and whether all K/A categories are appropriately sampled.	NA	NA	NA
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	NA	NA	NA
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	NA	NA	NA
2. SIMULATOR	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.	GAR	EAT	DM
	b. Assess whether there are enough scenario sets (and spares) to test the projected number and mix of applicants in accordance with the expected crew composition and rotation schedule without compromising exam integrity, and ensure that each applicant can be tested using at least one new or significantly modified scenario, that no scenarios are duplicated from the applicants' audit test(s), and scenarios will not be repeated on subsequent days.	GAR	EAT	DM
	c. To the extent possible, assess whether the outline(s) conform(s) with the qualitative and quantitative criteria specified on Form ES-301-4 and described in Appendix D.	GAR	EAT	DM
3. W/T	a. Verify that the systems walk-through outline meets the criteria specified on Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks distributed among the safety functions as specified on the form (2) task repetition from the last two NRC examinations is within the limits specified on the form (3) no tasks are duplicated from the applicants' audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power, emergency, and RCA tasks meet the criteria on the form	NA	NA	NA
	b. Verify that the administrative outline meets the criteria specified on Form ES-301-1: (1) the tasks are distributed among the topics as specified on the form (2) at least one task is new or significantly modified (3) no more than one task is repeated from the last two NRC licensing examinations	GAR	EAT	DM
	c. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on subsequent days.	GAR	EAT	DM
4. GENERAL	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam section.	GAR	EAT	DM
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	GAR	EAT	DM
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	GAR	EAT	DM
	d. Check for duplication and overlap among exam sections.	GAR	EAT	DM
	e. Check the entire exam for balance of coverage.	GAR	EAT	DM
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	GAR	EAT	DM

	Printed Name / Signature	Date
a. Author	ANDREW FAHRENKRUG	07/01/09
b. Facility Reviewer (*)	ETHAN TREPTOW	07/01/09
c. NRC Chief Examiner (#)	Dell R. McNeil / (for R. Walton) RW	07/07/09
d. NRC Supervisor	Dell R. McNeil / (for)	07/27/09

NOTE: # Independent NRC Reviewer initial items in Column "c"; chief examiner concurrence required.
* Not applicable for NRC-prepared examination outlines.

Facility: Kewaunee Date of Examination: 08/06-07/2009

Examination Level: RO ☐ SRO ☒ Operating Test Number: 1

Administrative Topic (See Note)	Type Code*	Describe activity to be performed
Conduct of Operations	N S or R	SO-036-JP031 Perform a Manual Reactor Coolant Leak Rate Check. Faulted JPM for determining RCS leak rate and actions for exceeding administrative and T.S. limits (2.1.7 – Ability to evaluate plant performance and operational judgements based on operating characteristics, reactor behavior, and instrument interpetation IMP 4.7)
Conduct of Operations	N S or R	SO-119-JP42A Determine Allowable Overtime (2.1.5 - Ability to use procedures related to shift staffing, such as minimum crew complement, overtime limitations, etc. IMP 3.9)
Equipment Control	N S	SO-119-JP191 Determine required action with inoperable equipment. ICS pump B inoperable and TAT lockout (2.2.44 - Ability to interpret control indications to verify the status and operation of a system, and understand how operations and directives affect plant and system conditions. IMP 4.4)
Radiation Control	N S or R	SO-119-JP03B Approve Liquid Discharge Permit prior to release then Approve and Disposition Liquid Discharge Permit after discharge (2.3.6 - Ability to approve release permits. IMP 3.8)
# Emergency Procedures/Plan	N S or R	SO-119-JP051 Classify event and complete NARS form with PARS. Fire in the Alternate Zone. Both EDGs not avaliable and extended loss of Off-Site Power (2.4.38 - Ability to take actions called for in the facility emergency plan, including supporting or acting as emergency coordinator if required. IMP 4.4)

NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when 5 are required.

* Type Codes & Criteria:
(C)ontrol room, (S)imulator, or Class(R)oom
(D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs & RO retakes)
(N)ew or (M)odified from bank (≥ 1)
(P)revious 2 exams (≤ 1; randomly selected)

JPM to be replaced to addsess exam security concerns.

Facility: Kewaunee | Date of Exam: August 6th & 7th 2009 | Operating Test Number: 1

APPLICANT	EVENT TYPE	Scenarios 1 CREW POSITION SRO	1 ATC	1 BOP	2 CREW POSITION SRO	2 ATC	2 BOP	3 CREW POSITION SRO	3 ATC	3 BOP	4 CREW POSITION SRO	4 ATC	4 BOP	TOTAL	MINIMUM(*) R	I	U
RO ☐ SRO-I ☒ SRO-U ☐	RX		2,3		1									3	1	1	0
	NOR				1									1	1	1	1
	I/C		1,3,4,5		3, 5									6	4	4	2
	MAJ		4		4									2	2	2	1
	TS				2,3									2	0	2	2
RO ☐ SRO-I ☐ SRO-U ☐	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO ☐ SRO-I ☐ SRO-U ☐	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO ☐ SRO-I ☐ SRO-U ☐	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2

Instructions:

1. Check the applicant level and enter the operating test number and Form ES-D-1 event numbers for each event type; TS are not applicable for RO applicants. ROs must serve in both the "at-the-controls (ATC)" and "balance-of-plant (BOP)" positions. Instant SROs must serve in both the SRO and the ATC positions, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position. If an Instant SRO *additionally* serves in the BOP position, one I/C malfunction can be credited toward the two I/C malfunctions required for the ATC position.

2. Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis.

3. Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirements specified for the applicant's license level in the right-hand columns.

Facility: Kewaunee Power Station Scenario No.: 1 Op-Test No.: 1

Examiners: _____ Operators: SRO: Surrogate
_____ RO: SRO-I Candidate
_____ BOP: Surrogate

Initial Conditions: 100% power. Equipment OOS: 1) PR-1A closed maintaining power for PR-2A seat leakage TS 3.1.a.5.A.1 2) Charging pump "C" OOS to perform corrective maintenance on its discharge pulsation dampener per CMP-35-15

Turnover: Maintain 100% power.

Event No.	Malf. No.	Event Type*	Event Description
1	RX2060	I (RO)	PRZR Controlling Level Channel Fails Low over 30 seconds LI-428 (Blue Channel)
2	di-46106-open on di-46106-close off	C (BOP)	C-13 fails open
3	RD0350	R (RO)	Tave-Tref fails at 0°F (passive failure). No Rod motion with down power (Require manual rod control)
4	RC04A80%	M (Both)	Large Break LOCA, Cold Leg Break Loop A
4	RD-11A RD-11B	C (RO)	Failure of Automatic Reactor Trip
5	di-46356-close on di-46356-open off	C (RO)	Failure of SI-350B to open

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

SCENARIO 1-1 OVERVIEW

EVENT	DESCRIPTION
1	The controlling PRZR level instrument LI-428 (Blue Channel) will fail low. The operators will respond per ARPs 47043-E "Pressurizer Level Deviation", 47044-E "Pressurizer Heater Trouble", 47043-F "Pressurizer Level Low", 47042-F "Pressurizer LVL Letdown Isol & Heaters Off". RO place charging pumps in manual and remove the failed instrument from service. The crew will then transition to AOP-MISC-001 "Response to Instrument Failure". The RO will be directed to restore normal letdown per NOP-CVC-002, "Charging and Volume Control". Technical Specification Table 3.5-2 Item 9, PRZR High Water Level.
2	C-13 fails open. The crew will receive TLA-11 Reactor Thermal Power High and the crew will reduce power using the VPL to lower reactor thermal power. The RO will perform a boration per AOP-GEN-002, "Rapid Power Reduction."
3	During the down-power the Tave-Tref meter will fail at 0°F. The rods will fail to move in automatic. AOP-GEN-002 directs manual rod control to maintain Tave with 4°F of Tref.
4	Large Break LOCA will initiate on RCS loop A cold leg. The reactor will fail to automatically trip. The reactor trip will be successful when the RO pushes the reactor trip pushbutton on MCB. The crew will perform the immediate actions of E-0. After the immediate actions of E-0, the crew will progress through E-0. At the Step for monitoring CSF status trees a red path for integrity will be present. The crew will enter and exit FR-P.1 with no actions because of the large break LOCA. The crew will then transition to E-1, "Loss of Primary or Secondary Coolant" and then to ES-1.3, Containment Sump Recirculation."
5	During the alignment for containment recirculation SI-350B will not open. The crew will have to align train A RHR for containment sump recirculation using the alternate method. The scenario will terminate when the crew has established containment sump recirculation with RHR A pump.

Facility: Kewaunee Power Station Scenario No.:2 Op-Test No.: 1

Examiners: _____ Operators: SRO: SRO-I Candidate
_____ RO: Surrogate
_____ BOP: Surrogate

Initial Conditions Holding power at 50% per AP-KW-GOP-307 or 106 for MFP "B" work. Equilibrium Xenon. Equipment OOS: 1) PR-1A closed maintaining power for PR-2A seat leakage TS 3.1.a.5.A.1 2) Charging pump "C" OOS to perform corrective maintenance on its discharge pulsation dampener per CMP-35-15

Turnover: Shift Directions: MFP "B" work complete. MFP "B" running and retests are completed. Increase turbine load to 60% and hold.

Event No.	Malf. No.	Event Type*	Event Description
1		R (RO)	Increase Turbine Load/Reactor Power
1		N (BOP)	Increase Turbine Load/Reactor Power
2		C	TD AFW Pump Aux L.O. pump Breaker Trips
	SER1216 Crywolf		47103-A BRA-104 Feeder Bkr Undervoltage
	FW16C		Failure of Auto Start TD AFW PUMP
	do-46118-03-G OFF		Turn Off TD AFW AUX Lube oil Pump Green Light on MCA
	di-46118-na-start OFF		Override Manual Control of TD AFW PUMP
	di-46118-start OFF		Override Manual Control of TD AFW PUMP
3	SW02B 10%	C (BOP)	SW leak on CFCU "D"
4	CV10A	C (RO)	RXCP "A" Seal Failure
4		M (Both)	Manual Reactor Trip because of RXCP "A" seal Failure
5	ED08E	C (BOP)	Bus 5 lockout
5	fw15B 7.2	C(BOP)	AFW pump B trip on over-current

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

SCENARIO 1-2 OVERVIEW

EVENT	DESCRIPTION
1	The US will direct increasing turbine load to 60% per OP-KW-GOP-307 or OP-KW-GOP-106. The crew will be given a reactivity plan from reactor engineering. The BOP will increase turbine load per N-TB-54. The RO will make reactivity adjustments using N-CRD-49 and OP-KW-NOP-CVC-001.
2	After the power increase, the TD AFW Aux L.O. Pump breaker will trip. The US will send the EO to investigate per OP-KW-ARP-47103-A, BRA-104 Feeder BKR Undervoltage. The Crew will identify that the TD AFW pump is OOS and will not start. TS 3.4.b.4.A One auxiliary feedwater train may inoperable for 72 hours.
3	SW leak on CFCU D will develop. Annunciator Containment Sump Level High will actuate. The US will use the ARP and determine that service water inside containment is not intact and transition to OP-KW-AOP-SW-001. During the performance of OP-KW-AOP-SW-001 the BOP will isolate SW to CFCU "D" and stop the service water leak into containment. TS 3.3.c.1.A.3(i) one fancoil unit train may be out of service for 7 days provided the opposite containment fancoil train remains operable
4	Seal Leak on RXCP A. The crew will have indication of increasing RXCP "A" #1 Seal leak-off flow. Annunciator 47013-I, RXCP A SEAL LEAKOFF FLOW HIGH/LOW will actuate. The crew will reference the ARP and transition to OP-KW-AOP-RC-005. The leak will increase in size to RXCP trip criteria. The US will direct tripping of the reactor and upon the reactor trip, the RO performs the following after completing the Immediate Actions of E-0: stops RXCP A, places PS-1A controller to MAN and CLOSE, and when RXCP A stopped closes CVC-207A.
5	Bus 5 will lockout and the B AFW pump will trip on over-current approximately 5 minutes after the Reactor Trip. The crew will transition to FR-H.1 and establish feed flow to the Steam Generators using feed pumps. The scenario will end when feed had been established to the steam generators.