

MEMORANDUM

To: Jesse Seymour, NRC Chief Examiner

From: Tony Jennings, Clinton Power Station ILT 17-1 NRC Exam Author

Date: 2/12/17

Subj: Outline Methodology for the CPS ILT 17-1 NRC Exam (2018-301)

Written

K/A statements selected by the NRC that were deemed inappropriate for testing (using the guidelines set forth in ES-401) were replaced by systematic and random selection. A method based on ES-401 Attachment 1 "Example Systematic Sampling Methodology" was utilized. Replacement "Candidates" were sequentially numbered in each "level" of the process. Random selection from the numbered tokens representing the candidates produced the replacement K/A statement.

JPMs (Simulator/In-Plant and Admin)

The Clinton ILT 17-1 NRC Exam JPM outlines were developed as follows:

Using ES-301-2 forms from the previous 2 RO exams, Control Room / System JPMs were numbered as follows:

- JPMs from Operating Test Number 2017-301 were numbered 1-11
- JPMs from Operating Test Number 2015-302 were numbered 12-21
- Using poker chips numbered 1-21, 2 JPMs were randomly selected: 11 and 20.

Using ES-301-1 forms from the previous 2 RO exams, RO admin JPMs were numbered as follows:

- JPMs from the ILT Class 15-1 were numbered 1-4
- JPMs from the ILT Class 14-1 were numbered 5-8
- Using poker chips numbered 1-8, 1 JPM was randomly selected: 4

Using ES-301-1 forms from the previous 2 SRO exams, SRO admin JPMs were numbered as follows:

- JPMs from Operating Test Number 2017-301 were numbered 1-5
- JPMs from Operating Test Number 2015-302 were numbered 6-10
- Using poker chips numbered 1-10, 1 JPM was randomly selected: 4

Facility: <u>Clinton</u>	Date of Examination: <u>8/27/2018</u>
Examination Level: RO <input checked="" type="checkbox"/> SRO <input type="checkbox"/>	Operating Test Number: <u>2018-301</u>

Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations	R,D	Prepare A Request To Alter The CX/CZ Database JPM 423 2.1.20 / 4.6 Ability to interpret and execute procedure steps.
Conduct of Operations	S,D	Perform Offsite Source Power Verification JPM 441 2.1.31 / 4.6 Ability to locate control room switches, controls, and indications, and to determine that they correctly reflect the desired plant lineup.
Equipment Control	R,N	Complete CPS 3506.01C005 Diesel Generator Start Log JPM 555 (New JPM) 2.2.14 / 3.9 Knowledge of the process for controlling equipment configuration or status.
Radiation Control	R,D,P	Use CPS RP On-line to determine Radiological Requirements JPM 532 2.3.7 / 3.5 Ability to comply with radiation work permit requirements during normal or abnormal conditions,
Emergency Plan	N/A	N/A

NOTE: All items (five total) are required for SROs. RO applicants require only four items unless they are retaking only the administrative topics (which would require all five items).

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

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Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations	R,N	Evaluate Plant Chemistry JPM 557 2.1.34 / 3.5 Knowledge of primary and secondary plant chemistry limits.
Conduct of Operations	R,D	Determine Minimum Crew Complement JPM 510 2.1.5 / 3.9 Ability to use procedures related to shift staffing, such as minimum crew complement, overtime limitations, etc.
Equipment Control	R,N	Review CPS 9071.01 Diesel Driven Fire Pumps Operability Test JPM 556 (New JPM) 2.2.12 / 4.1 Knowledge of surveillance procedures.
Radiation Control	R,D,P	Review CPS 9038.70 Radiation Monitoring Source Check Surveillance JPM 536 2.3.15 / 3.1 Knowledge of radiation monitoring systems, such as fixed radiation monitors and alarms, portable survey instruments, personnel monitoring equipment, etc.
Emergency Plan	R,D	Determine Reportability Requirements JPM 535 2.4.30 / 4.1 Knowledge of events related to system operation/status that must be reported to internal organizations or external agencies, such as the State, the NRC, or the transmission system operator.
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Facility: <u>Clinton</u>	Date of Examination: <u>8/27/2018</u>
Exam Level: RO <input checked="" type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/>	Operating Test Number: <u>2018-301</u>

Control Room Systems: * 8 for RO, 7 for SRO-I, and 2 or 3 for SRO-U

System/JPM Title	Type Code*	Safety Function
a. 202001 A2.03 / 3.6 JPM215 Transfer RR Fast to Slow With Trip of One Pump (Alternate Path)	A,D,S	1
b. 259001 A4.01 / 3.6 JPM558 MDRFP Shutdown – New JPM	N,S	2
c. 241000 A1.08 / 3.3 JPM501 9031.07 Main Turbine Control Valve Tests	D,S	3
d. 209001 A4.01 / 3.8 JPM416 Restore RPV Water Level Using Low Pressure ECCS (Alternate Path)	A,D,EN,L,S	4
e. 223001 2.1.23 / 4.3 JPM531 CNMT Pool Makeup from SP	D,L,S	5
f. 262001 A4.01 / 3.4 JPM559 Energize 4160V Bus 1B1 (Alternate Path) – New JPM	A,N,EN,S	6
g. 212000 A4.02 3.6 / JPM537 Perform RPS MSIV Channel Functional (Alternate Path)	A,D,S	7
h. 288000 A4.01 3.1 / JPM518 Startup CCP in Filtered Mode	D,S	9

In-Plant Systems: * 3 for RO, 3 for SRO-I, and 3 or 2 for SRO-U

i. 295016 A1.07 4.2 / JPM533 RSP – Div 2 LPCI Ops	D,E,L,P	7
j. 286000 A2.08 / 3.2 JPM930 Manual and Redundant Initiation of the DG Rooms CO ₂ System (Alternate Path)	A,D,R	8
k. 288000 A2.03 / 3.5 JPM431 Startup the Fuel Building HVAC VF System to Support Emergency Containment Venting.	D,E,R,P	9

* All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions, all five SRO-U systems must serve different safety functions, and in-plant systems and functions may overlap those tested in the control room.

* Type Codes	Criteria for R /SRO-I/SRO-U
(A)lternate path	4–6/4–6 /2–3
(C)ontrol room	
(D)irect from bank	≤ 9/≤ 8/≤ 4
(E)mergency or abnormal in-plant	≥ 1/≥ 1/≥ 1
(EN)gineered safety feature	≥ 1/≥ 1/≥ 1 (control room system)
(L)ow-Power/Shutdown	≥ 1/≥ 1/≥ 1
(N)ew or (M)odified from bank including 1(A)	≥ 2/≥ 2/≥ 1
(P)revious 2 exams	≤ 3/≤ 3/≤ 2 (randomly selected)
(R)CA	≥ 1/≥ 1/≥ 1
(S)imulator	

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