ATTACHMENT 1: RADIOLOGICAL RISK ASSESSMENT WORKSHEET

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- ALL "NO" answers to the Risk questions indicate the work poses LOW Risk to Radiological Safety.
- **IF** more than one (1) numbered question is a "YES" answer, **THEN** select the highest risk level for controls.

		Radiological Risk Level	**Station Risk Color**
1. Activities involving a Radiological Safety Risk at the discretion of the Radiation Protection Manager.	YES/NO	HIGH	ORANGE
2. Activities involving removal of stuck nuclear instrumentation detector or associated drive motors for detectors recently exposed / irradiated in the core, which could be completely removed from the reactor from inadvertent movement or if performed improperly. CA 2011-93247-008 (BWR Source Range Monitors (SRM's), PWR exposed Source Range Monitors (SRM's), Intermediate Range Monitors (IRM's), Average Power Range Monitor (APRM's), Local Power Range Monitors (LPRM's), PWR In-Core Thimbles, Drive Shuttle Tubes, or Traversing Incore Probes (TIP's) or associated component drive motors)	YES/NO	HIGH	ORANGE
3. Activities involving any entry into conditions that are Greater than or equal to 80% of a Very High Radiation Area (VHRA). Exception: RP work activities.	YES/NO	HIGH	ORANGE
4. Activities involving any movement of irradiated components from water / shielding in the Fuel Pool, equipment pool or reactor vessel that could potentially increase area dose rates to the point where Area Radiation Monitor (ARM) setpoints in the area are challenged. (This does not apply to fuel movements unless the fuel is damaged). CR-2012-18593, CA-2012-1837-006	YES/NO	HIGH	ORANGE
5. Work activities requiring at power entries into a BWR Drywell / Primary Containment or PWR Primary Containment where dose rates are greater than or equal to 2,500 mrem/hr.	YES/NO	HIGH	ORANGE
6. Activities involving diving activities near irradiated components. Greater than or equal to 1,000 mrem/hr	YES/NO	HIGH	ORANGE
7. Activities involving Non-Radiation Protection tasks where general area smearable contamination levels are greater than or equal to 1 rad/hour/100 cm^2.	YES/NO	HIGH	ORANGE
8. Activities associated with assembly or disassembly of the seal table (in-core instrument plant in PWRs) that could result in a worker moving or retracting a thimble prior to establishing controls in the undervessel area.	YES/NO	HIGH	ORANGE
9. Accessing areas, such as beneath the reactor vessel or around the PWR seal table (in-core instrument plate) during periods when in-core detectors could be operated (includes retraction of the in-core thimbles).	YES/NO	HIGH	ORANGE

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		Radiological Risk Level	Station Risk Color
10. Activities involving a Radiological Safety Risk at the discretion of the ALARA Supervisor.	YES/NO	HIGH	YELLOW
11. Initial entry into TIP Room (BWR), Incore Thimble Areas (PWR) and VHRA's.	YES/NO	HIGH	YELLOW
12. Initial Steam Generator Entry (may be downgraded to Medium Risk based on plant historical conditions)	YES/NO	HIGH	YELLOW
13. Area in which the airborne concentration (in DAC's), not due to noble gas, is estimated to result in greater than or equal to 10 total DAC's or greater than 40 DAC-hours in a single entry.	YES/NO	HIGH	YELLOW
14. Workers whole body dose rate is greater than or equal to 1000 mrem/hr OR work is estimated to result in personnel exposure greater than or equal to 200 mrem/entry.	YES/NO	HIGH	YELLOW
15. Work that has potential for exposure for shallow dose equivalent rate to skin in excess of 10 rads/hr or individual directly handling items with contact dose equivalent rate (beta plus gamma exceeding 10 rads/hr.	YES/NO	HIGH	YELLOW
16. Work performed in a discrete particle zone where hot particle dose rates are greater than or equal to 750 mrad/hr.	YES/NO	HIGH	YELLOW
17. Diving activities in RCA such as the Suppression Pools, Torus, Spent Fuel Pools, Reactor Cavities or Transfer Canals.	YES/NO	HIGH	YELLOW
18. Radiography (may be classified as Medium Radiological Risk if conducted in a controlled area, such as a vault specifically designed for this activity).	YES/NO	HIGH	YELLOW
19. Work that creates a non-design based opening in a building to the environment that provides a potential contamination release pathway to the public/environment.	YES/NO	HIGH	YELLOW
20. Work in an Alpha Level 3 area or areas where alpha contamination exceeds 200 dpm/100 cm^2.	YES/NO	HIGH	YELLOW
21. Radioactive material shipment transferring exposed material with a contact dose rate of greater than or equal to 1,000 mrem/hr. (Downgraded once material is placed inside shipping container and dose rates are confirmed below allowable shipping limits.) CA 2012-14100-1	YES/NO	HIGH	YELLOW
22. Handling equipment or tools after they are used to cut or repair irradiated hardware or components (for example a crusher-shearer)	YES/NO	HIGH	YELLOW

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		Radiological Risk Level	Station Risk Color
23. Activities involving Non-Radiation Protection tasks where smearable contamination levels are greater than or equal to 0.5 rad/hour/100 cm^2.	YES/NO	HIGH	YELLOW
24. Activities involving BWR Source Range Monitors (SRM's), PWR exposed Source Range Monitors (SRM's), BWR Intermediate Range Monitors (IRM's), Average Power Range Monitors (APRM), Local Power Range Monitors (LPRM's), PWR in-core thimbles, Control Rod Drive Mechanisms (CRDM's), Drive Shuttle Tubes, -Traversing Incore Probes (TIP's), or associated component drive motors that would not result in inadvertent movement / withdrawal if performed improperly. (activity may be downgraded to Medium Radiological Risk depending upon assessment)	YES/NO	HIGH	YELLOW Or Green
25. Cavity Decontamination based on plant history and thorough understanding of expected radiological conditions such as absence of hot particles areas (activity may be downgraded to Medium Radiological Risk depending upon assessment).	YES/NO	HIGH	YELLOW Or Green
26. Entry into PWR Containment inside bio shield during power operations. To be determined by ALARA Supervisor for level of risk based on conditions	YES/NO	MEDIUM OR HIGH	YELLOW Or Green
27. Entry into PWR Containment during power operations. To be determined by ALARA Supervisor for level of risk based on conditions	YES/NO	MEDIUM OR HIGH	YELLOW Or Green
28. Work in which the airborne concentration, not due to noble gas, is estimated to result in greater than or equal to 1 total DAC or 4 DAC-hrs.	YES/NO	MEDIUM	GREEN
29. Work area where contamination levels are greater than 200,000 dpm/100 cm^2 (beta/gamma) or alpha contamination greater than 20 dpm/100 cm^2 and less than 200 dpm/100cm^2	YES/NO	MEDIUM	GREEN
30. Work involving grinding, cutting, welding, or machining on contaminated material greater than 50,000 dpm/100 cm^2 or suspected potential for fixed alpha contamination.	YES/NO	MEDIUM	GREEN
31. Work in plant area that requires entry into a Discrete Radioactive Particle Control (DRP) Area	YES/NO	MEDIUM	GREEN

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		Radiological Risk Level	Station Risk Color
32. Flushing, draining or venting of a highly contaminated or high activity system that has the potential or has previous history to cause a spread of contamination or personal contamination event.	YES/NO	MEDIUM	GREEN
33. Work or system operation that creates new/different flow paths that could cause dose rates to change in other areas.	YES/NO	MEDIUM	GREEN
34. Work performed in areas where multiple whole body dosimetry is required.	YES/NO	MEDIUM	GREEN
35. Work involving retrieval of items from the Suppression Pools, Torus, Spent Fuel Pools, Reactor Cavities or Transfer canals.	YES/NO	MEDIUM	GREEN
36. Disassembly, inspection and/or handling of components with the potential for high smearable contamination, high radiation levels and/or potential for changing radiological conditions.	YES/NO	MEDIUM	GREEN
37. Initial postings for controlling areas during fuel movement and forced oxidation.	YES/NO	MEDIUM	GREEN
38. Workers are expected to be exposed to external dose rates exceeding 100 mrem (gamma plus neutron) per hour and the planned exposure per individual entry is greater than or equal to 100 mrem.	YES/NO	MEDIUM	GREEN
39. Involves radiological work outdoors or in buildings not designed for radiological work, such as machining a radioactive pump seal in a non-radiological machine shop, or activity can result in radioactive spills contaminating the soil and/or groundwater pathway.	YES/NO	MEDIUM	GREEN
40. Work involving fuel reconstitution, fuel assembly and / or fuel examination conducted in the Spent Fuel areas. CR-2012-18593, CA-2012-18737-006	YES/NO	MEDIUM	GREEN

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Work Order Number: Various RWP Number 124-1039 (Task #2)

Job Description:
Transfer / movement of a spent resin / filter High Integrity Container (HIC) or Radioactive Material (RAM) in preparation for shipment, or storage in an underground cell in the Low Level Radwaste Storage Facility (LLRWSF).

Work to include the removal/installation of LLRWSF cell cover and entry into cells and installation of HIC lid.

Radiological Risk Determination: □ High X Medium
Station Risk Color: □ Orange □ Yellow X Green

Specific radiological instructions identifying RP Critical Steps or RP Hold Points are needed in the work order or procedure: □ Yes X No

Risk Assessment by Alex Garza / Alex Garza Date 7-12-23

Approval

ALARA / RP Supervisor* Ryan Brown / Ryan Brown Date 12-12-23

Work Group Supervisor * N/A Date

Single Point of Contact (As required): N/A

If risk numbers 1, 10, or 24 thru 27 are used, describe the reasons here:

N/A

Radiological High Risk Activities

RPM Approval*: N/A Date

* Approvals may be obtained during Work Week T meetings, ALARA Sub-Committee meetings, or ALARA Managers meetings. Signatures, Initials, voice mails, emails from the individual granting approval are acceptable. Verbal communications annotated by the individual performing the communication with the approver is also acceptable.