

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE		PAGE OF PAGES 1 2		
2. AMENDMENT/MODIFICATION NO. P00093		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
6. ISSUED BY EM-Idaho Department of Energy Office of Environmental Management Idaho Cleanup Project 1955 Fremont Avenue Idaho Falls ID 83415		CODE 893042		7. ADMINISTERED BY (If other than Item 6) U.S. Department of Energy Idaho Operations Office 1955 Fremont Avenue Idaho Falls ID 83415		CODE 00701	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) IDAHO ENVIRONMENTAL COALITION LLC Attn: Laura McGee 600 William Northern Blvd Tullahoma TN 373884729				(x)			9A. AMENDMENT OF SOLICITATION NO.
							9B. DATED (SEE ITEM 11)
				x			10A. MODIFICATION OF CONTRACT/ORDER NO. 89303321DEM000061 89304223FEM400000
							10B. DATED (SEE ITEM 13) 09/08/2023
CODE LQ5ZLNE3EM27		FACILITY CODE					

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 43.103(a) Bilateral
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

UEI: LQ5ZLNE3EM27

The purpose of this modification is to update the Risk Registers for Task Order (TO)-3.2, Integration and Mission Continuity, as of Fiscal Year (FY) 2025, 2nd quarter (see below for details).

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Kimberli Southwick, Business Services Director/PCO		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Grace H. Ruiz	
15B. CONTRACTOR/OFFEROR ERIC TROTTA (Affiliate) Digitally signed by ERIC TROTTA (Affiliate) Date: 2025.05.22 09:51:50 -06'00'	15C. DATE SIGNED 5/22/2025	16B. SIGNED STATES OF AMERICA GRACE RUIZ Digitally signed by GRACE RUIZ Date: 2025.05.22 10:19:52 -06'00'	16C. DATE SIGNED 05/22/2025

Previous edition unusable

STANDARD FORM 30 (REV. 11/2016)
Prescribed by GSA FAR (48 CFR) 53.243

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED 89303321DEM000061/89304223FEM400000/P00093	PAGE	OF
		2	2

NAME OF OFFEROR OR CONTRACTOR
IDAHO ENVIRONMENTAL COALITION LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
00302	Payment: OR for Idaho U.S. Department of Energy Oak Ridge Financial Service Center P.O. Box 6017 Oak Ridge TN 37831 Period of Performance: 10/01/2023 to 09/30/2031 Change Item 00302 to read as follows (amount shown is the total amount): CLIN 03 SUBTASK 0302 INTEGRATION AND MISSION CONTINUITY (TASK ORDER 3.2) Line item value is: \$715,802,327.00 Incrementally Funded Amount: \$643,482,508.00 In accordance with Section B.9, Basis for Changes, TOs issued shall clearly identify the risk ownership for both the Government and the Contractor such that contract changes are reduced to the maximum extent practicable. This modification updates the Risk Registers for TO-3.2, Integration and Mission Continuity, as of FY 2025, 2nd quarter (see attachments). All other terms and conditions remain unchanged. Attachments: 1. SF30_Final_P00093 2. FY25 Q2 TO3 Phase 2 DOE Transfer Risk Register Updates - Incorporated 3. FY25 Q2 TO3 Phase 2 DOE Transfer Risk Register Updates - Redlined 4. FY25 Q2 TO3 Phase 2 Risk Register Updates - Incorporated 5. FY25 Q2 TO3 Phase 2 Risk Register Updates - Redlined				715,802,327.00

Trotta, Eric D

From: Kreimann-Duane, Ashley A
Sent: Thursday, May 22, 2025 9:36 AM
To: Delegation of Authority; Salmon, Tony F; Killpack, Jason D; Anderson, Jade M; Southwick, Shawna A; Stommel, Mary K
Subject: Delegation of Authority - Kim Southwick, Business Services & PCO Sr. Director

Notification of Delegation of Authority

Manager's Name: Kim Southwick, Business Services & PCO Sr. Director

Phone Numbers: Office No.: 208-533-3841 Cell No.: 208-770-1622

Delegation Starts: Thursday, May 22, 2025 @ 6:00 a.m.

Delegation Ends: Thursday, May 22, 2025 @ 5:30 p.m.

Reason for Absence: Personal Leave

Acting Manager's Name: Eric Trotta, Business Services Deputy/CFO

Phone Numbers: Office No.: 208-533-3634 Cell No.: 208-770-1531

Signature Authority: Yes

Timecard Approval: No

Mail Delegation: NA

Acting CAM's Name: NA

Phone Numbers: NA

CAM Signature Authority: NA

Comments: N/A

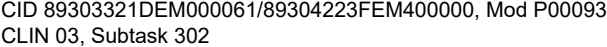
Please forward this delegation to others who may have a need to know.

Thank you,

Ashley Kreimann-Duane | Business Services & Prime Contracts Administrative Assistant | O:
208.533.0615 | M: 208.906.7992 | Ashley.Kreimannduane@icp.doe.gov | [Idaho Environmental Coalition](http://www.idahoenvironmental.com) | 1580
Sawtelle St. Idaho Falls, ID 83402 | www.idahoenvironmental.com



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TO3 Risk Register: DOE Transfer Risks

Waste Cleanup Project Programmatic Risk Register														Cost Impacts			Schedule Impacts (in days)						
Risk ID	WBS	Responsible Organization	IEC POC	DOE PPO	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Best Case	Most Likely	Worst Case	Best Case2	Most Likely3	Worst Case4	Basis of Impacts	Mitigation Actions	None	Notes
CA007082	D.3.02.30.08	DOE	Kimbro, Valerie	Balkmeier, Greg	<u>Calcine</u> : Change in Definition Interpretation of High-Level Waste-Opportunity	The high-level waste definition interpretation may impact the overall project strategy to process and dispose of calcine waste. For example, if direct disposal becomes an option, then portions or all of calcine may be eligible for this disposal alternative. This, consequently, may impact or reschedule ongoing work (i.e., retrieval demonstration).	High level waste definition interpretation requires the Department of Energy (DOE) to pursue a different disposition path for the disposal of calcine waste.	Open	Opportunity	Transfer	Rare	Minor	1-Low	\$ (150,000)	\$ (100,000)	\$ (80,000)	-150	-150	40		Acceptance received by DOE per Mod P00041	None	
CA007782	D.3.02.30.08	DOE	Kimbro, Valerie	Balkmeier, Greg	<u>Calcine</u> : Change in Definition Interpretation of High-Level Waste-Threat	The high-level waste definition interpretation may impact the overall project strategy to process and dispose of calcine waste. For example, if direct disposal becomes an option, then portions or all of calcine may be eligible for this disposal alternative. This, consequently, may impact or reschedule ongoing work (e.g., retrieval demonstration and conceptual designs for calcine processing).	High level waste definition interpretation requires the Department of Energy (DOE) to pursue a different disposition path for the disposal of calcine waste.	Open	Threat	Transfer	Rare	Critical	3-Moderate	\$ 80,000	\$ 100,000	\$ 150,000	60	150	150		Acceptance received by DOE per Mod P00041	None	
CC027	O.1.21.30	DOE	Biom, Scott	Montgomery, Cody	<u>Core Car</u> : Department of Energy determines the Core Car Project is a Major Modification	Department of Energy determines the Core Car Project meets the criteria of a Major Modification prior to the approval of SAR-113 Revision 2.	DOE directs SAR-113 Revision 2 format be in compliance with DOE-STD-3009-2014.	Realized	Threat	Transfer	Likely	Critical	5-Very High	\$ 89,184	\$ 114,824	\$ 1,472,794	80	103	160	Best Case: 80 days x 10 hrs/day x 2 FTEs x \$55.74/hr = \$89,184 Most Likely: 103 days x 10 hrs/day x 2 FTEs x \$55.74/hr = \$114,824 Worst Case:160 days x 10 hrs/day x 9 FTEs x \$102.28/hr = \$1,472,794	Propose transfer to DOE	Nuclear Safety meets with DOE monthly. Discussions with DOE counterpart does not expect the evaluation to result in IEC being directed to change the formatting of SAR-113 Revision 2. Develop SAR-113 Rev 2 to comply with DOE-STD-3009-2014 formatting. Drafting of SAR-113 revision 2 to comply with DOE STD 3009-2014 formatting started 8/24/2024. Per Scott Biom 9/11/2024.	
DST300	Project Wide	DOE	Perry, Scott	Unknown	<u>DOE Standards Updates</u> : IEC is Required to implement DOE-STD-3009-2014	DOE directs IEC to update safety basis documents to the 2014 version of DOE-STD-3009-2014, "Preparation of Nonreactor Nuclear Facility Documented Safety Analysis". This would require additional funding and reallocating resources to perform the updates and will cause delays to other work scope.	IEC is given formal DOE direction to update Documented Safety Analyses to align with DOE-STD-3009-2014 (safety basis documents are currently written to the 1994 version of DOE-STD-3009).	Open	Threat	Transfer	Likely	Critical	5-Very High	\$ 600,000	\$ 2,000,000	\$ 2,600,000	100	208	308	Impacts for this risk have been reduced to fit in the constraints of the remaining time in Task Order 3 Phase 2. See Notes for long term impacts that are based on an estimated cost and time of performing individual analyses and reviewing 8 IEC SARs written to DOE-STD-3009, including any necessary subcontract labor. The best case is that writing to the 2014 version of DOE-STD-3009 would be only when required for new facilities or major modifications per DOE-STD-1189. The worst case is based on direction to write to Best Case: Cost impact is based on movement of IEC S&S supervisor to perform Attractiveness Level Determinations.	Acceptance received by DOE per Mod P00041	The long term effects of this risk are estimated to cost \$20M+ and require 3.28 days worked into IEC's schedule. These numbers have been reduced to adhere to a Task Order Contract, but the significant impacts should be recognized.	
DST302	K.1.03.02	IEC/DOE	Wood, Todd	Jenkins, Tally	WPP Shipment Delays	If IEC Safeguards and Security cannot gain full implementation of BEA support by January, 2025, WPP shipments will be delayed until IEC can regain a compliant status.	BEA Services not obtained and implemented by January 2025.	Open	Threat	Share	Rare	Serious	2-Low	\$ 100,000	\$ 900,000	\$ 900,000	0	32	96	Most Likely Case: IEC pays BEA a fee to perform the appropriate processes until IEC can gain full implementation status. This includes a 2 month delay to set up an agreement. Worst Case: IEC pays WPP a fee to perform the appropriate processes there. This scenario delays shipments approx. 6 months.	Propose Share with DOE.		
DST303	K.1.03.02	IEC/DOE	Wood, Todd	Jenkins, Tally	Alternative Approach Required for LANMAS	If IEC is unable to continue using BEA's Local Area Nuclear Material Accountability Software (LANMAS) after BEA support ceases, IEC will be forced to find an alternative approach to implementing LANMAS. In this scenario, IEC will accrue unforeseen costs and experience schedule delays to find an alternative approach.	BEA ceases allowing IEC to use LANMAS system.	Open	Threat	Share	Unlikely	Serious	2-Low	\$ 40,000	\$ 900,000	\$ 9,000,000	16	16	92	Best Case: Cost impacts are based on paying BEA a fee to continue using their system. Schedule impact is based on time to set up agreement. Most Likely Case: Cost impact is based on paying BEA a fee to continue this service for IEC. Schedule impact is based on time to set up the agreement. Worst Case: Cost and Schedule impacts are based on SME assumptions in the scenario that IEC is forced to pay WPP to perform the Attractiveness Level Determination.	Propose Share with DOE.		
DST316	K.0.03.02.11	IEC/DOE	Wood, Larry	Jenkins, Tally	Loss of BEA Training Support	BEA provides optional services to IEC, which supports our work at the INL. Some of these services have been discontinued. If training provided for the Nuclear Material Representative (NMR) ceases, IEC will be forced to find alternative training resources which will increase costs.	BEA ceases to offer optional training services to IEC for Nuclear Material Representative (NMR) position.	Open	Threat	Share	Rare	Moderate	3-Low	\$ 10,000	\$ 20,000	\$ 30,000	16	32	48	BEA provides optional services to IEC, which supports our work at the INL. Some of these services have been discontinued. If training provided for the Nuclear Material Representative (NMR) ceases, IEC will be forced to find alternative training resources which will increase costs.	Propose Share with DOE.		
IN0001b	Project Wide	IEC/DOE	Multiple C&Ms	Multiple PPOs	<u>Indirect Services</u> : Mandatory Service Cost Increases	BEA provides multiple services to IEC, which support our work at the INL. Some of which IEC cannot seek alternative providers for. There is potential for unforeseen increase in cost for these mandatory services.	Increased Costs of Mandatory Services are applied.	Open	Threat	Share	Almost Certain	Critical	5-Very High	\$ 2,000,000	\$ 4,000,000	\$ 6,000,000	0	0	0	Costs are based on fees associated with BEA FY23 Forecast.	Propose Share to DOE		
IN0002	Project Wide	DOE	Langstaff, Ross	Unknown	Indirect Services: General Services Administration (GSA) Vehicle Surchage Increase	There is potential for an unforeseen increase in costs for GSA Vehicles.	Unforeseen cost increase is applied.	Open	Threat	Transfer	Almost Certain	Minor	3-Moderate	\$ -	\$ 58,752	\$ 117,504	0	0	0	Best Case: No cost impacts Most Likely case: \$24/month * 204 Vehicles*12 months Worst Case: \$24/month * 204 vehicles * 24 months	Propose Transfer to DOE		
IN0301	Project Wide	DOE	Roberts, Benjamin	Unknown	<u>Indirect Services</u> : Loss of Optional Services Provided by BEA	BEA provides optional services to IEC, which supports our work at the INL. If they cease to provide these optional services, IEC will have to find alternative options to maintain support to the INL. Finding alternative options will cause additional costs for these services.	Loss of Optional Indirect Services Provided by BEA.	Open	Threat	Transfer	Likely	Critical	5-Very High	\$ 2,000,000	\$ 4,000,000	\$ 6,000,000	0	0	0	Costs are based on fees associated with finding alternative resources to maintain optional services.	Propose Transfer to DOE.		N/A
IN0303	Project Wide	DOE	Roberts, Benjamin	Cata, Jennifer	Tariffs and Supply Chain Cost Increases	Due to emerging local, regional, and/or international events the supply chain is impacted limiting the ability to procure or accurately estimate the cost and time necessary to acquire necessary materials, services, and personnel.	• Emerging national and international events impact supply chain. • Tariff implementation.	Transfer	Threat	Realized	Almost Certain	Major	5-Very High	\$ 1,031,806	\$ 2,063,612	\$ 3,095,418	16	32	48	Best Case based on 25% of the monthly material cost average. Most likely based on best case x2 (2 months). Worst Case based best case x3 (3 months).	Propose transfer risk to DOE.		N/A
INTEC210	D.3.03.32.01 D.3.03.32.02	DOE	Baich, Kasey	Renewitz, Joe	<u>EC Routines</u> : External Requirements Change	External Requirements are subject to change. Examples of external requirements are: DOE O151.1C, OSHA, EPA, FMAA, and state and local laws. When external requirements are modified, the project may be required to make significant equipment upgrades, supply employees with additional training, update work control, etc., which could result in unforeseen costs and schedule slippage.	IEC is notified of changes made to external requirements.	Open	Threat	Transfer	Possible	Major	4-High	\$ 250,000	\$ 500,000	\$ 1,000,000	48	96	192	Cost to update programs, cost to implement the program and cost to train personnel on the changes	Acceptance received by DOE per Mod P00041		
IT308	D.6.02.49	DOE	Anderson, Jade	O'Malley, Russell	<u>Information Technology</u> : Fiber Replacement Capabilities	The fiber that was put in place 20 plus years ago has deteriorated to less than 30% of what was originally there in some of the lines. If the fiber cannot be replaced prior to it breaking, there would be an extensive disruption in Internet and communication services.	Work to replace the fiber is not turned on in time to replace the fiber and the fiber breaks.	Emerging	Threat	Transfer	Likely	Critical	5-Very High	\$ 3,000,000	\$ 5,000,000	\$ 7,000,000	3	10	30	We have already experienced interruptions due to unintentional cuts and local areas breaks in fiber. In most cases, it has been several days of interruptions to reroute traffic and repair. These cases have been resolved by splicing the existing fiber. In the instance that there are no more viable strands of fiber in the cable, which is an eventuality with aging fiber, new cable must be pulled and connected, extending the outage.	Propose transfer to DOE.		

IT320	K.1.02.04	DOE	Anderson, Jade	O'Malley, Russell	BEA Optional Service for All Software is Discontinued	An effort is underway to remove optional services from the BEA - IEC agreement. BEA provides services to at least 47 applications used by IEC, including TRAIN, EDMS, and Argus. In order to replace these applications, IEC IT would have to purchase off-the-shelf software or create custom applications. It would have to staff up and purchase equipment for that staff.	BEA discontinues application services to IEC.	Emerging	Threat	Transfer	Possible	Critical	4-High	\$	30,420,329	\$	128,590,337	\$	187,737,441	832	832	832	In November 2024, talks were underway between BEA and IEC to remove IEC from BEA's TRAIN system as they upgraded to a LMS service provider. IEC IT created a RCM at that time to calculate the impact of IEC creating their own TRAIN system. We are using that impact study to estimate the impact of the taking over the remaining 46 apps from BEA. Best Case (each application takes 10% of the effort of the TRAIN estimate) Labor = 4 years * 37 developers * \$206,663 average annual salary = \$30,201,121 Equipment = 37 PCs, monitors, etc. * \$3000 ea. * 2 (initial purchase + 1 refresh) = \$219,208 Total Best Case = \$30,420,329 and 4 years Most Likely Case (each application takes 66% of the effort of the TRAIN estimate) Labor = 4 years * 154 developers * \$206,663 average annual salary = \$127,663,720 Equipment = 154 PCs, monitors, etc. * \$3000 ea. * 2 (initial purchase + 1 refresh) = \$926,617 Total most likely case = \$128,590,337 and 4 years Most Likely Case (each application takes 66% of the effort of the TRAIN estimate) Labor = 4 years * 154 developers * \$206,663 average annual salary = \$127,663,720 Equipment = 154 PCs, monitors, etc. * \$3000 ea. * 2 (initial purchase + 1 refresh) = \$926,617 Total Most Likely Case = \$128,590,337 and 4 years	None. BEA currently provides these services to IEC. IEC would have to purchase off-the-shelf software or create custom applications.	Our response actions would have to purchase off-the-shelf software or create custom applications. It would have to staff up and purchase equipment for that staff.
NICP016	D.4.06.30	DOE	Reese, Craig	Almahie, Amin	<u>ICDF New Call</u> : Supply Chain Delays and Cost Increases.	Due to emerging local, regional, and/or international events, any major supply chain issues may limit the ability to procure or accurately estimate the cost and time necessary to acquire necessary materials, services, and personnel.	Examples: • Equipment not available when needed • Bentonite not available when needed • Geosynthetics not available when needed	Open	Threat	Transfer	Almost Certain	Moderate	4-High	\$	150,000	\$	300,000	\$	960,000	5	10	32	Best Case: 5 days X 10 hrs/day X 20 FTEs X \$75/hr Most Likely Case: 30 days X 10 hrs/day X 20 FTEs X \$75/hr Worst Case: 32 days X 10 hrs/day X 20 FTEs X \$75/hr.	Acceptance received by DOE per Mod P00041	
NICP037b	D.4.06.30	DOE	Reese, Craig	Almahie, Amin	<u>New ICDF Call</u> : BEA Support Services Do Not Meet ICDF Scheduled Need Dates	IEC relies on BEA for support services on Milestones, regulatory commitments, and scope completion. If the work from BEA is delayed, or does not meet the requirements, it can cause a project schedule impact.	BEA power services do not provide power in a timely manner.	Open	Threat	Shared	Unlikely	Minor	2-Low	\$	60,000	\$	240,000	\$	2,640,000	4	16	176	Best Case: 4 days X 10 hrs./day X 20 FTEs X \$75/hr. Most Likely Case: 16 days X 10 hrs./day X 20 FTEs X \$75/hr. Worst Case: 176 days X 10 hrs./day X 20 FTEs X \$75/hr.	Acceptance received by DOE per Mod P00041	<u>As of 9/18/2023</u> • <u>Note from DOE</u> : This is an IEC risk in that it is obtaining services between subcontractors (IEC and BEA). This risk must be returned to IEC. • IEC Response: <u>Disagree - after re-evaluating and</u>
NICP0310	D.4.06	DOE	Reese, Craig	Almahie, Amin	<u>ICDF New Call</u> : Required to Screen Cell 3 Ops Layer 1 Full Amount	Based on excavated material from Cell 3 and the Exp. Pond, all sieve analysis on the material showed that it met the specifications for Cell 3 Ops Layer 1 material. It was agreed by design authority that subcontractor will screen 5,000CY of 97,000CY required	Spills pile from screening 5,000 CY is too high and design authority wants entire 97,000CY screened.	Open	Threat	Share	Unlikely	Major	3-Moderate	\$	500,000	\$	1,200,000	\$	1,800,000	16	32	96	Estimates are based on SME judgement and Western original FFF proposal to screen entire amount.	Propose Transfer to DOE.	
NICP0317	D.4.06	DOE	Reese, Craig	Almahie, Amin	<u>ICDF New Call</u> : BEA is unable to shut down LO7YD the 13.8KV line in support of Excavation activities	Installation of the utilities require Western to excavate within the 50-ft off-set of the 13.8KV line. BEA can LO7YD this line and loop power another way in the location. Western will not be able to excavate if this portion of the 13.8KV line is not de-energized.	BEA unable to loop power when Western line is ready to excavate the utilities.	Realized	Threat	Transfer	Possible	Minor	2-Low	\$	10,000	\$	10,000	\$	100,000	4	8	12	Estimates are based on SME judgement. Costs are based on subcontractor standby rates	Propose Transfer to DOE.	No impacts currently. Project is working in a different area.
SNP093	D.1.04.01.10	DOE	Cottenell, Jakson	Wahnschaffe, Steve	<u>SNF Staging Facility</u> : DOE CD-1 Review Duration	The duration of the DOE review of CD-1 for the Staging Facility is longer than planned, thus pushing subsequent work scope.	ICP, PWR, and PMRC duration needed original schedule durations which delay CD-1 approval.	Open	Threat	Transfer	Likely	Moderate	3-Moderate	\$	120,000	\$	180,000	\$	270,000	16	24	36	Best Case: the schedule is impacted by 1 month (16 working days) and changes need to be made prior to CD-1 approval. Additional costs for 16 days x 10 hrs./day x 10 FTEs x \$75/hr. Most Likely Case: 2-month review delay (32 working days) and changes to CD-1 prior to approval. Additional costs for 24 days x 10 hr./day x 10 FTEs x \$75/hr. Worst Case: 4 months review delay. Additional costs for 36 days x 10 hr./day x 10 FTEs x \$75/hr.	Acceptance received by DOE per Mod P00041 Coordinate and provide status to DOE PME. The ICR is underway and to complete in Feb. 2023. The FPD is working with PM to schedule the IPR & PMRC.	
SNP044	D.1.04.01	DOE	Cottenell, Jakson	Wahnschaffe, Steve	<u>SNF Staging Facility</u> : Potential Change to Safety Basis Regulatory Framework	It is determined by DOE that 10 CFR 72 is the governing regulatory framework.	In discussions with DOE and NRC, it is determined that the Staging Facility design must meet NRC requirements.	Open	Threat	Transfer	Rare	Critical	3-Moderate	\$	500,000	\$	1,000,000	\$	2,500,000	128	312	520	Revise T&ER, SOW and require the subcontractor to obtain an NRC licensed facility. Best Case: 8 months with a cost of \$500k Most Likely: 1.5 years with a cost of \$1M Worst case 2 years with a cost of \$2.5M	Acceptance received by DOE per Mod P00041 Work with DOE ICP to maintain DOE framework for interim staging. This applies to the tasks as well as the post. Development and acceptance of RPT-1275.	
SNP325	D.1.02.36.13	DOE	Woolstenhulme, Tyson	Wahnschaffe, Steve	<u>Road Ready Project</u> : Packaging Criteria	During development of a Compliance Strategy or Data Package for the Road Ready Demonstration, IEC is unable to obtain necessary resources (key personnel) or required documents to develop a data package or compliance strategy that meets all requirements.	IEC developed Compliance Strategy or Road Ready Demonstration Data Package is rejected by DOE-ICP due to lack of resources or required documents producing inadequate documentation	Open	Threat	Transfer	Possible	Critical	4-High	\$	3,000,000	\$	4,500,000	\$	6,000,000	192	288	584	Best Case Impact: Administrative efforts to provide acceptable documentation Most Likely: Administrative efforts to provide acceptable documentation as well as some modifications to repackaging efforts Worst Case - Complete repackaging of SNF for the specific canister is required along with acceptable documentation	Propose transfer to DOE	IEC to work with DOE-ID to work with DOE-HQ and other regulatory agencies to clearly define acceptance criteria for a Road Ready acceptable cask. Additionally, IEC is developing a regulatory strategy to present for our stance on Licensing for packaging, transportation, and storage of SNF.
SNP327	D.1.02.36.07	DOE/IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	<u>Road Ready Project</u> : Delay of Delivery of DOE Standard Canisters	Delay of delivery of DOE's will cause a delay to the project.	DOE Standard Canister fabrication not completed according to IEC/BEA schedule.	Open	Threat	Share	Possible	Major	4-High	\$	1,200,000	\$	1,800,000	\$	5,000,000	48	96	192	Best case - Delivery of DOE's is minimally delayed causing a delay in the overall project Most Likely - Delivery of DOE's is significantly delayed causing a delay in the overall project Worst Case - Delivery of DOE's is unable to meet project needs requiring a re-plan of overall project	Acceptance received by DOE per Mod P00041	Work with BEA to identify possible delays due to supply chain issues. IEC and BEA looking to possibly procure DOE's C at risk if necessary. The costs listed from delays are based on a \$13M/day cost to operate a SNF crew. IEC will address crew reassignment in order to minimize cost impact.
SNP328	D.1.02.36.11	DOE	Woolstenhulme, Tyson	Wahnschaffe, Steve	<u>Road Ready Project</u> : Lack of Funding Causes Delays in Procurement of High Value Items	Lack of funding will delay procurement of a Shipping Cask for the Road Ready Project due to a 2+ year lead time.	Congress/DOE does not provide appropriate funding for procurement of the commercially provided items (Road Ready System provided by ORT/Holtec)	Open	Threat	Transfer	Possible	Critical	4-High	\$	1,500,000	\$	3,000,000	\$	6,000,000	96	192	84	Best Case: Project experiences minimal delay requiring re-baseline of project Most Likely: Project experiences significant delay requiring re-baseline Worst Case: Project experiences major delay causing a re-plan of overall project schedule	Acceptance received by DOE per Mod P00041	Work with DOE to place RRDSP Shipping Cask as a priority for funding to allow procurement of items as scheduled. Shipping Cask has a 2+ year lead time which is critical path for the project. The costs listed from delays are based on a \$13M/day cost to operate a SNF crew. IEC will address crew reassignment in order to minimize cost impact.
SNP332	D.1.02.36.07	DOE	Woolstenhulme, Tyson	Wahnschaffe, Steve	<u>SNF Road Ready Project</u> : BEA Leak Testing Fails	BEA Leak testing of Welds on DOE Standard Canisters does not pass causing delays to the project.	Bell jar leak testing fails.	Open	Threat	Transfer	Possible	Critical	4-High	\$	1,200,000	\$	1,800,000	\$	3,000,000	96	192	288	Acceptance received by DOE per Mod P00041	BEA procurement of different seals to correct deficiencies to allow for successful leak testing. If alternative seals are not successful, BEA to correct design of Bell Jar.	
SNP365		DOE	Woolstenhulme, Tyson	Wahnschaffe, Steve	<u>Road Ready Demonstration Project</u> : SNF DOE'sC Waste Canister Repackaging	A change in the waste acceptance criteria for a future repository (i.e. in-stamp requirement, engineering code changes, regulatory changes, equipment life cycle changes) may drive repackaging of SNF.	Road Ready SNF package is rejected at off-site facility due to a failure of meeting certain packaging requirements.	Open	Threat	Transfer	Rare	Major	2-Low	\$	1,000,000	\$	2,000,000	\$	6,000,000	48	96	220	Best case - A change in acceptance criteria requires only administrative/documentation changes or additions Most Likely - A change in acceptance criteria requires administrative/documentation changes or additions with minimal repackaging operations. Worst Case - A change in acceptance criteria requires a complete repackaging of SNF with documentation This risk will only impact RR Demonstration. Once a data package is defined, future operations will follow.	SNF will be packaged according to current requirements and known criteria. Any changes will be addressed when a repository is in beginning stages of accepting Packaging SNF. This Risk is being transferred to DOE.	
TO3P2001	Project Wide	DOE	Multiple CAMs	Multiple FPDs	<u>Global</u> : Idaho Power Rates Increase	There is potential of an unforeseen increase in cost for Power supplied by Idaho Power which in turn, would increase the rates that IEC is charged by BEA.	Annual evaluation determines that Idaho Power will be increasing their rates for the year.	Emerging	Threat	Transfer	Almost Certain	Minor	3-Moderate	\$	-	\$	132,504	\$	416,440	0	0	0	Best Case: No cost increase to the project Most Likely: 0.1 - 0.044 + 0.16 \$2,366,140.03 * 0.16 = \$132,503.84 Worst Case: 0.22 - 0.044 + 0.176 \$2,366,140.03 * 0.176 = \$416,440.65	Acceptance received by DOE per Mod P00041	
TO3P2002	Project Wide	DOE	Multiple CAMs	Multiple FPDs	<u>Global</u> : Power Infrastructure upgrade cost	Idaho Power is performing infrastructure upgrades for the Pronghorn Substation. BEA has been directed by DOE to allocate costs, of which IEC will be held responsible for a share of this cost. This presents potential unforeseen increased costs to IEC.	Increased Costs are applied.	Emerging	Threat	Transfer	Almost Certain	Critical	4-High	\$	-	\$	4,350,000	\$	8,750,000	0	0	0	Best Case: No cost increase to the project Most Likely Case: \$(30M / 2years) * 29% = 4,350,000 Worst Case: \$(30M * 29% = 8,750,000	Acceptance received by DOE per Mod P00041	

TO3P2003	Project Wide	DOE	Multiple CAMs	Multiple PFDs	Global : Vendor Supplied Diesel Rates Increase	There is potential of an unforeseen increase in cost for vendor supplied diesel.	Increased Costs of Services are applied.	Emerging	Threat	Transfer	Almost Certain	Minor	3 Moderate	\$	-	\$	132,504	\$	416,440	0	0	0	Best Case: No cost increase to the project Most Likely: 0.1 - 0.044 = 0.56 \$2,366,140.03 * 0.56 = \$1,313,201.84 Worst Case: 0.22 - 0.044 = 0.176 \$2,366,140.03 * 0.176 = \$416,440.66	Acceptance received by DOE per Mod P00041	
TO3P2004	Multiple Projects	DOE	Perry, Scott	Unknown	Global : New Requirements From A New Revision of DOE-STD-5506 Result in Safety Basis Changes	DOE Nuclear Safety is driving the implementation of a new revision of DOE-STD-5506 with IEC. If IEC is required to implement this new revision, there may be significant changes to the current Safety Basis resulting in significant cost increases and schedule delays.	DOE Nuclear Safety mandates new version of DOE-STD-5506 be implemented.	Open	Threat	Transfer	Possible	Critical	4 High	\$	3,000,000	\$	5,000,000	\$	7,000,000	96	192	288	Cost and schedule impacts are estimated based on the cost and labor to revise the following documents: RP7-05A-02/RP7-TSR-03 for AMWTP SAR-4/TSR-4 for ARP SAR-103/TSR-103 for RH-TRU waste processing operations at INTEC SAR-103 Addendum A for RH-TRU waste storage and	Acceptance received by DOE per Mod P00041	
TO3P2005b	Project Wide	DOE	Multiple CAMs	Multiple PFDs	Global : Line-Item Project Funding	Due to the amount of line-item projects being worked at the Idaho Environmental Coalition (IEC), limitation of base scope execution may be experienced as a direct result of variability in funding. Inability to execute base scope under the end state contract model will result in longer durations required to reach the desired end states. This will increase the overall costs of the Idaho Cleanup Project (ICP), and could impact staffing levels.	Impacts from line-item project funding causes limitations that impact the execution of the base scope.	Open	Threat	Share	Almost Certain	Critical	5 Very High	\$	1,000,000,000	\$	1,350,000,000	\$	1,700,000,000	900	1350	1800	Best Case: Most Likely Case-Worst Case:	Acceptance received by DOE per Mod P00041	None
TRU01482	D.2.03.35.04	DOE	Byram, George	Jenkins, Tally	Ch-TRU Waste Disposition : Unable to Certify/Ship Waste for Disposal at Waste Isolation Pilot Plant (WIPP)	IEC may not be able to certify and/or ship waste for disposal, for several reasons: If WIPP's Waste Data System (WDS) were to fail, if WIPP is unable to transport waste, if CCP Ram-ess sampler/data upload is not available. If the	Waste cannot meet certification requirements for WIPP disposal.	Open	Threat	Transfer	Possible	Serious	3 Moderate	\$	50,000	\$	500,000	\$	1,000,000	16	48	96	Best Case: 16 days X 10 hr. X 5 FTE X \$62.5/hr. Most Likely: 48 days X10 hr. X 5 FTE X \$62.5/hr. (plus additional Fees) Worst Case: 96 days X 10 hr. X 5 FTE X \$62.5/hr. (plus	Acceptance received by DOE per Mod P00041	
TRU01682	D.2.03.32.04	DOE	Martin, Dave	Jenkins, Tally	Ch-TRU Waste Disposition : Waste Isolation Pilot Plant (WIPP) Interpretations or Requirements Change	Changes to the WIPP requirements or new interpretations of existing requirements could result in a need to reprocess the waste, rework containers, or recertify waste that has already been certified in order to update the waste to the new requirements.	WIPP requires detailed acceptable knowledge that does not exist and/or permit changes.	Open	Threat	Transfer	Rare	Moderate	2 Low	\$	300,000	\$	500,000	\$	1,750,000	16	32	96	Best Case: 16 days Plus fees Most Likely Case: 32 days plus fees Worst Case: 96 days plus fees	Acceptance received by DOE per Mod P00041	



TO3 Risk Register: DOE Transfer Risks

Idaho Cleanup Project Programmatic Risk Register															Cost Impacts			Schedule Impacts (in days)			Basis of Impacts	Mitigation Actions	Notes
Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Best Case	Most Likely	Worst Case	Best Case2	Most Likely3	Worst Case4				
CAL007C02	D.3.02.30.08	DOE	Kimbro, Valerie	Balsmeier, Greg	Calogic Change in Definition Interpretation of High-Level Waste- Opportunity	The high-level waste definition interpretation may impact the overall project strategy to process and dispose of caline waste. For example, if direct disposal becomes an option, then portions or all of caline may be eligible for this disposal alternative. This, consequently, may impact or reauthorize ongoing work (i.e., retrieval demonstration and conceptual designs for caline processing).	High level waste definition interpretation requires the Department of Energy (DOE) to pursue a different disposition path for the disposal of caline waste.	Open	Opportunity	Transfer	Rare	Minor	1-Low	\$ -	\$ (150,000)	\$ (100,000)	\$ (80,000)	-150	-150	-60	Acceptance received by DOE per Mod P00041.	None	
CAL007F02	D.3.02.30.08	DOE	Kimbro, Valerie	Balsmeier, Greg	Calogic Change in Definition Interpretation of High-Level Waste-Threat	The high-level waste definition interpretation may impact the overall project strategy to process and dispose of caline waste. For example, if direct disposal becomes an option, then portions or all of caline may be eligible for this disposal alternative. This, consequently, may impact or reauthorize ongoing work (i.e., retrieval demonstration and conceptual designs for caline processing).	High level waste definition interpretation requires the Department of Energy (DOE) to pursue a different disposition path for the disposal of caline waste.	Open	Threat	Transfer	Rare	Critical	3-Moderate	\$ -	\$ 80,000	\$ 100,000	\$ 150,000	60	150	150	Acceptance received by DOE per Mod P00041.	None	
CC027	D.1.21.30	DOE	Bloom, Scott	Wickschulte-Steele, Montgomery, Cody	Core Car: Department of Energy determines the Core Car Project is a Major Modification	Department of Energy determines the Core Car Project meets the criteria of a Major Modification prior to the approval of SAR-113 Revision 2.	DOE directs SAR-113 Revision 2 format be in compliance with DOE-STD-3009-2014.	Open Realized	Threat	Transfer	Likely	Critical	5-Very High	\$ -	\$ 89,184	\$ 114,824	\$ 1,472,794	80	103	160	Best Case: 80 days x 10 hrs/day x 2 FTEs x \$55.74/hr = \$89,184 Most Likely: 103 days x 10 hrs/day x 2 FTEs x \$55.74/hr = \$114,824 Worst Case: 160 days x 10 hrs/day x 2 FTEs x \$55.74/hr = \$1,472,794	Propose transfer to DOE	Nuclear Safety meets with DOE monthly. Discussions with DOE counterpart does not expect the evaluation to result in IEC being directed to change the formatting of SAR-113 Revision 2. Develop SAR-113 Rev 2 to comply with DOE-STD-3009-2014 formatting. Drafting of SAR-113 revision 2 to comply with DOE STD-3009-2014 formatting started 8/24/2024. Per Scott Bloom 9/11/2024.
DST000	Project Wide	DOE	Perry, Scott	Unknown	DOE Standards Update: IEC is Required to Implement DOE-STD-3009-2014	DOE directs IEC to update safety basis documents to the 2014 version of DOE-STD-3009-2014, "Preparation of Nonreactor Nuclear Facility Documented Safety Analysis". This would require additional funding and reallocating resources to perform the updates and will cause delays to other work scope.	IEC is given formal DOE direction to update Documented Safety Analyses to align with DOE-STD-3009-2014 (Safety basis documents are currently written to the 1994 version of DOE-STD-3009).	Open	Threat	Transfer	Likely	Critical	5-Very High	\$ -	\$ 600,000	\$ 2,000,000	\$ 2,600,000	100	208	308	Impacts for this risk have been reduced to fit in the constraints of the remaining time in Task Order 3 Phase 2. See Notes for long term impacts that are based on an estimated cost and time of performing individual analyses and revising 8 IEC SARs written to DOE-STD-3009, including any necessary subcontract labor. The best case is that writing to the 2014 version of DOE-STD-3009 would be only when required for new facilities or major modifications per DOE-STD-1189. The worst case is based on direction to write to DOE-STD-1189.	Acceptance received by DOE per Mod P00041.	The long-term effects of this risk are estimated to cost \$20M+ and require 3,328 days worked into IEC's schedule. These numbers have been reduced to adhere to a Task Order Contract, but the significant impacts should be recognized.
DST002	K.1.03.02	IEC/DOE	Wood, Todd	Jenkins, Tally	WIPP Shipment Delays	If IEC Safeguards and Security cannot gain full implementation of BEA support by January, 2025, WIPP shipments will be delayed until IEC can regain a compliant status.	BEA Services not obtained and implemented by January 2025.	Open	Threat	Share	Rare	Serious	2-Low	\$ -	\$ 100,000	\$ 900,000	\$ 900,000	0	32	96	Best Case: Cost impact is based on movement of IEC S&S supervisor to perform Attractiveness Level Determinations. Most Likely Case: IEC pays BEA a fee to perform the appropriate processes until IEC can gain full implementation status. This includes a 2 month delay to set up an agreement. Worst Case: IEC pays WIPP a fee to perform the appropriate processes there. This scenario delays shipments approx. 6 months.	Propose Share with DOE.	
DST003	K.1.03.02	IEC/DOE	Wood, Todd	Jenkins, Tally	Alternative Approach Required for LANMAAS	If IEC is unable to continue using BEA's Local Area Nuclear Material Accountability Software (LANMAAS) after BEA support ceases, IEC will be forced to find an alternative approach to implementing LANMAAS. In this scenario, IEC will accrue unforeseen costs and experience schedule delays to find an alternative approach.	BEA ceases allowing IEC to use LANMAAS system.	Open	Threat	Share	Unlikely	Serious	2-Low	\$ -	\$ 40,000	\$ 900,000	\$ 9,000,000	16	16	92	Best Case: Cost impacts are based on paying BEA a fee to continue using their system. Schedule impact is based on time to set up agreement. Most Likely Case: Cost impact is based on paying BEA a fee to continue this service for IEC. Schedule impact is based on time to set up agreement.	Propose Share with DOE.	
DST016	K.0.03.02.11	IEC/DOE	Wood, Larry	Jenkins, Tally	Loss of BEA Training Support	BEA provides optional services to IEC, which supports our work at the INL. Some of these services have been discontinued. If training provided for the Nuclear Material Representative (NMR) ceases, IEC will be forced to find alternative training resources which will increase costs.	BEA ceases to offer optional training services to IEC for Nuclear Material Representative (NMR) position.	Open	Threat	Share	Rare	Moderate	1-Low	\$ -	\$ 10,000	\$ 20,000	\$ 30,000	16	32	48	BEA provides optional services to IEC, which supports our work at the INL. Some of these services have been discontinued. If training provided for the Nuclear Material Representative (NMR) ceases, IEC will be forced to find alternative training resources which will increase costs.	Propose Share with DOE.	
IND001b	Project Wide	IEC/DOE	Multiple CAMs	Multiple FPDs	Indirect Services: Mandatory Service Cost Increases	BEA provides multiple services to IEC, which support our work at the INL. Some of which IEC cannot seek alternative providers for. There is potential for unforeseen increase in cost for these mandatory services.	Increased Costs of Mandatory Services are applied.	Open	Threat	Share	Almost Certain	Critical	5-Very High	\$ -	\$ 2,000,000	\$ 4,000,000	\$ 6,000,000	0	0	0	Costs are based on fees associated with BEA FY23 Forecast.	Propose Share to DOE	
IND002	Project Wide	DOE	Langseth, Ross	Unknown	Indirect Services: General Services Administration (GSA) Vehicle Surcharge Increase	There is potential for an unforeseen increase in costs for GSA Vehicles.	Unforeseen cost increase is applied.	Open	Threat	Transfer	Almost Certain	Minor	3-Moderate	\$ -	\$ -	\$ 58,752	\$ 117,504	0	0	0	Best Case: No cost impacts Most Likely Case: \$24/month * 204 Vehicles * 12 months Worst Case: \$24/month * 204 vehicles * 24 months	Propose Transfer to DOE	
IND001	Project Wide	DOE	Roberts, Benjamin	Unknown	Indirect Services: Loss of Optional Services Provided by BEA	BEA provides optional services to IEC, which supports our work at the INL. If they cease to provide these optional services, IEC will have to find alternative options to maintain support to the INL. Finding alternative options will accrue additional costs for these services.	Loss of Optional Indirect Services Provided by BEA.	Open	Threat	Transfer	Likely	Critical	5-Very High	\$ -	\$ 2,000,000	\$ 4,000,000	\$ 6,000,000	0	0	0	Costs are based on fees associated with finding alternative resources to maintain optional services.	Propose Transfer to DOE.	N/A
IND003	Project Wide	DOE	Roberts, Benjamin	Cate, Jennifer	Tariffs and Supply Chain Cost Increases	Due to emerging local, regional, and/or international events the supply chain is impacted limiting the ability to procure or accurately estimate the cost and time necessary to acquire necessary materials, services, and personnel.	Emerging national and international events impact supply chain. • Tariff implementation.	Transfer	Threat	Realized	Almost Certain	Major	5-Very High	\$ -	\$ 1,031,806	\$ 2,063,612	\$ 3,095,418	16	32	48	Best Case based on 25% of the monthly material cost average. Most Likely based on best case x2 (2 months). Worst Case based best case x3 (3 months).	Propose transfer risk to DOE.	N/A
INTECF10	D.3.03.32.01 D.3.03.32.02	DOE	Balsch, Kasey	Renewitz, Joe	IEC Requirements: External Requirements Change	External Requirements are subject to change. Examples of external requirements are: DOE O53.1-IC, OSHA, EPA, FEMA, and state and local laws. When external requirements are modified, the project may be required to make significant equipment upgrades, supply employees with additional training, update work control, etc., which could result in unforeseen costs and schedule slippage.	IEC is notified of changes made to external requirements.	Open	Threat	Transfer	Possible	Major	4-High	\$ -	\$ 250,000	\$ 500,000	\$ 1,000,000	48	96	192	Cost to update programs, cost to implement the program and cost to train personnel on the changes.	Acceptance received by DOE per Mod P00041.	
IT001	D.6.02.32	DOE	Anderson, Jade	O'Malley, Russell	Information Technology: Supply Chain Issues for Server Refresh	Due to emerging local, regional, and/or international events the supply chain is impacted limiting the ability to procure or accurately estimate the cost and time necessary to acquire necessary equipment, appliances, hardware, and/or software.	Emerging national and international events impact supply chain.	Open Cloud	Threat	Transfer	Possible	Serious	3-Moderate	\$ -	\$ 900,000	\$ 1,000,000	\$ 1,500,000	8	32	144	Best Case: 8 days (plus extended contractor fees) Most Likely: 32 days (plus extended contractor fees) Worst Case: 144 days (plus extended contractor fees)	Acceptance received by DOE per Mod P00041.	
IT308	D.6.02.49	DOE	Anderson, Jade	O'Malley, Russell	Information Technology: Fiber Replacement Capabilities	The fiber that was put in place 20 plus years ago has deteriorated and less than 20% of what was originally there in some of the lines. If the fiber cannot be replaced prior	Work to replace the fiber is not turned on in time to replace the fiber and the fiber breaks.	Emerging	Threat	Transfer	Likely	Critical	5-Very High	\$ -	\$ 3,000,000	\$ 5,000,000	\$ 7,000,000	3	10	30	We have already experienced interruptions due to unintentional cuts and local areas breaks in fiber. In most cases, it has been several days of interruptions to reroute.	Propose transfer to DOE.	

	K.1.02.04	DOE	Anderson, Jade	O'Malley, Russell	BEA Optional Service for All Software is Discontinued	An effort is underway to remove optional services from the BEA-IEC agreement. BEA provides services to at least 47 applications used by IEC, including THAIN, EDMS, and Argus. In order to replace these applications, IEC would have to purchase off-the-shelf software or create custom applications. It would have to staff up and purchase.	BEA discontinues application services to IEC.	Emerging	Threat	Transfer	Possible	Critical	4-High	\$	30,420,329	\$	128,590,337	\$	187,737,441	832	832	832	In November 2024, talks were underway between BEA and IEC to remove IEC from BEA's THAIN system as they upgraded to a LMS service provider. IEC created a ROW at that time to calculate the impact of IEC creating their own THAIN system. We are using that impact study to estimate the impact of the taking over the remaining 46 apps from BEA. Best Case: 5 days X 10 hr/day X 20 FTEs X \$75/hr Most Likely Case: 30 days X 10 hr/day X 20 FTEs X \$75/hr Worst Case: 32 days X 10 hr/day X 20 FTEs X \$75/hr	None. BEA currently provides these services to IEC. IEC would have to purchase off-the-shelf software or create custom applications.	Our response actions would have to purchase off-the-shelf software or create custom applications. It would have to staff up and purchase equipment for that staff.
NICDP016	D.4.06.30	DOE	Reese, Craig	Almahie, Amin	ICDF New Call : Supply Chain Delays and Cost Increases.	Due to emerging local, regional, and/or international events, any major supply chain issues may limit the ability to procure or accurately estimate the cost and time necessary to acquire necessary materials, services, and personnel.	Examples: • Equipment not available when needed • Benetone not available when needed • Geosynthetics not available when needed.	Open	Threat	Transfer	Almost Certain	Moderate	4-High	\$	150,000	\$	300,000	\$	960,000	5	10	32	Acceptance received by DOE per Mod P00041		
NICDP037b	D.4.06.30	DOE	Reese, Craig	Almahie, Amin	New ICDF Call : BEA Support Services Do Not Meet ICDF Scheduled Need Dates	ICDF relies on BEA for support services on Milestones, regulatory commitments, and scope completion. If the work from BEA is delayed, or does not meet the requirements, it can cause a project schedule impact.	BEA power services do not provide power in a timely manner.	Open	Threat	Shared	Unlikely	Minor	2-Low	\$	60,000	\$	240,000	\$	2,640,000	4	16	176	Acceptance received by DOE per Mod P00041	As of 9/18/2023 • Note From DOE: This is an IEC risk in that it is obtaining services between contractors (IEC and BEA). This risk must be returned to IEC • IEC Response: Disagree - after re-evaluation and	
NICDP310	D.4.06	DOE	Reese, Craig	Almahie, Amin	ICDF New Call : Required to Screen Cell 3 Ops Layer 1 Full Amount	Based on excavated material from Cell 3 and the Exp. Pond, all sieve analysis on the material showed that it met the specifications for Cell 3 Ops Layer 1 material. It was agreed by design authority that subcontractor will screen 5,000CY of 97,000CY required	Spills pile from screening 5,000 CY is too high and design authority wants entire 97,000CY screened.	Open	Threat	Share	Unlikely	Major	3-Moderate	\$	500,000	\$	1,200,000	\$	1,800,000	16	32	96	Estimates are based on SME judgement and Westerns original PFF proposal to screen entire amount.	Propose Transfer to DOE.	
NICDP317	D.4.06	DOE	Reese, Craig	Almahie, Amin	ICDF New Call : BEA is unable to shut down LO/TO the 13.8KV line in support of Excavation activities	Installation of the utilities require Western to excavate within the 50-ft off-set of the 13.8KV line. BEA can LO/TO this line and loop power another way in the location. Western will not be able to excavate if this portion of the 13.8KV line is not de-energized.	BEA unable to loop power when Western is ready to excavate the utilities.	Realized	Threat	Transfer	Possible	Minor	2-Low	\$	10,000	\$	50,000	\$	100,000	4	8	12	Estimates are based on SME judgement. Costs are based on subcontractor standby rates	Propose Transfer to DOE.	No impacts currently. Project is working in a different area.
S1W002R2	D.5.01.32	DOE	Burtenshaw, Shawna	Larsen, Eric	SNF Reactor Reactors : Supply Chain Delays and Cost Increases	Due to emerging local, regional, and/or international events the supply chain is impacted limiting the ability to procure or accurately estimate the cost and time necessary to acquire necessary materials, services, and personnel.	Emerging national and international events impact supply chain.	Open/Closed	Threat	Transfer	Unlikely	Moderate	2-Low	\$	150,000	\$	300,000	\$	960,000	5	10	32	Best Case: 5 days X10 hrs./day X 2 crews (20 FTEs) X \$75/hr = \$150,000 Most Likely Case: 10 days X10 hrs./day X 2 crews (20 FTEs) X \$75/hr = \$300,000 Worst Case: 12 days X10 hrs./day X 2 crews (20 FTEs) X \$75/hr = \$960,000	Acceptance received by DOE per Mod P00041	
SNP033	D.1.04.01.10	DOE	Cottrell, Jakem	Wahnschaffe, Steve	SNF Staging Facility : DOE CD-1 Review Duration	The duration of the DOE review of CD-1 for the Staging Facility is longer than planned, thus pushing subsequent work scope.	SNF and CD-1 Review is delayed. ICR, IPN, and PMRC duration exceed original schedule durations which delay CD-1 approval	Open	Threat	Transfer	Likely	Moderate	3-Moderate	\$	120,000	\$	180,000	\$	270,000	16	24	36	Best Case: the schedule is impacted by 1 month (16 working days) and changes need to be made prior to CD-1 approval. Additional costs for 16 days x 10 hrs./day x 10 FTEs x \$75/hr. Most Likely Case: 2-month review delay (32 working days) and changes to CD-1 prior to approval. Additional costs for 24 days x 10 hr./day x 10 FTEs x \$75/hr. Worst Case: 4 months review delay. Additional costs for 36 days x 10 hr./day x 10 FTEs x \$75/hr.	Acceptance received by DOE per Mod P00041	Coordinate and provide status to DOE PMR. The ICR is underway and to complete in Feb. 2025. The PMR is working with PM to schedule the IPR & PMRC.
SNP034	D.1.04.01.10	DOE	Cottrell, Jakem	Wahnschaffe, Steve	SNF Staging Facility : IEC CD-1 Submittal Date	The Management Options for SNF at the INL Site Integrated Project Team AOA is not accepted, causing a new AOA for the ID SNF-SF. The new AOA development causes the CD-1 package submittal/preparation duration to extend beyond originally scheduled.	A new AOA is required. CD-1 submittal/date is missed, and the ID SNF-SF loses our DOE HQ reviews.	Reopened/Closed	Threat	Transfer	Almost Certain	Serious	4-High	\$	250,000	\$	500,000	\$	1,000,000	41	58	75	Best Case: 1 FTE for 4 weeks @ \$100/hr. and 1 FTE for 2 weeks @ \$80/hr. and \$0,000 for subcontract design + 30day Most Likely: 1 FTE for 4 weeks @ \$100/hr. and 1 FTE for 2 weeks @ \$80/hr. and \$0,000 for subcontract design + 60 days Worst Case: 1 FTE for 4 weeks @ \$100/hr. and 1 FTE for 2 weeks @ \$80/hr. and 100,000 for subcontract design + 90 days	Acceptance received by DOE per Mod P00041	Consult schedule and forecasts with DOE ICP and HQ in our IPT. Maintain AOA schedule and maintain status updates in the schedule.
SNP044	D.1.04.01	DOE	Cottrell, Jakem	Wahnschaffe, Steve	SNF Staging Facility : Potential Change to Safety Basis Regulatory Framework	It is determined by DOE that 20 CFR 72 is the governing regulatory framework.	In discussions with DOE and NRC, it is determined that the Staging Facility design must meet NRC requirements.	Open	Threat	Transfer	Rare	Critical	3-Moderate	\$	500,000	\$	1,000,000	\$	2,500,000	128	312	520	Each portion of decision will need 10% of the subcontractor. Review TRP, SDW and require the subcontractor to obtain an NRC licensed facility. Best Case: 8 months with a cost of \$500k Most Likely: 1.5 years with a cost of \$1M Worst Case 2.5 years with a cost of \$2.5M	Acceptance received by DOE per Mod P00041	Work with DOE ICP to maintain DOE framework for interim staging. This applies to the casks as well as the pad. Development and acceptance of RPT-2175.
SNP325	D.1.02.36.46.13	DOE	Woolstenhulme, Tyson	Wahnschaffe, Steve	SNF Road Ready Project : SNF Packaging Criteria	Road Ready Project-IEC develops a Data Package based upon known requirements that is not acceptable. During IEC development of a Compliance Strategy or Data Package for the Road Ready Demonstration, IEC is unable to obtain necessary resources (key personnel) or required documents to develop a data package or compliance strategy that meets all requirements.	IEC-developed Data Package is rejected by DOE/DOESC Facility IEC developed Compliance Strategy or Road Ready Demonstration Data Package is rejected by DOE-ICP due to lack of resources or required documents producing inadequate documentation	Open	Threat	Transfer	Possible	Critical	4-High	\$	3,000,000	\$	4,500,000	\$	6,000,000	192	288	384	Best case impact - Administrative efforts to provide acceptable documentation Most Likely - Administrative efforts to provide acceptable documentation as well as some modifications to repackaging efforts Worst Case - Complete repackaging of SNF for the specific center is required along with acceptable documentation	Propose transfer to DOE	IEC to work with DOE-ID to work with DOE-HQ and other regulatory agencies to clearly define acceptance criteria for a Road Ready acceptable cask. Additionally, IEC is developing a regulatory strategy to present for our stance on Licensing for packaging, transportation, and storage of SNF.
SNP327	D.1.02.36.07	DOE/IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	SNF Road Ready Project : Delay of Delivery of DOE Standard Canisters	Any unforeseen delays to the delivery of the DOE Standard Canisters would cause delays to the project. Delay of delivery of DOE/SCs will cause a delay to the project.	DOE Standard Canister fabrication not completed according to IEC/BEA schedule.	Open	Threat	Share	Possible	Critical/Major	4-High	\$	1,200,000	\$	1,800,000	\$	5,000,000	96 48	144 96	288 192	DOESC fabrication is included in BEA's scope but being transferred to IEC per AIG-009. IEC will need DOE's approval to fully assume Design Authority and fabrication of DOESC's. Best case - Delivery of DOE/SCs is minimally delayed causing a delay in the overall project. Most Likely - Delivery of DOE/SCs is significantly delayed Worst case - DOE to place RRPD Shipping Cask as a priority for funding to allow procurement of items as scheduled. Shipping Cask has a 3-year lead time which is critical path for the project. The costs listed from delays are based on a \$120/day cost to operate a SNF cask. IEC will address any repositioning in order to minimize cost impact.	Acceptance received by DOE per Mod P00041	Work with BEA to identify possible delays due to supply chain issues. Also mitigating by purchasing long-lead items as early as possible to schedule IEC and BEA looking to possibly procure DOE/SCs at risk if necessary. The costs listed from delays are based on a \$120/day cost to operate a SNF cask. IEC will address any repositioning in order to minimize cost impact.
SNP328	D.1.02.36.11	DOE	Woolstenhulme, Tyson	Wahnschaffe, Steve	SNF Road Ready Project : Lack of Funding Causes Delay in Procurement of Cask	Missing a delivery commitment of a cask will cause a Multi-Purpose Canister (MPC) to be delayed and cause a lack of funding will delay procurement of a Shipping Cask for the Road Ready Project due to a 2 year lead time. ***Funding is a Corporate-wide Risk also being tracked in the Road Ready Risk Register***	Congress/DOE does not provide appropriate funding for procurement of the commercially provided items (Road Ready System provided by ORT/Hotcat)	Open	Threat	Transfer	Possible	Critical	4-High	\$	1,500,000	\$	3,000,000	\$	6,000,000	96	192	84	Work with DOE to place RRPD Shipping Cask as a priority for funding to allow procurement of items as scheduled. Shipping Cask has a 3-year lead time which is critical path for the project. The costs listed from delays are based on a \$120/day cost to operate a SNF cask. Best Case: Project experiences minimal delay requiring re-positioning of project	Acceptance received by DOE per Mod P00041	Work with DOE to place RRPD Shipping Cask as a priority for funding to allow procurement of items as scheduled. Shipping Cask has a 2 year lead time which is critical path for the project. The costs listed from delays are based on a \$120/day cost to operate a SNF cask. IEC will address any repositioning in order to minimize cost impact.
SNP332	D.1.02.36.07	DOE	Woolstenhulme, Tyson	Wahnschaffe, Steve	SNF Road Ready Project : BEA Leak Testing Fails	BEA Leak testing of Wells on DOE Standard Canisters does not pass causing delays to the project.	Beil jar leak testing fails.	Open	Threat	Transfer	Possible	Critical	4-High	\$	1,200,000	\$	1,800,000	\$	3,000,000	96	192	288	Acceptance received by DOE per Mod P00041		
SNP365		DOE	Woolstenhulme, Tyson	Wahnschaffe, Steve	Road Ready Demonstration Project : SNF DOE/SC Waste Canister Repackaging	A change in the waste acceptance criteria for a future repository (i.e. n-stamp requirement, engineering code changes, regulatory changes, equipment life cycle changes) may drive repackaging of SNF	Road Ready SNF package is rejected at off-site facility due to a failure of meeting certain packaging requirements.	Open	Threat	Transfer	Rare	Major	2-Low	\$	1,000,000	\$	2,000,000	\$	6,000,000	48	96	220	Best case - A change in acceptance criteria requires only administrative/documentation changes or additions Most Likely - A change in acceptance criteria requires administrative/documentation changes or additions with minimal repackaging operations. Worst Case - A change in acceptance criteria requires a complete repackaging of SNF with documentation. This risk will only impact RR Demonstration. Once a data package is defined, future operations will follow.	SNF will be packaged according to current requirements and known criteria. Any changes will be addressed when a repository is in beginning stages of accepting Packaged SNF. This Risk is being transferred to DOE.	
TO3P2001	Project Wide	DOE	Multiple CAMs	Multiple PFDs	Global: Idaho Power Rates Increase	There is potential of an unforeseen increase in cost for Power supplied by Idaho Power which in turn, would increase the rates that IEC is charged by BEA.	Annual evaluation determines that Idaho Power will be increasing their rates for the year.	Emerging	Threat	Transfer	Almost Certain	Minor	3-Moderate	\$	-	\$	132,104	\$	416,440	0	0	0	Best Case: No cost increase to the project Most Likely: 0.1 - 0.04 + 0.56 \$2,366,140.03 * 0.56 = \$132,103.84 Worst Case: 0.22 - 0.04 + 0.176 \$2,366,140.03 * 0.176 = \$416,440.65	Acceptance received by DOE per Mod P00041	
TO3P2002	Project Wide	DOE	Multiple CAMs	Multiple PFDs	Global: Power Infrastructure upgrade cost	Idaho Power is performing infrastructure upgrades for the Pronghorn Substation. BEA has been directed by DOE to allocate costs, of which IEC will be held responsible for a share of this cost. This presents potential unforeseen increased costs to IEC.	Increased Costs are applied.	Emerging	Threat	Transfer	Almost Certain	Critical	3-High	\$	-	\$	4,350,000	\$	8,750,000	0	0	0	Best Case: No cost increase to the project Most Likely Case: (\$30M / 2years) * 29% + 4,350,000 Worst Case: \$30M * 29% = 8,750,000	Acceptance received by DOE per Mod P00041	

TO3P2003	Project Wide	DOE	Multiple CAMs	Multiple PFDs	Global : Vendor Supplied Diesel Rates Increase	There is potential of an unforeseen increase in cost for vendor supplied diesel.	Increased Costs of Services are applied.	Emerging	Threat	Transfer	Almost Certain	Minor	3 Moderate	\$	-	\$	132,504	\$	416,440	0	0	0	Best Case: No cost increase to the project Most Likely: 0.1 - 0.044 = 0.56 \$2,366,140.03 * 0.56 = \$1,313,201.84 Worst Case: 0.22 - 0.044 = 0.176 \$2,366,140.03 * 0.176 = \$416,440.66	Acceptance received by DOE per Mod P00041	
TO3P2004	Multiple Projects	DOE	Perry, Scott	Unknown	Global : New Requirements From A New Revision of DOE-STD-5506 Result in Safety Basis Changes	DOE Nuclear Safety is driving the implementation of a new revision of DOE-STD-5506 with IEC. If IEC is required to implement this new revision, there may be significant changes to the current Safety Basis resulting in significant cost increases and schedule delays.	DOE Nuclear Safety mandates new version of DOE-STD-5506 be implemented.	Open	Threat	Transfer	Possible	Critical	4 High	\$	3,000,000	\$	5,000,000	\$	7,000,000	96	192	288	Cost and schedule impacts are estimated based on the cost and labor to revise the following documents: RP7-05A-02/RP7-TSR-03 for AMWTP SAR-4/TSR-4 for ARP SAR-103/TSR-103 for RH-TRU waste processing operations at INTEC SAR-103 Addendum A for RH-TRU waste storage and	Acceptance received by DOE per Mod P00041	
TO3P2005b	Project Wide	DOE	Multiple CAMs	Multiple PFDs	Global : Line-Item Project Funding	Due to the amount of line-item projects being worked at the Idaho Environmental Coalition (IEC), limitation of base scope execution may be experienced as a direct result of variability in funding. Inability to execute base scope under the end state contract model will result in longer durations required to reach the desired end states. This will increase the overall costs of the Idaho Cleanup Project (ICP), and could impact staffing levels.	Impacts from line-item project funding causes limitations that impact the execution of the base scope.	Open	Threat	Share	Almost Certain	Critical	5 Very High	\$	1,000,000,000	\$	1,350,000,000	\$	1,700,000,000	900	1350	1800	Best Case: Most Likely Case-Worst Case:	Acceptance received by DOE per Mod P00041	None
TRU01482	D.2.03.35.04	DOE	Byram, George	Jenkins, Tally	Ch-TRU Waste Disposition : Unable to Certify/Ship Waste for Disposal at Waste Isolation Pilot Plant (WIPP)	IEC may not be able to certify and/or ship waste for disposal, for several reasons: If WIPP's Waste Data System (WDS) were to fail, if WIPP is unable to transport waste, if CCP Ramress timeline/data upload is not available. If the	Waste cannot meet certification requirements for WIPP disposal.	Open	Threat	Transfer	Possible	Serious	3 Moderate	\$	50,000	\$	500,000	\$	1,000,000	16	48	96	Best Case: 16 days X 10 hr. X 5 FTE X \$62.5/hr. Most Likely: 48 days X10 hr. X 5 FTE X \$62.5/hr. (plus additional Fees) Worst Case: 96 days X 10 hr. X 5 FTE X \$62.5/hr. (plus	Acceptance received by DOE per Mod P00041	
TRU01682	D.2.03.32.04	DOE	Martin, Dave	Jenkins, Tally	Ch-TRU Waste Disposition : Waste Isolation Pilot Plant (WIPP) Interpretations or Requirements Change	Changes to the WIPP requirements or new interpretations of existing requirements could result in a need to reprocess the waste, rework containers, or recertify waste that has already been certified in order to update the waste to the new requirements.	WIPP requires detailed acceptable knowledge that does not exist and/or permit changes.	Open	Threat	Transfer	Rare	Moderate	2 Low	\$	300,000	\$	500,000	\$	1,750,000	16	32	96	Best Case: 16 days Plus fees Most Likely Case: 32 days plus fees Worst Case: 96 days plus fees	Acceptance received by DOE per Mod P00041	

Task Order 3.2

Updated : 4.29.25

Updated : 4.29.25

Updated : 4.29.25															Cost Impacts			Schedule Impacts (in days)			Basis of Impacts				Mitigation Actions		Risk Corrective Actions		Notes	
Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Best Case	Most Likely	Worst Case	Best Case	Most Likely	Worst Case	Basis of Impacts				Mitigation Actions		Risk Corrective Actions		Notes		
CAL01BR2	D.3.02.30.13	IEC	Kimbro, Val	Balsmeier, Greg	<u>Calcine</u> <u>RET</u> : Loss of Specialty Resources	Loss of qualified specialty resources could result in schedule delays.	Notification of intent to leave or retirement.	Realized	Threat	Accept	Likely	Major	4-High	\$ 48,000	\$ 80,000	\$ 160,000	48	80	80	Best Case: 48 days X 10 hr./X 1.25 FTE X \$80/hr. Most Likely Case: 80 days X 10/hr./X 1.25 FTE X \$80/hr. Worst Case: 80 days X 10 hr./X 2 FTE X \$100/hr.	N/A				N/A		N/A			
CAL024	D.3.05.31.04	IEC	Kimbro, Val	Balsmeier, Greg	<u>Calcine</u> <u>VIT</u> : Loss of Specialty Resources	Loss of qualified specialty resources could result in schedule delays.	Notification of intent to leave or retire.	Realized	Threat	Accept	Likely	Major	4-High	\$ 48,000	\$ 80,000	\$ 160,000	48	80	80	Cost and schedule impacts are based on the time it takes to backfill a position. Basis is estimated as follows: - Best Case -Backfill one position (48 days x 10 hr./day x 1 FTE x \$100/hr.) - Most Likely Case - Backfill one position (80 days x 10 hr./day x 1 FTE x \$100/hr.) - Worst Case - Backfill two positions (80 days x 10 hr./day x 2 FTE x \$100/hr.)	N/A				N/A		N/A			
CAL030	D.3.05.31.05	IEC	Kimbro, Val	Balsmeier, Greg	<u>Calcine</u> <u>VIT</u> : Optimize Using BEA Business Relationships and Resources	It may be possible to optimize the cost and schedule by using the existing BEA relationship and resources under the blanket master contract or other agreement established between BEA and IEC. For example, BEA may have in-house specialist that could participate in a review team on documents being produced under TO3.2 scope of work, such as the siting study, treatment study reports, and the technology maturation plan/technology readiness level documents.	Business relationship and resources are available at BEA that are not readily available to IEC.	Open	Opportunity	Accept	Likely	Minor	2-Low	\$ (432,000)	\$ (216,000)	\$ (72,000)	(48)	(24)	(8)	Cost and schedule impacts are based on BEA supporting the scope of work and having a positive impact on the schedule. Basis is estimated as follows: - Best Case - 48 days x 10 hr./day x 4 FTE x \$225/hr. - Most Likely Case - 24 days x 10hr./day x 4 FTE x \$225/hr. - Worst Case - 8 days x 10 hr./day x 4 FTE x \$225/hr.	N/A				N/A		N/A			
CAL301	D.3.02.30.02	IEC	Kimbro, Valerie	Balsmeier, Greg	<u>Calcine</u> : Delay finalizing the Draft 3116 Basis Document due to availability of resources (external to IEC)	Finalizing the Draft CSF 3116 Basis Document as scheduled in TO3.2 may be delayed because of the availability of resources (external to IEC) to perform their roles in the review of the document.	Resources (external to IEC) are not available to perform their roles in the review of the Draft CSF 3116 Basis Document.	Open	Threat	Accept	Rare	Minor	1-Low	\$ 12,500	\$ 25,000	\$ 50,000	5	10	20	Project realized approximately 20 days of delay in FY 2022 because resources external to IEC were unavailable. However, resources are now available, and this should be considered the worst-case scenario. As such, it was assumed the project would realize 5 days of delay as the best case and 20 days as the worst case. Additionally, schedule delays realized by this activity should be categorized as moderate to low, regardless of the cost and schedule impacts, because the decision in this document can be aligned with DOE's commitment to remove calcine from a from a bin set and close the facility. Basis for the cost and schedule impacts are as follows: Best Case: 5 days X 10 hr/day X 2.5 FTE X \$100/hr = \$12.5K Most Likely: 10 days X 10 hr/day X 2.5 FTE X \$100/hr = \$25K Worst Case: 20 days X 10 hr/day X 2.5 FTE X \$100/hr = \$50K	N/A				N/A		N/A			
CAL303	D.3.02.40	IEC	Kimbro, Valerie	Balsmeier, Greg	<u>Calcine</u> : Inadequate Information from Phase 1 Testing and Demonstrations of the Online Sampling System	Phase 1 work may not generate enough information to adequately evaluate the viability of the online sampling equipment and allow progression to Phase 2.	Inadequate information is generated to adequately evaluate the viability of the online sampling equipment.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 65,000	\$ 130,000	\$ 525,000	16	16	64	Best Case: Schedule and Cost impacts have been estimated based on the scenario that the no modifications to the system are required, the vendor simply needs to tighten parameters and reperform testing. Impacts are assumed at a 1 month delay for 1 vendor. Most Likely Case: Schedule and Cost impacts are estimated based on the vendor having to perform physical modifications to the system and reperforming tests. Impacts are assumed at a 1 month delay for 2 vendors working concurrently. Worst Case: Schedule and Cost impacts are estimated based on vendor having to reperform tests with a different online sampling system. Impacts assume a 4 month delay with 2 vendors working concurrently plus accruing costs for the increased time of the subcontracts.									Meeting with Brennan Kurth 10/29/24: Best Case is 1 month of rework, 1 vendor. Most Likely is 1 month of rework, 2 vendors Worst Case is 4 months of rework, 2 vendors	
CAL304	D.3.02.40	IEC	Kimbro, Valerie	Balsmeier, Greg	<u>Calcine</u> : Limited Use of Proprietary Business Data	Unknown restrictions on proprietary information generated from the Phase 1 work could limit the use or sharing of information outside of the project.	Data cannot be used or shared because of proprietary restrictions.	Open	Threat	Accept	Unlikely	Moderate	2-Low	\$ -	\$ 260,000	\$ 1,000,000	0	32	96	Best Case: Limited information would be released and proprietary information would be vague or general in its description. This scenario creates challenge of creating a commercial application but does not accrue a Cost or Schedule impact to this proposal. Most Likely Case: Vendor does not allow IEC to share information on the equipment or use. In this scenario, IEC would have to pay the vendor to use the equipment. Impacts are based on subcontract cost for 2 vendors, and a 2 month delay. Worst Case: Schedule and Cost impacts are estimated based on IEC receiving minimal information and being directed to recreate and self-perform testing. Assuming there is some existing work that can be reused, schedule impacts are estimated at a 6 month delay, plus cost of hiring additional engineers.										
CAL305	D.3.02.40	IEC	Kimbro, Valerie	Balsmeier, Greg	<u>Calcine</u> : Inability to Accept or Use Data Generated from Software Used by the Subcontractor	Inability of the project to accept or use data generated from any of the software used during Phase 1 by the subcontractors because it does not meet Information Technology requirements and criteria.	Software or data cannot be used by the project because it does not meet Information Technology requirements and criteria.	Open	Threat	Accept	Unlikely	Major	3-Moderate	\$ 72,000	\$ 250,000	\$ 500,000	32	96	128	Best Case: Impacts are estimated based on a 2 month delay to get software approved through the appropriate company processes. Most Likely Case: Impacts are based on purchasing a software and having it approved through the appropriate company processes. This is estimated at a 6 month delay plus costs for the purchase of the software. Worst Case: Impacts are based on the Most Likely Case impacts plus the project having to hire specialty resources to operate software.										
CAL314	D.3.02.31.14	IEC	Kimbro, Valerie	Kimbro, Valerie	Equipment Failure at the CPP-691	In FY2024, the CPP-691 integrated mockup ran the equivalent volume of material that is stored in CSF 1 and it is possible equipment may unexpectedly fail during the next series of test planned for the air lance. Equipment failure at the full-scale mockup may cause unexpected costs and schedule delays. There are single points of failure on the system, such as the pre-filter and blower, that could have significant costs or schedule delays if the equipment were to fail. General maintenance costs for the CPP-691 facility and full-scale mockup were included in the Task Order 3.2 budget; however, it does not account for costs above the general maintenance budget.	Single-point failure of equipment on the full-scale mockup system	Open	Threat	Accept	Unlikely	Moderate	2-Low	\$ 101,000	\$ 172,000	\$ 585,000	20	30	88	"Best Case - Replace cyclone and elbows (20 days of downtime X 10 hr/day X 4 FTE X \$75/hr plus 16 days to install X 10 hr/day X 3 FTE X \$75/hr plus \$5K in materials Most Likely Case - Replace fittings (30 days of downtime X 10 hr/day X 4 FTE X \$75/hr plus 24 days to install X 10 hr/day X 4 FTE X \$75/hr plus \$10K in materials Worst Case - Replace pre-filter (88 days of downtime X 10 hr/day X 4 FTE X\$75/hr plus 12 days to install pre-filter X 10 hr/day X 4 FTE X \$75/hr plus \$285K in materials"										
CAL315	D.3.02.31.17	IEC	Kimbro, Valerie	Kimbro, Valerie	Supply Chain Delays or Long-Lead Procurement of Equipment for the FY2025 Outage at CPP-691	The FY2025 outage will be replacing and upgrading several pieces of equipment at the CPP-691 integrated mockup. At this time there are no known equipment needed for the outage that is sensitive to supply chain delays or requires long-lead procurement, however, it is possible that the project may realize schedule or cost impacts on any specialized equipment needed for the outage, such as the PLC system.	Receipt of equipment for the FY2025 outage is delayed due to supply chain issues or long-lead procurement.	Open	Threat	Accept	Likely	Minor	2-Low	\$ 30,000	\$ 60,000	\$ 240,000	8	16	64	Best Case - 2-week schedule delay (8 days of downtime x 10 hr/day x 5 FTE x \$75/hr). Most Likely Case - 4-week schedule delay (16 days of downtime x 10 hr/day x 5 FTE x \$75/hr). Worst Case - 16-week schedule delay* (64 days of downtime x 10 hr/day x 5 FTE x \$75/hr).										
CAL316	D.3.05.31.03	IEC	Kimbro, Valerie	Kimbro, Valerie	Schedule Delays Developing CD-1 Documentation Due to Availability of External Reviewers	Completing the CD-1 project management documents may be delayed due to availability of external resources to perform their reviews.	External resources are not available to review the CD-1 project management documents as scheduled in the baseline.	Open	Threat	Accept	Unlikely	Minor	2-Low	\$ 12,500	\$ 25,000	\$ 50,000	5	10	20	Project realized approximately 20 days of delay in FY 2022 because resources external to IEC were unavailable. However, resources are now available, and this should be considered the worst-case scenario. As such, it was assumed the project would realize 5 days of delay as the best case and 20 days as the worst case. Additionally, schedule delays realized by this activity should be categorized as moderate to low, regardless of the cost and schedule impacts, because the decision in this document can be aligned with DOE's commitment to remove calcine from a from a bin set and close the facility.										
CAL317	D.3.05.31.05	IEC	Kimbro, Valerie	Kimbro, Valerie	Subcontractor Costs May Exceed Planned Budget	Proposals from the subcontractors to complete preconceptual designs may exceed the planned budget.	Proposals exceed the planned budget to execute the work.	Realized	Threat	Accept	Likely	Moderate	3-Moderate	\$ 250,000	\$ 500,000	\$ 1,000,000	0	0	0	"Best Case - \$250K Most Likely Case - \$500K Project has already received proposal stating that the project has exceeded the current planned budget cost. Worst Case - \$1.0M"	Monitor vendors costs and across the project to identify potential efficiencies or savings within the line-item fund source. The project will continue to include the cumulative CPR in the IPT agenda and vendors budget tracking to keep DOE informed of the project performance and vendors costs.				Monitor vendors costs and across the project to identify potential efficiencies or savings within the line-item fund source. The project will continue to include the cumulative CPR in the IPT agenda and vendors budget tracking to keep DOE informed of the project performance and vendors costs.					



TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated : 4.29.25

Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Cost Impacts			Schedule Impacts (in days)			Basis of Impacts	Mitigation Actions	Risk Corrective Actions	Notes
														Best Case	Most Likely	Worst Case	Best Case	Most Likely	Worst Case				
CAL318	D.3.05.31.05	IEC	Kimbro, Valerie	Kimbro, Valerie	Subcontractor Provides Inadequate Information to Complete the TMP and TRL Assessment	It is possible the subcontractor cannot provide adequate information to complete the TMP and TRL assessment to a satisfactory level. For example, the subcontractor may determine that additional lab- and bench-scale testing is needed to support or validate their pre-conceptual designs and this may impact the development of the TMP and TRL assessment.	Inadequate information is provided by the subcontractor or additional work is needed to develop the TMP and TRL assessment to an adequate level.	Open	Threat	Accept	Rare	Moderate	1-Low	\$ 300,000	\$ 500,000	\$ 700,000	0	0	0	"Best Case - \$300K in schedule delay/cost increase for vendors to execute additional work (\$100K IEC plus \$200K vendor) Most Likely Case - \$500K in schedule delay/cost increase for vendors to execute additional wor (\$100K IEC plus \$400K vendor) Worst Case - \$700K in schedule delay/cost increase for vendors to execute additional wor (\$100K IEC plus \$600K vendor))"			
CAL319	D.3.02.30.14	IEC	Kimbro, Valerie	Balsmeier, Greg	Upgrade to Major I&C System Components and Interfaces	Replacing major I&C system components and interfaces during the FY2025 outage at the full-scale mockup may cause unexpected costs and schedule delays. The project is planning to replace and upgrade the PLC equipment during the outage and every effort has been made to carefully plan the work to ensure tasks are completed within budget and schedule. However, as with any major I&C upgrades there are unknowns that could impact cost overruns and schedule delays or the project may experience unexpected events, such as receipt of wrong parts, scheduling priorities at INTEC, or technical errors, that could have negative impacts to cost and schedule.	PLC receipt of materials, fabrication, and install does not go as planned because of unknown or unexpected events.	Open	Threat	Mitigate	Unlikely	Moderate	2-Low	\$ 38,000	\$ 106,000	\$ 236,000	12	32	48	"Cost and schedule impacts are based on the possible scenarios of recovering from some unknown failure during the PLC upgrade. Basis is estimated as follows: - Best Case - Recover from minor failure of PLC upgrade (4 days of downtime x 10 hr./day x 5 FTE x \$75/hr. plus 8 days to install x 10 hr./day x 3 FTE x \$75/hr. plus \$5K in materials - Most Likely Case - Recover from moderate failure of PLC upgrade (16 days of downtime x 10 hr./day x 5 FTE x \$75/hr. plus 16 days to install x 10 hr./day x 3 FTE x \$75/hr. plus \$10K in materials - Worst Case - Recover from major failure of PLC upgrade (48 days of downtime x 10 hr./day x 5 FTE x \$75/hr. plus 16 days to install x 10 hr./day x 3 FTE x \$75/hr. plus \$20K in materials"	Recover from unknown or unplanned cost or schedule delays to resume scheduled testing.	N/A	
CAL320	D.3.02.30.17	IEC	Kimbro, Valerie	Balsmeier, Greg	Software Upgrades Impacts on Full-Scale Mockup Compatiability	Software upgrades at the full-scale mockup may impact the functions of systems and equipment causing impacts to project costs and schedule. The project has previously experienced negative impacts to cost and schedule from software upgrades.	A software upgrade impacts the systems and equipment at the full-scale mockup where reprogramming or other changes at the mockup are needed.	Open	Threat	Mitigate	Unlikely	Minor	2-Low	\$ 7,500	\$ 30,000	\$ 60,000	2	8	16	"Cost and schedule impacts are based on the possible scenarios of software upgrades at the full-scale mockup. Basis is estimated as follows: - Best Case - No software upgrades. This is possible because the system is off-network and can function as is without the software upgrade; minor adjustment may be necessary (2 days of downtime x 10 hr./day x 5 FTE x \$75/hr.) - Most Likely Case - Upgrade software (8 days of downtime x 10 hr./day x 5 FTE x \$75/hr) - Worst Case - Upgrade software (16 days of downtime x 10 hr./day x 5 FTE x \$75/hr.)"	Install software upgrade to resume scheduled testing.	N/A	
CAL321	D.3.05.31.04	IEC	Kimbro, Valerie	Balsmeier, Greg	Software Cost and Capability Impacts Ability to Develop Pneumatic Flow Model	Software costs or capability may impact the project team's ability to develop a complete and comprehensive pneumatic flow model.	Software costs exceed project budget or the software does not have all the needed capabilities to develop a complete pneumatic flow model that meet all the project needs.	Open	Threat	Mitigate	Likely	Moderate	3-Moderate	\$ 36,000	\$ 54,000	\$ 84,000	16	24	4	"Cost and schedule impacts are based on purchasing software that exceed the project budget or selecting a software that cannot comprehensively develop the pneumatic flow model. Basis is estimated as follows: - Best Case - Selected software functions as needed with minimal effort and training. (16 days of rework x 10 hr./day x 3 FTE x \$75/hr.) - Most Likely Case - Selected software functions as needed with moderate effort and training (24 days of downtime x 10 hr./day x 3 FTE x \$75/hr) - Worst Case - Purchase annual software (4 days of downtime x 10 hr./day x 3 FTE x \$75/hr. plus \$75K/year software purchase)"	Select software that meet the project needs.	N/A	
CC007	D.1.21.30.16	IEC	Blorn, Scott	Montgomery, Cody	Core Car: Operational Readiness Review (ORR) is Determined to Be Required	If DOE directs IEC to perform an Operational Readiness Review in addition to a Readiness Assessment, it would cause schedule delays to perform.	DOE directs additional readiness activities prior to releasing operations.	Open	Threat	Mitigate	Unlikely	Major	3-Moderate	\$ 680,000	\$ 1,030,000	\$ 2,060,000	64	96	208	Best Case: 64 days X 10 hr. X 11.07 FTEs X \$96/hr. Most Likely: 96 days X 10 hr. X 11.07 FTEs X \$96/hr. Worst Case: 208 days X 10 hr. X 11.07 FTEs X \$96/hr.	Engage DOE SMEs for SAR revision, engineering analysis and design, nuclear and criticality safety analysis, and operational procedure development to ensure DOE is comfortable with the design and process.	N/A	
CC026	D.1.21.30	IEC	Blorn, Scott	Montgomery, Cody	Core Car: Core Remnants (Including Transport Equipment) Do Not Meet the WAC for Disposal at ICDF	Physical characteristics of the core remnants or shipping equipment does not meet the Waste Acceptance Criteria (WAC) for ICDF.	INTEC WGS Waste Stream Determination is completed.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 10,000	\$ 50,000	\$ 70,000	8	16	16		N/A		
CC300	D.1.21.30	IEC	Blorn, Scott	Montgomery, Cody	Core Car: Engineering/Safety Analysis Determines Core Cannot be Safely Removed From RSC or Processed	Design/Safety analysis determines the core cannot be safely removed from the RSC and transported to the laydown station without extensive modifications to the equipment/pool/process.	Completion of drop/safety analysis reveals scenario(s) that result in unacceptable risk or consequence.	Realized	Threat	Mitigate	Likely	Critical	5-Very High	\$ 750,000	\$ 2,100,000	\$ 3,100,000	238	309	412		Add mechanically fasten to boration to ensure the core can be safely moved from the RSC to the lay down system and safely processed.		On 2/17/23 NNL notified IEC engineering of a concern that will require an alternative core handling strategy with additional engineered controls. If the core drop analysis determines additional controls are required to safely remove the core from the RSC and transfer it to the laydown system, this risk will be realized. Cost and schedule impacts will be dependant upon analysis results and the new strategy/controls required to move the core.
CC301	D.1.21.30	IEC	Blorn, Scott	Montgomery, Cody	Core Car: Hydrogen Levels Inside the Shipping Shield Exceed HAD Limits	High hydrogen gas levels between the shipping shield and the RSC could indicate water inside the shipping shield. Due to potential RSC seal degradation, a hydrogen sample of the RSC will be required, potentially requiring a purge of the RSC to meet HAD requirements. (RSC sampling will require removal of the shipping shield lid.)	Performance of shipping shield cavity hydrogen sampling after the railcar is in place at CPP-666.	Open	Threat	Accept	Possible	Serious	3-Moderate	\$ 374,000	\$ 534,500	\$ 695,000	8	12	16		N/A		Perform drop analysis to bound shipping shield lid impacts to Railcar/shipping shield/RSC prior to the arrival of the railcar. Perform revision to CSE to incorporate mitigations required by drop analysis. Procure scaffolding and tent materials to be available to address this risk.
CC303	D.1.21.30	IEC	Blorn, Scott	Montgomery, Cody	Core Car: Integrated Testing of the Cutting Station Does Not Meet the Performance or Acceptance Criteria Documented in SPC-3256	Failure of equipment during integrated testing of the Cutting Station at IPM.	Cutting station does not meet the performance requirements documented in SPC-3256.	Open	Threat	Mitigate	Unlikely	Major	3-Moderate	\$ 110,000	\$ 210,000	\$ 575,000	86	94	122		MITIGATION ACTIONS: IRCO-018, Procurement of Long Lead Electrical Components submitted to expedite procurement of servo motors, encoders, PLCs, HMI, and servo drives to allow early bench testing. Bench testing will decrease risk and early procurement of spares will allow expedited repair if needed. MITIGATION ACTIVITY STATUS: IRCO-018 has been submitted and processed to address the procurement of long lead electrical and mechanical components.		
CC304	D.1.21.30	IEC	Blorn, Scott	Montgomery, Cody	Core Car: Failure of Cutting Station Components During Integrated Testing at IPM	Failure of mechanical or electrical equipment during integrated testing of the Cutting Station requires replacement or repair before testing can be completed at IPM.	Component fails or is damaged during integrated testing at IPM.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	\$ 50,000	\$ 150,000	\$ 325,000	12	48	103		MITIGATION ACTIONS: IRCO-013, Procurement of Long Lead Precision Mechanical Components submitted to expedite procurement of lead screws, trucks, and ball screw assembly replacements. Early procurement of spares will allow expedited repair if needed at IPM. MITIGATION ACTIVITY STATUS: IRCO-013 approved 12/10/24. IPM submitted order of replacement components. 12/11/24.		
CC305	D.1.21.30	IEC	Blorn, Scott	Montgomery, Cody	Core Car: Digital Control System in CPP-666 does not support water treatment/processing	System operations testing of the Digital Control System in CPP-666 reveals it cannot be repaired and must be upgraded/replaced to support Core Car processing.	Completion of system operations testing reveals Core Car Processing is not achievable.	Realized	Threat	Mitigate	Likely	Major	4-High	\$ 300,000	\$ 400,000	\$ 560,000	60	80	120	Cost and schedule based on upgrading/replacing Digital Control System in CPP-666.	Draft System Operations Test TPR	FDC57158	Trigger Date for FDC57158 was OCT 24-April 25 per Carls email. Risk Realized 3/4/25
CC306	D.1.21.30	IEC	Blorn, Scott	Montgomery, Cody	Core Car: Vendor refuses to accept IEC roll down terms and conditions.	Sub-contract vendor refuses to accept roll down requirements from primary subcontractor.	Vendor refuses to acknowledge purchase requisition because they take exception to required terms and conditions.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	\$ 150,000	\$ 250,000	\$ 600,000	24	64	102	Kolmorgen servos, encoders, and control systems were used to perform prototype testing to validate equipment performance. Kolmorgen refuses to comply. •Worst Case: Kolmorgen refuses to comply and project has to rever to the design phase. •Best Case: TE Connections refuses to certify the under water connections. IEC has to find another vendor to verify connections.	• Clarify contract required terms and conditions roll down with IPM. • Met with IPM to determine quality clause requirements for materials. • Lead a meeting with IPM and subcontract vendor to understand exceptions. • Researched and clarified requirements. • Conduct follow-up meetings for resolution.		
CC307	D.1.21.30	IEC	Blorn, Scott	Montgomery, Cody	Unforeseen Radiological Incident and/or Loss of Contamination Control.	An unexpected radiological incident and/or loss of contamination control outside the controlled area during processing of the core car may result in personnel decontamination and extended shutdown/recovery actions.	• Unexpected contamination levels or radiolotopes found in the core car upon receipt or processing. • Unexpected dose rates during processing of the core car.	Open	Threat	Accept	Likely	Serious	4-High	\$ 500,000	\$ 1,000,000	\$ 2,000,000	16	32	64	Cost and schedule impacts based on recovery actions/ shut down due to varying severity of a loss of contamination control/ radiation exposure.	Request necessary information from the Navy to mitigate unplanned scenarios.		
CERCLA001	D.4.05.30.09	IEC	Whitmore, Erik	Jenkins, Tally	CERCLA: Evaporation Pond Liner Damage	Existing CERCLA Evaporation liner tears which would require subcontractor support to complete repairs.	Existing liner is damaged.	Open	Threat	Mitigate	Unlikely	Moderate	2-Low	\$ 62,532	\$ 312,658	\$ 468,987	0	0	0	No schedule delays as all other work associated would continue while repairs are done.	Allocation for repairs for material failure of the pond liner, similar to currently existing situation	N/A	



TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated : 4.29.25

Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Cost Impacts			Schedule Impacts (in days)			Basis of Impacts	Mitigation Actions	Risk Corrective Actions	Notes
														Best Case	Most Likely	Worst Case	Best Case	Most Likely	Worst Case				
DST302	K.1.03.02	IEC/DOE	Wood, Todd	Jenkins, Tally	WIPP Shipment Delays	If IEC Safeguards and Security cannot gain full implementation of BEA support by January, 2025, WIPP shipments will be delayed until IEC can regain a compliant status.	BEA Services not obtained and implemented by January 2025.	Open	Threat	Share	Rare	Serious	2-Low	\$ 100,000	\$ 900,000	\$ 900,000	0	32	96	Best Case: Cost impact is based on movement of IEC S&S supervisor to perform Attractiveness Level Determinations. Most Likely Case: IEC pays BEA a fee to perform the appropriate processes until IEC can gain full implementation status. This includes a 2 month delay to set up an agreement. Worst Case: IEC pays WIPP a fee to perform the appropriate processes there. This scenario delays shipments approx. 6 months.	Propose Share with DOE.	N/A	
DST303	K.1.03.02	IEC/DOE	Wood, Todd	Jenkins, Tally	Alternative Approach Required for LANMAS	If IEC is unable to continue using BEA's Local Area Nuclear Material Accountability Software (LANMAS) after BEA support ceases, IEC will be forced to find an alternative approach to implementing LANMAS. In this scenario, IEC will accrue unforeseen costs and experience schedule delays to find an alternative approach.	BEA ceases allowing IEC to use LANMAS system.	Open	Threat	Share	Unlikely	Serious	2-Low	\$ 40,000	\$ 900,000	\$ 9,000,000	16	16	92	Best Case: Cost impacts are based on paying BEA a fee to continue using their system. Schedule impact is based on time to set up agreement. Most Likely Case: Cost impact is based on paying BEA a fee to continue this service for IEC. Schedule impact is based on time to set up the agreement. Worst Case: Cost and Schedule impacts are based on SME assumptions in the scenario that IEC is forced to pay WIPP to perform the Attractiveness Level Determination.	Propose Share with DOE.	N/A	
DST316	K.0.03.02.11	IEC/DOE	Wood, Larry	Jenkins, Tally	Loss of BEA Training Support	BEA provides optional services to IEC, which supports our work at the INL. Some of these services have been discontinued. If training provided for the Nuclear Material Representative (NMR) ceases, IEC will be forced to find alternative training resources which will increase costs.	BEA ceases to offer optional training services to IEC for Nuclear Material Representative (NMR) position.	Open	Threat	Share	Rare	Moderate	1-Low	\$ 10,000	\$ 20,000	\$ 30,000	16	32	48	BEA provides optional services to IEC, which supports our work at the INL. Some of these services have been discontinued. If training provided for the Nuclear Material Representative (NMR) ceases, IEC will be forced to find alternative training resources which will increase costs.	Propose Share with DOE.	N/A	
DST317	K.1.03.02.11	IEC	Wood, Larry	Jenkins, Tally	Single Point Failure of Personnel	Limited personnel resources will delay/ limit shipments to WIPP. Personnel with specific training and certifications are mandatory for shipments to WIPP to take place. The current number of FTE employees does not allow for support outside the Monday-Thursday 4X10 schedule which allows for 8 shipments per week.	Needing shipments outside of regular 4x10 schedule Increasing the number of shipments above 8 shipments per week. Employee taking extended PL or personnel attrition	Open	Threat	Accept	Likely	Minor	2-Low	\$ 600	\$ 1,800	\$ 3,600	1	2	4	FTE NMR position requires 32 hours of paperwork a week to complete 8 WIPP shipments. Monthly Reconciliation averages 2.5 hours/week Monthly/ Quarterly Reports averages 2.5 hours/week The NMR already being tied up with required paperwork doesn't allow for additional work outside of 8 shipments per week. Unforeseen circumstances or additional shipments will delay shipments due to lack of proper personnel or accrue additional costs for overtime of existing FTE employees.	Hire additional staff to support WIPP operations	N/A	
ICDF001	D.4.05.31.03	IEC	Orme, Jason	Jenkins, Tally	ICDF Ops and Maintenance: Equipment Failure	If equipment fails, it will need to be repaired or the project will need to procure a replacement. This equipment includes but is not limited to: road graders, excavators, front end loaders, diesel fuel trailer, water trucks, hook trucks, telehandlers, pumps, liners, Digital Control System Equipment, and Waste processor.	Failure of any equipment (I.e. road graders, excavators, front end loaders, diesel fuel trailer, water trucks, hook trucks, telehandlers, pumps, liners, Digital Control System Equipment, and Waste processor) necessary to perform operations.	Open	Threat	Accept	Likely	Serious	4-High	\$ 67,240	\$ 341,000	\$ 511,000	30	60	90	Equipment Costs per DCES sheet / Lease Rates for Equipment Total \$81,845 - 20% Equipment Potential Failures - Daily Rates 20% Higher than Monthly Rates / ICDF Contamination Zone Risk of Leased Equipment- Lease to Buy / Work Case would be the D9N Dozer Lease \$33,000	N/A	N/A	
ICDF002	D.4.05.31.03	IEC	Orme, Jason	Jenkins, Tally	ICDF Ops and Maintenance: Treatment, Storage, and Disposal Facility (TSDF) Closure	Treatment, Storage, and Disposal Facility (TSDF) is unable to receive waste, transportation of that waste will be delayed. It may then become necessary for the project to incorporate actions to recover schedule.	TSDF discontinues receiving of waste.	Open	Threat	Mitigate	Likely	Minor	2-Low	\$ 79,200	\$ 118,800	\$ 158,400	8	12	16	Best Case: 8 days x 10 hr./day x 6 FTEs X (\$110/hr. + OT = \$165/hr.) Most Likely Case: 12 days x 10 hr./day x 6 FTEs X (\$110/hr. + OT = \$165/hr.) Worst Case: 16 days x 10 hr./day x 6 FTEs X (\$110/hr. + OT = \$165/hr.)	Implement the following possible mitigations: - Upon TSDF resuming operations, shipment(s) will commence and schedule will be recovered by working overtime.	N/A	
ICDF003	D.4.05.31.04	IEC	Orme, Jason	Jenkins, Tally	ICDF Ops and Maintenance: Waste Container Treatment, Storage and Disposal Facility (TSDF) Certification Failure	During the verification process, if a waste container(s) is found to not be in accordance with the NNSNWAC, the waste will need to be reworked.	A container(s) is identified as damaged, packaged incorrectly, containing uncertified waste, containing prohibited items, etc.	Open	Threat	Mitigate	Likely	Minor	2-Low	\$ 54,000	\$ 81,000	\$ 108,000	4	6	8	Best Case: 8 days x 10 hr./day x 6 FTEs X (\$75/hr. + OT = \$112.50/hr.) Most Likely Case: 612 days x 10 hr./day x 6 FTEs x (\$75/hr. + OT = \$112.50/hr.) Worst Case: 16 days x 10 hr./day x 6 FTEs x (\$75/hr. + OT = \$112.50/hr.)	Implement the following possible mitigations: - After Issues are corrected we will reevaluate and certify waste. Overtime will be worked to recover schedule.	N/A	
IND001a	Project Wide	IEC/DOE	Multiple CAMs	Multiple FPDs	Indirect Services: Mandatory Service Cost Increases	BEA provides multiple services to IEC, which support our work at the INL. Some of which IEC cannot seek alternative providers for. There is potential for unforeseen increase in cost for these mandatory services.	Increased Costs of Mandatory Services are applied.	Open	Threat	Share	Almost Certain	Critical	5-Very High	\$ 2,000,000	\$ 4,000,000	\$ 6,000,000	0	0	0	Costs are based on fees associated with BEA FY23 Forecast.	Propose Share to DOE		
IND004	K.1.03.08	IEC	Chapple, Debbie	Unknown	Training: Training Platform Transition Fails	BEA has made the decision to terminate the TRAIN (Training Records and Information Network) system, which is a service IEC utilizes. The training platform which BEA has chosen to transition to is a Learning Management System (LMS). IEC will experience an increase in cost, due to the fact that we must maintain the TRAIN system while implementing LMS. The risk is that funding will not be available to support two training platforms during this transition. This would include not having enough personnel to support based on the needs of the LMS.	IEC is informed that the budget request for funding the Training Platform Transition, including requested Full Time Employees (FTE), is denied.	Open	Threat	Accept	Possible	Major	4-High	\$ -	\$ 1,120,000	\$ 11,456,000	0	0	0	Best case: All responsibility goes solely to BEA. Most Likely: Cost of our personnel having to support this new implementation. Worst Case: Cost of our personnel with a 30% markup for having to subcontract this process out.	N/A		
IND005	K.103.08	IEC	Chapple, Debbie	Unknown	Training: Inefficient Personnel Growth	IEC employs various disciplines. There is potential of not being able to adequately fund courses geared towards personnel development and growth in individual career fields. If IEC is unable to adequately fund these programs for personnel, there is potential of losing personnel seeking more professional growth. There is also the risk of having a less efficient work force.	Funding is not adequate to support sending personnel to train and attend developmental courses geared towards their career field.	Open	Threat	Accept	Possible	Serious	3-Moderate	\$ 100,000	\$ 600,000	\$ 3,000,000	0	0	0	Best Case: Lose 1 person Most Likely: Lose 12 people Worst Case: Lose 30 people at approximately \$100k/person	N/A		This risk was part of the original proposal (see Mod P00006) and had been missed on being incorporated into the master file.
IND009	Project Wide	IEC	Cooper, Brandy	Walker, Schyler	Global: Approval of Business Systems	IEC has multiple systems utilized that need to be approved by DOE. In some cases, approval may not be granted, resulting in corrective actions that could be costly. Additionally, there will be reviews/audits done that could require additional steps or potential re-work of associated procedures. This could lead to purchasing different systems, acquiring subcontractors to help complete re-work, and potentially going through additional reviews and audits.	Any utilized business system does not meet required standards and gain approval.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 80,000	\$ 100,000	\$ 120,000	0	0	0	Impact based on expected software or subcontract costs related to corrective actions.			This risk was part of the original proposal (see Mod P00006) and had been missed on being incorporated into the master file.
IND302	Project Wide	IEC	Roberts, Benjamin	Unknown	Indirect Services: Loss of DOE Critical Software Licensure	DOE provides critical software licenses for IEC, which supports all work at the INL. If they cease to provide these licenses, IEC will have to procure licenses to continue supporting INL. Procuring critical software licenses will accrue additional costs.	Loss of DOE provided critical software licensure.	Open	Threat	Accept	Almost Certain	Moderate	4-High	\$ 675,000	\$ 337,500	\$ 270,000	0	0	0	Costs are based on fees associated with IEC procuring critical software licenses. Best Case: Reducing the number of users to 60 and IEC does not have to buy Cobra licenses. Most Likely: IEC has to buy P6 licenses. \$4500 (P6 license cost) * 75 users = \$337,500 Worst Case: This number is double most likely, assuming that IEC has to buy Cobra licenses as well and they are similar cost to P6 licensure.			
INDRP001	K.1.03.03.08	IEC	Chapple, Debbie	Unknown	Radiation Protection: Spare Rad Instrument Disposal	IEC has several cargo containers at the projects that are filled with old radiological instruments. The instruments are currently being kept for use as spare parts to keep instruments running until older units can be replaced. Once old instruments are replaced, the spare instruments must undergo a proper disposal process. Once the stored instruments can no longer be used for spare parts, they become waste and require a hazardous disposal path due to lead and other metals used. If the project is directed to dispose of the spare instruments under strict disposal timelines, the amount of spares to be disposed of could potentially raise a need to become its own identified work scope with specific allocated resources to complete the work.	Spares are determined to be disposed under a strict timeline.	Open	Threat	Accept	Almost Certain	Critical	5-Very High	\$ 1,500,000	\$ 3,000,000	\$ 5,000,000	0	0	0	Best Case: they only require a dispose of current inventory of spares Most Likely: require disposal of current spares and spares that come from current projects such as ARP Worst Case: require disposal of current spares and spares that come from current projects such as ARP. Additionally there would be demo on some buildings as there would be removal in some locations.	N/A		
INTECO11R2	D.3.03.32.02	IEC	Baisch, Kasey	Renevitz, Joe	INTEC BOP: Transformer Failure Causes Unscheduled Electrical Outage	A transformer failure can cause an unscheduled power outage with long repair times. Transformers can require long procurement times depending on the size needed. All production could halt within the affected facility due to a lack of electrical power.	Electrical equipment (transformer) failure due to prolonged exposure to harsh outdoor weather conditions without testing or maintenance.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 250,000	\$ 545,600	\$ 2,578,000	48	96	160	Best Case- transformer fails on double end fed piece of equipment so cost to replace is the materials only of 250k. Most Likely - transformer failure which causes partial building outage (CPP-659) for duration of the time it takes to get a new transformer. MAT'L COST 200K LABOR COST: 96 days X 12 hr./day X 3FTE X \$100/hr. Worst Case: Transformer failure includes need to replace feeder breakers also and results in loss of 1/2 of CPP-666 for duration of the time it takes to get transformer, breakers, and time to install. MAT'L COST: 750K, LABOR COST: 160 days X 12 hr./day X 9 FTE X \$100/hr. DISPLACED WORKER COST: 100K	N/A		
INTECO41R2	D.3.03.38.09	IEC	Klukis, Venita	Renevitz, Joe	INTEC Distributed Control System Upgrades: DCS electronics failure	The DCS electronic systems need to be updated to more readily available products in the event of a system failure. Parts for the currently operated system are not readily available as it is an outdated system.	Outdated DCS equipment fails upon use.	Open	Threat	Mitigate	Possible	Critical	4-High	\$ 250,000	\$ 300,000	\$ 500,000	90	150	270	In house design delay can be an issue, it will take six weeks to source the job to outside engineering company just to be awarded, plus designing period, that would cost three to six months delay on the job.Plus extra cost to the outside company to complete the design. The supply chain could also cause issues depending on availability. So best case is \$250K at 90 days.	Work with engineering to prioritize high risk equipment and replace them first.		
INTECO59R2	D.3.03.39.02	IEC	Kelly, Patrick	Renevitz, Joe	Emergency Communication System Alt #1: ECS wireless system failure.	Existing ECS wireless system failure causes the work to be stopped-and impacts the accomplishment of the fire panel conversion process.	Failure of the INTEC ECS which stops the fire panel conversion work progress and testing.	Open	Threat	Accept	Unlikely	Serious	2-Low	\$ 30,000	\$ 180,000	\$ 270,000	30	60	90	Best - 30d x 10 h/d x 1fte x 100/hr = 30,000 Lik - 60d x10h/d x3fte x 100/hr = 180,000 Wo - 90d x 10h/d x 3fte x 100/hr +270,000	Have an ECS recovery plan in place to repair the system.		
INTECO60R2	D.3.03.39.02	IEC	Kelly, Patrick	Renevitz, Joe	Emergency Communication System Alt #1: BEA reprogramming was not completed in a timely manner.	Required BEA reprogramming at the Central Fire Station for each ECS panel conversion is not completed in a timely manner.	BEA does not reprogram and work to test system is suspended.	Open	Threat	Accept	Unlikely	Moderate	2-Low	\$ 14,000	\$ 90,000	\$ 120,000	14	30	60	Best - 14d x 10 h/d x 1fte x 100/hr = 14,000 Lik - 30d x10h/d x3fte x 100/hr = 90,000 Wo - 60d x 10h/d x 2fte x 100/hr +120,000	Have early communications with BEA and have needed necessary documentation in place to allow coordination between IEC and BEA for needed programming.		



TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated : 4.29.25

Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Cost Impacts			Schedule Impacts (in days)			Basis of Impacts	Mitigation Actions	Risk Corrective Actions	Notes
														Best Case	Most Likely	Worst Case	Best Case	Most Likely	Worst Case				
INTEC156	D.3.03.30.13	IEC	Wilcox, Christopher	Renewitz, Joe	Deep Well Pump Control Panel: Legacy Fiber Compatibility	Current fiber optic is old and may not be compatible for system upgrades. The entire fiber optic cable may need to be replaced.	During installation process it is found that the current fiber optic I will not be adequate to support the new upgrades.	Open	Threat	Mitigate	Rare	Moderate	1-Low	\$ 82,000	\$ 120,000	\$ 168,000	12	20	28	Purchase new fiber optic \$10,000 Labor to install Days X10 hr./day X 6 FTE X \$100/hr.	On 2/17/25, we had IT come out to INTEC and test the Fiber optic cable on the OOS (CPP-1643) section of the fiber cable to CPP-606 for length and condition. The results were positive, and IT assumes that this test would compare to the condition of the other fiber line in the system for the project. We compared the findings and requirements from the vendors proposed equipment requirements to verify adequate condition of our current fiber.		
INTEC162	D.3.03.30.13	IEC	Wilcox, Christopher	Renewitz, Joe	Deep Well Pump Control Panel: Specialized Products Availability for Project Needs	Due to specialized products needed for this project, the lead time could be longer than expected.	Vendor fabrication and bench test CPP-606 control panel, CPP-1642 & 1643 control panel installs.	Open	Threat	Accept	Unlikely	Moderate	2-Low	\$ 150,000	\$ 300,000	\$ 960,000	5	10	32	Best Case: 5 days X10 hrs./day X 2 crews (20 FTEs) X \$75/hr. = \$150,000 Most Likely Case: 10 days X10 hrs./day X 2 crews (20 FTEs) X \$75/hr. = \$300,000 Worst Case: 32 days X10 hrs./day X 2 crews (20 FTEs) X \$75/hr. = \$960,000	N/A		
INTEC211	D.3.03.32.01 D.3.03.32.02	IEC	Balisch, Kasey	Renewitz, Joe	BOP PM: Failure to Follow Process Steps and/or Expectations Results of Major Noncompliance Issue	In the event that the project experiences a major noncompliance issue, it could result in additional resources required, changes to work control, additional training required, etc.	A Major Noncompliance event occurs.	Open	Threat	Accept	Likely	Major	4-High	\$ 250,000	\$ 500,000	\$ 1,000,000	48	96	192	Cost of subcontract mentors, cost to refurbish program, cost for retraining.	N/A	Apply additional outside oversight to ensure we are following process steps and expectations	
INTEC212	D.3.03.30.04	IEC	Balisch, Kasey	Renewitz, Joe	BOP CM: Critical Legacy Equipment Failure	INTEC utilizes many pieces of legacy equipment, such as: cranes, overhead doors, transformers, etc. Legacy equipment has the potential of failing due to the nature of its age. Unforeseen equipment failure can cause unscheduled outages to repair and turn the equipment back over to operations.	Equipment fails.	Realized	Threat	Accept	Almost Certain	Critical	5-Very High	\$ 500,000	\$ 1,000,000	\$ 2,000,000	96	192	288	616 compressor replacement actuals, potable water wiring actuals, 1647 piping actuals, cathodic protection replacement actuals.	N/A		
INTEC215	D.3.03.30.13	IEC	Wilcox, Christopher	Renewitz, Joe	Deep Well Pump Control Panel: Electrical Upgrades Requirements	New panels with a higher rating would require power upgrades to be installed such as new breakers or panels.	Subcontractor design drawing reviews.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 40,000	\$ 75,000	\$ 110,000	8	16	24	Purchase and install electrical equipment = materials \$1000 Labor: days X 10 hr. X 6 FTE X \$75/hr.	N/A		
INTEC216	D.3.03.30.13	IEC	Wilcox, Christopher	Renewitz, Joe	Deep Well Pump Control Panel: Engineering Resource Availability During Design	During the design phase of the project, engineering resources may be too low to support this project, causing a schedule delay and additional costs.	Design engineering have low resources.	Open	Threat	Mitigate	Rare	Minor	1-Low	\$ 20,000	\$ 40,000	\$ 60,000	8	16	24	Procure subcontractor services to provide design details for project. Schedule delay to procure their services and cost above what we would pay our own engineers.	Procure subcontractor services to provide design		
INTEC302	D.3.03.39.02	IEC	Kelly, Patrick	Renewitz, Joe	Emergency Communication System Alt #1: Design from Subcontractor Inadequacies	Initial Design from subcontractor does not conform with field conditions requiring additional work on drawings to be able to move forward with the work.	Drawing inadequacies discovered during work control development.	Realized	Threat	Accept	Almost Certain	Moderate	4-High	\$ 175,000	\$ 230,000	\$ 350,000	96	128	208		Project Manager will work ahead of the work control to try to remain on top of the issue.		
INTEC306	D.3.03.36.02	IEC	Klukis, Venita	Renewitz, Joe	ITWU Vulnerabilities: Waste Boxes Requires Additional Processing Before Disposal	Waste boxes do not meet specifications for disposal requiring them to be processed at an offsite facility or to be shipped to a different location, creating higher disposal fees.	Waste container does not meet shipping requirements.	Realized	Threat	Mitigate	Rare	Minor	1-Low	\$ 70,000	\$ 140,000	\$ 280,000	8	8	8	Vulnerabilities previously paid a company about \$60,000 per box for disposal. To account for inflation the costs will be set at \$70,000 per box. Best case is 1 box. Most likely is 2 boxes. Worst case is 4 boxes. Time is set at two weeks to coordinate sending the boxes to an off-site facility to be processed.	Crews have been informed of shipping requirements and to do what they can to meet those specifications.		
INTEC307	D.3.03.38.09	IEC	Klukis, Venita	Renewitz, Joe	DCS Upgrades: Hardware procurement issues	Hardware could have long lead times causing schedule impacts for implementation. Hardware could also be unavailable or very difficult to locate causing budget and schedule impacts.	Procurement of hardware.	Open	Threat	Accept	Possible	Major	4-High	\$ 1,000	\$ 2,000	\$ 3,000	48	96	182	3, 6, and 12 months delay with minimal cost impacts since project would shut down until materials arrived.	N/A		
INTEC308	D.3.03.38.09	IEC	Klukis, Venita	Renewitz, Joe	DCS Upgrades: Engineering resources become limited during project execution	With limited personnel the DCS engineering group could experience a reduction in personnel due to attrition or health issues. This would create longer lead times to complete items.	DCS engineer leaves the department or is placed on STD/LTD.	Open	Threat	Accept	Possible	Major	4-High	\$ 1,000	\$ 2,000	\$ 2,000	24	96	96	Best case: 6 weeks for the typical amount of time someone is on STD. Cost impacts are minimal since the project will be on hold until personnel return. Most Likely: 6 months for someone who needs the full time on STD. Cost impacts are minimal since the project will be on hold until personnel return. Worst case: 6 months to hire and train a replacement. Cost impacts are minimal since the project will be on hold until personnel have been trained.	N/A		
INTEC309	D.3.03.38.09	IEC	Klukis, Venita	Renewitz, Joe	DCS Upgrades: Current system design has unknown aspects	The current system does not have drawings or documentation which could cause the project to encounter unknown aspects or conditions during investigation, installation, and testing.	Unknown condition encountered at any time during project.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 5,000	\$ 10,000	\$ 20,000	8	16	32	Best case: two weeks to investigate issues and purchase additional software or hardware to address. Most Likely: 1 month Worst case: 2 months	N/A		
INTEC310	D.3.03.38.09	IEC	Klukis, Venita	Renewitz, Joe	DCS Upgrades: Testing after installation is not successful	After the installation of the software and hardware, during testing, it is discovered the system is not operational as intended.	Testing of system does not end in viable equipment.	Open	Threat	Accept	Unlikely	Minor	2-Low	\$ 1,000	\$ 50,000	\$ 300,000	8	16	182	Best Case: Possible bugs that need to be addressed causing the schedule to move 2 weeks and minimal costs incurred. Most Likely: Engineering requires 1 month to address issues along with purchasing new equipment. Worst Case: The new system is not viable causing an entire redesign.			
INTEC311	D.3.03.38.09	IEC	Klukis, Venita	Renewitz, Joe	DCS Upgrades: Incompatibilities with other field devices	During installation of the new software and hardware it is discovered that the current field equipment (IO, VFDs, etc.) are not compatible and do not function properly.	Field equipment does not function after installation of new hardware and software.	Open	Threat	Accept	Possible	Serious	3-Moderate	\$ 5,000	\$ 50,000	\$ 175,000	16	48	96	Best case: engineering requires 1 month to purchase software or hardware to create a bridge to equipment Most Likely: three months with software and hardware purchases Worst case: New VFDs, IO, etc will need to be purchased that is compatible with system requiring 6 months and extensive costs.			
INTEC312	D.3.03.38.09	IEC	Klukis, Venita	Renewitz, Joe	DCS Upgrades: Software development could require more time than anticipated	Software development for an aged system could prove to be more complicated than originally planned leading to additional man hours and schedule changes that will delay the project.	Software development does not finish within scheduled period.	Open	Threat	Accept	Likely	Minor	2-Low	\$ 8,000	\$ 16,000	\$ 32,000	8	16	32	Design engineering labor hours will be the only impact so their time is assumed to be \$100 per hour. Schedule impacts are estimates only and could vary.			
INTEC313	D.3.03.3C.02	IEC	Klukis, Venita	Renewitz, Joe	CPP-603 PaR Refurbishment: Lost or damaged equipment during shipping.	Lost or damaged equipment during shipping.	Shipping boxes.	Open	Threat	Accept	Rare	Critical	3-Moderate	\$ 330,000	\$ 660,000	\$ 1,000,000	366	366	366	"Worst case is based off of replacing the entire assembly of the PaR. Most likely and best case are broken down by 1/3 of ML. Long lead times from PaR. "Note these lead times may extend out past the Task Order time constraints."			
INTEC314	D.3.03.36.02	IEC	Klukis, Venita	Renewitz, Joe	ITWU Vulnerabilities: Damage to the Crane Impacts schedule	Due to the vital nature of the crane to this project scope any unforeseen damage to the crane could significantly impact cost schedule.	Damage to crane	Realized	Threat	Accept	Almost Certain	Major	5-Very High	\$ 50,000	\$ 100,000	\$ 250,000	48	96	366	Previous damage to crane took approximately 2 years to get back into operation. Costs are based on escalation/inflation possibilities of the work being pushed. "Note these lead times may extend out past the Task Order time constraints."			
INTEC317	D.3.03.36.02	IEC	Klukis, Venita	Renewitz, Joe	ITWU Vulnerabilities: Filter door maintenance cannot be performed	The filter bank maintenance cannot be performed because of accessibility, AIARA, or other equipment issues forcing engineering to redesign the door closure system for faster, simpler future maintenance	The filter bank maintenance cannot be performed because of accessibility, ALARA, or other equipment issues	Realize	Threat	Accept	Rare	Serious	2-Low	\$ 15,000	\$ 30,000	\$ 45,000	32	64	96	Best case: design, build, and install of 12 door closures \$15K as best estimate of the cost of materials Most Likely: design, build, and install of 12 door closures and 6 new doors \$30K Worst case: design, build, and install of 12 door closures and 12 new doors \$45K			
INTEC318	D.3.04.31.06	IEC	Klukis, Venita	Renewitz, Joe	Reboiler Replacement: Material delivery to subcontractor delays delivery of reboiler	Material needed to fabricate the reboiler is delayed causing the delivery of the reboiler to INTEC to be delayed.	Material delivery extends past current lead time of 6 months	Open	Threat	Accept	Possible	Serious	3-Moderate	\$ 1,000	\$ 200,000	\$ 1,500,000	16	48	64	Failing to the vendor the best case scenario is a one month delay for all the materials to be delivered. This would have minimal impact. The most likely would be a three month delay which would put the project at severe risk of not meeting the delivery deadline costing more in overtime from the vendor. A four month delay would cause the project schedule to not be recoverable missing the P8I date.			
INTEC320	D.3.03.37.02	IEC	Kelly, Patrick	Renewitz, Joe	Walking Working Surfaces: Engineering Redesign Required	Subcontractor drawings for walking working surfaces inadequate and require IEC engineering redesign	Existing drawings from subcontractor do not meet Osha requirements	Realized	Threat	Accept	Almost Certain	Serious	5-Very High	\$ -	\$ -	\$ -	30	60	90	Schedule Impacts Only			
INTEC321	D.3.03.37.02	IEC	Kelly, Patrick	Renewitz, Joe	Walking Working Surfaces: Inclement Weather	If temperatures do not get above freezing, painting will not be possible	Temperatures not getting above freezing	Open	Threat	Accept	Likely	Major	4-High	\$ -	\$ -	\$ -	60	90	120	Schedule impacts only			
INTEC322	D.3.04.31.07	IEC	Klukis, Venita	Renewitz, Joe	Reboiler Replacement: Expanding Tubes Fabrication Abnormalities	Expanding tubes may result in fabrication abnormalities. Given tubes and mating surfaces are not similar materials no repair options are available which results in having to re-accomplish work. Reboiler would need to be disassembled before restarting rework.	Final stage of fabrication when internal tubes are expanded.	Open	Threat	Accept	Rare	Minor	1-Low	\$ 15,000	\$ 25,000	\$ 55,000	8	16	64	Work is being performed by Premier and impacts are inferred from their description of the potential fabrication risk. Formal quoting would occur if risk were to be realized.	Premier will be fabricating a sample for them to prototype the tube expansions to ensure they're approach is achievable prior to performing work on the reboiler.		
INTEC323	D.03.04.31.06	IEC	Klukis, Venita	Renewitz, Joe	Engineering services delay reboiler delivery	Premier is using a subcontractor to perform the engineering services of the project. Updates to the drawings are delays due to lack of priority causing an increased delivery date delay. A delay in the schedule could cause the P8I to be missed.	Any time a change to the drawings needs to be made to support fabrication.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	\$ 1,000	\$ 800,000	\$ 800,000	16	32	32	The contractor has increasing missed deadlines that keep causing schedule delays. If the schedule delays cause the delivery of the reboiler to push into the next task order the P8I would be missed causing the company to miss out on those funds.	IEC has requested the vendor to require their subcontractor to be onsite during the fabrication of the reboiler.	TFREBOIL354	BGS is the engineering firm that is causing the scheduling delays.
IT004	D.6.02.35	IEC	Anderson, Jade	O'Malley, Russell	Information Technology: Subcontractor Availability	Subcontractor availability (wheeler electric, Leverage) preference and availability.	Preferred subcontractor is unavailable.	Open	Threat	Mitigate	Rare	Serious	2-Low	\$ 216,000	\$ 576,000	\$ 1,296,000	24	64	144	Best Case: 24 days x 10 hr./day x 4 FTEs x \$225/hr.= \$216,000 Most Likely: 64 days x 10 hr./day x 4 FTEs x \$225/hr.= \$576,000 Worst Case: 144 days x 10 hr./day x 4 FTEs x \$225/hr.= \$1,296,000	Develop a request for back-up subcontractor.	N/A	
IT005	D.6.02.34, D.6.02.36, D.6.03.33	IEC	Anderson, Jade	O'Malley, Russell	Information Technology: Unforeseen Structural Issues During Operations	Unforeseen structural issues would require involving our facilities and the schedule is at risk of being pushed to their timeline. The expectation is minimal structural issues, a sizeable structural concern will cause delays, possible engineering contractors, structural contractors, electricians, and increased costs.	A sizeable structural concern is discovered.	Open	Threat	Accept	Unlikely	Critical	3-Moderate	\$ 320,000	\$ 960,000	\$ 1,920,000	40	120	240	Best Case: 40 days x 10 hrs/day x 4 FTEs x \$200/hr = \$320,000 Most Likely: 120 days x 10 hrs/day x 4 FTEs x \$200/hr = \$960,000 Worst Case: 240 days x 10 hrs/day x 4 FTEs x \$200/hr = \$1,920,000	N/A		
IT012	D.6.03.32.01	IEC	Anderson, Jade	O'Malley, Russell	Information Technology: Sourcing Hardware	Due to supporting legacy and aging systems needed for on-going operations, items needed may be discontinued by the manufacturer. Cannot locate items that are of limited supply.	Cannot source Hardware.	Open	Threat	Accept	Possible	Serious	3-Moderate	\$ 216,000	\$ 576,000	\$ 1,296,000	24	64	144	Best Case: 24 days x 10 hr./day x 4 FTEs x \$225/hr.= \$216,000 Most Likely: 64 days x 10 hr./day x 4 FTEs x \$225/hr.= \$576,000 Worst Case: 144 days x 10 hr./day x 4 FTEs x \$225/hr.= \$1,296,000	N/A	N/A	
IT013	D.6.02.38,39,41 D.6.03.32 D.6.03.33 D.6.02.34 D.6.02.35.01	IEC	Anderson, Jade	O'Malley, Russell	Information Technology: Unforeseen Technical Issues	Unforeseen technical issues or major failures can impact the planned schedule, e.g., ransomware.	Technical issues or major failures occur.	Open	Threat	Accept	Possible	Critical	4-High	\$ 288,000	\$ 864,000	\$ 1,728,000	36	108	216	Best Case: 36days x 10 hr./day x 4 FTEs x \$200/hr.= \$288,000 Most Likely: 108 days x 10 hr./day x 4 FTEs x \$200/hr.= \$864,000 Worst Case: 216days x 10 hr./day x 4 FTEs x \$200/hr.= \$1,728,000	N/A	N/A	



TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated : 4.29.25

Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Cost Impacts			Schedule Impacts (in days)			Basis of Impacts	Mitigation Actions	Risk Corrective Actions	Notes
														Best Case	Most Likely	Worst Case	Best Case	Most Likely	Worst Case				
IT307	K.1.02.04	IEC	Anderson, Jade	O'Malley, Russell	<u>Information Technology</u> : New VMWare pricing structure not budgeted in FY25.	VMWare is changing to a per-CPU-Core pricing model. Currently, we are paying \$80K for a 3-year license, which expires this year. If we do nothing, the new license will be \$500K yearly. IT is currently looking at changes and could possibly get this cost down to ~\$340K.	Expiration of the current VMWare license.	Emerging	Threat	Mitigate	Almost Certain	Moderate	4-High	\$ 80,000	\$ 340,000	\$ 500,000	0	0	0	VMWare is changing to a per-CPU-Core pricing model. Currently, we are paying \$80K for a 3-year license, which expires this year. If we do nothing, the new license will be \$500K yearly.	Changing our Virtual Machine Infrastructure. Exploring other VM products.		
IT309	D.2.05.30.20	IEC	Anderson, Jade	O'Malley, Russell	<u>Information Technology</u> : End of Life Software	The ICS at AMWTP runs on end-of-life software called FactoryLink that is no longer available. The company that it was purchased from no longer exists and the company that purchased it offers a completely different system now. If the software reaches a point where it can no longer be fixed then IEC will need to purchase a new system.	A software defect is found that halts operations, which the 3rd party support company is unable to resolve.	Emerging	Threat	Mitigate	Rare	Critical	3-Moderate	\$ 1,000,000	\$ 2,000,000	\$ 3,000,000	120	360	720	The last estimate for the cost of the software was \$450K plus the installation and customization costs. Replacing then customizing will be time consuming and labor intensive.	IEC pays for a support contract from a 3rd party if the software can be fixed. This contract is a limited support contract that only covers software defects and licensing.		
IT310	D.2.05.30.20	IEC	Anderson, Jade	O'Malley, Russell	<u>Information Technology</u> : Waste Tracking System Failure	The Waste Tracking System (WTS) is an Oracle forms 6i application. Oracle forms 6i considered an end-of-life system and is no longer compatible with current databases. This means it cannot be patched for cybersecurity purposes. This leaves the forms and database at risk of attack as they are stagnant with no alternative to move forward.	The WTS application is attacked through the vulnerabilities associated with the EOL software.	Emerging	Threat	Accept	Rare	Critical	3-Moderate	\$ 1,500,000	\$ 2,100,000	\$ 3,000,000	96	208	416	Waste Tracking System (WTS) is a legacy application that has been in need of an upgrade for many years. Forms 6i has been end-of-life since 2008 but has been compatible with the Oracle databases up until Oracle 12c, which became end-of-life in 2022. Upgrading the system to a platform that is current and able to be patched for vulnerabilities will cost a large amount of money and take a considerable amount of time.	The WTS application is protected through many network mitigations.		
IT311	K.1.02.04	IEC	Anderson, Jade	O'Malley, Russell	<u>Information Technology</u> : Cyber Vulnerabilities	Cyber Vulnerabilities create an attack vector for hackers to penetrate the network. After penetrating the network, hackers can then steal information, lock the network for ransom, or delete or destroy information.	A hacker is able to penetrate the network.	Open	Threat	Mitigate	Rare	Moderate	1-Low	\$ 1	\$ 500,000	\$ 10,000,000	0	14	180	Cyber vulnerabilities are potential weaknesses in an organization's cybersecurity defenses that can be exploited by hackers to gain unauthorized access to sensitive information and systems. When these vulnerabilities are not properly addressed, they can lead to a wide range of negative consequences, including data theft, ransomware attacks, and even complete network destruction. Best case: attack is thwarted, no impact Most likely case: Attacker is able to launch an attack resulting in data theft or ransomware. Worst Case: Attacker is a Cyber terrorist, resulting in destruction of the network.	There are many strategies. The first strategy is to patch the vulnerable network item. The second is to employ a configuration that removes the attack vector. The third is to place the item behind firewalls to protect them. These strategies are employed daily by the IT staff.		
IT312	K.1.02.04	IEC	Anderson, Jade	O'Malley, Russell	Aging Wireless Hardware at AMWTP Poses Risk to Operations	The wireless infrastructure (Wi-Fi) at AMWTP used for waste movement, characterization and shipping activities is aging. We no longer have like-for-like spare parts on hand to replace and repair the wireless if the hardware fails.	Aging hardware fails and does not come back up.	Emerging	Threat	Mitigate	Likely	Moderate	3-Moderate	\$ 18,000	\$ 293,000	\$ 266,000	8	24	24	This justification of impacts DOES NOT account for negative impacts to mission due to operations being impeded or stopped. Worst Case: Both wireless controllers fail at the same time. Two wireless controllers @ \$100K ea. = \$200K 40 Access Points @ \$1.2K ea. = \$48K 4 weeks shipping 2 FTE - IT Network Engineers – 1 week @ \$3K per week = \$6K 2 FTE – Electricians – 2 weeks @ \$3K per week = \$12K Most Likely: One wireless controller goes down. WIFI is at 50% coverage. IT would reconfigure Wi-Fi to areas for operations as needed. Two wireless controllers @ \$100K ea. = \$200K 40 Access Points @ \$1.2K ea. = \$48K 4 weeks shipping 2 FTE - IT Network Engineers – 1 week @ \$3K per week = \$6K 2 FTE – Electricians – 2 weeks @ \$3K per week = \$12K 25 FTE – IT Network Engineer to reconfigure Wi-Fi – 6 weeks @ \$3K per week = \$4500 Best Case – Wi-Fi stays working until it can be replaced. Current plan is to repurpose the SSF Wi-Fi for AMWTP. SSF Wi-Fi is being replaced during Network Refresh project. 2 FTE - IT Network Engineers – 1 week @ \$3K per week = \$6K 2 FTE – Electricians – 2 weeks @ \$3K per week = \$12K	IT is currently upgrading the Wi-Fi at SSF and plans to repurpose the equipment for AMWTP.	None	
IT313	K.1.02.04	IEC	Anderson, Jade	O'Malley, Russell	Disaster at EROB Poses Risk to IEC Data Center	The main IEC Data Center is located in the EROB building. This data center houses the primary servers for the IEC business. This data center also houses the offline "ransomware" backup system. If a disaster hits the EROB building, such as a fire, much of IEC's business function would be shut down or impaired. Data replication to the site does not cover 100% of the data housed in the data center.	A disaster hits the EROB building, such as a fire.	Emerging	Threat	Mitigate	Unlikely	Major	3-Moderate	\$ 306,750	\$ 1,412,000	\$ 7,420,000	11	24	32	This justification of impacts DOES NOT account for negative impacts to mission due to operations being impeded or stopped. Worst Case: All equipment is destroyed and not salvageable. Storage Array = \$1.4M Computing Equipment = \$3M Networking Equipment = \$1M "Ransomware" backup = \$1.3M 4 weeks shipping 6FTE - IT Network Engineers – 4 weeks @ \$3K per week = \$72K Most Likely: Partial loss of equipment, such as the storage array Storage Array = \$1.4M 4 weeks shipping 2 FTE - IT Network Engineers – 2 weeks @ \$3K per week = \$12K Best Case: Network redundancy stays intact, and damaged equipment is ordered and replaced. Equipment = \$300K 3 FTE - IT Network Engineers – 3 days @ \$750 per day = \$6,750	None. BEA is the landlord of EROB.	none	
IT314	K.1.02.04	IEC	Anderson, Jade	O'Malley, Russell	Aging Fiber at the INTEC Campus risks Network Outage	Fiber at the INTEC campus between buildings is 20+ years old. Currently, IT fixes communication issues by finding unused strands of fiber that are still functional. The older the fiber becomes the fewer the strands of fiber available. The eventuality is that the fiber will become unusable and new fiber will need to be pulled or trenched to repair communications.	IT will not be able to find usable strands of fiber and will require new fiber to be pulled or trenched.	Emerging	Threat	Mitigate	Possible	Minor	2-Low	\$ 2,000	\$ 20,000	\$ 200,000	12	16	96	This justification of impacts DOES NOT include impacts to mission due to impeded or stopped operations. Worst case -Multimode trunk damaged that supplies fiber path to multiple buildings with multimode fiber, direct buried. Causing network loss to multiple buildings. Fiber leaving CPP-1631, CPP-659, CPP-698 at highest risk. \$200k materials and labor, 4 to 6 months. Most Likely -SingleMode Fiber in existing conduit degraded or damaged causing network loss to a building or buildings. \$20k materials and labor, 3 to 4 weeks repair time. Best Case -Legacy fiber installation techniques, i.e. mechanical splice. Lifetime short than life of fiber, causes degraded or full network loss to a building or buildings. \$2k materials and labor, and 2 to 3 weeks to repair.	IT fixes communication issues by finding unused strands of fiber that are still functional.	none	
IT315	K.1.02.04	IEC	Anderson, Jade	O'Malley, Russell	Aging Fiber at RWMC Campus Poses Operational Risk	Fiber at the RWMC campus between buildings is 20+ years old. Currently, IT fixes communication issues by finding unused strands of fiber that are still functional. The older the fiber becomes the fewer the strands of fiber available. The eventuality is that the fiber will become unusable and new fiber will need to be pulled or trenched to repair communications. RWMC/AMWTP has a larger amount of older OM1 multimode fiber which is no longer manufactured. As it continues to degrade and gets damaged it requires full fiber runs to be replaced with new single mode fiber. It is also becoming more difficult to run modern network gear as the fiber is out of spec. Switches and fiber optic modules no longer support the slower speeds on this fiber infrastructure.	IT will not be able to find usable strands of fiber and will require new fiber to be pulled or trenched.	Emerging	Threat	Mitigate	Possible	Minor	2-Low	\$ 2,000	\$ 30,000	\$ 200,000	12	16	96	This justification of impacts DOES NOT include impacts to mission due to impeded or stopped operations. Worst case -Multimode trunk damaged that supplies fiber path to multiple buildings with multimode fiber, direct buried. Causing network loss to multiple buildings. Fiber leaving CPP-1631, CPP-659, CPP-698 at highest risk. \$200k materials and labor, 4 to 6 months. Most Likely -SingleMode Fiber in existing conduit degraded or damaged causing network loss to a building or buildings. \$20k materials and labor, 3 to 4 weeks repair time. Best Case -Legacy fiber installation techniques, i.e. mechanical splice. Lifetime short than life of fiber, causes degraded or full network loss to a building or buildings. \$2k materials and labor, and 2 to 3 weeks to repair.	IT fixes communication issues by finding unused strands of fiber that are still functional.	none	
LEG001R2	K.1.01.05	IEC	Coletti, Sean	Unknown	<u>Legal</u> : Miscellaneous Litigation	Potential for an anticipated lawsuit which, would require resources to be allocated for the initial answer and planning of the lawsuit.	New Lawsuit is filed against IEC.	Open	Threat	Accept	Possible	Moderate	2-Low	\$ 25,000	\$ 50,000	\$ 100,000	15	30	60	No Schedule Delay. Costs represent initial responses.			
LEG002R2	K.1.01.05	IEC	Coletti, Sean	Unknown	<u>Legal</u> : General Litigation	Any arising lawsuit against IEC regarding Government contracts, environmental matters, and employment law that would require appropriate resources for litigation.	New Lawsuit is filed against IEC.	Open	Threat	Accept	Possible	Moderate	2-Low	\$ 25,000	\$ 50,000	\$ 100,000	15	30	60	No Schedule Delay. Costs represent initial responses.			
LEG003R2	K.1.01.05	IEC	Coletti, Sean	Unknown	<u>Legal</u> : General Labor and Arbitration	The possibility of diverging resources or obtaining outside counsel to assist with unforeseen arbitrations involving General Employment and Labor Relations matters (i.e., pensions, employee health, and welfare plans).	A grievance is filed requesting for arbitration.	Open	Threat	Accept	Possible	Moderate	2-Low	\$ 25,000	\$ 50,000	\$ 75,000	15	30	60	Each arbitration is estimated to cost approximately \$25K. The most likely occurrence to happen under the IEC contract is roughly two.			
NICDF020	D.4.06.37.05	IEC	Reese, Craig	N/A	<u>New ICDF Cell Definition</u> : Excavation Uncovers Unanticipated Materials	While doing excavation there is a chance of unforeseen circumstances (i.e., rad contamination) to occur that can cause a delay in the schedule or a need to assess a new path forward.	Discovering: (Examples) Un-identified utilities, Rad contamination Archaeology artifacts	Open	Threat	Accept	Rare	Minor	1-Low	\$ 30,000	\$ 75,000	\$ 1,200,000	2	5	80	Best Case: 2 days X 10 hr./day X 20 FTEs X \$75/hr. Most Likely Case: 5 days X 10 hr./day X 20 FTEs X \$75/hr. Worst Case: 80 days X 10 hr./day X 20 FTEs X \$75/hr.	N/A	N/A	
NICDF027	D.4.06.39.01	IEC	Reese, Craig	Almahie, Amin	<u>PM Support - ICDF</u> : Industrial Incident Resulting in Shutdown	An industrial incident resulting in serious personnel injury may cause an extended shutdown to resolve conduct of operations issues.	An unanticipated accident resulting in injury or near miss.	Open	Threat	Accept	Rare	Minor	1-Low	\$ 30,000	\$ 75,000	\$ 1,440,000	2	5	96	Best Case: 2 days X 10 hr./day X 20 FTEs X \$75/hr. Most Likely Case: 5 days X 10 hr./day X 20 FTEs X \$75/hr. Worst Case: 96 days X 10 hr./day X 20 FTEs X \$75/hr.	N/A	N/A	
NICDF030R2	D.4.06.37.05	IEC	Reese, Craig	Almahie, Amin	<u>New ICDF Cell</u> : Overtime Required	To maintain project schedule, overtime is required to maintain or recover project schedule.	Technical or installation issues cause schedule delays require overtime recover or maintain project schedule.	Open	Threat	Accept	Possible	Moderate	2-Low	\$ 144,000	\$ 288,000	\$ 432,000	16	32	48	Best Case: 16 days X 1 hr./day X 120 FTEs X \$75/hr. Most Likely Case: 32 days X 1 hr./day X 120 FTEs X \$75/hr. Worst Case: 48 days X 1 hr./day X 120 FTEs X \$75/hr.	N/A	N/A	



TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated : 4.29.25

Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Cost Impacts			Schedule Impacts (in days)			Basis of Impacts	Mitigation Actions	Risk Corrective Actions	Notes
														Best Case	Most Likely	Worst Case	Best Case	Most Likely	Worst Case				
NICDF033	D.4.06.37.05	IEC	Reese, Craig	Almahie, Amin	<u>PM Support - ICDP</u> : Weather Delays	Cold/wet weather in the spring and fall prevent construction of the cell and evaporation ponds.	Spring and fall weather prevent construction work at the site.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 75,000	\$ 225,000	\$ 675,000	5	15	45	Best Case: 5 days X 10 hr./day X 20 FTEs X \$75/hr. Most Likely Case: 15 days X 10 hr./day X 20 FTEs X \$75/hr. Worst Case: 45 days X 10 hr./day X 20 FTEs X \$75/hr.	N/A	N/A	
NICDF037a	D.4.06.30	IEC	Reese, Craig	Almahie, Amin	<u>New ICDP Cell</u> : BEA Support Services Do Not Meet ICDP Scheduled Need Dates	IEC relies on BEA for support services on Milestones, regulatory commitments, and scope completion. If the work from BEA is delayed, or does not meet the requirements, it can cause a project schedule impact.	BEA power services do not provide power in a timely manner.	Open	Threat	Shared	Unlikely	Minor	2-Low	\$ 60,000	\$ 240,000	\$ 2,640,000	4	16	176	Best Case: 4 days X 10 hrs./day X 20 FTEs X \$75/hr. Most Likely Case: 16 days X 10 hrs./day X 20 FTEs X \$75/hr. Worst Case: 176 days X 10 hrs./day X 20 FTEs X \$75/hr.	Propose Shared to DOE	N/A	
NICDF306	D.4.06.4L01	IEC	Reese, Craig	Almahie, Amin	Geosynthetics Usage	During installation, efficiencies are found that will result in using less of the geosynthetics to complete the scope due than originally anticipated. If this opportunity were to materialize the project may result in a cost savings on no longer needing to purchase additional geosynthetics.	The subcontractor runs out of geosynthetics before the scope is complete.	Open	Opportunity	Enhance	Possible	Serious	3-Moderate	\$ (1,500,000)	\$ (1,000,000)	\$ -	-24	-16	0	Estimates are based off SME judgement based off current geosynthetics prices and estimated production rate.	Track usage on the geosynthetics procured against what is being used during installation.	ICDF10030	
NICDF312	D.4.06	IEC	Reese, Craig	Almahie, Amin	Delivery of Geosynthetics	Delay of delivery of Geosynthetics from vendors	Delivery of the geosynthetics is later than subcontractors needs	Open	Threat	Accept	Possible	Minor	2-Low	\$ 50,000	\$ 100,000	\$ 200,000	4	8	12	Estimates are based on SME judgement. Risk costs are associated with number of days subcontractor would be on standby.	N/A	ICDF10057	
NICDF315	D.4.06	IEC	Reese, Craig	Almahie, Amin	Utilities Tie-in to INTEC	Utilities tie-in to INTEC are delayed by INTEC. Raw water and Fire water will be tied into INTEC. Due to unforeseen actions at INTEC, Western is not allowed to tie-in to these systems and causes delays.	Utilities tie-in delayed due to INTEC	Open	Threat	Accept	Possible	Minor	2-Low	\$ 10,000	\$ 50,000	\$ 100,000	4	8	12	Estimates are based on SME judgement. These costs are based on subcontractor standby rates.	N/A	Project 1 ICDF10009	
NICDF318	D.4.06	IEC	Reese, Craig	Almahie, Amin	Geosynthetics Damage during storage	All geosynthetics material for the project will be procured at one time. Some of the material may be stored for in excess of 2-yr's. If material is damaged, this will require additional material to be procured.	Geosynthetics material is damaged during storage.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 100,000	\$ 200,000	\$ 300,000	4	8	12	Estimates are based on SME judgement. Costs are based on replacement value of 10%, 20%, and 30% of material costs (this would mainly be GCL).	N/A	ICDF10024	
NICDF320	D.4.06	IEC	Reese, Craig	Almahie, Amin	Excavation of the utility trench inside the ICDP may encounter contaminated material	During installation of the utilities into Cells 1 & 2, excavated material may be contaminated	Contaminated material is identified	Open	Threat	Accept	Possible	Minor	2-Low	\$ 10,000	\$ 50,000	\$ 100,000	1	5	10	Estimate is based on SME experience with decontamination of equipment	N/A	N/A	
NICDF321	D.4.06	IEC	Reese, Craig	Almahie, Amin	Communications duct bank intersection with other utilities in the old ICDP footprint	During excavation of communication duct bank, other utilities not identified on drawings may be encountered. This may require re-routing or other design requirements.	Other utilities are identified within the design location of duct bank	Open	Threat	Accept	Possible	Minor	2-Low	\$ 10,000	\$ 50,000	\$ 100,000	1	5	10	Estimate is based on SME experience with re-routing duct banks	N/A	N/A	
NICDF322	D.4.06	IEC	Reese, Craig	Almahie, Amin	Encountering basalt during excavation activities for the utility trench	While excavating utility trench, basalt may be encountered and required to be removed to meet design inverts of pipe.	Basalt is encountered and needs to be removed to meet leachate inverts.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 50,000	\$ 75,000	\$ 100,000	1	5	10	Estimate is based on SME experience with removal of basalt	N/A	N/A	
RHTRU001R2	D.2.04.30.14	IEC	Troeschler, Pat	Mitchell, Jason	<u>RH-TRU Waste Disposition</u> : Achieving FY24/25 Milestones for Processing Lot 11 Containers Due to Critical Failure of Equipment	Achievement of the FY24 of processing 10 Lot 11 containers and the FY25 of processing 10 Lot 11 containers, due to critical failure of equipment, impacts the Idaho Settlement Agreement (ISA) and Delay to site treatment plan scheduled agreement with DEQ to have all the STP waste out of the State of Idaho.	Critical failure of facility support equipment and lack of funding specific to: 1. Procure manipulators 2. Design, procure, and modify FDPA in-cell crane from analog to digital.	Open	Threat	Accept	Unlikely	Moderate	2-Low	\$ 200,000	\$ 300,000	\$ 600,000	16	32	64	Costs are based on fees associated with missed delivery dates. Best Case: 16 days down time x 20 FTEs X \$41.50/hr. X 10hr. = \$132,800 + fee Most Likely: 32 days down time x 20 FTEs X \$41.50/hr. X 10hr. = \$265,600 + fee Worst Case: 64 days down time x 20 FTEs X \$41.50/hr. X 10hr. = \$531,200 + fee	N/A	Actions Include: • The MSM critical spare parts for the Models FX, F, and G is based on current critical spare parts inventory, consumption of critical spares, and lead time to receive replacement parts from the vendor. The system engineer supporting the project tracks and maintains the inventory for the critical MSM and some PaR spare parts currently installed in the CPP-666 FDP and CPP659 NWCF hot cells. A new PaR tube assembly was procured and installed in the CPP-666 Hot cell. • Monthly and annual PM's are performed on the PaR's in both CPP-659 and CPP-666. • Monthly and annual PM's are performed on the in cell and facility cranes for both CPP-659 and CPP-666. There are spare electrical components (i.e., circuit boards, fuses, and relays) for the in cell and facility cranes. • Semi-annual, Annual, and 5-year PM's are performed on the elevator in both facilities. • A complete CPP-659 PaR entire assembly has been procured and has been received. However, these steps do not entirely mitigate the equipment failure risk and the risk is DOE owned since they plan to provide funding for procurement of manipulators and upgrades to the FDP in cell crane from analog to digital.	
RHTRU002R2	D.2.04.30.14	IEC	Troeschler, Pat	Mitchell, Jason	<u>RH-TRU Waste Disposition</u> : Achieving FY24/25 Milestones for Processing Lot 11 Containers Due to Complex Geometries	Achievement of the FY25 milestone of processing 10 Lot 11 containers, due to inability to treat sodium in waste with complex geometries, impacts the Idaho Settlement Agreement (ISA) and Delay to site treatment plan scheduled agreement with DEQ to have all the STP waste out of the State of Idaho.	Complex geometries containing sodium or waste containing significant quantities (>100g) of NaK are found in repackaging Lot 11 waste.	Open	Threat	Accept	Unlikely	Minor	2-Low	\$ 16,600	\$ 33,200	\$ 66,400	8	16	32	Schedule impact is based off SDS system being down and in need of repair. Best Case: 8 days down time x 5 FTEs X \$41.50/hr. X 10hr. = \$16,600 Most Likely: 16 days down time x 5 FTEs X \$41.50/hr. X 10hr. = \$33,200 Worst Case: 32 days down time x 5 FTEs X \$41.50/hr. X 10hr. = \$66,400	N/A	1. Methods used to size Lot 6 waste components will be used for the Lot 11 waste components. Complex geometries may still result in not being able to complete treatment by water or air methods and would require distillation. The Sodium Distillation System is required to remove sodium from complex geometries. 2. Lot 11 containers chosen for treatment are evaluated for any documentation referencing NaK. A small population of waste components (i.e., Transducers) were found that water treatment was not viable and could only be distilled or sent off site for treatment and disposal. If any waste components that are found or large quantities (> 100g) of NaK that cannot be water treated, then the components will be stored until an operations time slot is available to perform distillation.	
RHTRU003	D.2.04.30.14	IEC	Troeschler, Pat	Mitchell, Jason	<u>RH-TRU Waste Disposition</u> : Processing Lot 11 Containers	Processing lot 11 containers are taking longer than planned due to inaccurate generator information. Causing the use of OT to catch up.	Inaccurate generator information.	Open	Threat	Mitigate	Possible	Minor	2-Low	\$ 24,900	\$ 49,800	\$ 97,600	2	4	8	Best Case: 2 days OT X 20 FTEs X \$41.50/hr. X 10hr. X 1.5 OT = \$24,900 Most Likely: 4days OT X 20 FTEs X \$41.50/hr. X 10hr. X 1.5 OT = \$49,800 Worst Case: 8 days OT X 20 FTEs X \$41.50/hr. X 10hr. X 1.5 OT = \$97,600	Implement overtime to recover schedule slippage and reduce further schedule interruptions.	N/A	
RHTRU301	D.2.04.30.14	IEC	Troeschler, Patrick	Mitchell, Jason	Containers for FY25 PBL	BEA is responsible for all activities required to prepare waste for shipment. Battle Energy Alliance, LLC (BEA) is not able to provide containers to process enough waste to meet the FY25 PBL.	Containers from BEA unavailable.	Realized	Threat	Accept	Possible	Serious	3-Moderate	\$ 300,000	\$ 441,500	\$ 653,750	16	48	96	Cost is based off delays for containers. Best case 1 Month 4 Additional containers. Most Likely 3 months 2 original containers plus 4 additional containers. Worst case 6 months 5 original containers and 4 additional containers.	N/A		N/A
SNF007R2	D.1.02.32.31	IEC	Ellsworth, Carla	Wahnschaffe, Steve	<u>Advanced Test Reactor (ATR) SNF Receipt</u> : CPP-603 Critical Equipment Failure	ATR-Direct: Transfers are delayed because of a malfunctioning CPP-603 PaR manipulator (MAN-GSF-401) or other critical equipment failure.	While operating the CPP-603 PaR manipulator (MAN-GSF-401), certain PaR motions appear to be or are abnormal/malfunctioning. Failure of the manipulators results in schedule delays. • Critical equipment for ATR transfers fails prior to or during operations.	Open	Threat	Accept	Likely	Minor	2-Low	\$ 107,016	\$ 214,032	\$ 535,080	7	14	35	Best Case: 7 days X 12 hr. X 13 FTEs X \$98/hr. Most Likely: 14 days X 12 hr. X 13 FTEs X \$98/hr. Worst Case: 35 days X 12 hr. X 13 FTEs X \$98/hr.	Conduct schedules Preventative Maintenance on all equipment.	Repair PaR or failed equipment. Coordinate with BEA to reschedule ATR Receipts.	
SNF008R2	D.1.02.32.31	IEC	Ellsworth, Carla	Wahnschaffe, Steve	<u>Advanced Test Reactor (ATR) SNF Receipt</u> : Camera Failures Due to High Radiation Fields	ATR-Direct: High rad fields in the cave cause premature failure of the cameras in the CPP-603 fuel handling cave.	Failed remote cameras hinder or prevent normal fuel handling operations in the CPP-603 IFSF cave and fuel storage area.	Open	Threat	Mitigate	Likely	Minor	2-Low	\$ 45,864	\$ 214,032	\$ 428,064	3	14	28	Best Case: 3 days X 12 hr. X 13 FTEs X \$98/hr Most Likely: 14 days X 12 hr. X 13 FTEs X \$98/hr Worst Case: 28 days X 12 hr. X 13 FTEs X \$98/hr	In the majority of instances, alternative cameras can be utilized to allow the continuation of operations. Perform camera replacement analysis.	N/A	
SNF009R2	D.1.02.34.02	IEC	Johnson, Walter	Wahnschaffe, Steve	<u>Peach Bottom Transfers</u> : Changing CPP-749 Security Requirements	CPP-749 Remediation: Project activities are delayed/postponed because of changing CPP-749 security requirements.	Requirements resulting from planned security related vulnerability assessments necessitate the implementation of more restrictive security controls.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 45,864	\$ 214,032	\$ 428,064	3	14	28	Best Case: 3 days X 12 hr. X 13 FTEs X \$98/hr Most Likely: 14 days X 12 hr. X 13 FTEs X \$98/hr Worst Case: 28 days X 12 hr. X 13 FTEs X \$98/hr Impacts based on 13 FTEs working 12 hr. shifts. Best Case: 4 days * 13 FTEs * 12hr. * \$98/hr. Most Likely: 14 days * 13 FTEs * 12hr. * \$98/hr. Worst Case: 28 days * 13 FTEs * 12hr. * \$98/hr.	N/A	Work with DOE/BEA to ensure project activities comply with security plan.	
SNF010R2	D.1.02.34.02	IEC	Johnson, Walter	Wahnschaffe, Steve	<u>Peach Bottom Transfers</u> : Inadequate Shielding Results in Exorbitant Radiation Level	CPP-749 Remediation: Interim Storage Area (ISA)-4 shielding is determined to be inadequate, resulting in radiation levels higher than those allowed for extended work in the 1st Generation Vault area.	Radiation Technician surveys of the 1st Generation Vault area indicate higher than allowable radiation levels.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 107,016	\$ 214,032	\$ 535,080	7	14	35	Best Case: 7 days X 12 hr. X 13 FTEs X \$98/hr. Most Likely: 14 days X 12 hr. X 13 FTEs X \$98/hr. Worst Case: 35 days X 12 hr. X 13 FTEs X \$98/hr. Impacts based on 13 FTEs working 12 hr. shifts. Best Case: 13 FTEs * 7 days * 12 hr. * \$98/hr. Most Likely: 13 FTEs * 14 days * 12 hr. * \$98/hr. Worst Case: 13 FTEs * 35 days * 12 hr. * \$98/hr.	N/A	Work with Radiation protection, engineering, and waste management to mitigate radiation levels.	
SNF011R2	D.1.02.34.02	IEC	Johnson, Walter	Wahnschaffe, Steve	<u>Peach Bottom Transfers</u> : Excessive Corrosion in The Peach Bottom Vaults	CPP-749 Remediation: Excessive corrosion has been identified in fuel packages stored in specific Peach Bottom vaults, preventing the use of standard retrieval methods.	1) During Peach Bottom vault inspections, corrosion capable of jeopardizing the structural integrity of the fuel package lifting feature is observed. 2) A discharge of fuel is observed when lifting a fuel package to visually inspect its bottom.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 107,016	\$ 214,032	\$ 535,080	7	14	204	Impacts based on 13 FTEs working 12-hour shifts. Best Case: 13 FTEs * 7 days * 12 hr. * \$98/hr. Most Likely: 13 FTEs * 14 days * 12 hr. * \$98/hr. Worst Case: 13 FTEs * 35 days * 12 hr. * \$98/hr.	N/A	Fuel packages will be visually inspected prior to being lifted for the purposes of identifying corrosion issues. If an inspected fuel package is determined to be jeopardized because of corrosion then, retrieving the fuel package will be delayed until a recovery plan is developed/approved and readied to work. A conceptual design for retrieval equipment capable of safely lifting a jeopardized fuel package has been developed and reviewed/approved by DOE.	



TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated : 4.29.25

Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Cost Impacts			Schedule Impacts (in days)			Basis of Impacts	Mitigation Actions	Risk Corrective Actions	Notes
														Best Case	Most Likely	Worst Case	Best Case	Most Likely	Worst Case				
SNF01SR2	D.1.02.32.31	IEC	Ellsworth, Carla	Wahnschaffe, Steve	<u>Advanced Test Reactor (ATR) SNF Receipt</u> : IEC schedule Delay Caused by ATR	ATR Direct: IEC schedule delay caused by ATR.	Equipment and/or operations delays at ATR cause delayed or moved shipment dates to INTEC.	Open	Threat	Mitigate	Almost Certain	Minor	2-Low	\$ 45,864	\$ 1,700,000	\$ 1,700,000	3	208	208	Schedule Impacts Best Case: 3 days Most Likely: 14 days Worst Case: 64 days	Alternative work activities will me made available by upper management in the event of an ATR schedule delay.	N/A	
SNF01BR2	D.1.02.32.31	IEC	Ellsworth, Carla	Wahnschaffe, Steve	<u>Advanced Test Reactor (ATR) SNF Receipt</u> : Destaco Clamps Malfunction	ATR-Direct: Destaco clamps are partially open or closed and prevent movement of fuel-loaded canisters.	Destaco clamps found to be damaged or damaged when remotely attempting to open/close a clamp.	Open	Threat	Accept	Possible	Critical	4-High	\$ 1,231,258	\$ 2,308,608	\$ 2,616,422	96	180	204	No Cost Impacts. Best Case: 3 days X 10 hr. X 13.36 FTEs X \$96/hr.= \$12,825 Most Likely: 3 days X 10 hr. X 13.36 FTEs X \$96/hr.= \$38476 Worst Case: 204 days X 10 hr. X 13.36 FTEs X \$96/hr.= \$179,558	N/A	N/A	
SNF02SR2	D.1.04.02.02	IEC	Cotterell, Jaksen	Wahnschaffe, Steve	<u>SNF Staging Facility</u> : Vendor Selection	The RRDP determines which vendor and MPC system will be used. The selection changes the ID SNF-SF Basis of Design, and Safety Design Strategy (SDS). The design requires updates as well as SDS assumptions, strategy, and hazards.	The RRDP selects a different vendor than originally anticipated.	Open	Threat	Mitigate	Possible	Critical	4-High	\$ 650,000	\$ 1,450,000	\$ 2,350,000	120	180	300	Cost Ranges: SDS Rework: \$200k, 400K, 750K Design Rework: \$300k, 750K, 1M IEC management and DOE Coordination: \$150k, 300k, 600k	Perform a QL assessment to evaluate the subcontractor's quality program. The contractor has to be an NQA-1 qualified for equipment and quality level QL-2. Road Ready Demonstration is acting to get the contractor approved at an appropriate quality level QL-2.	N/A	
SNF042	D.1.04.02.02	IEC	Cotterell, Jaksen	Wahnschaffe, Steve	<u>SNF Staging Facility</u> : Security System and Facility Design Contract	There are two design aspects considered for the ID SNF-SF: 1) BEA will perform the security design for the ID SNF-SF. 2) The SNF-SF pad design will be performed via subcontract. Work performed for the interdependent designs exceed scheduled duration(s).	Agreements/contracts are not established as planned. The designs do not maintain the schedule duration. BEA does not perform the security design causing for additional time to setup a contract.	Open	Threat	Mitigate	Possible	Moderate	2-Low	\$ 200,000	\$ 500,000	\$ 1,000,000	24	32	56	Develop a second SOW, work through a second contract through subcontract administration. Additional coordination for IEC to manage two engineering firms and process paperwork. Best Case: 2 weeks @ 40hr./week x 1 FTE @ \$100/hr.+ 4 weeks @ 95 hr. for sub administration @ \$80/hr. Most Likely: 4 weeks @ 40hr./week x 1.5 FTE @ \$100/hr.+4 weeks @ 95 hr. for sub administration @ \$80/hr. Worst Case: 8 weeks @ 40hr./week x 2 FTE @ \$100/hr.+ 6 weeks @ 95 hr. for sub administration @ \$80/hr.	N/A	Segregate the requirement of 1 contract. Develop a second statement of work and contract a local engineering firm to perform the security design.	
SNF054	D.1.02.34.02	IEC	Johnson, Walter	Wahnschaffe, Steve	<u>Peach Bottom</u> : Mobile Crane Maintenance	Exceeding the Mobile Crane manufacturers recommended operating hours for performing routine maintenance. Exceeding these recommendations will restrict crane use and delay Peach Bottom transfers at CPP-749.	Mobile Crane operator observes the machines monitoring system and concludes the manufactures recommended operating hours are exceeded.	Realized	Threat	Mitigate	Possible	Minor	2-Low	\$ 15,500	\$ 46,000	\$ 62,000	1	2	4	Best Case: 1 day plus equipment/materials Most Likely Case: 2 days plus equipment/materials Worst Case: 4 days plus equipment/materials	1.) Increase periodicity of planned maintenance. 2.) Perform additional routine observations to the machines monitoring system so maintenance can be planned and performed in accordance with the manufacturers recommendations. 3) The crane will be removed and sent to CFA big shop for preventative maintenance.	N/A	
SNF323	D.1.02.34.02	IEC	Johnson, Walter	Wahnschaffe, Steve	<u>Peach Bottom Transfers</u> : Mobile Crane Failure	Mobile crane required for scope needs repaired, resulting in delay to Peach Bottom operations until repairs can be made.	Mobile crane failure/repair requirement.	Open	Threat	Mitigate	Likely	Minor	2-Low	\$ 6,519	\$ 13,038	\$ 26,076	4	8	16	Cost based on BEA daily crane cost.	Renting a crane from BEA.		
SNF324	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	<u>Road Ready Demonstration Project</u> : Supplier Delay - Holtec	Road Ready Project: Delay of Holtec (Fabrication and Design) being on the QSL as a QL-2 supplier in compliance with QARD Rev 20 will cause delay to placement of contract for Holtec provided items	Holtec unable to meet requirements to be placed on the QSL as a QL-2 supplier in compliance with QARD Rev 20 supplier.	Realized	Threat	Mitigate	Rare	Major	2-Low	\$ 750,000	\$ 1,500,000	\$ 2,250,000	32	48	144	Holtec is currently certified as a QL-2 supplier for Engineering services only on IEC's QSL but not in compliance with QARD Rev 20. QA audit scheduled June for fabrication facility.	QA department to provide Holtec with a checklist of potential audit requirements to allow Holtec to understand requirements. Upon contract placement, IEC will perform audit of Holtec fabrication facility to ensure compliance with all requirements. Funding for Holtec provided items is currently limited to Design. Project is working with QA to get Holtec on Qualified Suppliers List for fabrication prior to receiving funding for Fabrication which is anticipated to be FY26.		
SNF326	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	<u>Road Ready Demonstration Project</u> : Delay of Items Provided by Holtec	Delay of delivery of Holtec long lead items (HI-STAR) will cause a significant delay to the project.	Holtec unable to receive material or fabricate long lead items according to IEC Schedule.	Open	Threat	Accept	Possible	Major	4-High	\$ 750,000	\$ 1,500,000	\$ 3,000,000	48	96	192	Best Case: Subcontractor has minimal delay causing a delay to overall project Most Likely: Subcontractor has significant delay causing a delay to overall project Worst Case: Subcontractor is unable to meet schedule requiring major replan of project The costs listed from delays are based on a \$13k/day cost to operate a SNF crew. IEC will address crew reassignment in order to minimize cost impact.	Long lead items will be identified once contract is in place. IEC to work with Holtec to identify possible delays due to supply chain issues. Also mitigating by purchasing long lead items at risk to minimize impacts to schedule The costs listed from delays are based on a \$13k/day cost to operate a SNF crew. IEC will address crew reassignment in order to minimize cost impact		
SNF327	D.1.02.36.07	IEC/DOE	Woolstenhulme, Tyson	Wahnschaffe, Steve	<u>SNF Road Ready Demonstration Project</u> : Delay of Delivery of DOE SCs	Road Ready Project: Delay of delivery of DOESC's will cause a delay to the project.	DOESC fabrication not completed according to IEC/BEA schedule.	Open	Threat	Share	Possible	Critical	4-High	\$ 750,000	\$ 1,500,000	\$ 3,000,000	96	192	288	DOESC fabrication is included in BEA's scope but being transitioned to IEC per IAG-809. IEC will need DOE concurrence to fully assume Design Authority and fabrication of DOESCs.	Work with BEA to identify possible delays due to supply chain issues. Also mitigating by purchasing long lead items at risk to minimize impacts to schedule. Other possible options to include fabrication of the DOESC's at the INTEC facility mitigating BEA QA and time constraints. The costs listed from delays are based on a \$13k/day cost to operate a SNF crew		
SNF331	D.1.02.36.13	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	<u>Road Ready Demonstration Project</u> : Failed Root Weld	BEA/Liburd weld repair machine cannot successfully repair a failed root weld.	Root weld fails UT Inspection	Open	Threat	Accept	Unlikely	Serious	2-Low	\$ 300,000	\$ 600,000	\$ 1,800,000	16	32	64	Best case - Cost of weld repair without requiring usage of additional equipment and resume operations with minimal waste Most Likely - Cost of weld repair with minimal additional equipment and disposal of unusable items Worst Case - Cost of complete repackaging of SNF in new canister with disposal of unusable items	For the Road Ready Demonstration, 10 DOESC's will be procured. The Demonstration will be loading 7 DOESC's with 3 spares. In the event of a compromised DOESC, the fuel can be reloaded into a spare DOESC and welded. Additionally, the welding will be done in the PCS which will also allow for safely manually grinding of the weld. Weld will manually be ground off and rewelded if DOESC weld is damaged. If a second weld fails or DOESC is damaged unloading and loading of the DOESC is required. IEC will look at the qualifying individuals to hand weld the circumferential weld as necessary.		
SNF332	D.1.02.36.13	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	<u>Road Ready Demonstration Project</u> : BEA Leak Testing Fails	BEA Leak testing cannot successfully seal on DOESC causing a delay in the project.	Bell jar seals fail successful sealing	Open	Threat	Share	Unlikely	Major	3-Moderate	\$ 600,000	\$ 1,200,000	\$ 2,400,000	24	48	96	Best case - Leak testing device requires minimal redesign to achieve acceptable results Most Likely - Leak testing device requires significant redesign to achieve acceptable results Worst Case - Leak testing device requires complete redesign to achieve acceptable results	BEA procurement of different seals to correct deficiencies to allow for successful leak testing. If alternative seals are not successful, BEA to correct design of Bell Jar. Additionally BEA has identified a backup commercially provided option in the event the Leak Testing System is not acceptable.		
SNF333	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	<u>Road Ready Demonstration Project</u> : Complications of West Truck Ramp Construction	Contruction of the West Truck Ramp fill-in encounters unknown anomalies which causes a delay in schedule and added costs to project.	During excavation of the West Truck Ramp Fill in, unexpected facility/sail conditions are encountered.	Open	Threat	Accept	Unlikely	Moderate	2-Low	\$ 250,000	\$ 500,000	\$ 750,000	16	32	48	Best case - Recovery from unknown conditions/circumstances is minimal Most Likely - Recovery from unknown conditions/circumstances is significant Worst Case -Recovery from unknown conditions/circumstances requires re-plan of work. D.1.02.36.06 RRDP. Due to facility age and unknown conditions/requirements during construction, unknown conditions/anomalies cannot be currently determined.	Prior to performing excavation activities, all Team members performing or monitoring work will be briefed on the nature of the facility including age and possible unknown conditions. Engineering to provide oversight and help resolve issues encountered to minimize schedule impact.		
SNF339	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	<u>Road Ready Demonstration Project</u> : Insufficient Maintenance Funding	Road Ready Project schedule may be delayed in the event that Insufficient maintenance funding is available to update facilities, systems, equipment, and infrastructure or recover from significant system failures.	Failure of components, system, equipment, or structures.	Open	Threat	Accept	Unlikely	Major	3-Moderate	\$ 500,000	\$ 2,000,000	\$ 4,000,000	48	96	192	Best case - Repairs of critical systems or components are minimal with minimal procurement of replacement components and minimal downtime Most Likely - Repairs of critical systems or components are significant with procurement of replacement components and downtime Worst Case - Repairs of critical systems or components are severe with major procurement of replacement components and extensive downtime.	Maintain the Facility/Equipment. Replacement of the MSM and its approximate costs were determined from \$13k/day crew costs applied to a 3, 6 and 12-month period.		
SNF342	D.1.02.36.013	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	<u>Road Ready Demonstration Project</u> : CPP-603 Crane Failure Impacts 101 or 401	Fuel operations will be impacted by 101 (CRN-GSF-101) or 401 (CRN-GSF-401) crane failure in CPP-603 fuel handling cave.	During fuel movements in CPP-603 fuel handling cave, Crane 101 and Crane 401 fails to respond as designed.	Open	Threat	Accept	Unlikely	Serious	2-Low	\$ 500,000	\$ 1,000,000	\$ 1,500,000	16	32	64	Engineering has evaluated the crane electrical system and recommends that the festoon be replaced to increase reliability. Best case - Crane failure repairs are minimal with minimal procurement of replacement components Most Likely - Crane failure repairs are significant requiring procurement of major components Worst Case - Crane failure repairs are major requiring complete replacement of most if not all components	Historically, electricians and technicians have been able to repair the system successfully. Crane PMS/other maintenance is performed on schedule to identify any potential issues which can be corrected with minimal to no operational downtime.		
SNF347	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	<u>Road Ready Demonstration Project</u> : Delay in CPP-603 Permanent Containment Structure Modifications	Due to the layout of CPP-603 facility, and any delay in work on the west truck ramp fill-in could cause a delay in Permanent Containment Structure (PCS) modifications.	Work on the West Truck Ramp Fill-in prevents work on the Permanent Containment Structure (PCS) modifications due to work in same area being scheduled on same day.	Open	Threat	Accept	Possible	Moderate	2-Low	\$ 250,000	\$ 500,000	\$ 750,000	16	32	48	Best Case: West Truck Ramp Fill-in is delayed causing minimal delay to PCS Modifications Most Likely: West Truck Ramp Fill-in is delayed causing significant delay to PCS Modifications Worst Case: West Truck Ramp Fill-in is delayed causing major delay to PCS Modifications requiting re-baseline	Project Management will work with work crews during construction to identify any potential delays during Truck Ramp fill-in and schedule PCS modifications accordingly. Additionally, any work that can be performed on the PCS modifications outside of the affected area will be identified and performed to not impact schedule.		
SNF352	D.1.02.30	IEC	Johnson, Walter	Wahnschaffe, Steve	<u>SNF Road Ready Demonstration Project</u> : Maintain Crews	Project has to maintain crews in the event BEA does not send the planned ATR receipts.	BEA sends less than the planned ATR receipts.	Open	Threat	Accept	Possible	Serious	3-Moderate	\$ 240,000	\$ 720,000	\$ 960,000	16	43	184	Impacts are estimated based on the \$120,000 per transfer that is not received, and amount of time crews have to be allocated to different scope			
SNF353	D.1.02.33	IEC	Ellsworth, Carla	Wahnschaffe, Steve	<u>PCS</u> : Project is More Complex Than Originally Planned For	After beginning the Distributed Control System project, scope is realized to be more complex than originally anticipated. This will result in schedule and cost increases to revisit and solve issues.	Emergent problems and/or more complex system are discovered that require attention before moving forward.	Emerging	Threat	Accept	Likely	Major	4-High	\$ 100,000	\$ 800,000	\$ 1,500,000	23	79	143	Impacts are estimated based off historical variance and SME judgement.			



TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated : 4.29.25

Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Cost Impacts			Schedule Impacts (in days)			Basis of Impacts	Mitigation Actions	Risk Corrective Actions	Notes
														Best Case	Most Likely	Worst Case	Best Case	Most Likely	Worst Case				
SNF354	D.1.02.33	IEC	Ellworth, Carla	Wahnschaffe, Steve	<u>DCS</u> : Schedule Delays Due to Higher Priorities	Other work takes priority and pushes out install of DCS panels. Results in schedule delays.	Other projects take priority over DCS.	Open	Threat	Accept	Possible	Moderate	2-Low	\$ 15,000	\$ 75,000	\$ 300,000	12	32	96	Impacts are estimated based on SME judgement for other project projections.			
SNF355	D.1.02.33	IEC	Ellworth, Carla	Wahnschaffe, Steve	<u>DCS</u> : Loss of SME Experience	Less experienced staff take longer to complete schedule activities than originally planned. The project will experience schedule delays and cost increases.	Project loses experienced personnel.	Emerging	Threat	Accept	Possible	Major	4-High	\$ 30,000	\$ 150,000	\$ 250,000	16	87	176	Estimates are based on historical variance and SME judgement.			
SNF364	D.1.02.34.02	IEC	Johnson, Walter	Wahnschaffe, Steve	<u>Peach Bottom</u> : Inclement Weather Delays	Inclement weather delays the transfers at CPP-749. CPP-749 has strict guidelines for windspeed, precipitation and temperature per TPR-7022.	Inclement weather stops or delays work at CPP-749	Open	Threat	Accept	Likely	Minor	2-Low	\$ -	\$ -	\$ -	4	8	16	Best Case: 1 week accumulative of inclement weather Most Likely: 2 weeks accumulative of inclement weather Worst Case: 4 weeks accumulative of inclement weather ** base schedule/no cost delays on this Weather Conditions: Wind Speed greater than or equal to 20 mph for lifting activities needs management evaluation to proceed. There is minimal precipitation (weather forecast not greater than 0.25 inch for the shift) No lightning, thunder is occurring within 10 miles Wind speed is NOT 31 mph or greater for lifting activities, mobile crane shutdown occurs at wind speed of 31 mph Cask skin temperature within the circle on the cask body must be above -30 degrees Fahrenheit and below 110 degrees Fahrenheit Lid skin temperature within the circle on the carbon steel top lid must be above -20 degrees Fahrenheit			
SNF372	D.1.02.34	IEC	Johnson, Walter	Wahnschaffe, Steve	<u>Peach Bottom Transfers</u> : Industrial Incidents Resulting in Shutdowns	An industrial incident resulting in serious personnel injury may cause an extended shutdown to resolve conduct of operations issues.	An unanticipated accident resulting in injury or near miss	Open	Threat	Accept	Rare	Minor	1-Low	\$ 20,000	\$ 50,000	\$ 300,000	4	8	16	Cost is based on ROM estimate to perform corrective actions, but dependent on extent of event. Best case = incident is minor and investigated quickly with very few corrective actions requiring attention. Worst case = prolonged shut-down with extensive recovery actions, training, etc.	N/A		
SNF374	D.1.02.33	IEC	Ellworth, Carla	Wahnschaffe, Steve	SNF DCS: Integration Issues during System Operability test	The SO test is expected to reveal problems due to compatibility challenges between new and legacy equipment.	SO test reveals problems in system.	Open	Threat	Mitigate	Likely	Moderate	3-Moderate	\$ 58,800	\$ 117,600	\$ 470,400	12	24	96	Negative cost and schedule impact while the engineers diagnose and solve the problems. Best case- 3 week delay 5FTEs x 10 x\$98 x 12 days Most likely- 6 week delay 5 FTEs x 10 hr x \$98 x 24 days Worst Case- 6 month delay 5 FTEs x 10hr x \$98 x 96 days	Conduct pre-integrations testing in a controlled environment, engage DCS engineers early and have contingency plans for troubleshooting and patching. Employing Subcontract SME to mitigate issues.	FDSC7210	
TO3002R2	Project Wide	IEC	Multiple CAMs	Multiple Projects	<u>Global Risk</u> : Work Delay Due to Abnormal Weather Conditions	Severe weather conditions that go above and beyond the historical norms is experienced, resulting in project delays from Site closure. These days would have impacts to the cost and schedule.	Events that are above average or severe weather conditions occur, based on historical precedents that would lead to Site closure	Open	Threat	Accept	Possible	Serious	3-Moderate	\$ 500,000	\$ 1,000,000	\$ 7,000,000	0.5	1	7	Best Case: Complete Site Shut Down for .5 days Most Likely: Complete Site Shut down for 1 day Worst Case: Complete Site Shut down for 7 days	N/A	N/A	
TO3005R2	Project Wide	IEC	Multiple CAMs	Multiple Projects	<u>Global Risk</u> : Stop Work Due to External Events	External event(s) at other INL locations or DOE sites cause a stop work.	External event(s) at other INL locations or other DOE sites cause a work stoppage. Events include, but are not limited to; contamination events that shut down other facilities, any crisis that is found at another facility that could potentially exist at Idaho Cleanup Project (ICP) causing a stop work, etc.	Open	Threat	Accept	Unlikely	Serious	2-Low	\$ 500,000	\$ 1,000,000	\$ 7,000,000	0.5	1	7	Best Case: Complete Site Shut Down for .5 days Most Likely: Complete Site Shut down for 1 day Worst Case: Complete Site Shut down for 7 days	N/A	N/A	
TO3P2005a	Project Wide	IEC	Multiple CAMs	Multiple CAMs	<u>Global Risk</u> : Line-Item Project Funding	Due to the amount of line-item projects being worked at the Idaho Environmental Coalition (IEC), limitation of base scope execution may be experienced as a direct result of variability in funding. Inability to execute base scope under the end state contract model will result in longer durations required to reach the desired end-states. This will increase the overall costs of the Idaho Cleanup Project (ICP), and could impact staffing levels.	Impacts from line-item project funding causes limitations that impact the execution of the base scope.	Open	Threat	Share	Almost Certain	Critical	5-Very High	\$ 1,000,000,000	\$ 1,350,000,000	\$ 1,700,000,000	900	1,350	1,800	Best Case: Most Likely Case:Worst Case:	Proposed Share to DOE		
TRU007R2	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition</u> : Failure of Characterization Equipment Will Impact CH TRU Waste Certification	If WIPP certified characterization equipment fails and can no longer be used, then CH TRU waste certification and shipment could be impacted. The equipment is older technology that is still in use.	Failure of nondestructive assay or real-time-radiography equipment.	Open	Threat	Mitigate	Unlikely	Major	3-Moderate	\$ 24,000	\$ 102,000	\$ 153,000	16	68	102	Best Case: 16 days x 10 hr./day x 2 people x \$75/hr.= \$10,200 Most Likely: 68 days x 10 hr./day x 2 people x \$75/hr.= \$102,000 Worst Case: 102 days x 10 hr./day x 2 people x \$75/hr.= \$153,000	Ensure/procure critical spare parts are on hand as availability allows.	Continue to perform maintenance on equipment, keep spare parts on hand, and monitor data quality to verify systems are operating normally.	
TRU012R2	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition</u> : Non-Destructive Assay (NDA) Results, Using ISO-Cs and All Other Available NDA Equipment, Will Not Provide a Valid Assay Result for The Entire Inventory of Waste Containers At The RWMC	If NDA results, using ISO-Cs and all other available NDA equipment, will not provide valid assay results for the entire inventory of waste containers at the RWMC, then both TRU and MLW certification cannot be completed. This may result in the need for repackaging of waste containers by splitting the waste into multiple daughter containers, combining two or more containers, and/or a other means. After re-assay, one or more of the resulting containers may still be indeterminate for assay and have no approved disposition path from RWMC.	Containers fail assay due to high gamma.	Open	Threat	Mitigate	Rare	Moderate	1-Low	\$ 48,000	\$ 96,000	\$ 144,000	16	32	48	Best Case: 16 days x 10 hr./day x 4 people x \$75/hr.= \$48,000 Most Likely: 32 days x 10 hr./day x 4 people x \$75/hr.= \$96,000 Worst Case: 48 days x 10 hr./day x 4 people x \$75/hr.= \$144,000	Provide additional monitoring for NDA results, identify problematic waste, and make notification. Use dose to Currie results for any RH generated waste.	N/A	
TRU019R2	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition</u> : The Annual Site Treatment Plan Milestone is Missed	If the annual Site Treatment Plan milestone is missed, then potential significant cost impact due to lost fee and holdback resulting from IDEQ penalty.	A)The risk that IEC will lose critical personnel and will be unable to fill available positions with experienced staff to complete critical Acceptable Knowledge, Site Project Manager, Certification, Real Time Radiography, Non-Destructive Assay, etc., activities in support of profiling and certification of waste streams B)Delays in external, DOE-ID and the CBFO, approvals of critical documents in support of TRU waste characterization, profiling and certification. C/CBFO requires an action and DOE-ID requires something different. This could potentially generate orphan waste; or could delay waste processing, require reprocessing, or delay profiling and certification. D) WIPP may change their requirements or may introduce new interpretations of existing requirements, resulting in delays associated with profiling and certification or may necessitate reprocessing of waste.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	\$ 51,200	\$ 99,200	\$ 201,600	32	62	84	Best Case: 32 days x 10 hr./day x 2 people x \$80/hr.= \$51,200 Most Likely: 62 days x 10 hr./day x 2 people x \$80/hr.= \$99,200 Worst Case: 84 days x 10 hr./day x 3 people x \$80/hr.= \$201,600	Provide cross training between disciplines and increase communication with the DOE-ID and CBFO to minimize, and challenges with them as they arise.		
TRU020R2	D.2.03.36	IEC	Vargeso, Matthew	Jenkins, Tally	<u>AMWTP LLW/MLLW Disposition</u> : Unanticipated Treatment Costs Determined by Perma-Fix Energy Solutions/ Waste Control Specialists Sampling	Depending on sampling results performed by Perma-Fix Florida (PFF), Energy Solutions (ES), and Waste Control Specialists (WCS) there may be additional treatment costs for unexpected chemical constituents.	Unanticipated chemical constituents are found that are outside of what has been determined through characterization data.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 11,000	\$ 11,000	\$ 44,000	4	4	8	Best Case: \$11,000 would be the cost of doing VTD treatment for a drum where unanticipated organics were found, such as sludge found in a debris container. This is a good conservative estimate for additional treatment needed, as this would be one of the most expensive routes of treatment. Most Likely:\$11,000 would be the cost of doing VTD treatment for a drum where unanticipated organics were found, such as sludge found in a debris container. This is a good conservative estimate for additional treatment needed, as this would be one of the most expensive routes of treatment. Worst Case: More than one container is found to need additional treatment. Very unlikely would be 4 containers needing additional treatment. \$11,000 x 4 = \$44,000.	N/A		
TRU021R2	D.2.03.36	IEC	Vargeso, Matthew	Jenkins, Tally	<u>AMWTP LLW/MLLW Disposition</u> : Non-Compliant Container Shipped Back to AMWTP Due to Prohibited Items	Prior to offsite shipment to any commercial Treatment, Storage, and Disposal Facility (TSDF), AMWTP LLW/MLLW makes every effort to characterize waste in a safe and compliant manner, utilizing many resources to document and review container content information. However, a low chance does exist that a container will be shipped with a prohibited item, or some other chemical/radiological characteristic that was not anticipated. If the content cannot be treated by the TSDF or shipped by the TSDF to another treatment facility, the container will be sent back to AMWTP for further evaluation.	The TSDF opens a container and finds a physical prohibited item and/or the TSDF samples the container contents and finds unacceptable amounts of hazardous or radiological material outside of what the TSDF Waste Acceptance Criteria (WAC) allows.	Open	Threat	Accept	Unlikely	Major	3-Moderate	\$ 20,000	\$ 20,000	\$ 40,000	80	96	208	Best Case: Return shipping costs are \$20,000 to send a container back to us.Most Likely: Return shipping costs are \$20,000 to send a container back to us.Worst Case: Return shipping costs are \$20,000 to send a container back to us. However, if there is no room to ship the container on an already existing shipment when it leaves a second time (after addressing the problem) it will add an extra shipment, requiring another \$20,000.	N/A		
TRU022	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition</u> : Waste Not Compliant for Waste Isolation Pilot Plant (WIPP) Disposition	If TRU waste is identified that cannot be disposed of in its current configuration, then additional processing, AK development, WIPP authorization, etc., may be required.	Identification of containers that do not allow for certification.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	\$ 96,000	\$ 192,000	\$ 384,000	32	64	128	Best Case: 32 days x 10 hr./day x 4 people x \$75/hr.= \$96,000 Most Likely: 64 days x 10 hr./day x 4 people x \$75/hr.= \$192,000 Worst Case: 128 days x 10 hr./day x 4 people x \$75/hr.= \$384,000	Establish new capabilities by review and reconciliation of container data for waste destined for WIPP.	N/A	
TRU023	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition</u> : CERCLA Facility Unavailability for Sampling/Remediation	If sampling and/or remediation (ammonium nitrate filters, high uranium, etc.) of CERCLA waste is necessary and an ARP facility is not available, then a non-RCRA facility will be required with potential update of ARP waste CERCLA requirements.	ARP waste requires reprocessing or testing.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	\$ 96,000	\$ 192,000	\$ 384,000	32	64	128	Best Case: 32 days x 10 hr./day x 4 people x \$75/hr.= \$96,000 Most Likely: 64 days x 10 hr./day x 4 people x \$75/hr.= \$192,000 Worst Case: 128 days x 10 hr./day x 4 people x \$75/hr.= \$384,000	Completed CBFO authorized testing, and ammonium nitrate in ARP waste is not acceptable for the WIPP. Remediation options are being developed, and recommendations will be provided to DOE-ID and the CBFO.	Move forward with laboratory analysis of ammonium nitrate samples, observe testing start up, and keep COE-ID and the CBFO Difficult Waste Team apprised of testing and results to minimize potential impacts.	
TRU024	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition</u> : Waste Does Not Meet Basis of Knowledge (BoK) Criteria	If containers do not meet BoK requirements, then additional processing will be required.	Containers fail BoK criteria.	Open	Threat	Mitigate	Possible	Moderate	2-Low	\$ 24,000	\$ 48,000	\$ 96,000	16	32	64	Best Case: 16 days x 10 hr./day x 2 people x \$75/hr.= \$24,000 Most Likely: 32 days x 10 hr./day x 2 people x \$75/hr.= \$48,000 Worst Case: 64 days x 10 hr./day x 2 people x \$75/hr.= \$96,000	Maintain capabilities for reprocessing waste if necessary.	Continue BoK calculations for waste destined for WIPP. and make notifications if any fail.	
TRU025	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition</u> : Product Drums Cannot be Certified	If TRU product drums that fail container integrity (CI) inspections exceed allowable fissile gram equivalence (FGE) limits for a standard waste box (SWB) and the Advanced Mixed Waste Facility (AMWTF) is not available for reprocessing, then the drums cannot be overpacked or reprocessed and the waste cannot be certified.	Product drums cannot be certified due to CI failure and cannot be overpacked into an SWB.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	\$ 96,000	\$ 192,000	\$ 384,000	32	64	128	Best Case: 32 days x 10 hr./day x 4 people x \$75/hr.= \$96,000 Most Likely: 64 days x 10 hr./day x 4 people x \$75/hr.= \$192,000 Worst Case: 128 days x 10 hr./day x 4 people x \$75/hr.= \$384,000	CBFO authorization of overpack bags for product drums, with the overpack bag FGE limit higher than of an SWB. CBFO increase of the FGE limit for SWBs containing compacted waste. Perform UT testing to minimize the need for overpack bags and SWBs.	Assign product drums to SWBs as they fail CI and make notifications if FGE assignment precludes overpack.	
TRU026	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition</u> : Product Drums Require Reprocessing and Facility is Not Available	If TRU product drums must be reprocessed (liquid, high Fissile Gram Equivalence (FGE), crit cleanout puck, etc.) and Advanced Mixed Waste Treatment Facility (AMWTF) is not available, then containers cannot be reprocessed and cannot be certified.	Product drums cannot be certified due to prohibited condition and the AMWTF is not available for reprocessing.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	\$ 96,000	\$ 192,000	\$ 384,000	32	64	128	Best Case: 32 days x 10 hr./day x 4 people x \$75/hr.= \$96,000 Most Likely: 64 days x 10 hr./day x 4 people x \$75/hr.= \$192,000 Worst Case: 128 days x 10 hr./day x 4 people x \$75/hr.= \$384,000	Identify and reprocess problematic product drums prior to AMWTF closure.	Identify problematic product drums while facilities still exist for reprocessing	



TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated: 4.29.25

Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Cost Impacts			Schedule Impacts (in days)			Basis of Impacts	Mitigation Actions	Risk Corrective Actions	Notes
														Best Case	Most Likely	Worst Case	Best Case	Most Likely	Worst Case				
TRU027	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition:</u> Small Waste Stream Resource Availability Issues	If development and approval of required TRU waste stream documentation overwhelms available internal personnel resources or those of the approving entity, then the waste cannot be certified.	Cannot certify populations of containers due to limited personnel and priorities associated with larger waste streams.	Open	Threat	Mitigate	Possible	Critical	4-High	\$ 96,000	\$ 192,000	\$ 384,000	64	128	256	Best Case: 64 days x 10 hr./day x 2 people x \$75/hr. = \$96,000 Most Likely: 128 days x 10 hr./day x 2 people x \$75/hr. = \$192,000 Worst Case: 256 days x 10 hr./day x 2 people x \$75/hr. = \$384,000	Utilize CCP AK Support to develop a system for AMWTP certification of ARP waste. Prioritize large SRP waste streams. Include debris waste from small generators in the BNS10 waste stream. Work off remaining legacy waste containers.	N/A	
TRU028	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition:</u> Waste Container Overpack Availability Issues	If commodities (slip sheets, TDOF and SWB) are limited and shipments cannot be completed as planned, then the need for overpack of waste containers into larger and larger overpacks increases and the overpacks may not be authorized for WIPP disposal.	Commodities provided by DOE are not available to support final certification and/or WIPP shipments.	Open	Threat	Mitigate	Unlikely	Critical	3-Moderate	\$ 96,000	\$ 192,000	\$ 384,000	64	128	256	Best Case: 64 days x 10 hr./day x 4 people x \$75/hr. = \$96,000 Most Likely: 128 days x 10 hr./day x 4 people x \$75/hr. = \$192,000 Worst Case: 256 days x 10 hr./day x 4 people x \$75/hr. = \$384,000	Procure additional commodities as back-up and/or additional stock. SWB availability though SIMCO continues to be limited, and this is anticipated for the foreseeable future. UT testing of product drums is being planned to minimize the need for SWBs.		
TRU029	D.2.03.34.04	IEC	Loftus, Nathan	Jenkins, Tally	<u>CH-TRU Storage & Movement:</u> Loss of Contamination Control	Loss of contamination control during either storage or movement of containers.	Containers lose container integrity during storage and/or movement and contents are spilled.	Open	Threat	Mitigate	Likely	Moderate	3-Moderate	\$ 18,000	\$ 36,000	\$ 54,000	10	20	30	Best Case: 10 days x 10hr./day x 4 people x \$45/hr. = \$18,000 Most Likely: 20 days x 10hr./day x 4 people x \$45/hr. = \$36,000 Worst Case: 30 days x 10hr./day x 4 people x \$45/hr. = \$54,000	Continue to monitor and test integrity of waste drums as they come out of storage and in process of being moved.	Continued effort in monitoring, testing, and ensuring drum integrity and they prepare to be moved to off-site storage.	
TRU030	D.2.03.34.05	IEC	Loftus, Nathan	Jenkins, Tally	<u>CH-TRU Storage & Movement:</u> Unforeseen Equipment Replacement Need	Need for equipment replacement due to accident, breakdown, end of useful life, fabrication of new drum movement components/attachments, etc.	Replacement parts or replacement vehicles are unable for purchasing or long lead times.	Open	Threat	Mitigate	Likely	Moderate	3-Moderate	\$ 28,800	\$ 64,000	\$ 105,600	16	32	48	Best Case: 16 days x 10hr./day x 4 people x \$45/hr. = \$28,800 Most Likely: 32 days x 10hr./day x 4 people x \$50/hr. = \$64,000 Worst Case: 48 days x 10hr./day x 4 people x \$55/hr. = \$105,600	Maintain and log aging parts/vehicles that may be needing replacement in the future.	Monitoring of equipment and planning of purchasing replacement parts/vehicles for future use and aging equipment becomes obsolete.	
TRU031	D.2.03.35.06	IEC	Hubler, Rachelle	Jenkins, Tally	<u>CH-TRU Packaging and Transportation:</u> Commodity Availability/Cost Increases/Alternate Vendor Needs	Delays associated with receipt of various commodities due to vendor delays with raw material delivery/manufacturing. Commodities include tent materials, helium leak detectors and/or shipping materials.	Unavailability of raw material to vendor.	Open	Threat	Mitigate	Likely	Minor	2-Low	\$ 14,400	\$ 28,800	\$ 43,200	8	16	24	Best Case: 8 days x 10hr./day x 4 people x \$45/hr. = \$14,400 Most Likely: 16 days x 10hr./day x 4 people x \$45/hr. = \$28,800 Worst Case: 24 days x 10hr./day x 4 people x \$45/hr. = \$43,200	Maintain inventory of commodities and forecast for future purchases.	Find alternative commodities compatible with scope requirements.	
TRU032	D.2.03.35.04 D.2.03.35.05	IEC	Hubler, Rachelle	Jenkins, Tally	<u>CH-TRU Packaging and Transportation:</u> CH-TRU/LLW/MLW Waste Returned for Out-of-Compliance Determination	Waste Returned for Out-of-Compliance Determination by Treatment, Storage, and Disposal Facility (TSDF). Out-of-Compliance defined as damaged or leaking drums unable to pass TSDF inspection prior to acceptance of shipment and placed in storage.	Containers fail inspection or are out-of-compliance.	Open	Threat	Mitigate	Likely	Major	4-High	\$ 80,000	\$ 100,000	\$ 250,000	50	75	90	Best Case: 50 days x 10hr./day x 4 people x \$45/hr. = \$80,000 Most Likely: 75 days x 10hr./day x 4 people x \$45/hr. = \$200,000 Worst Case: 90 days x 10hr./day x 6 people x \$45/hr. = \$250,000 Transportation and loading/unloading costs \$150K-\$200K Inspection costs \$80K-\$250K	Increase monitoring and testing the integrity of LLW/MLW drums before shipping to storage facility.	WIPP may change their requirements or may introduce new interpretations of existing requirements, resulting in delays associated with profiling and certification or may necessitate reprocessing of waste	
TRU033	D.2.03.36.05	IEC	Vargeso, Matt	Jenkins, Tally	<u>AMWTP LLW/MLW Disposition:</u> Pallet and/or Macrobag Procurement Vendor Output Issues Impact Shipping Schedule and Shipment Destination	Issues at the pallet and/or macrobag vendor site may disrupt our ability to acquire these materials in a timely manner. Not being able to procure the needed materials may delay onsite macroencapsulation (MACRO) and/or packaging operations. This may cause enough delay to cancel scheduled shipments of treated waste to offsite Treatment, Storage, and Disposal Facilities (TSDFs). If we must go to another vendor for materials, it can increase material cost. If we must ship to a commercial facility instead of the Nevada National Security Site (NNS), it will greatly increase cost.	MACRO bags and pallets cannot be funded, or the vendor is not able to provide their product.	Open	Threat	Mitigate	Possible	Minor	2-Low	\$ 15,000	\$ 15,000	\$ 114,000	8	8	32	Best Case: We continue to order MACRO bags and pallets for MLW shipments, which costs approx. \$15,000 per shipment. Most Likely: We continue to order MACRO bags and pallets for MLW shipments, which costs approx. \$15,000 per shipment. Worst Case: We cannot acquire MACRO bags and must ship a 6 BR-90 shipment to WCS instead of NNS. 6 BR-90s = 2.55 * 6 = 15.3m3. 15.3m3 macroencapsulation at WCS costs \$7449.11 per m3. 15.3 * \$7449.11 = \$113,971 = \$114,000.	Continue to provide funding to procure MACRO bags and pallets, and procure additional back-up pallets to ensure packaging operations remain uninterrupted.	N/A	
TRU035	D.2.03.32.05	IEC	Martin, David	Jenkins, Tally	<u>CH-TRU Treatment Facility Support:</u> Equipment Breakdown	Box lines, the Super-compactor, or both are offline for a period of time as they are aging equipment in an aging facility.	Breakdown during processing.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	\$ 96,000	\$ 192,000	\$ 384,000	32	64	128	Best Case: 32 days x 10 hr./day x 4 people x \$75/hr. = \$96,000 Most Likely: 64 days x 10 hr./day x 4 people x \$75/hr. = \$192,000 Worst Case: 128 days x 10 hr./day x 4 people x \$75/hr. = \$384,000	Implement the usage of overtime to recover any schedule slippage and prevent total schedule loss.	N/A	
TRU036	D.2.03.32.05	IEC	Martin, David	Jenkins, Tally	<u>CH-TRU Treatment Facility Support:</u> Ammonium Nitrate Changeover	Difficulty/delays caused by not being able to determine the best path forward to be able to treat and package Ammonium Nitrate bearing waste in a safe and compliant manner.	Ammonium Nitrate waste requires reprocessing or testing.	Open	Threat	Mitigate	Likely	Serious	4-High	\$ 96,000	\$ 192,000	\$ 384,000	32	64	128	Best Case: 32 days x 10 hr./day x 4 people x \$75/hr. = \$96,000 Most Likely: 64 days x 10 hr./day x 4 people x \$75/hr. = \$192,000 Worst Case: 128 days x 10 hr./day x 4 people x \$75/hr. = \$384,000	Implement the usage of overtime to recover any schedule slippage and prevent total schedule loss.	N/A	
TRU039	D.2.03.37.04	IEC	Martin, David	Jenkins, Tally	<u>AMWTP SOP Maintenance:</u> Replacement Parts Are Out of Compliance or Unavailable	Advanced Mixed Waste Treatment Project (AMWTP) is an aging facility and project in need of constant repairs for continued operations.	Parts and equipment are unavailable or obsolete to keep equipment operating.	Open	Threat	Mitigate	Almost Certain	Serious	5-Very High	\$ 350,000	\$ 500,000	\$ 1,000,000	16	64	128	Impacts are estimated based on replacing/repairing equipment.	Initiate planned and regular communication with purchasing department and vendors to ensure that necessary items are stocked ahead of time to meet work scope demands and with additional stock for back up purposes.	N/A	
TRU040	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition:</u> BEA Cannot Complete Potential Classified Document Reviews	If BEA is not available to complete potential classified document reviews, then reviews of required Waste Isolation Pilot Plant (WIPP) documents cannot be completed.	Funding is not available for BEA document reviews.	Open	Threat	Accept	Likely	Critical	5-Very High	\$ 156,000	\$ 312,000	\$ 468,000	104	208	312	Best Case: 104 days x 10 hr./day x 2 people x \$75/hr. = \$156,000 Most Likely: 208 days x 10 hr./day x 2 people x \$75/hr. = \$312,000 Worst Case: 312 days x 10 hr./day x 2 people x \$75/hr. = \$468,000		Attempt to ensure documents can be provided for CBFO review to support waste certification and the annual recertification audit.	
TRU041	D.2.05.30.17	IEC	Orme, Jason	Jenkins, Tally	<u>Non-AMWTP Treatment and Disposal:</u> Equipment Failure	In the event that equipment fails, it will need to be repaired or the project will need to procure a replacement.	If any of the following equipment fails: Bobcat 650, Telehandler T1923, Iron Bull Deck Over 5th Wheel.	Open	Threat	Mitigate	Likely	Moderate	3-Moderate	\$ 118,000	\$ 236,000	\$ 354,000	16	32	48	Equipment Costs per DCES sheet / Lease Rates for Equipment Total \$56,700 - 20% Equipment Potential Failures - Daily Rates 20% Higher than Monthly Rates	Procure or lease backup equipment to resume operations		
TRU042	D.2.05.30.18	IEC	Orme, Jason	Jenkins, Tally	<u>Non-AMWTP Treatment and Disposal:</u> Treatment, Storage, and Disposal Facility (TSDF) Closure	When TSDF is unable to receive waste, transportation of that waste will be delayed. It may then become necessary to work overtime to recover schedule.	TSDF discontinues receiving of waste.	Open	Threat	Mitigate	Possible	Minor	2-Low	\$ 78,720	\$ 118,800	\$ 158,400	8	12	16	Best Case: 8 days x 10 hr./day x 6 FTEs X (\$110/hr. + OT = \$165/hr.) Most Likely Case: 12 days x 10 hr./day x 6 FTEs X (\$110/hr. + OT = \$165/hr.) Worst Case: 16 days x 10 hr./day x 6 FTEs X (\$110/hr. + OT = \$165/hr.)	Work overtime to recover and prevent further loss of schedule for treatment storage and disposal facility (TSDF).		
TRU043	D.2.05.30.19	IEC	Orme, Jason	Jenkins, Tally	<u>Non-AMWTP Treatment and Disposal:</u> Waste Container Treatment, Storage, and Disposal Facility (TSDF) Certification Failure	During the verification process, if a waste container(s) is found to not be in accordance with the TSDF Waste Acceptance Criteria (WAC), the waste will need to be reworked.	A container(s) is identified as damaged, packaged incorrectly, containing uncertified waste, containing prohibited items, etc.	Open	Threat	Mitigate	Rare	Minor	1-Low	\$ 54,000	\$ 81,000	\$ 108,000	4	6	8	Certification rework and repackaging to meet Waste Acceptance Criteria	Ensure proper training and qualifications	N/A	
TRU044	D.2.05.30.21	IEC	Orme, Jason	Jenkins, Tally	<u>Non-AMWTP Treatment and Disposal:</u> Emergency Equipment Lease/Repair	If critical equipment which supports daily operations fails, we will need to procure a replacement.	Critical equipment failure at CPP-1617.	Open	Threat	Mitigate	Likely	Serious	4-High	\$ 118,000	\$ 236,000	\$ 354,000	30	60	90	Equipment Costs per DCES sheet / Lease Rates for Equipment Total \$56,700 - 20% Equipment Potential Failures - Daily Rates 20% Higher than Monthly Rates	Procure required backup equipment to resume operations		
TRU045	D.2.05.30	IEC	Orme, Jason	Jenkins, Tally	<u>Waste Generator Services:</u> Failure to Upgrade Waste Tracking System	The current Waste Tracking System (WTS) is outdated and in need of a significant upgrade. If an upgrade is not performed, the project is at risk of consistent stop delays to perform repairs.	Dated WTS fails during project operations.	Open	Threat	Accept	Likely	Minor	2-Low	\$ 1,500	\$ 24,000	\$ 72,000	1	16	48	Best Case: 1 days x 10 hrs/day x 2 people x \$75/hr Most Likely: 16 days x 10 hrs/day x 2 people x \$75/hr Worst Case: 48 days x 10 hrs/day x 2 people x \$75/hr	N/A		
TRU049	D.2.03.36.04	IEC	Vargeso, Matthew	Jenkins, Tally	<u>AMWTP LLW/MLLW:</u> Generated RCRA Waste	Resource Conservation and Recovery Act (RCRA) waste that is generated as part IEC operations must be shipped offsite within 1 year of generation or IEC must provide documentation for wastes with no path to disposition. There is risk for funding to not be adequate for this scope due to it taking lower priority. If this risk were to materialize, it would affect shipments to commercial facilities (i.e. Energy Solutions (ES), Waste Control Specialists (WCS), Perma-Fix Florida (PFF)). If we fail to meet the one year to get rid of our New Gen RCRA waste, the DEQ (or EPA if superseded) will likely issue a compliance order, unless we can prove why we need to exceed the one year. It is not likely they will extend the one year for routine Newly Generated RCRA waste (i.e. there is no special waste content reason, only funding being the issue). If they issue a compliance order, and we don't meet the terms per their timeline, they can charge us \$37,500 per day until resolved. Not only will there be financial risk, but we also risk suspension/losing our RCRA Permit(s) based on the following rule: §3008(c): Violation of Compliance Orders If a violator fails to take corrective action within the time specified in a compliance order, the Administrator may assess a civil penalty of not more than \$37,500 for each day of continued noncompliance with the order. In addition, the EPA Administrator may suspend or revoke any permit issued to the violator (whether issued by the Administrator or the State). If our RCRA permit is suspended or revoked, it takes quite some time to get it back, more than likely 1-2 years. This would greatly impact current operations, as well as STP milestones.	1) Higher priority scope causes this work package to not get funded. 2) IEC generated RCRA waste is not shipped in acceptable timeframe.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 37,000	\$ 150,000	\$ 600,000	1	4	16	§3008(c): Violation of Compliance Orders If a violator fails to take corrective action within the time specified in a compliance order, the Administrator may assess a civil penalty of not more than \$37,500 for each day of continued noncompliance with the order. In addition, the EPA Administrator may suspend or revoke any permit issued to the violator (whether issued by the Administrator or the State). If our RCRA permit is suspended or revoked, it takes quite some time to get it back, more than likely 1-2 years. The costs associated with permit suspension/revocation are unknown above and beyond the daily costs of the penalty fees due to the large programmatic impact of such an event.	N/A	N/A	
TRU301	D.2.03.34	IEC	Martin, David	Jenkins, Tally	<u>CH-TRU Storage and Movement:</u> Equipment Availability	The robot is not delivered when the project expected to receive it. This causes delays to the schedule.	The robot is not delivered on the day it was expected to.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 10,000	\$ 20,000	\$ 40,000	8	16	32	Numbers developed based on CAM judgement. Subcontractor cost and schedule are in development and will be used to fine tune risk.	N/A		
TRU302	D.2.03.34	IEC	Martin, David	Jenkins, Tally	<u>CH-TRU Storage and Movement:</u> Less Than Anticipated Throughput	Once received, the robot does not perform as fast as anticipated. When throughput is less than anticipated, the project will experience schedule delays.	The project realizes the robot performs scans slower than originally anticipated.	Open	Threat	Mitigate	Rare	Minor	1-Low	\$ 5,000	\$ 20,000	\$ 40,000	4	16	32	Current numbers based on CAM judgement, subcontractor schedule and cost are being developed and will allow fine tune of risk	Procure a backup robot to operate in parallel to mitigate schedule delays.		
TRU305	D.2.04	IEC	Troescher, Patrick	Mitchell, Jason	Inadequate Waste Storage Space	The current storage space for generated waste is limited and with the lack of offsite disposal options combines with the increased generated RCRA waste need to be stored, the projects will run out of storage options for the waste.	Storage for RH TRU and IWTU RCRA generated waste reaches capacity.	Open	Threat	Accept	Almost Certain	Major	5-Very High	\$ 500,000	\$ 750,000	\$ 1,000,000	48	96	144	Best Case: A 3-month delay and need to construct a vault storage pad=\$27/sq Foot Most Likely: A 6-month delay and potentially multiple/larger storage pads Worse Case: A 9-month delay due to lack of construction resources and or additional material.	N/A	N/A	

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CID 89303321DEM000061/89304223FEM400000, Mod P00093
CLIN 03, Subtask 302
Task Order 3.2

Idaho Cleanup Project Programmatic Risk Register

Updated : 4.29.25

Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Cost Impacts			Schedule Impacts (in days)			Basis of Impacts	Mitigation Actions	Risk Corrective Actions	Notes
														Best Case	Most Likely	Worst Case	Best Case	Most Likely	Worst Case				
CAL018R2	D.3.02.30.13	IEC	Kimbro, Val	Balsmeier, Greg	CalclineRET1: Loss of Specialty Resources	Loss of qualified specialty resources could result in schedule delays.	Notification of intent to leave or retirement.	Realized	Threat	Accept	Likely	Major	4-High	\$ 48,000	\$ 80,000	\$ 160,000	48	80	80	Best Case: 48 days x 10 hr./day x 1.25 FTE x \$80/hr. Most Likely Case: 80 days x 10 hr./day x 1.25 FTE x \$80/hr. Worst Case: 80 days x 10 hr./day x 2 FTE x \$100/hr.	N/A	N/A	
CAL024	D.3.05.31.04	IEC	Kimbro, Val	Balsmeier, Greg	CalclineVIT: Loss of Specialty Resources	Loss of qualified specialty resources could result in schedule delays.	Notification of intent to leave or retire.	Realized	Threat	Accept	Likely	Major	4-High	\$ 48,000	\$ 80,000	\$ 160,000	48	80	80	Cost and schedule impacts are based on the time it takes to backfill a position. Basis is estimated as follows: - Best Case - Backfill one position (48 days x 10 hr./day x 1 FTE x \$100/hr.) - Most Likely Case - Backfill one position (80 days x 10 hr./day x 1 FTE x \$100/hr.) - Worst Case - Backfill two positions (80 days x 10 hr./day x 2 FTE x \$100/hr.)	N/A	N/A	
CAL030	D.3.05.31.05	IEC	Kimbro, Val	Balsmeier, Greg	CalclineVIT: Optimize Using BEA Business Relationships and Resources	It may be possible to optimize the cost and schedule by using the existing BEA relationship and resources under the blanket master contract or other agreement established between BEA and IEC. For example, BEA may have in-house specialist that could participate in a review team on documents being produced under TO3.2 scope of work, such as the siting study, treatment study reports, and the technology maturation plan/technology readiness level documents.	Business relationship and resources are available at BEA that are not readily available to IEC.	Open	Opportunity	Accept	Likely	Minor	2-Low	\$ (432,000)	\$ (216,000)	\$ (72,000)	(48)	(24)	(8)	Cost and schedule impacts are based on BEA supporting the scope of work and having a positive impact on the schedule. Basis is estimated as follows: - Best Case - 48 days x 10 hr./day x 4 FTE x \$225/hr. - Most Likely Case - 24 days x 10hr./day x 4 FTE x \$225/hr. - Worst Case - 8 days x 10 hr./day x 4 FTE x \$225/hr.	N/A	N/A	
CAL301	D.3.02.30.02	IEC	Kimbro, Valerie	Balsmeier, Greg	Calcline: Delay Finalizing the Draft 3116 Basis Document due to availability of resources (external to IEC)	Finalizing the Draft CSSF 3116 Basis Document as scheduled in TO3.2 may be delayed because of the availability of resources (external to IEC) to perform their roles in the review of the document.	Resources (external to IEC) are not available to perform their roles in the review of the Draft CSSF 3116 Basis Document.	Open	Threat	Accept	Rare	Minor	1-Low	\$ 12,500	\$ 25,000	\$ 50,000	5	10	20	Project realized approximately 20 days of delay in FY 2022 because resources external to IEC were unavailable. However, resources are now available, and this should be considered the worst-case scenario. As such, it was assumed the project would realize 5 days of delay as the best case and 20 days as the worst case. Additionally, schedule delays realized by this activity should be categorized as moderate to low, regardless of the cost and schedule impacts, because the decision in this document can be aligned with DOE's commitment to remove calcine from a from a bin set and close the facility. Basis for the cost and schedule impacts are as follows: - Best Case: 5 days X 10 hr/day X 2.5 FTE X \$100/hr = \$12.5K - Most Likely: 10 days X 10 hr/day X 2.5 FTE X \$100/hr = \$25K - Worst Case: 20 days X 10 hr/day X 2.5 FTE X \$100/hr = \$50K	N/A	N/A	
CAL302	D.3.02.40	IEC	Kimbro, Valerie	Balsmeier, Greg	Calcline: Limited or No Responses to the RFP for Online Sampling System Testing and Demonstrations	Not enough industry experts respond to the request for proposal for the contractor (Idaho Environmental Coalition, LLC) to award a competitive bid (or multiple bids) to a subcontractor that can meet the stated objectives and desired results.	No proposals are received to execute work to the stated objectives and desired results.	Open-Closed	Threat	Accept	Unlikely	Serious	2-Low	\$ 19,000	\$ 57,000	\$ 114,000	16	48	96	Best Case: Schedule and Cost impacts are based off an estimated 1 month delay to extend bid period. Most Likely Case: Schedule and Cost impacts are based off an estimated 3 month delay to extend bid period. Worst Case: Impacts have been estimated under the circumstance that off-the-shelf equipment doesn't meet criteria and needs to be modified. This scenario is estimated to result in a 6 month delay.			
CAL303	D.3.02.40	IEC	Kimbro, Valerie	Balsmeier, Greg	Calcline: Inadequate Information from Phase 1 Testing and Demonstrations of the Online Sampling System	Phase 1 work may not generate enough information to adequately evaluate the viability of the online sampling equipment and allow progression to Phase 2.	Inadequate information is generated to adequately evaluate the viability of the online sampling equipment.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 65,000	\$ 130,000	\$ 525,000	16	16	64	Best Case: Schedule and Cost impacts have been estimated based on the scenario that the no modifications to the system are required, the vendor simply needs to tighten parameters and reperform testing. Impacts are assumed at a 1 month delay for 1 vendor. Most Likely Case: Schedule and Cost impacts are estimated based on the vendor having to perform physical modifications to the system and reperforming tests. Impacts are assumed at a 1 month delay for 2 vendors working concurrently. Worst Case: Schedule and Cost impacts are estimated based on vendor having to reperform tests with a different online sampling system. Impacts assume a 4 month delay with 2 vendors working concurrently plus accruing costs for the increased time of the subcontracts.			Meeting with Brennan Kurth 10/29/24: Best Case is 1 month of rework, 1 vendor. Most Likely is 1 month of rework, 2 vendors Worst Case is 4 months of rework, 2 vendors
CAL304	D.3.02.40	IEC	Kimbro, Valerie	Balsmeier, Greg	Calcline: Limited Use of Proprietary Business Data	Unknown restrictions on proprietary information generated from the Phase 1 work could limit the use or sharing of information outside of the project.	Data cannot be used or shared because of proprietary restrictions.	Open	Threat	Accept	Unlikely	Moderate	2-Low	\$ -	\$ 260,000	\$ 1,000,000	0	32	96	Best Case: Limited information would be released and proprietary information would be vague or general in its description. This scenario creates challenge of creating a commercial application but does not accrue a Cost or Schedule impact to this proposal. Most Likely Case: Vendor does not allow IEC to share information on the equipment or use. In this scenario, IEC would have to pay the vendor to use the equipment. Impacts are based on subcontract cost for 2 vendors, and a 2 month delay. Worst Case: Schedule and Cost impacts are estimated based on IEC receiving minimal information and being directed to recreate and self-perform testing. Assuming there is some existing work that can be reused, schedule impacts are estimated at a 6 month delay, plus cost of hiring additional engineers.			
CAL305	D.3.02.40	IEC	Kimbro, Valerie	Balsmeier, Greg	Calcline: Inability to Accept or Use Data Generated from Software Used by the Subcontractor	Inability of the project to accept or use data generated from any of the software used during Phase 1 by the subcontractors because it does not meet Information Technology requirements and criteria.	Software or data cannot be used by the project because it does not meet Information Technology requirements and criteria.	Open	Threat	Accept	Unlikely	Major	3-Moderate	\$ 72,000	\$ 250,000	\$ 500,000	32	96	128	Best Case: Impacts are estimated based on a 2 month delay to get software approved through the appropriate company processes. Most Likely Case: Impacts are based on purchasing a software and having it approved through the appropriate company processes. This is estimated at a 6 month delay plus costs for the purchase of the software. Worst Case: Impacts are based on the Most Likely Case impacts plus the project having to hire specialty resources to opearate software.			
CAL314	D.3.02.31.14	IEC	Kimbro, Valerie	Kimbro, Valerie	Equipment Failure at the CPP-691	In FY2024, the CPP-691 integrated mockup ran the equivalent volume of material that is stored in CSSF 1 and it is possible equipment may unexpectedly fail during the next series of test planned for the air lance. Equipment failure at the full-scale mockup may cause unexpected costs and schedule delays. There are single points of failure on the system, such as the pre-filter and blower, that could have significant costs or schedule delays if the equipment were to fail. General maintenance costs for the CPP-691 facility and full-scale mockup were included in the Task Order 3.2 budget; however, it does not account for costs above the general maintenance budget.	Single-point failure of equipment on the full-scale mockup system	Open	Threat	Accept	Unlikely	Moderate	2-Low	\$ 101,000	\$ 172,000	\$ 585,000	20	30	88	*Best Case - Replace cyclone and elbows (20 days of downtime X 10 hr/day X 4 FTE X \$75/hr plus 16 days to install X 10 hr/day X 3 FTE X \$75/hr plus \$5K in materials *Most Likely Case - Replace fittings (30 days of downtime X 10 hr/day X 4 FTE X \$75/hr plus 24 days to install X 10 hr/day X 4 FTE X \$75/hr plus \$10K in materials *Worst Case - Replace pre-filter (88 days of downtime X 10 hr/day X 4 FTE X \$75/hr plus 12 days to install pre-filter X 10 hr/day X 4 FTE X \$75/hr plus \$285K in materials*			
CAL315	D.3.02.31.17	IEC	Kimbro, Valerie	Kimbro, Valerie	Supply Chain Delays or Long-Lead Procurement of Equipment for the FY2025 Outage at CPP-691	The FY2025 outage will be replacing and upgrading several pieces of equipment at the CPP-691 integrated mockup. At this time there are no known equipment needed for the outage that is sensitive to supply chain delays or requires long-lead procurement, however, it is possible that the project may realize schedule or cost impacts on any specialized equipment needed for the outage, such as the PLC system.	Receipt of equipment for the FY2025 outage is delayed due to supply chain issues or long-lead procurement.	Open	Threat	Accept	Likely	Minor	2-Low	\$ 30,000	\$ 60,000	\$ 240,000	8	16	64	Best Case - 2-week schedule delay (8 days of downtime x 10 hr/day x 5 FTE x \$75/hr). Most Likely Case - 4-week schedule delay (16 days of downtime x 10 hr/day x 5 FTE x \$75/hr). Worst Case - 16-week schedule delay* (64 days of downtime x 10 hr/day x 5 FTE x \$75/hr).			
CAL316	D.3.05.31.03	IEC	Kimbro, Valerie	Kimbro, Valerie	Schedule Delays Developing CD-1 Documentation Due to Availability of External Reviewers	Completing the CD-1 project management documents may be delayed due to availability of external resources to perform their reviews.	External resources are not available to review the CD-1 project management documents as scheduled in the baseline.	Open	Threat	Accept	Unlikely	Minor	2-Low	\$ 12,500	\$ 25,000	\$ 50,000	5	10	20	Project realized approximately 20 days of delay in FY 2022 because resources external to IEC were unavailable. However, resources are now available, and this should be considered the worst-case scenario. As such, it was assumed the project would realize 5 days of delay as the best case and 20 days as the worst case. Additionally, schedule delays realized by this activity should be categorized as moderate to low, regardless of the cost and schedule impacts, because the decision in this document can be aligned with DOE's commitment to remove calcine from a from a bin set and close the facility.			
CAL317	D.3.05.31.05	IEC	Kimbro, Valerie	Kimbro, Valerie	Subcontractor Costs May Exceed Planned Budget	Proposals from the subcontractors to complete preconceptual designs may exceed the planned budget.	Proposals exceed the planned budget to execute the work.	Realized	Threat	Accept	Likely	Moderate	3-Moderate	\$ 250,000	\$ 500,000	\$ 1,000,000	0	0	0	*Best Case - \$250K *Most Likely Case - \$500K Project has already received proposal stating that the project has exceeded the current planned budget cost. *Worst Case - \$1.0M*	Monitor vendors costs and across the project to identify potential efficiencies or savings within the line-item fund source. The project will continue to include the cumulative CPR in the IPT agenda and vendors budget tracking to keep DOE informed of the project performance and vendors costs.	Monitor vendors costs and across the project to identify potential efficiencies or savings within the line-item fund source. The project will continue to include the cumulative CPR in the IPT agenda and vendors budget tracking to keep DOE informed of the project performance and vendors costs.	



TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated : 4.29.25

													Cost Impacts			Schedule Impacts (in days)							
Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Best Case	Most Likely	Worst Case	Best Case	Most Likely	Worst Case	Basis of Impacts	Mitigation Actions	Risk Corrective Actions	Notes
CAL318	D.3.05.31.05	IEC	Kimbro, Valerie	Kimbro, Valerie	Subcontractor Provides Inadequate Information to Complete the TMP and TRL Assessment	It is possible the subcontractor cannot provide adequate information to complete the TMP and TRL assessment to a satisfactory level. For example, the subcontractor may determine that additional lab- and bench-scale testing is needed to support or validate their pre-conceptual designs and this may impact the development of the TMP and TRL assessment.	Inadequate information is provided by the subcontractor or additional work is needed to develop the TMP and TRL assessment to an adequate level.	Open	Threat	Accept	Rare	Moderate	1-Low	\$ 300,000	\$ 500,000	\$ 700,000	0	0	0	Best Case - \$300K in schedule delay/cost increase for vendors to execute additional work (\$100K IEC plus \$200K vendor) Most Likely Case - \$500K in schedule delay/cost increase for vendors to execute additional wor (\$100K IEC plus \$400K vendor) Worst Case - \$700K in schedule delay/cost increase for vendors to execute additional wor (\$100K IEC plus \$600K vendor)"			
CAL319	D.3.02.30.14	IEC	Kimbro, Valerie	Balsmeier, Greg	Upgrade to Major I&C System Components and Interfaces	Replacing major I&C system components and interfaces during the FY2025 outage at the full-scale mockup may cause unexpected costs and schedule delays. The project is planning to replace and upgrade the PLC equipment during the outage and every effort has been made to carefully plan the work to ensure tasks are completed within budget and schedule. However, as with any major I&C upgrades there are unknowns that could impact cost overruns and schedule delays or the project may experience unexpected events, such as receipt of wrong parts, scheduling priorities at INTEC, or technical errors, that could have negative impacts to cost and schedule.	PLC receipt of materials, fabrication, and install does not go as planned because of unknown or unexpected events.	Open	Threat	Mitigate	Unlikely	Moderate	2-Low	\$ 38,000	\$ 106,000	\$ 236,000	12	32	48	"Cost and schedule impacts are based on the possible scenarios of recovering from some unknown failure during the PLC upgrade. Basis is estimated as follows: - Best Case - Recover from minor failure of PLC upgrade (4 days of downtime x 10 hr./day x 5 FTE x \$75/hr. plus 8 days to install x 10 hr./day x 3 FTE x \$75/hr. plus \$5K in materials - Most Likely Case - Recover from moderate failure of PLC upgrade (16 days of downtime x 10 hr./day x 5 FTE x \$75/hr. plus 16 days to install x 10 hr./day x 3 FTE x \$75/hr. plus \$10K in materials - Worst Case - Recover from major failure of PLC upgrade (48 days of downtime x 10 hr./day x 5 FTE x \$75/hr. plus 16 days to install x 10 hr./day x 3 FTE x \$75/hr. plus \$20K in materials"	Recover from unknown or unplanned cost or schedule delays to resume scheduled testing.	N/A	
CAL320	D.3.02.30.17	IEC	Kimbro, Valerie	Balsmeier, Greg	Software Upgrades Impacts on Full-Scale Mockup Compatability	Software upgrades at the full-scale mockup may impact the functions of systems and equipment causing impacts to project costs and schedule. The project has previously experienced negative impacts to cost and schedule from software upgrades.	A software upgrade impacts the systems and equipment at the full-scale mockup where reprogramming or other changes at the mockup are needed.	Open	Threat	Mitigate	Unlikely	Minor	2-Low	\$ 7,500	\$ 30,000	\$ 60,000	2	8	16	"Cost and schedule impacts are based on the possible scenarios of software upgrades at the full-scale mockup. Basis is estimated as follows: - Best Case - No software upgrades. This is possible because the system is off-network and can function as is without the software upgrade; minor adjustment may be necessary (2 days of downtime x 10 hr./day x 5 FTE x \$75/hr.) - Most Likely Case - Upgrade software (8 days of downtime x 10 hr./days x 5 FTE x \$75/hr) - Worst Case - Upgrade software (16 days of downtime x 10 hr./day x 5 FTE x \$75/hr.)"	Install software upgrade to resume scheduled testing.	N/A	
CAL321	D.3.05.31.04	IEC	Kimbro, Valerie	Balsmeier, Greg	Software Cost and Capability Impacts Ability to Develop Pneumatic Flow Model	Software costs or capability may impact the project team's ability to develop a complete and comprehensive pneumatic flow model.	Software costs exceed project budget or the software does not have all the needed capabilities to develop a complete pneumatic flow model that meet all the project needs.	Open	Threat	Mitigate	Likely	Moderate	3-Moderate	\$ 36,000	\$ 54,000	\$ 84,000	16	24	4	"Cost and schedule impacts are based on purchasing software that exceed the project budget or selecting a software that cannot comprehensively develop the pneumatic flow model. Basis is estimated as follows: - Best Case - Selected software functions as needed with minimal effort and training. (16 days of rework x 10 hr./day x 3 FTE x \$75/hr.) - Most Likely Case - Selected software functions as needed with moderate effort and training (24 days of downtime x 10 hr./day x 3 FTE x \$75/hr) - Worst Case - Purchase annual software (4 days of downtime x 10 hr./day x 3 FTE x \$75/hr. plus \$75K/year software purchase)"	Select software that meet the project needs.	N/A	
CC007	D.1.21.30.16	IEC	Blorn, Scott	Wahnschaffe, Steve Montgomery, Cody	Core Car: Operational Readiness Review (ORR) is Determined to Be Required	If DOE directs IEC to perform an Operational Readiness Review in addition to a Readiness Assessment, it would cause schedule delays to perform.	DOE directs additional readiness activities prior to releasing operations.	Open	Threat	Mitigate	Unlikely	Major	3-Moderate	\$ 680,000	\$ 1,030,000	\$ 2,060,000	64	96	208	Best Case: 64 days X 10 hr. X 11.07 FTEs X \$96/hr. Most Likely: 96 days X 10 hr. X 11.07 FTEs X \$96/hr. Worst Case: 208 days X 10 hr. X 11.07 FTEs X \$96/hr.	Engage DOE SMEs for SAR revision, engineering analysis and design, nuclear and criticality safety analysis, and operational procedure development to ensure DOE is comfortable with the design and process.	N/A	
CC026	D.1.21.30	IEC	Blorn, Scott	Wahnschaffe, Steve Montgomery, Cody	Core Car: Core Remnants (Including Transport Equipment) Do Not Meet the WAC for Disposal at ICF	Physical characteristics of the core remnants or shipping equipment does not meet the Waste Acceptance Criteria (WAC) for ICF.	INTEC WGS Waste Stream Determination is completed.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 10,000	\$ 50,000	\$ 70,000	8	16	16		N/A		
CC300	D.1.21.30	IEC	Blorn, Scott	Wahnschaffe, Steve Montgomery, Cody	Core Car: Engineering/Safety Analysis Determines Core Cannot be Safely Removed From RSC or Processed	Design/Safety analysis determines the core cannot be safely removed from the RSC and transported to the laydown station without extensive modifications to the equipment/pool/process.	Completion of drop/safety analysis reveals scenario(s) that result in unacceptable risk or consequence.	Realized	Threat	Mitigate	Possible Likely	Critical	5-Very High	\$ 4,120,000 \$ 750,000	\$ 2,000,000 \$ 2,100,000	\$ 4,000,000 \$ 3,100,000	238	309	412		Add mechanically fasten to boration to ensure the core can be safely moved from the RSC to the lay down system and safely processed.	On 2/17/23 NNL notified IEC engineering of a concern that will require an alternative core handling strategy with additional engineered controls. If the core drop analysis determines additional controls are required to safely remove the core from the RSC and transfer it to the laydown system, this risk will be realized. Cost and schedule impacts will be dependant upon analysis results and the new strategy/controls required to move the core.	
CC301	D.1.21.30	IEC	Blorn, Scott	Wahnschaffe, Steve Montgomery, Cody	Core Car: Hydrogen Levels Inside the Shipping Shield Exceed HAD Limits	High hydrogen gas levels between the shipping shield and the RSC could indicate water inside the shipping shield. Due to potential RSC seal degradation, a hydrogen sample of the RSC will be required, potentially requiring a purge of the RSC to meet HAD requirements. (RSC sampling will require removal of the shipping shield lid.)	Performance of shipping shield cavity hydrogen sampling after the railcar is in place at CPP-666.	Open	Threat	Accept	Possible	Serious	3-Moderate	\$ 374,000	\$ 534,500	\$ 695,000	8	12	16		N/A		Perform drop analysis to bound shipping shield lid impacts to Railcar/shipping shield/RSC prior to the arrival of the railcar. Perform revision to CSE to incorporate mitigations required by drop analysis. Procure scaffolding and tent materials to be available to address this risk.
CC303	D.1.21.30	IEC	Blorn, Scott	Wahnschaffe, Steve Montgomery, Cody	Core Car: Integrated Testing of the Cutting Station Does Not Meet the Performance or Acceptance Criteria Documented in SPC-3256	Failure of equipment during integrated testing of the Cutting Station at IPM.	Cutting station does not meet the performance requirements documented in SPC-3256.	Open	Threat	Mitigate	Unlikely	Major	3-Moderate	\$ 110,000	\$ 210,000	\$ 575,000	86	94	122	MITIGATION ACTIONS: IRCO-018, Procurement of Long Lead Electrical Components submitted to expedite procurement of servo motors, encoders, PLCs, HMI, and servo drives to allow early bench testing. Bench testing will decrease risk and early procurement of spares will allow expedited repair if needed. MITIGATION ACTIVITY STATUS: IRCO-018 has been submitted and processed to address the procurement of long lead electrical and mechanical components.			
CC304	D.1.21.30	IEC	Blorn, Scott	Wahnschaffe, Steve Montgomery, Cody	Core Car: Failure of Cutting Station Components During Integrated Testing at IPM	Failure of mechanical or electrical equipment during integrated testing of the Cutting Station requires replacement or repair before testing can be completed at IPM.	Component fails or is damaged during integrated testing at IPM.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	\$ 50,000	\$ 150,000	\$ 325,000	12	48	103	MITIGATION ACTIONS: IRCO-013, Procurement of Long Lead Precision Mechanical Components submitted to expedite procurement of lead screws, trucks, and ball screw assembly replacements. Early procurement of spares will allow expedited repair if needed at IPM. MITIGATION ACTIVITY STATUS: IRCO-013 approved 12/10/24. IPM submitted order of replacement components. 12/11/24.			
CC305	D.1.21.30	IEC	Blorn, Scott	Wahnschaffe, Steve Montgomery, Cody	Core Car: Digital Control System in CPP-666 does not support water treatment/processing	System operations testing of the Digital Control System in CPP-666 reveals it cannot be repaired and must be upgraded/replaced to support Core Car processing.	Completion of system operations testing reveals Core Car Processing is not achievable.	Realized	Threat	Mitigate	Likely	Major	4-High	\$ 300,000	\$ 400,000	\$ 560,000	60	80	120	Cost and schedule based on upgrading/replacing Digital Control System in CPP-666.	Draft System Operations Test TPR	FDCS7158	Trigger Date for FDCS7158 was OCT 24-April 25 per Carls email. Risk Realized 3/4/25
CC306	D.1.21.30	IEC	Blorn, Scott	Wahnschaffe, Steve Montgomery, Cody	Core Car: Vendor refuses to accept IEC roll down terms and conditions.	Sub-contractor vendor refuses to accept roll down requirements from primary sub-contractor.	Vendor refuses to acknowledge purchase requisition because they take exception to required terms and conditions.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	\$ 150,000	\$ 250,000	\$ 600,000	24	64	102	Kolmorgen servos, encoders, and control systems were used to perform prototype testing to validate equipment performance. Kolmorgen refuses to comply. •Worst Case: Kolmorgen refuses to comply and project has to rever to the design phase. •Best Case: TE Connections refuses to certify the under water connections. IEC has to find another vendor to verify connections.	• Clarify contract required terms and conditions roll down with IPM. • Met with IPM to determine quality clause requirements for materials. • Lead a meeting with IPM and subcontract vendor to understand exceptions. • Researched and clarified requirements. • Conduct follow-up meetings for resolution.		
CC307	D.1.21.30	IEC	Blorn, Scott	Wahnschaffe, Steve Montgomery, Cody	Unforeseen Radiological Incident and/or Loss of Contamination Control.	An unexpected radiological incident and/or loss of contamination control outside the controlled area during processing of the core car may result in personnel decontamination and extended shutdown/recovery actions.	• Unexpected contamination levels or radioisotopes found in the core car upon receipt or processing. • Unexpected dose rates during processing of the core car.	Open	Threat	Accept	Likely	Serious	4-High	\$ 500,000	\$ 1,000,000	\$ 2,000,000	16	32	64	Cost and schedule impacts based on recovery actions/ shut down due to varying severity of a loss of contamination control/ radiation exposure.	Request necessary information from the Navy to mitigate unplanned scenarios.		
CERCLA001	D.4.05.30.09	IEC	Whitmore, Erik	Jenkins, Tally	CERCLA: Evaporation Pond Liner Damage	Existing CERCLA Evaporation liner tears which would require subcontractor support to complete repairs.	Existing liner is damaged.	Open	Threat	Mitigate	Unlikely	Moderate	2-Low	\$ 62,532	\$ 312,658	\$ 468,987	0	0	0	No schedule delays as all other work associated would continue while repairs are done.	Allocation for repairs for material failure of the pond liner, similar to currently existing situation	N/A	



TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated : 4.29.25

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Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Best Case	Most Likely	Worst Case	Best Case	Most Likely	Worst Case							
DST302	K.1.03.02	IEC/DOE	Wood, Todd	Jenkins, Tally	WIPP Shipment Delays	If IEC Safeguards and Security cannot gain full implementation of BEA support by January, 2025, WIPP shipments will be delayed until IEC can regain a compliant status.	BEA Services not obtained and implemented by January 2025.	Open	Threat	Share	Rare	Serious	2-Low	\$	100,000	\$	900,000	\$	900,000	0	32	96	Best Case: Cost impact is based on movement of IEC S&S supervisor to perform Attractiveness Level Determinations. Most Likely Case: IEC pays BEA a fee to perform the appropriate processes until IEC can gain full implementation status. This includes a 2 month delay to set up an agreement. Worst Case: IEC pays WIPP a fee to perform the appropriate processes there. This scenario delays shipments approx. 6 months.	Propose Share with DOE.	N/A	
DST303	K.1.03.02	IEC/DOE	Wood, Todd	Jenkins, Tally	Alternative Approach Required for LANMAS	If IEC is unable to continue using BEA's Local Area Nuclear Material Accountability Software (LANMAS) after BEA support ceases, IEC will be forced to find an alternative approach to implementing LANMAS. In this scenario, IEC will accrue unforeseen costs and experience schedule delays to find an alternative approach.	BEA ceases allowing IEC to use LANMAS system.	Open	Threat	Share	Unlikely	Serious	2-Low	\$	40,000	\$	900,000	\$	9,000,000	16	16	92	Best Case: Cost impacts are based on paying BEA a fee to continue using their system. Schedule impact is based on time to set up agreement. Most Likely Case: Cost impact is based on paying BEA a fee to continue this service for IEC. Schedule impact is based on time	Propose Share with DOE.	N/A	
DST316	K.0.03.02.11	IEC/DOE	Wood, Larry	Jenkins, Tally	Loss of BEA Training Support	BEA provides optional services to IEC, which supports our work at the INL. Some of these services have been discontinued. If training provided for the Nuclear Material Representative (NMR) ceases, IEC will be forced to find alternative training resources which will increase costs.	BEA ceases to offer optional training services to IEC for Nuclear Material Representative (NMR) position.	Open	Threat	Share	Rare	Moderate	1-Low	\$	10,000	\$	20,000	\$	30,000	16	32	48	BEA provides optional services to IEC, which supports our work at the INL. Some of these services have been discontinued. If training provided for the Nuclear Material Representative (NMR) ceases, IEC will be forced to find alternative training resources which will increase costs.	Propose Share with DOE.	N/A	
DST317	K.1.03.02.11	IEC	Wood, Larry	Jenkins, Tally	Single Point Failure of Personnel	Limited personnel resources will delay/ limit shipments to WIPP. Personnel with specific training and certifications are mandatory for shipments to WIPP to take place. The current number of FTE employees does not allow for support outside the Monday-Thursday 4X10 schedule which allows for 8 shipments per week.	Needing shipments outside of regular 4x10 schedule Increasing the number of shipments above 8 shipments per week. Employee taking extended PL or personnel attrition	Open	Threat	Accept	Likely	Minor	2-Low	\$	600	\$	1,800	\$	3,600	1	2	4	FTE NMR position requires 32 hours of paperwork a week to complete 8 WIPP shipments. Monthly Reconciliation averages 2.5 hours/week Monthly/ Quarterly Reports averages 2.5 hours/week The NMR already being tied up with required paperwork doesn't allow for additional work outside of 8 shipments per	Hire additional staff to support WIPP operations	N/A	
ICDF001	D.4.05.31.03	IEC	Orme, Jason	Jenkins, Tally	ICDF Ops and Maintenance: Equipment Failure	If equipment fails, it will need to be repaired or the project will need to procure a replacement. This equipment includes but is not limited to; road graders, excavators, front end loaders, diesel fuel trailer, water trucks, hook trucks, telehandlers, pumps, front end loaders, diesel fuel trailer, water trucks, hook trucks, telehandlers, pumps, liners, Digital Control System Equipment,	Failure of any equipment (i.e. road graders, excavators, front end loaders, diesel fuel trailer, water trucks, hook trucks, telehandlers, pumps, liners, Digital Control System Equipment,	Open	Threat	Accept	Likely	Serious	4-High	\$	67,240	\$	341,000	\$	511,000	30	60	90	Equipment Costs per DCEs sheet / Lease Rates for Equipment Total \$81,845 - 20% Equipment Potential Failures - Daily Rates 20% Higher than Monthly Rates / ICDF Contamination Zone Risk	N/A	N/A	
ICDF002	D.4.05.31.03	IEC	Orme, Jason	Jenkins, Tally	ICDF Ops and Maintenance: Treatment, Storage, and Disposal Facility (TSDf) Closure	Treatment, Storage, and Disposal Facility (TSDf) is unable to receive waste, transportation of that waste will be delayed. It may then become necessary for the project to incorporate actions to recover schedule.	TSDf discontinues receiving of waste.	Open	Threat	Mitigate	Likely	Minor	2-Low	\$	79,200	\$	118,800	\$	158,400	8	12	16	Best Case: 8 days x 10 hr./day x 6 FTEs X (\$110/hr. + OT = \$165/hr.) Most Likely Case: 12 days x 10 hr./day x 6 FTEs X (\$110/hr. + OT = \$165/hr.) Worst Case: 16 days x 10 hr./day x 6 FTEs X (\$110/hr.+ OT = \$165/hr.)	Implement the following possible mitigations: - Upon TSDf resuming operations, shipment(s) will commence and schedule will be recovered by working overtime.	N/A	
ICDF003	D.4.05.31.04	IEC	Orme, Jason	Jenkins, Tally	ICDF Ops and Maintenance: Waste Container Treatment, Storage and Disposal Facility (TSDf) Certification Failure	During the verification process, if a waste container(s) is found to not be in accordance with the NNSSWAC, the waste will need to be reworked.	A container(s) is identified as damaged, packaged incorrectly, containing uncertified waste, containing prohibited items, etc.	Open	Threat	Mitigate	Likely	Minor	2-Low	\$	54,000	\$	81,000	\$	108,000	4	6	8	Best Case: 8 days x 10 hr./day x 6 FTEs X (\$75/hr.+ OT = \$112.50/hr.) Most Likely Case: 612 days x 10 hr./day x 6 FTEs x (\$75/hr.+ OT = \$112.50/hr.) Worst Case: 16 days x 10 hr./day x 6 FTEs x (\$75/hr.+ OT = \$112.50/hr.)	Implement the following possible mitigations: - After Issues are corrected we will reevaluate and certify waste. Overtime will be worked to recover schedule.	N/A	
IND001a	Project Wide	IEC/DOE	Multiple CAMs	Multiple FPDs	Indirect Services: Mandatory Service Cost Increases	BEA provides multiple services to IEC, which support our work at the INL. Some of which IEC cannot seek alternative providers for. There is potential for unforeseen increase in cost for these mandatory services.	Increased Costs of Mandatory Services are applied.	Open	Threat	Share	Almost Certain	Critical	5-Very High	\$	2,000,000	\$	4,000,000	\$	6,000,000	0	0	0	Costs are based on fees associated with BEA FY23 Forecast.	Propose Share to DOE		
IND004	K.1.03.08	IEC	Henry-Jennifer Chapple, Debbie	Unknown	Training: Training Platform Transition Fails	BEA has made the decision to terminate the TRAIN (Training Records and Information Network) system, which is a service IEC utilizes. The training platform which BEA has chosen to transition to is a Learning Management System (LMS). IEC will experience an increase in cost, due to the fact that we must maintain the TRAIN system while implementing LMS. The risk is that funding will not be available to support two training platforms during this transition. This would include not having enough personnel to support based on the needs of the LMS.	IEC is informed that the budget request for funding the Training Platform Transition, including requested Full Time Employees (FTE), is denied.	Open	Threat	Accept	Possible	Major	4-High	\$	-	\$	1,120,000	\$	11,456,000	0	0	0	Best case: All responsibility goes solely to BEA. Most Likely: Cost of our personnel having to support this new implementation. Worst Case: Cost of our personnel with a 30% markup for having to subcontract this process out.	N/A		This risk was part of the original proposal (see Mod P00006) and had been missed on being incorporated into the master file.
IND005	K.103.08	IEC	Henry-Jennifer Chapple, Debbie	Unknown	Training: Inefficient Personnel Growth	IEC employs various disciplines. There is potential of not being able to adequately fund courses geared towards personnel development and growth in individual career fields. If IEC is unable to adequately fund these programs for personnel, there is potential of losing personnel seeking more professional growth. There is also the risk of having a less efficient work force.	Funding is not adequate to support sending personnel to train and attend developmental courses geared towards their career field.	Open	Threat	Accept	Possible	Moderate Serious	3-Moderate	\$	100,000	\$	600,000	\$	3,000,000	0	0	0	Best Case: Lose 1 person Most Likely: Lose 12 people Worst Case: Lose 30 people at approximately \$100k/person	N/A		This risk was part of the original proposal (see Mod P00006) and had been missed on being incorporated into the master file.
IND009	Project Wide	IEC	Cooper, Brandy	Walker, Schyler	Global: Approval of Business Systems	IEC has multiple systems utilized that need to be approved by DOE. In some cases, approval may not be granted, resulting in corrective actions that could be costly. Additionally, there will be reviews/audits done that could require additional steps or potential re-work of associated procedures. This could lead to purchasing different systems, acquiring subcontractors to help complete re-work, and potentially going through additional reviews and audits.	Any utilized business system does not meet required standards and gain approval.	Open	Threat	Accept	Possible	Minor	2-Low	\$	80,000	\$	100,000	\$	120,000	0	0	0	Impact based on expected software or subcontract costs related to corrective actions.			This risk was part of the original proposal (see Mod P00006) and had been missed on being incorporated into the master file.
IND302	Project Wide	IEC	Roberts, Benjamin	Unknown	Indirect Services: Loss of DOE Critical Software Licensure	DOE provides critical software licenses for IEC, which supports all work at the INL. If they cease to provide these licenses, IEC will have to procure licenses to continue supporting INL. Procuring critical software licenses will accrue additional costs.	Loss of DOE provided critical software licensure.	Open	Threat	Accept	Almost Certain	Moderate	4-High	\$	675,000	\$	337,500	\$	270,000	0	0	0	Costs are based on fees associated with IEC procuring critical software licenses. Best Case: Reducing the number of users to 60 and IEC does not have to buy Cobra licenses. Most Likely: IEC has to buy P6 licenses. \$4500 (P6 license cost) * 75 users = \$337,500 Worst Case: This number is double most likely, assuming that			
INDRP001	K.1.03.03.08	IEC	Henry-Jennifer Chapple, Debbie	Unknown	Radiation Protection: Spare Rad Instrument Disposal	IEC has several cargo containers at the projects that are filled with old radiological instruments. The instruments are currently being kept for use as spare parts to keep instruments running until older units can be replaced. Once old instruments are replaced, there will be reviews/audits done that could require additional steps or potential re-work of associated procedures. This could lead to purchasing different systems, acquiring subcontractors to help complete re-work, and potentially going through additional reviews and audits.	Spares are determined to be disposed under a strict timeline.	Open	Threat	Accept	Almost Certain	Critical	5-Very High	\$	1,500,000	\$	3,000,000	\$	5,000,000	0	0	0	Best Case: they only require a dispose of current inventory of spares Most Likely: require disposal of current spares and spares that come from current projects such as ARP Worst Case: This number is double most likely, assuming that	N/A		
INTEC011R2	D.3.03.32.02	IEC	Balsch, Kasey	Renevitz, Joe	INTEC BOP: Transformer Failure Causes Unscheduled Electrical Outage	A transformer failure can cause an unscheduled power outage with long repair times. Transformers can require long procurement times depending on the size needed. All production could halt within the affected facility due to a lack of electrical power.	Electrical equipment (transformer) failure due to prolonged exposure to harsh outdoor weather conditions without testing or maintenance.	Open	Threat	Accept	Possible	Minor	2-Low	\$	250,000	\$	545,600	\$	2,578,000	48	96	160	Best Case- transformer fails on double end fed piece of equipment so cost to replace is the materials only of 250k. Most Likely - transformer failure which causes partial building outage (CPP-606) for duration of the time it takes to get a new in house design delay can be an issue. It will take six weeks to source the job to outside engineering company just to be awarded, plus designing period, that would cost three to six	N/A		
INTEC041R2	D.3.03.38.09	IEC	Klukis, Venita	Renevitz, Joe	INTEC Distributed Control System Upgrades: DCS electronics failure	The DCS electronic systems need to be updated to more readily available products in the event of a system failure. Parts for the currently operated system are not readily available as it is an outdated system.	Outdated DCS equipment fails upon use.	Open	Threat	Mitigate	Possible	Critical	4-High	\$	250,000	\$	300,000	\$	500,000	90	150	270	Best - 30d x 10 h/d x 1fte x 100/hr = 30,000 Lik - 60d x10h/d x3fte x 100/hr = 180,000 Wo - 90d x 10h/d x 3fte x 100/hr =270,000	Work with engineering to prioritize high risk equipment and replace them first.		
INTEC059R2	D.3.03.39.02	IEC	Kelly, Patrick	Renevitz, Joe	Emergency Communication System Air #1: ECS wireless system failure.	Existing ECS wireless system failure causes the work to be stopped-and impacts the accomplishment of the fire panel conversion process.	Failure of the INTEC ECS which stops the fire panel conversion work progress and testing.	Open	Threat	Accept	Unlikely	Serious	2-Low	\$	30,000	\$	180,000	\$	270,000	30	60	90	Best - 30d x 10 h/d x 1fte x 100/hr = 30,000 Lik - 60d x10h/d x3fte x 100/hr = 180,000 Wo - 90d x 10h/d x 3fte x 100/hr =270,000	Have an ECS recovery plan in place to repair the system.		
INTEC060R2	D.3.03.39.02	IEC	Kelly, Patrick	Renevitz, Joe	Emergency Communication System Air #1L: BEA reprogramming was not completed in a timely manner.	Required BEA reprogramming at the Central Fire Station for each ECS panel conversion is not completed in a timely manner.	BEA does not reprogram and work to test system is suspended.	Open	Threat	Accept	Unlikely	Moderate	2-Low	\$	14,000	\$	90,000	\$	120,000	14	30	60	Best - 14d x 10 h/d x 1fte x 100/hr = 14,000 Lik - 30d x10h/d x3fte x 100/hr = 90,000 Wo - 60d x 10h/d x 3fte x 100/hr =120,000	Have early communications with BEA and have needed necessary documentation in place to allow coordination between IEC and BEA for needed programming.		
INTEC068R2	D.3.03.3C.02	IEC	Klukis, Venita	Renevitz, Joe	INTEC Crane Upgrade: PaR Re-certification Scope Definition	Full work scope to re-certify existing PaR arm is unknown and could exceed estimated cost and schedule once vendor evaluation is complete.	Vendor inspection and testing upon receipt of PaR arm.	Open Closed	Threat	Mitigate	Possible	Serious	2-Low	\$	100,000	\$	250,000	\$	400,000	16	48	96	Used maintenance costs and lead time on parts for the Most Likely case and then adjusted 25% both ways to arrive at the Worst Case and Best Case values.	Inspect PaR arm prior to shipment to better determine risk level		
INTEC156	D.3.03.30.13	IEC	Wilcox, Christopher	Renevitz, Joe	Deep Well Pump Control Panel: Legacy Fiber Compatibility	Current fiber optic is old and may not be compatible for system upgrades. The entire fiber optic cable may need to be replaced.	During installation process it is found that the current fiber optic will not be adequate to support the new upgrades.	Open	Threat	Accept Mitigate	Possible Rare	Moderate	1-Low	\$	82,000	\$	120,000	\$	168,000	12	20	28	Purchase new fiber optic \$10,000 Labor to install Days X10 hr./day X 6 FTE X \$100/hr.	On 2/17/25, we had IT come out to INTEC and test the Fiber optic cable on the OOS (CPP-1643) section of the fiber cable to CPP-606 for length and condition. The results were positive, and IT assumes that this test would compare to the condition of the other fiber line		
INTEC162	D.3.03.30.13	IEC	Wilcox, Christopher	Renevitz, Joe	Deep Well Pump Control Panel: Specialized Products Availability for Project Needs	Due to specialized products needed for this project, the lead time could be longer than expected.	Vendor fabrication and bench test CPP-606 control panel, CPP-1642 & 1643 control panel installs.	Open	Threat	Accept	Unlikely	Moderate	2-Low	\$	150,000	\$	300,000	\$	960,000	5	10	32	Best Case: 5 days X10 hrs./day X 2 crews (20 FTEs) X \$75/hr. = \$150,000	N/A		
INTEC211	D.3.03.32.01 D.3.03.32.02	IEC	Balsch, Kasey	Renevitz, Joe	BCP PML: Failure to Follow Process Steps and/or Expectations Results of Major Noncompliance Issue	In the event that the project experiences a major noncompliance issue, it could result in additional resources required, changes to work control, additional training required, etc.	A Major Noncompliance event occurs.	Open	Threat	Accept	Likely	Major	4-High	\$	250,000	\$	500,000	\$	1,000,000	48	96	192	Cost of subcontract mentors, cost to refurbish program, cost for retraining.	N/A	Apply additional outside oversight to ensure we are following process steps and expectations	



TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated : 4.29.25

Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Cost Impacts			Schedule Impacts (in days)			Basis of Impacts	Mitigation Actions	Risk Corrective Actions	Notes
														Best Case	Most Likely	Worst Case	Best Case	Most Likely	Worst Case				
INTEC212	D.3.03.30.04	IEC	Balisch, Kasey	Renewitz, Joe	BDP CM: Critical Legacy Equipment Failure	INTEC utilizes many pieces of legacy equipment, such as: cranes, overhead doors, transformers, etc. Legacy equipment has the potential of failing due to the nature of its age. Unforeseen equipment failure can cause unscheduled outages to repair and	Equipment fails.	Open Realized	Threat	Accept	Almost Certain	Critical	5-Very High	\$ 500,000	\$ 1,000,000	\$ 2,000,000	96	192	288	616 compressor replacement actuals, potable water wiring actuals, 1647 piping actuals, cathodic protection replacement actuals.	N/A		
INTEC215	D.3.03.30.13	IEC	Wilcox, Christopher	Renewitz, Joe	Deep Well Pump Control Panel: Electrical Upgrades Requirements	New panels with a higher rating would require power upgrades to be installed such as new breakers or panels.	Subcontractor design drawing reviews.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 40,000	\$ 75,000	\$ 110,000	8	16	24	Purchase and install electrical equipment = materials \$1000 Labor days X 10 hr. X 6 FTE X \$75/hr.	N/A		
INTEC216	D.3.03.30.13	IEC	Wilcox, Christopher	Renewitz, Joe	Deep Well Pump Control Panel: Engineering Resource Availability During Design	During the design phase of the project, engineering resources may be too low to support this project, causing a schedule delay and additional costs.	Design engineering have low resources.	Open	Threat	Mitigate	Rare	Minor	1-Low	\$ 20,000	\$ 40,000	\$ 60,000	8	16	24	Procure subcontractor services to provide design details for project. Schedule delay to procure their services and cost above what we would pay our own engineers.	Procure subcontractor services to provide design		
INTEC302	D.3.03.39.02	IEC	Kelly, Patrick	Renewitz, Joe	Emergency Communication System Alt #1: Design from Subcontractor Inadequacies	Initial Design from subcontractor does not conform with field conditions requiring additional work on drawings to be able to move forward with the work.	Drawing inadequacies discovered during work control development.	Realize	Threat	Accept	Almost Certain	Moderate	4-High	\$ 175,000	\$ 230,000	\$ 350,000	96	128	208		Project Manager will work ahead of the work control to try to remain on top of the issue.		
INTEC306	D.3.03.36.02	IEC	Klukis, Venita	Renewitz, Joe	ITWU Vulnerabilities: Waste Boxes Requires Additional Processing Before Disposal	Waste boxes do not meet specifications for disposal requiring them to be processed at an offsite facility or to be shipped to a different location, creating higher disposal fees.	Waste container does not meet shipping requirements.	Open Realized	Threat	Mitigate	Likely Rare	Minor	1-Low	\$ 70,000	\$ 140,000	\$ 280,000	8	8	8	Vulnerabilities previously paid a company about \$60,000 per box for disposal. To account for inflation the costs will be set at \$70,000 per box. Best case is 1 box. Most likely is 2 boxes. Worst case is 4 boxes. Time is set at two weeks to coordinate sending the boxes to an off-site facility to be processed.	Crews have been informed of shipping requirements and to do what they can to meet those specifications.		
INTEC307	D.3.03.38.09	IEC	Klukis, Venita	Renewitz, Joe	DCS Upgrades: Hardware procurement issues	Hardware could have long lead times causing schedule impacts for implementation. Hardware could also be unavailable or very difficult to locate causing budget and schedule impacts.	Procurement of hardware.	Open	Threat	Accept	Possible	Major	4-High	\$ 1,000	\$ 2,000	\$ 3,000	48	96	182	3, 6, and 12 months delay with minimal cost impacts since project would shut down until materials arrived.	N/A		
INTEC308	D.3.03.38.09	IEC	Klukis, Venita	Renewitz, Joe	DCS Upgrades: Engineering resources become limited during project execution	With limited personnel the DCS engineering group could experience a reduction in personnel due to attrition or health issues. This would create longer lead times to complete items.	DCS engineer leaves the department or is placed on STD/LTD.	Open	Threat	Accept	Possible	Major	4-High	\$ 1,000	\$ 2,000	\$ 2,000	24	96	96	Best case: 6 weeks for the typical amount of time someone is on STD. Cost impacts are minimal since the project will be on hold until personnel return. Most Likely: 6 months for someone who needs the full time on STD. Cost impacts are minimal since the project will be on hold until personnel return. Worst case: 6 months to hire and train a replacement. Cost	N/A		
INTEC309	D.3.03.38.09	IEC	Klukis, Venita	Renewitz, Joe	DCS Upgrades: Current system design has unknown aspects	The current system does not have drawings or documentation which could cause the project to encounter unknown aspects or conditions during investigation, installation, and testing.	Unknown condition encountered at any time during project.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 5,000	\$ 10,000	\$ 20,000	8	16	32	Best case: two weeks to investigate issues and purchase additional software or hardware to address. Most Likely: 1 month	N/A		
INTEC310	D.3.03.38.09	IEC	Klukis, Venita	Renewitz, Joe	DCS Upgrades: Testing after installation is not successful	After the installation of the software and hardware, during testing, it is discovered the system is not operational as intended.	Testing of system does not end in viable equipment.	Open	Threat	Accept	Unlikely	Minor	2-Low	\$ 1,000	\$ 50,000	\$ 300,000	8	16	182	Best Case: Possible bugs that need to be addressed causing the schedule to move 2 weeks and minimal costs incurred. Most Likely: Engineering requires 1 month to address issues along with purchasing new equipment. Worst Case: The new system is not viable causing an entire redesign.			
INTEC311	D.3.03.38.09	IEC	Klukis, Venita	Renewitz, Joe	DCS Upgrades: Incompatibilities with other field devices	During installation of the new software and hardware it is discovered that the current field equipment (IO, VFDs, etc.) are not compatible and do not function properly.	Field equipment does not function after installation of new hardware and software.	Open	Threat	Accept	Possible	Serious	3-Moderate	\$ 5,000	\$ 50,000	\$ 175,000	16	48	96	Best case: engineering requires 1 month to purchase software or hardware to create a bridge to equipment Most Likely: three months with software and hardware purchases Worst case: New VFDs, IO, etc will need to be purchased that is compatible with system requiring 6 months and extensive costs.			
INTEC312	D.3.03.38.09	IEC	Klukis, Venita	Renewitz, Joe	DCS Upgrades: Software development could require more time than anticipated	Software development for an aged system could prove to be more complicated than originally planned leading to additional man hours and schedule changes that will delay	Software development does not finish within scheduled period.	Open	Threat	Accept	Likely	Minor	2-Low	\$ 8,000	\$ 16,000	\$ 32,000	8	16	32	Design engineering labor hours will be the only impact so their time is assumed to be \$100 per hour. Schedule impacts are			
INTEC313	D.3.03.3C.02	IEC	Klukis, Venita	Renewitz, Joe	CPP-603 PAH Refurbishment: Lost or damaged equipment during shipping.	Lost or damaged equipment during shipping.	Shipping boxes.	Open	Threat	Accept	Rare	Critical	3-Moderate	\$ 330,000	\$ 660,000	\$ 1,000,000	366	366	366	*Worst case is based off of replacing the entire assembly of the PAH. Most likely and best case are broken down by 1/3 of ML. Long lead times from PAH. *Note these lead times may extend out past the Task Order time constraints."			
INTEC314	D.3.03.36.02	IEC	Klukis, Venita	Renewitz, Joe	ITWU Vulnerabilities: Damage to the Crane impacts schedule	Due to the vital nature of the crane to this project scope any unforeseen damage to the crane could significantly impact cost schedule.	Damage to crane	Realized	Threat	Accept	Almost Certain	Major	5-Very High	\$ 50,000	\$ 100,000	\$ 250,000	48	96	366	Previous damage to crane took approximately 2 years to get back into operation. Costs are based on escalation/inflation possibilities of the work being pushed. *Note these lead times may extend out past the Task Order time constraints.			
INTEC315	D.3.03.38.04	IEC	Kelly, Patrick	Renewitz, Joe	INTEC Cell Phone Coverage: Insufficient signal strength	Insufficient signal strength may require relocate external antennas.	Signal strength test comes back lower than adequate.	Realized Closed	Threat	Accept	Likely	Serious	4-High	\$ 100,000	\$ 129,000	\$ 150,000	48	64	96	cost of DCS plu/minus 25%			
INTEC317	D.3.03.36.02	IEC	Klukis, Venita	Renewitz, Joe	ITWU Vulnerabilities: Filter door maintenance cannot be performed	The filter bank maintenance cannot be performed because of accessibility, ALARA, or other equipment issues forcing engineering to redesign the door closure system for	The filter bank maintenance cannot be performed because of accessibility, ALARA, or other equipment issues	Realize	Threat	Accept	Rare	Serious	2-Low	\$ 15,000	\$ 30,000	\$ 45,000	32	64	96	Best case: design, build, and install of 12 door closures \$15K as best estimate of the cost of materials			
INTEC318	D.3.04.31.06	IEC	Klukis, Venita	Renewitz, Joe	Reboiler Replacement: Material delivery to subcontractor delays delivery of reboiler	Material needed to fabricate the reboiler is delayed causing the delivery of the reboiler to INTEC to be delayed.	Material delivery extends past current lead time of 6 months	Open	Threat	Accept	Possible	Serious	3-Moderate	\$ 1,000	\$ 200,000	\$ 1,500,000	16	48	64	Talking to the vendor the best case scenario is a one month delay for all the materials to be delivered. This would have minimal impact. The most likely would be a three month delay which would put the project at severe risk of not meeting the			
INTEC320	D.3.03.37.02	IEC	Kelly, Patrick	Renewitz, Joe	Walking Working Surfaces: Engineering Redesign Required	Subcontractor drawings for walking working surfaces inadequate and require IEC engineering redesign	Existing drawings from subcontractor do not meet Osha requirements	Realized	Threat	Accept	Almost Certain	Serious	5-Very High	\$ -	\$ -	\$ -	30	60	90	Schedule Impacts Only			
INTEC321	D.3.03.37.02	IEC	Kelly, Patrick	Renewitz, Joe	Walking Working Surfaces: Inclement Weather	If temperatures do not get above freezing, painting will not be possible	Temperatures not getting above freezing	Open	Threat	Accept	Likely	Major	4-High	\$ -	\$ -	\$ -	60	90	120	Schedule Impacts only			
INTEC322	D.3.04.31.07	IEC	White,Terry Klukis, Venita	Renewitz, Joe	Reboiler Replacement: Expanding Tubes Fabrication Abnormalities	Expanding tubes may result in fabrication abnormalities. Given tubes and mating surfaces are not similar materials no repair options are available which results in having to re-accomplish work. Reboiler would need to be disassembled before restarting rework.	Final stage of fabrication when internal tubes are expanded.	Emerging Open	Threat	Accept	Rare	Minor	1-Low	\$ 15,000	\$ 25,000	\$ 55,000	8	16	64	Work is being performed by Premier and impacts are inferred from their description of the potential fabrication risk. Formal quoting would occur if risk were to be realized.	Premier will be fabricating a sample for them to prototype the tube expansions to ensure they're approach is achievable prior to performing work on the reboiler.		
INTEC323	D.03.04.31.06	IEC	Klukis, Venita	Renewitz, Joe	Engineering services delay reboiler delivery	Premier is using a subcontractor to perform the engineering services of the project. Updates to the drawings are delays due to lack of priority causing an increased delivery date delay. A delay in the schedule could cause the PBI to be missed.	Any time a change to the drawings needs to be made to support fabrication.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	\$ 1,000	\$ 800,000	\$ 800,000	16	32	32	The contractor has increasing missed deadlines that keep causing schedule delays. If the schedule delays cause the delivery of the reboiler to push into the next task order the PBI would be missed causing the company to miss out on those funds.	IEC has requested the vendor to require their subcontractor to be onsite during the fabrication of the reboiler.	TFREBOIL354	BGS is the engineering firm that is causing the scheduling delays.
IT004	D.6.02.35.38.44	IEC	Anderson, Jade	O'Malley, Russell	Information Technology: Subcontractor Availability	Subcontractor availability (wheeler electric, Leverage) preference and availability.	Preferred subcontractor is unavailable.	Open	Threat	Mitigate	Rare	Serious	2-Low	\$ 216,000	\$ 576,000	\$ 1,296,000	24	64	144	Best Case: 24 days x 10 hr./day x 4 FTEs x \$225/hr.= \$216,000 Most Likely: 64 days x 10 hr./day x 4 FTEs x \$225/hr.= \$576,000 Worst Case: 144 days x 10 hr./day x 4 FTEs x \$225/hr.= \$1,296,000	Develop a request for back-up subcontractor.	N/A	
IT005	D.6.02.34, D.6.02.36, D.6.03.33	IEC	Anderson, Jade	O'Malley, Russell	Information Technology: Unforeseen Structural Issues During Operations	Unforeseen structural issues would require involving our facilities and the schedule is at risk of being pushed to their timeline. The expectation is minimal structural issues, a sizeable structural concern will cause delays, possible engineering contractors, structural contractors, electricians, and increased costs.	A sizeable structural concern is discovered.	Open	Threat	Accept	Unlikely	Critical	3-Moderate	\$ 320,000	\$ 960,000	\$ 1,920,000	40	120	240	Best Case: 40 days x 10 hrs/day x 4 FTEs x \$200/hr = \$320,000 Most Likely: 120 days x 10 hrs/day x 4 FTEs x \$200/hr = \$960,000 Worst Case: 240 days x 10 hrs/day x 4 FTEs x \$200/hr = \$1,920,000	N/A		
IT010	D.6.02, K.1.02.04	IEC	Anderson, Jade	O'Malley, Russell	Information Technology: Software Upgrades	Scheduling testing for software upgraders (ARAB risk assessments for Cyber and IT)- Derogatory information discovered during risk assessment, or software vulnerabilities discovered render software or hardware item unfit for use at ICP.	Discovery of derogatory information.	Open Closed	Threat	Mitigate	Unlikely	Minor	2-Low	\$ 18,000	\$ 72,000	\$ 288,000	4	16	64	Best Case: 4 days x 10 hr./day x 2 FTEs x \$225/hr.= \$18,000 Most Likely: 16 days x 10 hr./day x 2 FTEs x \$225/hr.= \$72,000 Worst Case: 64 days x 10 hr./day x 2 FTEs x \$225/hr.= \$288,000	Perform preliminary assessment to locate any vulnerabilities and adjust coding as necessary.	N/A	
IT012	D.6.03.32.01	IEC	Anderson, Jade	O'Malley, Russell	Information Technology: Sourcing Hardware	Due to supporting legacy and aging systems needed for on-going operations, items needed may be discontinued by the manufacturer. Cannot locate items that are of limited supply.	Cannot source Hardware.	Open	Threat	Accept	Possible	Serious	3-Moderate	\$ 216,000	\$ 576,000	\$ 1,296,000	24	64	144	Best Case: 24 days x 10 hr./day x 4 FTEs x \$225/hr.= \$216,000 Most Likely: 64 days x 10 hr./day x 4 FTEs x \$225/hr.= \$576,000 Worst Case: 144 days x 10 hr./day x 4 FTEs x \$225/hr.= \$1,296,000	N/A	N/A	
IT013	D.6.02.38,39,41 D.6.03.32, D.6.03.33, D.6.02.34, D.6.02.35.01	IEC	Anderson, Jade	O'Malley, Russell	Information Technology: Unforeseen Technical Issues	Unforeseen technical issues or major failures can impact the planned schedule, e.g., ransomware.	Technical issues or major failures occur.	Open	Threat	Accept	Possible	Critical	4-High	\$ 288,000	\$ 864,000	\$ 1,728,000	36	108	216	Best Case: 36days x 10 hr./day x 4 FTEs x \$200/hr.= \$288,000 Most Likely: 108 days x 10 hr./day x 4 FTEs x \$200/hr.= \$864,000 Worst Case: 216days x 10 hr./day x 4 FTEs x \$200/hr.= \$1,728,000	N/A	N/A	



TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated : 4.29.25

Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Cost Impacts			Schedule Impacts (in days)			Basis of Impacts	Mitigation Actions	Risk Corrective Actions	Notes
														Best Case	Most Likely	Worst Case	Best Case	Most Likely	Worst Case				
IT307	K.1.02.04	IEC	Anderson, Jade	O'Malley, Russell	<u>Information Technology</u> : New VMWare pricing structure not budgeted in FY25.	VMWare is changing to a per-CPU-Core pricing model. Currently, we are paying \$80K for a 3-year license, which expires this year. If we do nothing, the new license will be \$500K yearly. IT is currently looking at changes and could possibly get this cost down to ~\$340K.	Expiration of the current VMWare license.	Emerging	Threat	Mitigate	Almost Certain	Moderate	4-High	\$ 80,000	\$ 340,000	\$ 500,000	0	0	0	VMWare is changing to a per-CPU-Core pricing model. Currently, we are paying \$80K for a 3-year license, which expires this year. If we do nothing, the new license will be \$500K yearly.	Changing our Virtual Machine infrastructure. Exploring other VM products.		
IT309	D.2.05.30.20	IEC	Anderson, Jade	O'Malley, Russell	<u>Information Technology</u> : End of Life Software	The ICS at AMWTP runs on end-of-life software called FactoryLink that is no longer available. The company that it was purchased from no longer exists and the company that purchased it offers a completely different system now. If the software reaches a point where it can no longer be fixed then IEC will need to purchase a new system.	A software defect is found that halts operations, which the 3rd party support company is unable to resolve.	Emerging	Threat	Mitigate	Rare	Critical	3-Moderate	\$ 1,000,000	\$ 2,000,000	\$ 3,000,000	120	360	720	The last estimate for the cost of the software was \$450K plus the installation and customization costs. Replacing then customizing will be time consuming and labor intensive.	IEC pays for a support contract from a 3rd party if the software can be fixed. This contract is a limited support contract that only covers software defects and licensing.		
IT310	D.2.05.30.20	IEC	Anderson, Jade	O'Malley, Russell	<u>Information Technology</u> : Waste Tracking System Failure	The Waste Tracking System (WTS) is an Oracle forms 6i application. Oracle forms 6i considered an end-of-life system and is no longer compatible with current databases. This means it cannot be patched for cybersecurity purposes. This leaves the forms and database at risk of attack as they are stagnant with no alternative to move forward.	The WTS application is attacked through the vulnerabilities associated with the EOL software.	Emerging	Threat	Accept	Rare	Critical	3-Moderate	\$ 1,500,000	\$ 2,100,000	\$ 3,000,000	96	208	416	Waste Tracking System (WTS) is a legacy application that has been in need of an upgrade for many years. Forms 6i has been end-of-life since 2008 but has been compatible with the Oracle databases up until Oracle 12c, which became end-of-life in 2022. Upgrading the system to a platform that is current and able to be patched for vulnerabilities will cost a large amount of money and take a considerable amount of time.	The WTS application is protected through many network mitigations.		
IT311	K.1.02.04	IEC	Anderson, Jade	O'Malley, Russell	<u>Information Technology</u> : Cyber Vulnerabilities	Cyber Vulnerabilities create an attack vector for hackers to penetrate the network. After penetrating the network, hackers can then steal information, lock the network for ransom, or delete or destroy information.	A hacker is able to penetrate the network.	Open	Threat	Mitigate	Rare	Moderate	1-Low	\$ 500,000	\$ 10,000,000		0	14	180	Cyber vulnerabilities are potential weaknesses in an organization's cybersecurity defenses that can be exploited by hackers to gain unauthorized access to sensitive information and systems. When these vulnerabilities are not properly addressed, they can lead to a wide range of negative consequences, including data theft, ransomware attacks, and even complete network destruction. Best case: attack is thwarted, no impact Most likely case: Attacker is able to launch an attack resulting in data theft or ransomware. Worst Case: Attacker is a Cyber terrorist, resulting in destruction of the network.	There are many strategies. The first strategy is to patch the vulnerable network item. The second is to employ a configuration that removes the attack vector. The third is to place the item behind firewalls to protect them. These strategies are employed daily by the IT staff.		
IT312	K.1.02.04	IEC	Anderson, Jade	O'Malley, Russell	Aging Wireless Hardware at AMWTP Poses Risk to Operations	The wireless infrastructure (Wi-Fi) at AMWTP used for waste movement, characterization and shipping activities is aging. We no longer have like-for-like spare parts on hand to replace and repair the wireless if the hardware fails.	Aging hardware fails and does not come back up.	Emerging	Threat	Mitigate	Likely	Moderate	3-Moderate	\$ 18,000	\$ 293,000	\$ 266,000	8	24	24	This justification of impacts DOES NOT account for negative impacts to mission due to operations being impeded or stopped. Worst Case: Both wireless controllers fail at the same time. Two wireless controllers @ \$100K ea. = \$200K 40 Access Points @ \$1.2K ea. = \$48K 4 weeks shipping 2 FTE - IT Network Engineers -- 1 week @ \$3K per week = \$6K 2 FTE -- Electricians -- 2 weeks @ \$3K per week = \$12K Most Likely: One wireless controller goes down. WiFi is at 50% coverage. IT would reconfigure Wi-Fi to areas for operations as needed. Two wireless controllers @ \$100K ea. = \$200K 40 Access Points @ \$1.2K ea. = \$48K 4 weeks shipping 2 FTE - IT Network Engineers -- 1 week @ \$3K per week = \$6K 2 FTE -- Electricians -- 2 weeks @ \$3K per week = \$12K 25 FTE -- IT Network Engineer to reconfigure Wi-Fi -- 6 weeks @ \$3K per week = \$4500	IT is currently upgrading the Wi-Fi at SSF and plans to repurpose the equipment for AMWTP.	None	
IT313	K.1.02.04	IEC	Anderson, Jade	O'Malley, Russell	Disaster at EROB Poses Risk to IEC Data Center	The main IEC Data Center is located in the EROB building. This data center houses the primary servers for the IEC business. This data center also houses the offline	A disaster hits the EROB building, such as a fire.	Emerging	Threat	Mitigate	Unlikely	Major	3-Moderate	\$ 306,750	\$ 1,412,000	\$ 7,420,000	11	24	32	This justification of impacts DOES NOT account for negative impacts to mission due to operations being impeded or	None. BEA is the landlord of EROB.	none	
IT314	K.1.02.04	IEC	Anderson, Jade	O'Malley, Russell	Aging Fiber at the INTEC Campus risks Network Outage	Fiber at the INTEC campus between buildings is 20+ years old. Currently, IT fixes communication issues by finding unused strands of fiber that are still functional. The older the fiber becomes the fewer the strands of fiber available. The eventuality is that	IT will not be able to find usable strands of fiber and will require new fiber to be pulled or trenched.	Emerging	Threat	Mitigate	Possible	Minor	2-Low	\$ 2,000	\$ 20,000	\$ 200,000	12	16	96	This justification of impacts DOES NOT include impacts to mission due to impeded or stopped operations.	IT fixes communication issues by finding unused strands of fiber that are still functional.	none	
IT315	K.1.02.04	IEC	Anderson, Jade	O'Malley, Russell	Aging Fiber at RWMC Campus Poses Operational Risk	Fiber at the RWMC campus between buildings is 20+ years old. Currently, IT fixes communication issues by finding unused strands of fiber that are still functional. The older the fiber becomes the fewer the strands of fiber available. The eventuality is that	IT will not be able to find usable strands of fiber and will require new fiber to be pulled or trenched.	Emerging	Threat	Mitigate	Possible	Minor	2-Low	\$ 2,000	\$ 30,000	\$ 200,000	12	16	96	This justification of impacts DOES NOT include impacts to mission due to impeded or stopped operations. Worst case	IT fixes communication issues by finding unused strands of fiber that are still functional.	none	
LEG001R2	K.1.01.05	IEC	Coletti, Sean	Unknown	<u>Legal</u> : Miscellaneous Litigation	Potential for an unanticipated lawsuit which, would require resources to be allocated for the initial answer and planning of the lawsuit.	New Lawsuit is filed against IEC.	Open	Threat	Accept	Possible	Moderate	2-Low	\$ 25,000	\$ 50,000	100000	15	30	60	No Schedule Delay. Costs represent initial responses.			
LEG002R2	K.1.01.05	IEC	Coletti, Sean	Unknown	<u>Legal</u> : General Litigation	Any arising lawsuit against IEC regarding Government contracts, environmental matters, and employment law that would require appropriate resources for litigation.	New Lawsuit is filed against IEC.	Open	Threat	Accept	Possible	Moderate	2-Low	\$ 25,000	\$ 50,000	100000	15	30	60	No Schedule Delay. Costs represent initial responses.			
LEG003R2	K.1.01.05	IEC	Coletti, Sean	Unknown	<u>Legal</u> : General Labor and Arbitration	The possibility of diverging resources or obtaining outside counsel to assist with unforeseen arbitrations involving General Employment and Labor Relations matters (i.e., pensions, employee health, and welfare plans).	A grievance is filed requesting for arbitration.	Open	Threat	Accept	Possible	Moderate	2-Low	\$ 25,000	\$ 50,000	75000	15	30	60	Each arbitration is estimated to cost approximately \$25K. The most likely occurrence to happen under the IEC contract is roughly two.			
NICDF020	D.4.06.37.05	IEC	Reese, Craig	N/A	<u>New ICDF Cell Definition</u> : Excavation Uncovers Unanticipated Materials	While doing excavation there is a chance of unforeseen circumstances (i.e., rad contamination) to occur that can cause a delay in the schedule or a need to assess a new path forward.	Discovering: (Examples) Un-identified utilities, Rad contamination Archaeology artifacts	Open	Threat	Accept	Rare	Minor	1-Low	\$ 30,000	\$ 75,000	\$ 1,200,000	2	5	80	Best Case: 2 days X 10 hr./day X 20 FTEs X \$75/hr. Most Likely Case: 5 days X 10 hr./day X 20 FTEs X \$75/hr. Worst Case: 80 days X 10 hr./day X 20 FTEs X \$75/hr.	N/A	N/A	
NICDF027	D.4.06.39.01	IEC	Reese, Craig	Almahie, Amin	<u>PM Support - ICDF</u> : Industrial Incident Resulting in Shutdown	An industrial incident resulting in serious personnel injury may cause an extended shutdown to resolve conduct of operations issues.	An unanticipated accident resulting in injury or near miss.	Open	Threat	Accept	Rare	Minor	1-Low	\$ 30,000	\$ 75,000	\$ 1,440,000	2	5	96	Best Case: 2 days X 10 hr./day X 20 FTEs X \$75/hr. Most Likely Case: 5 days X 10 hr./day X 20 FTEs X \$75/hr. Worst Case: 96 days X 10 hr./day X 20 FTEs X \$75/hr.	N/A	N/A	
NICDF030R2	D.4.06.37.05	IEC	Reese, Craig	Almahie, Amin	<u>New ICDF Cell</u> : Overtime Required	To maintain project schedule, overtime is required to maintain or recover project schedule.	Technical or installation issues cause schedule delays require overtime recover or maintain project schedule.	Open	Threat	Accept	Possible	Moderate	2-Low	\$ 144,000	\$ 288,000	\$ 432,000	16	32	48	Best Case: 16 days X 1 hr./day X 120 FTEs X \$75/hr. Most Likely Case: 32 days X 1 hr./day X 120 FTEs X \$75/hr. Worst Case: 48 days X 1 hr./day X 120 FTEs X \$75/hr.	N/A	N/A	
NICDF033	D.4.06.37.05	IEC	Reese, Craig	Almahie, Amin	<u>PM Support - ICDF</u> : Weather Delays	Cold/wet weather in the spring and fall prevent construction of the cell and evaporation ponds.	Spring and fall weather prevent construction work at the site.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 75,000	\$ 225,000	\$ 675,000	5	15	45	Best Case: 5 days X 10 hr./day X 20 FTEs X \$75/hr. Most Likely Case: 15 days X 10 hr./day X 20 FTEs X \$75/hr. Worst Case: 45 days X 10 hr./day X 20 FTEs X \$75/hr.	N/A	N/A	
NICDF037a	D.4.06.30	IEC	Reese, Craig	Almahie, Amin	<u>New ICDF Cell</u> : BEA Support Services Do Not Meet ICDF Scheduled Need Dates	IEC relies on BEA for support services on Milestones, regulatory commitments, and scope completion. If the work from BEA is delayed, or does not meet the requirements, it can cause a project schedule impact.	BEA power services do not provide power in a timely manner.	Open	Threat	Shared	Unlikely	Minor	2-Low	\$ 60,000	\$ 240,000	\$ 2,640,000	4	16	176	Best Case: 4 days X 10 hrs./day X 20 FTEs X \$75/hr. Most Likely Case: 16 days X 10 hrs./day X 20 FTEs X \$75/hr. Worst Case: 176 days X 10 hrs./day X 20 FTEs X \$75/hr.	Propose Shared to DOE	N/A	



TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated : 4.29.25

Updated: 4.29.25													Cost Impacts			Schedule Impacts (in days)							
Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Best Case	Most Likely	Worst Case	Best Case	Most Likely	Worst Case	Basis of Impacts	Mitigation Actions	Risk Corrective Actions	Notes
NICDF303	D.4.06.37	IEC	Reese, Craig	Almahie, Amin	NEW ICDP Cell : Subcontractor / Lower Tier Contractor Schedule Does Not Align With IEC Baseline Schedule	Project's estimated durations could differ from the actual time it takes the subcontractor to perform the site prep. and excavation, which will result in schedule delays and unforeseen costs.	Subcontractor schedule is different than proposed baseline schedule.	Realized Closed	Threat	Accept	Possible	Minor	2-Low	\$ 30,000	\$ 60,000	\$ 300,000	2	4	20	Best Case: 2 days X 10 hr./day X 20 FTEs X \$75/hr. Most Likely Case: 4 days X 10 hr./day X 20 FTEs X \$75/hr. Worst Case: 20 days X 10 hr./day X 20 FTEs X \$75/hr.	N/A		
NICDF306	D.4.06.4L.01	IEC	Reese, Craig	Almahie, Amin	Geosynthetics Usage	During installation, efficiencies are found that will result in using less of the geosynthetics to complete the scope due than originally anticipated. If this opportunity were to materialize the project may result in a cost savings on no longer needing to purchase additional geosynthetics.	The subcontractor runs out of geosynthetics before the scope is complete.	Open	Opportunity	Enhance	Possible	Serious	3-Moderate	\$ (1,500,000)	\$ (1,000,000)	\$ -	-24	-16	0	Estimates are based off SME judgement based off current geosynthetics prices and estimated production rate.	Track usage on the geosynthetics procured against what is being used during installation.	ICDF10030	
NICDF312	D.4.06	IEC	Reese, Craig	Almahie, Amin	Delivery of Geosynthetics	Delay of delivery of Geosynthetics from vendors	Delivery of the geosynthetics is later than subcontractors needs	Open	Threat	Accept	Possible	Minor	2-Low	\$ 50,000	\$ 100,000	\$ 200,000	4	8	12	Estimates are based on SME judgement. Risk costs are associated with number of days subcontractor would be on standby.	N/A	ICDF10057	
NICDF315	D.4.06	IEC	Reese, Craig	Almahie, Amin	Utilities Tie-in to INTEC	Utilities tie-in to INTEC are delayed by INTEC. Raw water and Fire water will be tied into INTEC. Due to unforeseen actions at INTEC, Western is not allowed to tie-in to these systems and causes delays.	Utilities tie-in delayed due to INTEC	Open	Threat	Accept	Possible	Minor	2-Low	\$ 10,000	\$ 50,000	\$ 100,000	4	8	12	Estimates are based on SME judgement. These costs are based on subcontractor standby rates.	N/A	Project 1 ICDP10009	
NICDF318	D.4.06	IEC	Reese, Craig	Almahie, Amin	Geosynthetics Damage during storage	All geosynthetics material for the project will be procured at one time. Some of the material may be stored for in excess of 2-ys. If material is damaged, this will require additional material to be procured.	Geosynthetics material is damaged during storage.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 100,000	\$ 200,000	\$ 300,000	4	8	12	Estimates are based on SME judgement. Costs are based on replacement value of 10%, 20%, and 30% of material costs (this would mainly be GCL).	N/A	ICDF10024	
NICDF320	D.4.06	IEC	Reese, Craig	Almahie, Amin	Excavation of the utility trench inside the ICDP may encounter contaminated material	During installation of the utilities into Cells 1 & 2, excavated material may be contaminated	Contaminated material is identified	Open	Threat	Accept	Possible	Minor	2-Low	\$ 10,000	\$ 50,000	\$ 100,000	1	5	10	Estimate is based on SME experience with decontamination of equipment	Propose Transfer to DOE.	N/A	
NICDF321	D.4.06	IEC	Reese, Craig	Almahie, Amin	Communications duct bank intersection with other utilities in the old ICDP footprint	During excavation of communication duct bank, other utilities not identified on drawings may be encountered. This may require re-routing or other design requirements.	Other utilities are identified within the design location of duct bank	Open	Threat	Accept	Possible	Minor	2-Low	\$ 10,000	\$ 50,000	\$ 100,000	1	5	10	Estimate is based on SME experience with re-routing duct banks	Propose Transfer to DOE.	N/A	
NICDF322	D.4.06	IEC	Reese, Craig	Almahie, Amin	Encountering basalt during excavation activities for the utility trench	While excavating utility trench, basalt may be encountered and required to be removed to meet design inverts of pipe.	Basalt is encountered and needs to be removed to meet leachate inverts.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 50,000	\$ 75,000	\$ 100,000	1	5	10	Estimate is based on SME experience with removal of basalt	Propose Transfer to DOE.	N/A	
NRFD008R2	D.5.01.32 D.5.01.30.20 D.5.01.30.21	IEC	Burtenshaw, Shawna	Larsen, Eric	NRF Naval Reactors : Loss of Contamination Control	Loss of contamination control (outside D&D boundaries) during demolition may result in personnel contamination and/or extended shutdown for recovery.	An unanticipated event driven by discovery of contamination outside of the boundary, possibly portable air monitor.	Open Closed	Threat	Accept	Unlikely	Moderate	2-Low	\$ 100,000	\$ 500,000	\$ 1,000,000	10	24	32	Impacts are estimated based on loss of contamination requiring a step back and recovery planning, additional surveys and PPE, and execution to recover the area.	N/A		
NRFD009	D.5.01.32	IEC	Burtenshaw, Shawna	Larsen, Eric	NRF Naval Reactors : NRF West Gate Access	The West entrance for NRF using gate 4 has limited ingress/egress for the heavy equipment and waste shipments due to high voltage power conductors overhead.	The heavy Equipment and waste loads ingressing or egressing from NRF through gate 4 will have a load limit no greater than 13' in height that will require an alternate route or complicated high voltage power outage.	Open Closed	Threat	Accept	Likely	Minor	2-Low	\$ 21,000	\$ 42,000	\$ 84,000	4	8	16	Best Case: 4 days X 10 hrs/dy X 7 FTEs X \$75/hr Most Likely Case: 8 days X 10 hrs/dy X 7 FTEs X \$75/hr Worst Case: 16 days X10 hrs/dy X 7 FTEs X \$75/hr	N/A		No longer a concern
NRFD010	D.5.01.32	IEC	Burtenshaw, Shawna	Larsen, Eric	NRF Naval Reactors : A1W Turnover Delayed	This work scope is based off an FMP schedule with a phased approach to turnover and transfer ancillary A1W facilities to IEC starting June 1, 2023. If the transfer does not happen as scheduled there is a risk of schedule and associated cost delays until turnover is completed.	A1W turnover phases are not turned over as scheduled.	Open Closed	Threat	Accept	Rare	Minor	1-Low	\$ 21,000	\$ 42,000	\$ 84,000	4	8	16	Best Case: 4 days X 10 hrs./day X 7 FTEs X \$75/hr. Most Likely Case: 8 days X 10 hrs./day X 7 FTEs X \$75/hr. Worst Case: 16 days X10 hrs./day X 7 FTEs X \$75/hr.	N/A		
NRFD011	D.5.01.32	IEC	Burtenshaw, Shawna	Larsen, Eric	NRF Naval Reactors : Personnel Attrition	Ability to acquire new trained individuals becomes harder, requiring subcontractor support to complete the work. The potential exists to incur additional costs & schedule delays.	Attrition realized.	Open Closed	Threat	Accept	Rare	Moderate	1-Low	\$ 37,500	\$ 225,000	\$ 337,500	5	30	30	Best Case: 5 days X10 hrs/dy X 10 FTEs X \$75/hr = \$37,500 Most Likely Case: 30 days X10 hrs/dy X 10 FTEs X \$75/hr = \$225,000 Worst Case: 30 days X10 hrs/dy X 15 FTEs X \$75/hr = \$337,500	N/A		
NRFD012	D.5.01.32	IEC	Burtenshaw, Shawna	Larsen, Eric	NRF Naval Reactors : Industrial Incidents Resulting in Shutdowns	An industrial incident resulting in serious personnel injury may cause an extended shutdown to resolve conduct of operations issues.	An unanticipated accident resulting in injury or near miss.	Open Closed	Threat	Accept	Rare	Critical	3-Moderate	\$ 750,000	\$ 1,500,000	\$ 3,000,000	100	180	204	Best Case: 100 days x 10 hrs./day x 8 people x \$93/hr. = \$750,000 Most Likely: 180 days x 10 hrs./day x 8 people x \$93/hr. = \$1,500,000 Worst Case: 204 days x 10 hrs./day x 8 people x \$93/hr. = \$3,000,000	N/A		
RHTRU001R2	D.2.04.30.14	IEC	Troeschler, Pat	Mitchell, Jason	RH-TRU Waste Disposition : Achieving FY24/25 Processing Lot 11 Containers Due to Critical Failure of Equipment	Achievement of the FY24 of processing 10 Lot 11 containers and the FY25 of processing 10 Lot 11 containers, due to critical failure of equipment, impacts the Idaho Settlement Agreement (ISA) and Delay to site treatment plan scheduled agreement with DEQ to have all the STP waste out of the State of Idaho.	Critical failure of facility support equipment and lack of funding specific to: 1. Procure manipulators 2. Design, procure, and modify FDPA in-cell crane from analog to digital.	Open	Threat	Accept	Unlikely	Moderate	2-Low	\$ 200,000	\$ 300,000	\$ 600,000	16	32	64	Costs are based on fees associated with missed delivery dates. Best Case: 16 days down time X 20 FTEs X \$41.50/hr. X 10hr. = \$132,800 + fee Most Likely: 32 days down time x 20 FTEs X \$41.50/hr. X 10hr. = \$265,600 + fee Worst Case: 64 days down time x 20 FTEs X \$41.50/hr. X 10hr. = \$531,200 + fee	N/A	Actions include: • The MSM critical spare parts for the Models FX, F, and G is based on current critical spare parts inventory, consumption of critical spares, and lead time to receive replacement parts from the vendor. The system engineer supporting the project tracks and maintains the inventory for the critical MSM and some PaR spare parts currently installed in the CPP-666 FDP and	
RHTRU002R2	D.2.04.30.14	IEC	Troeschler, Pat	Mitchell, Jason	RH-TRU Waste Disposition : Achieving FY24/25 Milestones for Processing Lot 11 Containers Due to Complex Geometries	Achievement of the FY25 milestone of processing 10 Lot 11 containers, due to inability to treat sodium in waste with complex geometries, impacts the Idaho Settlement Agreement (ISA) and Delay to site treatment plan scheduled agreement with DEQ to have all the STP waste out of the State of Idaho.	Complex geometries containing sodium or waste containing significant quantities (>100g) of NaK are found in repackaging Lot 11 waste.	Open	Threat	Accept	Unlikely	Minor	2-Low	\$ 16,600	\$ 33,200	\$ 66,400	8	16	32	Schedule impact is based off SDS system being down and in need of repair. Best Case: 8 days down time X 5 FTEs X \$41.50/hr. X 10hr. = \$16,600 Most Likely: 16 days down time x 5 FTEs X \$41.50/hr. X 10hr. = \$33,200 Worst Case: 2 days OT X 20 FTEs X \$41.50/hr. X 10hr. X 1.5 OT = \$24,900 Most Likely: 4days OT X 20 FTEs X \$41.50/hr. X 10hr. X 1.5 OT = \$49,800 Worst Case: 8 days OT X 20 FTEs X \$41.50/hr. X 10hr. X 1.5 OT = \$97,600	N/A	1. Methods used to size Lot 6 waste components will be used for the Lot 11 waste components. Complex geometries may still result in not being able to complete treatment by water or air methods and would require distillation. The Sodium Distillation System is required to remove sodium from complex geometries.	
RHTRU003	D.2.04.30.14	IEC	Troeschler, Pat	Mitchell, Jason	RH-TRU Waste Disposition : Processing Lot 11 Containers	Processing lot 11 containers are taking longer than planned due to inaccurate generator information. Causing the use of OT to catch up.	inaccurate generator information.	Open	Threat	Mitigate	Possible	Minor	2-Low	\$ 24,900	\$ 49,800	\$ 97,600	2	4	8	Implement overtime to recover schedule slippage and reduce further schedule interruptions.	N/A		
RHTRU301	D.2.04.30.14	IEC	Troeschler, Patrick	Mitchell, Jason	Containers for FY25 PBI	BEA is responsible for all activities required to prepare waste for shipment. Battle Energy Alliance, LLC (BEA) is not able to provide containers to process enough waste to meet the FY25 PBI.	Containers from BEA unavailable.	Realized	Threat	Accept	Possible	Serious	3-Moderate	\$ 300,000	\$ 441,500	\$ 653,750	16	48	96	Cost is based off delays for containers. Best case 1 Month 4 Additional containers. Most Likely 3 months 2 original containers plus 4 additional containers. Worst case 6 months 5 original containers and 4 additional containers.	N/A		N/A
SNF007R2	D.1.02.32.31	IEC	Ellsworth, Carla	Wahnschaffe, Steve	Advanced Test Reactor (ATR) SNF Receipt : CPP-603 PaR Manipulator Malfunction Critical Equipment Failure	ATR-Direct: Transfers are delayed because of a malfunctioning CPP-603 PaR manipulator (MAN-GSF-401) or other critical equipment failure.	While operating the CPP-603 PaR manipulator (MAN-GSF-401), certain PaR motions appear to be or are abnormal/malfunctioning. Failure of the manipulators results in schedule delays. • Critical equipment for ATR transfers fails prior to or during operations.	Open	Threat	Accept	Likely	Minor	2-Low	\$ 107,016	\$ 214,032	\$ 535,080	7	14	35	Best Case: 7 days X 12 hr. X 13 FTEs X \$98/hr. Most Likely: 14 days X 12 hr. X 13 FTEs X \$98/hr. Worst Case: 35 days X 12 hr. X 13 FTEs X \$98/hr.	N/A Conduct schedules Preventative Maintenance on all equipment.	Maintain the PaR. Work with BEA to reschedule ATR Receipts. Repair PaR or failed equipment. Coordinate with BEA to reschedule ATR Receipts.	



TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated : 4.29.25

														Cost Impacts			Schedule Impacts (in days)						
Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Best Case	Most Likely	Worst Case	Best Case	Most Likely	Worst Case	Basis of Impacts	Mitigation Actions	Risk Corrective Actions	Notes
SNF008R2	D.1.02.32.31	IEC	Ellsworth, Carla	Wahnschaffe, Steve	<u>Advanced Test Reactor (ATR) SNF Receipt:</u> Camera Failures Due to High Radiation Fields	ATR-Direct: High rad fields in the cave cause premature failure of the cameras in the CPP-603 fuel handling cave.	Failed remote cameras hinder or prevent normal fuel handling operations in the CPP-603 IF5F cave and fuel storage area.	Open	Threat	Mitigate	Likely	Minor	2-Low	\$ 45,864	\$ 214,032	\$ 428,064	3	14	28	Best Case: 3 days X 12 hr. X 13 FTEs X \$98/hr Most Likely: 14 days X 12 hr. X 13 FTEs X \$98/hr Worst Case: 28 days X 12 hr. X 13 FTEs X \$98/hr	In the majority of instances, alternative cameras can be utilized to allow the continuation of operations. Perform camera replacement analysis. -Purchase Back-up Cameras	N/A	
SNF009R2	D.1.02.34.02	IEC	Johnson, Walter	Wahnschaffe, Steve	<u>CPP-749 1st Generation Vaults:</u> <u>Remediation/Peach Bottom Transfers:</u> Changing CPP-749 Security Requirements	CPP-749 Remediation: Project activities are delayed/postponed because of changing CPP-749 security requirements.	Requirements resulting derived from planned security related vulnerability assessments impose necessitate the implementation of more restrictive security controls.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 45,864	\$ 214,032	\$ 428,064	3	14	28	Best Case: 3 days X 12 hr. X 13 FTEs X \$98/hr Most Likely: 14 days X 12 hr. X 13 FTEs X \$98/hr Worst Case: 28 days X 12 hr. X 13 FTEs X \$98/hr	N/A	Work with DOE/BEA to ensure project activities comply with security plan.	
SNF010R2	D.1.02.34.02	IEC	Johnson, Walter	Wahnschaffe, Steve	<u>CPP-749 1st Generation Vaults:</u> <u>Remediation/Peach Bottom Transfers:</u> Inadequate Shielding Results in Exorbitant Radiation Level	CPP-749 Remediation: Interim Storage Area (ISA)-4 shielding is determined to be inadequate, resulting in radiation levels higher than those allowed for extended work in the 1st Generation Vault area.	Radiation Technician surveys of the 1st Generation Vault area indicate higher than allowable radiation levels.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 107,016	\$ 214,032	\$ 535,080	7	14	35	Best Case: 7 days X 12 hr. X 13 FTEs X \$98/hr Most Likely: 14 days X 12 hr. X 13 FTEs X \$98/hr Worst Case: 35 days X 12 hr. X 13 FTEs X \$98/hr	N/A	Work with Radiation protection, engineering, and waste management to mitigate radiation levels.	
SNF011R2	D.1.02.34.02	IEC	Johnson, Walter	Wahnschaffe, Steve	<u>CPP-749 1st Generation Vaults:</u> <u>Remediation/Peach Bottom Transfers:</u> Excessive Corrosion in The Peach Bottom Vaults	CPP-749 Remediation: Fuel packages stored in certain Peach Bottom vaults are found to have excessive corrosion, precluding normal fuel package retrieval methods.Excessive corrosion has been identified in fuel packages stored in specific Peach Bottom vaults, preventing the use of standard retrieval methods.	1.) During Peach Bottom vault inspections, corrosion capable of jeopardizing the structural integrity of the fuel package lifting feature is observed. 2.) A discharge of fuel is observed when lifting a fuel package to visually inspect its bottom.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 107,016	\$ 214,032	\$ 535,080	7	14	204	Best Case: 7 days X 12 hr. X 13 FTEs X \$98/hr Most Likely: 14 days X 12 hr. X 13 FTEs X \$98/hr Worst Case: 35 days X 12 hr. X 13 FTEs X \$98/hr	N/A	Fuel packages will be visually inspected prior to being lifted for the purposes of identifying corrosion issues. If an inspected fuel package is determined to be jeopardized because of corrosion then, retrieving the fuel package will be delayed until a recovery plan is developed/approved and readied to work. A conceptual design for retrieval equipment capable of safely lifting a jeopardized fuel package has been	
SNF015R2	D.1.02.32.31	IEC	Ellsworth, Carla	Wahnschaffe, Steve	<u>Advanced Test Reactor (ATR) SNF Receipt:</u> IEC schedule Delay Caused by ATR	ATR-Direct: IEC schedule delay caused by ATR.	Equipment and/or operations delays at ATR cause delayed or moved shipment dates to INTEC.	Open	Threat	Mitigate	Almost Certain	Minor	2-Low	\$ 45,864	\$ 1,700,000	\$ 1,700,000	3	208	208	Best Case: 3 days X 12 hr. X 13 FTEs X \$98/hr Most Likely: 14 days X 12 hr. X 13 FTEs X \$98/hr Worst Case: 28 days X 12 hr. X 13 FTEs X \$98/hr Schedule Impacts Best Case: 3 days Most Likely: 14 days Worst Case: 64 days	Alternative work activities will me made available by upper management in the event of an ATR schedule delay.	N/A	
SNF016R2	D.1.02.32.31	IEC	Ellsworth, Carla	Wahnschaffe, Steve	<u>Advanced Test Reactor (ATR) SNF Receipt:</u> Destaco Clamps Malfunction	ATR-Direct: Destaco clamps are partially open or closed and prevent movement of fuel loaded canisters.	Destaco clamps found to be damaged or damaged when remotely attempting to open/close a clamp.	Open	Threat	Accept	Possible	Critical	4-High	\$ 1,231,258	\$ 2,308,608	\$ 2,616,422	96	180	204	Best Case: 96 days X 10 hr. X 13.36 FTEs X \$96/hr. = \$1,231,258 Most Likely: 180 days X 10 hr. X 13.36 FTEs X \$96/hr. = \$2,308,608 Worst Case: 204 days X 10 hr. X 13.36 FTEs X \$96/hr. = \$2,616,422 Best Case: 1 days X 10 hr. X 13.36 FTEs X \$96/hr. = \$12,825 Most Likely: 3 days X 10 hr. X 13.36 FTEs X \$96/hr. = \$38476 Worst Case: 204 days X 10 hr. X 13.36 FTEs X \$96/hr. = \$179,558	N/A		
SNF025R2	D.1.04.02.02	IEC	Cotterell, Jaksen	Wahnschaffe, Steve	<u>SNF Staging Facility:</u> Vendor Selection	The RRDP determines which vendor and MPC system will be used. The selection changes the ID SNF-SF Basis of Design, and Safety Design Strategy (SDS). The design requires updates as well as SDS assumptions, strategy, and hazards.	The RRDP selects a different vendor than originally anticipated.	Open	Threat	Mitigate	Possible	Critical	4-High	\$ 650,000	\$ 1,450,000	2,350,00	120	180	300	Cost Ranges: SDS Rework: \$200K, 400K, 750K Design Rework: \$300K, 750K, 1M IEC management and DOE Coordination: \$150k, 300k, 600k	Perform a QL assessment to evaluate the subcontractor's quality program. The contractor has to be an NQA-1 qualified for equipment and quality level QL-2. Road Ready Demonstration is acting to get the contractor approved at an appropriate quality level QL-2.	N/A	
SNF039	D.1.04.03.03	IEC	Cotterell, Jaksen	Wahnschaffe, Steve	<u>SNF Staging Facility:</u> Nuclear Safety Documents	Per STD-1189-2016 it was determined that the Staging Facility will be a simple modification and be able to fall under existing SAR 112 and SAR 114. This means that a	DOE evaluation determines that the Staging Facility is a major modification.	Realized Closed	Threat	Accept	Possible	Critical	4-High	\$ 500,000	\$ 750,000	\$ 1,000,000	104	156	208	Best Case: 104 days and increase of \$500,000 Most Likely Case: 156 days and increase of \$750,000	N/A	Discuss safety design strategy early in the project and frequently. IEC to state position and work with DOE	
SNF042	D.1.04.02.02	IEC	Cotterell, Jaksen	Wahnschaffe, Steve	<u>SNF Staging Facility:</u> Security System and Facility Design Contract	There are two design aspects considered for the ID SNF-SF: 1) BEA will perform the security design for the ID SNF-SF. 2) The SNF-SF pad design will be performed via subcontract. Work performed for the interdependent designs exceed scheduled duration(s).	Agreements/contracts are not established as planned. The designs do not maintain the schedule duration. BEA does not perform the security design causing for additional time to setup a contract.	Open	Threat	Mitigate	Possible	Moderate	2-Low	\$ 200,000	\$ 500,000	\$ 1,000,000	24	32	56	Develop a second SOW, work through a second contract through subcontract administration. Additional coordination for IEC to manage two engineering firms and process paperwork. Best Case: 2 weeks @ 40hr./week x 1 FTE @ \$100/hr. + 4 weeks @ 95 hr. for sub administration @ \$80/hr. Most Likely: 4 weeks @ 40hr./week x 1.5 FTE @ \$100/hr. +4 weeks @ 95 hr. for sub administration @ \$80/hr. Worst Case: 8 weeks @ 40hr./week x 2 FTE @ \$100/hr. + 6 weeks @ 95 hr. for sub administration @ \$80/hr.	N/A	Segregate the requirement of 1 contract. Develop a second statement of work and contract a local engineering firm to perform the security design.	
SNF054	D.1.02.34.02	IEC	Johnson, Walter	Wahnschaffe, Steve	<u>Peach Bottom:</u> Mobile Crane Maintenance	Exceeding the Mobile Crane manufacturers recommended operating hours for performing routine maintenance. delays.Peach Bottom transfers. Exceeding these recommendations will restrict came use and delay Peach Bottom transfers at CPP-749.	Mobile Crane operator observes the machines monitoring system and concludes the manufactures recommended operating hours are exceeded.	Realized	Threat	Mitigate	Possible	Minor	2-Low	\$ 15,500	\$ 46,000	\$ 62,000	1	2	4	Best Case: 1 day plus equipment/materials Most Likely Case: 2 days plus equipment/materials Worst Case: 4 days plus equipment/materials	1.) Increase periodicity of planned maintenance. 2.) Perform additional routine observations to the machines monitoring system so maintenance can be planned and performed in accordance with the manufacturers recommendations. 3) The crane will be removed and sent to CFA big shop for preventative maintenance.	N/A	
SNF323	D.1.02.34.02	IEC	Johnson, Walter	Wahnschaffe, Steve	<u>Peach Bottom Transfers:</u> Mobile Crane Failure	Mobile crane required for scope needs repaired, resulting in delay to Peach Bottom operations until repairs can be made.	Mobile crane failure/repair requirement.	Open	Threat	Mitigate	Likely	Minor	2-Low	\$ 6,519	\$ 13,038	\$ 26,076	4	8	16	Cost based on BEA daily crane cost.	Renting a crane from BEA.		
SNF324	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	<u>SNF Road Ready Demonstration Project:</u> Supplier Delay - Holtec	Road Ready Project: Delay of Holtec (Fabrication and Design) being on the OSL as a QL-2 supplier in compliance with QARD Rev 20 will cause delay to placement of contract for Holtec provided items	Holtec unable to meet requirements to be placed on the OSL as a QL-2 supplier in compliance with QARD Rev 20 supplier.	Realized	Threat	Accept Mitigate	Almost Certain Rare	Major	2-Low	\$ 750,000	\$ 1,500,000	\$ 2,250,000	32	48	144	Holtec is currently certified as a QL-2 supplier for Engineering services only on IEC's OSL but not in compliance with QARD Rev 20. QA audit scheduled June for fabrication facility.	QA department to provide Holtec with a checklist of potential audit requirements to allow Holtec to understand requirements. Add item on schedule to track audit scheduling and completion. Upon contract placement, IEC will perform audit of Holtec Fabrication facility to ensure compliance with all requirements.		
SNF326	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	<u>SNF Road Ready Demonstration Project:</u> Delay of Items Provided by Holtec	Road Ready Project: Delay of delivery of Holtec provided long lead items (HI-STAR) will cause a significant delay to the project.	Holtec unable to receive material or fabricate long lead items according to IEC Schedule.	Open	Threat	Accept	Possible	Major	4-High	\$ 750,000	\$ 1,500,000	\$ 3,000,000	48	96	192	Best Case: Subcontractor has minimal delay causing a delay to overall project Most Likely: Subcontractor has significant delay causing a delay to overall project Worst Case: Subcontractor is unable to meet schedule requiring major replan of project The costs listed from delays are based on a \$13k/day cost to operate a SNF crew. IEC will address crew reassignment in order to minimize cost impact.	Work with Holtec to identify possible delays due to supply chain issues. Also mitigating by purchasing long-lead items at risk to minimize impacts to schedule. Long lead items will be identified once contract is in place. IEC to work with Holtec to identify possible delays due to supply chain issues. Also mitigating by purchasing long lead items at risk to minimize impacts to schedule The costs listed from delays are based on a \$13k/day cost to operate a SNF crew. IEC will address crew reassignment in order to minimize cost impact		
SNF327	D.1.02.36.07	IEC/DOE	Woolstenhulme, Tyson	Wahnschaffe, Steve	<u>SNF Road Ready Demonstration Project:</u> Delay of Delivery of DOE SCs	Road Ready Project: Delay of delivery of DOESC's will cause a delay to the project.	DOESC fabrication not completed according to IEC/BEA schedule.	Open	Threat	Share	Possible	Critical	4-High	\$ 750,000	\$ 1,500,000	\$ 3,000,000	96	192	288	DOESC fabrication is included in BEA's scope but being transitioned to IEC per IAG-809. IEC will need DOE concurrence to fully assume Design Authority and fabrication of DOESC's.	Work with BEA to identify possible delays due to supply chain issues. Also mitigating by purchasing long lead items at risk to minimize impacts to schedule. Other possible options to include fabrication of the DOESC's at the INTEC facility mitigating BEA QA and time constraints. The costs listed from delays are based on a \$13k/day cost to operate a SNF crew		
SNF330	D.1.02.36.07	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	<u>SNF Road Ready Demonstration Project:</u> PaR Equipment Failure	Road Ready Project: 401 PaR replacement Project delay or lack of funding could cause delay to RRDP in the event of PaR equipment failure	PaR failure will result in limited ability to load DOESC's	Open Closed	Threat	Share	Possible	Major	4-High	\$ 250,000	\$ 500,000	\$ 750,000	48	96	192		By keeping all PM's current, this will allow for continued use of the PaR until funding can be obtained to upgrade or replace. These PM's will also track potential issues. Additionally infrastructure is scheduled to upgrade the PaR in the coming year. An additional spare PaR is being refurbished as a backup in the event of PaR failure.		



TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated : 4.29.25

													Cost Impacts			Schedule Impacts (in days)			Basis of Impacts	Mitigation Actions	Risk Corrective Actions	Notes	
Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Best Case	Most Likely	Worst Case	Best Case	Most Likely					Worst Case
SNF331	D.1.02.36- 44 13	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	SNF Road Ready Demonstration Project: Failed Root Weld	Road Ready Project -BEA/Liburd weld repair machine cannot successfully repair a failed root weld.	Root weld fails UT inspection	Open	Threat	Accept	Possible Unlikely	Serious	2-Low	\$ 500,000 \$ 300,000	\$ 750,000 \$ 600,000	\$ 1,000,000 \$ 1,800,000	8 16	46 32	44 64	Best case - Cost of weld repair without requiring usage of additional equipment and resume operations with minimal waste Most Likely - Cost of weld repair with minimal additional equipment and disposal of unusable items Worst Case - Cost of complete repackaging of SNF in new canister with disposal of unusable items	For the Road Ready Demonstration, 10 DOESC's will be procured. The Demonstration will be loading 7 DOESC,s with 3 spares. In the event of a compromised DOESC, the fuel can be reloaded into a spare DOESC and welded. Additionally, the welding will be done in the PCS which will also allow for safely manually grinding of the weld. Weld will manually be ground off and rewelded if DOESC weld is damaged. If a second weld fails or DOESC is damaged unloading and loading of the		
SNF332	D.1.02.36- 44 13	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	SNF Road Ready Demonstration Project: BEA Leak Testing Fails	Road Ready Project -BEA Leak testing cannot successfully seal on DOESC causing a delay in the project.	Bell jar seals fail successful sealing	Open	Threat	Share	Possible Unlikely	Major	3-Moderate	\$ 1,200,000 \$ 600,000	\$ 1,800,000 \$ 1,200,000	\$ 3,000,000 \$ 2,400,000	48 24	96 48	144 96	Best case - Leak testing device requires minimal redesign to achieve acceptable results Most Likely - Leak testing device requires significant redesign to achieve acceptable results Worst Case - Leak testing device requires complete redesign to achieve acceptable results	BEA procurement of different seals to correct deficiencies to allow for successful leak testing. If alternative seals are not successful, BEA to correct design of Bell Jar. Additionally BEA has identified a backup commercially provided option in the event the Leak Testing System is not acceptable.		
SNF333	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	SNF Road Ready Demonstration Project: Complications of West Truck Ramp Construction	Construction of the West Truck Ramp Fill-in encounters unknown anomalies which causes a delay in schedule and added costs to project.	During excavation of the West Truck Ramp Fill in, unexpected facility/soil conditions are encountered.	Open	Threat	Accept	Likely Unlikely	Moderate	2-Low	\$ 250,000	\$ 500,000	\$ 750,000	16	48 32	42 48	Best case - Recovery from unknown conditions/circumstances is minimal Most Likely - Recovery from unknown conditions/circumstances is significant Worst Case -Recovery from unknown conditions/circumstances requires re-plan of work. D.1.02.36.06 RRPD- Due to facility age and unknown conditions/requirements during construction, unknown conditions/anomalies cannot be	Prior to performing excavation activities, all Team members performing or monitoring work will be briefed on the nature of the facility including age and possible unknown conditions. Engineering to provide oversight and help resolve issues encountered to minimize schedule impact.		
SNF335	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	SNF Road Ready Demonstration Project: Dropped Cask in the Crane Envelope	During operations in the event of a drop of the cask in the crane envelope, significant damage could be sustained to the facility.	During operations, a cask drop occurs.	Open Closed	Threat	Accept	Likely	Serious	4-High	\$ 150,000	\$ 300,000	\$ 450,000	32	64	96		During the design process, MCP-3358 to evaluate the structural integrity of the facility and modifications will be followed. If the analysis shows failure of the west truck ramp will occur, the movement of the Crane will be mitigated by administrative controls in the proper procedure. If a cask drop occurs during operations, MCP-3358 will be followed to determine extent of the damage.		
SNF336	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	SNF Road Ready Demonstration Project: Drop Analysis of Cask Determines Potential SS Structure Damage	If the analysis of a drop of a cask determines damage will be done to the SS structure of the facility, modification may be needed to further support facility structure.	During operations, a cask drop occurs.	Open Closed	Threat	Accept	Likely	Serious	4-High	\$ 150,000	\$ 300,000	\$ 450,000	32	64	96		During the design process, MCP-3358 to evaluate the structural integrity of the facility and modifications will be followed. If the analysis shows failure of the west truck ramp will occur, the movement of the Crane will be mitigated by administrative controls in the proper procedure. If a cask drop occurs during operations, MCP-3358 will be followed to determine extent of the damage.		
SNF337	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	SNF Road Ready Demonstration Project: Drop Analysis Delay	Road Ready Project: Analysis of a drop of a cask is required to be done prior to SAR revisions. If analysis is not performed, then the project may be delayed.	During operations, a cask drop occurs.	Open Closed	Threat	Accept	Likely	Serious	4-High	\$ 250,000	\$ 500,000	\$ 750,000	32	64	96	Drop analysis will determine maximum height cask can be lifted in the crane envelope. Administrative controls will be incorporated into procedures to minimize structural damage to facility in the event of a cask drop.	During the design process, MCP-3358 to evaluate the structural integrity of the facility and modifications will be followed. If the analysis shows failure of the west truck ramp will occur, the movement of the Crane will be mitigated by administrative controls in the proper procedure. If a cask drop occurs during operations, MCP-3358 will be followed to determine extent of the damage.		
SNF338	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	SNF Road Ready Demonstration Project: Transfer Route Not Approved	Road Ready Demonstration Transfer route is not approved for Vertical Cask Transporter (VCT) use.	Engineering evaluation of potential transfer routes identifies that no route is acceptable for VCT.	Open Closed	Threat	Mitigate	Likely	Critical	5-Very High	\$ 1,500,000	\$ 3,000,000	\$ 4,500,000	48	96	144	Usage of VCT is preferred due to design of casks. Potential road improvements will be identified as necessary for usage of VCT	Possible heavy construction of transfer route path to improve road capacity. Alternative methods of transfer of cask to include heavy haul trailer and renting single failure proof crane or similar method to transfer cask. Engineering will facilitate further discussion to develop process prior to Road Ready Demonstration. Other possible options include end state location of loaded cask to be within the CPP-603 building.		
SNF339	D.1.02.36- 46	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	SNF Road Ready Demonstration Project: Insufficient Maintenance Funding	Road Ready Project schedule may be delayed in the event that Insufficient maintenance funding is available to update facilities, systems, equipment, and infrastructure or recover from significant system failures.	Failure of components, system, equipment, or structures.	Open	Threat	Accept	Likely Unlikely	Critical Major	3-Moderate	\$ 1,500,000 \$ 500,000	\$ 3,000,000 \$ 2,000,000	\$ 4,500,000 \$ 4,000,000	96 48	192 96	288 192	Identified by Engineering as a necessary upgrade to CPP-603 to continue operations/support future projects such as the Packaging Demonstration.	Maintain the Facility/Equipment. Replacement of the MSM and its approximate costs were determined from \$13K/day crew costs applied to a 3, 6 and 12-month		
SNF342	D.1.02.36- 41 3	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	SNF Road Ready Demonstration Project: CPP-603 Crane Failure Impacts 101 or 401	Fuel operations will be impacted by 101 (CRN-GSF-101) or 401 (CRN-GSF-401) crane failure in CPP-603 fuel handling cave.	During crane fuel movements the crane fails to respond as designed. During fuel movements in CPP-603 fuel handling cave, Crane 101	Open	Threat	Accept	Possible Unlikely	Major Serious	2-Low	\$ 600,000 \$ 500,000	\$ 1,200,000 \$ 1,000,000	\$ 1,800,000 \$ 1,500,000	22 16	64 32	96 64	Engineering has evaluated the crane electrical system and recommends that the festoon be replaced to increase reliability.	Historically, electricians and technicians have been able to repair the system successfully. Crane PMs/other maintenance is performed on schedule to identify any		
SNF347	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Wahnschaffe, Steve	SNF Road Ready Demonstration Project: Delay in PCS Modifications-Project: Delay in	Due to facility layout of CPP-603 facility, and any delay in work on the West Truck Ramp Fill-In could potentially cause a delay in Permanent Containment	Work on the West Truck Ramp Fill-in prevents work on the Permanent Containment Structure (PCS) modifications due to	Open	Threat	Accept	Likely Possible	Moderate	2-Low	\$ 250,000	\$ 500,000	\$ 750,000	16	32	48	Best Case: West Truck Ramp Fill-In is delayed causing minimal delay to PCS Modifications	Project Management will work with work crews during construction to identify any potential delays during		
SNF352	D.1.02.30	IEC	Johnson, Walter	Wahnschaffe, Steve	SNF Road Ready Demonstration Project: Maintain Crews	Project has to maintain crews in the event BEA does not send the planned ATR receipts.	BEA sends less than the planned ATR receipts.	Open	Threat	Accept	Possible	Serious	3-Moderate	\$ 240,000	\$ 720,000	\$ 960,000	16	43	184	Impacts are estimated based on the \$120,000 per transfer that is not received, and amount of time crews have to be allocated to different scope.			
SNF353	D.1.02.33	IEC	Ellsworth, Carla	Wahnschaffe, Steve	DCS: Project is More Complex Than Originally Planned For	After beginning the Distributed Control System project, scope is realized to be more complex than originally anticipated. This will result in schedule and cost increases to revisit and solve issues.	Emergent problems and/or more complex system are discovered that require attention before moving forward.	Emerging	Threat	Accept	Likely	Major	4-High	\$ 100,000	\$ 800,000	\$ 1,500,000	23	79	143	Impacts are estimated based off historical variance and SME judgement.			
SNF354	D.1.02.33	IEC	Ellsworth, Carla	Wahnschaffe, Steve	DCS: Schedule Delays Due to Higher Priorities	Other work takes priority and pushes out install of DCS panels. Results in schedule delays.	Other projects take priority over DCS.	Open	Threat	Accept	Possible	Moderate	2-Low	\$ 15,000	\$ 75,000	\$ 300,000	12	32	96	Impacts are estimated based on SME judgement for other project projections.			
SNF355	D.1.02.33	IEC	Ellsworth, Carla	Wahnschaffe, Steve	DCS: Loss of SME Experience	Less experienced staff take longer to complete schedule activities than originally planned. The project will experience schedule delays and cost increases.	Project loses experienced personnel.	Emerging	Threat	Accept	Possible	Major	4-High	\$ 30,000	\$ 150,000	\$ 250,000	16	87	176	Estimates are based on historical variance and SME judgement.			
SNF364	D.1.02.34.02	IEC	Johnson, Walter	Wahnschaffe, Steve	Peach Bottom: Inclement Weather Delays	Inclement weather delays the transfers at CPP-749. CPP-749 has strict guidelines for windspeed, precipitation and temperature per TPR-7022.	Inclement weather stops or delays work at CPP-749	Open	Threat	Accept	Likely	Minor	2-Low	\$ -	\$ -	\$ -	4	8	16	Best Case: 1 week accumulative of inclement weather Most Likely: 2 weeks accumulative of inclement weather Worst Case: 4 weeks accumulative of inclement weather			
SNF372	D.1.02.34	IEC	Johnson, Walter	Wahnschaffe, Steve	Peach Bottom Transfers: Industrial Incidents Resulting in Shutdowns	An industrial incident resulting in serious personnel injury may cause an extended shutdown to resolve conduct of operations issues.	An unanticipated accident resulting in injury or near miss	Open	Threat	Accept	Rare	Minor	1-Low	\$ 20,000	\$ 50,000	\$ 300,000	4	8	16	Cost is based on ROM estimate to perform corrective actions, but dependent on extent of event. Best case = incident is minor and investigated quickly with very few corrective actions requiring attention. Worst case = prolonged shut-down with extensive recovery actions, training, etc.	N/A		
SNF374	D.1.02.33	IEC	Ellsworth, Carla	Wahnschaffe, Steve	SNF DCS: Integration Issues during System Operability test	The SO test is expected to reveal problems due to compatibility challenges between new and legacy equipment.	SO test reveals problems in system.	Open	Threat	Mitigate	Likely	Moderate	3-Moderate	\$ 58,800	\$ 117,600	\$ 470,400	12	24	96	Negative cost and schedule impact while the engineers diagnose and solve the problems. Best case- 3 week delay 5 FTEs x 10 x598 x 12 days Most likely- 6 week delay 5 FTEs x 10 hr x 598 x 24 days Worst Case- 6 month delay 5 FTEs x 10hr x 598 x 96 days	Conduct pre-integrations testing in a controlled environment, engage DCS engineers early and have contingency plans for troubleshooting and patching. Employing Subcontract SME to mitigate issues.	FDC57210	
TO3002R2	Project Wide	IEC	Multiple CAMs	Multiple Projects	Global Risk: Work Delay Due to Abnormal Weather Conditions	Severe weather conditions that go above and beyond the historical norms is experienced, resulting in project delays from Site closure. These days would have impacts to the cost and schedule.	Events that are above average or severe weather conditions occur, based on historical precedents that would lead to Site closure.	Open	Threat	Accept	Possible	Serious	3-Moderate	\$ 500,000	\$ 1,000,000	\$ 7,000,000	0.5	1	7	Best Case: Complete Site Shut Down for .5 days Most Likely: Complete Site Shut down for 1 day Worst Case: Complete Site Shut down for 7 days	N/A	N/A	



TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated : 4.29.25

														Cost Impacts			Schedule Impacts (in days)			Basis of Impacts	Mitigation Actions	Risk Corrective Actions	Notes
Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Best Case	Most Likely	Worst Case	Best Case	Most Likely	Worst Case				
TO3005R2	Project Wide	IEC	Multiple CAMs	Multiple Projects	<u>Global Risk</u> : Stop Work Due to External Events	External event(s) at other INL locations or DOE sites cause a stop work.	External event(s) at other INL locations or other DOE sites cause a work stoppage. Events include, but are not limited to, contamination events that shut down other facilities, any crisis that is found at another facility that could potentially exist at Idaho Cleanup Project (ICP) causing a stop work, etc.	Open	Threat	Accept	Unlikely	Serious	2-Low	\$ 500,000	\$ 1,000,000	\$ 7,000,000	0.5	1	7	Best Case: Complete Site Shut Down for .5 days Most Likely: Complete Site Shut down for 1 day Worst Case: Complete Site Shut down for 7 days	N/A	N/A	
TO3P2005a	Project Wide	IEC	Multiple CAMs	Multiple CAMs	<u>Global Risk</u> : Line-Item Project Funding	Due to the amount of line-item projects being worked at the Idaho Environmental Coalition (IEC), limitation of base scope execution may be experienced as a direct result of variability in funding. Inability to execute base scope under the end state contract model will result in longer durations required to reach the desired end-states. This will increase the overall costs of the Idaho Cleanup Project (ICP), and could impact staffing levels.	Impacts from line-item project funding causes limitations that impact the execution of the base scope.	Open	Threat	Share	Almost Certain	Critical	5-Very High	\$ 1,000,000,000	\$ 1,350,000,000	\$ 1,700,000,000	900	1,350	1,800	Best Case: Most Likely Case:Worst Case:	Proposed Share to DOE		
TRU007R2	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition</u> : Failure of Characterization Equipment Will Impact CH TRU Waste Certification	If WIPP certified characterization equipment fails and can no longer be used, then CH TRU waste certification and shipment could be impacted. The equipment is older technology that is still in use.	Failure of nondestructive assay or real-time-radiography equipment.	Open	Threat	Mitigate	Unlikely	Major	3-Moderate	\$ 24,000	\$ 102,000	\$ 153,000	16	68	102	Best Case: 16 days x 10 hr./day x 2 people x \$75/hr.= \$10,200 Most Likely: 68 days x 10 hr./day x 2 people x \$75/hr.= \$102,000 Worst Case: 102 days x 10 hr./day x 2 people x \$75/hr.= \$153,000	Ensure/procure critical spare parts are on hand as availability allows.	Continue to perform maintenance on equipment, keep spare parts on hand, and monitor data quality to verify systems are operating normally.	
TRU012R2	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition</u> : Non-Destructive Assay (NDA) Results, Using ISOs and All Other Available NDA Equipment, Will Not Provide a Valid Assay Result for The Entire Inventory of Waste Containers At The RWMC	If NDA results, using ISOs and all other available NDA equipment, will not provide valid assay results for the entire inventory of waste containers at the RWMC, then both TRU and MLLW certification cannot be completed. This may result in the need for repackaging of waste containers by splitting the waste into multiple daughter containers, combining two or more containers, and/or a other means. After re-assay, one or more of the resulting containers may still be indeterminate for assay and have no approved disposition path from RWMC.	Containers fail assay due to high gamma.	Open	Threat	Mitigate	Rare	Moderate	1-Low	\$ 48,000	\$ 96,000	\$ 144,000	16	32	48	Best Case: 16 days x 10 hr./day x 4 people x \$75/hr.= \$48,000 Most Likely: 32 days x 10 hr./day x 4 people x \$75/hr.= \$96,000 Worst Case: 48 days x 10 hr./day x 4 people x \$75/hr.= \$144,000	Provide additional monitoring for NDA results, identify problematic waste, and make notification. Use dose to Currie results for any RH generated waste.	N/A	
TRU019R2	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition</u> : The Annual Site Treatment Plan Milestone is Missed	If the annual Site Treatment Plan milestone is missed, then potential significant cost impact due to lost fee and holdback resulting from IDEQ penalty.	A)The risk that IEC will lose critical personnel and will be unable to fill available positions with experienced staff to complete critical Acceptable Knowledge, Site Project Manager, Certification, Real Time Radiography, Non-Destructive Assay, etc., activities in support of profiling and certification of waste streams.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	\$ 51,200	\$ 99,200	\$ 201,600	32	62	84	Best Case: 32 days x 10 hr./day x 2 people x \$80/hr.= \$51,200 Most Likely: 62 days x 10 hr./day x 2 people x \$80/hr.= \$99,200 Worst Case: 84 days x 10 hr./day x 3 people x \$80/hr.= \$201,600	Provide cross training between disciplines and increase communication with the DOE-ID and CBFO to minimize, and challenges with them as they arise.		
TRU020R2	D.2.03.36	IEC	Vargesco, Matthew	Jenkins, Tally	<u>AMWTP LLW/MLLW Disposition</u> : Unanticipated Treatment Costs Determined by Perma-Fix/ Energy Solutions/ Waste Control Specialists Sampling	Depending on sampling results performed by Perma-Fix Florida (PFF), Energy Solutions (ES), and Waste Control Specialists (WCS) there may be additional treatment costs for unexpected chemical constituents.	Unanticipated chemical constituents are found that are outside of what has been determined through characterization data.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 11,000	\$ 11,000	\$ 44,000	4	4	8	Best Case: \$11,000 would be the cost of doing VTD treatment for a drum where unanticipated organics were found, such as sludge found in a debris container. This is a good conservative estimate for additional treatment needed, as this would be one of the most expensive routes of treatment. Most Likely:\$11,000 would be the cost of doing VTD treatment for a drum where unanticipated organics were found, such as sludge found in a debris container. This is a good conservative estimate for additional treatment needed, as this would be one of the most expensive routes of treatment. Worst Case: More than one container is found to need additional treatment. Very unlikely would be 4 containers needing additional treatment.	N/A		
TRU021R2	D.2.03.36	IEC	Vargesco, Matthew	Jenkins, Tally	<u>AMWTP LLW/MLLW Disposition</u> : Non-Compliant Container Shipped Back to AMWTP Due to Prohibited Items	Prior to offsite shipment to any commercial Treatment, Storage, and Disposal Facility (TSDF), AMWTP LLW/MLLW makes every effort to characterize waste in a safe and compliant manner, utilizing many resources to document and review container content information. However, a low chance does exist that a container will be shipped with a prohibited item, or some other chemical/radiological characteristic that was not anticipated. If the content cannot be treated by the TSDF or shipped by the	The TSDF opens a container and finds a physical prohibited item and/or the TSDF samples the container contents and finds unacceptable amounts of hazardous or radiological material outside of what the TSDF Waste Acceptance Criteria (WAC) allows.	Open	Threat	Accept	Unlikely	Major	3-Moderate	\$ 20,000	\$ 20,000	\$ 40,000	80	96	208	Best Case: Return shipping costs are \$20,000 to send a container back to us. Most Likely: Return shipping costs are \$20,000 to send a container back to us. Worst Case: Return shipping costs are \$20,000 to send a container back to us. However, if there is no room to ship the container on an already existing shipment when it leaves a second time (after	N/A		
TRU022	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition</u> : Waste Not Compliant for Waste Isolation Pilot Plant (WIPP) Disposition	If TRU waste is identified that cannot be disposed of in its current configuration, then additional processing, AK development, WIPP authorization, etc., may be required.	Identification of containers that do not allow for certification.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	\$ 96,000	\$ 192,000	\$ 384,000	32	64	128	Best Case: 32 days x 10 hr./day x 4 people x \$75/hr.= \$96,000 Most Likely: 64 days x 10 hr./day x 4 people x \$75/hr.= \$192,000 Worst Case: 128 days x 10 hr./day x 4 people x \$75/hr.= \$384,000	Establish new capabilities by review and reconciliation of container data for waste destined for WIPP.	N/A	
TRU023	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition</u> : CERCLA Facility Unavailability for Sampling/Remediation	If sampling and/or remediation (ammonium nitrate filters, high uranium, etc.) of CERCLA waste is necessary and an ARP facility is not available, then a non-RCRA facility will be required with potential update of ARP waste CERCLA requirements.	ARP waste requires reprocessing or testing.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	\$ 96,000	\$ 192,000	\$ 384,000	32	64	128	Best Case: 32 days x 10 hr./day x 4 people x \$75/hr.= \$96,000 Most Likely: 64 days x 10 hr./day x 4 people x \$75/hr.= \$192,000 Worst Case: 128 days x 10 hr./day x 4 people x \$75/hr.= \$384,000	Completed CBFO authorized testing, and ammonium nitrate in ARP waste is not acceptable for the WIPP. Remediation options are being developed, and recommendations will be provided to DOE-ID and the CBFO. <u>Do not term-complete CBFO authorized testing, if results</u>	Move forward with laboratory analysis of ammonium nitrate samples, observe testing start up, and keep COE-ID and the CBFO Difficult Waste Team apprised of testing and results to minimize potential impacts.	
TRU024	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition</u> : Waste Does Not Meet Basis of Knowledge (BoK) Criteria	If containers do not meet BoK requirements, then additional processing will be required.	Containers fail BoK criteria.	Open	Threat	Mitigate	Possible	Moderate	2-Low	\$ 24,000	\$ 48,000	\$ 96,000	16	32	64	Best Case: 16 days x 10 hr./day x 2 people x \$75/hr.= \$24,000 Most Likely: 32 days x 10 hr./day x 2 people x \$75/hr.= \$48,000 Worst Case: 64 days x 10 hr./day x 2 people x \$75/hr.= \$96,000	Maintain capabilities for reprocessing waste if necessary.	Continue BoK calculations for waste destined for WIPP, and make notifications if any fail.	
TRU025	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition</u> : Product Drums Cannot be Certified	If TRU product drums that fail container integrity (CI) inspections exceed allowable fissile gram equivalence (FGE) limits for a standard waste box (SWB) and the Advanced Mixed Waste Facility (AMWTF) is not available for reprocessing, then the drums cannot be overpacked or reprocessed and the waste cannot be certified.	Product drums cannot be certified due to CI failure and cannot be overpacked into an SWB.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	\$ 96,000	\$ 192,000	\$ 384,000	32	64	128	Best Case: 32 days x 10 hr./day x 4 people x \$75/hr.= \$96,000 Most Likely: 64 days x 10 hr./day x 4 people x \$75/hr.= \$192,000 Worst Case: 128 days x 10 hr./day x 4 people x \$75/hr.= \$384,000	CBFO authorization of overpack bags for product drums, with the overpack bag FGE limit higher than of an SWB. CBFO increase of the FGE limit for SWBs containing compacted waste. Perform UT testing to minimize the need for overpack bags and SWBs.	Assign product drums to SWBs as they fail CI and make notifications if FGE assignment precludes overpack.	
TRU026	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition</u> : Product Drums Require Reprocessing and Facility is Not Available	If TRU product drums must be reprocessed (liquid, high fissile gram equivalence (FGE), crit cleanout pack, etc.) and Advanced Mixed Waste Treatment Facility (AMWTF) is not available, then containers cannot be reprocessed and cannot be certified.	Product drums cannot be certified due to prohibited condition and the AMWTF is not available for reprocessing.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	\$ 96,000	\$ 192,000	\$ 384,000	32	64	128	Best Case: 32 days x 10 hr./day x 4 people x \$75/hr.= \$96,000 Most Likely: 64 days x 10 hr./day x 4 people x \$75/hr.= \$192,000 Worst Case: 128 days x 10 hr./day x 4 people x \$75/hr.= \$384,000	Identify and reprocess problematic product drums prior to AMWTF closure.	Identify problematic product drums while facilities still exist for reprocessing	
TRU027	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition</u> : Small Waste Stream Resource Availability Issues	If development and approval of required TRU waste stream documentation overwhelms available internal personnel resources or those of the approving entity, then the waste cannot be certified.	Cannot certify populations of containers due to limited personnel and priorities associated with larger waste streams.	Open	Threat	Mitigate	Possible	Critical	4-High	\$ 96,000	\$ 192,000	\$ 384,000	64	128	256	Best Case: 64 days x 10 hr./day x 2 people x \$75/hr.= \$96,000 Most Likely: 128 days x 10 hr./day x 2 people x \$75/hr.= \$192,000 Worst Case: 256 days x 10 hr./day x 2 people x \$75/hr.= \$384,000	Utilize CCP AK Support and develop a system to <u>re-work smaller waste streams and prioritize larger waste streams as they are being developed</u> . Utilize CCP AK Support to develop a system for AMWTF certification of ARP waste. Prioritize large SRP waste streams. Include debris waste from small generators in	N/A	
TRU028	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition</u> : Waste Container Overpack Availability Issues	If commodities (slip sheets, TDOP and SWB) are limited and shipments cannot be completed as planned, then the need for overpack of waste containers into larger and larger overpacks increases and the overpacks may not be authorized for WIPP disposal.	Commodities provided by DOE are not available to support final certification and/or WIPP shipments.	Open	Threat	Mitigate	Unlikely	Critical	3-Moderate	\$ 96,000	\$ 192,000	\$ 384,000	64	128	256	Best Case: 64 days x 10 hr./day x 4 people x \$75/hr.= \$96,000 Most Likely: 128 days x 10 hr./day x 4 people x \$75/hr.= \$192,000 Worst Case: 256 days x 10 hr./day x 4 people x \$75/hr.= \$384,000	Procure additional commodities as back-up and/or additional stock. SWB availability though SIMCO continues to be limited, and this is anticipated for the foreseeable future. UT testing of product drums is being planned to minimize the need for SWBs.		
TRU029	D.2.03.34.04	IEC	Loftus, Nathan	Jenkins, Tally	<u>CH-TRU Storage & Movement</u> : Loss of Contamination Control	Loss of contamination control during either storage or movement of containers.	Containers lose container integrity during storage and/or movement and contents are spilled.	Open	Threat	Mitigate	Likely	Moderate	3-Moderate	\$ 18,000	\$ 36,000	\$ 54,000	10	20	30	Best Case: 10 days x 10hr./day x 4 people x \$45/hr.= \$18,000 Most Likely: 20 days x 10hr./day x 4 people x \$45/hr.= \$36,000 Worst Case: 30 days x 10hr./day x 4 people x \$45/hr.= \$54,000	Continue to monitor and test integrity of waste drums as they come out of storage and in process of being moved.	Continued effort in monitoring, testing, and ensuring drum integrity and they prepare to be moved to off-site storage.	
TRU030	D.2.03.34.05	IEC	Loftus, Nathan	Jenkins, Tally	<u>CH-TRU Storage & Movement</u> : Unforeseen Equipment Replacement Need	Need for equipment replacement due to accident, breakdown, end of useful life, fabrication of new drum movement components/attachments, etc.	Replacement parts or replacement vehicles are unable for purchasing or long lead times.	Open	Threat	Mitigate	Likely	Moderate	3-Moderate	\$ 28,800	\$ 64,000	\$ 105,600	16	32	48	Best Case: 16 days x 10hr./day x 4 people x \$45/hr.= \$28,800 Most Likely: 32 days x 10hr./day x 4 people x \$50/hr.= \$64,000 Worst Case: 48 days x 10hr./day x 4 people x \$55/hr.= \$105,600	Maintain and log aging parts/vehicles that may be needing replacement in the future.	Monitoring of equipment and planning of purchasing replacement parts/vehicles for future use and aging equipment becomes obsolete.	



TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated : 4.29.25

Risk ID	WBS	Responsible Organization	IEC POC	DOE FPD	Risk Title	Risk Description	Trigger Event	Status	Risk Type	Handling Strategy	Risk Event Likelihood	Risk Impact	Risk Rating	Cost Impacts			Schedule Impacts (in days)			Basis of Impacts	Mitigation Actions	Risk Corrective Actions	Notes
														Best Case	Most Likely	Worst Case	Best Case	Most Likely	Worst Case				
TRU031	D.2.03.35.06	IEC	Hubler, Rachelle	Jenkins, Tally	<u>CH-TRU Packaging and Transportation:</u> Commodity Availability/Cost Increases/Alternate Vendor Needs	Delays associated with receipt of various commodities due to vendor delays with raw material delivery/manufacturing. Commodities include tent materials, helium leak detectors and/or shipping materials.	Unavailability of raw material to vendor.	Open	Threat	Mitigate	Likely	Minor	2-Low	\$ 14,400	\$ 28,800	\$ 43,200	8	16	24	Best Case: 8 days x 10hr./day x 4 people x 45/hr. = \$14,400 Most Likely: 16 days x 10hr./day x 4 people x 45/hr. = \$28,800 Worst Case: 24 days x 10hr./day x 4 people x 45/hr. = \$43,200	Maintain inventory of commodities and forecast for future purchases.	Find alternative commodities compatible with scope requirements.	
TRU032	D.2.03.35.04 D.2.03.35.05	IEC	Hubler, Rachelle	Jenkins, Tally	<u>CH-TRU Packaging and Transportation:</u> CH-TRU/LLW/MLLW Waste Returned for Out-of-Compliance Determination	Waste Returned for Out-of-Compliance Determination by Treatment, Storage, and Disposal Facility (TSDF). Out-of-Compliance defined as damaged or leaking drums unable to pass TSDF inspection prior to acceptance of shipment and placed in storage.	Containers fail inspection or are out-of-compliance.	Open	Threat	Mitigate	Likely	Major	4-High	\$ 80,000	\$ 100,000	\$ 250,000	50	75	90	Best Case: 50 days x 10hr./day x 4 people x 45/hr. = \$80,000 Most Likely: 75 days x 10hr./day x 4 people x 45/hr. = \$100,000 Worst Case: 90 days x 10hr./day x 6 people x 45/hr. = \$250,000 Transportation and loading/unloading costs \$150K-\$200K Inspection costs \$80K-\$250K	Increase monitoring and testing the integrity of LLW/MLLW drums before shipping to storage facility.	WIPP may change their requirements or may introduce new interpretations of existing requirements, resulting in delays associated with profiling and certification or may necessitate reprocessing of waste	
TRU033	D.2.03.36.05	IEC	Vargesco, Matt	Jenkins, Tally	<u>AMWTP LLW/MLLW Disposition:</u> Pallet and/or Macrobag Procurement Vendor Output Issues Impact Shipping Schedule and Shipment Destination	Issues at the pallet and/or macrobag vendor site may disrupt our ability to acquire these materials in a timely manner. Not being able to procure the needed materials may delay onsite macroencapsulation (MACRO) and/or packaging operations. This may cause enough delay to cancel scheduled shipments of treated waste to offsite Treatment, Storage, and Disposal Facilities (TSDFs). If we must go to another vendor Box lines, the Super-compactor, or both are offline for a period of time as they are aging equipment in an aging facility.	MACRO bags and pallets cannot be funded, or the vendor is not able to provide their product.	Open	Threat	Mitigate	Possible	Minor	2-Low	\$ 15,000	\$ 15,000	\$ 114,000	8	8	32	Best Case: We continue to order MACRO bags and pallets for MLLW shipments, which costs approx. \$15,000 per shipment. Most Likely: We continue to order MACRO bags and pallets for MLLW shipments, which costs approx. \$15,000 per shipment. Worst Case: We cannot acquire MACRO bags and must ship a 6	Continue to provide funding to procure MACRO bags and pallets, and procure additional back-up pallets to ensure packaging operations remain uninterrupted.	N/A	
TRU035	D.2.03.32.05	IEC	Martin, David	Jenkins, Tally	<u>CH-TRU Treatment Facility Support:</u> Equipment Breakdown		Breakdown during processing.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	\$ 96,000	\$ 192,000	\$ 384,000	32	64	128	Best Case: 32 days x 10 hr./day x 4 people x \$75/hr. = \$96,000 Most Likely: 64 days x 10 hr./day x 4 people x \$75/hr. = \$192,000 Worst Case: 128 days x 10 hr./day x 4 people x \$75/hr. = \$384,000	Implement the usage of overtime to recover any schedule slippage and prevent total schedule loss.	N/A	
TRU036	D.2.03.32.05	IEC	Martin, David	Jenkins, Tally	<u>CH-TRU Treatment Facility Support:</u> Ammonium Nitrate Changeover	Difficulty/delays caused by not being able to determine the best path forward to be able to treat and package Ammonium Nitrate bearing waste in a safe and compliant manner.	Ammonium Nitrate waste requires reprocessing or testing.	Open	Threat	Mitigate	Likely	Serious	4-High	\$ 96,000	\$ 192,000	\$ 384,000	32	64	128	Best Case: 32 days x 10 hr./day x 4 people x \$75/hr. = \$96,000 Most Likely: 64 days x 10 hr./day x 4 people x \$75/hr. = \$192,000	Implement the usage of overtime to recover any schedule slippage and prevent total schedule loss.	N/A	
TRU039	D.2.03.37.04	IEC	Martin, David	Jenkins, Tally	<u>AMWTP BOP Maintenance:</u> Replacement Parts Are Out of Compliance or Unavailable	Advanced Mixed Waste Treatment Project (AMWTP) is an aging facility and project in need of constant repairs for continued operations.	Parts and equipment are unavailable or obsolete to keep equipment operating.	Open	Threat	Mitigate	Almost Certain	Serious	5-Very High	\$ 350,000	\$ 500,000	\$ 1,000,000	16	64	128	Impacts are estimated based on replacing/repairing equipment.	Initiate planned and regular communication with purchasing department and vendors to ensure that necessary items are stocked ahead of time to meet work scope demands and with additional stock for back	N/A	
TRU040	D.2.03.31.06	IEC	Byram, George	Jenkins, Tally	<u>CH-TRU Waste Disposition:</u> BEA Cannot Complete Potential Classified Document Reviews	If BEA is not available to complete potential classified document reviews, then reviews of required Waste Isolation Pilot Plant (WIPP) documents cannot be completed.	Funding is not available for BEA document reviews.	Open	Threat	Accept	Likely	Critical	5-Very High	\$ 156,000	\$ 312,000	\$ 468,000	104	208	312	Best Case: 104 days x 10 hr./day x 2 people x \$75/hr. = \$156,000 Most Likely: 208 days x 10 hr./day x 2 people x \$75/hr. = \$312,000	N/A	Attempt to ensure documents can be provided for CBFO review to support waste certification and the annual recertification audit.	
TRU041	D.2.05.30.17	IEC	Orme, Jason	Jenkins, Tally	<u>Non-AMWTP Treatment and Disposal:</u> Equipment Failure		In the event that equipment fails, it will need to be repaired or the project will need to procure a replacement.	Open	Threat	Mitigate	Likely	Moderate	3-Moderate	\$ 118,000	\$ 236,000	\$ 354,000	16	32	48	Equipment Costs per DCES sheet / Lease Rates for Equipment Total \$56,700 - 20% Equipment Potential Failures - Daily Rates 20% Higher than Monthly Rates	Procure or lease backup equipment to resume operations		
TRU042	D.2.05.30.18	IEC	Orme, Jason	Jenkins, Tally	<u>Non-AMWTP Treatment and Disposal:</u> Treatment, Storage, and Disposal Facility (TSDF) Closure		When TSDF is unable to receive waste, transportation of that waste will be delayed. It may then become necessary to work overtime to recover schedule.	Open	Threat	Mitigate	Possible	Minor	2-Low	\$ 78,720	\$ 118,800	\$ 158,400	8	12	16	Best Case: 8 days x 10 hr./day x 6 FTEs X (\$110/hr. + OT = \$165/hr.) Most Likely Case: 12 days x 10 hr./day x 6 FTEs X (\$110/hr. + OT = \$165/hr.) Worst Case: 16 days x 10 hr./day x 6	Work overtime to recover and prevent further loss of schedule for treatment storage and disposal facility (TSDF).		
TRU043	D.2.05.30.19	IEC	Orme, Jason	Jenkins, Tally	<u>Non-AMWTP Treatment and Disposal:</u> Waste Container Treatment, Storage, and Disposal Facility (TSDF) Certification Failure		During the verification process, if a waste container(s) is found to not be in accordance with the TSDF Waste Acceptance Criteria (WAC), the waste will need to be reworked.	Open	Threat	Mitigate	Rare	Minor	1-Low	\$ 54,000	\$ 81,000	\$ 108,000	4	6	8	Certification rework and repackaging to meet Waste Acceptance Criteria	Ensure proper training and qualifications	N/A	
TRU044	D.2.05.30.21	IEC	Orme, Jason	Jenkins, Tally	<u>Non-AMWTP Treatment and Disposal:</u> Emergency Equipment Lease/Repair		If critical equipment which supports daily operations fails, we will need to procure a replacement.	Open	Threat	Mitigate	Likely	Serious	4-High	\$ 118,000	\$ 236,000	\$ 354,000	30	60	90	Equipment Costs per DCES sheet / Lease Rates for Equipment Total \$56,700 - 20% Equipment Potential Failures - Daily Rates 20% Higher than Monthly Rates	Procure required backup equipment to resume operations		
TRU045	D.2.05.30	IEC	Orme, Jason	Jenkins, Tally	<u>Waste Generator Services:</u> Failure to Upgrade Waste Tracking System		The current Waste Tracking System (WTS) is outdated and in need of a significant upgrade. If an upgrade is not performed, the project is at risk of consistent stop work delays to perform repairs.	Open	Threat	Accept	Likely	Minor	2-Low	\$ 1,500	\$ 24,000	\$ 72,000	1	16	48	Best Case: 1 days x 10 hrs./day x 2 people x \$75/hr Most Likely: 16 days x 10 hrs/day x 2 people x \$75/hr Worst Case: 48 days x 10 hrs/day x 2 people x \$75/hr	N/A		
TRU049	D.2.03.36.04	IEC	Vargesco, Matthew	Jenkins, Tally	<u>AMWTP LLW/MLLW:</u> Generated RCRA Waste	Resource Conservation and Recovery Act (RCRA) waste that is generated as part IEC operations must be shipped offsite within 1 year of generation or IEC must provide documentation for wastes with no path to disposition. There is risk for funding to not	1) Higher priority scope causes this work package to not get funded. 2) IEC generated RCRA waste is not shipped in acceptable timeframe.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 37,000	\$ 150,000	\$ 600,000	1	4	16	\$3008(c): Violation of Compliance Orders If a violator fails to take corrective action within the time specified in a compliance order, the Administrator may assess a	N/A	N/A	
TRU301	D.2.03.34	IEC	Martin, David	Jenkins, Tally	<u>CH-TRU Storage and Movement:</u> Equipment Availability		The robot is not delivered when the project expected to receive it. This causes delays to the schedule.	Open	Threat	Accept	Possible	Minor	2-Low	\$ 10,000	\$ 20,000	\$ 40,000	8	16	32	Numbers developed based on CAM judgement. Subcontractor cost and schedule are in development and will be used to fine tune risk.	N/A		
TRU302	D.2.03.34	IEC	Martin, David	Jenkins, Tally	<u>CH-TRU Storage and Movement:</u> Less Than Anticipated Throughput		Once received, the robot does not perform as fast as anticipated. When throughput is less than anticipated, the project will experience schedule delays.	Open	Threat	Mitigate	Rare	Minor	1-Low	\$ 5,000	\$ 20,000	\$ 40,000	4	16	32	Current numbers based on CAM judgement, subcontractor schedule and cost are being developed and will allow fine tune of risk	Procure a backup robot to operate in parallel to mitigate schedule delays.		
TRU303	D.2.03.34	IEC	Martin, David	Jenkins, Tally	<u>CH-TRU Storage and Movement:</u> Availability of Drum Move Crew		Crews are not available to move drums in support of Ultrasonic Testing due to higher priority scope, resulting in schedule delays.	Open Closed	Threat	Accept	Unlikely	Minor	2-Low	\$ 5,000	\$ 20,000	\$ 40,000	4	16	32	CAM judgement used to develop initial numbers, subcontractor schedule and cost in development and will allow for fine tuning of risk evaluation	N/A		
TRU305	D.2.04	IEC	Troeschler, Patrick	Mitchell, Jason	Inadequate Waste Storage Space	The current storage space for generated waste is limited and with the lack of offsite disposal options combines with the increased generated RCRA waste need to be stored, the projects will run out of storage options for the waste.	Storage for RH TRU and IWTU RCRA generated waste reaches capacity.	Open	Threat	Accept	Almost Certain	Major	5-Very High	\$ 500,000	\$ 750,000	\$ 1,000,000	48	96	144	Best Case: A 3-month delay and need to construct a vault storage pad-\$27/sq Foot Most Likely: A 6-month delay and potentially multiple/larger storage pads Worse Case: A 9-month delay due to lack of construction resources and or additional material.	N/A	N/A	