AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
	1 2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicable)*
P00041	See Block 16C		

6. ISSUED BY	CODE	7. ADMINISTERED BY *(If other than Item 6)*	CODE
893042		00701	

EM-Idaho
Department of Energy
Office of Environmental Management
Idaho Cleanup Project
1955 Fremont Avenue
Idaho Falls ID 83415

U.S. Department of Energy
Idaho Operations Office
1955 Fremont Avenue
Idaho Falls ID 83415

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and ZIP Code)*

IDAHO ENVIRONMENTAL COALITION LLC
Attn: Jason Mack
600 William Northern Blvd
Tullahoma TN 373884729

CODE LQ5ZLNE3EM27 FACILITY CODE

(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

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 (see below for details).

Payment:
OR for Idaho
U.S. Department of Energy
Oak Ridge Financial Service Center
P.O. Box 6017
Oak Ridge TN 37831
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)*		16A. NAME AND TITLE OF CONTRACTING OFFICER *(Type or print)*	
		Grace H. Ruiz	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
KIMBERLI SOUTHWICK (Affiliate) Digitally signed by KIMBERLI SOUTHWICK (Affiliate) Date: 2024.08.29 10:47:45 -06'00'		GRACE RUIZ Digitally signed by GRACE RUIZ Date: 2024.08.29 11:39:18 -06'00'	08/29/2024
(Signature of person authorized to sign)		*(Signature of Contracting Officer)*	

Previous edition unusable

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

NAME OF OFFEROR OR CONTRACTOR
IDAHO ENVIRONMENTAL COALITION LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Period of Performance: 10/01/2023 to 09/30/2031 Change Item 00302 to read as follows(amount shown is the total amount):				
00302	CLIN 03 SUBTASK 0302 INTEGRATION AND MISSION CONTINUITY (TASK ORDER 3.2) Line item value is: $693,840,275.00 Incrementally Funded Amount: $408,112,444.93 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 (see Attachments TO-3.2 DOE Transfer Risk Register Updates-Redline; TO-3.2 DOE Transfer Risk Reg Updates FY24 Q3-Incorporated; TO-3.2 Risk Reg Updates FY24 Q3-Redlined; and TO-3.2 Risk Reg Updates FY24 Q3-Incorporated). All other terms and conditions remain unchanged.				693,840,275.00

From: Kreimann-Duane, Ashley A
To: Delegation of Authority; Salmon, Tony F; Southwick, Shawna A; Killpack, Jason D; Anderson, Jade M
Subject: Delegation of Authority - Jack MacRae, Sr. Director, Business Services & PCO
Date: Wednesday, August 28, 2024 1:19:38 PM
Attachments: image001.png

Notification of Delegation of Authority

Manager's Name:	**Jack MacRae, Sr. Director, Business Services & PCO**
Phone Numbers:	Office No.: 208-533-0010 Cell No.: 208-541-1483
Delegation Starts:	Thursday, August 29th, 2024 @ 6:00 a.m.
Delegation Ends:	Thursday, August 29th, 2024 @ 5:30 p.m.
Reason for Absence:	Personal Leave
Acting Manager's Name:	**Kimberli Southwick, Deputy/CFO**
Phone Numbers:	Office No.: 208 533-3841 Cell No.: 208-770-1622
Signature Authority:	Yes
Timecard Approval:	No
Mail Delegation:	NA

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*** | 1580 Sawtelle St. Idaho Falls, ID 83402 | www.idahoenvironmental.com |

CID 89303321DEM000061/89304223FEM400000, Mod P00041
CLIN 03, Subtask 302
Task Order 3.2

TO3 Risk Register: DOE Transfer Risks

Idaho Cleanup Project Programmatic Risk Register
Updated : 8.19.24

															Cost Impacts			Schedule Impacts (in days)						
Risk ID	WBS	Responsible Organization	Risk Owner	IEC Risk Back-up	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	Date Identified	Last update	Notes
CAL007OR2	D.3.02.30.08	DOE	DOE FPD	Kimbro, Valerie	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 reprioritize 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	Opportunity	Transfer	Rare	Minor	1-Low	$ (150,000)	$ (100,000)	$ (80,000)	-150	-150	-60		Propose Transfer to DOE	3/20/2022	6/30/2024	None
CAL007TR2	D.3.02.30.08	DOE	DOE FPD	Kimbro, Valerie	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 reprioritize 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		Propose Transfer to DOE	3/20/2022	6/30/2024	None
CAL033	D.3.05.31	DOE	DOE FPD	Kimbro, Val	CalcineVIT: Delays in External Approvals of Project Related Documents	Project efficiency and progress is dependent upon expedient response and support from external reviews and approvals of the RCRA delisting petition and other project related DOE owned documentation. Delays from external project support during scheduled approval time frame(s) will impact scheduled delivery and increase cost.	Lack of support in RCRA delisting petition or other programmatic documents.	Open	Threat	Transfer	Likely	Serious	4-High	$ 64,000	$ 128,000	$ 192,000	32	64	96	Cost and schedule impacts are based on possible schedule delays. Basis is estimated as follows: Best Case - 32 days x 10 hr./day x 2 FTE x $100/hr. = $64k Most Likely Case - 64 days x 10 hr./day x 2 FTE x $100/hr. = $128k Worst Case - 96 days x 10 hr./day x 2 FTE x $100/hr. = $192k	Propose Transfer to DOE	6/19/2023	6/30/2024	
DST300	Project Wide	DOE	DOE FPD	Perry, Scott	Indirects: 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 the 2014 version regardless of the requirements in DOE-STD-1189.	Propose Transfer to DOE	5/10/2024	6/30/2024	Work with DOE to implement a phased approach to minimize delays to other scope.
IND300	K.1.02.08.07	DOE	DOE FPD	Southwick, Kimberli	Documents & Records Management: IEC is Required to Transfer or Scan All Boxes of Records	DOE requested an impact analysis for costs to implement DOE O 243.1C into the contract. This would require storing, digitizing, indexing and transferring records for storage at a NARA Federal Record Center or a NARA-certified commercial records facility. IEC would incur a significant increase in cost to apply resources for performing this work to include hiring personnel and purchasing the equipment necessary to perform the scans.	DOE O 243.1c is incorporated into the IEC contract.	Open	Threat	Transfer	Likely	Critical	5-Very High	$ 4,500,000	$ 6,750,000	$ 12,150,000	0	0	0	Best Case: Transferring boxes to a FRC or NARA certified commercial record storage facility. Most Likely: A Combination of Transferring 24K boxes and digitizing 24K boxes Worst Case: Digitizing and indexing all 48K boxes. *Note these impacts are higher than represented in this risk due to Task Order Constraints. Full impacts can be found in IEC's Recap Letter DOE-002.	Propose Transfr to DOE	5/10/2024	6/30/2024	
INTEC210	D.3.03.32.01 D.3.03.32.02	DOE	DOE FPD	Hamilton, Rob	RC Routines: External Requirements Change	External Requirements are subject to change. Examples of external requirements are: DOE 0151.1C, 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	Propose Transfer to DOE	5/18/2023	6/30/2024	
IT001	D.6.02.32	DOE	DOE FPD	Anderson, Jade	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	Threat	Transfer	Likely	Serious	4-High	$ 500,000	$ 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)	Propose Transfer to DOE	4/23/2023	6/30/2024	
NICDF006	D.4.06.3A.01	DOE	DOE FPD	Reese, Craig	New ICDF Cell Definition: Potential Contamination of Groundwater Monitoring Well Drilling Equipment and Site	During installation of groundwater monitoring wells, being performed by USGS under DOE-ICP contract, there is a potential for contamination to be discovered that could impact the equipment, ground water, and/or surrounding area. This would require time and cost to move to another drilling site and to decontaminate subcontractor equipment, resulting in an unforeseen extension of the contract work.	Unexpected contamination discovered on well drilling equipment.	Open	Threat	Transfer	Rare	Minor	1-Low	$ 30,000	$ 75,000	$ 120,000	2	5	8	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: 8 days X 10 hr./day X 20 FTEs X $75/hr.	Propose Transfer to DOE	9/21/2022	6/30/2024	
NICDF007	D.4.06.32.01	DOE	DOE FPD	Reese, Craig	New ICDF Cell: Lowering the Cell Results in Finding Basalt	Design modifications were made to lower the ICDF cell berm (reducing visual footprint). Lowering the cell berm introduces the increased potential of encountering basalt during excavation. This will cause the excavation work to take longer than anticipated. If DOE-ICP/Tribes require lowering the ICDF cell berm by 7 feet (reducing visual footprint) then a modification in design and excavation would be required. The project would have to re-design the cell, requiring rotating the cell 90°, and excavating 7 feet deeper than currently estimated.	During deeper excavation of cell, basalt is encountered. Takes longer to excavate.	Open	Threat	Transfer	Almost Certain	Minor	3-Moderate	$ 150,000	$ 240,000	$ 720,000	10	16	48	Best Case: 10 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: 48 days X 10 hrs./day X 20 FTEs X $75/hr.	Propose Transfer to DOE	9/21/2022	6/30/2024	
NICDF008R2	D.4.06.32.04 D.4.06.32.05 D.4.06.33.03 D.4.06.33.04 D.4.06.34.04	DOE	DOE FPD	Reese, Craig	New ICDF Cell: Delays in DOE Approvals of Critical Decisions or Other Project Related Documents	Project efficiency and progress is dependent upon expedient response and support from DOE for review and approval of Critical Decision points in the project life. Extended approvals beyond scheduled approval time frame(s) will impact scheduled delivery and increase cost. In addition, if CD 2/3 is not approved before the demobilization of the subcontractor, the may be required to solicit a new RFP.	CD Package Approval not received within the scheduled timeframe.	Realized	Threat	Transfer	Likely	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 Transfer to DOE	9/21/2022	6/30/2024	As of 9/18/2023 Note From DOE: COMMENT ONLY/NO CHANGE IN RISK REGISTER: While this is a DOE-ID risk, it is incumbent upon IEC to deliver the supporting information, including baseline documentation, on a schedule to meeting the correct date for completing actions leading up to the approval of Critical Decisions.
NICDF016	D.4.06.30	DOE	DOE FPD	Reese, Craig	ICDF New Cell: 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.	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/dy X 20 FTEs X $75/hr Most Likely Case: 30 days X 10 hrs/dy X 20 FTEs X $75/hrWorst Case: 32 days X 10 hrs/dy X 20 FTEs X $75/hr	Propose Transfer to DOE	5/1/2024	6/30/2024	

NICDF037b	D.4.06.30	DOE	DOE FPD	Reese, Craig	New ICDF Cell: 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	2/2/2023	6/30/2024	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-evaluating and discussing with DOE, this will be a Shared risk with DOE/IEC. This is in response to the BEA services we can't secure another contractor for. We proposed this under Phase 1 (email confirmation from Aaron Nebeker 5/31/2023, MODP00065) and it was accepted by DOE to be "Shared" risk. With that being said IEC will add this risk to their project risk register to carry in addition to the transfer risks. We will also update the mitigation action to show "Shared risk with DOE/IEC". • Note From DOE: AGREE - Per Aaron N., as historical precedence ICP and IEC have shared this risk (or similar risks involving BEA) on other projects.
NICDF039b	D.4.06.34.05	DOE	DOE FPD	Reese, Craig	New ICDF Cell: CD2/3 PMB higher than Phase 2 Plan	ICDF New Cell is anticipated to be submitting a PMB in the spring of 2024 for the lifecycle of the project. Under DOE direction they are also planning two years of scope under Task Order 3 Phase 2 (FY24-FY25). There is a potential differentiation in the planning of those time periods making the PMB in the spring come in at a different cost or schedule than planned.	The PMB submitted in the spring comes out with different costs and/or schedule estimates than planned under TO3 Phase 2.	~~Realized~~ Closed	Threat	Shared	Possible	Serious	3-Moderate	$ 250,000	$ 500,000	$ 750,000	32	64	96	**Best Case**: Additional 2 months needed for scope identified under FY24/25 time frame with additional $250K. **Most Likely:** Additional 4 months needed for scope identified under FY24/25 time frame with additional $500K. **Worst Case**: Additional 6 months needed for scope identified under FY24/25 time frame with additional $750K.	Propose Shared to DOE	7/10/2023	6/30/2024	As of 9/18/2023 • Note From DOE: Delivery of a PMB in spring of FY 2024 will not support CD-2/3. The PMB is one of the documents/plans that will be included in the Independent Project Review (IPR) that must be completed prior to submitting and requesting Critical Decision 2.3 approval. Also, the cost for the ICDF Expansion Project is now known to a much greater confidence with the award of the contract to the construction contractor. The entire project is required to be planned for PMB and not differentiated into phases. Further, the PMB costs are an IEC risk, and the risk must be returned to IEC. Also, this type of risk should be covered by the Management Reserve. • IEC Response: Disagree - This risk does not assume a new task order for ICDF and that the CD-2/3 deliverable which contains the PMB will differ than that shown in TO3.2. This has been discussed with DOE. • Note From DOE: TALLEY and CRAIG have agreed to split this risk between DOE and IEC. Please update the risk register to include on both DOE and IEC list. Per Talley's email to Aaron N. on 9/14/2023: "This risk may end up going away during the finalization of the Risk Assessment Report (RAR) being developed as part of the Critical Decision (CD) 2/3 documentation."
NICDF042	D.4.06.37 D.4.06.3B D.4.06.3C D.4.06.3F	DOE	DOE FPD	Reese, Craig	Continuing Resolutions	Continuing Resolutions end up extending into late FY24, we don't receive funding and it pushes out our ability to finish up the Excavation/Embankments and start Construction Activities for the Evap. Ponds.	Congress to approve.	Open	Threat	Transfer	Possible	Minor	2-Low	$ 30,000	$ 75,000	$ 300,000	2	5	20		Propose Transfer to DOE.	3/1/2024	6/30/2024	
NICDF043	D.4.06.3A.01	DOE	DOE FPD	Reese, Craig	ICDF New Cell: Independent Project Review (IPR) Corrective Actions Cause Delays	Extensive corrective actions, as a result of the IPR, could delay CD-2/3 approval.	IPR findings cause delays to the project as a result of implementing necessary corrective actions.	Open	Threat	Transfer	Possible	Minor	2-Low	$ 30,000	$ 75,000	$ 150,000	2	5	10	Incomplete	Propose Transfer to DOE	5/1/2024	6/30/2024	
NICDF300	D.4.06	DOE	DOE FPD	Reese, Craig	Increased Share of Pension	There is a risk that the pension plan will require contributions that exceed what was planned for the ICDF period of performance. This would result in an increased labor cost associated with the additional pension adder.	ICDF is directed to increase pension contributions.	Realize	Threat	Transfer	Almost Certain	Moderate	4-High	$ 360,689	$ 400,766	$ 440,843	0	0	0	Best Case: 2 % ICDF Direct Labor - If total labor on project decreases by 10% Most Likely Case: 2% ICDF Direct Labor Worst Case: 2 % ICDF Direct Labor - If total labor on project increases by 10%	Propose Transfer to DOE.	3/1/2024	6/30/2024	
S1W002R2	D.5.01.32	DOE	DOE FPD	Burtenshaw, Shawna	NRF Naval 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	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: 32 days X10 hrs./day X 2 crews (20 FTEs) X $75/hr. = $960,000	Propose Transfer to DOE	2/10/2024	6/30/2024	
SNF033	D.1.04.01.10	DOE	DOE FPD	Cotterell, Jaksen	SNF Staging Facility: DOE CD-1 Review Duration	The duration of the DOE review of CD-1 for the Staging Facility ~~could potentially extend~~ is longer than planned, thus pushing subsequent work scope.	EIR and CD-1 Review is delayed.	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 $75/hr.	Propose Transfer to DOE	4/23/2023	6/30/2024	
SNF034	D.1.04.01.10	DOE	DOE FPD	Cotterell, Jaksen	SNF Staging Facility: IEC CD-1 Submittal Date	~~The AoA changes project scope which causes delays in submittal of the CD-1 package which causes delays submittal of the CD-1 review, this could lead to losing our position in queue for DOE Board Reviews. If this risk were realized, it would subsequently delay successor activities within this project.~~ The Management Options for SNF at the INL Site Integrated Project Team AoA is not accepted, causing a new AoA for the ID SNF-SF. The new AoA development causes the CD-1 package submittal preparation duration to extend beyond originally scheduled.	A new AoA is required. CD-1 submittal date is missed, and the ID SNF-SF loses our DOE HQ reviews.	Realize	Threat	Transfer	~~Likely~~ Almost Certain	Serious	4-High	~~$ 58,840~~ $ 250,000	~~$ 95,040~~ $ 500,000	~~$ 121,840~~ $ 1,000,000	41	58	75	Best Case: 1 FTE for 4 weeks @ $100/hr. and 1 FTE for 2 weeks @ $80/hr. and 50,000 for subcontract design + 30day Most Likely: 1 FTE for 4 weeks @ $100/hr. and 1 FTE for 2 weeks @ $80/hr. and 80,000 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 Each portion of design will need 10% of the subcontractor cost for IEC to manage.	Propose Transfer to DOE	4/23/2023	6/30/2024	Consult schedule and forecasts with DOE ICP and HQ in our IPT. Maintain AoA schedule and maintain status updates in the schedule.
SNF044	D.1.04.01	DOE	DOE FPD	Cotterell, Jaksen	SNF Staging Facility: Storage Regulatory Framework	The Staging Facility design will be developed under DOE regulated framework and does not require NRC framework and licensing. In other words, the facility falls under 10 CFR 830 rather than 10 CFR 72.	In discussions with DOE and NRC, it is determined that the Staging Facility design must meet NRC requirements.	Open	Threat	Transfer	Rare	Major	3-Moderate	$ 100,000	$ 250,000	$ 500,000	64	96	208	Revise T&FR, SOW and require the subcontractor to fit the staging facility within NRC licensing Best Case: 4 months with a cost of 100,000 Most Likely: 6 months with a cost of 250,000 Worst case 1 year with a cost of 500,000	Propose Transfer to DOE	4/23/2023	6/30/2024	
SNF313	D.1.04.01	DOE	DOE FPD	Cotterell, Jaksen	SNF Staging Facility: Staging Facility AoA Requirement CD-1	The Management Options for Spent Nuclear Fuel at the Idaho National Laboratory Site Integrated Project Team Analysis of Alternatives (AoA) Final Report finished January 2021 is not accepted for the Idaho Spent Nuclear Fuel Staging Facility (SNF-SF).	On 2/14/2024 IEC was verbally notified that the AoA was not accepted for the SNF-SF. Written comments were sent on 2/16/2024 verifying verbal comments.	~~Realized~~ Closed	Threat	Transfer	Almost Certain	Critical	5-Very High	$ 180,000	$ 288,000	$ 342,000	80	104	144	Cost only includes IEC forecasted costs Best Case - 2 months to complete the AoA with 1 month approval. After the AoA approval IEC will need 2 weeks to incorporate into the PPEP and CDR with 2 weeks DRF with 1 month DOE approval. Most Likely: Same baseline as the Best Case but inclusion of 1.5 month of comment resolution. Worst case: 4 months to complete the AoA with 1 month approval. After the AoA approval IEC will need 2 weeks to incorporate into the PPEP and CDR with 2 weeks DRF with 1 month DOE approval. In the reviews an addition 2 months is required for comment resolution.	Propose Transfer to DOE	2/21/2024	6/30/2024	The Preliminary Project Execution Plan and Conceptual Design Report must incorporate the results of the AoA within the documents.
SNF322	D.1.04.01	DOE	DOE FPD	Cotterell, Jaksen	SNF Staging Facility: AoA Recommendations Vary from the CDR	The new AoA recommendations differ from the current Conceptual Design Report (CDR).	Completion of the AoA requires the CDR to be revised.	Open	Threat	Transfer	Possible	Serious	3-Moderate	$ 100,000	$ 500,000	$ 1,000,000	30	60	120	Rework of the conceptual design and conceptual design report causing major rework. Subsequently the SDS and PEP may require revision as well. If there is a slight difference then the CDR can address it and is a mitigated risk. If the conceptual design report and AoA are drastically different the mitigated risk is to adjust the CDR as necessary.	Propose Transfer to DOE	4/11/2024	6/30/2024	If the recommendation is slightly different, the conceptual design report can write a reason for the conceptual design report position.

SNF327	D.1.02.36.07	DOE	DOE FPD	Woolstenhulme, Tyson	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 work scope.	DOE Standard Canister fabrication not completed according to IEC/BEA schedule.	Open	Threat	Transfer	Possible	Critical	4-High	$ 1,200,000	$ 1,800,000	$ 5,000,000	96	192	288		Propose Transfer to DOE	4/11/2024	6/30/2024	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.
SNF328	D.1.02.36.11	DOE	DOE FPD	Woolstenhulme, Tyson	SNF Road Ready Project: Lack of Funding Causes Delays in Procurement ofHigh Value Items	Lack of Funding Causes Delays in Procurement of Cask Storage System items consisting of a Hi-Star as well as a Multi-Purpose Cannister/basket, shield lid, and spacer	Congress/DOE does not provide appropriate funding.	Open	Threat	Transfer	Possible	Critical	4-High	$ 312,000	$ 624,000	$ 1,248,000	96	192	284		Propose Transfer to DOE	4/11/2024	6/30/2024	Work with DOE to place RRDP critical components as a priority for funding to allow procurement of items as scheduled.
SNF332	D.1.02.36.07	DOE	DOE FPD	Woolstenhulme, Tyson	SNF Road Ready Project: 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		Propose Transfer to DOE	4/11/2024	6/30/2024	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.
TO3P2001	Project Wide	DOE	DOE FPD	Blackford, Ty	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	$ -	$ 132,504	$ 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 = $132,503.84 Worst Case: 0.22 - 0.044 = 0.176 $2,366,140.03 * 0.176 = $416,440.65	Propose Transfer to DOE	4/23/2023	6/30/2024	
TO3P2002	Project Wide	DOE	DOE FPD	Blackford, Ty	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	5-Very 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	Propose Transfer to DOE	4/23/2023	6/30/2024	
TO3P2003	Project Wide	DOE	DOE FPD	Blackford, Ty	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 = $132,503.84 Worst Case: 0.22 - 0.044 = 0.176 $2,366,140.03 * 0.176 = $416,440.66	Propose Transfer to DOE	4/23/2023	6/30/2024	
TO3P2004	Multiple Projects	DOE	DOE FPD	Perry, Scott	Global: New Requirements From A New Revision of DOE-STD-5506 Result in Safety Basis Changes	DOE Nuclear Safety is driving the implementaion 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: RPT-DSA-02/RPT-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 handling at INTEC PLN-1851 for on-site transport of TRU waste	Propose Transfer to DOE	7/11/2023	6/30/2024	
TO3P2005b	Project Wide	DOE	DOE FPD	Multiple CAMs	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:	Proposed Share to DOE	11/20/2023	6/30/2024	None
TRU014R2	D.2.03.35.04	DOE	DOE FPD	Byram, George	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 flam-gas sampling/data upload is not available, if the WIPP makes changes to their requirements or makes new interpretations of existing requirements, etc.	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 additional Fees)	Propose Transfer to DOE	3/20/2022	6/30/2024	
TRU016R2	D.2.03.32.04	DOE	DOE FPD	Loftus, Nathan	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	1-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	Propose Transfer to DOE	3/20/2022	6/30/2024	
TRU028	D.2.03.31.06	DOE	DOE FPD	Byrum, George	CH-TRU Waste Disposition: 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	Possible	Critical	4-High	$ 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	Propose Transfer to DOE	4/24/2023	6/30/2024	None

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CLIN 03, Subtask 302
Task Order 3.2

TO3 Risk Register: DOE Transfer Risks

Idaho Cleanup Project Programmatic Risk Register
Updated : 8.19.24

														Cost Impacts			Schedule Impacts (in days)						
Risk ID	WBS	Responsible Organization	Risk Owner	IEC Risk Back-up	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	Date Identified	Last update	Notes
CAL007OR2	D.3.02.30.08	DOE	DOE FPD	Kimbro, Valerie	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 reprioritize 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	Opportunity	Transfer	Rare	Minor	1-Low	$ (150,000)	$ (100,000)	$ (80,000)	-150	-150	-60		Propose Transfer to DOE	3/20/2022	6/30/2024	None
CAL007TR2	D.3.02.30.08	DOE	DOE FPD	Kimbro, Valerie	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 reprioritize 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		Propose Transfer to DOE	3/20/2022	6/30/2024	None
CAL033	D.3.05.31	DOE	DOE FPD	Kimbro, Val	CalcineVIT: Delays in External Approvals of Project Related Documents	Project efficiency and progress is dependent upon expedient response and support from external reviews and approvals of the RCRA delisting petition and other project related DOE owned documentation. Delays from external project support during scheduled approval time frame(s) will impact scheduled delivery and increase cost.	Lack of support in RCRA delisting petition or other programmatic documents.	Open	Threat	Transfer	Likely	Serious	4-High	$ 64,000	$ 128,000	$ 192,000	32	64	96	Cost and schedule impacts are based on possible schedule delays. Basis is estimated as follows: Best Case - 32 days x 10 hr./day x 2 FTE x $100/hr. = $64k Most Likely Case - 64 days x 10 hr./day x 2 FTE x $100/hr. = $128k Worst Case - 96 days x 10 hr./day x 2 FTE x $100/hr. = $192k	Propose Transfer to DOE	6/19/2023	6/30/2024	
DST300	Project Wide	DOE	DOE FPD	Perry, Scott	Indirects: 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 the 2014 version regardless of the requirements in DOE-STD-1189.	Propose Transfer to DOE	5/10/2024	6/30/2024	Work with DOE to implement a phased approach to minimize delays to other scope.
IND300	K.1.02.08.07	DOE	DOE FPD	Southwick, Kimberli	Documents & Records Management: IEC is Required to Transfer or Scan All Boxes of Records	DOE requested an impact analysis for costs to implement DOE O 243.1C into the contract. This would require storing, digitizing, indexing and transferring records for storage at a NARA Federal Record Center or a NARA-certified commercial records facility. IEC would incur a significant increase in cost to apply resources for performing this work to include hiring personnel and purchasing the equipment necessary to perform the scans.	DOE O 243.1c is incorporated into the IEC contract.	Open	Threat	Transfer	Likely	Critical	5-Very High	$ 4,500,000	$ 6,750,000	$ 12,150,000	0	0	0	Best Case: Transferring boxes to a FRC or NARA certified commercial record storage facility. Most Likely: A Combination of Transferring 24K boxes and digitizing 24K boxes Worst Case: Digitizing and indexing all 48K boxes. *Note these impacts are higher than represented in this risk due to Task Order Constraints. Full impacts can be found in IEC's Recap Letter DOE-002.	Propose Transfr to DOE	5/10/2024	6/30/2024	
INTEC210	D.3.03.32.01 D.3.03.32.02	DOE	DOE FPD	Hamilton, Rob	RC Routines: External Requirements Change	External Requirements are subject to change. Examples of external requirements are: DOE 0151.1C, 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	Propose Transfer to DOE	5/18/2023	6/30/2024	
IT001	D.6.02.32	DOE	DOE FPD	Anderson, Jade	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	Threat	Transfer	Likely	Serious	4-High	$ 500,000	$ 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)	Propose Transfer to DOE	4/23/2023	6/30/2024	
NICDF006	D.4.06.3A.01	DOE	DOE FPD	Reese, Craig	New ICDF Cell Definition: Potential Contamination of Groundwater Monitoring Well Drilling Equipment and Site	During installation of groundwater monitoring wells, being performed by USGS under DOE-ICP contract, there is a potential for contamination to be discovered that could impact the equipment, ground water, and/or surrounding area. This would require time and cost to move to another drilling site and to decontaminate subcontractor equipment, resulting in an unforeseen extension of the contract work.	Unexpected contamination discovered on well drilling equipment.	Open	Threat	Transfer	Rare	Minor	1-Low	$ 30,000	$ 75,000	$ 120,000	2	5	8	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: 8 days X 10 hr./day X 20 FTEs X $75/hr.	Propose Transfer to DOE	9/21/2022	6/30/2024	
NICDF007	D.4.06.32.01	DOE	DOE FPD	Reese, Craig	New ICDF Cell: Lowering the Cell Results in Finding Basalt	Design modifications were made to lower the ICDF cell berm (reducing visual footprint). Lowering the cell berm introduces the increased potential of encountering basalt during excavation. This will cause the excavation work to take longer than anticipated. If DOE-ICP/Tribes require lowering the ICDF cell berm by 7 feet (reducing visual footprint) then a modification in design and excavation would be required. The project would have to re-design the cell, requiring rotating the cell 90°, and excavating 7 feet deeper than currently estimated.	During deeper excavation of cell, basalt is encountered. Takes longer to excavate.	Open	Threat	Transfer	Almost Certain	Minor	3-Moderate	$ 150,000	$ 240,000	$ 720,000	10	16	48	Best Case: 10 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: 48 days X 10 hrs./day X 20 FTEs X $75/hr.	Propose Transfer to DOE	9/21/2022	6/30/2024	
NICDF008R2	D.4.06.32.04 D.4.06.32.05 D.4.06.33.03 D.4.06.33.04 D.4.06.34.04	DOE	DOE FPD	Reese, Craig	New ICDF Cell: Delays in DOE Approvals of Critical Decisions or Other Project Related Documents	Project efficiency and progress is dependent upon expedient response and support from DOE for review and approval of Critical Decision points in the project life. Extended approvals beyond scheduled approval time frame(s) will impact scheduled delivery and increase cost. In addition, if CD 2/3 is not approved before the demobilization of the subcontractor, the may be required to solicit a new RFP.	CD Package Approval not received within the scheduled timeframe.	Realized	Threat	Transfer	Likely	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 Transfer to DOE	9/21/2022	6/30/2024	As of 9/18/2023 Note From DOE: COMMENT ONLY/NO CHANGE IN RISK REGISTER: While this is a DOE-ID risk, it is incumbent upon IEC to deliver the supporting information, including baseline documentation, on a schedule to meeting the correct date for completing actions leading up to the approval of Critical Decisions.
NICDF016	D.4.06.30	DOE	DOE FPD	Reese, Craig	ICDF New Cell: 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.	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/dy X 20 FTEs X $75/hr Most Likely Case: 30 days X 10 hrs/dy X 20 FTEs X $75/hrWorst Case: 32 days X 10 hrs/dy X 20 FTEs X $75/hr	Propose Transfer to DOE	5/1/2024	6/30/2024	

NICDF037b	D.4.06.30	DOE	DOE FPD	Reese, Craig	New ICDF Cell: 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	2/2/2023	6/30/2024	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-evaluating and discussing with DOE, this will be a Shared risk with DOE/IEC. This is in response to the BEA services we can't secure another contractor for. We proposed this under Phase 1 (email confirmation from Aaron Nebeker 5/31/2023, MODP00065) and it was accepted by DOE to be "Shared" risk. With that being said IEC will add this risk to their project risk register to carry in addition to the transfer risks. We will also update the mitigation action to show "Shared risk with DOE/IEC". • Note From DOE: AGREE - Per Aaron N., as historical precedence ICP and IEC have shared this risk (or similar risks involving BEA) on other projects.
NICDF042	D.4.06.37 D.4.06.3B D.4.06.3C D.4.06.3F	DOE	DOE FPD	Reese, Craig	Continuing Resolutions	Continuing Resolutions end up extending into late FY24, we don't receive funding and it pushes out our ability to finish up the Excavation/Embankments and start Construction Activities for the Evap. Ponds.	Congress to approve.	Open	Threat	Transfer	Possible	Minor	2-Low	$ 30,000	$ 75,000	$ 300,000	2	5	20		Propose Transfer to DOE.	3/1/2024	6/30/2024	
NICDF043	D.4.06.3A.01	DOE	DOE FPD	Reese, Craig	ICDF New Cell: Independent Project Review (IPR) Corrective Actions Cause Delays	Extensive corrective actions, as a result of the IPR, could delay CD-2/3 approval.	IPR findings cause delays to the project as a result of implementing necessary corrective actions.	Open	Threat	Transfer	Possible	Minor	2-Low	$ 30,000	$ 75,000	$ 150,000	2	5	10	Incomplete	Propose Transfer to DOE	5/1/2024	6/30/2024	
NICDF300	D.4.06	DOE	DOE FPD	Reese, Craig	Increased Share of Pension	There is a risk that the pension plan will require contributions that exceed what was planned for the ICDF period of performance. This would result in an increased labor cost associated with the additional pension adder.	ICDF is directed to increase pension contributions.	Realize	Threat	Transfer	Almost Certain	Moderate	4-High	$ 360,689	$ 400,766	$ 440,843	0	0	0	Best Case: 2 % ICDF Direct Labor - If total labor on project decreases by 10% Most Likely Case: 2% ICDF Direct Labor Worst Case: 2 % ICDF Direct Labor - If total labor on project increases by 10%	Propose Transfer to DOE.	3/1/2024	6/30/2024	
S1W002R2	D.5.01.32	DOE	DOE FPD	Burtenshaw, Shawna	NRF Naval 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	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: 32 days X10 hrs./day X 2 crews (20 FTEs) X $75/hr. = $960,000	Propose Transfer to DOE	2/10/2024	6/30/2024	
SNF033	D.1.04.01.10	DOE	DOE FPD	Cotterell, Jaksen	SNF Staging Facility: DOE CD-1 Review Duration	The duration of the DOE review of CD-1 for the Staging Facility ~~could potentially extend~~ is longer than planned, thus pushing subsequent work scope.	EIR and CD-1 Review is delayed.	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.	Propose Transfer to DOE	4/23/2023	6/30/2024	
SNF034	D.1.04.01.10	DOE	DOE FPD	Cotterell, Jaksen	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.	Realize	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 50,000 for subcontract design + 30day Most Likely: 1 FTE for 4 weeks @ $100/hr. and 1 FTE for 2 weeks @ $80/hr. and 80,000 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 Each portion of design will need 10% of the subcontractor cost for IEC to manage.	Propose Transfer to DOE	4/23/2023	6/30/2024	Consult schedule and forecasts with DOE ICP and HQ in our IPT. Maintain AoA schedule and maintain status updates in the schedule.
SNF044	D.1.04.01	DOE	DOE FPD	Cotterell, Jaksen	SNF Staging Facility: Storage Regulatory Framework	The Staging Facility design will be developed under DOE regulated framework and does not require NRC framework and licensing. In other words, the facility falls under 10 CFR 830 rather than 10 CFR 72.	In discussions with DOE and NRC, it is determined that the Staging Facility design must meet NRC requirements.	Open	Threat	Transfer	Rare	Major	3-Moderate	$ 100,000	$ 250,000	$ 500,000	64	96	208	Revise T&FR, SOW and require the subcontractor to fit the staging facility within NRC licensing Best Case: 4 months with a cost of 100,000 Most Likely: 6 months with a cost of 250,000 Worst case 1 year with a cost of 500,000	Propose Transfer to DOE	4/23/2023	6/30/2024	
SNF322	D.1.04.01	DOE	DOE FPD	Cotterell, Jaksen	SNF Staging Facility: AoA Recommendations Vary from the CDR	The new AoA recommendations differ from the current Conceptual Design Report (CDR).	Completion of the AoA requires the CDR to be revised.	Open	Threat	Transfer	Possible	Serious	3-Moderate	$ 100,000	$ 500,000	$ 1,000,000	30	60	120	Rework of the conceptual design and conceptual design report causing major rework. Subsequently the SDS and PEP may require revision as well. If there is a slight difference then the CDR can address it and is a mitigated risk. If the conceptual design report and AoA are drastically different the mitigated risk is to adjust the CDR as necessary.	Propose Transfer to DOE	4/11/2024	6/30/2024	If the recommendation is slightly different, the conceptual design report can write a reason for the conceptual design report position.
SNF327	D.1.02.36.07	DOE	DOE FPD	Woolstenhulme, Tyson	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 work scope.	DOE Standard Canister fabrication not completed according to IEC/BEA schedule.	Open	Threat	Transfer	Possible	Critical	4-High	$ 1,200,000	$ 1,800,000	$ 5,000,000	96	192	288		Propose Transfer to DOE	4/11/2024	6/30/2024	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.
SNF328	D.1.02.36.11	DOE	DOE FPD	Woolstenhulme, Tyson	SNF Road Ready Project: Lack of Funding Causes Delays in Procurement ofHigh Value Items	Lack of Funding Causes Delays in Procurement of Cask Storage System items consisting of a Hi-Star as well as a Multi-Purpose Cannister/basket, shield lid, and spacer	Congress/DOE does not provide appropriate funding.	Open	Threat	Transfer	Possible	Critical	4-High	$ 312,000	$ 624,000	$ 1,248,000	96	192	284		Propose Transfer to DOE	4/11/2024	6/30/2024	Work with DOE to place RRDP critical components as a priority for funding to allow procurement of items as scheduled.
SNF332	D.1.02.36.07	DOE	DOE FPD	Woolstenhulme, Tyson	SNF Road Ready Project: 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		Propose Transfer to DOE	4/11/2024	6/30/2024	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.
TO3P2001	Project Wide	DOE	DOE FPD	Blackford, Ty	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	$ -	$ 132,504	$ 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 = $132,503.84 Worst Case: 0.22 - 0.044 = 0.176 $2,366,140.03 * 0.176 = $416,440.65	Propose Transfer to DOE	4/23/2023	6/30/2024	
TO3P2002	Project Wide	DOE	DOE FPD	Blackford, Ty	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	5-Very 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	Propose Transfer to DOE	4/23/2023	6/30/2024	
TO3P2003	Project Wide	DOE	DOE FPD	Blackford, Ty	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 = $132,503.84 Worst Case: 0.22 - 0.044 = 0.176 $2,366,140.03 * 0.176 = $416,440.66	Propose Transfer to DOE	4/23/2023	6/30/2024	
TO3P2004	Multiple Projects	DOE	DOE FPD	Perry, Scott	Global: New Requirements From A New Revision of DOE-STD-5506 Result in Safety Basis Changes	DOE Nuclear Safety is driving the implementaion 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: RPT-DSA-02/RPT-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 handling at INTEC PLN-1851 for on-site transport of TRU waste	Propose Transfer to DOE	7/11/2023	6/30/2024	

TO3P2005b	Project Wide	DOE	DOE FPD	Multiple CAMs	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:	Proposed Share to DOE	11/20/2023	6/30/2024	None
TRU014R2	D.2.03.35.04	DOE	DOE FPD	Byram, George	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 flam-gas sampling/data upload is not available, if the WIPP makes changes to their requirements or makes new interpretations of existing requirements, etc.	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 additional Fees)	Propose Transfer to DOE	3/20/2022	6/30/2024	
TRU016R2	D.2.03.32.04	DOE	DOE FPD	Loftus, Nathan	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	1-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	Propose Transfer to DOE	3/20/2022	6/30/2024	
TRU028	D.2.03.31.06	DOE	DOE FPD	Byrum, George	CH-TRU Waste Disposition: 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	Possible	Critical	4-High	$ 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	Propose Transfer to DOE	4/24/2023	6/30/2024	None

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CLIN 03, Subtask 302
Task Order 3.2

TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated : 8.19.24

														Cost Impacts			Schedule Impacts (in days)							
Risk ID	WBS	Responsible Organization	Risk Owner	IEC Risk Back-up	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	Date Identified	Last update	Notes
CAL015R2	D.3.02.30.06	IEC	Kimbro, Valerie	Kimbro, Valerie	Calcine: Delay finalizing the CSSF 3116 Basis Document due to availability of DOE-EM and NRC to perform their reviews	Finalizing the CSSF 3116 Basis Document may be delayed due to DOE-EM and NRC resouce availabilty to perform their reviews.	DOE-EM or NRC are not available to perform their reviews as planned in the Task Order 3 schedule.	~~Open~~ Closed	Threat	Accept	Likely	Serious	4-High	$ 50,000	$ 100,000	$ 150,000	20	40	60	Project has realized approximately 20 days of delay in FY 2022 because resources from DOE-EM were unavailable (best case). It was assumed that project would realize the same delay from NRC (most likely case) and an additional 20-day delay for unforseen circumstances as the worst case. Best Case - 20 days X 10 hr/day X 2.5 FTE X $100/hr = $50kMost Likely Case - 40	N/A			12/12/2022	6/30/2024	
CAL018R2	D.3.02.30.13	IEC	Kimbro, Val	N/A	CalcineRET1: Loss of Specialty Resources	Loss of qualified specialty resources could result in schedule delays.	Notification of intent to leave or retirement.	Open	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		3/12/2022	6/30/2024	
CAL019	D.3.02.30.17	IEC	Kimbro, Val	N/A	CalcineRET1: Equipment Failure at the Full-Scale Mockup Post-Erosion Testing	Equipment failure at the full-scale mockup post-erosion testing may cause unexpected costs and schedule delays. The purpose of the TO3.1 erosion testing is to transfer the equivalent amount of material that is in CSSF 1 (220 cubic meters) through the full-scale mockup. After erosion testing is complete, an outage will be performed to	Single-point failure of equipment on the full-scale mockup system.	~~Open~~ Closed	Threat	Mitigate	Unlikely	Serious	2-Low	$ 101,000	$ 172,000	$ 585,000	36	54	100	Cost and schedule impacts are based on the possible scenarios of replacing single-point failure equipment on the full-scale mockup. Basis is estimated as follows: - 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	Purchase and install single-point failure equipment to resume scheduled testing.	N/A		4/23/2023	6/30/2024	
CAL021	D.3.05.31.04	IEC	Kimbro, Val	N/A	CalcineVIT: Lack of CPP-691 Documentation - Field Verification	Lack of existing or incomplete CPP-691 documentation may create a need for additional time and resources to perform the field verification at CPP-691. This may cause delays for successor activities, such as creating the 3D model and performing the siting study.	Lack of existing or incomplete drawings.	Open	Threat	Accept	Likely	Minor	2-Low	$ 8,000	$ 36,000	$ 72,000	4	8	16	Cost and schedule impacts are based on additional field investigations @ CPP-691 requiring additional time and resources. Basis is estimated as follows: - Best Case - 4 days x 10 hr./day x 2 FTE x $100/hr. - Most Likely Case - 8 days x 10 hr./day x 4 FTE x $100/hr. plus	N/A	N/A		4/23/2023	6/30/2024	
CAL022	D.3.05.31.04	IEC	Kimbro, Val	N/A	CalcineVIT: Lack of CPP-691 Documentation - 3D Model	Lack of existing or incomplete CPP-691 documentation may create data gaps when updating drawings, performing field verifications, and validating a 3D model of the facility. This may impact the completeness of the Siting Study where additional work will be necessary to fill the data gaps in order to have a complete siting study.	Lack of existing or incomplete drawings.	Open	Threat	Accept	Likely	Minor	2-Low	$ 8,000	$ 36,000	$ 72,000	4	8	16	Cost and schedule impacts are based on additional field investigations @ CPP-691 requiring additional time and resources. Basis is estimated as follows: - Best Case - 4 days x 10 hr./day x 2 FTE x $100/hr. - Most Likely Case - 8 days x 10 hr./day x 4 FTE x $100/hr. plus	N/A	N/A		4/23/2023	6/30/2024	
CAL023	D.3.05.31.04	IEC	Kimbro, Val	N/A	CalcineVIT: Siting Study Fails to Identify Viable Location for Calcine Processing Facility	The Siting Study will evaluate potential locations (existing and greenfield) near CSSF for a processing facility. It is possible a viable location to install a calcine processing facility at the INL Site is not identified or recommended (e.g., due to the outcome of a cost-	A viable location to install a calcine processing facility is not identified.	~~Open~~ Closed	Threat	Accept	Unlikely	Moderate	2-Low	$ 64,000	$ 128,000	$ 350,000	32	32	45	Cost and schedule impacts are based on reevaluating the Siting Study with a new set of criteria and/or additional data. Basis is estimated as follows: - Best Case - Reassess Siting Study based on new criteria and	N/A	N/A		4/23/2023	6/30/2024	
CAL024	D.3.05.31.04	IEC	Kimbro, Val	N/A	CalcineVIT: Loss of Specialty Resources	Loss of qualified specialty resources could result in schedule delays.	Notification of intent to leave or retire.	Open	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.)	N/A	N/A		4/23/2023	6/30/2024	
CAL026	D.3.05.31.05	IEC	Kimbro, Val	N/A	CalcineVIT: Equalize Vendor Work Performed Under BEA SOW	It may be necessary to equalize vendor work that is being performed under the BEA SOW. If it is determined the results are inadequate, then additional work by the vendors may be necessary. Scope is included in TO3.2 to review vendor reports to determine their adequacy as well as having the vendors perform additional work	Vendor work that is being performed under the BEA SOW is determined to be inadequate.	Open	Threat	Accept	Likely	Serious	4-High	$ -	$ 500,000	$ 1,000,000	0	48	96	Cost and schedule impacts are based on whether equalizing of the vendor work is required. Basis is estimated as follows: - Best Case - Cost and schedule stay as planned and any impact will be managed internally by the project. - Most Likely Case - Additional 3 months and $250K each for	N/A	N/A		4/23/2023	6/30/2024	
CAL028	D.3.05.31.04	IEC	Kimbro, Val	N/A	CalcineVIT: Calcine Simulant Manufacturing	Vendors are available to manufacture calcine simulant. However, it has not been confirmed whether the available vendors can produce a calcine simulant that will have the required chemical and physical properties for the treatment studies. The required chemical and physical properties will be identified during the simulant study activity planned in FY 2023.	A vendor that cannot manufacture calcine simulant with the required chemical and physical properties for the treatment studies.	~~Open~~ Closed	Threat	Accept	Unlikely	Minor	2-Low	$ 100,000	$ 200,000	$ 400,000	0	16	32	Cost and schedule impacts are based on a vendor re-tooling their facility to manufacture calcine simulant. Basis is estimated as follows: - Best Case - Vendor cost to retool $100K and no impact to schedule - Most Likely Case - Vendor cost to retool $200K and 1 month delay to schedule - Worst Case - Vendor cost to retool $400K and 2 months delay to schedule	N/A	N/A		4/23/2023	6/30/2024	
CAL029	D.3.05.31.05	IEC	Kimbro, Val	N/A	CalcineVIT: Equalize Vendor Work Performed Under BEA Statement of Work (SOW) - Opportunity	IEC is bringing in vendors that are performing work under the BEA SOW. Scope to review vendor reports to determine their adequacy and subsequently equalize the two new vendors with the current established vendor is included in TO3.2. However, if the new vendors' work is determined to be adequate, then planned scope to equalize these vendors work may not be necessary.	Vendor work that is being performed under the BEA SOW is determined to be adequate.	Open	Opportunity	Accept	Unlikely	Minor	2-Low	$ (2,000,000)	$ (100,000)	$ -	(64)	(32)	0	Cost and schedule impacts are based on whether equalizing of the vendor work is required. Basis is estimated as follows: - Best Case - Equalization is minimal and the vendor is only required to produce documentation, resulting in $2M under budget and 4 months ahead of sc\l6\V17hedule. - Most Likely Case - Equalization is necessary but not at the level planned, resulting in $1M under budget and 2 months ahead of schedule. - Worst Case - Cost and schedule stay as planned and any impact will be managed internally by project.	N/A	N/A		4/23/2023	6/30/2024	
CAL030	D.3.05.31.05	IEC	Kimbro, Val	N/A	CalcineVIT: 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	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		4/23/2023	6/30/2024	
CAL032	D.3.05.31.02	IEC	Kimbro, Val	N/A	CalcineVIT: Information is Insufficient to Prepare a Delisting Petition	Submitting a delisting petition has been determined to be a viable strategy to pursue and it is assumed the necessary information for a delisting petition is sufficient after a preliminary review of the delisting process, regulatory requirements, previous delisting petitions, calcine data, and the calcining process. If the information is not sufficient, then preparing a delisting petition for submission to the Idaho DEQ and U.S. EPA may be delayed due to time required to fill any data gaps.	Insufficient information to prepare a calcine delisting petition.	Realized	Threat	Accept	Unlikely	Moderate	2-Low	$ 84,000	$ 192,000	$ 288,000	16	32	48	Cost and schedule impacts are based on possible schedule delays that may be realized. Basis is estimated as follows: - Best Case - One month schedule delay and external analysist are required (16 days to identify and evaluate additional data x 10 hr./day x 1 FTE x $75/hr. and 2 FTE x $225/hr.) - Most Likely Case - Two month schedule delay and external analysist are required (32 days to identify and evaluate additional data x 10 hr./day x 0.5 FTE x $75/hr. and 2.5 FTE x $225/hr.) - Worst Case - Three month schedule delay and external analysist are (48 days to identify and evaluate additional data x 10 hr./day x 0.5 FTE x $75/hr. and 2.5 FTE x $225/hr.)	N/A	N/A		4/23/2023	6/30/2024	
CAL301	D.3.02.30.02	IEC	Kimbro, Valerie	Kimbro, Valerie	Calcine: 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	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. Basis for the cost and schedule impacts are as follows:	N/A	N/A		8/19/2024	8/19/2024	
CC007	D.1.21.30.16	IEC	Biorn, Scott	N/A	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		4/23/2023	6/30/2024	
CC024	D.1.21.30.05	IEC	Biorn, Scott	N/A	Core Car: Circular Saw Requires Further Research and Development Beyond Prototype 2	Circular saw test objectives or acceptance criteria are not met requiring a change in cutting method or major redesign or further prototype testing of the saw.	Circular saw DOE-ICPs not pass test objectives or acceptance criteria in prototype test report.	Open	Threat	Accept	Rare	Critical	3-Moderate	$ 1,658,040	$ 3,569,520	$ 5,385,960	96	208	314	Best Case: 96 days X 10 hr. X 16.5 FTEs X $96/hr. (+$137,400) Most Likely: 208 days X 10 hr. X 16.5 FTEs X $96/hr. (+$274,800) Worst Case: 314 days X 10 hr. X 16.5 FTEs X $96/hr. ($412,200) In addition there is a need for contract extension of $22,900/month	N/A	N/A		4/23/2023	6/30/2024	
CC026	D.1.21.30	IEC	Biorn, Scott	Biorn, Scott	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			2/10/2024	6/30/2024	
CC027	D.1.21.30	IEC	Biorn, Scott	Biorn, Scott	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 Order 3009-2014	Open	Threat	Accept	Rare	Critical	3-Moderate	$ 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	N/A			2/10/2024	6/30/2024	
CC300	D.1.21.30	IEC	Biorn, Scott	Biorn, Scott	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.	Open	Threat	Mitigate	Possible	Critical	4-High	$ 5,120,000	$ 7,000,000	$ 8,000,000	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.			3/1/2024	6/30/2024	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	Biorn, Scott	Biorn, Scott	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	INCOMPLETE	N/A		3/1/2024	6/30/2024	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.
CERCLA001	D.4.05.30.09	IEC	Whitmore, Erik	N/A	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 linear, similar to currently existing situation	N/A	4/23/2023	6/30/2024	
ICDF001	D.4.05.31.03	IEC	Orme, Jason	Zovi, Bruno	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, excavtors, 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, excavtors, 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	4/23/2023	6/30/2024	
ICDF002	D.4.05.31.03	IEC	Orme, Jason	Zovi, Bruno	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	4/23/2023	6/30/2024	
ICDF003	D.4.05.31.04	IEC	Orme, Jason	Zovi, Bruno	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: ~~6~~12 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	4/23/2023	6/30/2024	
INDRP001	K.1.03.03.08	IEC	Henry, Jennifer	Henry, Jennifer	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 sparesMost 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		9/11/2023	6/30/2024	
INTEC011R2	D.3.03.32.02	IEC	Baisch, Kasey	Baisch, Kasey	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		3/20/2022	6/30/2024	
INTEC037R2	D.3.03.38.06	IEC	Wilcox, Christopher	Wilcox, Christopher	INTEC Miscellaneous Paving: Excavation Uncovers Unanticipated Objects	Excavation reveals unidentified objects and/or utilities resulting in a stop work to determine a any additional remediation prior to proceeding with excavation.	An unknown utility or object is discovered during excavation.	Open	Threat	Mitigate	Unlikely	Minor	2-Low	$ 8,000	$ 8,000	$ 96,000	1	1	12	Based on work history of similar projects for number of FTEEstimated values are:# Days x 10 hrs/day x 8 FTE x $100/hr	Check weather before hand and have possible weather shelters nearby or on site for emergencies		3/20/2022	6/30/2024	
INTEC038R2	D.3.03.38.06	IEC	Wilcox, Christopher	Wilcox, Christopher	INTEC Miscellaneous Paving: Clay Layer Discovered During Excavation	Additional excavation may be required to remove an unanticipated clay layer under the designated pave/repair area and then place on a compactable base.	Discovering a clay layer during excavation.	Open	Threat	Accept	Possible	Minor	2-Low	$ 8,000	$ 8,000	$ 32,000	1	2	16	Based on work history of similar projects for number of FTEEstimated values are:# Days x 10 hrs/day x 8 FTE x $100/hr	Ensure operators assigned to the job are familiar and trained to use the equipment provided.		3/20/2022	6/30/2024	
INTEC041R2	D.3.03.38.09	IEC	Klukis, Venita	Klukis, Venita	INTEC Distributed Control System Upgrades: DCS electronics failure.	The DCS electronic systems need to be updated to more readily available products in the event of a system failure. Parts for the currently operated system are not readily available as it is an outdated system.	Outdated DCS equipment fails upon use.	Open	Threat	Mitigate	Possible	Critical	~~4-High~~	~~$ 232,000~~ $ 250,000	~~$ 264,000~~ $ 300,000	~~$ 296,000~~ $ 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. ~~For activity's 1030 and 1050 the SOWs are in approval status and it has been quoted that the costs of both risks combined will be $200,000K.~~ The supply chain ~~issue to get the material is 82 days.~~could also cause issues depending on availability. So best case is ~~$400K~~ $250K at 90 days. ~~The other 2 risks 1010 and 1040 are based on labor from our software engginneers.Those risks combine for a total of 16 Days X 10 hour X 3 FTE's X $100=$32,000$32 X 10 X 2 X $100=$64,000$8 X 10 X 2 $100=$96,000~~			3/20/2022	6/30/2024	
INTEC045R2	D.3.03.38.07	IEC	~~Miller, Zeena~~ Wilcox, Christopher	~~Miller, Zeena~~ Wilcox, Christopher	INTEC CPP-666 Anex HVAC Upgrades: Discovery of Asbestos	The risk of asbestos being discovered during demo and installation requires additional controls.	Asbestos was discovered during demolition and installation.	Open	Threat	Mitigate	Possible	Moderate	2-Low	$ 112,000	$ 224,000	$ 336,000	14	28	42	Since demo is proposed to be completed by force account, this will reduce our cost of treating asbestos (trained staff). At this point it is proposed to be probably two weeks of working days delay. Plus expenses, - 14 days X 10 hr/day X 8 FTE X $100/hr28 days42 Days	Issue a work order early on the process to test suspect materials for asbestos.		3/20/2022	6/30/2024	
INTEC059R2	D.3.03.39.02	IEC	~~Lords, Darin~~ Kelly, Patrick	~~Lords, Darin~~ Kelly, Patrick	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 Lk - 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.		3/20/2022	6/30/2024	
INTEC060R2	D.3.03.39.02	IEC	~~Lords, Darin~~ Kelly, Patrick	~~Lords, Darin~~ Kelly, Patrick	Emergency Communication System Alt #1: BEA reprograming was not completed in a timely manner.	Required BEA reprograming 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 Lk - 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 programing.		3/20/2022	6/30/2024	
INTEC067R2	D.3.03.3C.02	IEC	~~Howell, Jonathan~~ Klukis, Venita	~~Howell, Jonathan~~ Klukis, Venita	INTEC Crane Upgrade: Materials costs exceed estimates.	Material price points in DCES are considered a ROM estimate and have no basis of estimate. Controller, hook, and linear actuator lead times are unknown.	Supplier response to RFQ.	~~Open~~ Closed	Threat	Accept	Likely	Moderate	3-Moderate	$ 375,000	$ 500,000	$ 625,000	0	0	0	Received budgetary quote from PaR for controller system that is $400K per crane and DCES currently has $150K per crane. Used difference between values for the Most Likely case and then adjusted 25% both ways to arrive at the Worst Case and Best Case values	NA		7/25/2022	6/30/2024	
INTEC068R2	D.3.03.3C.02	IEC	~~Howell, Jonathan~~ Klukis, Venita	~~Howell, Jonathan~~ Klukis, Venita	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	Threat	Mitigate	Likely	Minor	2-Low	$ 16,500	$ 41,250	$ 82,500	0	0	0	Previous quote from 2008 for similar work was $120K which escalates to $165K in today's dollars. Worst Case assumes we increase cost by 50%, Most Likely assumes we increase cost by 25%, and Best Case assumes we increase cost by $10%. This activity is not on the project critical path and is not expected to adversely impact project schedule so no durations were inputted.	Inspect PaR arm prior to shipment to better determine risk level		7/25/2022	6/30/2024	
~~INTEC069R2~~	~~D.3.03.3C.02~~	~~IEC~~	~~Howell, Jonathan~~	~~Howell, Jonathan~~	~~INTEC Crane Upgrade: CPP-603 Operations-Impacts~~	~~INTEC Crane Upgrade must be started and completed between higher priority operational evolutions to ensure that the necessary personnel and equipment are available.~~	~~The project is not complete prior to the beginning of higher priority operational work.~~	~~Price Option~~	~~Threat~~	~~Mitigate~~	~~Almost Certain~~	~~Minor~~	~~4-High~~	~~$ -~~	~~$ -~~	~~$ -~~	~~8~~	~~16~~	~~32~~	~~Worst case assumes we are ready to begin work when ATR wet to dry shipments are starting. The other cases assume we do not have as much schedule overlap. No cost impact is associated with this risk.~~	~~Project will work to prioritize activities to avoid running into conflicts with ATR Direct shipments.~~		4/11/2023	6/30/2024	
INTEC070R2	D.3.03.3C.02	IEC	~~Howell, Jonathan~~ Klukis, Venita	~~Howell, Jonathan~~ Klukis, Venita	INTEC Crane Upgrade: Infrastructure doesn't support integration of new design	Engineering design identifies areas where additional conduit or cell wall penetrations will be required.	Engineering design contractor identifies issues with integration into existing facility.	~~Open~~ Closed	Threat	Mitigate	Unlikely	Moderate	2-Low	$ 30,000	$ 60,000	$ 101,250	16	32	54	Best Case accounts for a minor adjustment to existing drawing and work package only. Likely Case assumes that and a new, minor infrastructure installation which would drive material procurement. Worst Case assumes that, and rework to existing infrastructure. Durations are based off project historicals and then costs were calculated using typical crew size for this type of work.	Specification is being written such that the supplier will be required to design within the existing infrastructure.		7/25/2022	6/30/2024	
~~INTEC071R2~~	~~D.3.03.35~~	~~IEC~~	~~Inns, Ryan~~	~~Inns, Ryan~~	~~INTEC Utility Tunnel: Specialty Subcontractor Availability~~	~~Specialty contractor, who would be required to support training, oversight, inspection, or testing forth Utility Tunnel Upgrades is not available.~~	~~Identified contractor identifies availability issues that impact the project schedule.~~	~~Price Option~~	~~Threat~~	~~Mitigate~~	~~Possible~~	~~Minor~~	~~3-Low~~	~~$ 12,000~~	~~$ 48,000~~	~~$ 144,000~~	~~4~~	~~16~~	~~48~~	~~Best Case: 4 days x 10 hrs /day x 4 people x $75/hr. = $12,000 Most Likely: 16 days x 10 hrs /day x 4 people x $75/hr. = $48,000 Worst Case: 48 days x 10 hrs /day x 4 people x $75/hr. = $144,000~~	~~Schedule contractor early.~~		4/11/2023	6/30/2024	
~~INTEC072R2~~	~~D.3.03.35~~	~~IEC~~	~~Inns, Ryan~~	~~Inns, Ryan~~	~~INTEC Utility Tunnel: Craft Support Availability~~	~~Force Account craft, who are needed to support the Utility Tunnel Upgrades, are not available when needed.~~	~~Craft management identifies availability issues that impact the project schedule.~~	~~Price Option~~	~~Threat~~	~~Mitigate~~	~~Possible~~	~~Minor~~	~~3-Low~~	~~$ 12,000~~	~~$ 48,000~~	~~$ 144,000~~	~~4~~	~~16~~	~~48~~	~~Best Case: 4 days x 10 hr./day x 4 people x $75/hr. = $12,000 Most Likely: 16 days x 10 hr./day x 4 people x $75/hr. = $48,000 Worst Case: 48 days x 10 hr./day x 4 people x $75/hr. = $144,000~~	~~Schedule contractor early.~~		4/11/2023	6/30/2024	

~~INTEC076R2~~	~~D.3.03.3D.02~~	~~IEC~~	~~Kelly, Patrick~~	~~Kelly, Patrick~~	~~INTEC Energy Audits: Facility Availability to Support Walkthrough/Work Release~~	~~Unforeseen operational activities may prevent facility access to perform walkdowns/energy audits.~~	~~Emergent Operational activities prevent scheduled access to facility.~~	~~Price Option~~	~~Threat~~	~~Accept~~	~~Rare~~	~~Minor~~	~~2-Low~~	~~$ 176~~	~~$ 2,210~~	~~$ 4,419~~	~~1~~	~~2~~	~~3~~	~~Best Case: $276.19 subcontractor cost for each facility. Most Likely: 4 facility audits per day =$1104.76 3 day delay = $3309.52. Worst Case: 4 day delay = $4419.04~~	~~N/A~~			4/11/2023	6/30/2024	
INTEC077R2	D.3.03.38.10	IEC	Wilcox, Christopher	Wilcox, Christopher	LED Lights longevity	LED Lights don't last in the cell environment.	Initial LED lights installed do not last and future light installations are put on hold.	~~Open~~ Closed	Threat	Accept	Possible	Major	4-High	$ 43,525	$ 87,051	$ 174,102	54	66	91	Worst case assumes all lights were installed and would require replacement. Cost per light is $220, cost per shoebox is $290, and cost to support removal and installation is estimated to be $160K. Schedule impact worst case was found by reusing initial project durations for work order development, part procurement, and light installations. Most likely values were found by assuming 50% of lights would need to be removed/replaced while Best Case assumed 25%	N/A			11/17/2022	6/30/2024	
INTEC078R2	D.3.03.38.10	IEC	Wilcox, Christopher	Wilcox, Christopher	Waste in Cell 216 Prevents Lower Light Replacements	The waste currently in Cell 216 will hinder the lower half of the LED light replacements.	The upper lights are completed and waste is still in the cell. Access to the lower lights is determined to be not possible.	~~Open~~ Closed	Threat	Mitigate	Likely	Critical	5-Very High	$ -	$ -	$ -	0	136	198	There is no cost impact if risk is realized, however, schedule could be impacted. Best case the waste is removed prior to light installation, most likely is based off of completing the waste load out by end of FY23, and worst case estimates the waste loadout is completed by 1/2023	Setup schedule to perform these lights last to allow as much time as possible for the Waste Loadout to complete.			11/17/2022	6/30/2024	
INTEC080R2	D.3.03.38.04	IEC	Lords, Darin	Lords, Darin	Material Delays	Cell signal boosters are delayed.	Materials are not received on scheduled date.	Open	Threat	Accept	Possible	Moderate	2-Low	$ -	$ -	$ -	10	20	40	Work is being performed by subcontractor so, minimal cost will be realized if materials are delayed but the scheduel will be negatively impacted. Most likely scenario is a delay in the vendors supply chain.	Coordinate with the vendor to schedule the installation when the materials are available.			11/17/2022	6/30/2024	
INTEC082	D.3.03.32.03	IEC	Hamilton, Rob	N/A	INTEC 902 Crane Repair: Crane 902 Rail Repairs Delays New Crane Install	Crane rail repairs take longer than anticipated and are not completed by the time new crane shows and paperwork to install is approved.	Crane rail repairs continue to slip past 10/02/2023.	Open	Threat	Accept	Possible	Moderate	2-Low	$ 140,000	$ 280,000	$ 500,000	0	0	16	Best Case: PPE costs-$18000 ($500/entry/person) per week. Straight time for union workers - 8 days X 10 hr./day X 9 FTEs X $60/hr. overtime for union workers - 4 days X 10 hr./day X 9 FTEs X $90/hr. Exempt personnel - 12 days X10 hr./day X 3 FTEs X $75/hr.= $140,000. No schedule impact since taking action prior to installation of crane. Most Likely Case: PPE costs-$18000 per week. Straight time for union workers - 16 days X 10 hr./day X 9 FTEs X $60/hr. overtime for union workers - 8 days X 10 hr./day X 9 FTEs X $90/hr. Exempt personnel - 24 days X 10 hr./day X 3 FTEs X $75/hr.= $280,000. No schedule impact since taking action prior to installation of crane. Worst Case: No overtime allowed causes schedule impact of 16 work days since it would delay the crane install. PPE costs-$18000 per week. Straight time for union workers - 32 days X 10 hr./day X 9 FTEs X $60/hr. Exempt personnel - 32 days X 10 hr./day X 3 FTEs X $75/hr.= $500,000.	N/A	Work OT to recover schedule slip later once the paperwork is approved to install the crane	4/23/2023	6/30/2024	
INTEC083	D.3.03.32.03	IEC	Baisch, Kasey	Baisch, Kasey	INTEC 902 Crane Repair: Cable Reel and Bridge Motor Impact Clearance Tolerances	During the remote design of the crane, the cable reel and bridge motor were changed to meet the required clearance tolerances. It may be discovered that the cable reel and/or bridge motor tolerances do not allow for proper operation of the crane due to interference with the west wall in the PaR parking area of the cell.	Installation of the crane.	Open	Threat	Accept	Rare	Moderate	1-Low	$ 56,500	$ 88,450	$ 161,100	20	22	44	Best Case: Assuming maintenance can access cable reel and bridge motor, it will take 1 month for ACECO engineers design changes which we will not pay for due to warranty. 1 week for maintenance to fix equipment per engineering design. Craft 4 days X 10 hr./day X 9 FTEs X $60/hr. Exempt personnel 4 days X 10 hr./day X 3 FTEs X $75/hr. PPE cost $21,500 = $56,500Most Likely Case: 1 month for ACECO engineers design changes which we will not pay for due to warranty. 1 week for maintenance to fix equipment per engineering design. Craft 4 days X10 hr./day X 9 FTEs X $60/hr. Exempt personnel 4 days X 10 hr./day X 3 FTEs X $75/hr. PPE cost $21,500 = $56,500. OT 2 days x 10 hr./day X 1.5 OT rate X 9 FTEs X 60/hr. Exempt personnel 2 days OT X 10 hr./day X 1.5 OT rate X 3 FTEs X $75/hr.= $22950.00 + 9000.00. PPE +56500.00 =$88450. Worst Case: 6 weeks for engineering design. 2 weeks with overtime = Straight time - Craft 8 days X 10 hr./day X 9 FTEs X $60/hr.+ 4 OT days X 10 hr./day X 1.5 OT rate X 9 FTEs X $60/hr.= $75600.00. Exempt - 8days X 10 hr./day X 3 FTEs X $75/hr.+ 4 days X 10 hr./day X 1.5 OT rate X 3 FTEs X $75/hr.= $31500.00 + 75600.00 = $107100.00 + PPE $54000 = $161,100.00	N/A		4/23/2023	6/30/2024	
INTEC137	D.3.03.3A.05 D.3.03.3A.06	IEC	Wilcox, Christopher	Wilcox, Christopher	INTEC Firewater System: Materials Procurement Delays	Materials are delayed or not available as scheduled.	Materials are backordered or have excessive lead times.	~~Open~~ Closed	Threat	Accept	Possible	Minor	2-Low	$ 45,000	$ 60,000	$ 120,000	12	16	32	Best Case: 12 days X 10 Hrs. X 5 FTEs X $75/hr.Most Likely: 16 days X 10 Hrs. X 5 FTEs X $75/hr. Worst Case: 32 days X 10 Hrs. X 5 FTEs X $75/hr.	N/A			4/11/2023	6/30/2024	
INTEC138	D.3.03.3A.05 D.3.03.3A.07	IEC	Wilcox, Christopher	Wilcox, Christopher	INTEC Firewater System: Equipment Lease/Procurement Delays	Equipment delayed or not available as scheduled or does not function as necessary.	Equipment is backordered or has excessive lead times or Equipment arrives and does not function as needed.	~~Open~~ Realized	Threat	Accept	Possible	Minor	2-Low	$ 45,000	$ 60,000	$ 120,000	12	16	32	Best Case: 12 days X 10 Hrs. X 5 FTEs X $75/hr.Most Likely: 16 days X 10 Hrs. X 5 FTEs X $75/hr. Worst Case: 32 days X 10 Hrs. X 5 FTEs X $75/hr.	N/A			4/11/2023	6/30/2024	
INTEC211	D.3.03.32.01 D.3.03.32.02	IEC	Hamilton, Rob	N/A	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		5/18/2023	6/30/2024	
INTEC212	D.3.03.30.04	IEC	Baisch, Kasey	Baisch, Kasey	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.	Open	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			5/18/2023	6/30/2024	
INTEC221	D.3.03.3F.06	IEC	Lords, Darin	N/A	CPP-606 Vulnerabilities Upgrades: Weather Delays Power Conductor Testing and Installation	During the performance of the conductor testing for the deep well installation, severe weather could cause a delay, increasing the time needed to complete the testing.	Severe Weather.	~~Open~~ Closed	Threat	Accept	Rare	Minor	1-Low	$ 30,000	$ 45,000	$ 60,000	8	12	16	Best Case: 8 days X 10 hr. X 5 FTEs X $75/hr. Most Likely: 12 days X 10 hr. X 5 FTEs X $75/hr. Worst Case: 16 days X 10 hr. X 5 FTEs X $75/hr.	N/A	N/A		7/28/2022	6/30/2024	
INTEC222	D.3.03.3F.06	IEC	Lords, Darin	N/A	CPP-606 Vulnerabilities Upgrades: Conductors Cable Fails	While testing of deep well power conductors, the cable fails the testing criteria, thus, having to be replaced.	Failed test.	~~Open~~ Closed	Threat	Accept	Rare	Major	2-Low	$ 94,500	$ 171,000	$ 274,500	42	76	122	Best Case: 42 days X 10 hr. X 3 FTEs X $75/hr. Most Likely: 76 days X 10 hr. X 3 FTEs X $75/hr. Worst Case: 122 days X 10 hr. X 3 FTEs X $75/hr.	N/A	N/A		7/28/2022	6/30/2024	
INTEC223	D.3.03.3F.06	IEC	Lords, Darin	N/A	CPP-606 Vulnerabilities Upgrades: Cable Connectors Damaged	During connector tie-in evolution of the Deep Well power conductors there is potential a connector kit could become damaged and new kits have to be installed or be replaced.	Damaged Equipment/parts.	~~Open~~ Closed	Threat	Accept	Rare	Minor	1-Low	$ 60,000	$ 75,000	$ 135,000	12	16	32	Best Case: 12 days X 10 hr. X 5 FTEs X $75/hr. Plus $15K in materials Most Likely: 16 days X 10 hr. X 5 FTEs X $75/hr. Plus $15K in materials Worst Case: 32 days X 10 hr. X 5 FTEs X $75/hr. Plus $15K in materials	N/A	N/A		7/28/2022	6/30/2024	
INTEC224	D.3.03.3F.06	IEC	Lords, Darin	N/A	CPP-606 Vulnerabilities Upgrades: During Conductor Installation, A Conductor Gets Stuck in Conduit	During the tugger/pulling evolution of the conductors, the conductor becomes wedged and will not continue into conduit.	Cable will not pull into new conduit.	~~Open~~ Closed	Threat	Accept	Rare	Minor	1-Low	$ 95,000	$ 110,000	$ 170,000	12	16	32	Best Case: 12 days X 10 hr. X 5 FTEs X $75/hr. Plus $50K in materials Most Likely: 16 days X 10 hr. X 5 FTEs X $75/hr. Plus $50K in materials Worst Case: 32 days X 10 hr. X 5 FTEs X $75/hr. Plus $50K in materials	N/A	N/A		7/28/2022	6/30/2024	
INTEC300	D.3.03.3A	IEC	Wilcox, Christopher	Wilcox, Christopher	INTEC Firewater System: Backfill Compaction Testing	Per SPC-2879 (Section 3.3 - E.), Backfill compaction is required to be at 95% maximum density and will be tested once complete. Insufficient backfill testing results will require correction prior to asphalt installation.	Fail backfill compaction testing on test sites.	Open	Threat	Accept	Possible	Minor	2-Low	$ 32,000	$ 128,000	$ 256,000	4	16	32	Fail Backfill Testing per SPC-2879 of 95% compaction on completed compacted test sites.	Accept compaction and ensure compaction for asphalt meets 95% prior to asphalt?	Prior backfilling activities are acceptable as is and project can proceed forward.	3/1/2024	6/30/2024	The workorder did not call out testing for backfill lifts to meet 95% compaction per SPC-2879. Force Account backfilled in the same manner to achieve 95% compaction, but no testing was performed on the project for backfilling activities. Based on work history for number of FTE Estimated values are: # Days x 10 hr/day x 8 FTE x $100/hr.
INTEC301	D.3.03.38.07	IEC	Wilcox, Christopher	Wilcox, Christopher	INTEC CPP-666 Annex HVAC Upgrade: Subcontractor Delays	Insufficient resources to complete HVAC Upgrade until later date.	Subcontractor resources are not available to perform HVAC Upgrade.	Open	Threat	Accept	Likely	Minor	2-Low	$ -	$ -	$ -	8	16	32	Subcontractor for project and the subs under contract sub are working at MFC and had their completion date moved forward on them into the time we had the subs scheduled for our project. As of now the only impacts would be to schedule,		We can work parts of the workorder in preparation for the final work scope to be completed when manpower is available.	3/1/2024	6/30/2024	Subcontractor still working their side to see if both projects can work concurrently.
INTEC302	D.3.03.39.02	IEC	Kelly, Patrick	Kelly, Patrick	Design from Subcontractor Inadequacies	Initial Design from subcontractor ~~DOE-ICPL~~ 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	24	32	48		Project Manager will work ahead of the work control to try to remain on top of the issue.		3/1/2024	6/30/2024	
INTEC303	D.3.03.3A	IEC	Wilcox, Christopher	Wilcox, Christopher	Potential Soil Sampling	There is a possibility of additional unforeseen soil sampling/testing to occur on the excavated dirt that needs to be disposed of at ICDF. Depending on results of the sampling it could introduce additional disposal requirements.	Testing reveals need for additional disposal requirements.	~~Open~~ Closed	Threat	Accept	Rare	Minor	1-Low	$ 25,000	$ 70,000	$ 100,000	8	16	26		N/A		3/1/2024	6/30/2024	
INTEC306	D.3.03.36.02	IEC	Klukis, Venita	Klukis, Venita	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	Threat	Mitigate	Likely	Minor	3-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.			5/20/2024	6/30/2024	
INTEC307	D.3.03.38.09	IEC	Klukis, Venita	Klukis, Venita	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			5/20/2024	6/30/2024	
INTEC308	D.3.03.38.09	IEC	Klukis, Venita	Klukis, Venita	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			5/20/2024	6/30/2024	
INTEC309	D.3.03.38.09	IEC	Klukis, Venita	Klukis, Venita	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	3-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			5/20/2024	6/30/2024	

INTEC310	D.3.03.38.09	IEC	Klukis, Venita	Klukis, Venita	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.			5/20/2024	6/30/2024	
INTEC311	D.3.03.38.09	IEC	Klukis, Venita	Klukis, Venita	Incompatabilities 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.			5/20/2024	6/30/2024	
INTEC312	D.3.03.38.09	IEC	Klukis, Venita	Klukis, Venita	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.			5/20/2024	6/30/2024	
INTEC313	D.3.03.3C.02	IEC	Klukis, Venita	Klukis, Venita	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. "			5/20/2024	6/30/2024	
INTEC314	D.3.03.36.02	IEC	Klukis, Venita	Klukis, Venita	Damage to the Crane Impacts schedule	Due to the vital nature of the crane to this project scope any unforseen 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.			5/20/2024	6/30/2024	
INTEC315	D.3.03.38.04	IEC	Kelly, Patrick	Kelly, Patrick	Insufficient signal strength	Insufficient signal strength may require relocate external antennas.	Signal strength test comes back lower than adequate.	Open	Threat	Accept	Likely	Serious	4-High	$ 100,000	$ 129,000	$ 150,000	48	64	96	cost of DCS plu/minus 25%			5/20/2024	6/30/2024	
INTEC317	D.3.03.36.02	IEC	Klukis, Venita	Klukis, Venita	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 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			5/20/2024	6/30/2024	
IT002	D.6.02.36	IEC	Anderson, Jade	Anderson, Jade	Information Technology: Personnel Attrition	Hiring (personnel Attrition) - down three developers for almost a year finding qualified and capable individuals is complicated. Key primary contributors take promotions or leave the company during project execution.	Continuation of project is impacted by lack of enough trained personnel.	Realized	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		5/20/2024	6/30/2024	
IT004	D.6.02.38.01	IEC	Anderson, Jade	N/A	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	4/23/2023	6/30/2024	
IT005	D.6.02.34, D.6.02.36, D.6.03.33	IEC	Anderson, Jade	Anderson, Jade	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		5/20/2024	6/30/2024	
IT010	D.6.02.36.01,.04-.07	IEC	Anderson, Jade	N/A	Information Technology: Software Upgrades	Scheduling testing for software upgrades (ARB 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	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	4/23/2023	6/30/2024	
IT012	D.6.03.32.01	IEC	Anderson, Jade	N/A	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	4/23/2023	6/30/2024	
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	N/A	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	$ 320,000	$ 960,000	$ 1,920,000	40	120	240	Best Case: 40 days x 10 hr./day x 4 FTEs x $200/hr.= $320,000 Most Likely: 120 days x 10 hr./day x 4 FTEs x $200/hr.= $960,000 Worst Case: 240 days x 10 hr./day x 4 FTEs x $200/hr.= $1,920,000	N/A	N/A	4/23/2023	6/30/2024	
IT014	D.6.02.40	IEC	Anderson, Jade	Anderson, Jade	Information Technology: Utilization of Fiber During Upgrades	The current plan is to replace all the fiber, but an analysis may indicate that the project doesn't have to utilize all of the fiber purchased.Locating efficiencies along the way.	Realization of not all fiber needing to be replaced once it is dug up.	Open	Opportunity	Accept	Possible	Minor	1-Low	$ (1,278,720)	$ (692,480)	$ (266,240)	-120	-60	-20	Worst Case: 40 days x 10 hrs/day x 2 FTEs x $200/hr = -$160,000 plus material costs of -$106,240Most Likely: 120 days x 10 hrs/day x 2 FTEs x $200/hr = -$480,000 plus material costs of -$212,480 Best Case: 240 days x 10 hrs/day x 2 FTEs x $200/hr = -$960,000 plus material costs of -$318,720	N/A		6/1/2024	6/30/2024	
IT306	D.6.02.35	IEC	Anderson, Jade	Anderson, Jade	Additional Equipment needed for Network Refresh.	Due to the unforeseen issues with the planned subcontractor for this work scope, the contract has been cancelled. This may require internal resources to perform the work as well as purchase of additional equipment, increasing unplanned costs.	The final design has completed, and it determines there is a delta between equipment in stock and equipment needed.	Emerging	Threat	Mitigate	Almost Certain	Major	5-Very High	$ 800,000	$ 1,400,000	$ 300,000	48	96	124	This equipment will be needed to complete the Network Refresh project. Otherwise, the project will be put on hold until equipment can be purchased.	Once the final design has completed and a delta between equipment in stock and equipment needed is completed, we will need additional money to complete equipment purchases.	There will be a delta between equipment already purchased and equipment needed to complete the project.	3/1/2024	6/30/2024	Toward the end of TO3P1, the subcontractor for this project presented us with a BOM for additional equipment to complete this project worth ~$3M. This cost was not planned in TO3P2. The IEC IT staff estimates this equipment cost to actually be ~$1.4M.
IT307	K.1.02.04	IEC	Anderson, Jade	Anderson, Jade	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.		6/10/2024	6/30/2024	
NICDF009	D.4.06.39.01	IEC	Reese, Craig	N/A	ICDF Cell 3: Lack of Construction or Excavation Resources Due to Competing Projects or Priorities	As the construction begins, the resources may be unavailable due to other construction activities taking place. Therefore, earthmoving equipment and labor resource may not be available.	Cell 3 construction contractors are unable to provide equipment and/or qualified labor to complete the scope and maintain schedule.	~~Open~~ Closed	Threat	Accept	Likely	Moderate	3-Moderate	$ 100,000	$ 500,000	$ 1,250,000	10	10	10	Best Case: 10 days (2% increase in subcontract cost) = .02 X $5M Most Likely Case: 10 days (10% increase in subcontract cost) = .1 X $5M Worst Case: 10 days (25% increase in subcontract cost) = .25 X $5M	N/A	N/A	9/21/2022	6/30/2024	
NICDF010	D.4.06.38.02	IEC	Reese, Craig	N/A	ICDF Cell 3: Funding Constraints May Impact the Acquisition Strategy	Due to the Project Data Sheet having funding over several fiscal years, a contract for the entire construction FFP cannot be awarded. The strategy is to award a partial contract for each FY and have the contractor provide a FFP each year. If price of the FFP cannot be negotiated, a new RFP may be required.	Contractors annual FFP proposal is greater than funding availability and cannot be negotiated.	Realized	Threat	Accept	Rare	Critical	3-Moderate	$ 1,000,000	$ 5,000,000	$ 20,000,000	10	20	40	Best Case: 10 days (2% increase in subcontractor cost) = .2 X $5M Most Likely Case: 20 days (5% increase in subcontractor cost) = 1 X $5M Worst Case: 40 days (10% increase in subcontractor cost) = 4 X $5M	N/A	N/A	9/21/2022	6/30/2024	
NICDF014	D.4.06.37.05	IEC	Reese, Craig	N/A	New ICDF Cell Definition: Excavation Activities Halted	Excavation during the winter months may require the contractor to double handle material.	Excavation becomes difficult due to freezing temperatures and subsequent frost line.	~~Open~~ Closed	Threat	Accept	Likely	Minor	2-Low	$ 60,000	$ 240,000	$ 720,000	4	16	48	Best Case: 4 days X 10 hr./day X 20 FTEs X $75/hr. Most Likely Case: 16 days X 10 hr./day X 20 FTEs X $75/hr. Worst Case: 48 days X 10 hr./day X 20 FTEs X $75/hr.	N/A	N/A	9/21/2022	6/30/2024	
NICDF015	D.4.06.38.01	IEC	Reese, Craig	Reese, Craig	Funding Availability for Purchasing Geosynthetics	CD-3B DOE-ICPs not get approved for early procurement of the necessary Geosynthetics prior to the construction needs in early FY24.	CD-3B approval is not obtained in time to account for long lead times on Geosythetic materials.	~~Open~~ Closed	Threat	Accept	Possible	Minor	2-Low	$ (1,350,000)	$ (450,000)	$ (75,000)	-90	-30	-5	Worst Case: 5 days X 10 hrs/dy X 20 FTEs X $75/hr Most Likely Case: 30 days X 10 hrs/dy X 20 FTEs X $75/hrBest Case: 90 days X 10 hrs/dy X 20 FTEs X $75/hr	N/A		3/1/2024	6/30/2024	Purchase geosyntethic material early to reduce subcontractor markups and escalation of materials. Subject to FY24 funding availability/approval.
NICDF018	D.4.06.38.02	IEC	Reese, Craig	N/A	New ICDF Cell Definition: Silica in Bentonite Requires Respirators	HSQA is discussing the possibility of requiring the use of respirators when working with Bentonite which could impact the approach to the work being performed.	HSQA requiring respirators.	~~Open~~ Closed	Threat	Accept	Possible	Minor	2-Low	$ 60,000	$ 240,000	$ 1,440,000	4	16	96	Best Case: 4 days X 10 hr./day X 20 FTEs X $75/hr. Most Likely Case: 16 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	9/21/2022	6/30/2024	
NICDF020	D.4.06.37.05	IEC	Reese, Craig	N/A	New ICDF Cell Definition: 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) ~~Basalt pockets~~ 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	9/21/2022	6/30/2024	
NICDF021	D.4.06.34.05	IEC	Reese, Craig	N/A	New ICDF Cell Definition: Inflation Driving Costs above $100M	In the event that the project ACWP starts to climb above $100M the potential for a stop work or a new CD evaluation could evolve.	"Estimate to Complete" drives the project above $100M.	Open	Threat	Accept	Rare	Minor	1-Low	$ 30,000	$ 75,000	$ 300,000	2	5	20	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: 20 days X 10 hr./day X 20 FTEs X $75/hr.	N/A	N/A	9/21/2022	6/30/2024	
NICDF027	D.4.06.39.01	IEC	Reese, Craig	N/A	PM Support - ICDF: 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	9/21/2022	6/30/2024	
NICDF030R2	D.4.06.37.05	IEC	Reese, Craig	N/A	New ICDF Cell: 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	12/8/2022	6/30/2024	

NICDF033	D.4.06.37.05	IEC	Reese, Craig	N/A	P.M Support - ICDF: 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	12/8/2022	6/30/2024	
NICDF034	D.4.06.37.05	IEC	Reese, Craig	N/A	P.M Support - ICDF: Identification of Contamination	Unforeseen radiological and/or hazardous contamination is discovered outside the boundaries of known sources.	Contamination is identified.	~~Open~~ Closed	Threat	Accept	Possible	Minor	2-Low	$ 30,000	$ 75,000	$ 300,000	2	5	20	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: 20 days X 10 hr./day X 20 FTEs X $75/hr.	N/A	N/A	12/8/2022	6/30/2024	
NICDF037a	D.4.06.30	IEC	Reese, Craig	Reese, Craig	New ICDF Cell: 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	2/2/2023	6/30/2024	
NICDF038	D.4.06.34.05	IEC	Reese, Craig	N/A	New ICDF Cell: EVMS Certification Disapproval/Delay	IEC Contract H.17 requires "For contracts supporting projects valued at $100M or more, the contractor's EVMS must be formally certified. . ." Excessive Corrective Action Reports (CARs) or EVMS disapproval could result in project execution impacts including delays and increased costs. This would impact IEC's ability to execute work on Capital Asset projects after Critical Decision (CD) 2.	Disapproval or delay of EVMS certification.	~~Open~~ Closed	Threat	Accept	Possible	Minor	2-Low	$ -	$ 1,000	$ 6,000	0	16	96	Best Case: No impacts are applied. Most Likely Case: 1 month delay to rework CD Approval documents * 1k/month = $1k Worst Case: EVMS certification disapproval results in 6 months to restructure * 1k/month = $6k	N/A	N/A	6/26/2023	6/30/2024	
NICDF039a	D.4.06.34.05	IEC	DOE FPD	Reese, Craig	New ICDF Cell: CD2/3 PMB higher than Phase 2 Plan	ICDF New Cell is anticipated to be submitting a PMB in the spring of 2024 for the lifecycle of the project. Under DOE direction they are also planning two years of scope under Task Order 3 Phase 2 (FY24-FY25). There is a potential differentiation in the planning of those time periods making the PMB in the spring come in at a different cost or schedule than planned.	The PMB submitted in the spring comes out with different costs and/or schedule estimates than planned under TO3 Phase 2.	~~Open~~ Closed	Threat	Shared	Possible	Serious	3-Moderate	$ 250,000	$ 500,000	$ 750,000	32	64	96	**Best Case**: Additional 2 months needed for scope identified under FY24/25 time frame with additional $250K. **Most Likely:** Additional 4 months needed for scope identified under FY24/25 time frame with additional $500K. **Worst Case**: Additional 6 months needed for scope identified under FY24/25 time frame with additional $750K.	Propose Shared to DOE	N/A	7/10/2023	6/30/2024	
NICDF040	D.4.06.37.05	IEC	Reese, Craig	Reese, Craig	Excavation Uncovers Unanticipated Basalt	While doing excavation there is a chance to uncover basalt in the Cell 3 area that can cause a delay in the schedule or a need to assess a new path forward.	Discovering Basalt pockets.	~~Open~~ Closed	Threat	Mitigate	Possible	Minor	2-Low	$ 30,000	$ 75,000	$ 1,200,000	2	5	80	Best Case: 2 days X 10 hrs/dy X 20 FTEs X $75/hr Most Likely Case: 5 days X 10 hrs/dy X 20 FTEs X $75/hr Worst Case: 80 days X 10 hrs/dy X 20 FTEs X $75/hr	Ensure subcontractor provides additional labor and equipment to remove the basalt.	11/8/2023	3/1/2024	6/30/2024	None
NICDF303	D.4.06.37	IEC	Reese, Craig	Reese, Craig	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	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		6/15/2024	6/30/2024	
NRFDD008R2	D.5.01.30.20D.5.(	IEC	Burtenshaw, Shawn	Burtenshaw, Shawna	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	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	3/20/2022	10/9/2023	6/30/2024	
NRFDD009	D.5.01.32	IEC	Burtenshaw, Shawn	Burtenshaw, Shawna	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	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/hrWorst Case: 16 days X10 hrs/dy X 7 FTEs X $75/hr	N/A	INCOMPLETE	7/10/2023	6/30/2024	
NRFDD010	D.5.01.32	IEC	Burtenshaw, Shawn	Burtenshaw, Shawna	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	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	4/12/2022	7/10/2023	6/30/2024	
NRFDD011	D.5.01.32	IEC	Burtenshaw, Shawn	Burtenshaw, Shawna	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	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 = $37,500Most Likely Case: 30 days X10 hrs/dy X 10 FTEs X $75/hr = 225,000Worst Case: 30 days X10 hrs/dy X 15 FTEs X $75/hr = $337,500	N/A	8/11/2022	7/10/2023	6/30/2024	
NRFDD012	D.5.01.32	IEC	Burtenshaw, Shawn	Burtenshaw, Shawna	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	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	3/20/2022	7/10/2023	6/30/2024	
RHTRU001R2	D.2.04.30.14	IEC	Troescher, Pat	N/A	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 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.	3/20/2022	6/30/2024	
RHTRU002R2	D.2.04.30.14	IEC	Troescher, Pat	N/A	RH-TRU Waste Disposition: Achieving FY24/25 Milestones for Processing Lot 11 Containers Due to Complex Geometries	Achievement of the FY24 milestone of processing 10 Lot 11 containers and 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.	3/20/2022	6/30/2024	
RHTRU003	D.2.04.30.14	IEC	Troescher, Pat	N/A	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	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	4/23/2023	6/30/2024	
RHTRU300	D.2.04.30	IEC	Troescher, Patrick	Troescher, Patrick	RH TRU disposition exhausts stoagre space.	There is a risk that the RH TRU disposition project will exhaust Interim Storage Container space for Lot 11 product drums generated that are greater than 200 mR/hr.	Shipping of LLW was put into priced option. Therefore, not being able to ship the waste will also producing additional waste will exhaust storage space.	Emerging	Threat	Accept	Almost Certain	Minor	3-Moderate	$ 10,000,000	$ 13,500,000	$ 15,000,000	64	80	96	These impacts are based on the remaining wast to be porcessed against space needed for storage.			3/1/2024	6/30/2024	The percentage of drums generated that are greater than 200 mR/hr is approximately 30% of the total population of Lot 11 drums generated. The number of drums generated in the past six months is approximately 23. There are currently 46 open positions to store Lot 11 product drums greater than 200 mR/hr. Based on the current generation rate and 30% of drums generated, the RH TRU project will run out of space in three years (best case). Most likely case is estimated the RH TRU project will run out of space in two years, and worst case the RH TRU project will run out of space in one year.
SNF007R2	D.1.02.32.31	IEC	Ellsworth, Carla	N/A	Advanced Test Reactor (ATR) SNF Receipt: CPP-603 PaR Manipulator Malfunction	ATR-Direct: Transfers are delayed because of a malfunctioning CPP-603 PaR manipulator (MAN-GSF-401).	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.	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	Maintain the PAR. Work with BEA to reschedule ATR Receipts.	3/20/2022	6/30/2024	
SNF008R2	D.1.02.32.31	IEC	Ellsworth, Carla	N/A	Advanced Test Reactor (ATR) SNF Receipt: 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. -Purchase Back-up Cameras	N/A	3/20/2022	6/30/2024	
SNF009R2	D.1.02.34.02	IEC	Ellsworth, Carla	N/A	CPP-749 1st Generation Vaults Remediation: Changing CPP-749 Security Requirements	CPP-749 Remediation: Project activities are delayed because of changing CPP-749 security requirements.	Requirements derived from planned security related vulnerability assessments impose 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.	3/20/2022	6/30/2024	
SNF010R2	D.1.02.34.02	IEC	Ellsworth, Carla	N/A	CPP-749 1st Generation Vaults Remediation: 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.	3/20/2022	6/30/2024	
SNF011R2	D.1.02.34.02	IEC	Ellsworth, Carla	N/A	CPP-749 1st Generation Vaults Remediation: 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.	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 developed and reviewed/approved by DOE.	3/20/2022	6/30/2024	

SNF015R2	D.1.02.32.31	IEC	Ellsworth, Carla	N/A	Advanced Test Reactor (ATR) SNF Receipt: 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	Alternative work activities will me made available by upper management in the event of an ATR schedule delay.	N/A	N/A	3/20/2022	6/30/2024	
SNF016R2	D.1.02.32.31	IEC	Ellsworth, Carla	N/A	Advanced Test Reactor (ATR) SNF Receipt: 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	N/A	N/A	3/20/2022	6/30/2024	
SNF017R2	D.1.04.02.02 D.1.04.02.03	IEC	Cotterell, Jaksen	N/A	SNF Staging Facility: 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	Threat	Mitigate	Rare	Moderate	1-Low	$ 675,000	$ 2,025,000	$ 5,400,000	30	60	120	Best Case: 30 days X 10 hr./day X 30 FTE X $75/hr.Most Likely Case: 60 days X 10 hr./day X 45 FTEs X $75/hr.Worst Case: 120 days X 10 hr./day X 60 FTEs X $75/hr.	N/A	N/A	1/11/2023	6/30/2024	
SNF021R2	D.1.04.02.02	IEC	Cotterell, Jaksen	N/A	SNF Staging Facility: Subcontract Management	Not securing a subcontractor that can do the work in the time allotted for the project can cause schedule delays.	Subcontractor is not readily accessible to perform work.	~~Open.~~ Closed	Threat	Accept	Rare	Serious	2-Low	$ 30,000	$ 60,000	$ 120,000	12	42	72	Best Case: 12 days (5% increase in subcontract cost) = $600k X 5% Most Likely Case: 42 days (10% increase in subcontract cost) = $600k X 10% Worst Case: 72 days (20% increase in subcontract cost) = $600k X 20%	N/A	N/A	1/11/2023	6/30/2024	
SNF023R2	D.1.04.01.09	IEC	Cotterell, Jaksen	N/A	SNF Staging Facility: Existing Power	Insufficient power supply to meet new design requirements.	Conceptual design identifies need for additional power.	~~Open.~~ Closed	Threat	Mitigate	Possible	Minor	2-Low	$ 12,000	$ 30,000	$ 60,000	8	16	32	Best Case: 8 days (2% increase in subcontract cost) = $600k X 2% Most Likely Case: 16 days (5% increase in subcontract cost) = $600k X 5% Worst Case: 32 days (10% increase in subcontract cost) = $600k X 10%	N/A	N/A	1/11/2023	6/30/2024	
SNF024R2	D.1.04.01.09	IEC	Cotterell, Jaksen	N/A	SNF Staging Facility: Seismic Requirements	Seismic requirements exceed CPP-2707 design requirements.	Conceptual design identifies need for increased protection.	~~Open.~~ Closed	Threat	Mitigate	Possible	Minor	2-Low	$ 12,000	$ 30,000	$ 60,000	8	16	32	Best Case: 8 days (2% increase in subcontract cost) = $600k X 2% Most Likely Case: 16 days (5% increase in subcontract cost) = $600k X 5% Worst Case: 32 days (10% increase in subcontract cost) = $600k X 10%	N/A	N/A	1/11/2023	6/30/2024	
SNF025R2	D.1.04.02.02	IEC	Cotterell, Jaksen	N/A	SNF Staging Facility: Qualified Subcontractors	~~Subcontractor~~ Cask vendor not on Qualified Supplier List (QSL) at the appropriate quality level.	No qualified vendor, for cask procurement, identified during solicitation process.	Open	Threat	Mitigate	Possible	Critical	4-High	$ 3,000,000	$ 5,000,000	$ 8,000,000	~~12~~ 120	~~42~~ 180	~~72~~ 300	Best Case: $3M in design rework Likely Case: $5M in design rework and reordering of materials. Worst Case: $8M	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	1/11/2023	6/30/2024	
SNF036	D.1.04.02.02	IEC	Cotterell, Jaksen	N/A	SNF Staging Facility: Geotechnical Findings	Discovery of unforeseen cavities underground and/or soil with low bearing pressure may cause major ground stabilization activities.	During drilling activities, vacancies or low bearing soil is found.	~~Open.~~ Closed	Threat	Mitigate	Unlikely	Moderate	2-Low	$ 20,000	$ 32,000	$ 48,000	20	32	48	Review alternate locations and get DOE concurrence Best Case: 5 weeks Most Likely 8 weeks Worst case 12 weeks Each day will cost 1,000/day to relocate the pad.	Grout fill voids if they are minimal. adjust the location of the pad as necessary. Over-excavation and backfill with suitable material.	Design for ground stabilization to be performed based on soil investigation	4/23/2023	6/30/2024	
SNF037	D.1.04.02.02	IEC	Cotterell, Jaksen	N/A	SNF Staging Facility: Subsurface Findings	Unforeseen utilities and/or subsurface security systems that need to be rerouted based upon location of the staging facility.	Discovery of utility lines and/or subsurface security systems.	Open	Threat	Accept	Possible	Moderate	2-Low	$ 51,600	$ 126,000	$ 242,000	16	32	64	Best Case: Redesign the pad to not impact existing infrastructure/utilities: 1 subcontractor for 1 additional month worth of work for $50K and 1 FTE in engineering for 1 month @ $100/hr. Most Likely: 3 FTE for 2 months @ $100/hr.to design reroutes and $30,000 in construction costs Worst Case: 3 FTE for 4 months @ $100/hr.to design reroute and $50,000 in construction costs	N/A	Relocate the pad or change the shape of the pad to avoid existing utilities if possible	4/23/2023	6/30/2024	
SNF039	D.1.04.03.03	IEC	Cotterell, Jaksen	N/A	SNF Staging Facility: 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 Safety Design Strategy will not be performed for this project. The building may not be a simple mod and that a Safety design strategy will be required.	DOE evaluation determines that the Staging Facility is a major modification.	Realized	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 Worst Case: 208 days and increase of $1M	N/A	Discuss safety design strategy early in the project and frequently. IEC to state position and work with DOE Nuclear Safety group	4/23/2023	6/30/2024	
SNF042	D.1.04.02.02	IEC	Cotterell, Jaksen	N/A	SNF Staging Facility: Security System and Facility Design Contract	~~BEA has confirmed they will perform the security design for the Staging Facility. The pad design will be performed by an external company. Coordination between the two designs is beyond originally anticipated.~~ 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).	~~The progression of each design DOE-ICPs not progress as currently scheduled.~~ 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	~~Accept~~ 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.	4/23/2023	6/30/2024	
SNF051	D.1.02.36.07	IEC	Reynolds, Boedre	N/A	SNF Road Ready: Training Delay	A subcontractor is planned to provide training on Multipurpose Canisters and closure/leak test procedures as well as the welding equipment, which leaves the possibility of project schedule delays if subcontractor is delayed.	Training received from subcontractor is delayed.	Closed	Threat	Accept	Unlikely	Major	3-Moderate	$ 100,000	$ 150,000	$ 200,000	64	96	128	Best Case: 64 days plus equipment/materials Most Likely Case: 96 days plus equipment/materials Worst Case: 128 days plus equipment/materials	N/A	N/A	4/23/2023	6/30/2024	
SNF054	D.1.02.34.02	IEC	Reynolds, Boedre	N/A	Peach Bottom: Mobile Crane Maintenance	Exceeding the Mobile Crane manufacturers recommended operating hours for performing routine maintenance delays Peach Bottom transfers.	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	4/23/2023	6/30/2024	
SNF068	D.1.04.02.02	IEC	Cotterell, Jaksen	N/A	SNF Staging Facility: Geotechnical Drilling Subcontractor Equipment	The future staging facility location is in a CERCLA area and may have contaminated soil. If the drill rig is contaminated and the equipment or parts of the equipment have to be replaced.	Contamination is identified.	Closed	Threat	Accept	Likely	Serious	4-High	$ 316,000	$ 564,000	$ 1,300,000	8	16	64	Impacts to schedule on IEC activities will be minimal if any. Major impacts are to the subcontracting's schedule with current work they have. Best Case: Equipment can be wiped down by IEC personnel spend 2 weeks wiping down subcontractor equipment 4 people @ $50/hr. for 80 hours. Subcontractor loses 3 weeks on other projects - cost @ $100K per week Most Likely: Parts of the equipment must replaced equating to $100K, and the subcontractor has delays on other project of 4 weeks @ $100K per week and $50K in delays on other projects. IEC personnel spend 2 weeks wiping down subcontractor equipment 4 people @ $50/hr. for 80 hours Worst Case: Subcontractor must replace the piece of equipment, rent equipment for current projects and wait 4 months for new equipment. New equipment is $500K, rental is $200K per month	N/A	N/A	4/24/2023	6/30/2024	
SNF324	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	Supplier Delay - Holtec	Delay of Holtec being on the QSL as a QL-2 supplier 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.	Realized	Threat	Accept	Almost Certain	Serious		$ 200,000	$ 400,000	$ 500,000	32	48	96	Holtec is currently certified as a QL-2 supplier for Engineering services only. Additionally IEC requires a validation audit for compliance with QARD Rev 20. Fabrication facility needs audited prior to and fabrication work performed.	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.		4/1/2024	6/30/2024	
SNF325	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	SNF Packaging Criteria	Due to the Office of Civilian Radioactive Waste Management (OCRWM) organization no longer defining SNF Packaging criteria, IEC cannot load and close a transportation acceptable SNF Cask.	Lack of current acceptance criteria prevents IEC from developing Data Packages that would be acceptable to ship to a Final Repository.	Open	Threat	Accept	Possible	Critical	4-High	$ 2,700,000	$ 4,100,000	$ 5,400,000	208	312	416		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.		4/1/2024	6/30/2024	
SNF326	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	Delay of Items Provided by Holtec	Delay of delivery of Holtec provided items will cause a significant delay to the project.	Holtec unable to receive material or fabricate items according to IEC Schedule.	Open	Threat	Accept	Possible	Major	4-High	$ 1,200,000	$ 1,800,000	$ 5,000,000	48	96	192		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.		4/1/2024	6/30/2024	
SNF330	D.1.02.36.07	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	PaR Equipment Failure	The 401 PaR replacement Project delay or lack of funding could cause delay to Road Ready Project in the event of PAR equipment failure.	PaR currently does not allow for recovery operations in the event 101 Crane failure.	Open	Threat	Accept	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 Organization is planning on upgrading and refurbishing an on-site PaR as a spare.		4/1/2024	6/30/2024	
SNF331	D.1.02.36.07	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	Failed Root Weld	BEA/Liburdi weld repair machine cannot successfully repair a failed root weld.	Failed root weld discovered.	Open	Threat	Accept	Likely	Serious	4-High	$ 350,000	$ 700,000	$ 150,000	20	52	96		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.		4/1/2024	6/30/2024	

SNF333	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	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/soil conditions are encountered.	Open	Threat	Accept	Likely	Serious	4-High	$ 150,000	$ 300,000	$ 450,000	32	64	96		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.		4/1/2024	6/30/2024	
SNF334	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	West Truck Ramp Design	Design of the West Truck Ramp Fill-In could cause the project to be delayed.	During design of the West Truck Ramp Fill-In to be able to place a loaded Cask in the Ramp area it will take significant effort to achieve the structural support for Cask storage.	Open	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 wil be followed. A critical decision will be made to determine feasability to place cask in the crane envelope on the West Truck Ramp compared to costs and effort.		4/1/2024	6/30/2024	
SNF337	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	Drop Analysis Delay	If the analysis of a drop of a cask is not done prior to SAR revisions then the project may be delayed.	During operations, a cask drop occurs.	Open	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 wil 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.		4/1/2024	6/30/2024	
SNF338	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	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	Threat	Mitigate	Likely	Major	4-High	$ 500,000	$ 1,000,000	$ 1,500,000	48	96	144		Possible heavy construction of transfer route path to improve road capacity. Alternative methods of tranfer 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.		4/1/2024	6/30/2024	
SNF339	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	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	Moderate	3-Moderate	$ 200,000	$ 300,000	$ 500,000	30	32	48		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.		4/1/2024	6/30/2024	
SNF340	D.1.02.36.03	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	CPP-603 Does Not Have Necessary Utilities	CPP-603 Cave does not have necessary utilities to support Packaging Demonstration Operations.	Inadequate existing utility features prevent Packaging Demonstration equipment from being installed in the CPP-603 fuel handling cave. Some of these lacking features include necessary power, gas, data and airline cabling.	Realized	Threat	Mitigate	Possible	Critical	4-High	$ 5,000,000	$ 7,500,000	$ 10,000,000	30	32	34		This risk will be mitigated through engineering of Road Ready handling tools used in the 603 Cave as well as process changes from remote welding to welding in the PCS.		4/1/2024	6/30/2024	
SNF341	D.1.02.36.03	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	CCP-603 Cave Does Not Have Adequate Power	CPP-603 Cave does not have adequate power to operate Packaging Demonstration Equipment.	Inadequate power in the CPP-603 Cave prevents Packaging Demonstration operations (such as welding the DOE Standard Canister) from occurring.	Realized	Threat	Mitigate	Possible	Critical	4-High	$ 5,000,000	$ 7,500,000	$ 10,000,000	30	32	34		This risk will be mitigated through engineering of Road Ready handling tools used in the 603 Cave as well as process changes from remote welding to welding in the PCS.		4/1/2024	6/30/2024	
SNF342	D.1.02.36.03	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	CPP-603 Crane Failure Impacts 101 or 401	Fuel operations will be impacted by 101 or 401 crane failure in CPP-603 fuel handling cave.	During crane fuel movements the crane fails to respond as designed.	Open	Threat	Accept	Possible	Moderate	2-Low	$ 200,000	$ 300,000	$ 500,000	30	32	48	The costs listed from delays are based on a $13k/day cost to operate a SNF crew extended over a 1.9, 2.0 and 3 month time period.	Historically, electricians and technicians have been able to repair the system successfully. Crane PMs/other maintenance is performed on schedule.		4/1/2024	6/30/2024	
SNF343	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	Holtec Contract Delay	Contract Delay for Holtec/ORT to obtain a Foreign Ownership, Control, or Influence. (FOCI) approval to allow IEC to place contract for equipment.	Vendor delays getting FOCI or is rejected.	Open	Threat	Accept	Possible	Major	4-High	$ 1,200,000	$ 1,800,000	$ 5,000,000	48	96	192		Vendor working with DOD to get FOCI completed, and DOE accept DOD's FOCI approval. If Holtec/ORT does not obtain FOCI approval, IEC will select alternative supplier (SpectraTek) because they are a partnering team member and IEC has an IDIQ master contract in place. If IEC cannot use SpectraTek, IEC will need to develop new SOW, put it out for bid, get bids back, perform analysis, select vendor, issue contract. If vendor is not currently on IEC's QSL, IEC would initiate vendor approval process. FOCI for Holtec/ORT not necessary as information provided will not be sensitive.		4/1/2024	6/30/2024	
SNF347	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	Delay in PCS Modifications	Due to facility layout and any delay in work on the West Truck Ramp Fill-In could potentially cause a delay in Permanent Containment Structure (PCS) modifications.	Work on the West Truck Ramp Fill-In prevents work on the PCS modifications due to work in same area being scheduled on same day.	Open	Threat	Accept	Likely	Critical		$ 5,000,000	$ 7,500,000	$ 10,000,000	14	16	18		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.		4/1/2024	6/30/2024	
SNF352	D.1.02.30	IEC	Ellsworth, Carla	Ellsworth, Carla	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.			6/1/2024	6/30/2024	
SNF353	D.1.02.33	IEC	Ellsworth, Carla	Ellsworth, Carla	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.			6/1/2024	6/30/2024	
SNF354	D.1.02.33	IEC	Ellsworth, Carla	Ellsworth, Carla	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.			6/1/2024	6/30/2024	
SNF355	D.1.02.33	IEC	Ellsworth, Carla	Ellsworth, Carla	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.			6/1/2024	6/30/2024	
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	4/13/2022	6/30/2024	
TO3005R2	Project Wide	IEC	Multiple CAMs	Multiple Projects	Global Risk: 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	6/8/2022	6/30/2024	
TO3P2005a	Project Wide	IEC	Multiple CAMs	Multiple CAMs	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		11/20/2023	6/30/2024	
TRU007R2	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: 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.	4/23/2023	6/30/2024	
TRU012R2	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: Non-Destructive Assay (NDA) Results, Using ISOCs 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 ISOCs 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	4/23/2023	6/30/2024	
TRU019R2	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: 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.		4/23/2023	6/30/2024	
TRU022	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: 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	4/23/2023	6/30/2024	

TRU023	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: 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	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	Short term-complete CBFO authorized testing. If results show that ammonium nitrate in ARP waste is acceptable, risk can be closed. If not, development of a DOE-ID/CBFO authorized sampling and/or remediation plan will be necessary using a facility that will not change the waste class from CERCLA to RCRA	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.	4/23/2023	6/30/2024	
TRU024	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: 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.	4/23/2023	6/30/2024	
TRU025	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: 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	Assign product drums to SWBs as they fail CI and make notifications if FGE assignment precludes overpack.	4/23/2023	6/30/2024	
TRU026	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: 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	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	Identify and reprocess problematic product drums prior to AMWTF closure.	Identify problematic product drums while facilities still exist for reprocessing	4/23/2023	6/30/2024	
TRU027	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: 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 work smaller waste streams and prioritize larger waste streams as they are being developed.	N/A	4/23/2023	6/30/2024	
TRU029	D.2.03.34.04	IEC	Loftus, Nathan	N/A	CH-TRU Storage & Movement: 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.	4/23/2023	6/30/2024	
TRU030	D.2.03.34.05	IEC	Loftus, Nathan	N/A	CH-TRU Storage & Movement: 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.	4/23/2023	6/30/2024	
TRU031	D.2.03.35.06	IEC	Hubler, Rachelle	N/A	CH-TRU Packaging and Transportation: 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.	4/23/2023	6/30/2024	
TRU032	D.2.03.35.04 D.2.03.35.05	IEC	Hubler, Rachelle	N/A	CH-TRU Packaging and Transportation: 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 45hr. = $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	4/23/2023	6/30/2024	
TRU033	D.2.03.36.05	IEC	Vargesko, Matt	Zovi, Bruno	AMWTP LLW/MLLW Disposition: 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 (NNSS), it will greatly increase cost.	IEC informed of shortage at the time of PR request.	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 BR-90 shipment to WCS instead of NNSS. 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	4/23/2023	6/30/2024	
TRU034	D.2.03.32.04	IEC	Martin, David	N/A	CH-TRU Treatment Facility Support: Difficult Waste Stream	Delays associated with the treatment of the AE 102/105 waste that prevent the start of the PCB Waste campaign.	Discovery during processing.	Open	Threat	Mitigate	Likely	Moderate	3-Moderate	$ 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	Implement the usage of overtime to recover any schedule slippage and prevent total schedule loss.	N/A	4/23/2023	6/30/2024	
TRU035	D.2.03.32.05	IEC	Martin, David	N/A	CH-TRU Treatment Facility Support: 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	4/23/2023	6/30/2024	
TRU036	D.2.03.32.05	IEC	Martin, David	N/A	CH-TRU Treatment Facility Support: 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	4/23/2023	6/30/2024	
TRU039	D.2.03.37.04	IEC	Martin, David	N/A	AMWTP BOP Maintenance: 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.	Innitiate 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	4/23/2023	6/30/2024	
TRU040	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: 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	N/A	Attempt to ensure documents can be provided for CBFO review to support waste certification and the annual recertification audit.	6/15/2023	6/30/2024	
TRU043	D.2.05.30.19	IEC	Zovi, Bruno	Orme, Jason	Non-AMWTP Treatment and Disposal: 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	4/23/2023	6/30/2024	
TRU049	D.2.03.36.04	IEC	Vargesko, Matthew	Vargesko, Matthew	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	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	3/1/2024	6/30/2024	

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CLIN 03, Subtask 302
Task Order 3.2

TO3 Phase 2 Risk Register

Idaho Cleanup Project Programmatic Risk Register

Updated : 8.19.24

													Cost Impacts			Schedule Impacts (in days)							
Risk ID	WBS	Responsible Organization	Risk Owner	IEC Risk Back-up	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	Date Identified	Last update	Notes
CAL018R2	D.3.02.30.13	IEC	Kimbro, Val	N/A	CalcineRET1: Loss of Specialty Resources	Loss of qualified specialty resources could result in schedule delays.	Notification of intent to leave or retirement.	Open	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	3/12/2022	6/30/2024	
CAL021	D.3.05.31.04	IEC	Kimbro, Val	N/A	CalcineVIT: Lack of CPP-691 Documentation - Field Verification	Lack of existing or incomplete CPP-691 documentation may create a need for additional time and resources to perform the field verification at CPP-691. This may cause delays for successor activities, such as creating the 3D model and performing the siting study.	Lack of existing or incomplete drawings.	Open	Threat	Accept	Likely	Minor	2-Low	$ 8,000	$ 36,000	$ 72,000	4	8	16	Cost and schedule impacts are based on additional field investigations @ CPP-691 requiring additional time and resources. Basis is estimated as follows: - Best Case - 4 days x 10 hr./day x 2 FTE x $100/hr. - Most Likely Case - 8 days x 10 hr./day x 4 FTE x $100/hr. plus	N/A	N/A	4/23/2023	6/30/2024	
CAL022	D.3.05.31.04	IEC	Kimbro, Val	N/A	CalcineVIT: Lack of CPP-691 Documentation - 3D Model	Lack of existing or incomplete CPP-691 documentation may create data gaps when updating drawings, performing field verifications, and validating a 3D model of the facility. This may impact the completeness of the Siting Study where additional work will be necessary to fill the data gaps in order to have a complete siting study.	Lack of existing or incomplete drawings.	Open	Threat	Accept	Likely	Minor	2-Low	$ 8,000	$ 36,000	$ 72,000	4	8	16	Cost and schedule impacts are based on additional field investigations @ CPP-691 requiring additional time and resources. Basis is estimated as follows: - Best Case - 4 days x 10 hr./day x 2 FTE x $100/hr. - Most Likely Case - 8 days x 10 hr./day x 4 FTE x $100/hr. plus a subsurface investigation (4 days x 10 hr./day x 1 FTE x	N/A	N/A	4/23/2023	6/30/2024	
CAL024	D.3.05.31.04	IEC	Kimbro, Val	N/A	CalcineVIT: Loss of Specialty Resources	Loss of qualified specialty resources could result in schedule delays.	Notification of intent to leave or retire.	Open	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.)	N/A	N/A	4/23/2023	6/30/2024	
CAL026	D.3.05.31.05	IEC	Kimbro, Val	N/A	CalcineVIT: Equalize Vendor Work Performed Under BEA SOW	It may be necessary to equalize vendor work that is being performed under the BEA SOW. If it is determined the results are inadequate, then additional work by the vendors may be necessary. Scope is included in TO3.2 to review vendor reports to determine their adequacy as well as having the vendors perform additional work	Vendor work that is being performed under the BEA SOW is determined to be inadequate.	Open	Threat	Accept	Likely	Serious	4-High	$ -	$ 500,000	$ 1,000,000	0	48	96	Cost and schedule impacts are based on whether equalizing of the vendor work is required. Basis is estimated as follows: - Best Case - Cost and schedule stay as planned and any impact will be managed internally by the project. - Most Likely Case - Additional 3 months and $250K each for	N/A	N/A	4/23/2023	6/30/2024	
CAL029	D.3.05.31.05	IEC	Kimbro, Val	N/A	CalcineVIT: Equalize Vendor Work Performed Under BEA Statement of Work (SOW) - Opportunity	IEC is bringing in vendors that are performing work under the BEA SOW. Scope to review vendor reports to determine their adequacy and subsequently equalize the two new vendors with the current established vendor is included in TO3.2. However, if the new vendors' work is determined to be adequate, then planned scope to equalize these vendors work may not be necessary.	Vendor work that is being performed under the BEA SOW is determined to be adequate.	Open	Opportunity	Accept	Unlikely	Minor	2-Low	$ (2,000,000)	$ (100,000)	$ -	(64)	(32)	0	Cost and schedule impacts are based on whether equalizing of the vendor work is required. Basis is estimated as follows: - Best Case - Equalization is minimal and the vendor is only required to produce documentation, resulting in $2M under budget and 4 months ahead of sc\l6:V17hedule. - Most Likely Case - Equalization is necessary but not at the level planned, resulting in $1M under budget and 2 months ahead of schedule. - Worst Case - Cost and schedule stay as planned and any impact will be managed internally by project.	N/A	N/A	4/23/2023	6/30/2024	
CAL030	D.3.05.31.05	IEC	Kimbro, Val	N/A	CalcineVIT: 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	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	4/23/2023	6/30/2024	
CAL032	D.3.05.31.02	IEC	Kimbro, Val	N/A	CalcineVIT: Information is Insufficient to Prepare a Delisting Petition	Submitting a delisting petition has been determined to be a viable strategy to pursue and it is assumed the necessary information for a delisting petition is sufficient after a preliminary review of the delisting process, regulatory requirements, previous delisting petitions, calcine data, and the calcining process. If the information is not sufficient, then preparing a delisting petition for submission to the Idaho DEQ and U.S. EPA may be delayed due to time required to fill any data gaps.	Insufficient information to prepare a calcine delisting petition.	Realized	Threat	Accept	Unlikely	Moderate	2-Low	$ 84,000	$ 192,000	$ 288,000	16	32	48	Cost and schedule impacts are based on possible schedule delays that may be realized. Basis is estimated as follows: - Best Case - One month schedule delay and external analysist are required (16 days to identify and evaluate additional data x 10 hr./day x 1 FTE x $75/hr. and 2 FTE x $225/hr.) - Most Likely Case - Two month schedule delay and external analysist are required (32 days to identify and evaluate additional data x 10 hr./day x 0.5 FTE x $75/hr. and 2.5 FTE x $225/hr.) - Worst Case - Three month schedule delay and external analysist are (48 days to identify and evaluate additional data x 10 hr./day x 0.5 FTE x $75/hr. and 2.5 FTE x $225/hr.)	N/A	N/A	4/23/2023	6/30/2024	
CAL301	D.3.02.30.02	IEC	Kimbro, Valerie	Kimbro, Valerie	Calcine: 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:	N/A	N/A	8/19/2024	8/19/2024	
CC007	D.1.21.30.16	IEC	Biorn, Scott	N/A	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	4/23/2023	6/30/2024	
CC024	D.1.21.30.05	IEC	Biorn, Scott	N/A	Core Car: Circular Saw Requires Further Research and Development Beyond Prototype 2	Circular saw test objectives or acceptance criteria are not met requiring a change in cutting method or major redesign or further prototype testing of the saw.	Circular saw DOE-ICPs not pass test objectives or acceptance criteria in prototype test report.	Open	Threat	Accept	Rare	Critical	3-Moderate	$ 1,658,040	$ 3,569,520	$ 5,385,960	96	208	314	Best Case: 96 days X 10 hr. X 16.5 FTEs X $96/hr. (+$137,400) Most Likely: 208 days X 10 hr. X 16.5 FTEs X $96/hr. (+$274,800) Worst Case: 314 days X 10 hr. X 16.5 FTEs X $96/hr. ($412,200) In addition there is a need for contract extension of $22,900/month	N/A	N/A	4/23/2023	6/30/2024	
CC026	D.1.21.30	IEC	Biorn, Scott	Biorn, Scott	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		2/10/2024	6/30/2024	
CC027	D.1.21.30	IEC	Biorn, Scott	Biorn, Scott	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 Order 3009-2014	Open	Threat	Accept	Rare	Critical	3-Moderate	$ 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	N/A		2/10/2024	6/30/2024	
CC300	D.1.21.30	IEC	Biorn, Scott	Biorn, Scott	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.	Open	Threat	Mitigate	Possible	Critical	4-High	$ 5,120,000	$ 7,000,000	$ 8,000,000	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.		3/1/2024	6/30/2024	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	Biorn, Scott	Biorn, Scott	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	INCOMPLETE	N/A		3/1/2024	6/30/2024	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.
CERCLA001	D.4.05.30.09	IEC	Whitmore, Erik	N/A	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 linear, similar to currently existing situation	N/A	4/23/2023	6/30/2024	
ICDF001	D.4.05.31.03	IEC	Orme, Jason	Zovi, Bruno	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, excavtors, 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, excavtors, 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	4/23/2023	6/30/2024	
ICDF002	D.4.05.31.03	IEC	Orme, Jason	Zovi, Bruno	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	4/23/2023	6/30/2024	

ICDF003	D.4.05.31.04	IEC	Orme, Jason	Zovi, Bruno	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: 12 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		4/23/2023	6/30/2024	
INDRP001	K.1.03.03.08	IEC	Henry, Jennifer	Henry, Jennifer	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 sparesMost 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			9/11/2023	6/30/2024	
INTEC011R2	D.3.03.32.02	IEC	Baisch, Kasey	Baisch, Kasey	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			3/20/2022	6/30/2024	
INTEC037R2	D.3.03.38.06	IEC	Wilcox, Christopher	Wilcox, Christopher	INTEC Miscellaneous Paving: Excavation Uncovers Unanticipated Objects	Excavation reveals unidentified objects and/or utilities resulting in a stop work to determine a any additional remediation prior to proceeding with excavation.	An unknown utility or object is discovered during excavation.	Open	Threat	Mitigate	Unlikely	Minor	2-Low	$ 8,000	$ 8,000	$ 96,000	1	1	12	Based on work history of similar projects for number of FTEEstimated values are:# Days x 10 hrs/day x 8 FTE x $100/hr	Check weather before hand and have possible weather shelters nearby or on site for emergencies			3/20/2022	6/30/2024	
INTEC038R2	D.3.03.38.06	IEC	Wilcox, Christopher	Wilcox, Christopher	INTEC Miscellaneous Paving: Clay Layer Discovered During Excavation	Additional excavation may be required to remove an unanticipated clay layer under the designated pave/repair area and then place on a compactable base.	Discovering a clay layer during excavation.	Open	Threat	Accept	Possible	Minor	2-Low	$ 8,000	$ 8,000	$ 32,000	1	2	16	Based on work history of similar projects for number of FTEEstimated values are:# Days x 10 hrs/day x 8 FTE x $100/hr	Ensure operators assigned to the job are familiar and trained to use the equipment provided.			3/20/2022	6/30/2024	
INTEC041R2	D.3.03.38.09	IEC	Klukis, Venita	Klukis, Venita	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.			3/20/2022	6/30/2024	
INTEC045R2	D.3.03.38.07	IEC	Wilcox, Christopher	Wilcox, Christopher	INTEC CPP-666 Anex HVAC Upgrades: Discovery of Asbestos	The risk of asbestos being discovered during demo and installation requires additional controls.	Asbestos was discovered during demolition and installation.	Open	Threat	Mitigate	Possible	Moderate	2-Low	$ 112,000	$ 224,000	$ 336,000	14	28	42	Since demo is proposed to be completed by force account, this will reduce our cost of treating asbestos (trained staff). At this point it is proposed to be probably two weeks of working days delay. Plus expenses, - 14 days X 10 hr/day X 8 FTE X $100/hr28 days42 Days	Issue a work order early on the process to test suspect materials for asbestos.			3/20/2022	6/30/2024	
INTEC059R2	D.3.03.39.02	IEC	Kelly, Patrick	Kelly, Patrick	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.			3/20/2022	6/30/2024	
INTEC060R2	D.3.03.39.02	IEC	Kelly, Patrick	Kelly, Patrick	Emergency Communication System Alt #1: BEA reprograming was not completed in a timely manner.	Required BEA reprograming 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 programing.			3/20/2022	6/30/2024	
INTEC068R2	D.3.03.3C.02	IEC	Klukis, Venita	Klukis, Venita	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	Threat	Mitigate	Likely	Minor	2-Low	$ 16,500	$ 41,250	$ 82,500	0	0	0	Previous quote from 2008 for similar work was $120K which escalates to $165K in today's dollars. Worst Case assumes we increase cost by 50%, Most Likely assumes we increase cost by 25%, and Best Case assumes we increase cost by 510%. This activity is not on the project critical path and is not expected to adversely impact project schedule so no durations were inputted.	Inspect PaR arm prior to shipment to better determine risk level			7/25/2022	6/30/2024	
INTEC080R2	D.3.03.38.04	IEC	Lords, Darin	Lords, Darin	Material Delays	Cell signal boosters are delayed.	Materials are not received on scheduled date.	Open	Threat	Accept	Possible	Moderate	2-Low	$ -	$ -	$ -	10	20	40	Work is being performed by subcontractor so, minimal cost will be realized if materials are delayed but the schedeul will be negatively impacted. Most likely scenario is a delay in the vendors supply chain.	Coordinate with the vendor to schedule the installation when the materials are available.			11/17/2022	6/30/2024	
INTEC082	D.3.03.32.03	IEC	Hamilton, Rob	N/A	INTEC 902 Crane Repair: Crane 902 Rail Repairs Delays New Crane Install	Crane rail repairs take longer than anticipated and are not completed by the time new crane shows and paperwork to install is approved.	Crane rail repairs continue to slip past 10/02/2023.	Open	Threat	Accept	Possible	Moderate	2-Low	$ 140,000	$ 280,000	$ 500,000	0	0	16	Best Case: PPE costs-$18000 ($500/entry/person) per week. Straight time for union workers - 8 days X 10 hr./day X 9 FTEs X $60/hr. overtime for union workers - 4 days X 10 hr./day X 9 FTEs X $90/hr. Exempt personnel - 12 days X10 hr./day X 3 FTEs X $75/hr.= $140,000. No schedule impact since taking action prior to installation of crane. Most Likely Case: PPE costs-$18000 per week. Straight time for union workers - 16 days X 10 hr./day X 9 FTEs X $60/hr. overtime for union workers - 8 days X 10 hr./day X 9 FTEs X $90/hr. Exempt personnel - 24 days X 10 hr./day X 3 FTEs X $75/hr.= $280,000. No schedule impact since taking action prior to installation of crane. Worst Case: No overtime allowed causes schedule impact of 16 work days since it would delay the crane install. PPE costs-$18000 per week. Straight time for union workers - 32 days X 10 hr./day X 9 FTEs X $60/hr. Exempt personnel - 32 days X 10 hr./day X 3 FTEs X $75/hr.= $500,000.	N/A	Work OT to recover schedule slip later once the paperwork is approved to install the crane		4/23/2023	6/30/2024	
INTEC083	D.3.03.32.03	IEC	Baisch, Kasey	Baisch, Kasey	INTEC 902 Crane Repair: Cable Reel and Bridge Motor Impact Clearance Tolerances	During the remote design of the crane, the cable reel and bridge motor were changed to meet the required clearance tolerances. It may be discovered that the cable reel and/or bridge motor tolerances do not allow for proper operation of the crane due to interference with the west wall in the PaR parking area of the cell.	Installation of the crane.	Open	Threat	Accept	Rare	Moderate	1-Low	$ 56,500	$ 88,450	$ 161,100	20	22	44	Best Case: Assuming maintenance can access cable reel and bridge motor, it will take 1 month for ACECO engineers design changes which we will not pay for due to warranty. 1 week for maintenance to fix equipment per engineering design. Craft 4 days X 10 hr./day X 9 FTEs X $60/hr. Exempt personnel 4 days X 10 hr./day X 3 FTEs X $75/hr. PPE cost $21,500 = $56,500Most Likely Case: 1 month for ACECO engineers design changes which we will not pay for due to warranty. 1 week for maintenance to fix equipment per engineering design. Craft 4 days X10 hr./day X 9 FTEs X $60/hr. Exempt personnel 4 days X 10 hr./day X 3 FTEs X $75/hr. PPE cost $21,500 = $56,500. OT 2 days x 10 hr./day X 1.5 OT rate X 9 FTEs X 60/hr. Exempt personnel 2 days OT X 10 hr./day X 1.5 OT rate X 3 FTEs X $75/hr.= $22950.00 + 9000.00. PPE =56500.00 =$88450. Worst Case: 6 weeks for engineering design. 2 weeks with overtime = Straight time - Craft 8 days X 10 hr./day X 9 FTEs X $60/hr.+ 4 OT days X 10 hr./day X 1.5 OT rate X 9 FTEs X $60/hr.= $75600.00. Exempt - 8days X 10 hr./day X 3 FTEs X $75/hr.+ 4 days X 10 hr./day X 1.5 OT rate X 3 FTEs X $75/hr.= $31500.00 + 75600.00 = $107100.00 + PPE $54000 = $161,100.00	N/A			4/23/2023	6/30/2024	
INTEC138	D.3.03.3A.05 D.3.03.3A.07	IEC	Wilcox, Christopher	Wilcox, Christopher	INTEC Firewater System: Equipment Lease/Procurement Delays	Equipment delayed or not available as scheduled or does not function as necessary.	Equipment is backordered or has excessive lead times or Equipment arrives and does not function as needed.	Realized	Threat	Accept	Possible	Minor	2-Low	$ 45,000	$ 60,000	$ 120,000	12	16	32	Best Case: 12 days X 10 Hrs. X 5 FTEs X $75/hr.Most Likely: 16 days X 10 Hrs. X 5 FTEs X $75/hr. Worst Case: 32 days X 10 Hrs. X 5 FTEs X $75/hr.	N/A			4/11/2023	6/30/2024	
INTEC211	D.3.03.32.01 D.3.03.32.02	IEC	Hamilton, Rob	N/A	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		5/18/2023	6/30/2024	

INTEC212	D.3.03.30.04	IEC	Baisch, Kasey	Baisch, Kasey	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.	Open	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			5/18/2023	6/30/2024	
INTEC300	D.3.03.3A	IEC	Wilcox, Christopher	Wilcox, Christopher	INTEC Firewater System: Backfill Compaction Testing	Per SPC-2879 (Section 3.3 - E.), Backfill compaction is required to be at 95% maximum density and will be tested once complete. Insufficient backfill testing results will require correction prior to asphalt installation.	Fail backfill compaction testing on test sites.	Open	Threat	Accept	Possible	Minor	2-Low	$ 32,000	$ 128,000	$ 256,000	4	16	32	Fail Backfill Testing per SPC-2879 of 95% compaction on completed compacted test sites.	Accept compaction and ensure compaction for asphalt meets 95% prior to asphalt?	Prior backfilling activities are acceptable as is and project can proceed forward.	3/1/2024	6/30/2024	The workorder did not call out testing for backfill lifts to meet 95% compaction per SPC-2879. Force Account backfilled in the same manner to achieve 95% compaction, but no testing was performed on the project for backfilling activities. Based on work history for number of FTE Estimated values are: # Days x 10 hr/day x 8 FTE x $100/hr.
INTEC301	D.3.03.38.07	IEC	Wilcox, Christopher	Wilcox, Christopher	INTEC CPP-666 Annex HVAC Upgrade: Subcontractor Delays	Insufficient resources to complete HVAC Upgrade until later date.	Subcontractor resources are not available to perform HVAC Upgrade.	Open	Threat	Accept	Likely	Minor	2-Low	$ -	$ -	$ -	8	16	32	Subcontractor for project and the subs under contract sub are working at MFC and had their completion date moved forward on them into the time we had the subs scheduled for our project. As of now the only impacts would be to schedule,		We can work parts of the workorder in preparation for the final work scope to be completed when manpower is available.	3/1/2024	6/30/2024	Subcontractor still working their side to see if both projects can work concurrently.
INTEC302	D.3.03.39.02	IEC	Kelly, Patrick	Kelly, Patrick	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	24	32	48		Project Manager will work ahead of the work control to try to remain on top of the issue.		3/1/2024	6/30/2024	
INTEC306	D.3.03.36.02	IEC	Klukis, Venita	Klukis, Venita	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	Threat	Mitigate	Likely	Minor	2-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.		5/20/2024	6/30/2024	
INTEC307	D.3.03.38.09	IEC	Klukis, Venita	Klukis, Venita	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		5/20/2024	6/30/2024	
INTEC308	D.3.03.38.09	IEC	Klukis, Venita	Klukis, Venita	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		5/20/2024	6/30/2024	
INTEC309	D.3.03.38.09	IEC	Klukis, Venita	Klukis, Venita	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 addtional software or hardware to address. Most Likely: 1 month Worst case: 2 months	N/A		5/20/2024	6/30/2024	
INTEC310	D.3.03.38.09	IEC	Klukis, Venita	Klukis, Venita	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.			5/20/2024	6/30/2024	
INTEC311	D.3.03.38.09	IEC	Klukis, Venita	Klukis, Venita	Incompatabilities 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.			5/20/2024	6/30/2024	
INTEC312	D.3.03.38.09	IEC	Klukis, Venita	Klukis, Venita	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.			5/20/2024	6/30/2024	
INTEC313	D.3.03.3C.02	IEC	Klukis, Venita	Klukis, Venita	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. "			5/20/2024	6/30/2024	
INTEC314	D.3.03.36.02	IEC	Klukis, Venita	Klukis, Venita	Damage to the Crane Impacts schedule	Due to the vital nature of the crane to this project scope any unforseen 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.			5/20/2024	6/30/2024	
INTEC315	D.3.03.38.04	IEC	Kelly, Patrick	Kelly, Patrick	Insufficient signal strength	Insufficient signal strength may require relocate external antennas.	Signal strength test comes back lower than adequate.	Open	Threat	Accept	Likely	Serious	4-High	$ 100,000	$ 129,000	$ 150,000	48	64	96	cost of DCS plu/minus 25%			5/20/2024	6/30/2024	
INTEC317	D.3.03.36.02	IEC	Klukis, Venita	Klukis, Venita	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 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			5/20/2024	6/30/2024	
IT002	D.6.02.36	IEC	Anderson, Jade	Anderson, Jade	Information Technology: Personnel Attrition	Hiring (personnel Attrition) - down three developers for almost a year finding qualified and capable individuals is complicated. Key primary contributors take promotions or leave the company during project execution.	Continuation of project is impacted by lack of enough trained personnel.	Realized	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		5/20/2024	6/30/2024	
IT004	D.6.02.38.01	IEC	Anderson, Jade	N/A	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	4/23/2023	6/30/2024	
IT005	D.6.02.34, D.6.02.36, D.6.03.33	IEC	Anderson, Jade	Anderson, Jade	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		5/20/2024	6/30/2024	
IT010	D.6.02.36.01,.04-.07	IEC	Anderson, Jade	N/A	Information Technology: Software Upgrades	Scheduling testing for software upgrades (ARB 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	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	4/23/2023	6/30/2024	
IT012	D.6.03.32.01	IEC	Anderson, Jade	N/A	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	4/23/2023	6/30/2024	
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	N/A	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	$ 320,000	$ 960,000	$ 1,920,000	40	120	240	Best Case: 40 days x 10 hr./day x 4 FTEs x $200/hr.= $320,000 Most Likely: 120 days x 10 hr./day x 4 FTEs x $200/hr.= $960,000 Worst Case: 240 days x 10 hr./day x 4 FTEs x $200/hr.= $1,920,000	N/A	N/A	4/23/2023	6/30/2024	
IT014	D.6.02.40	IEC	Anderson, Jade	Anderson, Jade	Information Technology: Utilization of Fiber During Upgrades	The current plan is to replace all the fiber, but an analysis may indicate that the project doesn't have to utilize all of the fiber purchased.Locating efficiencies along the way.	Realization of not all fiber needing to be replaced once it is dug up.	Open	Opportunity	Accept	Possible	Minor	2-Low	$ (1,278,720)	$ (692,480)	$ (266,240)	-120	-60	-20	Worst Case: 40 days x 10 hrs/day x 2 FTEs x $200/hr = -$160,000 plus material costs of -$106,240Most Likely: 120 days x 10 hrs/day x 2 FTEs x $200/hr = -$480,000 plus material costs of -$212,480 Best Case: 240 days x 10 hrs/day x 2 FTEs x $200/hr = -$960,000 plus material costs of -$318,720	N/A		6/1/2024	6/30/2024	

IT306	D.6.02.35	IEC	Anderson, Jade	Anderson, Jade	Additional Equipment needed for Network Refresh.	Due to the unforeseen issues with the planned subcontractor for this work scope, the contract has been cancelled. This may require internal resources to perform the work as well as purchase of additional equipment, increasing unplanned costs.	The final design has completed, and it determines there is a delta between equipment in stock and equipment needed.	Emerging	Threat	Mitigate	Almost Certain	Major	5-Very High	$ 800,000	$ 1,400,000	$ 300,000	48	96	124	This equipment will be needed to complete the Network Refresh project. Otherwise, the project will be put on hold until equipment can be purchased.	Once the final design has completed and a delta between equipment in stock and equipment needed is completed, we will need additional money to complete equipment purchases.	There will be a delta between equipment already purchased and equipment needed to complete the project.	3/1/2024	6/30/2024	Toward the end of TO3P1, the subcontractor for this project presented us with a BOM for additional equipment to complete this project worth ~$3M. This cost was not planned in TO3P2. The IEC IT staff estimates this equipment cost to actually be ~$1.4M.
IT307	K.1.02.04	IEC	Anderson, Jade	Anderson, Jade	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.		6/10/2024	6/30/2024	
NICDF010	D.4.06.38.02	IEC	Reese, Craig	N/A	ICDF Cell 3: Funding Constraints May Impact the Acquisition Strategy	Due to the Project Data Sheet having funding over several fiscal years, a contract for the entire construction FFP cannot be awarded. The strategy is to award a partial contract for each FY and have the contractor provide a FFP each year. If price of the FFP cannot be negotiated, a new RFP may be required.	Contractors annual FFP proposal is greater than funding availability and cannot be negotiated.	Realized	Threat	Accept	Rare	Critical	3-Moderate	$ 1,000,000	$ 5,000,000	$ 20,000,000	10	20	40	Best Case: 10 days (2% increase in subcontractor cost) = .2 X $5M Most Likely Case: 20 days (5% increase in subcontractor cost) = 1 X $5M Worst Case: 40 days (10% increase in subcontractor cost) = 4 X $5M	N/A	N/A	9/21/2022	6/30/2024	
NICDF020	D.4.06.37.05	IEC	Reese, Craig	N/A	New ICDF Cell Definition: 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	9/21/2022	6/30/2024	
NICDF021	D.4.06.34.05	IEC	Reese, Craig	N/A	New ICDF Cell Definition: Inflation Driving Costs above $100M	In the event that the project ACWP starts to climb above $100M the potential for a stop work or a new CD evaluation could evolve.	"Estimate to Complete" drives the project above $100M.	Open	Threat	Accept	Rare	Minor	1-Low	$ 30,000	$ 75,000	$ 300,000	2	5	20	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: 20 days X 10 hr./day X 20 FTEs X $75/hr.	N/A	N/A	9/21/2022	6/30/2024	
NICDF027	D.4.06.39.01	IEC	Reese, Craig	N/A	PM Support - ICDF: 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	9/21/2022	6/30/2024	
NICDF030R2	D.4.06.37.05	IEC	Reese, Craig	N/A	New ICDF Cell: 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	12/8/2022	6/30/2024	
NICDF033	D.4.06.37.05	IEC	Reese, Craig	N/A	PM Support - ICDF: 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	12/8/2022	6/30/2024	
NICDF037a	D.4.06.30	IEC	Reese, Craig	Reese, Craig	New ICDF Cell: 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	2/2/2023	6/30/2024	
NICDF303	D.4.06.37	IEC	Reese, Craig	Reese, Craig	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	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		6/15/2024	6/30/2024	
NRFDD008R2	32D.5.01.30.20D.5.0	IEC	Burtenshaw, Shawn	Burtenshaw, Shawna	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	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		3/20/2022	10/9/2023	6/30/2024	
NRFDD009	D.5.01.32	IEC	Burtenshaw, Shawn	Burtenshaw, Shawna	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	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/hrWorst Case: 16 days X10 hrs/dy X 7 FTEs X $75/hr	N/A	INCOMPLETE	7/10/2023	6/30/2024	
NRFDD010	D.5.01.32	IEC	Burtenshaw, Shawn	Burtenshaw, Shawna	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	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	4/12/2022	7/10/2023	6/30/2024	
NRFDD011	D.5.01.32	IEC	Burtenshaw, Shawn	Burtenshaw, Shawna	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	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 = $37,500Most Likely Case: 30 days X10 hrs/dy X 10 FTEs X $75/hr = 225,000Worst Case: 30 days X10 hrs/dy X 15 FTEs X $75/hr = $337,500	N/A	8/11/2022	7/10/2023	6/30/2024	
NRFDD012	D.5.01.32	IEC	Burtenshaw, Shawn	Burtenshaw, Shawna	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	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	3/20/2022	7/10/2023	6/30/2024	
RHTRU001R2	D.2.04.30.14	IEC	Troescher, Pat	N/A	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 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 facilty 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.	3/20/2022	6/30/2024	
RHTRU002R2	D.2.04.30.14	IEC	Troescher, Pat	N/A	RH-TRU Waste Disposition: Achieving FY24/25 Milestones for Processing Lot 11 Containers Due to Complex Geometries	Achievement of the FY24 milestone of processing 10 Lot 11 containers and 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.	3/20/2022	6/30/2024	
RHTRU003	D.2.04.30.14	IEC	Troescher, Pat	N/A	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	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	4/23/2023	6/30/2024	
RHTRU300	D.2.04.30	IEC	Troescher, Patrick	Troescher, Patrick	RH TRU disposition exhausts stoagre space.	There is a risk that the RH TRU disposition project will exhaust Interim Storage Container space for Lot 11 product drums generated that are greater than 200 mR/hr.	Shipping of LLW was put into priced option. Therefore, not being able to ship the waste will also producing additional waste will exhaust storage space.	Emerging	Threat	Accept	Almost Certain	Minor	3-Moderate	$ 10,000,000	$ 13,500,000	$ 15,000,000	64	80	96	These impacts are based on the remaining wast to be porcessed against space needed for storage.			3/1/2024	6/30/2024	The percentage of drums generated that are greater than 200 mR/hr is approximately 30% of the total population of Lot 11 drums generated. The number of drums generated in the past six months is approximately 23. There are currently 46 open positions to store Lot 11 product drums greater than 200 mR/hr. Based on the current generation rate and 30% of drums generated, the RH TRU project will run out of space in three years (best case). Most likely case is estimated the RH TRU project will run out of space in two years, and worst case the RH TRU project will run out of space in one year.
SNF007R2	D.1.02.32.31	IEC	Ellsworth, Carla	N/A	Advanced Test Reactor (ATR) SNF Receipt:: CPP-603 PaR Manipulator Malfunction	ATR-Direct: Transfers are delayed because of a malfunctioning CPP-603 PaR manipulator (MAN-GSF-401).	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.	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	Maintain the PAR. Work with BEA to reschedule ATR Receipts.	3/20/2022	6/30/2024	
SNF008R2	D.1.02.32.31	IEC	Ellsworth, Carla	N/A	Advanced Test Reactor (ATR) SNF Receipt:: 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. -Purchase Back-up Cameras	N/A	3/20/2022	6/30/2024	
SNF009R2	D.1.02.34.02	IEC	Ellsworth, Carla	N/A	CPP-749 1st Generation Vaults Remediation: Changing CPP-749 Security Requirements	CPP-749 Remediation: Project activities are delayed because of changing CPP-749 security requirements.	Requirements derived from planned security related vulnerability assessments impose 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.	3/20/2022	6/30/2024	
SNF010R2	D.1.02.34.02	IEC	Ellsworth, Carla	N/A	CPP-749 1st Generation Vaults Remediation: 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.	3/20/2022	6/30/2024	

SNF011R2	D.1.02.34.02	IEC	Ellsworth, Carla	N/A	CPP-749 1st Generation Vaults Remediation: 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.	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 developed and reviewed/approved by DOE.	3/20/2022	6/30/2024	
SNF015R2	D.1.02.32.31	IEC	Ellsworth, Carla	N/A	Advanced Test Reactor (ATR) SNF Receipt:. 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	Alternative work activities will me made available by upper management in the event of an ATR schedule delay.	N/A	3/20/2022	6/30/2024	
SNF016R2	D.1.02.32.31	IEC	Ellsworth, Carla	N/A	Advanced Test Reactor (ATR) SNF Receipt:. 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	N/A	N/A	3/20/2022	6/30/2024	
SNF017R2	D.1.04.02.02 D.1.04.02.03	IEC	Cotterell, Jaksen	N/A	SNF Staging Facility: 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	Threat	Mitigate	Rare	Moderate	1-Low	$ 675,000	$ 2,025,000	$ 5,400,000	30	60	120	Best Case: 30 days X 10 hr./day X 30 FTE X $75/hr.Most Likely Case: 60 days X 10 hr./day X 45 FTEs X $75/hr.Worst Case: 120 days X 10 hr./day X 60 FTEs X $75/hr.	N/A	N/A	1/11/2023	6/30/2024	
SNF025R2	D.1.04.02.02	IEC	Cotterell, Jaksen	N/A	SNF Staging Facility: Qualified Subcontractors	Cask vendor not on Qualified Supplier List (QSL) at the appropriate quality level.	No qualified vendor, for cask procurement, identified during solicitation process.	Open	Threat	Mitigate	Possible	Critical	4-High	$ 3,000,000	$ 5,000,000	$ 8,000,000	120	180	300	Best Case: $3M in design rework Likely Case: $5M in design rework and reordering of materials. Worst Case: $8M	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	1/11/2023	6/30/2024	
SNF037	D.1.04.02.02	IEC	Cotterell, Jaksen	N/A	SNF Staging Facility: Subsurface Findings	Unforeseen utilities and/or subsurface security systems that need to be rerouted based upon location of the staging facility.	Discovery of utility lines and/or subsurface security systems.	Open	Threat	Accept	Possible	Moderate	2-Low	$ 51,600	$ 126,000	$ 242,000	16	32	64	Best Case: Redesign the pad to not impact existing infrastructure/utilities: 1 subcontractor for 1 additional month worth of work for $50K and 1 FTE in engineering for 1 month @ $100/hr. Most Likely: 3 FTE for 2 months @ $100/hr.to design reroutes and $30,000 in construction costs Worst Case: 3 FTE for 4 months @ $100/hr.to design reroute and $50,000 in construction costs	N/A	Relocate the pad or change the shape of the pad to avoid existing utilities if possible	4/23/2023	6/30/2024	
SNF039	D.1.04.03.03	IEC	Cotterell, Jaksen	N/A	SNF Staging Facility: 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 Safety Design Strategy will not be performed for this project. The building may not be a simple mod and that a Safety design strategy will be required.	DOE evaluation determines that the Staging Facility is a major modification.	Realized	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 Worst Case: 208 days and increase of $1M	N/A	Discuss safety design strategy early in the project and frequently. IEC to state position and work with DOE Nuclear Safety group	4/23/2023	6/30/2024	
SNF042	D.1.04.02.02	IEC	Cotterell, Jaksen	N/A	SNF Staging Facility: 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.	4/23/2023	6/30/2024	
SNF051	D.1.02.36.07	IEC	Reynolds, Boedre	N/A	SNF Road Ready: Training Delay	A subcontractor is planned to provide training on Multipurpose Canisters and closure/leak test procedures as well as the welding equipment, which leaves the possibility of project schedule delays if subcontractor is delayed.	Training received from subcontractor is delayed.	Closed	Threat	Accept	Unlikely	Major	3-Moderate	$ 100,000	$ 150,000	$ 200,000	64	96	128	Best Case: 64 days plus equipment/materials Most Likely Case: 96 days plus equipment/materials Worst Case: 128 days plus equipment/materials	N/A	N/A	4/23/2023	6/30/2024	
SNF054	D.1.02.34.02	IEC	Reynolds, Boedre	N/A	Peach Bottom:: Mobile Crane Maintenance	Exceeding the Mobile Crane manufacturers recommended operating hours for performing routine maintenance delays Peach Bottom transfers.	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	4/23/2023	6/30/2024	
SNF068	D.1.04.02.02	IEC	Cotterell, Jaksen	N/A	SNF Staging Facility: Geotechnical Drilling Subcontractor Equipment	The future staging facility location is in a CERCLA area and may have contaminated soil. If the drill rig is contaminated and the equipment or parts of the equipment have to be replaced.	Contamination is identified.	Closed	Threat	Accept	Likely	Serious	4-High	$ 316,000	$ 564,000	$ 1,300,000	8	16	64	Impacts to schedule on IEC activities will be minimal if any. Major impacts are to the subcontracting's schedule with current work they have. Best Case: Equipment can be wiped down by IEC personnel spend 2 weeks wiping down subcontractor equipment 4 people @ $50/hr. for 80 hours. Subcontractor loses 3 weeks on other projects - cost @ $100K per week Most Likely: Parts of the equipment must replaced equating to $100K, and the subcontractor has delays on other project of 4 weeks @ $100K per week and $50K in delays on other projects. IEC personnel spend 2 weeks wiping down subcontractor equipment 4 people @ $50/hr. for 80 hours Worst Case: Subcontractor must replace the piece of equipment, rent equipment for current projects and wait 4 months for new equipment. New equipment is $500K, rental is $200K per month	N/A	N/A	4/24/2023	6/30/2024	
SNF324	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	Supplier Delay - Holtec	Delay of Holtec being on the QSL as a QL-2 supplier 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.	Realized	Threat	Accept	Almost Certain	Serious	5-Very High	$ 200,000	$ 400,000	$ 500,000	32	48	96	Holtec is currently certified as a QL-2 supplier for Engineering services only. Additionally IEC requires a validation audit for compliance with QARD Rev 20. Fabrication facility needs audited prior to and fabrication work performed.	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.		4/1/2024	6/30/2024	
SNF325	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	SNF Packaging Criteria	Due to the Office of Civilian Radioactive Waste Management (OCRWM) organization no longer defining SNF Packaging criteria, IEC cannot load and close a transportation acceptable SNF Cask.	Lack of current acceptance criteria prevents IEC from developing Data Packages that would be acceptable to ship to a Final Repository.	Open	Threat	Accept	Possible	Critical	4-High	$ 2,700,000	$ 4,100,000	$ 5,400,000	208	312	416		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.		4/1/2024	6/30/2024	
SNF326	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	Delay of Items Provided by Holtec	Delay of delivery of Holtec provided items will cause a significant delay to the project.	Holtec unable to receive material or fabricate items according to IEC Schedule.	Open	Threat	Accept	Possible	Major	4-High	$ 1,200,000	$ 1,800,000	$ 5,000,000	48	96	192		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.		4/1/2024	6/30/2024	
SNF330	D.1.02.36.07	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	PaR Equipment Failure	The 401 PaR replacement Project delay or lack of funding could cause delay to Road Ready Project in the event of PAR equipment failure.	PaR currently does not allow for recovery operations in the event 101 Crane failure.	Open	Threat	Accept	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 Organization is planning on upgrading and refurbishing an on-site PaR as a spare.		4/1/2024	6/30/2024	
SNF331	D.1.02.36.07	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	Failed Root Weld	BEA/Liburdi weld repair machine cannot successfully repair a failed root weld.	Failed root weld discovered.	Open	Threat	Accept	Likely	Serious	4-High	$ 350,000	$ 700,000	$ 150,000	20	52	96		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.		4/1/2024	6/30/2024	
SNF333	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	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/soil conditions are encountered.	Open	Threat	Accept	Likely	Serious	4-High	$ 150,000	$ 300,000	$ 450,000	32	64	96		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.		4/1/2024	6/30/2024	
SNF334	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	West Truck Ramp Design	Design of the West Truck Ramp Fill-In could cause the project to be delayed.	During design of the West Truck Ramp Fill-In to be able to place a loaded Cask in the Ramp area it will take significant effort to achieve the structural support for Cask storage.	Open	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 wil be followed. A critical decision will be made to determine feasability to place cask in the crane envelope on the West Truck Ramp compared to costs and effort.		4/1/2024	6/30/2024	

SNF337	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	Drop Analysis Delay	If the analysis of a drop of a cask is not done prior to SAR revisions then the project may be delayed.	During operations, a cask drop occurs.	Open	Threat	Accept	Likely	Serious	4-High	$ 150,000	$ 300,000	$ 450,000	32	64	96		During the design process, MCP-335B 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-335B will be followed to determine extent of the damage.		4/1/2024	6/30/2024	
SNF338	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	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	Threat	Mitigate	Likely	Major	4-High	$ 500,000	$ 1,000,000	$ 1,500,000	48	96	144		Possible heavy construction of transfer route path to improve road capacity. Alternative methods of tranfer 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.		4/1/2024	6/30/2024	
SNF339	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	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	Moderate	3-Moderate	$ 200,000	$ 300,000	$ 500,000	30	32	48		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.		4/1/2024	6/30/2024	
SNF340	D.1.02.36.03	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	CPP-603 Does Not Have Necessary Utilities	CPP-603 Cave does not have necessary utilities to support Packaging Demonstration Operations.	Inadequate existing utility features prevent Packaging Demonstration equipment from being installed in the CPP-603 fuel handling cave. Some of these lacking features include necessary power, gas, data and airline cabling.	Realized	Threat	Mitigate	Possible	Critical	4-High	$ 5,000,000	$ 7,500,000	$ 10,000,000	30	32	34		This risk will be mitigated through engineering of Road Ready handling tools used in the 603 Cave as well as process changes from remote welding to welding in the PCS.		4/1/2024	6/30/2024	
SNF341	D.1.02.36.03	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	CCP-603 Cave Does Not Have Adequate Power	CPP-603 Cave does not have adequate power to operate Packaging Demonstration Equipment.	Inadequate power in the CPP-603 Cave prevents Packaging Demonstration operations (such as welding the DOE Standard Canister) from occurring.	Realized	Threat	Mitigate	Possible	Critical	4-High	$ 5,000,000	$ 7,500,000	$ 10,000,000	30	32	34		This risk will be mitigated through engineering of Road Ready handling tools used in the 603 Cave as well as process changes from remote welding to welding in the PCS.		4/1/2024	6/30/2024	
SNF342	D.1.02.36.03	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	CPP-603 Crane Failure Impacts 101 or 401	Fuel operations will be impacted by 101 or 401 crane failure in CPP-603 fuel handling cave.	During crane fuel movements the crane fails to respond as designed.	Open	Threat	Accept	Possible	Moderate	2-Low	$ 200,000	$ 300,000	$ 500,000	30	32	48	The costs listed from delays are based on a $13k/day cost to operate a SNF crew extended over a 1.9, 2.0 and 3 month time period.	Historically, electricians and technicians have been able to repair the system successfully. Crane PMs/other maintenance is performed on schedule.		4/1/2024	6/30/2024	
SNF343	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	Holtec Contract Delay	Contract Delay for Holtec/ORT to obtain a Foreign Ownership, Control, or Influence. (FOCI) approval to allow IEC to place contract for equipment.	Vendor delays getting FOCI or is rejected.	Open	Threat	Accept	Possible	Major	4-High	$ 1,200,000	$ 1,800,000	$ 5,000,000	48	96	192		Vendor working with DOD to get FOCI completed, and DOE accept DOD's FOCI approval. If Holtec/ORT does not obtain FOCI approval, IEC will select alternative supplier (SpectraTek) because they are a partnering team member and IEC has an IDIQ master contract in place. If IEC cannot use SpectraTek, IEC will need to develop new SOW, put it out for bid, get bids back, perform analysis, select vendor, issue contract. If vendor is not currently on IEC's QSL, IEC would initiate vendor approval process. FOCI for Holtec/ORT not necessary as information provided will not be sensitive.		4/1/2024	6/30/2024	
SNF347	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Woolstenhulme, Tyson	Delay in PCS Modifications	Due to facility layout and any delay in work on the West Truck Ramp Fill-in could potentially cause a delay in Permanent Containment Structure (PCS) modifications.	Work on the West Truck Ramp Fill-in prevents work on the PCS modifications due to work in same area being scheduled on same day.	Open	Threat	Accept	Likely	Critical	5-Very High	$ 5,000,000	$ 7,500,000	$ 10,000,000	14	16	18		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.		4/1/2024	6/30/2024	
SNF352	D.1.02.30	IEC	Ellsworth, Carla	Ellsworth, Carla	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.			6/1/2024	6/30/2024	
SNF353	D.1.02.33	IEC	Ellsworth, Carla	Ellsworth, Carla	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.			6/1/2024	6/30/2024	
SNF354	D.1.02.33	IEC	Ellsworth, Carla	Ellsworth, Carla	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.			6/1/2024	6/30/2024	
SNF355	D.1.02.33	IEC	Ellsworth, Carla	Ellsworth, Carla	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.			6/1/2024	6/30/2024	
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	4/13/2022	6/30/2024	
TO3005R2	Project Wide	IEC	Multiple CAMs	Multiple Projects	Global Risk: 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	6/8/2022	6/30/2024	
TO3P2005a	Project Wide	IEC	Multiple CAMs	Multiple CAMs	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		11/20/2023	6/30/2024	
TRU007R2	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: 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.	4/23/2023	6/30/2024	
TRU012R2	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: Non-Destructive Assay (NDA) Results, Using ISOCs 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 ISOCs 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	4/23/2023	6/30/2024	
TRU019R2	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: 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.		4/23/2023	6/30/2024	
TRU022	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: 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	4/23/2023	6/30/2024	
TRU023	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: 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	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	Short term-complete CBFO authorized testing. If results show that ammonium nitrate in ARP waste is acceptable, risk can be closed. If not, development of a DOE-ID/CBFO authorized sampling and/or remediation plan will be necessary using a facility that will not change the waste class from CERCLA to RCRA	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.	4/23/2023	6/30/2024	
TRU024	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: 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.	4/23/2023	6/30/2024	

TRU025	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: 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	Assign product drums to SWBs as they fail CI and make notifications if FGE assignment precludes overpack.	4/23/2023	6/30/2024	
TRU026	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: 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	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	Identify and reprocess problematic product drums prior to AMWTF closure.	Identify problematic product drums while facilities still exist for reprocessing	4/23/2023	6/30/2024	
TRU027	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: 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 work smaller waste streams and prioritize larger waste streams as they are being developed.	N/A	4/23/2023	6/30/2024	
TRU029	D.2.03.34.04	IEC	Loftus, Nathan	N/A	CH-TRU Storage & Movement: 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.	4/23/2023	6/30/2024	
TRU030	D.2.03.34.05	IEC	Loftus, Nathan	N/A	CH-TRU Storage & Movement: 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.	4/23/2023	6/30/2024	
TRU031	D.2.03.35.06	IEC	Hubler, Rachelle	N/A	CH-TRU Packaging and Transportation: 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.	4/23/2023	6/30/2024	
TRU032	D.2.03.35.04 D.2.03.35.05	IEC	Hubler, Rachelle	N/A	CH-TRU Packaging and Transportation: 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 45hr. = $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	4/23/2023	6/30/2024	
TRU033	D.2.03.36.05	IEC	Vargesko, Matt	Zovi, Bruno	AMWTP LLW/MLLW Disposition: 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 (NNSS), it will greatly increase cost.	IEC informed of shortage at the time of PR request.	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 BR-90 shipment to WCS instead of NNSS. 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	4/23/2023	6/30/2024	
TRU034	D.2.03.32.04	IEC	Martin, David	N/A	CH-TRU Treatment Facility Support: Difficult Waste Stream	Delays associated with the treatment of the AE 102/105 waste that prevent the start of the PCB Waste campaign.	Discovery during processing.	Open	Threat	Mitigate	Likely	Moderate	3-Moderate	$ 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	Implement the usage of overtime to recover any schedule slippage and prevent total schedule loss.	N/A	4/23/2023	6/30/2024	
TRU035	D.2.03.32.05	IEC	Martin, David	N/A	CH-TRU Treatment Facility Support: 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	4/23/2023	6/30/2024	
TRU036	D.2.03.32.05	IEC	Martin, David	N/A	CH-TRU Treatment Facility Support: 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	4/23/2023	6/30/2024	
TRU039	D.2.03.37.04	IEC	Martin, David	N/A	AMWTP BOP Maintenance: 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.	Innitiate 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	4/23/2023	6/30/2024	
TRU040	D.2.03.31.06	IEC	Byram, George	N/A	CH-TRU Waste Disposition: 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	N/A	Attempt to ensure documents can be provided for CBFO review to support waste certification and the annual recertification audit.	6/15/2023	6/30/2024	
TRU043	D.2.05.30.19	IEC	Zovi, Bruno	Orme, Jason	Non-AMWTP Treatment and Disposal: 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	4/23/2023	6/30/2024	
TRU049	D.2.03.36.04	IEC	Vargesko, Matthew	Vargesko, Matthew	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	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	3/1/2024	6/30/2024	