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)*
P00114	See Block 16C		

6. ISSUED BY	CODE	7. ADMINISTERED BY *(If other than Item 6)*	CODE
EM-Idaho Department of Energy Office of Environmental Management Idaho Cleanup Project 1955 Fremont Avenue Idaho Falls ID 83415	893042	U.S. Department of Energy Idaho Operations Office 1955 Fremont Avenue Idaho Falls ID 83415	00701

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

IDAHO ENVIRONMENTAL COALITION LLC
Attn: Brant Dotson
600 William Northern Blvd
Tullahoma TN 373884729

CODE | FACILITY CODE

(x) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED *(SEE ITEM 11)*

x 10A. MODIFICATION OF CONTRACT/ORDER NO. 89303321DEM000061

10B. DATED *(SEE ITEM 13)* 05/27/2021

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.)*

DUNS Number: Not Available
UEI: LQ5ZLNE3EM27
Procurement Instrument Identifier (PIID): 89243223FEMTO04

The purpose of this modification is to update the Risk Register for Task Order (TO)-4a (see below for details).

Continued ...

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

15A. NAME AND TITLE OF SIGNER *(Type or print)*	16A. NAME AND TITLE OF CONTRACTING OFFICER *(Type or print)*
KIMBERLI SOUTHWICK (Affiliate) Digitally signed by KIMBERLI SOUTHWICK (Affiliate) Date: 2024.10.24 14:24:34 -06'00'	Grace H. Ruiz
15B. CONTRACTOR/OFFEROR _____ *(Signature of person authorized to sign)*	15C. DATE SIGNED
16B. UNITED STATES OF AMERICA GRACE RUIZ Digitally signed by GRACE RUIZ Date: 2024.10.24 16:40:10 -06'00' *(Signature of Contracting Officer)*	16C. DATE SIGNED 10/24/2024

NAME OF OFFEROR OR CONTRACTOR
IDAHO ENVIRONMENTAL COALITION LLC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Payment: OR for Idaho U.S. Department of Energy Oak Ridge Financial Service Center P.O. Box 6017 Oak Ridge TN 37831 Period of Performance: 10/01/2021 to 09/30/2031 Change Item 00004 to read as follows(amount shown is the total amount):				
00004	Task Order-4a - ARP/SDA Demolition and OCVZ Well Abandonment Line item value is: $95,658,389.00 Incrementally Funded Amount: $87,495,680.57 PIID: 89243223FEMTO04 TASK ORDER 4a - ARP/SDA DEMOLITION AND OCVZ WELL ABANDONMENT 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-4a, Accelerated Retrieval Project/Subsurface Disposal Area Demolition and Organic Contamination in the Vadose Zone (OCVZ) Well Abandonment (See Attachments IEC Risk Register_FY24 Annual Updated and DOE Risk Register_FY24 Annual Updated). All other terms and conditions remain unchanged.				95,658,389.00

CID 89303321DEM000061, Mod P00114
PIID 89243222FEMTO04
Task Order 4a

DOE Transfer Risk Register FY24 Annual Update

Idaho Cleanup Project Programmatic Risk Register

Updated to : 9.30.24

														Cost Impacts			Schedule Impacts (in days)						
Risk ID	Task Order	WBS	Responsible Organization	DOE FPD	IEC POC	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	Last update	Notes
CAL007OR2	TO3P2	D.3.02.30.08	DOE	Balsmeier, Greg	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		Transfer to DOE	7/16/2024	None
CAL007TR2	TO3P2	D.3.02.30.08	DOE	Balsmeier, Greg	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		Transfer to DOE	7/16/2024	None
DST300	TO3P2	Project Wide	DOE	Unknown	Perry, Scott	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.	Work with DOE to implement a phased approach to minimize delays to other scope.	7/16/2024	The long-term effects of this risk are estimated to cost $20M+ and require 3,328 days worked into IEC's schedule. These numbers have been reduced to adhere to a Task Order Contract, but the significant impacts should be recognized.
DST5506-005	TO3P2	D.6.04.01.01, D.6.04.01.02	DOE	Unknown	Perry, Scott	Modifications to the Documented Safety Analysis (DSA) Result in Potential Inadequacy in the Safety Analysis (PISA)	Per the training provided on DOE-STD-5506-2021, any new controls that are identified as required for worker protection would be considered an inadequacy, thus, require a PISA. Any and all PISA(s) that result from the DSA modifications would impose additional impacts to the company's cost, mission, and schedule. At a minimum, work on waste movement and storage would be suspended until a JOC or ESS could be developed and approved by DOE. Once the Justification of Continued Operations (JCO) or Evaluation of Safety of Situation (ESS) were approved, additional materials or equipment would be required, and training would have to be developed and administered. As a worst-case scenario, significant changes would require a complete startup.	IEC incurs PISA(s).	Open	Threat	Transfer	Unlikely	Critical	3-Moderate	$ 7,700,000	$ 15,500,000	$ 37,000,000	160	320	480		Propose Transfer to DOE-ID.	7/16/2024	
IND001	TO3P2	Project Wide	DOE	Unknown	Roberts, Benjamine	Indirect Services: Mandatory Service Cost Increases	BEA provides multiple services to IEC, which support our work at the INL. Some of which IEC cannot seek alternative providers for. There is potential for unforeseen increase in cost for these mandatory services.	Increased Costs of Mandatory Services are applied.	Open	Threat	Transfer	Almost Certain	Critical	5-Very High	$ 2,000,000	$ 4,000,000	$ 6,000,000	0	0	0	Costs are based on fees associated with BEA FY23 Forecast.	Propose Transfer to DOE	8/14/2024	
IND002	TO3P2	Project Wide	DOE	Unknown	Roberts, Benjamine	Indirect Services: General Services Administration (GSA) Vehicle Surcharge Increase	There is potential for an unforeseen increase in costs for GSA Vehicles.	Unforeseen cost increase is applied.	Open	Threat	Transfer	Almost Certain	Minor	3-Moderate		$ 58,752	$ 117,504	0	0	0	Best Case: No cost impacts Most Likely case: $24/month * 204 Vehicles * 12 months Worst Case: $24/month * 204 vehicles * 24 months	Propose Transfer to DOE	7/16/2024	
IND300	TO3P2	K.1.02.08.07	DOE	Unknown	Southwick, Kimberli	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 Transfer to DOE	7/16/2024	
INTEC210	TO3P2	D.3.03.32.01 D.3.03.32.02	DOE	Renevitz, Joe	Baisch, Kasey	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	7/16/2024	None
IT001	TO3P2	D.6.02.32	DOE	O'Malley, Russell	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	Possible	Serious	3-Moderate	$ 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	9/12/2024	None

IT308	TO3P2	D.6.02.49	DOE	O'Malley, Russell	Anderson, Jade	Fiber Replacement Capabilities	The fiber that was put in place 20 plus years ago has deteriorated to less than 30% of what was originally there in some of the lines. If the fiber cannot be replaced prior to it breaking, there would be an extensive disruption in Internet and communication services.	Work to replace the fiber is not turned on in time to replace the fiber and the fiber breaks.	Emerging	Threat	Transfer	Likely	Critical	5-Very High	$ 3,000,000	$ 5,000,000	$ 7,000,000	3	10	30	We have already experienced interruptions due to unintentional cuts and local areas breaks in fiber. In most cases, it has been several days of interruptions to reroute traffic and repair. These cases have been resolved by splicing the existing fiber. In the instance that there are no more viable strands of fiber in the cable, which is an eventuality with aging fiber, new cable must be pulled and connected, extending the outage.	Propose transfer to DOE.	9/24/2024	
NICDF008R2	TO3P2	D.4.06.34.05	DOE	Almahie, Amin	Reese, Craig	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 project 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	8/27/2024	None
NICDF016	TO3P2	D.4.06	DOE	Almahie, Amin	Reese, Craig	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	8/27/2024	None
NICDF042	TO3P2	D.4.06.37 D.4.06.3B D.4.06.3C D.4.06.3F	DOE	Almahie, Amin	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.	Realized	Threat	Transfer	Possible	Minor	2-Low	$ 30,000	$ 75,000	$ 300,000	2	5	20		Propose Transfer to DOE	8/22/2024	None
NICDF043	TO3P2	D.4.06.34.05	DOE	Almahie, Amin	Reese, Craig	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	Estimates are based on SME judgement based on previous experience with IPR delays.	Propose Transfer to DOE	8/6/2024	None
NICDF300	TO3P2	D.4.06	DOE	Almahie, Amin	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.	Realized	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-ID.	8/6/2024	Created by Cody Hidalgo at the request of Brian Martinson on Jan. 04, 2024.
NICDF307	TO3P2	D.4.06	DOE	Almahie, Amin	Reese, Craig	Total Project Cost Exceeds $100M	The Total Project Cost (TPC) will exceed $100M, resulting in the requirement to become EVMS certified, as well as having an External Independent Review (EIR), in accordance with DOE O 413.3B. The project will experience significant schedule delays and unforeseen cost increases.	TPC exceeds $100M.	Open	Threat	Transfer	Likely	Major	4-High	$ 500,000	$ 2,000,000	$ 5,000,000	24	96	192	Estimates are based on SME judgement, since there is no historical company data to base this estimate on.	Propose transfer to DOE.	8/6/2024	
NICDF308	TO3P2	D.4.06	DOE	Almahie, Amin	Reese, Craig	Delay in Line Item Funding Appropriations	Project funding is not available due to appropriations bill not being signed. Project will be delayed when funding is not available, resulting in increased costs.	Appropriations funding is in continuing resolution.	Open	Threat	Transfer	Likely	Major	4-High	$ 250,000	$ 500,000	$ 1,000,000	48	96	192	Estimates are based on SME judgement.	Propose Transfer to DOE.	9/12/2024	9.12.2024 - This risk should be housed in TO-3.2 and was missed during updates. Risk analyst updated Task Order.
S1W002R2	TO3P2	D.5.01.32	DOE	Larsen, Eric	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. = $150,000Most Likely Case: 10 days X10 hrs./day X 2 crews (20 FTEs) X $75/hr. = $300,000Worst Case: 32 days X10 hrs./day X 2 crews (20 FTEs) X $75/hr. = $960,000	Propose Transfer to DOE	7/16/2024	None
SSG300	TO3P2	D.5.01.33.05	DOE	Larsen, Eric	Burtenshaw, Shawna	Transfer of Operational Control of SSG	SSG transfer of operational control for the 633P area and area inside 633 will not support scheduled activities.	West end not available to support removal of waste and or equipment. Adequate area not available to set up temporary wall	Open	Threat	Transfer	Unlikely	Moderate	2-Low	$ 250,000	$ 350,000	$ 500,000	8	12	16	Cost and Schedule impacts have been estimated based on SME expertise.	Propose Transfer to DOE-ID.	7/16/2024	
SSG301	TO3P2	D.5.01.33.04	DOE	Larsen, Eric	Burtenshaw, Shawna	633 Building Modification Approval	NR does not approve the proposed engineering modifications and/or equipment set-up in 633, which are necessary for large equipment removal. Additional sizing and lifting capabilities will be required to remove and load equipment.	Delay in equipment removal due to lifting capability or access requiring sizing.	Open	Threat	Transfer	Unlikely	Major	3-Moderate	$ 1,000,000	$ 1,250,000	$ 2,000,000	16	20	32	Large Items and the Prototype will require building modification for large item removal and transport.	Propose Transfer to DOE-ID.	7/16/2024	
SSG302	TO3P2	D.5.01.33.05	DOE	Larsen, Eric	Burtenshaw, Shawna	Unexpected Waste Properties	Waste removed from the basin in 633P has unexpected properties. These properties result in not meeting the waste acceptance criteria (WAC) for the planned disposal path. This could require additional packaging, and alternative disposal path.	Unexpected waste profile not identified by FMP discovered while removing waste from the basin.	Open	Threat	Transfer	Rare	Minor	1-Low	$ 125,000	$ 250,000	$ 500,000	8	16	32	Cost and Schedule impacts have been estimated based on SME expertise.	Propose Transfer to DOE-ID.	7/16/2024	
SNF033	TO3P2	D.1.04.01.10	DOE	Wahnschaffe, Steve	Cotterell, Jaksen	SNF Staging Facility: DOE CD-1 Review Duration	The duration of the DOE review of CD-1 for the Staging Facility is longer than planned, thus pushing subsequent work scope.	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. Coordinate and provide status to DOE PME.	7/16/2024	None
SNF034	TO3P2	D.1.04.01.10	DOE	Wahnschaffe, Steve	Cotterell, Jaksen	SNF Staging Faciility: 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.	Realized	Threat	Transfer	Almost Certain	Serious	5-Very 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 + 30dayMost Likely: 1 FTE for 4 weeks @ $100/hr. and 1 FTE for 2 weeks @ $80/hr. and 80,000 for subcontract design + 60 daysWorst Case: 1 FTE for 4 weeks @ $100/hr. and 1 FTE for 2 weeks @ $80/hr. and 100,000 for subcontract design + 90 daysEach portion of design will need 10% of the subcontractor cost for IEC to manage.	Consult schedule and forecasts with DOE ICP and HQ in our IPT. Maintain AoA schedule and maintain status updates in the schedule.	7/16/2024	
SNF044	TO3P2	D.1.04.01	DOE	Wahnschaffe, Steve	Cotterell, Jaksen	SNF Staging Facility: Potential Change to Safety Basis Regulatory Framework	It is determined by DOE that 10CFR72 is the governing regulatory framework.	In discussions with DOE and NRC, it is determined that the Staging Facility design must meet NRC requirements.	Open	Threat	Transfer	Rare	Critical	3-Moderate	$ 500,000	$ 1,000,000	$ 2,500,000	128	312	520	Revise T&FR, SOW and require the subcontractor to obtain an NRC licensed facility. Best Case: 8 months with a cost of $500k Most Likely: 1.5 years with a cost of $1M Worst case 2.5 years with a cost of $2.5M	Work with DOE ICP to maintain DOE framework for interim staging. This applies to the casks as well as the pad. Development and acceptance of RPT-2175.	9/24/2024	None
SNF322	TO3P2	D.1.04.01.10	DOE	Wahnschaffe, Steve	Cotterell, Jaksen	AoA Recommendations Vary from the CDR.	The new AoA recommendations differ from the current Conceptual Design Report (CDR). For example, the AoA identifies that new or different technology is required.	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.	If the recommendation is slightly different, the conceptual design report can write a reason for the conceptual design report position.	7/16/2024	

SNF327	TO3P2	D.1.02.36.07	DOE	Wahnschaffe, Steve	Woolstenhulme, Tyson	Delay of Delivery of DOE SCs	Delay of delivery of DOE SCs will cause a delay to the project.	DOESC 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		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.	7/16/2024	
SNF328	TO3P2	D.1.02.36.11	DOE	Wahnschaffe, Steve	Woolstenhulme, Tyson	Lack of Funding Causes Delays in Procurement of Long Lead Items	Lack of funding will delay procurement and receipt of Long Lead items. This is a Corporate-wide Risk.	Congress/DOE does not provide appropriate funding.	Open	Threat	Transfer	Possible	Critical	4-High	$ 312,000	$ 624,000	$ 1,248,000	96	192	284		Work with DOE to place RRDP critical components as a priority for funding to allow procurement of items as scheduled.	7/16/2024	
SNF332	TO3P2	D.1.02.36.07	DOE	Wahnschaffe, Steve	Woolstenhulme, Tyson	BEA Leak Testing Fails	BEA Leak testing of Welds on DOESC does not pass will cause a delay 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		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.	7/16/2024	
TO3P2001	TO3P2	Project Wide	DOE	Unknown	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 projectMost Likely: 0.1 - 0.044 = 0.56$2,366,140.03 * 0.56 = $132,503.84Worst Case: 0.22 - 0.044 = 0.176$2,366,140.03 * 0.176 = $416,440.65	Propose Transfer to DOE	7/16/2024	None
TO3P2002	TO3P2	Project Wide	DOE	Unknown	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 projectMost Likely Case: ($30M / 2years) * 29% = 4,350,000 Worst Case: $30M * 29% = 8,750,000	Propose Transfer to DOE	7/16/2024	None
TO3P2003	TO3P2	Project Wide	DOE	Unknown	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 projectMost Likely: 0.1 - 0.044 = 0.56$2,366,140.03 * 0.56 = $132,503.84Worst Case: 0.22 - 0.044 = 0.176$2,366,140.03 * 0.176 = $416,440.66	Propose Transfer to DOE	7/16/2024	None
TO3P2004	TO3P2	Multiple Projects	DOE	Unknown	Perry, Scott	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 AMWTPSAR-4/TSR-4 for ARPSAR-103/TSR-103 for RH-TRU waste processing operations at INTECSAR-103 Addendum A for RH-TRU waste storage and handling at INTECPLN-1851 for on-site transport of TRU waste	Propose Transfer to DOE	7/16/2024	None
TO3P2005b	TO3P2	Project Wide	DOE	Unknown	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		Proposed Share to DOE.	7/16/2024	
TRU014R2	TO3P2	D.2.03.35.04	DOE	Unknown	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	7/16/2024	None
TRU016R2	TO3P2	D.2.03.32.04	DOE	Unknown	Martin, David	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 feesMost Likely Case: 32 days plus feesWorst Case: 96 days plus fees	Propose Transfer to DOE	7/16/2024	None
ASD001	TO4A	D.4.02.40	DOE	Almahie, Amin	Chapple, Jason	Work Delay due to Abnormal Weather Conditions	Weather impacts to D&D. Managing liquids in winter months results in shifting crews to different buildings to mitigate weather impacts. Abnormal weather or schedule shift may constrain seasonal appropriate timeframe to execute weather or temperature sensitive D&D activities .	Work execution is impacted by schedule shift or weather.	Emerging	Threat	Transfer	Unlikely	Moderate	2-Low	$ -	$ 499,500	$ 777,000	0	9	14	Best Case: No ImpactMost Likely Case: 9 days X10 hrs/dy X 74 FTEs X $75/hr = $499,500Worst Case: 14 days X10 hrs/dy X 74 FTEs X $75/hr = $777,000	Propose Transfer to DOE	7/16/2024	Manage the integration of four exhumation facilities to mitigate weather as much as possible.
ASD008	TO4A	D.4.02.40	DOE	Almahie, Amin	Chapple, Jason	Surveys Uncover Unanticipated Contamination	RAD surveys during field work uncover contamination issues requiring additional remediation prior to proceeding with D&D.	An unanticipated contamination discovery from routine rad surveys.	Realized	Threat	Transfer	Unlikely	Minor	2-Low	$ 30,000	$ 60,000	$ 600,000	1	2	20	Best Case: 1 day X10 hrs/dy X 2 crews (20 FTEs) X $75/hr = $30,000Most Likely Case: 2 days X10 hrs/dy X 2 crews (20 FTEs) X $75/hr = $60,000Worst Case: 20 days X10 hrs/dy X 2 crews (20 FTEs) X $75/hr = $600,000	Implement the following possible mitigations: • Re-emphasize the RAD safety protocols. • Validate adequacy of soil coverage.	7/16/2024	None
ASD009	TO4A	D.4.02.42	DOE	Almahie, Amin	Chapple, Jason	Unforeseen Regulatory Changes	A regulatory change (CFRs, CERCLA, RCRA, etc.) without exemption, could result in significant implementation costs and/or schedule delays.	Unplanned change to regulatory drivers or "notice of violation" issued by regulators	Open	Threat	Transfer	Rare	Minor	1-Low			$ 480,000	0	0	16	Best Case: No ImpactMost Likely Case: No ImpactWorst Case: 16 days X10 hrs/dy X 2 crews (20 FTEs) X $75/hr = $480,000	Propose Transfer to DOE	7/16/2024	Maintain a close working relationship with DOE & Regulatory partners allowing early notification & input
ASD012	TO4A	D.4.02.43	DOE	Almahie, Amin	Chapple, Jason	DOE/State Delays	DOE/State delays the approval of the Well decommissioning forms/plan	Late receipt or notification from DOE or regulators of approval.	Open	Threat	Transfer	Unlikely	Minor	2-Low		$ 150,000	$ 300,000	0	5	10	Best Case: No ImpactMost Likely Case: 5 days X10 hrs/dy X 2 crews (20 FTEs) X $75/hr = $150,000Worst Case: 10 days X10 hrs/dy X 2 crews (20 FTEs) X $75/hr = $300,000	Propose Transfer to DOE	7/16/2024	Maintain a close working relationship with DOE & Regulatory partners allowing early notification & input
TO5A008	TO5.1	D.5.01.51.04	DOE	Larsen, Eric	Burtenshaw, Shawna	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	Possible	Moderate	2-Low	$ 142,880	$ 285,760	$ 571,520	4	8	16	Best Case: 4 days X 10 hrs/dy X 47 FTEs X $76/hr Most Likely Case: 8 days X 10 hrs/dy X 47 FTEs X $76/hr Worst Case: 16 days X 10 hrs/dy X 47 FTEs X $76/hr	Propose Transfer to DOE	7/16/2024	None
NRC001R2	TO6	D.1.03.60.02	DOE	Wahnschaffe, Steve	Long, Jeffery	NRC Licensed SNF Storage Facilities: NRC regulations or directions are revised or updated.	There is a potential for NRC regulations or directions to be revised or updated such that it might require us to revise programs, procedures, or implement various other measures.	Receipt of NRC direction, request for information, notice of violation or other confirmatory order	Open	Threat	Transfer	Possible	Minor	2-Low	$ 20,000	$ 100,000	$ 1,000,000	8	16	32	Best case based on SME experienceMost likely case based on actuals for response to RFI,Worst case based on actuals for resonse to Confirmatory Order	Propose Transfer to DOE	7/16/2024	None
NRC012	TO6	D.1.03.60 D.1.03.61	DOE	Wahnschaffe, Steve	Long, Jeffery	NRC Licensed SNF Storage Facilities: 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	Possible	Moderate	2-Low	$ 10,000	$ 50,000	$ 100,000	7	30	90	Based on SME experience. Best case assumes 1 week delay with little expense. Most likely assumes 1 month delay with moderate expense for equipment. Worst case assumes 90 day delay.	Propose Transfer to DOE	7/16/2024	None
IWTU051	TO7	D.3.06	DOE	Neville, Trent	Nahay, Jordan	IWTU: Funding not approved for Converting IWTU Off Gas Cooling to Raw Water results in shutdown due to Potable Water Outage.	A leak in the Potable Water system requires an outage during IWTU Operation and will result in a unplanned shutdown until repaired.	Discovery of a leak in the Potable Water System.	Open	Threat	Transfer	Possible	Critical	4-High	$ 1,700,000	$ 3,400,000	$ 5,100,000	7	14	21	If funding is not approved then the risk of forcing IWTU to shutdown due to a Potable Water outage remains. 2 potable water outages per year, each lasting 3 days. Therefore, 2 shutdowns and startups of IWTU required per year which would last 1 week each for a total of 2 weeks. IWTU cost is $1.7M per week * 2 weeks = $3.4M.	Propose transfer to DOE	7/16/2024	None

IWTU052	TO7	D.3.06	DOE	Neville, Trent	Nahay, Jordan	IWTU: Forced Shutdown of IWTU Leads to Significant Unplanned Plant Modification	Failure during operation results in a moderate to significant plant modification that is unplanned and will require resources/materials well outside of budget	Failure during operations.	Open	Threat	Transfer	Unlikely	Major	3-Moderate	$ 1,000,000	$ 1,500,000	$ 2,500,000	34	51	69	No significant modifications to IWTU are being forecasted, if a modification of this level is required due to a failure while operating this could require Design Engineering resources that have not been budgeted and installation resources that will be performed under radiological conditions which increase the complexity level.	Propose transfer to DOE	7/16/2024	None
IWTU054b	TO7	D.3.06	DOE	Neville, Trent	Nahay, Jordan	IWTU: BEA Support Services do not Meet IWTU 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.	Insufficient quality of work product or timeliness of completion of BEA deliverables impacts project schedule.	Open	Threat	Share	Unlikely	Moderate	2-Low	$ 93,000	$ 390,600	$ 1,116,000	5	21	60	Best Case: 5 days X 10 hrs/dy X 20 FTEs X $93/hrMost Likely Case: 21 days X 10 hrs/dy X 20 FTEs X $93/hrWorst Case: 60 days X 10 hrs/dy X 20 FTEs X $93/hr	Propose sharing risk with DOE.	7/16/2024	None

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Task Order 4a

IEC Risk Register FY24 Annual Update

Idaho Cleanup Project Programmatic Risk Register

Updated to : 9.30.24

															Cost Impacts			Schedule Impacts (in days)					
Risk ID	Task Order	WBS	Responsible Organization	Risk Owner	DOE POC	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	Last update	Notes
CAL018R2	TO3P2	D.3.02.30.13	IEC	Kimbro, Valerie	Balsmeier, Greg	CalcineRET1: Loss of Specialty Resources	Loss of qualified specialty resources could result in schedule delays.	Notification of intent to leave or retirement.	Realized	Threat	Accept	Likely	Major	4-High	$ 48,000	$ 80,000	$ 160,000	48	80	80	Best Case: 48 days X 10 hr. X 1.25 FTE X $80/hr.Most Likely Case: 80 days X 10 hr. X 1.25 FTE X $80/hr.Worst Case: 80 days X 10 hr. X 20 FTE X $100/hr.	N/A	9/10/2024	None
CAL024	TO3P2	D.3.05.31.04	IEC	Kimbro, Valerie	Balsmeier, Greg	CalcineVIT: Loss of Specialty Resources	Loss of qualified specialty resources could result in schedule delays.	Notification of intent to leave or retire.	Realized	Threat	Accept	Likely	Major	4-High	$ 48,000	$ 80,000	$ 160,000	48	80	80	Cost and schedule impacts are based on the time it takes to backfill a position. Basis is estimated as follows: - Best Case -Backfill one position (48 days x 10 hr./day x 1 FTE x $100/hr.) - Most Likely Case - Backfill one position (80 days x 10 hr./day x 1 FTE x $100/hr.) - Worst Case - Backfill two positions (80 days x 10 hr./day x 2 FTE x $100/hr.)	N/A	9/10/2024	None
CAL030	TO3P2	D.3.05.31.05	IEC	Kimbro, Valerie	Balsmeier, Greg	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 technology maturation plan/technology readiness level documents.	Business relationship and resources are available at BEA that are not readily available to IEC.	Open	Opportunity	Accept	Likely	Minor	2-Low	$ (432,000)	$ (216,000)	$ (72,000)	-48	-24	-8	Cost and schedule impacts are based on BEA supporting the scope of work and having a positive impact on the schedule. Basis is estimated as follows: - Best Case - 48 days x 10 hr./day x 4 FTE x $225/hr. - Most Likely Case - 24 days x 10hr./day x 4 FTE x $225/hr. - Worst Case - 8 days x 10 hr./day x 4 FTE x $225/hr.	N/A	7/16/2024	None
CAL301	TO3P2	D.3.02.30.02	IEC	Kimbro, Valerie	Balsmeier, Greg	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: - Best Case: 5 days X 10 hr/day X 2.5 FTE X $100/hr = $12.5K - Most Likely: 10 days X 10 hr/day X 2.5 FTE X $100/hr = $25K - Worst Case: 20 days X 10 hr/day X 2.5 FTE X $100/hr = $50K		8/19/2024	
CC007	TO3P2	D.1.21.30.16	IEC	Biorn, Scott	Thompson, Thomas	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 16.5 FTEs X $96/hr.Most Likely: 96 days X 10 hr. X 16.5 FTEs X $96/hr.Worst Case: 208 days X 10 hr. X 16.5 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.	7/16/2024	None
CC024	TO3P2	D.1.21.30.05	IEC	Biorn, Scott	Thompson, Thomas	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 does 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	7/16/2024	Saw Assembly Equipment Test Plan (PLN-6689) for Prototype 1 approved 14-Mar-23Prototype 1 testing equipment moved to Premier to continue testing. Prototype 1 testing scope increased per PLN-6689 revision. Testing will conclude January 2024.Contract release for Premier to fabricate Prototype 2 was approved. All raw material procurements are complete. Material preps started 10/16/23. Ability to protect control rods from damage and ability repair/replace failed components were included in quote.
CC026	TO3P2	D.1.21.30	IEC	Biorn, Scott	Thompson, Thomas	Core Car: Core Remnants (Including Transport Equipment) Do Not Meet the WAC for Disposal at ICDF	Physical characteristics of the core remnants or shipping equipment does not meet the Waste Acceptance Criteria (WAC) for ICDF.	INTEC WGS Waste Stream Determination is completed.	Open	Threat	Accept	Possible	Minor	2-Low	$ 10,000	$ 50,000	$ 70,000	8	16	16	Incomplete	N/A	7/16/2024	EPA has provided concurrence to add the transport package to the scope of the General Action Memorandum.Received updated rad data March 15th, 2023. Still evaluating source term and lead removal possibilities prior to disposition.Review of the rad contents proposed for disposal compared against the ICDF WAC 11/6/23. Meets ICDF Rev. 16 WAC.
CC027	TO3P2	D.1.21.30	IEC	Biorn, Scott	Thompson, Thomas	Core Car: Department of Energy determines the Core Car Project is a Major Modification	Department of Energy determines the Core Car Project meets the criteria of a Major Modification prior to the approval of SAR-113 Revision 2.	DOE directs SAR-113 Revision 2 format be in compliance with DOE Order 3009-2014	Open	Threat	Accept	Rare	Critical	3-Moderate	$ 89,184	$ 114,824	$ 172,794	80	103	160	Incomplete	N/A	7/16/2024	Nuclear Safety meets with DOE monthly. Discussions with DOE counterpart does not expect the evaluation to result in IEC being directed to change the formatting of SAR-113 Revision 2.
CC300	TO3P2	D.1.21.30	IEC	Biorn, Scott	Thompson, Thomas	Core Car: Engineering/Safety Analysis Determines Core Cannot be Safely Removed From RSC or Processed	Design/Safety analysis determines the core cannot be safely removed from the RSC and transported to the laydown station without extensive modifications to the equipment/pool/process.	Completion of drop/safety analysis reveals scenario(s) that result in unacceptable risk or consequence.	Open	Threat	Mitigate	Possible	Critical	4-High	$ 5,120,000	$ 7,000,000	$ 8,000,000	238	309	412	INCOMPLETE	Add mechanically fasten to boration to ensure the core can be safely moved from the RSC to the lay down system and safely processed.	7/16/2024	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	TO3P2	D.1.21.30	IEC	Biorn, Scott	Thompson, Thomas	Core Car: Hydrogen Levels Inside the Shipping Shield Exceed HAD Limits	High hydrogen gas levels between the shipping shield and the RSC could indicate water inside the shipping shield. Due to potential RSC seal degradation, a hydrogen sample of the RSC will be required, potentially requiring a purge of the RSC to meet HAD requirements. (RSC sampling will require removal of the shipping shield lid.)	Performance of shipping shield cavity hydrogen sampling after the railcar is in place at CPP-666.	Open	Threat	Accept	Possible	Serious	3-Moderate	$ 374,000	$ 534,500	$ 695,000	8	12	16	INCOMPLETE	N/A	7/16/2024	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.
CC302	TO3P2	D.1.21.30	IEC	Biorn, Scott	Thompson, Thomas	Core Car: Department of Energy Does Not Accept Reciprocity From Department of Defense for the Premier Security Upgrade	DOE directs IEC to minimize the risk by performing the work intended to be done at Premier at an alternate location.	During the commissioning of the upgrade, DOE decides the risk is not acceptable.	Open	Threat	Accept	Possible	Moderate	2-Low	$ 250,000	$ 500,000	$ 1,000,000	3	6	12	Cost and schedule impacts have been estimated based on SME judgement on the duration and cost for IEC to assemble and test components in an environment that is compliant with security regulations.	Identify an alternate location to machine/fabricate/assemble components requiring specific protection needs. Perform a cost benefit analysis to address the upgrade of the fabrication shop or a new facility vs. moving forward with Premier.	7/16/2024	
CERCLA001	TO3P2	D.4.05.30.09	IEC	Whitmore, Erik	Brooks, Nicole	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	7/16/2024	None

DST5506-014	TO3P2	D.6.04.01.01, D.6.04.01.02	IEC	Perry, Scott	Unknown	Competing Priorities	There is potential that higher priority scope could limit the personnel available to work on the Phased Implementation Plan for DOE-STD-5506-2021.	Higher priority scope limits available personnel.	Open	Threat	Accept	Unlikely	Minor	2-Low	$ 2,200	$ 9,000	$ 65,000	4	16	120	Schedule impacts reflect the estimated schedule delay the project will experience as a result of competing priorities within IEC. Cost impacts reflect unforeseen costs which are a direct result of the estimated schedule delay the project will experience.	N/A	7/16/2024	
DST5506-015	TO3P2	D.6.04.01.02	IEC	Perry, Scott	Unknown	External Resource Competing Priorities	IEC will be utilizing external resources in the effort to revise safety documents. The risk of these external resources having a delayed availability will result in schedule delays.	Higher priority scope limits availability of external resources.	Open	Threat	Mitigate	Unlikely	Minor	2-Low	$ 15,500	$ 61,500	$ 462,000	4	16	120	Schedule impacts reflect the estimated schedule delay the project will experience as a result of competing priorities within the external entities being utilized for this project. Cost impacts reflect unforeseen costs which are a direct result of the estimated schedule delay the project will experience, using the external resource rates.	Procure backup subcontractor to revise HADs.	7/16/2024	
DST5506-016	TO3P2	D.6.04.01.01, D.6.04.01.02	IEC	Perry, Scott	Unknown	Personnel Attrition	Personnel attrition of experienced individuals will require reassigning and training personnel to be fully cognizant of the scope, resulting in costs and schedule delays.	Attrition realized.	Open	Threat	Accept	Possible	Minor	2-Low	$ 2,200	$ 9,000	$ 65,000	4	16	120	Schedule impacts reflect the estimated amount of time required to reassign and train personnel for this scope (revising HADs and EDFs), in the event that the project loses 1 FTE. Cost impacts reflect unforeseen costs which are a direct result of the estimated schedule delay the project will experience.	N/A	7/16/2024	
ICDF001	TO3P2	D.4.05.31.03	IEC	Orme, Jason	Brooks, Nicole	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.	Realized	Threat	Accept	Likely	Serious	4-High	$ 175,600	$ 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	7/16/2024	
ICDF002	TO3P2	D.4.05.31.03	IEC	Orme, Jason	Brooks, Nicole	ICDF Ops and Maintenance: Treatment, Storage, and Disposal Facility (TSDF) Closure	ICDF 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.	ICDF discontinues receiving of waste.	Open	Threat	Mitigate	Likely	Minor	2-Low	$ 175,600	$ 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 ICDF resuming operations, shipment(s) will commence and schedule will be recovered by working overtime.	7/16/2024	
ICDF003	TO3P2	D.4.05.31.04	IEC	Orme, Jason	Brooks, Nicole	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 ICDF 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	Likely	Minor	2-Low	$ 175,600	$ 81,000	$ 108,000	4	6	8	Best Case: 8 days x 10 hr./day x 6 FTEs X ($75/hr.+ OT = $112.50/hr.)Most Likely Case: 612 days x 10 hr./day x 6 FTEs x ($75/hr.+ OT = $112.50/hr.)Worst Case: 16 days x 10 hr./day x 6 FTEs x ($75/hr.+ OT = $112.50/hr.)	Implement the following possible mitigations: - After Issues are corrected we will reevaluate and certify waste. Overtime will be worked to recover schedule.	7/16/2024	
IND004	TO3P2	K.1.03.08	IEC	Henry, Jennifer	Unknown	Training: Training Platform Transition Fails	BEA has made the decision to terminate the TRAIN (Training Records and Information Network) system, which is a service IEC utilizes. The training platform which BEA has chosen to transition to is a Learning Management System (LMS). IEC will experience an increase in cost, due to the fact that we must maintain the TRAIN system while implementing LMS. The risk is that funding will not be available to support two training platforms during this transition. This would include not having enough personnel to support based on the needs of the LMS.	IEC is informed that the budget request for funding the Training Platform Transition, including requested Full Time Employees (FTE), is denied.	Open	Threat	Accept	Possible	Major	4-High	$ -	$ 1,120,000	$ 11,456,000	0	0	0	Best case: All responsibility goes solely to BEA. Most Likely: Cost of our personnel having to support this new implementation. Worst Case: Cost of our personnel with a 30% markup for having to subcontract this process out.	N/A	7/16/2024	
IND005	TO3P2	K.103.08	IEC	Henry, Jennifer	Unknown	Training: Inefficient Personnel Growth	EC employs various disciplines. There is potential of not being able to adequately fund courses geared towards personnel development and growth in individual career fields. If IEC is unable to adequately fund these programs for personnel, there is potential of losing personnel seeking more professional growth. There is also the risk of having a less efficient work force.	Funding is not adequate to support sending personnel to train and attend developmental courses geared towards their career field.	Open	Threat	Accept	Possible	Moderate	2-Low	$ 100,000	$ 600,000	$ 3,000,000	0	0	0	Best Case: Lose 1 person Most Likely: Lose 12 people Worst Case: Lose 30 people at approximately $100k/person	N/A	7/16/2024	
IND009	TO3P2	Project Wide	IEC	Cooper, Brandy	Walker, Schyler	Global: Approval of Business Systems	IEC has multiple systems utilized that need to be approved by DOE. In some cases, approval may not be granted, resulting in corrective actions that could be costly. Additionally, there will be reviews/audits done that could require additional steps or potential re-work of associated procedures. This could lead to purchasing different systems, acquiring subcontractors to help complete re-work, and potentially going through additional reviews and audits.	Any utilized business system does not meet required standards and gain approval.	Open	Threat	Accept	Possible	Minor	2-Low	$ 80,000	$ 100,000	$ 120,000	0	0	0	Impact based on expected software or subcontract costs related to corrective actions.		9/24/2024	
INDRP001	TO3P2	K.1.03.03.08	IEC	Henry, Jennifer	Unknown	Radiation Protection: Spare Rad Instrument Disposal	IEC has several cargo containers at the projects that are filled with old radiological instruments. The instruments are currently being kept for use as spare parts to keep instruments running until older units can be replaced. Once old instruments are replaced, the spare instruments must undergo a proper disposal process. Once the stored instruments can no longer be used for spare parts, they become waste and require a hazardous disposal path due to lead and other metals used. If the project is directed to dispose of the spare instruments under strict disposal timelines, the amount of spares to be disposed of could potentially raise a need to become its own identified work scope with specific allocated resources to complete the work.	Spares are determined to be disposed under a strict timeline.	Open	Threat	Accept	Almost Certain	Critical	5-Very High	$ 1,500,000	$ 3,000,000	$ 5,000,000	0	0	0	Best Case: they only require a dispose of current inventory of 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	7/16/2024	None
INTEC011R2	TO3P2	D.3.03.32.02	IEC	Baisch, Kasey	Renevitz, Joe	INTEC BOP: Transformer Failure Causes Unscheduled Electrical Outage	A transformer failure can cause an unscheduled power outage with long repair times. Transformers can require long procurement times depending on the size needed. All production could halt within the affected facility due to a lack of electrical power.	Electrical equipment (transformer) failure due to prolonged exposure to harsh outdoor weather conditions without testing or maintenance.	Open	Threat	Accept	Possible	Minor	2-Low	$ 250,000	$ 545,600	$ 2,578,000	48	96	160	Best Case- transformer fails on double end fed piece of equipment so cost to replace is the materials only of 250k. Most Likely - transformer failure which causes partial building outage (CPP-659) for duration of the time it takes to get a new transformer. MAT'L COST 200k LABOR COST: 96 days X 12 hr./day X 3FTE X $100/hr. Worst Case: Transformer failure includes need to replace feeder breakers also and results in loss of 1/2 of CPP-666 for duration of the time it takes to get transformer, breakers, and time to install. MAT'L COST: 750K, LABOR COST: 160 days X 12 hr./day X 9 FTE X $100/hr. DISPLACED WORKER COST: 100K	N/A	7/16/2024	None
INTEC041R2	TO3P2	D.3.03.38.09	IEC	Klukis, Venita	Renevitz, Joe	INTEC Distributed Control System Upgrades: DCS electronics failure.	The DCS electronic systems need to be updated to more readily available products in the event of a system failure. Parts for the currently operated system are not readily available as it is an outdated system.	Outdated DCS equipment fails upon use.	Open	Threat	Mitigate	Possible	Critical	4-High	$ 250,000	$ 300,000	$ 500,000	90	150	270	In house design delay can be an issue, It will take six weeks to source the job to outside engineering company just to be awarded, plus designing period, that would cost three to six months delay on the job. Plus extra cost to the outside company to complete the design. The supply chain could also cause issues depending on availability. So best case is $200K at 90 days. Those risks combine for a total of 16 Days X 10 hour X 2 FTEs X $100=$32,00032 X 10 X 2 X $100=$64,00048 X 10 X 2 $100=$96,000	Work with engineering to prioritize high risk equipment and replace them first.	7/16/2024	None
INTEC059R2	TO3P2	D.3.03.39.02	IEC	Kelly, Patrick	Renevitz, Joe	Emergency Communication System Alt #1: ECS wireless system failure.	Existing ECS wireless system failure causes the work to be stopped-and impacts the accomplishment of the fire panel conversion process.	Failure of the INTEC ECS which stops the fire panel conversion work progress and testing.	Open	Threat	Accept	Unlikely	Serious	2-Low	$ 30,000	$ 180,000	$ 270,000	30	60	90	Best - 30d x 10 h/d x 1fte x 100/hr = 30,000 Lik - 60d x10h/d x3fte x 100/hr = 180,000 Wo - 90d x 10h/d x 3fte x 100/hr =270,000	Have an ECS recovery plan in place to repair the system.	7/16/2024	None

INTEC060R2	TO3P2	D.3.03.39.02	IEC	Kelly, Patrick	Renevitz, Joe	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.	7/16/2024	None
INTEC068R2	TO3P2	D.3.03.3C.02	IEC	Klukis, Venita	Renevitz, Joe	INTEC Crane Upgrade: PaR Re-certification Scope Definition	Full work scope to re-certify existing PaR arm is unknown and could exceed estimated cost and schedule once vendor evaluation is complete.	Vendor inspection and testing upon receipt of PaR arm.	Open	Threat	Mitigate	Possible	Serious	3-Moderate	$ 100,000	$ 250,000	$ 400,000	16	48	96	Used maintenance costs and lead time on parts for the Most Likely case and then adjusted 25% both ways to arrive at the Worst Case and Best Case values.	Inspect PaR arm prior to shipment to better determine risk level	7/16/2024	None
INTEC211	TO3P2	D.3.03.32.01D.3 .03.32.02	IEC	Baisch, Kasey	Renevitz, Joe	BOP PM: Failure to Follow Process Steps and/or Expectations Results of Major Noncompliance Issue	In the event that the project experiences a major noncompliance issue, it could result in additional resources required, changes to work control, additional training required, etc.	A Major Noncompliance event occurs.	Open	Threat	Accept	Likely	Major	4-High	$ 250,000	$ 500,000	$ 1,000,000	48	96	192	Cost of subcontract mentors, cost to refurbish program, cost for retraining.	N/A	7/16/2024	None
INTEC212	TO3P2	D.3.03.30.04	IEC	Baisch, Kasey	Renevitz, Joe	BOP CM: Critical Legacy Equipment Failure	INTEC utilizes many pieces of legacy equipment, such as: cranes, overhead doors, transformers, etc. Legacy equipment has the potential of failing due to the nature of its age. Unforeseen equipment failure can cause unscheduled outages to repair and turn the equipment back over to operations.	Equipment fails.	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	7/16/2024	None
INTEC302	TO3P2	D.3.03.39.02	IEC	Kelly, Patrick	Renevitz, Joe	Design from Subcontractor Inadequacies	Initial Design from subcontractor does not conform with field conditions requiring additional work on drawings to be able to move forward with the work.	Drawing inadequacies discovered during work control development.	Realized	Threat	Accept	Almost Certain	Critical	5-Very High	$ 175,000	$ 230,000	$ 350,000	96	128	208		Project Manager will work ahead of the work control to try to remain on top of the issue.	9/9/2024	
INTEC306	TO3P2	D.3.03.36.02	IEC	Klukis, Venita	Renevitz, Joe	IWTU Vulnerabilities: Waste Boxes Requires Additional Processing Before Disposal	Waste boxes do not meet specifications for disposal requiring them to be processed at an offsite facility or to be shipped to a different location, creating higher disposal fees.	Waste container does not meet shipping requirements.	Open	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.	9/9/2024	Some waste containers may be sealed and have void spaces inside them already when they are placed in the waste box making it almost impossible to meet the requirements.
INTEC307	TO3P2	D.3.03.38.09	IEC	Klukis, Venita	Renevitz, Joe	DCS Upgrades: Hardware procurement issues	Hardware could have long lead times causing schedule impacts for implementation. Hardware could also be unavailable or very difficult to locate causing budget and schedule impacts.	Procurement of hardware.	Open	Threat	Accept	Possible	Major	4-High	$ 1,000	$ 2,000	$ 3,000	48	96	182	3, 6, and 12 months delay with minimal cost impacts since project would shut down until materials arrived.		9/9/2024	
INTEC308	TO3P2	D.3.03.38.09	IEC	Klukis, Venita	Renevitz, Joe	DCS Upgrades: Engineering resources become limited during project execution	With limited personnel the DCS engineering group could experience a reduction in personnel due to attrition or health issues. This would create longer lead times to complete items.	DCS engineer leaves the department or is placed on STD/LTD.	Open	Threat	Accept	Possible	Major	4-High	$ 1,000	$ 2,000	$ 2,000	24	96	96	Best case: 6 weeks for the typical amount of time someone is on STD. Cost impacts are minimal since the project will be on hold until personnel return. Most Likely: 6 months for someone who needs the full time on STD. Cost impacts are minimal since the project will be on hold until personnel return. Worst case: 6 months to hire and train a replacement. Cost impacts are minimal since the project will be on hold until personnel have been trained.		9/9/2024	
INTEC309	TO3P2	D.3.03.38.09	IEC	Klukis, Venita	Renevitz, Joe	DCS Upgrades: Current system design has unknown aspects	The current system does not have drawings or documentation which could cause the project to encounter unknown aspects or conditions during investigation, installation, and testing.	Unknown condition encountered at any time during project.	Open	Threat	Accept	Possible	Minor	2-Low	$ 5,000	$ 10,000	$ 20,000	8	16	32	Best case: two weeks to investigate issues and purchase addtional software or hardware to address. Most Likely: 1 month Worst case: 2 months		9/9/2024	
INTEC310	TO3P2	D.3.03.38.09	IEC	Klukis, Venita	Renevitz, Joe	DCS Upgrades: Testing after installation is not successful	After the installation of the software and hardware, during testing, it is discovered the system is not operational as intended.	Testing of system does not end in viable equipment.	Open	Threat	Accept	Unlikely	Minor	2-Low	$ 1,000	$ 50,000	$ 300,000	8	16	182	Best Case: Possible bugs that need to be addressed causing the schedule to move 2 weeks and minimal costs incurred. Most Likely: Engineering requires 1 month to address issues along with purchasing new equipment. Worst Case: The new system is not viable causing an entire redesign.		9/9/2024	
INTEC311	TO3P2	D.3.03.38.09	IEC	Klukis, Venita	Renevitz, Joe	DCS Upgrades: 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.		9/9/2024	
INTEC312	TO3P2	D.3.03.38.09	IEC	Klukis, Venita	Renevitz, Joe	DCS Upgrades: Software development could require more time than anticipated	Software development for an aged system could prove to be more complicated than originally planned leading to additional man hours and schedule changes that will delay the project.	Software development does not finish within scheduled period.	Open	Threat	Accept	Likely	Minor	2-Low	$ 8,000	$ 16,000	$ 32,000	8	16	32	Design engineering labor hours will be the only impact so their time is assumed to be $100 per hour. Schedule impacts are estimates only and could vary.		9/9/2024	
INTEC313	TO3P2	D.3.03.3C.02	IEC	Klukis, Venita	Renevitz, Joe	CPP-603 PaR Refurbishment: Lost or damaged equipment during shipping.	Lost or damaged equipment during shipping.	Shipping boxes.	Open	Threat	Accept	Rare	Critical	3-Moderate	$ 330,000	$ 660,000	$ 1,000,000	366	366	366	*Worst case is based off of replacing the entire assembly of the PaR. Most likely and best case are broken down by 1/3 of ML. Long lead times from PaR. *Note these lead times may extend out past the Task Order time constraints. "		9/9/2024	
INTEC314	TO3P2	D.3.03.36.02	IEC	Klukis, Venita	Renevitz, Joe	IWTU Vulnerabilities: 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.		9/9/2024	
INTEC315	TO3P2	D.3.03.38.04	IEC	Kelly, Patrick	Renevitz, Joe	Insufficient signal strength	Insufficient signal strength may require relocate external antennas.	Signal strength test comes back lower than adequate.	Realized	Threat	Accept	Likely	Serious	4-High	$ 100,000	$ 129,000	$ 150,000	48	64	96	cost of DCS plu/minus 25%		9/9/2024	
INTEC317	TO3P2	D.3.03.36.02	IEC	Klukis, Venita	Renevitz, Joe	IWTU Vulnerabilities: Filter door maintenance cannot be performed	The filter bank maintenance cannot be performed because of accessibility, ALARA, or other equipment issues forcing engineering to redesign the door closure system for faster, simpler future maintenance	The filter bank maintenance cannot be performed because of accessibility, ALARA, or other equipment issues	Emerging	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		9/9/2024	
INTEC318	TO3P2	D.3.04.31.06	IEC	Klukis, Venita	Thompson, Thomas	Reboiler Replacement: Material delivery to subcontractor delays delivery of reboiler	Material needed to fabricate the reboiler is delayed causing the delivery of the reboiler to INTEC to be delayed.	Material delivery extends past current lead time of 6 months	Open	Threat	Accept	Possible	Serious	3-Moderate	$ 1,000	$ 200,000	$ 1,500,000	16	48	64	Talking to the vendor the best case scenario is a one month delay for all the materials to be delivered. This would have minimal impact. The most likely would be a three month delay which would put the project at severe risk of not meeting the delivery deadline costing more in overtime from the vendor. A four month delay would cause the project schedule to not be recoverable missing the PBI date.		9/9/2024	
IT004	TO3P2	D.6.02.38.01	IEC	Anderson, Jade	O'Malley, Russell	Information Technology: Subcontractor Availability	Subcontractor availability (wheeler electric, Leverage) preference and availability.	Preferred subcontractor is unavailable.	Open	Threat	Mitigate	Rare	Serious	2-Low	$ 216,000	$ 576,000	$ 1,296,000	24	64	144	Best Case: 24 days x 10 hr./day x 4 FTEs x $225/hr.= $216,000 Most Likely: 64 days x 10 hr./day x 4 FTEs x $225/hr.= $576,000 Worst Case: 144 days x 10 hr./day x 4 FTEs x $225/hr.= $1,296,000	Develop a request for back-up subcontractor.	7/16/2024	None
IT005	TO3P2	D.6.02.34, D.6.02.36, D.6.03.33	IEC	Anderson, Jade	O'Malley, Russell	Information Technology: Unforeseen Structural Issues During Operations	Unforeseen structural issues would require involving our facilities and the schedule is at risk of being pushed to their timeline. The expectation is minimal structural issues, a sizeable structural concern will cause delays, possible engineering contractors, structural contractors, electricians, and increased costs.	A sizeable structural concern is discovered.	Open	Threat	Accept	Unlikely	Critical	3-Moderate	$ 320,000	$ 960,000	$ 1,920,000	40	120	240	Best Case: 40 days x 10 hrs/day x 4 FTEs x $200/hr = $320,000 Most Likely: 120 days x 10 hrs/day x 4 FTEs x $200/hr = $960,000 Worst Case: 240 days x 10 hrs/day x 4 FTEs x $200/hr = $1,920,000	N/A	7/16/2024	None
IT010	TO3P2	D.6.02.36.01 D.6.02.36.04 D.6.02.36.05 D.6.02.36.06 D.6.02.36.07	IEC	Anderson, Jade	O'Malley, Russell	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.	7/16/2024	None

IT012	TO3P2	D.6.03.32.01	IEC	Anderson, Jade	O'Malley, Russell	Information Technology: Sourcing Hardware	Due to supporting legacy and aging systems needed for on-going operations, items needed may be discontinued by the manufacturer. Cannot locate items that are of limited supply.	Cannot source Hardware.	Open	Threat	Accept	Possible	Serious	3-Moderate	$ 216,000	$ 576,000	$ 1,296,000	24	64	144	Best Case: 24 days x 10 hr./day x 4 FTEs x $225/hr.= $216,000 Most Likely: 64 days x 10 hr./day x 4 FTEs x $225/hr.= $576,000 Worst Case: 144 days x 10 hr./day x 4 FTEs x $225/hr.= $1,296,000	N/A	7/16/2024	None
IT013	TO3P2	D.6.02.38 D.6.02.39 D.6.02.41 D.6.03.32 D.6.03.33 D.6.02.34 D.6.02.35.01	IEC	Anderson, Jade	O'Malley, Russell	Information Technology: Unforeseen Technical Issues	Unforeseen technical issues or major failures can impact the planned schedule, e.g., ransomware.	Technical issues or major failures occur.	Open	Threat	Accept	Possible	Critical	4-High	$ 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	7/16/2024	None
IT014	TO3P2	D.6.02.40	IEC	Anderson, Jade	O'Malley, Russell	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	7/16/2024	The project is currently doing an analysis and has found there is workable fiber available.
IT306	TO3P2	D.6.02.35	IEC	Anderson, Jade	O'Malley, Russell	Additional Equipment needed for Network Refresh.	Due to the unforseen 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.	Realized	Threat	Mitigate	Almost Certain	Major	5-Very High	$ 800,000	$ 1,400,000	$ 3,000,000	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.	7/16/2024	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. Update: IEC believes we can lower the impacts of this risk significantly.
IT307	TO3P2	K.1.02.04 - IND - Information Technology (9.1) - (LOE)	IEC	Anderson, Jade	Unknown	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.	7/16/2024	
IT309	TO3P2	D.6.02	IEC	Anderson, Jade	O'Malley, Russell	End of Life Software	The ICS at AMWTP runs on end-of-life software called FactoryLink that is no longer available. The company that it was purchased from no longer exists and the company that purchased it offers a completely different system now. If the software reaches a point where it can no longer be "fixed" then IEC will need to purchase a new system.	A software defect is found that halts operations, which the 3rd party support company is unable to resolve.	Emerging	Threat	Mitigate	Rare	Critical	3-Moderate	$ 1,000,000	$ 2,000,000	$ 3,000,000	120	360	720	The last estimate for the cost of the software was $450K plus the installation and customization costs. Replacing then customizing will be time consuming and labor intensive.	IEC pays for a support contract from a 3rd party if the software can be fixed. This contract is a limited support contract that only covers software defects and licensing.	9/24/2024	
IT310	TO3P2	D.2.05.30.20	IEC	Anderson, Jade	Unknown	Waste Tracking System Failure	The Waste Tracking System (WTS) is an Oracle forms 6i application. Oracle forms 6i considered an end-of-life system and is no longer compatible with current databases. This means it cannot be patched for cybersecurity purposes. This leaves the forms and database at risk of attack as they are stagnant with no alternative to move forward.	The WTS application is attacked through the vulnerabilities associated with the EOL software.	Emerging	Threat	Accept	Rare	Critical	3-Moderate	$ 1,500,000	$ 2,100,000	$ 3,000,000	96	208	416	Waste Tracking System (WTS) is a legacy application that has been in need of an upgrade for many years. Forms 6i has been end-of-life since 2008 but has been compatible with the Oracle databases up until Oracle 12c, which became end-of-life in 2022. Upgrading the system to a platform that is current and able to be patched for vulnerabilities will cost a large amount of money and take a considerable amount of time.	The WTS application is protected through many network mitigations.	9/24/2024	
LEG0003R2	TO3P2	K.1.01.05	IEC	Trotta, Eric	Unknown	Legal: General Labot and Arbitrations	The possibility of diverging resources or obtaining outside counsel to assist with unforeseen arbitrations involving General Employment and Labor Relations matters (i.e., pensions, employee health, and welfare plans).	A grievance is filed requesting for arbitration.	Open	Threat	Accept	Possible	Minor	2-Low	$ 25,000	$ 50,000	$ 75,000	0	0	0	Each arbitration is estimated to cost approximately $25K. The most likely occurrence to happen under the IEC contract is roughly two.		7/16/2024	
LEG001R2	TO3P2	K.1.01.05	IEC	Trotta, Eric	Unknown	Legal: Miscellaneous Litigation	Potential for an unanticipated lawsuit which, would require resources to be allocated for the initial answer and planning of the lawsuit.	New Lawsuit is filed against IEC.	Open	Threat	Accept	Unlikely	Minor	2-Low	$ 25,000	$ 50,000	$ 75,000	0	0	0	No Schedule Delay. Costs represent initial responses.		7/16/2024	
LEG002R2	TO3P2	K.1.01.05	IEC	Trotta, Eric	Unknown	Legal: General Litigation	Any arising lawsuit against IEC regarding Government contracts, environmental matters, and employment law that would require appropriate resources for litigation.	New Lawsuit is filed against IEC.	Open	Threat	Accept	Rare	Minor	1-Low	$ 25,000	$ 50,000	$ 75,000	0	0	0	No Schedule Delay. Costs represent initial responses.		7/16/2024	
NICDF303	TO3P2	D.4.06.37	IEC	Reese, Craig	Almahie, Amin	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	9/9/2024	
NICDF309	TO3P2	D.4.06	IEC	Reese, Craig	Almahie, Amin	Frequently Changing Needs	Due to frequent alterations of approach, the project may identify unforeseen activities needed to perform that had not originally been planned in the schedule. The project will experience an increase in cost for material and labor, as well as an increase in project duration.	The project identifies needed activities, not already planned.	Open	Threat	Accept	Possible	Moderate	2-Low	$ 100,000	$ 200,000	$ 500,000	16	32	96	Estimates are based on SME judgement.	N/A	9/9/2024	
NRFDD008R2	TO3P2	D.5.01.32 D.5.01.30.20 D.5.01.30.21	IEC	Burtenshaw, Shawna	Larsen, Eric	NRF Naval Reactors: Loss of Contamination Control	Loss of contamination control (outside D&D boundaries) during demolition may result in personnel contamination and/or extended shutdown for recovery.	An unanticipated event driven by discovery of contamination outside of the boundary, possibly portable air monitor.	Open	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	7/16/2024	None
NRFDD009	TO3P2	D.5.01.32	IEC	Burtenshaw, Shawna	Larsen, Eric	NRF Naval Reactors: NRF West Gate Access	The West entrance for NRF using gate 4 has Limited ingress/egress for the heavy equipment and waste shipments due to high voltage power conductors overhead.	The heavy Equipment and waste loads ingressing or egressing from NRF through gate 4 will have a load limit no greater than 13' in height that will require an alternate route or complicated high voltage power outage.	Open	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	7/16/2024	None
NRFDD010	TO3P2	D.5.01.32	IEC	Burtenshaw, Shawna	Larsen, Eric	NRF Naval Reactors: A1W Turnover Delayed	This work scope is based off an FMP schedule with a phased approach to turnover and transfer ancillary A1W facilities to IEC starting June 1, 2023. If the transfer does not happen as scheduled there is a risk of schedule and associated cost delays until turnover is completed.	A1W turnover phases are not turned over as scheduled.	Open	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	7/16/2024	None
NRFDD011	TO3P2	D.5.01.32	IEC	Burtenshaw, Shawna	Larsen, Eric	NRF Naval Reactors: Personnel Attrition	Ability to acquire new trained individuals becomes harder, requiring subcontractor support to complete the work. The potential exists to incur additional costs & schedule delays.	Attrition realized.	Open	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	7/16/2024	None
NRFDD012	TO3P2	D.5.01.32	IEC	Burtenshaw, Shawna	Larsen, Eric	NRF Naval Reactors: Industrial Incidents Resulting in Shutdowns	An industrial incident resulting in serious personnel injury may cause an extended shutdown to resolve conduct of operations issues.	An unanticipated accident resulting in injury or near miss.	Open	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	7/16/2024	None
NRFDD013	TO3P2	D.5.01.32	IEC	Burtenshaw, Shawna	Larsen, Eric	NRF Naval Reactors: 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	Threat	Mitigate	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	Secure Backup Crane Subcontractor for large component removal.	7/16/2024	None
RHTRU001R2	TO3P2	D.2.04.30.14	IEC	Troescher, Patrick	Larsen, Daphne	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	7/16/2024	None
RHTRU002R2	TO3P2	D.2.04.30.14	IEC	Troescher, Pat	Larsen, Daphne	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. = $16,600Most Likely: 16 days down time x 5 FTES X $41.50/hr. X 10hr. = $33,200Worst Case: 32 days down time x 5 FTES X $41.50/hr. X 10hr. = $66,400	N/A	7/16/2024	None

RHTRU003	TO3P2	D.2.04.30.14	IEC	Troescher, Pat	Larsen, Daphne	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.	7/16/2024	None
RHTRU300	TO3P2	D.2.04.30	IEC	Troescher, Patrick	Larsen, Daphne	RH TRU Waste is Generated Higher than Anticipated	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			$ 15,000,000	0		96			7/16/2024	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	TO3P2	D.1.02.32.31	IEC	Ellsworth, Carla	Wahnschaffe, Steve	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	7/16/2024	None
SNF008R2	TO3P2	D.1.02.32.31	IEC	Ellsworth, Carla	Wahnschaffe, Steve	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/hrMost Likely: 14 days X 12 hr. X 13 FTEs X $98/hrWorst 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	7/16/2024	None
SNF009R2	TO3P2	D.1.02.34.02	IEC	Ellsworth, Carla	Wahnschaffe, Steve	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/hrMost Likely: 14 days X 12 hr. X 13 FTEs X $98/hrWorst Case: 28 days X 12 hr. X 13 FTEs X $98/hr	N/A	7/16/2024	None
SNF010R2	TO3P2	D.1.02.34.02	IEC	Ellsworth, Carla	Wahnschaffe, Steve	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	7/16/2024	None
SNF011R2	TO3P2	D.1.02.34.02	IEC	Ellsworth, Carla	Wahnschaffe, Steve	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	7/16/2024	None
SNF015R2	TO3P2	D.1.02.32.31	IEC	Ellsworth, Carla	Wahnschaffe, Steve	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	Critical	5-Very High	$ 45,864	$ 1,700,000	$ 1,700,000	3	208	208	Best Case: 3 days X 12 hr. X 13 FTEs X $98/hrMost Likely: 14 days X 12 hr. X 13 FTEs X $98/hrWorst 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.	7/16/2024	04/02 - This risk is most likely going to be realized for FY25. Expected to receive 0 out of the 8 shipments in FY25. Due to ATR elements not having enough run time and not less than 100 Watts.
SNF016R2	TO3P2	D.1.02.32.31	IEC	Ellsworth, Carla	Wahnschaffe, Steve	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. = $1,231,258Most Likely: 180 days X 10 hr. X 13.36 FTEs X $96/hr.= $2,308,608Worst Case: 204 days X 10 hr. X 13.36 FTEs X $96/hr.= $2,616,422	N/A	7/16/2024	None
SNF017R2	TO3P2	D.1.04.02.02 D.1.04.02.03	IEC	Cotterell, Jaksen	Wahnschaffe, Steve	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. (Construction crew size/personnel not available).	Open	Threat	Mitigate	Likely	Major	4-High	$ 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.	Solicit subcontractor(s) for concrete activities and reinforcement activities.	7/16/2024	
SNF025R2	TO3P2	D.1.04.02.02	IEC	Cotterell, Jaksen	Wahnschaffe, Steve	SNF Staging Facility: Vendor Selection	The RRDP determines which vendor and MPC system will be used. The selection changes the ID SNF-SF Basis of Design, and Safety Design Strategy (SDS). The design requires updates as well as SDS assumptions, strategy, and hazards.	The RRDP selects a different vendor than originally anticipated.	Open	Threat	Mitigate	Possible	Critical	4-High	$ 650,000	$ 1,450,000	$ 2,350,000	120	180	300	Cost Ranges: SDS Rework: $200K, 400K, 750K Design Rework: $300k, 750K, 1M IEC management and DOE Coordination: $150k, 300k, 600k	The RRDP has created an RFP and is actively pursuing vendor selection.	9/24/2024	Design needs to be reworked to accommodate a different cask system. - Status update: ORT is approved for QL-2 engineering services. They are not QARD compliant as of 5/22/2024.
SNF039	TO3P2	D.1.04.01.06	IEC	Cotterell, Jaksen	Wahnschaffe, Steve	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. After submittal/coordination with DOE ICP and DOE HQ it is only accepted as a major modification.	DOE evaluation determines that the Staging Facility is a major modification causing for rework of the determination and SDS.	Realized	Threat	Accept	Almost Certain	Critical	5-Very High	$ 150,000	$ 250,000	$ 500,000	104	156	208	Best Case: 104 days and increase of $500,000Most Likely Case: 156 days and increase of $750,000Worst Case: 208 days and increase of $1M	Communication to achieve alignment with DOE ICP prior to reviews with the CNS and other HQ personnel.	9/24/2024	
SNF042	TO3P2	D.1.04.02.02	IEC	Cotterell, Jaksen	Wahnschaffe, Steve	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.	Work with BEA to perform the design work via a formal agreement. Work with an external engineering firm to provide the pad design. Coordinate durations in both agreements.	7/16/2024	None
SNF054	TO3P2	D.1.02.34.02	IEC	Ellsworth, Carla	Wahnschaffe, Steve	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	$ 18,000	$ 46,000	$ 62,000	1	2	4	Best Case: 1 day plus equipment/materialsMost Likely Case: 2 days plus equipment/materialsWorst 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.	7/16/2024	None
SNF324	TO3P2	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Thompson, Thomas	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.	7/16/2024	
SNF325	TO3P2	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Thompson, Thomas	SNF Packaging Criteria	Due to the 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.	7/16/2024	
SNF326	TO3P2	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Thompson, Thomas	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.	7/16/2024	
SNF331	TO3P2	D.1.02.36.07	IEC	Woolstenhulme, Tyson	Thompson, Thomas	Failed Root Weld	BEA/Liburdi weld repair machine cannot successfully repair a failed root weld.	Root weld fails inspection.	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.	7/16/2024	
SNF333	TO3P2	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Thompson, Thomas	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.	7/16/2024	
SNF334	TO3P2	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Thompson, Thomas	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.	7/16/2024	

SNF335	TO3P2	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Thompson, Thomas	Dropped Cask in the Crane Envelope	During operations in the event of a drop of the cask in the crane envelope, significant damage could be sustained to the facility.	During operations, a cask drop occurs.	Open	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.	7/16/2024	
SNF336	TO3P2	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Thompson, Thomas	Drop Analysis of Cask Determines Potential SS Structure Damage	If the analysis of a drop of a cask determines damage will be done to the SS structure of the facility, modification may be needed to further support facility structure.	During operations, a cask drop occurs.	Open	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.	7/16/2024	
SNF337	TO3P2	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Thompson, Thomas	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.	7/16/2024	
SNF338	TO3P2	D.1.02.36.06	IEC	Woolstenhulme, Tyson	Thompson, Thomas	Transfer Route Not Approved	Road Ready Demonstration Transfer route is not approved for 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.	7/16/2024	
SNF339	TO3P2	D.1.02.36	IEC	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.	7/16/2024	
SNF340	TO3P2	D.1.02.36.03	IEC	Woolstenhulme, Tyson	Thompson, Thomas	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.	7/16/2024	
SNF341	TO3P2	D.1.02.36.03	IEC	Woolstenhulme, Tyson	Thompson, Thomas	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.	7/16/2024	
SNF342	TO3P2	D.1.02.36.03	IEC	Woolstenhulme, Tyson	Thompson, Thomas	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.	7/16/2024	
SNF343	TO3P2	D.1.02.36.08	IEC	Woolstenhulme, Tyson	Thompson, Thomas	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.	7/16/2024	This risk is being retired. Contractor (Holtec/ORT) has obtained necessary clearance.
SNF347	TO3P2	D.1.02.36.03	IEC	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 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.	7/16/2024	
SNF352	TO3P2	D.1.02.30	IEC	Ellsworth, Carla	Wahnschaffe, Steve	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.		7/16/2024	
SNF353	TO3P2	D.1.02.33	IEC	Ellsworth, Carla	Wahnschaffe, Steve	DCS: Project is More Complex Than Originally Planned For	After beginning the Distributed Control System project, scope is realized to be more complex than originally anticipated. This will result in schedule and cost increases to revisit and solve issues.	Emergent problems and/or more complex system are discovered that require attention before moving forward.	Emerging	Threat	Accept	Likely	Major	4-High	$ 100,000	$ 800,000	$ 1,500,000	23	79	143	Impacts are estimated based off historical variance and SME judgement.		7/16/2024	
SNF354	TO3P2	D.1.02.33	IEC	Ellsworth, Carla	Wahnschaffe, Steve	DCS: Schedule Delays Due to Higher Priorities	Other work takes priority and pushes out install of DCS panels. Results in schedule delays.	Other projects take priority over DCS.	Open	Threat	Accept	Possible	Moderate	2-Low	$ 15,000	$ 75,000	$ 300,000	12	32	96	Impacts are estimated based on SME judgement for other project projections.		7/16/2024	
SNF355	TO3P2	D.1.02.33	IEC	Ellsworth, Carla	Wahnschaffe, Steve	DCS: Loss of SME Experience	Less experienced staff take longer to complete schedule activities than originally planned. The project will experience schedule delays and cost increases.	Project loses experienced personnel.	Emerging	Threat	Accept	Possible	Major	4-High	$ 30,000	$ 150,000	$ 250,000	16	87	176	Estimates are based on historical variance and SME judgement.		7/16/2024	
TO3002R2	TO3P2	Project Wide	IEC	Multiple CAMs	Allen, Jason	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	1	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	7/16/2024	None
TO3005R2	TO3P2	Project Wide	IEC	Multiple CAMs	Allen, Jason	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	1	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	7/16/2024	None
TO3P2005a	TO3P2	Project Wide	IEC	Multiple CAMs	Allen, Jason	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	7/16/2024	None
TRU007R2	TO3P2	D.2.03.31.06	IEC	Byram, George	Unknown	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.	7/16/2024	None

TRU012R2	TO3P2	D.2.03.31.06	IEC	Byram, George	Unknown	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.	7/16/2024	None
TRU019R2	TO3P2	D.2.03.31.06	IEC	Byram, George	Unknown	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.	7/16/2024	None
TRU022	TO3P2	D.2.03.31.06	IEC	Byram, George	Unknown	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.	7/16/2024	None
TRU023	TO3P2	D.2.03.31.06	IEC	Byram, George	Unknown	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	7/16/2024	None
TRU024	TO3P2	D.2.03.31.06	IEC	Byram, George	Unknown	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.	7/16/2024	None
TRU025	TO3P2	D.2.03.31.06	IEC	Byram, George	Unknown	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	7/16/2024	None
TRU026	TO3P2	D.2.03.31.06	IEC	Byram, George	Unknown	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.	7/16/2024	None
TRU027	TO3P2	D.2.03.31.06	IEC	Byram, George	Unknown	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.	7/16/2024	None
TRU028	TO3P2	D.2.03.31.06	IEC	Byram, George	Unknown	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	Procure additional commodities as back-u and/or additional stock.	7/16/2024	None
TRU029	TO3P2	D.2.03.34.04	IEC	Martin, David	Unknown	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. = $18,000Most Likely: 20 days x 10hr./day x 4 people x $45/hr. = $36,000Worst 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.	7/16/2024	None
TRU030	TO3P2	D.2.03.34.05	IEC	Martin, David	Unknown	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. = $28,800Most Likely: 32 days x 10hr./day x 4 people x $50/hr. = $64,000Worst 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.	7/16/2024	None
TRU031	TO3P2	D.2.03.35.06	IEC	Hubler, Rachelle	Unknown	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. = $14,400Most Likely: 16 days x 10hr./day x 4 people x 45/hr. = $28,800Worst Case: 24 days x 10hr./day x 4 people x 45/hr. = $43,200	Maintain inventory of commodities and forecast for future purchases.	7/16/2024	None
TRU032	TO3P2	D.2.03.35.04 D.2.03.35.05	IEC	Hubler, Rachelle	Unknown	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. = $80,000Most Likely: 75 days x 10hr./day x 4 people x 45hr. = $100,000Worst Case: 90 days x 10hr./day x 6 people x 45/hr. = $250,000Transportation and loading/unloading costs $150K-$200KInspection costs $80k-$250K	Increase monitoring and testing the integrity of LLW/MLLW drums before shipping to storage facility.	7/16/2024	None
TRU033	TO3P2	D.2.03.36.05	IEC	Vargesko, Matthew	Unknown	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.	MACRO bags and pallets cannot be funded, or the vendor is not able to provide their product.	Open	Threat	Mitigate	Possible	Minor	2-Low	$ 15,000	$ 15,000	$ 114,000	8	8	32	Best Case: We continue to order MACRO bags and pallets for MLLW shipments, which costs approx. $15,000 per shipment. Most Likely: We continue to order MACRO bags and pallets for MLLW shipments, which costs approx. $15,000 per shipment. Worst Case: We cannot acquire MACRO bags and must ship a 6 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.	9/9/2024	
TRU035	TO3P2	D.2.03.32.05	IEC	Martin, David	Unknown	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.	7/16/2024	None
TRU036	TO3P2	D.2.03.32.05	IEC	Martin, David	Unknown	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.	7/16/2024	None

TRU039	TO3P2	D.2.03.37.04	IEC	Martin/Loftus	Unknown	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	Best Case: 16 days x 10 hr./day x 4 people x $75/hr. = $48,000 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	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.	7/16/2024	
TRU040	TO3P2	D.2.03.31.06	IEC	Byram, George	Unknown	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	7/16/2024	None
TRU043	TO3P2	D.2.05.30.19	IEC	Orme, Jason	Unknown	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	9/10/2024	
TRU049	TO3P2	D.2.03.36.04	IEC	Vargesko, Matthew	Unknown	AMWTP LLW/MLLW: 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	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	9/9/2024	
TRU301	TO3P2	D.2.03.34	IEC	Martin, David	Unknown	Equipment Availability	The robot is not delivered when the project expected to receive it. This causes delays to the schedule.	The robot is not delivered on the day it was expected to.	Open	Threat	Accept	Possible	Minor	2-Low	$ 10,000	$ 20,000	$ 40,000	8	16	32	Numbers developed based on CAM judgement. Subcontractor cost and schedule are in development and will be used to fine tune risk.	N/A	8/7/2024	
TRU302	TO3P2	D.2.03.34	IEC	Martin, David	Unknown	Less Than Anticipated Throughput	Once received, the robot does not perform as fast as anticipated. When throughput is less than anticipated, the project will experience schedule delays.	The project realizes the robot performs scans slower than originally anticipated.	Open	Threat	Mitigate	Rare	Minor	1-Low	$ 5,000	$ 20,000	$ 40,000	4	16	32	Current numbers based on CAM judgement, subcontractor schedule and cost are being developed and will allow fine tune of risk	Procure a backup robot to operate in parallel to mitigate schedule delays.	8/14/2024	
TRU303	TO3P2	D.2.03.34	IEC	Martin, David	Unknown	Availability of Drum Move Crew	Crews are not available to move drums in support of Ultrasonic Testing due to higher priority scope, resulting in schedule delays.	Ultrasonic Testing is paused until crew is available to move drums to robot location.	Open	Threat	Accept	Unlikely	Minor	2-Low	$ 5,000	$ 20,000	$ 40,000	4	16	32	CAM judgement used to develop initial numbers, subcontractor schedule and cost in development and will allow for fine tuning of risk evaluation	N/A	8/7/2024	
TRU304	TO3P2	D.2.03.34.07	IEC	Martin, David	Unknown	Subcontractor Costs	Subcontractor cost is higher than original estimate provided in the subcontract proposal.	IEC receives estimate that exceeds what was provided in the original estimate.	Open	Threat	Accept	Unlikely	Minor	2-Low	$ 50,000	$ 100,000	$ 200,000	0	0	0	There will be no schedule impact if this risk is realized. Cost impacts have been estimated based on potential fluctuation in the detailed scope of work that has been generated since the original estimate was received from the subcontractor.	N/A	8/7/2024	
ASD003	TO4A	D.4.02.40	IEC	Chapple, Jason	Almahie, Amin	Personnel Attrition Near the End of a 3-Year Window	Towards the end of the next 3 year window when people sense the project is completing they tend to leave & move on to a new project which can cause issues completing the latter part of the 3 year window. 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	Serious	2-Low	$ 75,000	$ 450,000	$ 675,000	10	60	60	Best Case: 10 days X10 hrs/dy X 10 FTEs X $75/hr = $75,000Most Likely Case: 60 days X10 hrs/dy X 10 FTEs X $75/hr = $450,000Worst Case: 60 days X10 hrs/dy X 15 FTEs X $75/hr = $675,000	N/A	7/16/2024	Monitor staffing to hire if attrition is experienced.
ASD005	TO4A	D.4.02.40	IEC	Chapple, Jason	Almahie, Amin	Required Production Rates to Support Start of SDA Cap Construction (TO4-D)	The deadline of this Task Order is dependent on the DOE imposed milestone of the SDA Cap which is set to complete in 2028. In order to meet that deadline this project must be completed 3 years prior, requiring an aggressive schedule. Any potential delays could have significant impacts on the schedule.	Immediate schedule slippage during early component removal &/or decon	Open	Threat	Accept	Likely	Major	4-High	$ 480,000	$ 2,400,000	$ 4,800,000	10	50	100	Best Case: 10 days X10 hrs/dy X 2 crews (20 FTEs) X $120/hr = $480,000Most Likely Case: 50 days X10 hrs/dy X 2 crews (20 FTEs) X $120/hr = $2,400,000Worst Case: 100 days X10 hrs/dy X 2 crews (20 FTEs) X $120/hr = $4,800,000	N/A	7/16/2024	Required productivity rates to maintain the SDA Cap construction may require extended shifts, extra shifts, overtime, &/or working during winter shutdown. Apply rigor to the readiness evolutions to have maximum available work for crew flexibility.
ASD006	TO4A	D.4.02.40	IEC	Chapple, Jason	Almahie, Amin	Loss of Contamination Control	Loss of contamination control (outside D&D boundaries) during open air facility demolition may result in personnel contamination and/or extended shutdown for recovery.	An unanticipated event driven by discovery of radiation outside of the boundary, possibly portable air monitor.	Open	Threat	Accept	Rare	Moderate	1-Low	$ 60,000	$ 277,500	$ 4,440,000	2	5	80	Best Case: 2 days X10 hrs/dy X 2 crews (20 FTEs) X $75/hr = $60,000Most Likely Case: 5 days X10 hrs/dy X 74 FTEs X $75/hr = $277,500Worst Case: 80 days X10 hrs/dy X 74 FTEs X $75/hr = $4,440,000	N/A	7/16/2024	Implement the following possible mitigations:• Utilize new & improved fixatives if technically viable. • Re-emphasize the RAD safety protocols.• Evaluate expanded D&D boundaries.• Ensure adequate water suppression is in place.
ASD007	TO4A	D.4.02.40	IEC	Chapple, Jason	Almahie, Amin	Industrial Incidents Resulting in Shutdowns	An industrial incident resulting in serious personnel injury may cause an extended shutdown to resolve conduct of operations issues.	An unanticipated accident resulting in injury or near miss	Open	Threat	Accept	Rare	Minor	1-Low	$ 60,000	$ 150,000	$ 2,880,000	2	5	96	Best Case: 2 days X10 hrs/dy X 2 crews (20 FTEs) X $75/hr = $60,000Most Likely Case: 5 days X10 hrs/dy X 2 crews (20 FTEs) X $75/hr = $150,000Worst Case: 96 days X10 hrs/dy X 2 crews (20 FTEs) X $75/hr = $2,880,000	N/A	7/16/2024	Implement the following possible mitigations:• Perform refreshers for stop work/pauses.• Self-assess training/qualification adequacy.• Enhanced pre-job briefings for critical activities.
ASD010	TO4A	D.4.02.40	IEC	Chapple, Jason	Almahie, Amin	Post Waste Operations Uncovers Hazardous Waste in Debris	Post waste disposal of the facility uncovers hazardous waste in the debris, resulting in recovery actions.	An unanticipated contamination discovery from routine rad surveys.	Open	Threat	Mitigate	Rare	Minor	1-Low	$ 30,000	$ 60,000	$ 480,000	1	2	16	Best Case: 1 day X10 hrs/dy X 2 crews (20 FTEs) X $75/hr = $30,000Most Likely Case: 2 days X10 hrs/dy X 2 crews (20 FTEs) X $75/hr = $60,000Worst Case: 16 days X10 hrs/dy X 2 crews (20 FTEs) X $75/hr = $480,000	Ensure due diligence during hazard identification & mitigation process.	7/16/2024	None
ASD017	TO4A	D.4.02.40	IEC	Chapple, Jason	Almahie, Amin	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	Moderate	3-Moderate	$ 150,000	$ 300,000	$ 1,800,000	5	10	60	Best Case: 5 days X10 hrs/dy X 2 crews (20 FTEs) X $75/hr = $150,000Most Likely Case: 10 days X10 hrs/dy X 2 crews (20 FTEs) X $75/hr = $300,000Worst Case: 60 days X10 hrs/dy X 2 crews (20 FTEs) X $75/hr = $1,800,000	NA	7/16/2024	Implement the following possible mitigations: • Monitor personnel performance, attendance, & job satisfaction to identify potential issues. • Cross-train critical resources, if feasible
ASD018	TO4A	D.4.02.40	IEC	Chapple, Jason	Almahie, Amin	Reliability of Equipment	Reliability of aged equipment could delay demolition start.	Repetitive maintenance, inability to place in service, or major failure.	Open	Threat	Accept	Possible	Minor	2-Low	$ 60,000	$ 150,000	$ 1,050,000	2	5	10	Best Case: 2 days X10 hrs/dy X 2 crews (20 FTEs) X $75/hr = $60,000Most Likely Case: 5 days X10 hrs/dy X 2 crews (20 FTEs) X $75/hr = $150,000Worst Case: 10 days X10 hrs/dy X 2 crews (20 FTEs) X $75/hr + $750,000 Equipment =$1,050,000	NA	7/16/2024	Accelerate equipment assessment earl in the deactivation phase to allow enough time for repairs or purchase.
ASD024	TO4A	D.4.02.40	IEC	Chapple, Jason	Almahie, Amin	Union Contract Location Bidding	The Union contract now allows vacancy bids. There is a risk to the project that specific skill sets such as RCT/Mechanic/Electrician/Instrument Tech can now bid a different location opening a position that must be backfilled. This may be a large impact to the project.	Vacancy bidding	Open	Threat	Accept	Rare	Serious	2-Low	$ 450,000	$ 900,000	$ 1,800,000	60	60	60	Best Case: (1 critical resource) 60 days X10 hrs/dy X 1 crew (10 FTEs) X $75/hr = $450,000Most Likely Case: (2 critical resources) 60 days X10 hrs/dy X 1 crew (10 FTEs) X $75/hr = $900,000Worst Case: (2 critical resources) 60 days X10 hrs/dy X 2 crews (10 FTEs) X $75/hr = $1,800,000	N/A	7/16/2024	Solicit assistance from union to minimize impact.
TOSA001	TOS.1	D.5.01.51.07	IEC	Burtenshaw, Shawna	Larsen, Eric	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 X 10 hrs/dy X 10 FTEs X $75/hr Most Likely Case: 30 days X 10 hrs/dy X 10 FTEs X $75/hrWorst Case: 30 days X1 0 hrs/dy X 15 FTEs X $75/hr	NA	7/16/2024	None
TOSA002	TOS.1	D.5.01.51.07	IEC	Burtenshaw, Shawna	Larsen, Eric	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	Serious	2-Low	$ 450,000	$ 900,000	$ 2,700,000	8	16	48	Best Case: 8 days X 10 hrs/dy X 75 FTEs X $75/hr Most Likely Case: 16 days X 10 hrs/dy X 75 FTEs X $75/hr Worst Case: 48 days X 10 hrs/dy X 75 FTEs X $75/hr	NA	7/16/2024	None
TOSA003	TOS.1	D.5.01.51.09	IEC	Burtenshaw, Shawna	Larsen, Eric	Subcontract Management	Not securing a qualified subcontractor that can perform the explosive demolition in the time alloted for the project can cause schedule delays.	Subcontractor is not readily accessible to perform explosive demolition.	Open	Threat	Mitigate	Rare	Moderate	1-Low	$ 37,500	$ 75,000	$ 225,000	16	32	64	Best Case: 16 days cost is represented by the difference in the already acquired sub vs new sub. Most Likely Case: 32 days cost is represented by the difference in the already acquired sub vs new sub. Worst Case: 64 days cost is represented by the difference in the already acquired sub vs new sub.	Research available, qualified subcontractors and validate availability prior to award.Procure back-up subcontractor. Use the most likely cost schedule day impact	7/16/2024	None

TOSA004	TOS.1	D.5.01.51.04	IEC	Burtenshaw, Shawna	Larsen, Eric	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 potential radiological contamination outside of the demolition boundary.	Open	Threat	Mitigate	Rare	Major	2-Low	$ 562,500	$ 1,687,500	$ 3,375,000	10	30	60	Best Case: 10 days X 10 hrs/dy X 75 FTEs X $75/hr Most Likely Case: 30 days X 10 hrs/dy X 75 FTEs X $75/hr Worst Case: 60 days X 10 hrs/dy X 75 FTEs X $75/hr	Implement Conduct of operations into each aspect of planning and execution: engineering, work control, hazard analysis and mitigation, pre-job briefings, and safety oversight. Additionally: - Proposed approach to demolition preparations is very conservative. - B601 has very low levels of contamination.Develop Demolition Plan to incorporate radiological monitoring during demolition. Perform Additional Decon of Contaminated Areas	7/16/2024	None
TOSA005	TOS.1	D.5.01.51.03	IEC	Burtenshaw, Shawna	Larsen, Eric	Catastrophic Failure of 125 Ton Overhead Crane for Prototype Dismantlement	Loss of use of the overhead crane for removal of reactor vessel and prototype componenets.	While using 125T Crane it becomes compromised and disabled	Open	Threat	Mitigate	Rare	Major	2-Low	$ 569,808	$ 1,139,616	$ 2,279,232	16	32	64	October to January--appx. 60 days labor for DCES Rows 1254 thru 1376 total $2.1M. Daily average is $35.6K. Base this on a 16, 32, and 64 day.	Subcontract Additional Crane Support	7/16/2024	None
TOSA006	TOS.1	D.5.01.51.12	IEC	Burtenshaw, Shawna	Larsen, Eric	Large Components to Onsite Waste Disposal	ICDF existing cells (1 and 2) space is unable to accept Reactor Vessel for disposal.	ICDF informs NRF that they won't accept waste from Reactor Vessel.	Open	Threat	Accept	Unlikely	Major	3-Moderate	$ 569,808	$ 1,139,616	$ 2,279,232	16	32	64	ICDF is shut down to accept new waste causing a 16, 32, and 64 day delay.	NA	7/16/2024	None
TOSA007	TOS.1	D.5.01.51.05	IEC	Burtenshaw, Shawna	Larsen, Eric	Offsite Shipment of Haz Waste for Disposal	No TSDF available for offsite treatment of "hazardous" waste generated during demolition.	During demo we find higher than anticpated contamination.	Open	Threat	Accept	Rare	Moderate	1-Low	$ 142,452	$ 284,904	$ 569,808	16	32	64	Possible new waste path not to ICDF. BOE is based on activites 1254 thru 1376. 4 days on procedure and WO changes with minor contamination control changes. 8 days most likely to evalualte other suspect areas, and 16 dyas or 1 month delay on a worst case. $ are based on $35,6K per day.	NA	7/16/2024	None
TOSA009	TOS.1	D.5.01.51.13	IEC	Burtenshaw, Shawna	Larsen, Eric	Inability to Use Explosives to Support Demolition of Hot Cell and Superstructure	Convential/Mechanical demolition techniques are requied to be used for the demolition for S1W.	The Explosive demolition seismic evaluation determines that this process cannot be accomplished due to potential damage to adjacent NR facilities.	Open	Threat	Accept	Unlikely	Major	3-Moderate	$ 571,520	$ 1,143,040	$ 2,286,080	16	32	64	Best Case: 16 days X 10 hrs/dy X 47 FTEs X $76/hr Most Likely Case: 32 days X 10 hrs/dy X 47 FTEs X $76/hr Worst Case: 64 days X 10 hrs/dy X 47 FTEs X $76/hr	NA	7/16/2024	None
TOSA010	TOS.1	D.5.01.51.05	IEC	Burtenshaw, Shawna	Larsen, Eric	Rad Characterization of RV Determines Class C Disposal Required	If Reactor Pressure Vessel (RV) is determined as Class C then that would require offsite disposal.	Reactor Pressure Vessel is determined to be Class C	Open	Threat	Accept	Rare	Serious	2-Low	$ 428,640	$ 857,280	$ 1,714,560	12	24	48	Best Case: 12 days X 10 hrs/dy X 47 FTEs X $76/hr Most Likely Case: 24 days X 10 hrs/dy X 47 FTEs X $76/hr Worst Case: 48 days X 10 hrs/dy X 47 FTEs X $76/hr	NA	7/16/2024	None
NRC003R2	TO6	D.1.06.60 D.1.06.61	IEC	Long, Jeff	Wahnschaffe, Steve	NRC Licensed SNF Storage Facilities: Aging conditions of facilities	There are aging conditions at both TMI-2 and FSV. Continued weathering and degradation is likely to require additional repairs and maintenance to concrete, paint, and other coatings. If these repairs and/or upgrades do not occur they will prohibit critical project completion and be identified as noncompliance with NRC requirements.	Continued degredation of facilites with out necessary repairs and/or upgrade	Open	Threat	Accept	Possible	Major	4-High	$ 100,000	$ 250,000	$ 500,000	48	80	96	Based on SME input.Best case is that lack of funding will occur between activities resulting in schedule delays but no rework or additional mobilization/demobilization/stand-by impacts.Most likely case is that in addition to schedule delays, some re-work will be required, mobilization/demobilization of crews will be required, vendor costs will be higher due to inflation and securing specialized resources, and additional procurement of equipment.Worst case is that funding is cut in the middle of the job resulting in complete re-work, additional demobilization/mobilization costs, work site being left in condition to accentuate or accelerate deterioration conditions, etc.	N/A	7/16/2024	None
NRC007R2	TO6	D.1.06.60 D.1.06.62	IEC	Long, Jeff	Wahnschaffe, Steve	NRC Licensed SNF Storage Facilities: Loss of Specialty Resources	Loss of qualified and trained resources could result in cost and schedule delays.	Retirement or notification of intent to leave.	Open	Threat	Accept	Likely	Serious	4-High	$ 100,000	$ 200,000	$ 500,000	16	48	64	Based on SME input.Best case is that replacement personnel are immediately available with little downtime or vacancy in the position.Most likely case is that it may take 1-2 months to fill in and train replacement.Worst case is that it may take 6 months or more to recruit new personnel and train.	N/A	7/16/2024	None
NRC011	TO6	D.1.06.60 D.1.06.63	IEC	Long, Jeff	Wahnschaffe, Steve	NRC Licensed SNF Storage Facilities: Industrial Incidents Resulting in Shutdowns	An industrial incident resulting in serious personnel injury may cause an extended shutdown to resolve conduct of operations issues.	An unanticipated accident resulting in injury or near miss	Open	Threat	Accept	Rare	Minor	1-Low	$ 20,000	$ 50,000	$ 300,000	5	10	30	Cost is based on ROM estimate to perform corrective actions, but dependant on extent of event.Best case = incident is minor, and investigated quickly with very few corrective actions requiring attention.Worst case = prolonged shut-down with extensive recovery actions, training, etc.	N/A	7/16/2024	None
NRC300	TO6	D.1.03.61.05	IEC	Long, Jeffery	Wahnschaffe, Steve	Crane Hydraulic Motor Repair	While performing hydraulic motor repairs on the crane, more issues are identified that will need to be resolved before continuing. The project will experience schedule delays and cost increases to resolve the additional problems.	More issues with the crane are identified.	Open	Threat	Accept	Rare	Minor	1-Low	$ 2,000	$ 10,000	$ 50,000	1	14	30	Cost and schedule delays based on vendor quotes to replace entire hydraulic motor. This is most likely case. Best case is based on SME input to obtain additional minor parts. Worst case based on SME input assuming additional issues are found with other parts and equipment.		7/16/2024	
NRC301	TO6	D.1.03.61.05	IEC	Long, Jeffery	Wahnschaffe, Steve	Incompatible Equipment	New equipment purchased as part of the FY24 IPL, is not compatible and different replacements have to be purchased. The project will incur unforeseen costs from purchasing equipment not anticipated. The project will also experience schedule delays to perform the procurement and receiving items.	During install, equipment is discovered to be incompatible with the existing system.	Open	Threat	Accept	Rare	Moderate	1-Low	$ 5,000	$ 50,000	$ 200,000	14	30	60	Best case assumes that equipment can be returned to the vendor without any penalties and minimum restocking fee. Most likely case assumes that only some equipment will cannot be returned to vendor and delays to schedule and costs for additional trips by vendor to the facility. Worst case is based on needing to re-purchase all new equipment.		7/16/2024	
IWTU001R2	TO7	D.3.06	IEC	Nahay, Jordan T	Neville, Trent	IWTU: The Canister Decon System will not decontaminate the canisters to acceptable levels for transfer.	The Canister Decon System will not effectively or efficiently decontaminate the canister to levels acceptable for transfer between the Can Fill Cells and the canister storage vault and/or contamination spreads during can fill operations and the robotic decon system cannot remove sufficient contamination from the outside of a canister. This will most likely cause a spread of contamination outside of the can fill cells, thereby requiring additional contamination control mitigation.	Contamination levels exceed established limits and/or spreads outside of the can fill cells	Open	Threat	Accept	Possible	Moderate	2-Low	$ 84,000	$ 180,000	$ 900,000	14	30	150	Best Case: 14 days X 10 hr/day X 6 FTE X $100/hr = $84,000Most Likely Case: 30 days X 10 hr/day X 6 FTE X $100/hr = $180,000Worst Case: 150 days X 10 hr/day X 6 FTE X $100/hr= $900,000	N/A	7/16/2024	A contamination control mitigation was developed and implemented in Outage J in preparation for this event. Therefore the severity and duration of the risk impact has been reduced from the previous risk register.
iWTU009aR2	TO7	D.3.06.70.01	IEC	Nahay, Jordan T	Neville, Trent	IWTU: Lack of resources	Completing IWTU scope will be impacted due to a lack of resources.	The project cannot staff up as planned to support scheduled work.	Open	Threat	Mitigate	Unlikely	Moderate	2-Low	$ 133,920	$ 267,840	$ 401,760	12	24	36	Best Case: 12 days x 10 hrs/day x 12 people x $93/hr = $133,920Most Likely: 24 days x 10 hrs/day x 12 people x $93/hr = $267,840Worst Case: 36 days x 10 hrs/day x 12 people x $93/hr = $401,760	Investigate several different avenues to fill these gaps with subcontracted labor and hiring additional planners and supervisors. Routine communication with the Building Trades Business Agents on upcoming craft needs.	7/16/2024	None
IWTU010R2	TO7	D.3.06.71.01	IEC	Nahay, Jordan T	Neville, Trent	IWTU: The simulant is not fully representative of actual waste.	Simulant is not fully representative of actual waste. For example, mercury and heavy metals have not been included in the simulant. This may result in system performance problems causing delays.	Introduction of actual waste causes plant performance problems.	Realized	Threat	Mitigate	Almost Certain	Serious	5-Very High	$ 32,000	$ 460,000	$ 1,740,000	16	60	180	Best Case - 16 days X 10 hr/day X 2 FTE X $100/hr= $32,000Most Likely Case - 60 days X 10 hr/day X 6 FTE X $100/hr= $360,000, Material Cost = $100,000Worst Case - 180 days X 10 hr/day X 8 FTE X $100/hr= $1.44M, Material Cost= $300,000	Ramp up waste feed percentage (vs. simulant) during System Performance Test. Review original test results for accuracy and completeness.	7/16/2024	*Was open under phase 1. Identified under TO7 per Kirby/Oliver/Huntsman
IWTU016R2	TO7	D.3.06.78.01	IEC	Nahay, Jordan T	Neville, Trent	IWTU: GAC replacement takes longer than estimated and extends the GAC Outage.	The GAC replacement will extend the current GAC outage schedule due to equipment design, procurement, and installation requirements during the outage.	Delays in GAC replacement delays completion of GAC Outage.	Open	Threat	Mitigate	Possible	Moderate	2-Low	$ 216,240	$ 432,480	$ 864,960	4	8	16	Best Case: 4 days x 12 hrs/day x 17 people x $265/hr = $216,240Most Likely: 8 days x 12 hrs/day x 17 people x $265/hr = $432,480Worst Case: 16 days x 12 hrs/day x 17 people x $265/hr = $864,960	Subcontractor to work additional days to complete GAC replacement.	7/16/2024	None
IWTU030R2	TO7	D.3.06.70.01	IEC	Nowak, Joel T	Neville, Trent	IWTU: The wet decon system rebuild does not function as designed.	The wet decon rebuild has issues that do not allow the wet decon system to fully function as designed.	Unsuccessful operation of wet decon system.	Open	Threat	Accept	Possible	Moderate	2-Low	$ 50,000	$ 90,000	$ 270,000	16	30	90	Best Case: 16 days X 10 hr/day X 2 FTE X $100/hr= $32,000Most Likely Case: 30 days X 10 hr/day X 3 FTE X $100/hr= $90,000Worst Case: 90 days X 10 hr/day X 3 FTE X $100/hr= $270,000	N/A	7/16/2024	None
IWTU036R2	TO7	D.3.06.73.01	IEC	Nahay, Jordan T	Neville, Trent	IWTU PSB: Change orders Requiring Major Design Changes.	Change orders requiring major design changes are issued during excavation or construction, causing an increase in cost and schedule.	A change order requiring extensive re-design is issued during construction.	Open	Threat	Mitigate	Possible	Moderate	2-Low	$ 180,000	$ 270,000	$ 405,000	20	30	45	Best Case: 20 days x 10 hrs/day x 4 people x $225/hr = $180,000Most Likely: 30 days x 10 hrs/day x 4 people x $225/hr = $270,000Worst Case: 45 days x 10 hrs/day x 4 people x $225/hr = $405,000	Discussions with Force Account and Engineering during additional walkdowns and reviews to identify potential issues before they impact schedule.	7/16/2024	None
IWTU037R2	TO7	D.3.06.73.01	IEC	Nahay, Jordan T	Neville, Trent	IWTU PSB: Multiple minor change orders issued during construction.	Multiple minor change orders are issued during construction, causing schedule delays and cost increases.	Multiple minor change orders are issued during construction or excavation.	Open	Threat	Mitigate	Almost Certain	Minor	3-Moderate	$ 89,280	$ 178,560	$ 334,800	8	16	30	Best Case: 8 days x 10 hrs/day x 12 people x $93/hr = $89,280 Most Likely: 16 days x 10 hrs/day x 12 people x $93/hr = $178,560Worst Case: 30 days x 10 hrs/day x 12 people x $93/hr = $334,800	Discussions with Force Account and Engineering during additional walkdowns and drawing to identify potential issues before they impact schedule.	7/16/2024	None

IWTU041R2	TO7	D.3.06.75.01	IEC	Nahay, Jordan	Neville, Trent	IWTU: Vendor weld prepping does not keep pace with production.	Vendor weld prepping of existing canisters cannot keep pace with IWTU production.	Onsite weld prepped canisters fall below120 canisters.	Open	Threat	Mitigate	Rare	Minor	1-Low	$ 36,000	$ 60,000	$ 90,000	2	9	13	Best Case: $300/canister expedite fee x 120 canisters = $36,000Most Likely: $300/canister expedite fee x 200 canisters = $60,000Worst Case: $300/canister expedite fee x 300 canisters = $90,000	Evaluate use of non-weld prepped canisters and accelerate shipping of canisters to subcontractor to build reserve inventory.	9/12/2024	
IWTU049	TO7	D.3.06.78.01	IEC	Nahay, Jordan	Neville, Trent	IWTU: Unable to release vendor supplied equipment for GAC replacement.	Added cost due to the required purchase of vendor supplied equipment	Detectable contamination found on vendor supplied equipment.	Open	Threat	Accept	Possible	Moderate	2-Low	$ 247,200	$ 350,000	$ 853,200	1	2	3	Best Case: $247,200 for equipmentMost Likely: $350,000 for equipmentWorst Case: $853,200 for equipment	N/A	9/12/2024	None
IWTU053	TO7	D.3.06.73.01	IEC	Nahay, Jordan	Neville, Trent	IWTU: PSB II construction is delayed.	Delays in PSB II construction results in inadequate storage capacity and operational delays.	PSB I is full and construction of PSB II is incomplete.	Open	Threat	Mitigate	Possible	Moderate	2-Low	$ 150,000	$ 300,000	$ 600,000	10	10	20	Best Case: 10 days X 10 hr/day X 10 FTE X $150/hr= $150,000Most Likely Case: 10 days X 10 hr/day X 20 FTE X $150/hr= $300,000 Worst Case: 20 days X 10 hr/day X 20 FTE X $150/hr= $600,000	Use additional overtime resources to complete PSB-II as soon as possible.	9/12/2024	None
IWTU054a	TO7	D.3.06	IEC	Nahay, Jordan T	Neville, Trent	IWTU: BEA Support Services do not Meet IWTU 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.	Insufficient quality of work product or timeliness of completion of BEA deliverables impacts project schedule.	Open	Threat	Share	Unlikely	Moderate	2-Low	$ 93,000	$ 390,600	$ 1,116,000	5	21	60	Best Case: 5 days X 10 hrs/dy X 20 FTEs X $93/hrMost Likely Case: 21 days X 10 hrs/dy X 20 FTEs X $93/hrWorst Case: 60 days X 10 hrs/dy X 20 FTEs X $93/hr	Propose sharing risk with DOE.	7/16/2024	None
IWTU055	TO7	D.3.06.77.01 D.3.06.77.02	IEC	Nahay, Jordan	Neville, Trent	IWTU: No Vaults for waste canister storage.	If subcontractor is unable to produce additional Vault construction by the time they are needed the project will run out of Vaults for waste canister storage. With only 5 vaults remaining for storage the project anticipates running out by approximately September 2025.	Having more canisters to place in Vaults for storage after remaining 5 Vaults are filled.	Emerging	Threat	Accept	Almost Certain	Critical	5-Very High	$ 14,571,420	$ 29,142,840	$ 43,714,260	60	120	180	Best Case: 60 days X $242,857/dyMost Likely Case: 120 days X $242,857/dyWorst Case: 180 days X $242,857/dy	N/A	9/17/2024	
IWTU056	TO7	D.3.06.75.02	IEC	Nahay, Jordan	Neville, Trent	IWTU: No waste canisters available for storage.	If subcontractor is unable to produce additional waste canister production by the time they are needed the project will run out of waste canisters. With only 80 canisters remaining for storage the project anticipates running out by approximately April 2025.	Having more waste to store in canisters after reamining 80 canisters are filled.	Emerging	Threat	Accept	Almost Certain	Critical	5-Very High	$ 7,285,710	$ 10,928,565	$ 14,571,420	30	45	60	Best Case: 30 days X $242,857/dyMost Likely Case: 45 days X $242,857/dyWorst Case: 60 days X $242,857/dy	N/A	9/17/2024	
IWTU301	TO7	D.3.06	IEC	Nahay, Jordan	Neville, Trent	IWTU: Pilot Plant Driven Plant Mods	Hazen drives facility modifications that require a facility shutdown which delays completion of SBW processing campaign.	Hazen Run discovers the need for further plant modifications.	Open	Threat	Accept	Possible	Serious	3-Moderate	$ 200,880	$ 401,760	$ 803,520	30	60	120	Best Case: 30 days x 12 hrs/day x 6 people x $93/hr = $200,880 Most Likely: 60 days x 12 hrs/day x 6 people x $93/hr = $401,760 Worst Case: 120 days x 12hrs/day x 6 people x $93/hr = $803,520		9/17/2024	
IWTU302	TO7	D.3.06.70.01	IEC	Nahay, Jordan	Neville, Trent	Additional Calcined Coal is Needed	Calcined coal reserves are depleted before SBW tanks are emptied and rinsed.	Inventory is reduced at a faster pace than previously anticipated or IWTU is forecasted to operate for a longer period of time due to various issues.	Open	Threat	Accept	Possible	Critical	4-High	$ 1,015,000	$ 2,030,000	$ 3,045,000	120	180	365	Best Case: 500000 pounds at $2.03 / lb Most Likely Case: 1000000 pounds at $2.03 / lb Worst Case: 1500000 pounds at $2.03 / lb		9/24/2024	
IWTU303	TO7	D.3.06.70.01	IEC	Nahay, Jordan	Neville, Trent	Previous Calcined Coal Source is Unavailable	Vendor is unable to utilize original mine used for calcine coal procurements.	The current source of calcined coal is no longer available.	Open	Threat	Accept	Possible	Critical	4-High	$ 75,000	$ 125,000	$ 1,275,000	60	120	365	Rough subcontracted costs for the process of sourcing, testing and validating an adequate source of calcined coal. Worst case contains the costs of a Hazen Pilot Plant Run to verify.		9/24/2024	
IWTU304	TO7	D.3.06	IEC	Nahay, Jordan	Neville, Trent	Overtime Required to Complete Performance Milestones	Additional overtime is needed to maintain plant operability in an effort to reach the Site Treatment Plan milestone.	IWTU issues that reduces the plant's output and/or operability require additional personnel to keep plant operating.	Open	Threat	Accept	Likely	Moderate	3-Moderate	$ 160,704	$ 321,408	$ 482,112	12	24	36	Best Case: 12 days x 12 hrs/day x 12 people x $93/hr = $160,704 Most Likely: 24 days x 12 hrs/day x 12 people x $93/hr = $321,408 Worst Case: 36 days x 12 hrs/day x 12 people x $93/hr = $482,112		9/10/2024	
IWTU305	TO7	D.3.06	IEC	Nahay, Jordan	Neville, Trent	Additional Waste Canisters	Additional canisters are needed to complete SBW and rinsate treatment.	More than 1,648 canisters are needed.	Open	Threat	Accept	Possible	Critical	4-High	$ 5,600,000	$ 18,150,000	$ 24,800,000	150	500	690	Best Case: 224 canisters x $25,000/canister = $5,600,000 Most Likely: 726 canisters x $25,000/canister = $18,150,000 Worst Case: 992 canisters x $25,000/canister = $24,800,000		9/24/2024	
IWTU306	TO7	D.3.06	IEC	Nahay, Jordan	Neville, Trent	Additional Canister Vaults	Additional vaults are needed to complete SBW and rinsate treatment.	More than 103 Vaults are needed.	Open	Threat	Accept	Possible	Critical	4-High	$ 8,400,000	$ 27,600,000	$ 37,200,000	150	480	620	Best Case: 14 Vaults x $600,000/Vault = $8,400,000 Most Likely: 46 Vaults x $600,000/Vault = $27,600,000 Worst Case: 62 Vaults x $600,000/Vault = $37,200,000		9/24/2024	
IWTU307	TO7	D.3.06	IEC	Nahay, Jordan	Neville, Trent	Additional Product Storage Building	PSB II is filled to capacity before SBW tanks are emptied and rinsed.	PSB-II is estimated to be filled within 2 years.	Open	Threat	Accept	Possible	Critical	4-High	$ 8,000,000	$ 20,000,000	$ 28,000,000	540	730	900	Best Case: Smaller PSB-III Most Likely: PSB-III identical to PSB-II Worst Case: PSB-III larger than PSB-II		9/24/2024	
IWTU308	TO7	D.3.06	IEC	Nahay, Jordan	Neville, Trent	INTEC Issues affect IWTU	INTEC causes idle time for IWTU. Impact to IWTU operations.	Issues at INTEC causes inability to send waste to IWTU.	Open	Threat	Accept	Possible	Critical	4-High	$ 6,300,000	$ 12,600,000	$ 25,200,000	12	24	48	Best Case: 3 weeks * $2,100,000/week = $$6,300,000 Most Likely: 6 weeks * $2,100,000/week = $12,600,000 Worst Case: 12 weeks * $2,100,000/week = $25,200,000		9/24/2024	
IWTU309	TO7	D.3.06	IEC	Nahay, Jordan	Neville, Trent	Major Equipment Needs Replaced Ahead of Anticipated Service Life	Significant equipment or component failure that requires replacement and was previously estimated to last the life of the facility.	Forced shutdown of IWTU due to component failure that is unable to be repaired and requires replacement.	Open	Threat	Accept	Unlikely	Critical	3-Moderate	$ 800,000	$ 1,800,000	$ 5,000,000	120	240	365	Best Case: Replacement Duration 120 days for 7 FTE's at $93/hr Most Likely: Replacement Duration of 240 days for 8 FTE's at $93/hr Worst Case: Replacement Duration of 365 days for 14 FTE's at $93/ hr.	N/A	9/12/2024	