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# Post FY15 Contract Structure Environmental Management Mission Work

**Presented By:**

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**July 10, 2014**



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# Current Major ID Contracts

## Idaho Cleanup Project (ICP)

- CH2M Washington Group Idaho, LLC
- Contract expires 9/2015
- 7 year base + 3 year extension contract term
- Major Scope
  - Tank Farm closure (7 of 11 high-level waste tanks closed)
  - Designed and constructed Sodium-Bearing Waste (SBW) Treatment Facility
  - Exhumation of targeted waste from SDA
  - Nuclear facility D&D (e.g., world's largest hot cell and test reactors)
  - Processing & shipment of Remote Handled (RH)-transuranic (TRU) to WIPP
  - Transfer EM Spent Nuclear Fuel (SNF) from wet to dry storage
  - Return of Naval SNF to Naval Reactors Facility (onsite)

## Advanced Mixed Waste Treatment Project (AMWTP)

- Idaho Treatment Group, LLC
- Contract expires 9/2015
- 4 year contract term
- Major Scope
  - Processing and shipment of Contact Handled (CH)-TRU waste to WIPP
  - Processing and shipment of LLW/MLLW for off-site disposal
  - Retrieval of above ground stored TRU waste



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# Major Milestones

Major Commitment	Associated Date	Work Scope	Regulatory Driver
Close INTEC Tank Farm tanks	2017	Complete RCRA Closure	RCRA
Install Interim Tank Farm Cover	2017	Design and construct interim asphalt cover	CERCLA
All Settlement Agreement TRU Waste removed from Idaho	2018	Ship CH and RH TRU waste out of Idaho estimated at 8,000 m3 waste	Idaho Settlement Agreement (ISA)
Calcine Disposition Project	2019 – Construction 2024 – Operations	Design and construct treatment facility (current Project status is CD-0), alternatives and HIP	ISA; Site Treatment Plan (STP)
CERCLA SDA cap design	2020	Perform trade studies and cap design	CERCLA
Spent Fuel Repackaging	2021	Perform design to support construction/facility repurpose	ISA 2035
Transfer all SNF from wet to dry storage	2023	Transfer Experimental Breeder Reactor II, Advanced Test Reactor, and NNPP fuels	ISA
CERCLA Exhumation	2023	Complete ARPs VIII and IX (2.07 acres)	CERCLA
CERCLA Characterization and Shipment	2024	Characterize and ship all exhumed waste	CERCLA
CERCLA SDA cap construction	2028	Initiate and complete cap construction	CERCLA
Remove all SNF from Idaho	2035	Package and ship SNF	ISA
Calcine road-ready	2035	Treat and package all Calcine	ISA



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# Major ID Elements of Scope

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The Post FY15 Idaho EM Mission work was grouped into the following six major scope areas for acquisition planning and market research purposes:

Spent Nuclear  
Fuel  
(SNF)

Waste  
Management

Decontamination  
& Demolition  
(D&D)

Environmental  
Activities

Facility  
Infrastructure  
(EM Areas Only)

Calcine  
Disposition  
Project (CDP)



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# Spent Nuclear Fuel Scope

## I. Spent Fuel Repackaging

- Support Approval of Mission Need (CD-0) in 2017 and Approval of Alternative Selection and Cost Range (CD-1) in 2019
- Engineer/Design (CD-2) in 2021
- Construction/facility repurpose initiation (CD-3) in 2023 and Approve Start of Operations (CD-4) in 2025

## II. Experimental Breeder Reactor (EBR II) and Other - Transfer SNF from wet to dry storage

- Transfer of 3,520 bottles (2016 to 2023)
- Navy Transfers (Navy)

## III. Surveillance and maintenance to maintain compliance with safety basis

- Chemical Processing Plant (CPP) 603, 749, and 2707 (cask storage pad)
- CPP 666 – Complete building system upgrades (DCS, roof, HVAC)

## IV. SNF Receipt and Storage

- Advanced Test Reactor (ATR) - 15 shipments/casks per year, 2016 – 2020 (Allocation of funding TBD)
- Foreign Research Reactor (FRR) Fuel - 1 shipment/cask per year through 2019 (partially reimbursable)
- Domestic Research Reactor Fuel (DRR) - Assume average of 1 shipment/cask per year, indefinitely into future (based on FY13-15 expectation)

## V. NRC Licensing – Maintain Licensed Facilities

### Three Mile Island -2 (TMI-2)

- Prepare and submit re-licensing application by 2017; receive license extension by 2019

### Fort St. Vrain (FSV) (Located in Colorado)

- Provide Security Services

### Idaho Spent Fuel Facility

- Maintain existing license.



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# Waste Management Scope

## I. CH-TRU

- Complete AMWTP scope by December 31, 2018; RCRA Closure of AMWTP facilities (or continuation for off-site waste mission)
- Accelerated Retrieval Project (ARP) - Construct ARP IX Exhumation Enclosure (Design 2016 and Construction 2019)
  - Complete exhumation by 2023 – Characterize and Ship by 2024

## II. RH-TRU

- Naval Nuclear Propulsion Program (NNPP) - Repack and ship 103 cans to WIPP (Navy)
- Repack and ship remaining Settlement Agreement waste by December 31, 2018
- Repack and ship non-Settlement Agreement waste throughout duration of the contract and beyond (Allocation of funding TBD)

## III. LLW/MLLW

- Disposition waste as generated (volume dependent on amount of D&D scope)
- Operate Idaho CERCLA Disposal Facility (ICDF)
- Close RH-LLW Disposal Facility at Radioactive Waste Management Complex (RWMC)
  - Cease disposal of Naval Reactors Facility (NRF) RH-LLW Waste by 2020
  - Complete closure process by 2023
- Disposition Integrated Waste Treatment Unit (IWTU) and Process Equipment Waste Evaporator (PEWE) secondary system rinse and decontamination liquid after Sodium Bearing Waste (SBW) processing complete

## IV. Waste Characterization and Shipment (Exhumed Buried Waste)

- CH-TRU complete 2024
- MLLW complete 2024

## V. Disposition Newly Generated Waste as needed

- D&D
- Other process-generated waste
- New CERCLA Sites



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# *Decontamination & Demolition Scope*

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## I. Radioactive Waste Management Complex (RWMC)

- 52 buildings
- 10 structures

## II. Materials Fuel Complex

- MFC-766 (radiological) 14,546 sq. ft. (potential if not done by FY16)
- MFC-767 (radiological) 18,967 sq. ft.

## III. INTEC to support interim Tank Farm cap:

- CPP-636 (nuclear) 363 sq. ft.
- CPP-632 (radiological) 66 sq. ft.
- CPP-635 (nuclear) 330 sq. ft.
- CPP-623 (radiological) 63 sq. ft.
- CPP-618 (radiological) 248 sq. ft.
- CPP-628 (radiological) 1,551 sq. ft.
- CPP-743 structure (nuclear) 200 sq. ft.



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# *Environmental Activities*

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I. Test Area North (TAN) – Evaluate plume, operate and maintain groundwater treatment system

II. New CERCLA Sites – Remediate new CERCLA sites

III. Waste Area Group (WAG) WAG-7 – Operate vadose zone vapor extraction system

IV. Maintain environmental compliance

- Site Treatment Plan (Federal Facility Compliance Act)
- Notice of Non-compliance/Consent Order (RCRA)
- Federal Facility Agreement/Consent Order (CERCLA)
- Idaho Settlement Agreement (ISA)
- Regulations, permits, closure plans, RODs and implementing documents

V. Tank farm interim cover

- Complete RCRA closure of final 4 Tank Farm Tanks
- Design and install interim asphalt cover over Tank Farm by 11/2017

VI. Site-wide Stewardship Program

- Provide interface with the Idaho Department of Environmental Quality (IDEQ) and EPA
- Monitoring (groundwater); Maintain Institutional Controls at over 100 areas; Conduct inspections of over 260 wells; provide various reports; maintain the site-wide Environmental Data Warehouse
- Munitions and Explosives - provide institutional controls
- Perform CERCLA Statutory 5-Year Reviews (2015, 2020, & 2025)

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# *Facility Infrastructure Scope (EM)*

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## INTEC and RWMC Infrastructure

- Facility infrastructure and maintenance support
  - Integrated with RH-TRU, CH-TRU, IWTU, SNF, Calcine, and Tank Farm operations
  - Maintenance of DSA-credited safety systems
  - In-cell equipment maintenance
  - Fabrication of nuclear grade components and hardware
  - Credited Instrument Calibration Program
  - Support NE missions at INTEC and potential transfer of facilities
- Infrastructure Projects at INTEC
  - Upgrade Emergency Communication System
  - Utility Control Systems
  - Electrical Distribution System
- DOE Office of Nuclear Energy (NE) is the lead Program Secretarial Office (PSO) for the Idaho site and provides most facility infrastructure activities under an existing NE M&O contract, which are not part of EM's Post FY15 scope.



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# *Calcine Disposition Project Scope*

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- Develop and implement a regulatory and technical path forward to support Calcine road ready by 2035
- Hot Isostatic Press (HIP) development
  - Minimizes the compliance risk with State of Idaho
- Design/procure testing equipment (lab scale through full scale)
- Conduct testing program
- Initiate construction by 2019 (STP commitment)
- Submit Best Demonstrated Available Technology (BDAT) petition to EPA by 2020 to obtain rule-making
- Begin system testing by 2023 (STP commitment)
- Commence operations by 2024 (STP commitment)

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# Market Research

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- Issued Request for Information on November 26, 2013
- Held Industry Day on December 4, 2013
  - Presentations provided a site overview and technical discussion of the six major elements of post FY15 scope
  - Received Capability Statements on January 3, 2014
  - Thirty (30) Capability Statements
    - Eleven (11) large businesses; nineteen (19) small businesses
    - Several small businesses were determined to be fully or partially capable to perform portions of the Post FY15 work



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# Approved Acquisition Approach

Contract No.	Contract Title	Scope	Set-aside	Contract Term	Contract Type
1	ICP Core	Facility Infrastructure; Environmental Activities (CERCLA Remediation); Waste Management; and Spent Nuclear Fuel (SNF) Surveillance, Maintenance and Stabilization for EM and other related activities at the Idaho Site.	No	5 years (2016-2020)	CPIF hybrid type fee
2	A&E for Calcine Disposition and Spent Fuel Repackaging	Develop dual path approach to assess CDP path forward to ensure regulatory compliance. Pre-design and design of the CDP along with develop and submit Best Demonstrated Available Technology (BDAT) petition to EPA for the Hot Isostatic Press (HIP) process. Pre-design and design for receiving, packaging and shipping facility for Spent Nuclear Fuel with focus on repurposing existing facility.	No	9 years (2016-2024)	Architecture and Engineering CPAF
3	NRC Licensed Facilities	Management and operation of SNF storage facilities and licenses under Nuclear Regulatory Commission regulations.	Yes	5 years (4 year base + 1 year Option) (2016-2020)	Firm-Fixed-Price
4	D&D and Construction	Idaho CERCLA Disposal Facility (ICDF) operations, Accelerated Retrieval Project (ARP) IX construction, Tank Farm interim cap construction and Integrated Waste Treatment Unit (IWTU) strip-out.	Yes	5 year ordering period (2017-2021)	FFP Indefinite Delivery Indefinite Quantity

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# *Next Steps*

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- Anticipated Draft Solicitation – 4<sup>th</sup> Quarter 2014
- Expected Pre-Solicitation Conference/Industry Meeting – 4<sup>th</sup> Quarter 2014
- Anticipated Receipt of Proposals – 1<sup>st</sup> Quarter 2015
- Anticipated Evaluations Complete/Award 4<sup>th</sup> Quarter 2015



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