



Statement of Work (SOW)

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Implementing Document: MP-PCMT-15.1

External and Area Monitoring Dosimetry Services

Statement of Work

Advanced Mixed Waste Treatment Project

Idaho Treatment Group, LLC

Revision: 1

Date: 01/30/2014



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1.	<p><u>SCOPE</u></p> <p>This SOW has been developed to define and establish services to be provided by the Idaho National Laboratory (INL) operated by Battelle Energy Alliance's (BEA's) Health Physics Dosimetry Laboratory (HPDL) for dosimetry services necessary to monitor personnel at AMWTP for exposure to ionizing radiation. This SOW includes AMWTP personnel and area monitoring dosimetry and technical support as requested. These services shall be accredited in accordance with the DOE Laboratory Accreditation Program (DOELAP) for Personnel Dosimetry.</p>
2.	<p><u>TECHNICAL REQUIREMENTS/TASKS</u></p> <ol style="list-style-type: none"> 1. 10 CFR 835, "Occupational Radiation Protection" 2. 10 CFR 835.402(b) 3. AMWTP and the HPDL organizations agree to share appropriate information in a timely manner. 4. HPDL personnel training and qualifications are consistent with the guidance from DOE G441.1-1c section 6.2.1.1. and in compliance with the requirements listed in 10 CFR 835 Subpart J, Radiation Safety Training. 5. Any services conducted by HPDL personnel at the AMWTP will be done in accordance with the AMWTP work processes. 6. AMWTP and HPDL agree to coordinate changes to or needed changes to correction factors or algorithms used in processing dosimetry in writing. 7. Any services not specified within this SOW must be negotiated and coordinated between AMWTP and HPDL and appropriately documented.
3.	<p><u>REPORTS, DATA, AND OTHER DELIVERABLES</u></p> <p>AMWTP</p> <ol style="list-style-type: none"> 1. Determine equivalent performance testing categories/subcategories for AMWTP's source term and expected energy and dose ranges for dosimeters. 2. Determine personnel monitoring needs for external and environmental monitoring dosimetry in accordance with the AMWTP RPP. 3. AMWTP will provide HPDL with a list of contacts and contact information and will update it when changes are made. 4. Request from HPDL the materials necessary to accomplish the monitoring such as OSL packets including neutron, extremity dosimeters, PNADS, and area/environment dosimeters. Notify HPDL if there is an anticipated change in work load which affects the need for dosimetry equipment or analysis. Note: Any request significantly different from routine requests should be made as far in advance as possible. 5. Provide to and collect from, the dosimetry materials necessary for individual and area



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monitoring from the established pickup and delivery area.

- 6. Perform periodic assessments of the HPDL processes and provide copies of the completed documents to BEA. Assessments will be coordinated in order to minimize operational impacts.
- 7. Return dosimetry equipment to HPDL for processing in a timely fashion. Delinquent return of dosimetry ≥ 60 days past due will be considered lost dosimeters and charged accordingly.
- 8. Conduct all dose investigations and estimates for lost, damaged, or stolen dosimetry and any situation where improper dosimetry was prescribed by AMWTP. Forward the results of investigations to HPDL for inclusion in the individual's permanent exposure record.

HPDL

- 1. Provide AMWTP access to all applicable procedures, technical basis documents and other supporting documents as requested.
- 2. Provide as requested by the AMWTP beta/gamma, neutron whole body dosimetry and extremity dosimeters.
- 3. Utilize AMWTP specified correction factors and/or calibrations. The default extremity correction factor for Uranium Slab shall be used unless AMWTP specifies a correction factor for a set(s) of extremity dosimeters.
- 4. Coordinate with AMWTP for pickup and delivery of dosimeters and ensure dosimeters are appropriately packaged and handled.
- 6. Provide external dosimetry data validation and verification. Perform manual verification of 10 AMWTP dosimeter results in accordance with MCP-2079, Quality Control and Performance Evaluation Program for Radiation Dosimetry and notify AMWTP when any deficiency is identified.
- 7. Provide external dosimetry reports as requested by AMWTP and raw element values if requested.
- 8. Provide notification to AMWTP of reported whole body doses that exceed 500 mrem or extremity doses that exceed 1,000 mrem.
- 9. Provide notification to AMWTP of dosimeter data that appears anomalous. Use the dose abnormalities guide to identify any dosimeter anomalies. Use of any other non-DOELAP approved algorithm to resolve anomalous data requires AMWTP approval. If the dose cannot be resolved empirically, request AMWTP to perform a dose investigation and submit a Form 441.04A, Personnel Exposure Questionnaire Form (PEQ). AMWTP will perform an internal review of doses versus expected dose and may request additional information as needed.
- 10. Maintain all applicable dosimetry records (441.04A PEQ, Declaration of Pregnancy, etc.)
- 11. Provide records maintained under this SOW to AMWTP in a timely manner when requested in accordance with HPDL procedures.
- 12. Provide technical support as requested by the AMWTP and agreed upon with BEA.



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13. Maintain accreditation under the DOE Laboratory Accreditation Program for Personnel Dosimetry in accordance with 10 CFR 835.402(b).
14. Provide and maintain HPDL contact information initially and when requested.
15. Provide copies of all accreditation certificates and modifications.
16. Provide procedures, instructions, and technical basis documents when requested.
17. Notify AMWTP if there are any issues associated with DOELAP accreditations.
18. Provide necessary services and equipment for processing external dosimetry including neutron, extremity dosimetry, PNADs and area/environmental dosimetry.
19. Provide electronic copies of personnel and area monitoring reports in a standard format as agreed upon by AMWTP and HPDL.
20. Provide turnaround times (TAT), for the processing of external dosimetry, of 14 working days upon receipt by HPDL for quarterly and monthly dosimeter pulls and 48 hours upon receipt by HPDL for urgent processing. PNAD results will be reported as soon as they are available after appropriate radiochemistry and dose calculations are completed. Report results in a timely manner. HPDL will promptly notify AMWTP of extenuating circumstances if any delay in dose reporting or processing.
21. Promptly notify AMWTP of any changes or proposed changes that affect or may impact the AMWTP dosimetry program including: applicable procedures, instructions and technical basis documents.
22. Promptly notify AMWTP of ORPS Reportable or NTS Reportable compliance issues related to the scope of work. Provide copies of corrective action plans to resolve and prevent the recurrence of reported issues.
23. Support AMWTP audits and assessments of the HPDL processes.
24. Maintain personnel dosimetry records in accordance with 10 CFR 835.702 (a), (b), (c), (d), (e), (f), (g), (h), & 703 (a), (b). Provide personal nuclear accident dosimetry that meets the requirements of 10 CFR 835.1304 (b)
25. Provide the results of Quality Assurance Reports, audit evaluations and assessments conducted by HPDL and others of services covered by this SOW.