

What to Know When Adding DOECAP-AP Accreditation to a DoD-ELAP Accredited Laboratory

True or False? DOE only wants radiological analysis performed at commercial laboratories. ANSWER: False. Of the accredited 26 laboratories in the DOE Consolidated Audit Program - Accreditation Program (DOECAP-AP), 14 laboratories perform routine and project specific non-radiological analysis. Many opportunities exist for non-radiochemistry laboratories to support projects involving routine compliance monitoring, site characterization, process control testing, and remediation for matrices such as drinking water, non-potable water, soil, tissue and/or air.

True or False? DOE only has a very small amount of non-radiological commercial laboratory contracts in play. ANSWER: False. There are 163 individual laboratory contracts around the country between commercial laboratories and the DOE. Currently, there are 47 contracts out of the 163 individual commercial laboratory contracts that total over \$4 million in annual spending for non-radiochemistry testing activity..

Is there a need for PFAS analysis by the DOE? YES. In keeping with recent developments in PFAS analysis requirements, as described within the Department’s PFAS Strategic Roadmap: DOE Commitments to Action 2022-2025, the demand for PFAS analysis is anticipated to exceed current laboratory capacity in non-radiochemistry analytical needs. There will also be an increased need for mixed PFAS + radiological analysis.

My Laboratory already has DoD-ELAP accreditation. What will it take to increase my scope to include DOECAP-AP accreditation? ANSWER: Not as much as you think. Keep in mind that the combined DoD/DOE Quality Systems Manual (QSM) is utilized by both agencies. While the QSM does have some DOE only requirements, the majority of the QSM is shared. In other words, your DOD-ELAP accreditation meets approximately 80% of the DOECAP-AP accreditation criteria. The costs and specific details of adding DOECAP-AP to your list of federal agency accreditations is dependent on the laboratory’s scope and the accrediting body pricing. Remember, DOE sites have a significant number of projects that do not require radiochemistry testing capability or a radioactivity materials license. DOE sites also require support under the Safe Drinking Water Act (SDWA), the Clean Water Act (CWA), and the Resource Conservation and Recovery Act (RCRA).

In evaluating whether a laboratory should add DOECAP-AP accreditation if it is already DoD-ELAP accredited, please refer to this Table 1-1 which provides a summary of key differences between the requirements under QSM 5.4.

Table 1-1 DoD ELAP vs DOECAP-AP Accreditation Requirements

Note: All requirements are the same except where noted below

QSM 5.4 Requirement for Non-Radiochemistry Testing	DOD ELAP (QSM 5.4)	DOECAP-AP (QSM 5.4)	Comments
Assessor time to add DOECAP-AP	DOD ELAP accreditation is in place.	Add approximately 0.5 to 1.0 days (4 to 10 hours) to assess DOE Only requirements and DOE Section 6, HRMM requirements.	Billed rates for accreditation and travel costs are to be established between the laboratory and the accrediting body

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			selected by the laboratory.
V1M1 - Performance Test Samples: Initial Accreditation for DoD ELAP versus DOECAP-AP	<p>V1M1 – 2.1.1 Requires at least 2 PT samples for each combination of analyze-matrix-method on a scope.</p> <p>V1M1 - 2.1.1 Initial accreditation allows multiple methods of the same technology to be combined into one SOP.</p>	<p>V1M1 - 3.1.1 Successful participation with two PT samples for each combination of analyte-matrix-method on a scope for a minimum of one year.</p> <p>V1M1 – 3.1.1 Allows multiple methods of the same technology to be combined but the strictest QC criteria are applied.</p> <p>V1M1 – 3.2.1 Where required (i.e. Drinking Water), program-specific PT samples are required.</p>	<p>DOECAP-AP PT requirements will be merged in QSM 6.0 which is due out for draft release Summer of 2023.</p> <p>Minimal impact for non-radiological testing laboratories.</p>
V1M1 – Proficiency Testing	<p>V1M1 – Section 2 -DoD ONLY V1M1 – Section 3 – DOE ONLY</p> <p>While these two sections exhibit minor differences, most are interchangeable and both agency PT requirements will be merged in QSM version 6.0</p>		
<p>V1M2 - 1.0 INTRODUCTION, SCOPE, AND APPLICABILITY;</p> <p>1.2 Scope</p> <p>Box 1: Section 1.0 of ISO/IEC 17025:2017(E)</p>	V1M2 - 1.2 Both programs are the same in Section 1.2, Box 1 except a clarification for a DOE Only Clarification.	V1M2 - 1.2, Box 1 DOE Only (Clarification): Laboratories must follow the requirements of DOE Order 414.1B, C, or D as part of the laboratory contract. The DOECAP-AP will be an acceptable replacement to all references to the DOECAP program. DOECAP participation includes active participation in the DOECAP-AP.	<p>This DOE Only requirement relates to specific DOE contract language where a DOE Order is required by the site. It may not be included in the contract language and therefore, this requirement is not applicable. In addition, this requirement will be removed from the upcoming QSM v 6.0.</p> <p>Minimal impact for non-radiological testing laboratories.</p>
V1M2 - 4.2.8.4 The quality manual shall contain or reference:	V1M2 - 4.2.8.4 z) and aa) are not requirements under DoD ELAP	<p>V1M2 - 4.2.8.4 z) Health and Safety, (e.g., Chemical Hygiene Plan) (DOE Only Requirement); and</p> <p>V1M2 - 4.2.8.4 aa) Materials (Waste) Management; (DOE Only Requirement).</p>	These plans are critical to DOE operational safety and the protection of the worker, the environment, and the public.
V1M2 - 4.2.8.5 Laboratories shall maintain SOPs that accurately reflect all phases of current laboratory activities, such as assessing data integrity, corrective actions,	V1M2 - 4.2.8.5 h) is not a requirement under DoD ELAP	V1M2 - 4.2.8.5 h) The laboratory shall develop, maintain, and implement procedures, however named, for Chemical Hygiene, Waste Management, and Radiation Protection (as	These procedures and their implementation are critical to DOE operational safety and the protection of the worker, the

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handling customer complaints, and all methods.		applicable). (DOE Only Requirement)	environment, and the public.
V1M2 - 4.6.1 The laboratory shall have a policy and procedure(s) for the selection and purchasing of services and supplies it uses that affect the quality of the tests and/or calibrations. Procedures shall exist for the purchase, reception and storage of reagents and laboratory consumable materials relevant for the tests and calibrations.	V1M2 - 4.6.1 g) is not a requirement under DoD ELAP	V1M2 - 4.6.1 g) date opened (DOE Only Requirement)	Minimal impact for non-radiological testing laboratories.
V1M2 - 4.15.1 In accordance with a predetermined schedule and procedure, the laboratory's top management shall periodically conduct a review of the laboratory's management system and testing and/or calibration activities to ensure their continuing suitability and effectiveness, and to introduce necessary changes or improvements. The review shall take account of:	V1M2 - 4.15.1 DoD ELAP does not extend to radioactive samples as they are not part of its program.	V1M2 - 4.15.1 DOE Only Requirement Management reviews shall also include laboratory radiation health and safety, radioactive hazardous waste, and radioactive materials management functions, where applicable (i.e., when radioactive samples are analyzed).	No impact for non-radiochemistry laboratories.
V1M2 - 5.8.4 The laboratory shall have procedures and appropriate facilities for avoiding deterioration, loss or damage to the test or calibration item during storage, handling and preparation. Handling instructions provided with the item shall be followed. When items have to be stored or conditioned under specified environmental conditions, these conditions shall be maintained, monitored and recorded. Where a test or calibration item or a portion of an item is to be held secure, the laboratory shall have arrangements for storage and security that protect the condition and integrity of the secured items or portions concerned.	V1M2 - 5.8.4 b) is not a requirement under DoD ELAP	V1M2 - 5.8.4 b) The laboratory shall have a procedure and records to verify ventilation hood contamination control on a semiannual basis, such as a smoke test or flow meter measurements. Materials submitted for industrial hygiene or asbestos analysis must be opened in an established manner to prevent worker exposure. Therefore, receiving practices must be developed and implemented for the receipt of beryllium, beryllium oxide and asbestos (DOE Only).	Minimal impact for non-radiological testing laboratories.
V1M2 - 5.8.7 Additional Requirements – Sample Receipt Protocols 5.8.7.1 The laboratory shall implement procedures for	V1M2 - 5.8.7.1 e), f), and g) are not requirements under DoD ELAP	DOE Only Requirements V1M2 - 5.8.7.1 e) Laboratories shall develop and maintain procedures for sample receiving	Minimal impact for non-radiological testing laboratories.

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<p>verifying and documenting preservation.</p>		<p>and login that minimizes changes in thermal preservation.</p> <p>V1M2 - 5.8.7.1 f) The laboratory shall document if thermal preservation is not maintained in accordance with the laboratory's procedure during sample receiving and login. The client will be notified in writing if thermal preservation is not maintained. This requirement is for environmental samples and does not apply to industrial hygiene samples (unless the IH method requires thermal preservation).</p> <p>V1M2 – 5.8.7.1 g) Subcontract laboratories performing analytical services (i.e., testing, data review, data processing, project management, IT support, etc.) for DOE shall be approved in writing by the appropriate DOE or subcontractor client prior to the commencement of work.</p>	
<p>V1M2 - 5.8.9 Additional Requirements – Sample Storage and Disposal - c) The laboratory shall have SOPs for the disposal of samples, digestates, leachates and extracts or other sample preparation products.</p>	<p>V1M2 - 5.8.9 c) iii is not a requirement under DoD ELAP</p>	<p>V1M2 - 5.8.9 c) iii) Records shall indicate the date of disposal, the nature of disposal (such as sample depleted, sample disposed in hazardous waste facility, or sample returned to customer), and the name of the individual who performed the task (DOE Only).</p> <p>Note: Further instructions on waste management and disposal are contained in V1M2 - Section 6.4 of the QSM v5.4.</p>	<p>Minimal impact for non-radiological testing laboratories.</p>
<p>V1M2 - 6.0 Hazardous and Radioactive Materials Management and Health and Safety Practices (Section 6: DOE Only)</p>	<p>Not a requirement under DoD ELAP</p>	<p>V1M2 - Sections 6.2 Waste Management Plan (44 Requirements); 6.3 Chemical Hygiene Plan (23 Requirements); 6.4 Sample Receiving and Control (6 Requirements)</p>	<p>Section 6.1 is not applicable to non-radiochemistry laboratories.</p> <p>No impact for non-radiological testing laboratories.</p>