

Integrated National Analytical Management Programs for Quality Assurance of DOE Environmental Data

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The DOE-EM National Analytical Management Program (NAMP) is a coordinated headquarters and multi-site program that effectively integrates the environmental sampling and sample analysis for all DOE-EM programs and sites. Integration and consolidation of the environmental decision making process will provide EM with **savings in money** across the complex and provide consistent, accurate and reliable analytical results for making decisions related to clean up, closure of sites, and regulatory purposes. This presentation will focus on the following NAMP initiatives:

- Systematic Planning Program - training in decision-making process for environmental programs and projects
 - *Consistent DOE-wide application of the DQO process for environmental and waste programs/projects eliminating redundant costs for sampling/analysis*
 - Visual Sampling Plan software, sampling design software
 - DQO template available for documenting important project information
 - Managing Uncertainty for Environmental Decision Making training course
- Integrated Contract Procurement Team (ICPT) – Basic Order Agreement/Standard Statement of Work – establishment of uniform contract for procuring environmental analytical services from commercial laboratories
 - *Consistent national BOA/SOW provides cost savings for analytical services*
 - Provide long-term strategies for procurement via an established chartered Product Team under the Executive Steering Committee
 - National BOA/SOW can be supplemented by site-specific requirements to provide flexibility across the DOE complex
- EM Consolidated Audit Program (EMCAP) – DOE-Complex wide participation
 - *Estimated cost savings to EM in FY01 (second year) > \$2 million*
 - Consistent audits and reporting of DOE-EM on/site and commercial labs
 - Detailed analytical and quality assurance audit checklists
 - Standardized auditing schedule for all labs, with DOE-complex wide input
 - EMCAP qualified auditors from across DOE-complex
 - Web based information sharing system for audit schedules, reports, etc.
 - Model for additional integration – assessment of commercial waste handlers
- Performance Evaluation Programs – simulating real DOE-EM environmental samples
 - *Provides an insurance policy against legal challenges as well as a measure of the (generic and project-specific) quality of radioanalytical services*
 - Mixed-Analyte Performance Evaluation Program (MAPEP) and Quality Assurance Program (QAP) administered by DOE-EM Federal Laboratories RESL and EML for checking analytical laboratories for consistent and accurate results across the DOE-complex

- Radiological Traceability Program (RTP) administered by NAMP to ensure that the DOE-Federal Laboratories are traceable to NIST for the preparation and analysis of performance testing materials used in their PE programs
- Site-specific performance evaluation samples provide real-time quality monitoring of contract laboratories providing analytical services for DOE projects
- Analytical Data Measurement Review
 - *Reduces time spent manually reviewing data with resultant cost savings*
 - Interagency and DOE-complex wide standardized electronic data deliverables (SEDD)
 - Standardized approach for data validation and verification (Data V&V) for DOE-EM sites
- Interagency Measurement Assurance Protocols
 - *Development of uniform federal policies, protocols and guidance reduces costs for EM*
 - Uniform Federal Policy – a federal-wide multi-agency environmental quality assurance guide for DOE programs, projects, and sites
 - Multi-Agency Radiation Laboratory Protocols Manual (MARLAP) – a federal-wide multi-agency radiological sampling and analysis guide that endorses performance-based method selection (PBMS)
 - Methods and Data Comparability Board – a federal-wide, state-wide and multi-stakeholder groundwater methods and data comparability reference data bases

NAMP programs assure quality, consistency, and integrity of data that is generated by a multitude of contractor and commercial laboratories. Systematic Planning, ICPT, EMCAP, RTP, QAP, MAPEP, Site-specific PE samples, Data V&V, SEDD, MARLAP, and Methods Data and Comparability, Inter-agency Data Task Force efforts, and PBMS are all NAMP initiatives that provide the framework for a truly integrated approach to quality in analytical data. The schematic in Figure 1 shows a flow diagram of the environmental project management process. NAMP has programs that interface with all the decision steps during project and laboratory management as indicated in the flow diagram.

Figure 1: Integration of NAMP programs in the Project and Laboratory Management Cycle

