

THE DEPARTMENT OF ENERGY'S INTEGRATED PERFORMANCE
EVALUATION PROGRAM (IPEP): PILOT STUDIES FOR IMPLEMENTATION*

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ABSTRACT

The Department of Energy's (DOE's) Office of Environmental Management (EM) is developing the Integrated Performance Evaluation Program (IPEP) to collate and assess results from existing performance evaluation (PE) programs and to provide reports of these assessments to participating laboratories, sample management organizations, EM project and program managers, and other management levels within EM. The IPEP will also provide guidance to these various report audiences on the corrective actions needed by laboratories with unacceptable performance, thus providing an integrated, consistent system for assessing the performance of laboratories conducting environmental-type analyses across the DOE Complex. The IPEP has conducted two pilot studies to implement and evaluate its procedures and protocols, one with the Idaho National Engineering Laboratory and the other with the DOE Albuquerque Operations Office Field Sample Management Program. These pilot studies have provided the IPEP developers with an opportunity to test the feasibility of the proposed operating mechanisms and allowed the eventual users of the assessment reports to have direct input about the report formats, technical content, and other user needs in these reports during the developmental stage. In addition to the various hard-copy reports, the IPEP is developing electronic versions of the reports to test means of expediting dissemination of the assessment results to the end users. The assessment and report production protocols, as well as current implementation status, will be presented.

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Proposed Routine IPEP Reports

Report Type	#/Year	Audience(s)
Single Study PE Reports	16	DOE HQ - ASD EM-263
• CLP Inorganic	4	Laboratories
• CLP Organic	4	DOE Offices of Sample Management
• WS	2	DOE Operations Offices
• WP	2	
• ENL QAP	2	
• MAPEP	2	
• PESP	•	
Consolidated Reports	4	DOE HQ ASD EM-263 Laboratories DOE Offices of Sample Management DOE Operations Offices
Management Reports	12	DOE HQ ASD EM-263
• DOE Operations Offices	4	DOE Operations Offices
• DOE HQ EM Program Offices	4	DOE HQ EM Area Program Offices
• DOE HQ DAS, EM-30, 40	4	DOE HQ Offices of Deputy Asst. Sec. , EM-30, 40

Figure 2

*DOE currently does not have access to this PE program

Objectives of Pilot Studies

- SMO Objectives:**
- Access laboratory performance information quickly, in useful formats
 - Have meaningful, consistent assessments of laboratory performance
- IPEP Objectives:**
- Provide laboratory performance information to various user audiences quickly, in useful formats for each users needs
 - *Develop a system for providing information to the various IPEP user audiences*

Figure 1

IPEP Report Production Process

- Acquiring information about laboratories & services being provided to EM, & PE participation
- Acquiring data from PE Programs
- Providing reports to user audiences

Figure 3

Acquiring Information about Laboratories

1. Identify laboratories providing services to EM
2. Identify type of service each laboratory provides to EM
OPS Office FSMPs, SMOs-----> DEMSAR, NSTS
3. Match laboratory EM services to PE program participation
4. Summarize laboratory services, PE participation
DEMSAR, NSTS-----> IPEP <-----Various PE programs
5. Query apparent lapses in PE program participation
IPEP----->OPS Office FSMPs, SMOs
6. Initiate participation in appropriate PE programs
OPS Office FSMPs, SMOs----->Laboratories
7. Return to Step One

Figure 4

Integrated Performance Evaluation Program

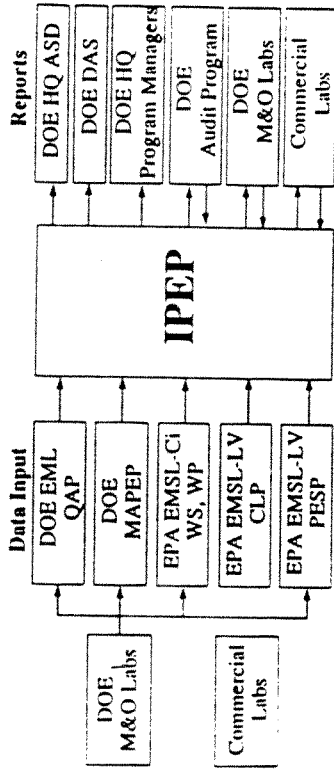


Figure 5

Providing Reports to SMOs, FSMPs

- Hard Copies
- Electronic versions of reports, via Internet
- * Electronic transmission of data to SMOs, FSMPs in formats compatible for incorporation into local assessment systems

Figure 6

Corrective Action Philosophy for Single Study Reports

- Be reactive enough to be effective for EM needs,
- *But* not over-reactive to the detriment of budget or professional relationships
- Attempt to use one system for all reports for consistency & simplicity to end users
- Identify real, acute, problems in current studies
 - Problems with the same analyte in more than 1 matrix
 - Problems with several analytes in the same matrix
- Use historical data to identify chronic problems
- * Bias not yet incorporated into Corrective Action Protocols

Figure 8

IPEP Reports

- IPEP Objectives:
 - Normalize assessments in all reports
 - Support assessments with Corrective Action Protocols
 - Produce all reports in similar formats
- to facilitate*
- Ease of Use by the End Users
 - Subsequent incorporation of information into Consolidated & Management Reports

Figure 7

<p>Formats for Hard Copy Single Study Reports are designed to be progressive in level of detail</p> <ul style="list-style-type: none"> • Introduction: <ul style="list-style-type: none"> • Specify particular study • Detail any problems or anomalies reported by PE Program Sponsor • Summaries (Tables & Graphs) : <ul style="list-style-type: none"> • Overall, Matrix/Analyte Class • Individual Laboratory Reports (Current & Historical Information): <ul style="list-style-type: none"> • Individual Laboratory Summary Report (ILSR) • Laboratory Individual Analyte Summary Report • Appendix: <ul style="list-style-type: none"> • Brief Individual PE Program Description • Explanation of scoring algorithms, assessments 	<p>Individual Laboratory Summary Reports (ILSRs) Formats for WS & WP</p> <ul style="list-style-type: none"> • Overall Summary of Performance in Current Study • & Summary by Matrix/Analyte Class for: <ul style="list-style-type: none"> • % Participation • % Acceptable • IPEP Assessment • Identification of unacceptable analytes in current study • Recommended Areas for Corrective Action, with Reasons Specified
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Figure 9

Figure 10

<p>Individual Laboratory Summary Reports (ILSRs) Format for QAP</p> <ul style="list-style-type: none"> • Generally, the same information as WS & WP <i>except</i> <ul style="list-style-type: none"> • 4 different matrices • Same 3 Analyte Classes in each matrix <p>Necessitate some changes in format</p>	<p>Laboratory Individual Analyte Summary Report Formats:</p> <p>WS & WP:</p> <ul style="list-style-type: none"> • Same as Sponsor Format for Current Study <p>WP:</p> <ul style="list-style-type: none"> • Two water samples are treated as different matrices • Oil is not summarized separately • False Positives not incorporated <p>QAP:</p> <ul style="list-style-type: none"> • Individual analyte results have been averaged to present data the same as other PE Program Sponsors <p>All:</p> <ul style="list-style-type: none"> • IPEP Assessments • Historical data for previous three studies
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Figure 11

Figure 12