ANL/CMT-ACL/CP-94051

RESULTS OF PILOT IMPLEMENTATION STUDIES OF DOE'S INTEGRATED PERFORMANCE EVALUATION PROGRAM (IPEP)*

P. C. Lindahl, W. E. Streets, J. J. Marr, K. J. Parish, A. E. Scandora, Jr.
Analytical Chemistry Laboratory
Chemical Technology Division
Argonne National Laboratory

G. A. Anast
Environmental Assessment Division
Argonne National Laboratory
Argonne, IL 60439

W. R. Newberry
U.S. Department of Energy
Office of Environmental Management
Washington, DC 20585

J. R. Dahlgran
U.S. Department of Energy
Radiological and Environmental Sciences Laboratory
Idaho Falls, ID 83415

C. Watkins and J. Connolly
Idaho National Engineering and Environmental Laboratory
Idaho Falls, ID 83415

J. Fisk
U.S. Environmental Protection Agency
Washington, DC 20460

to be presented at
37th ORNL-DOE Conference
on Analytical Chemistry in Energy Technology
October 7-9, 1997
Gatlinburg, TN

*Work supported by the U.S. Department of Energy under Contract W-31-109-ENG-38.

DISCLAIMER

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

Results of Implementation Pilot Studies of DOE's Integrated Performance Evaluation Program (IPEP)*

37th ORNL-DOE Conference on

Analytical Chemistry in Energy Technology

Gatlinburg, TN

October 7-9, 1997

* Work supported by the U.S. Department of Energy under Contract W-31-109-ENG-38.

Co-contributors

P.C. Lindahl, W.E. Streets, J.J. Marr, K.J. Parish, G.A. Anast, and A.E. Scandora, Jr.
Analytical Chemistry Laboratory
Argonne National Laboratory
Argonne, IL 60439

W.R. Newberry
U.S. Department of Energy
Office of Environmental Management
Washington, DC 20585

J.R. Dahlgran
U.S. Department of Energy
Radiological and Environmental Sciences Laboratory
Idaho Falls, ID 83415

C. Watkins and J. Connolly
Idaho National Engineering Laboratory
Idaho Falls, ID 83415

J. Fisk
U.S. Environmental Protection Agency
Washington, DC 20460

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***

Types of IPEP Reports

PE PROG/ QUARTER	CLP INORG	CLP ORG	WS	WP	EML QAP	MAPEP	PESP
FY93 Q2	*FY93 Q2*	*FY93 Q2*		030			
FY93 Q3	*FY93 Q3*	*FY93 Q3*	032		39		
FY93 Q4	*FY93 Q4*	*FY93 Q4*		031			
FY94 Q1	*FY94 Q1*	*FY94 Q1*	033		40		
FY94 Q2	*FY94 Q2*	*FY94 Q2*		032		S1	
FY94 Q3	*FY94 Q3*	*FY94 Q3*	034		41	W1	
FY94 Q4	*FY94 Q4*	*FY94 Q4*		033		S2	
FY95 Q1	*FY95 Q1*	*FY95 Q1*	035		42	W2	*AF: GA, B* *Water: Gamma*

Consolidated Reports

WS035 Single Study Report *

EML QAP Single Study Report*

WP033 Single Study Report*

* Single Study Reports include historical studies.

IPEP Report Production Process

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

Acquiring Information about Laboratories

1. Identify laboratories providing services to EM
2. Identify type of service each laboratory provides to EM

   OPS Offices, SMOs ⟶ LAB DB

3. Match laboratory EM services to PE program participation
4. Summarize laboratory services, PE participation

   LAB DB ⟶ IPEP ⟶ Various PE programs

5. Query apparent lapses in PE program participation

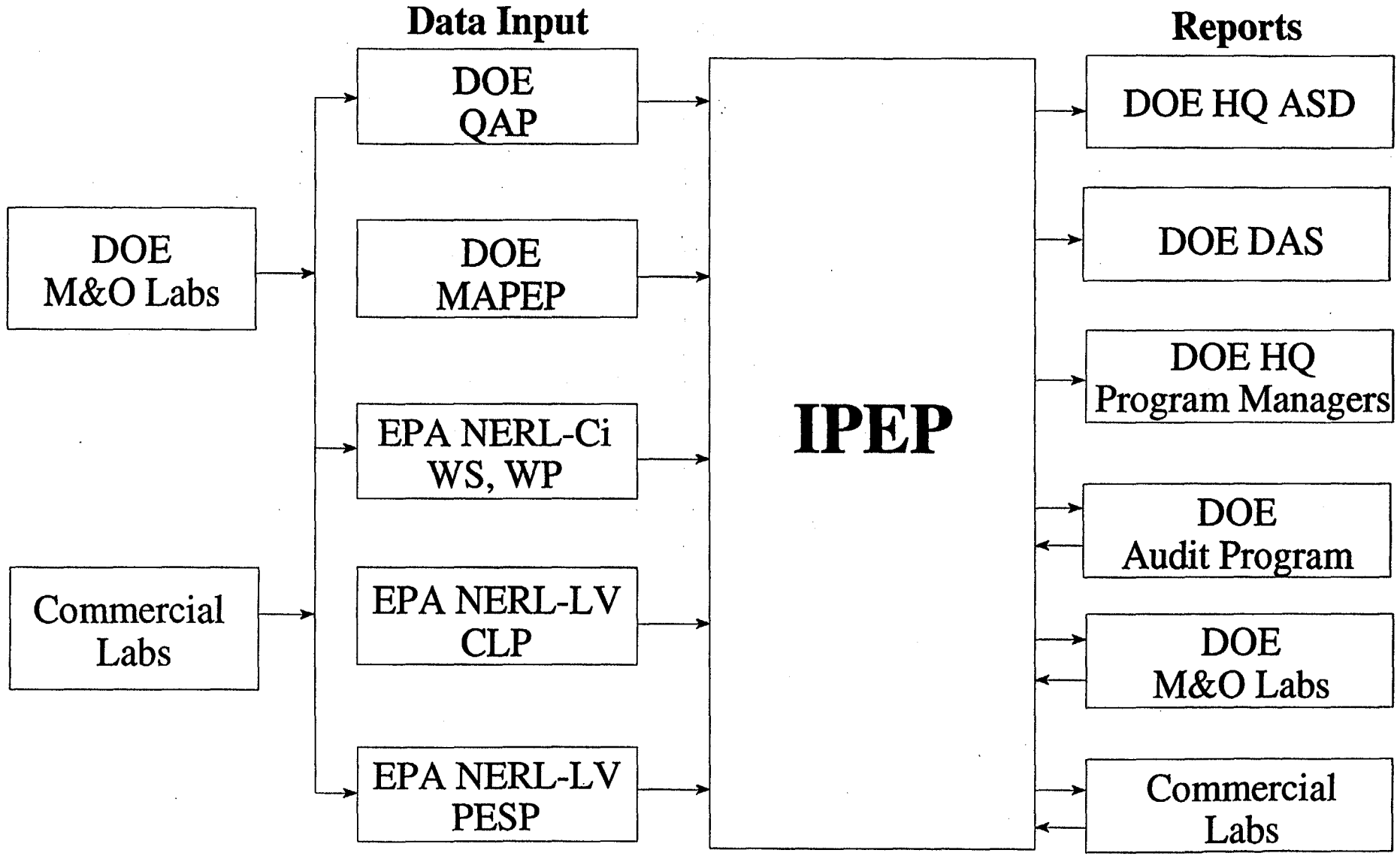
   IPEP ⟶ OPS Offices, SMOs

6. Initiate participation in appropriate PE programs

   OPS Offices, SMOs ⟶ Laboratories

7. Return to Step One

Integrated Performance Evaluation Program



Providing Reports to SMOs, OPS Offices

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

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

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

Formats for Hard Copy Single Study Reports are designed to be progressive in level of detail

- **Introduction:**
  - Specify particular study
  - Detail any problems or anomalies reported by PE Program Sponsor

- **Summaries (Tables & Graphs):**
  - Overall, Matrix/Analyte Class

- **Individual Laboratory Reports (Current & Histotical Information):**
  - Individual Laboratory Summary Report (ILSR)
  - Laboratory Individual Analyte Summary Report

- **Appendix:**
  - Brief Individual PE Program Description
  - Explanation of scoring algorithms, assessments

Individual Laboratory Summary Reports (ILSRs)

Formats for WS & WP

- Overall Summary of Performance in Current Study
- & Summary by Matrix/Analyte Class for:
  - % Participation
  - % Acceptable
  - IPEP Assessment
- Identification of Unacceptable Analtyes in Current Study
- Recommended Areas for Corrective Action, with Reasons Specified

Internet Versions of Reports

- Currently WS, WP, & QAP posted
- No Summaries
- No Corrective Actions
- False Positives correctly incorporated into all reports
- Able to use both graphical and non-graphical browsers

Laboratory Individual Analyte Summary Report Formats:

WS & WP:

- Same as Sponsor Format for Current Study

WP:

- Two water samples are treated as different matrices
- Oil is not summarized separately
- False Positives not incorporated

QAP:

- Individual analyte results have been arranged to present data the same as other PE Program Sponsors

All:

- IPEP Assessments
- Historical data for previous three studies

Operational Issues to Resolve

1. Permission to access & publish PE data

2. Provision of PE data in local formats for electronic download into local assessment systems

3. Corrective Action:

   Who informs laboratories?

   Who initiaties follow-up?

4. Others??