



**Office of Inspector General**

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**Report of Audit**

**Regional Laboratories**

**Audit Report No. E1PMF6-05-0115-7100277**

**August 20, 1997**

**Inspector General Division  
Conducting the Audit:**

**Northern Audit Division  
Chicago, Illinois**

**Anthony C. Carrollo, Divisional  
Inspector General  
Charles M. Allberry, Audit Manager  
Janet G. Kasper, Team Leader  
Jori L. Spolarich, Auditor-in-Charge  
Michelle L. Pienta, Auditor**

**Program Covered:**

**Regional Laboratories**

**Program Offices Involved:**

**Office of Regional Operations and  
State/Local Relations**

**Regions 1 through 10**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF  
THE INSPECTOR GENERAL

August 20, 1997

SUBJECT: Audit Report No. E1PMF6-05-0115-7100277  
Audit of Regional Laboratories

FROM: Michael Simmons  
Deputy Assistant Inspector General  
for Internal Audits

TO: Mary Louise Uhlig  
Acting Associate Administrator for  
Regional Operations and State/Local Relations

Attached is the report on our audit of regional laboratories. The purpose of the audit was to evaluate the planning and management of regional laboratories. We concluded that, along with other EPA offices, the regional laboratories needed to improve the systems for planning, measuring, and reporting on activities they performed in order to meet the requirements of the Government Performance and Results Act. We also concluded that the laboratories needed a stronger shared identity and national leadership.

ACTION REQUIRED

In responding to the draft report, your office provided corrective actions, with milestone dates, for each recommendation. Therefore, no further response is required, and we are closing this report in our tracking system. Please track all corrective actions in the Management Audit Tracking System.

We have no objections to the further release of this report to the public.

We appreciate the cooperation you, your staff, and the regional laboratories provided during this review. Should you or your staff have any questions, please contact Charles Allberry, Audit Manager, Northern Audit Division, at 312-353-4222 or Richard Hall, Headquarters Liaison at 202-260-5563.



## EXECUTIVE SUMMARY

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### INTRODUCTION

The Office of Inspector General (OIG) performed an audit of the Environmental Protection Agency's (EPA) regional laboratories. Although prior OIG reports have addressed the Agency's Office of Research and Development laboratories, there have been no recent reports concerning the management of regional laboratories.

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### OBJECTIVES

The objectives of this audit were to:

- determine whether improvements were needed in how regional laboratories' activities were planned and managed, and
- identify areas where administrative processes among regional laboratories could be streamlined.

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### RESULTS-IN-BRIEF

To meet the Government Performance and Results Act of 1993 (the Results Act), EPA is taking steps to improve the processes for planning, program evaluation, budgeting, and fiscal accountability. The regional laboratories' current processes will not be adequate to assist the Agency in meeting the Results Act. Areas for improvement include: (1) preparing performance plans, (2) measuring performance, (3) increasing accountability, and (4) linking planning and performance to funding levels. See chapter 2 on page 5 for details.

EPA's regional laboratories need a stronger shared identity and more active national leadership. Each regional laboratory has historically operated independently of the others; however, there are many similarities in their missions, goals, and contributions to the Agency. A 1994 EPA report<sup>1</sup> (1994 Laboratory Study) recommended enhancing the role of the "central advocate" for the regional laboratories and re-evaluating which organizational component should fill that role. Although the Office of Regional Operations and State/Local Relations (OROS/LR) was designated to perform this role, its ability to fulfill the responsibilities had been limited. The absence of a shared identity among regional laboratories and the limited scope of national leadership

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<sup>1</sup>Research, Development, and Technical Services at EPA: A New Beginning, Report No. EPA/600/R-94/122, July 1994.

have resulted in inefficient efforts to meet common needs. See chapter 3 on page 13 for details.

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**AGENCY ACTIONS**

The Acting Associate Administrator for OROS/LR stated that OROS/LR and the regional laboratory managers have joined the Agency in its efforts to understand and implement specific requirements and goals of the Results Act. The managers recognize the importance of both planning and accountability and will continue to bring their processes in line with the requirements of the Results Act. Concerning the concept of shared identity for the regional laboratories, OROS/LR will work with the laboratories to achieve greater consistency and effectiveness through more coordinated efforts. As the current reorganization of the Office of Administrator is completed, its regional operations staff will work to acquire the resources necessary to provide strong national leadership for the broad scope of issues vital to the regional laboratories. See pages 11 and 19 for specific actions the Agency will take to address the findings and recommendations.

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**OIG EVALUATION**

The Agency's actions, when completed, will address the findings and recommendations in the report.

## Table of Contents

<b>EXECUTIVE SUMMARY</b> .....	i
<b>ABBREVIATIONS</b> .....	iv
<b>CHAPTERS</b>	
1 INTRODUCTION .....	1
Purpose .....	1
Background .....	1
Scope and Methodology .....	3
Prior Audit Coverage .....	4
2 IMPROVEMENTS NEEDED TO MEET THE GOVERNMENT PERFORMANCE AND RESULTS ACT .....	5
Government Performance and Results Act .....	5
Current Practices Need Improvement .....	6
Conclusion .....	11
Recommendations .....	11
Agency Actions .....	11
OIG Evaluation .....	12
3 REGIONAL LABORATORIES NEED A STRONGER SHARED IDENTITY AND NATIONAL LEADER .....	13
Shared Identity .....	13
National Leadership .....	14
Illustrations of Need for National Leadership .....	16
Conclusion .....	18
Recommendations .....	19
Agency Actions .....	19
OIG Evaluation .....	19
<b>APPENDICES</b>	
1 OFFICE OF REGIONAL OPERATIONS AND STATE/LOCAL RELATIONS RESPONSE TO THE DRAFT REPORT .....	20
2 DISTRIBUTION .....	23

## Abbreviations

the Results Act	Government Performance and Results Act
EPA	Environmental Protection Agency
1994 Laboratory Study	<u>Research, Development, and Technical Services at EPA: A New Beginning</u> , July 1994, Report No. EPA/600/R-94/122
OIG	Office of Inspector General
OROS/LR	Office of Regional Operations and State/Local Relations
RTP	Research Triangle Park

## CHAPTER 1

### Introduction

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#### **PURPOSE**

The OIG performed an audit of EPA's regional laboratories. Although prior OIG reports have addressed the Agency's Office of Research and Development laboratories, there have been no recent reports concerning the management of regional laboratories. Our objectives were to:

- determine whether improvements were needed in how regional laboratories' activities were planned and managed, and
- identify areas where administrative processes among regional laboratories could be streamlined.

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#### **BACKGROUND**

##### **Regional Laboratories**

A regional laboratory is located in each of the ten EPA regions. The laboratories provide a range of scientific and technical services for a wide variety of customers both internal and external to the Agency. Customers include regional program offices and state and local agencies. The laboratories' mission is to: (1) provide quality scientific data, (2) integrate laboratory activities with field and quality assurance partners, (3) maintain a fully equipped laboratory, (4) maintain and enhance a technically and scientifically skilled staff, and (5) advance the Agency's science agenda.

The focus of the regional laboratories is on the application of science policies and methods in support of regulatory programs, monitoring programs, and special projects. The laboratories' main role is to perform sample testing in support of various regional programs. The regional laboratories perform many special analytical services, which include fast turnaround and verification analyses, nonstandard tests, and analyses requiring low detection limits. Regional laboratories provide services other than analytical support, including laboratory audits and certifications, methods development, field sampling, consulting and technical assistance, data validation, expert witness testimony, and training.

##### **Sources of Analytical Services**

EPA regions have three potential sources of laboratory services. The two main sources are the regional laboratories and the Contract Laboratory Program. As already mentioned, the regional laboratories perform many special analytical services. The Contract Laboratory

Program consists of a group of contractors that provides routine analytical services in support of EPA's Superfund effort. Non-Superfund programs may buy into these contracts if funds are available.

If a regional laboratory or the Contract Laboratory Program does not have a certain capability, a region can obtain analytical services from private laboratories through blanket purchase agreements, regional contracts, or small purchase requests. For example, because Region 4 and the Contract Laboratory Program cannot perform dioxin analyses, Region 4 contracts out for these services.

**Government  
Performance  
and Results Act**

The Government Performance and Results Act (the Results Act) was enacted on August 3, 1993, to provide for the establishment of strategic planning and performance measurement in the Federal Government. Other purposes of the Results Act include:

- initiating program performance reform by setting program goals, measuring program performance against those goals, and reporting publicly on their progress; and
- improving Federal program effectiveness and public accountability by promoting a new focus on results.

The intent of the Results Act is to change the culture of Federal agencies, from focusing on what agencies are doing to what they are accomplishing. Implementing the Results Act would improve agencies' planning, budgeting, and accountability processes, linking them together so that planning drives budgeting. Actual program results could also be monitored and used to influence future planning.

To achieve a strong link among planning, budgeting, and accountability, the Results Act requires all agencies to produce strategic plans, annual performance plans, and annual performance reports. An agency's strategic plan will include a comprehensive mission statement and general objectives covering the major functions and operations of the agency. Annual performance plans will include objective goals and describe the operational processes and resources required to meet the goals. Annual performance reports will assess the agency's performance versus the established goals. The results will be used as a basis for future decisions on programs and budgets.

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**SCOPE AND  
METHODOLOGY**

Our audit focused on the regional laboratories' management and administrative processes and the Office of Regional Operations and State/Local Relations (OROS/LR) role as the central advocate for the regional laboratories. We performed fieldwork in Regions 4, 5, 8, and 9; and at OROS/LR. We also obtained data from the other six laboratories. We conducted fieldwork between July 8, 1996, and June 13, 1997.

To accomplish our objectives, we reviewed applicable policies and guidance and interviewed EPA officials in the regions visited and OROS/LR. As criteria, we used the Results Act, relevant EPA reports, Office of Administration and Resources Management streamlining guidance, and Office of Management and Budget information management policies.

Our first objective was to determine whether improvements were needed in how regional laboratories' activities were planned and managed. Through reviews of documentation and discussions with laboratory, regional, and OROS/LR officials, we evaluated the processes and management controls used to plan, schedule, track, and report laboratory activities. Laboratory activities include analytical tests, field sampling, and laboratory inspections and certifications. We asked all ten regional laboratories about their processes for scheduling, tracking, and reporting activities, however we only requested data from the four regions visited. We also reviewed all ten laboratories' processes for determining their annual funding levels.

Our second objective was to identify areas where administrative processes among regional laboratories could be streamlined including equipment purchases, development of data management systems, and standard operating procedures. To accomplish this, we asked laboratory officials from all ten regions about their process for planning equipment maintenance and purchases. We interviewed laboratory officials from the four regions visited regarding their purchase and development of data management systems.

We issued position papers to the regional laboratories and OROS/LR on May 20, 1997. We met with both groups to discuss the position papers, and incorporated their comments into the draft report. The draft report was issued to the Acting Associate Administrator for OROS/LR on June 25, 1997. Comments to the draft report were received on July 29, 1997. The comments were incorporated into the final report and included as Appendix 1.

We performed our audit in accordance with the Government Auditing Standards, 1994 Revision, issued by the Comptroller General of the United States, and included such tests as we saw necessary to complete our objectives.

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**PRIOR AUDIT  
COVERAGE**

There were no prior audits of EPA's regional laboratories related to the objectives of our audit.

## CHAPTER 2

### Improvements Needed to Meet The Government Performance and Results Act

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To meet the Government Performance and Results Act of 1993 (the Results Act), EPA is taking steps to improve the processes for planning, program evaluation, budgeting, and fiscal accountability. The regional laboratories' current processes will not be adequate to assist the Agency in meeting the Results Act. Areas for improvement include: (1) preparing performance plans, (2) measuring performance, (3) increasing accountability, and (4) linking planning and performance to funding levels.

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#### GOVERNMENT PERFORMANCE AND RESULTS ACT

Section 4 of the Results Act requires Federal agencies to prepare performance plans and reports. By September 1997 and annually thereafter, each agency is required to prepare a performance plan covering the program activities set forth in its budget. These plans will:

- express objective, quantifiable, and measurable goals;
- establish performance indicators to be used in measuring or assessing the relevant outputs, service levels, and outcomes of each program activity; and
- provide a basis for comparing actual program results with the established goals.

The Results Act also requires that starting March 31, 2000, each agency will submit an annual report on program performance for the previous fiscal year. The report will include the performance indicators established in the plan along with the actual program performance achieved as compared to the established goals. Also, where a performance goal has not been met, the report will explain why the goal was not met, the plans and schedules for achieving the goal, and whether the goal is impractical or infeasible.

To help ensure compliance with the Results Act, EPA established a Planning, Budgeting, Analysis, and Accountability process. Among other items, it included requirements for annual performance plans and reports. While the regional laboratories are not required to prepare their own plans and reports, they provide important services to the program

offices and need to improve their planning process as EPA implements the Results Act. Consistent planning methods throughout EPA, including the regional laboratories, will simplify preparation of the Agency-wide annual performance plans and reports.

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**CURRENT PRACTICES  
NEED IMPROVEMENT**

The Results Act requires strong links among planning, reporting, and budgeting; and increased accountability. To assist EPA in meeting these requirements, regional laboratories, in conjunction with program offices, will need to prepare annual plans with objective goals and performance indicators and maintain consistent data on results. Regional laboratories will then need to report to regional and program management on actual achievements and costs versus projected levels. Lastly, the laboratories will need to base the funding they receive on planned activities and performance results. Performing these activities will help the regional laboratories and the Agency determine whether goals are being met and resources are being used for priority activities.

**Preparing Annual  
Performance Plans**

Annual performance plans under the Results Act will include objective goals and performance indicators. According to a 1994 EPA Subcommittee report<sup>2</sup>, regional laboratories generally lacked the information required for effective planning. Only four of ten regional laboratories prepared work plans that included goals and indicators. Identifying these elements in annual plans will provide the laboratories with a basis to compare to results and determine if objectives are being achieved.

In 1994, the Subcommittee identified a weakness related to planning among the regional laboratories. There was a general lack of readily available information, particularly in the areas of resource management and future program needs. This information was required to effectively plan for the future. The Subcommittee recommended that EPA develop an integrated process to plan its future, and evaluate its current, science and technical service requirements. The ability to estimate current and future needs would help the Agency develop performance plans. As of June 1997, EPA had not taken action to address the recommendation.

Regional laboratories prepared annual plans with varying levels of detail.

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<sup>2</sup>Research, Development, and Technical Services at EPA: A New Beginning, Appendix F, "EPA Laboratory Study: ESD Evaluation - Cross-Agency Subcommittee Final Report", Report No. EPA/600/R-94/122, July 1994.

- Half of the laboratories did not prepare written work plans. Officials said planning specific activities was difficult because the laboratories provided services in response to changing regional needs.
- One laboratory prepared plans, but did not identify goals and indicators. The work plans included narrative descriptions of planned activities, based on regional priorities.
- Four laboratories' work plans included goals and indicators. For example, one region included the estimated number of inspections and investigations. Another region projected the work days required to complete certain numbers of activities, such as training and technical assistance. The plans did not include estimated levels of analytical support the laboratories would provide, although this was one of the laboratories' major activities.

Regional and laboratory officials said that it was difficult to develop detailed work plans because the regional laboratories provide a support function and must react to changing program needs. However, the laboratories perform many of the same types of functions every year. As a result, laboratory officials can establish performance indicators and goals for some activities, with the recognition that the laboratories also fulfill special program needs that are not easily quantified.

Performance indicators are particular values or characteristics used to measure or assess relevant outputs, service levels, and outcomes of program activities. Based on the audit, we identified two potential indicators for the regional laboratories.

- One indicator could be the number of analytical tests performed. Of ten regions, nine counted analytical activities based on analyses, which represented one sample through one instrument.<sup>3</sup> A corresponding goal would be that the regional laboratory would perform a certain number of analyses in a fiscal year.
- Another indicator could be the number of laboratory audits. Regional staff audit contract laboratories to ensure they are

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<sup>3</sup>Even if an instrument simultaneously tests for a number of elements, the activity is counted as one analysis. However, there could be more than one analysis for each sample.

properly analyzing samples. A related goal would indicate the number of audits the region planned to conduct during the year.

**Measuring Performance Results Consistently**

To compare actual results to established goals on a national basis, the regional laboratories need consistent data on achieved performance levels. Comparing results to goals for analytical support will be difficult because some regions include different items in the counts of analytical activity. As a result, EPA will not be able to determine the national performance level and whether the laboratories are meeting established goals.

Laboratory officials included the standard analyses performed by regional laboratory analysts in the analytical activity data. Also, two of the ten regions included certain types of quality control work in their data; the other eight did not. Including quality control analyses adds significantly to the total analyses. For example, Region 8 included quality control work in its data. In fiscal year 1996, Region 8's total was over twice as high as Region 4's (see table 1). This occurred although Region 8 had one of the smallest regional laboratories while Region 4 had one of the largest, based on the number of regional full-time equivalents.

**Table 1: Regions Included Different Activities in Data**

Region	Includes Quality Control Work	Total Analyses
4	No	11,230
8	Yes	22,849

One method of measuring analytical activity is not recommended over the other. However, because of the differences in measuring, it would not be possible for the Agency to compare data across the regions and to calculate total analytical activities versus the projected level. The regional laboratories need to determine a system for consistently measuring analytical activities. This will allow determination of an EPA-wide total and comparison of actual results to goals.

**Increasing Accountability Through Reporting**

Accountability is a process for analyzing actual performance and cost against goals and should focus on the Agency's accomplishments relative to the commitments made in the annual performance plan.

Regional laboratories would increase their accountability by preparing annual performance reports that relate actual results and resources expended to objectives.

Seven of the ten regional laboratories prepared activity reports and submitted them to regional or program management. These reports varied in terms of the information included. Some of the reporting regions compared actual accomplishments to planned activities, while others only described completed activities. Five of the seven regions included numerical data on the levels of actual or planned performance.

The three remaining regional laboratories did not report laboratory activities to regional or program management. Laboratory officials said that some regional and program management did not request data on actual levels of performance or resources used because they were satisfied with the services provided. Also, the programs were not concerned about the cost of services as long as analyses were performed on time. Staff members from one region said they had not submitted reports since 1995 because management was more interested in environmental results. In another region, the laboratory previously submitted detailed quarterly reports to program managers. Since the managers provided little feedback, this practice was suspended.

The regional laboratories need to prepare performance reports to show actual accomplishments and costs versus planned activities. Preparing these reports will show whether the laboratories have met their goals and where resources have been spent. Submitting these reports to program and regional management will also increase the regional laboratories' accountability.

**Linking Funding to  
Performance Plans  
and Results**

The Results Act emphasizes a strong link among planning, reporting, and budgeting. EPA intends that performance plans and prior years' results, including resources used, will be the basis for future decisions on programs and budgets. However, only three of ten regional laboratories used planned activities and prior years' results as the basis for their budgets, while seven based their budgets on historical amounts. Laboratory officials said that they do not believe they have significant input into how much funding they receive. This occurs because regional laboratories do not have a specific appropriation. Instead, they are funded by other program offices or through the Regional Administrators' offices.

In terms of basing budgets on historical amounts, an EPA report<sup>4</sup> stated that: "The budget process should avoid focusing decisions solely on the margin of the prior year's budget because this discourages consideration of significant change or major redirection." As the laboratories and EPA continue to implement the Results Act and prepare performance plans and reports, the funding they receive should be based more on activities and less on historical amounts.

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## CONCLUSION

The Government Performance and Results Act places new requirements on Federal agencies for improving their planning, budgeting, and accountability systems. Current regional laboratory practices will not be adequate to assist the Agency in meeting the Results Act. The regional laboratories can improve their planning processes by working with program offices to prepare annual performance plans that include goals and indicators and measuring performance results consistently. The laboratories can: (1) increase accountability by preparing annual performance reports and (2) develop a stronger link between funding levels and performance plans and results. Performing these activities will not only help EPA meet the Results Act, it will improve the overall management of activities and resources at the laboratories.

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## RECOMMENDATIONS

We recommend that the Acting Associate Administrator for Regional Operations and State/Local Relations work with regional laboratory management to:

- 2-1. Prepare, in conjunction with program offices, annual performance plans that include goals and performance indicators.
- 2-2. Develop a system that all regions will use to consistently measure laboratory activities.
- 2-3. Prepare annual performance reports that compare goals with actual accomplishments.
- 2-4. Base funding levels on performance plans and prior years' results.

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## AGENCY ACTIONS

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<sup>4</sup>Managing For Results, The Planning, Budgeting, and Accountability Task Force, February 23, 1996.

In responding to the draft report, the Acting Associate Administrator for Regional Operations and State/Local Relations agreed with all the recommendations and stated that the regional laboratories have taken, and will continue to take, action to address the recommendations.

- 2-1. The regional laboratories are working with the program offices, the Office of Planning, Analysis and Accountability, and the Office of Regional Operations and State/Local Relations to meet the requirements of the Results Act. The regional laboratories have developed an overall objective and sub-objectives, and are working on specific performance measures and a performance plan. The performance plan will be completed by the end of fiscal year 1998.
- 2-2. The regional laboratories agree that a consistent measurement system should be developed, and the issue will be discussed at a meeting in September 1997. However, they believe that it is important to develop a system that is not only consistent and accurate, but also reflects other factors and assumptions that need to be considered when measuring the performance of regional laboratories. A pilot evaluation system will be completed by September 1998.
- 2-3. In accordance with the Results Act, the regional laboratories will prepare annual performance reports that will compare actual accomplishments with established goals. The first report is due March 31, 2000, which will address the accomplishments for fiscal year 1999.
- 2-4. The regional laboratories anticipate that funding decisions will be based on accomplishment of goals as identified in performance plans. The full system for linking planning, budgeting, and accomplishments should be in place for the development of the fiscal year 2002 budget. Interim efforts will be made to assure maximum accountability.

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**OIG EVALUATION**

The Agency's planned actions will address the recommendations.

**CHAPTER 3**  
**Regional Laboratories Need a Stronger**  
**Shared Identity and National Leadership**

EPA's regional laboratories need a stronger shared identity and more active national leadership. Each regional laboratory has historically operated independently of the others, however, there are many similarities in their missions, goals, and contributions to the Agency. A 1994 EPA report<sup>5</sup> (1994 Laboratory Study) recommended enhancing the role of the "central advocate" for the regional laboratories and re-evaluating which organizational component should fill that role. Although the Office of Regional Operations and State/Local Relations (OROS/LR) was designated to perform this role, its ability to fulfill the responsibilities had been limited due to resource constraints.

The absence of a shared identity among regional laboratories and the limited scope of national leadership have resulted in inefficient efforts to meet common needs. Development of a data management system and procurement of capital equipment are two examples of where uncoordinated efforts caused duplication of effort. A stronger shared identity and more active leadership would help the laboratories achieve efficiencies from their collective efforts.

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## SHARED IDENTITY

Each of EPA's ten regional laboratories has historically seen itself as a unique entity. Laboratory officials have no responsibility to each other or to a national level office within EPA. Instead, each regional laboratory reports to its respective Regional Administrator. At the same time, regional laboratories share similarities in their missions, goals, and contributions to EPA. Each provides a wide range of technical support and assistance services to regional program offices, state and local environmental agencies, and tribal units for use in environmental and enforcement decision-making. Specific activities include sample analysis, method development, and laboratory inspection and certification.

Regional laboratories are not, and should not be, identical in their size, structure, or method of delivering services. Geographic and program variations mandate that each laboratory has the flexibility to meet unique requirements. However, the laboratories need to accept and embrace that there are significant similarities in the functions they perform. The regional laboratories prepared a draft vision statement that indicated

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<sup>5</sup>Research, Development, and Technical Services at EPA: A New Beginning, Report No. EPA/600/R-94/122, July 1994.

that, more and more, solutions to environmental problems can be achieved only through the collective efforts of all stakeholders. A stronger shared identity and national leadership will assist the laboratories in considering not only their regional needs, but national needs that can be met through coordinated efforts.

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## **NATIONAL LEADERSHIP**

The laboratories continue to need stronger national leadership.<sup>6</sup> In the 1994 Laboratory Study, EPA concluded that it needed to strengthen the Headquarters advocacy for the regional laboratories. This would, in essence, place regional laboratories on a par with national program offices. This organization would serve a two-fold role. First, it would represent the regional laboratories within Agency-level issues. These would include discussions concerning allocation of resources. Second, the organization would serve as a focal point for regional laboratory functions. This would include identifying efficiencies related to coordination of laboratory functions and encouraging cooperation among the laboratories. However, according to EPA officials, the expanded role EPA envisioned has not been fulfilled due to resource constraints.

The 1994 Laboratory Study listed the following activities among the central advocate's proposed roles:

- provide consensus building for the effective and efficient use of resources to meet support requirements;
- facilitate communications among the laboratories, the Administrator, and program offices;
- ensure that senior management understood how the laboratories' mission integrates into EPA's overall scientific mission;
- represent the laboratories during budget and strategic planning efforts; and
- provide leadership for the laboratories promoting national consistency.

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<sup>6</sup>The regional laboratories have referred to this role as the "central advocate". However, in the context of this report, we will refer to it as "leadership" to better include all aspects of the envisioned role.

The study recommended that OROS/LR continue as the central advocate with enhanced management and budget support. However, according to an OROS/LR official, it was not able to fulfill this enhanced role due to limited resources. The OROS/LR's activities for regional laboratories had been limited to budget justification and distribution of resources for capital equipment.

The regional laboratory managers believe that stronger national leadership is needed. The managers provided the following areas of deficiencies which highlight the need for stronger leadership:

- liaison between the laboratories and Headquarters program offices, resulting in less than full integration of the regional laboratories into the Agency's science program,
- communication between Headquarters and the laboratories concerning emerging issues that may affect its operation and results in under-utilization of resources,
- advocacy or leadership when budget and staffing levels are addressed,
- promotion, at the national level, of the regional laboratories' functions and contribution to the Agency, and
- recognition of the role that regional laboratories play in enforcement, monitoring, and agency initiatives.

OROS/LR is currently undergoing a reorganization and redefinition of duties. As part of the reorganization, Agency management has decided that regional laboratory leadership will remain with the regional operations staff in the Office of the Administrator. As EPA implements the reorganization, it needs to determine what role the regional operations staff will perform. In doing so, it is essential that the regional operations staff provide stronger national leadership.

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#### **ILLUSTRATIONS OF NEED FOR NATIONAL LEADERSHIP**

The absence of: (1) a shared identity and (2) an effective national leadership have resulted in inefficient use of resources. Attempts to develop data management systems within regional laboratories and the procurement of capital equipment are two examples of where national leadership may have resulted in a more efficient use of resources. A stronger shared identity and national leadership will assist the

laboratories in considering not only their individual needs, but how their needs impact and overlap the needs of other laboratories.

**Data Management  
Systems**

Each regional laboratory has independently purchased, or developed, its own data management system. While actual use varied, each laboratory's data management system had the capability to perform some similar functions. In 1992, EPA's Research Triangle Park (RTP) and regional laboratories attempted to develop a common system that would address the core needs of all of the laboratories. However, in spite of its efforts and investments, EPA does not have a data management system which meets the laboratories' needs.

The RTP system was designed to contain a core set of functions that all of the laboratories needed such as project management, sample tracking, and analysis scheduling. The data management system was provided to interested regions. However, only a few regions adopted it as the others felt the system was not adequate. Some of the regional laboratories felt that this system did not meet the needs already met by current systems, was not user friendly, and that it had flaws. For example, the system did not: (1) meet biologists' needs, (2) electronically transfer data, or (3) generate reports. As a result, regional data management needs have been met through several different efforts.

A comparison of Region 5's and 9's systems shows the variations in how the systems are used and the related costs.

- Region 5 uses its system to track workload, track samples, generate reports, and upload information from instruments. Region 9 currently only uses its system to log in samples.
- Region 5 obtained its system at no cost from RTP. Region 9 purchased a commercial system for about \$10,000.
- Region 5 had recently modified its system to expand its capabilities. Region 9 was hiring computer support to learn the capabilities of its system.

The comparison of the systems shows the differences that exist throughout regional laboratories. Both regions spent time and resources trying to get a reliable system in operation. A stronger national leadership would prevent further duplication of effort in the purchase, development, or modifications of systems needed to meet the regional laboratories' core needs. This leadership could facilitate communication

among the laboratories to determine the universal needs for a system, capabilities that had already been developed, and on-going regional developments. Coordination of data management system development would result in a more consistent national process for tracking laboratory activities.

### **Equipment Purchases**

Regional laboratories' capital equipment purchases were made based on regional rather than national needs. As a result, regional laboratories have the potential for inefficient use of equipment resources. If equipment purchases were better coordinated, regional laboratories could reduce the potential for purchasing equipment that would not be fully used. EPA and the regional laboratories have also recognized the need for better coordination, but have not taken action to improve it.

While OROS/LR was responsible for ensuring proper use of the capital equipment funds, it did not centrally manage the equipment purchases, nor did it require the regional laboratories to submit information on planned purchases and the rationale for those purchases. In December 1996, the OROS/LR began developing a tracking system to show equipment purchased since 1992. An OROS/LR official stated that requiring laboratories to submit the information increased their accountability for the funds. However, OROS/LR's tracking system only identifies past equipment purchases and does not account for planned purchases. As a result, the current method of tracking will still not prevent regional laboratories from purchasing duplicate equipment that will be underutilized.

Regional laboratories have recognized that there may be a more efficient way of using equipment. A draft vision statement for the regional laboratories indicated that the regions would coordinate workload, equipment, and expertise among themselves to assure the most efficient and highest quality service. Under this vision, regional laboratories might use equipment resources more efficiently through coordination of equipment purchases. National leadership for the regional laboratories could help the regional laboratories identify a better way to use resources to meet support requirements. This leadership could bring the laboratories together to recognize there are commonalities in their work and that they can provide support not only to their regions but also to each other.

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### **CONCLUSION**

EPA's regional laboratories need a stronger organizational identity and national leadership. Each regional laboratory has historically operated

independently of the others, however, there are many similarities in terms of their missions, goals and contributions to the organization. The enhanced national leadership role EPA envisioned is currently not being fulfilled. A stronger shared identity and national leadership could help regional laboratories improve coordination of their activities to reduce duplication of effort and achieve efficiencies in the use of resources.

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**RECOMMENDATIONS**

We recommend that the Acting Associate Administrator for Regional Operations and State/Local Relations:

- 3-1. Work along with the regional laboratories to complete their efforts to develop a common vision and mission statement.
- 3-2. Work with regional laboratory management to identify the appropriate responsibilities for the national leader.

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**AGENCY ACTIONS**

In responding to the draft report, the Acting Associate Administrator for OROS/LR agreed with the recommendations and described actions to address the recommendations.

- 3-1. The regional laboratory vision and mission statements should be completed by January 1998.
- 3-2. During the current reorganization, OROS/LR discussed with the Regional and Deputy Regional Administrators and regional laboratory directors the specific responsibilities for the national leader. Within one month of finalizing the reorganization plan, a work plan will be developed to reflect regional operations staff activities in support of regional laboratory operations.

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**OIG EVALUATION**

The Agency's planned actions will address the recommendations.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460Office of Regional Operations  
and State/Local Relations**MEMORANDUM**

**DATE:** July 29, 1997

**SUBJECT:** Response to the Draft Audit Report No. E1PMF6-05-0115, Audit of Regional Laboratories

**FROM:** Marylouise M. Uhlig  
Acting Associate Administrator

**TO:** Michael Simmons  
Deputy Assistant Inspector General for Internal Audits

On behalf of the Regions and OROS/LR, I want to thank you for the opportunity to review the Draft Audit Report No. E1PMF6-05-0115, Audit of Regional Laboratories. Charles Allberry, Audit Manager, Northern Audit Division and his staff conducted a highly professional review of the planning and management processes of the Regional laboratories. Evaluations of this kind are very useful to management serving as important tools in our efforts to improve and streamline operations.

The Office of Regional Operations and State/Local Relations (OROS/LR) and the Regional Science and Technology (RS&T) Managers have joined with the Agency in its efforts to understand and implement the specific requirements and goals behind the Government Performance and Results Act (GPRA). We recognize the importance of both planning and accountability and will continue recent ongoing efforts to bring our processes in line with GPRA requirements. Supporting the concept of a shared identity for the Regional laboratories, the Regional Operations Staff will work with the Regions to achieve greater consistency and effectiveness through more coordinated efforts across the Regional laboratories. As the reorganization of portions of the Office of the Administrator, including the Regional Operations Staff (ROS), is implemented, the ROS will work to acquire the resources (FTE) necessary to provide strong national leadership for the broad scope of issues vital to the Regional Science and Technology organizations.

*Note: The original response was signed by Bettina B. Fletcher for Marylouise M. Uhlig.*

In response to your specific recommendations, we offer the following comments, planned corrective actions and time frames for accomplishing these remedies.

**Recommendation 2-1**

The Regional laboratories are working with Program components, the Office of Planning, Analysis and Accountability, and OROS/LR to meet the requirements of GPRA. The RS&T organizations have developed an RS&T Objective under Agency Goal 8, Sound Science, and a draft Profile Planning Baseline to accompany the Objective. Also, an RS&T GPRA Workgroup comprised of representatives from each RS&T, have developed Sub-objectives that further define the RS&T Objective and provide specific Performance Measures. The RS&T GPRA Workgroup will continue to respond to all Agency GPRA requirements for implementation. The next step will be the development of the Performance Plan with Goals and Performance Indicators. The time frame for complete implementation of this recommendation according to the Agency's GPRA schedule will be the end of FY 1998 for FY 1999.

**Recommendation 2-2**

The RS&Ts have had numerous discussions concerning the issue of measuring laboratory activities consistently across the Regions. The RS&Ts agree that a consistent measurement system should be developed and this issue will be on the agenda for the fall RS&T meeting in September, 1997. However, the RS&Ts believe that it is important to develop a laboratory activities measurement system that is not only consistent and accurate, but also reflects numerous other factors and assumptions which impact any algorithm used to measure laboratory performance. Sample matrix complexity, programmatic requirements, temporal sample loading patterns, data quality objectives (e.g. from enforcement-quality requirements to initial site screening), appropriate quality assurance levels all significantly impact the number of samples analyzed by a laboratory. A mechanism to measure Regional laboratory activities, including consideration of the additional factors, will be prepared for pilot evaluation by September, 1998.

**Recommendation 2-3**

In accordance with GPRA, the RS&Ts will join the Agency in preparing annual Performance Reports that compare actual accomplishments with established goals. Laboratory performance will be an important element of these reports. The first steps in this process have already been taken with the development of the RS&T Objective, Sub-objective and Performance Measures under GPRA. Implementation of this recommendation will follow the Agency GPRA requirements with the first Annual Performance Reports due March 31, 2000 addressing accomplishments for FY 1999.

**Recommendation 2-4**

The RS&Ts anticipate that funding decisions will be based on the accomplishment of Goals as outlined in their respective Performance Plans. Performance Plans with their Performance Indicators will be incorporated with the Annual Performance Reports and Program

Office guidance concerning areas of investment and disinvestment to establish outyear funding requests. Implementation of this recommendation will follow the Agency schedule which calls for the completion of Annual Performance Reports by March 31, 2000 addressing the accomplishments of FY 1999. Accordingly, the full GPRA system to link planning and budgeting should be in place for the Regional laboratories for development of the Agency's FY 2002 budget. Interim efforts will be made to assure maximum accountability of Regional laboratories as rapidly as possible.

**Recommendation 3-1**

OROS/LR is actively engaged with the RS&T managers to complete development of a common vision and mission statement for the Regional laboratories. The vision and mission statements will be discussed with Senior Regional management as well as Headquarters Program Offices to assure that there is a shared understanding and support for the functions which the Regional laboratories can and should provide for the Agency. We anticipate that the vision and mission statements should be in place by January, 1998.

**Recommendation 3-2**

OROS/LR, in the context of recent Office Reorganization activities, initiated a dialogue with both the RS&T managers and Regional and Deputy Regional Administrators concerning the specific responsibilities for the national leader of the RS&Ts. The need for improved coordination among Regional laboratories for greater efficiency and effectiveness is recognized and will be incorporated in the activities of the successor organization, the Regional Operations Staff (ROS) The scope of the functions which can be carried out will be dependent upon the staffing levels which can be established for this activity.

OROS/LR's has a long history with the Regional laboratories; this experience and expertise will continue through the Regional Operations Staff. There is a strong commitment on the part of the Office of the Administrator, including the Regional Operations Staff, to provide the National leadership to the Regional laboratories to maximize their ability to support the Agency's mission for protection and improvement of public health and the environment. As soon as the Office of the Administrator Reorganization is finalized, a work plan will be developed for Regional Operations Staff activities in support of the RS&T operations. This work plan will reflect discussions with RS&T managers, Regional Administrators and Deputy Regional Administrators and will define the responsibilities of this National leadership role. The draft workplan will be developed within one month of the completion of the Reorganization.

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