

EM-50

Final Call for Headquarters Year-End Performance Evaluation of Battelle for the Management and Operation of the Pacific Northwest National Laboratory for FY 2000

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This memorandum provides the final rating for Pacific Northwest National Laboratory (PNNL) based on support for the Office of Science and Technology's (OST) Tanks Focus Area (TFA) Program, the Groundwater Vadose Zone Program, and the Environmental Management Science Program (EMSP). It also takes into account PNNL's support to the DOE Office of River Protection.

The following table provides the raw and weighted scores for OST's evaluation of PNNL related activities in support of TFA, EMSP, Groundwater Vadose Zone and DOE-ORP. Narrative justification for the scores is provided following the raw and weighted scores.

Program Area	Research Quality	Mission Relevance	Research Facilities	Research Mgmt.
EMSP	5	4.8	N/A	4.5
TFA	4.5	4.5	N/A	4.5
GW/VZ	4.8	4.5	N/A	4.2
DOE-ORP	N/A	N/A	N/A	4.5
Overall	4.8	4.6	N/A	4.4

Quality of Science and Technology

The PNNL staff leads the TFA technical team in developing the technical responses to the site needs, the technical solutions to the needs, and are responsible for developing the multi year program to address the needs. PNNL is responsible for delivering the Site Needs Assessment document and Multi year Program Plan (MYPP) each year. The MYPP presents the technical program to support the site needs and is the culmination of the work to develop a prioritized technical program. Starting with the FY 1998 program, the area managers of the four sites with high-level waste have endorsed the MYPP, followed by concurrence by three Deputy Assistant Secretaries. The fact that the site managers concur with the program plan is a good indication that it meets their needs as a quality product. Over the years, PNNL has repeatedly done an excellent job in working with the Department of Energy to develop this plan.

PNNL continues to do an outstanding job in terms of the quality of science it provides for the EMSP. PNNL maintains the largest portfolio of EMSP projects - all selected through a rigorous peer review process - and continues to demonstrate outstanding technical innovativeness and

originality in its research. Technical Peer reviews that have been completed on various EMSP projects in FY 00 help confirm the high level of scientific excellence in this area.

The science and technology PNNL is applying to the groundwater vadose zone problem has been outstanding. There has been significant work in their EMSP projects that address issues relevant to the vadose zone problems.

Relevance to Mission

PNNL's EMSP projects continue to be directly relevant to significant EM mission needs. They made significant progress in demonstrating an end user for their EMSP projects and the development of technology disposition plans for each EMSP project is commendable.

The work PNNL has done in the area of Groundwater Vadose Zone is in direct support of the Environmental Restoration mission of not just the Hanford site but many other sites throughout the DOE complex. Their work on the S&T Vadose Zone Roadmap has been outstanding and responsive. The S&T Roadmap has also help set the standard for the DOE complex and others on critical groundwater vadose zone issues. Not only has PNNL ensured relevance to the DOE groundwater vadose zone issue but has worked with key stakeholders to cover their issues as well.

Effectiveness and Efficiency of Research Program Management

PNNL has done an outstanding job in performing its responsibility as the technical lead organization for the TFA in FY 2000. In order to do this, PNNL has interacted with site technical experts to understand the site needs, to develop technical responses, and to address comments to the draft site needs assessment. In addition, in FY 2000, the TFA received a number of requests for technical support, the most significant one of which involved assuming a leadership role for research and development of the Salt Processing Project at Savannah River. Due to the high level of Congressional interest in this project, it was imperative for PNNL to develop a management plan and assign technical staff in a timely manner. PNNL developed an excellent management plan and organizational structure to support this effort. The accomplishments to date for the program are a direct result of PNNL's performance.

PNNL currently manages the single largest portfolio of EMSP projects of any participating institution. To date, management of these projects has been excellent.

In addition to providing the technical lead to the Groundwater Vadose Zone Integration Project, PNNL also currently manages the Hanford Groundwater Monitoring Project. When concerns were voiced this past year over tritium levels in some of the monitoring activities, PNNL quickly identified the procedural problems and resolved them. The level of support on these activities has been excellent.

PNNL also provides significant support to the Office of River Protection. The following areas describe this support which is deemed outstanding.

Management Support to WIT:

PNNL senior personnel supported DOE in the preparation of Congressional Reports, prepared DOE for Congressionally mandated External Independent Reviews and on an as needed basis, supported DOE in responses to Congressional inquiries. One of the most significant efforts was the support the PNNL team provided in ORP's briefings to the Deputy Secretary so that he could gain a comprehensive understanding of the River Protection Project, the privatization initiative and other associated programmatic issues facing the most important project.

Technical and Permitting Support to WIT:

PNNL provided excellent support on review of the BNFL, Inc. design and permitting deliverables. The WIT effectively obtained and organized subject matter experts in support of critical reviews. Their efforts were instrumental in completing a final evaluation of the Technical and Permitting products from BNFL, Inc.

Cost and Schedule Support to WIT:

PNNL gathered the appropriate cost, schedule, technical, risk, financial and management support required to evaluate the BNFL documentation and prepare the Should Cost Estimate. This required the review of BNFL technical (process, mechanical, electrical, civil, electronic, etc.) documentation. A cost estimate and schedule were developed to show the spread of the hard costs through the project lifecycle. Technical support provided input into the cost estimate development, establishment of the appropriate start-up and commissioning activities, and the appropriate ramp-up for full operations of the facility. Risk personnel worked with the technical and cost personnel to assess the risks associated with the project, from design through operations, and then developed a computer model to perform analyses to estimate the amount of contingency required. Financial support provided input from two areas: assessment of the viability of different financing options, and the development of a complex financial model using input from the cost, technical and risk analyses. The Should Cost Estimate was a tool used in the evaluation of the BNFL proposal. If the quality of the Should Cost Estimate were questionable, the use of it as an evaluation tool would not have been feasible. PNNL was able to develop an important analytical tool for use in evaluating complex technical, schedule, cost and financial deliverables.

Risk and Decision Management Support to WIT:

PNNL was very effective in aiding the DOE in the B-2 decision process. PNNL personnel played key roles: (1) crafting the decision process itself, (2) establishing evaluation criteria, (3) summarizing the eight functional team's evaluation, and (4) collating the decision package and alternatives for ORP and HQ management. PNNL

personnel were extremely proficient, thorough and very conscientious throughout the entire process.

Overall Strategic Management Support to DOE-ORP:

DOE-ORP has significantly benefited from the involvement of PNNL. PNNL's support was provided at a critical point in the ORP organization. There were both organizational changes as well as major contractor changes during the last year and PNNL continued providing excellent support through the transitions.

EM appreciates the support provided by PNNL, which has routinely exceeded standards and expectations. We also appreciate the opportunity to provide input to this evaluation process. If you have any questions, please contact John Wengle at 202-586-0396.