QUALITY ASSURANCE PROGRAM PLAN
RESPONSIVENESS SUMMARY

EPA April 6, 1988

RESPONSE TO GENERAL COMMENTS: General comments are addressed in the cover letter and in the specific responses as follows:

Comment:

1. Section 3.0 - It is not made clear what role, if any, the DOE has regarding oversight of the contractor.

Response:

The responsibility for management and technical direction of remedial actions has been delegated to the DOE Oak Ridge Operation Office. MK-Ferguson (MK-F) is the project management contractor (PMC) assisting DOE in the planning and management of remedial action activities.

An organization chart is included in Section 3.0 of the RIQAPP (Rev. 0) which delineates lines of authority, responsibility and communication assigned to key project entities.

Comment:

2. Section 6.0 - It might be appropriate to establish frequency of collection of different types of QC samples used for assessing precision and accuracy in particular.

Response:

Sections 4.0 and 8.0 of the RIQAPP (Rev. 0) summarize methods for ensuring accuracy and precision. Details are presented in the Standard Operating Procedures (SOPs) and sampling plans previously published and incorporated by reference as associated documents to the RIQAPP.

Comment:

3. Section 6.3 - We feel that, on page 105, Item 6.3, or some other appropriate location, reference should be made to a needed requirement that all laboratory data should come from laboratories that participate in EPA or other quality control programs. For example, EPA operates, out of the Las Vegas Laboratory, a Radiation Quality Control Program which about 195 laboratories utilize. We feel that any lab producing quality radiation data should participate in this program, or,

an equivalent, alternate program. The EPA, from Cincinnati, offers similar programs for many other analyses.

Response:

metaTRACE Laboratory, JTC Environmental Consultants, ACCULABS Research Inc., and other WSS selected laboratories participate in EPA's Quality Control Program and utilize those standards including CLP procedures and guidelines prescribed by EPA for analyzing relevant chemical and radiological constituents. Internal quality control, as described in Section 8.0 of the RIQAPP (Rev. 0), prescribes the utilization of EPA quality control ampules, Standard Reference Materials, and pure laboratory-prepared solutions.

Comment:

4. Section 6.4 - It is not made clear in the text what level of completeness needs to be attained for the data to be valid.

Response:

The amount of valid data required to meet data goals is determined by specialists and task leaders, e.g., engineers, hydrogeologists, and geologists. The ultimate responsibility for determination of data completeness, i.e. amount of valid data obtained compared to amount of valid data needed, rests with the project director. Sampling plans delineate specific data needs, uses, and goals.

Comment:

5. Section 6.5.1 - The discussion of standard operating procedures for sampling is not consistent with the Raffinate Pit Sampling Plan.

Response:

The Raffinate Pit Sampling Plan and this section of the RIQAPP have been revised.

Comment:

6. Section 6.5.3 - The text is unclear on what points need to be considered in evaluating the representativeness of the data.

Response:

This section has been expanded and is included in Section 4.1.3 of the RIQAPP (Rev. 0).

Comment:

7. Section 7.0 - SOPs for each field operational procedure are not explained in detail in the Raffinate Pit Sampling Plan as this section prescribes.

Response:

This section has been deleted.

Refer to Table 1.1 of the RIQAPP (Rev. 0) for associated documents which provide information on sampling, calibration and analytical procedures.

Comment:

8. Section 8.0 - The text does not state who will perform all the calculations specified. Clarify who will perform the calculations (contractor, laboratory, etc.) and how the calculations will be checked and audited. If the laboratory is to perform the calculations, is this part of their standard QA/QC package?

Response:

Section 8.0 has been revised to present a synopsis of the data reduction validation and reporting process (see Section 7.0 of the revised document). Section 1.0 (Table 1.1) of the RIQAPP (Rev. 0) references documents that prescribe procedures for this QA element. The role of the laboratory is presented in Analytical Methods/Detection Limits, an associated document to the RIQAPP. The Laboratory QA/QC Manual is presented in this document.

Comment:

9. Section 8.0 - It was not clear how new data will be evaluated and reported in terms of quality.

Response:

EPA Document EPA 540/G-87/003, entitled "Data Quality Objectives for Remedial Response Activities" provides guidance for collection and evaluating the quality of data which are needed to support decisions to be made by DOE during remedial response activities. The three-stage program presented in this guidance document

is described in Section 2.3 of the RIQAPP (Rev. 0). The RI/FS-EIS Work Plan and sampling plans provide rationale and describe the data evaluation process.

Comment:

10. Section 8.5 - Why is a discussion of data quality audits provided in this section and not in Section 9.1.

Response:

This discussion has been deleted. Section 4.0 of the RIQAPP (Rev. 0) describes Quality Assurance Objectives for Measurement. Section 9.0 addresses the audits and corrective actions.

Comment:

11. Section 8.2 - The last sentence in Section 8.2 appears to be in error. In environmental monitoring, sampling error is considered to have a greater impact on variability of data than laboratory analyses.

Response:

This sentence has been deleted.

Comment:

12. Section 9.0 - It was not clear who would perform or how often audits would be performed. Mention is made of QA/QC plans on page 137, but it is unclear what these are.

15. Section 9.1 - The text is unclear on the number and type of audits that are included.

16. Section 9.1 - Field audits do not seem to include the checking of field procedures. Will this be done? Is it a separate audit?

Response to Comments 12, 15, 16:

Section 9.0 has undergone extensive revision to address concerns expressed in the above comments.

Comment:

13. Section 9.0 and Table 9-1 - QA/QC training does not include: 1) SOPs for sampling, 2) SOPs for field activities and 3) documentation of field activities.

14. Section 9.0 and Table 9-1 - It is unclear what specific items are included under 6.0 Inspection and Testing.

Response to Comments 13 and 14:

SOP training is a routine part of the WSSRAP. All employees are required to read SOPs they will implement. The employee then discusses any questions regarding specific SOPs with his supervisor. The employee then performs the SOP with oversight of a staff person familiar with the SOP. This training is documented by a sign-off form specific to the pertinent SOP being performed.

Inspection and testing is addressed in the SOPs and is in accordance with NQA-1 (ANSI, 1986). The relationship between the overall WSSRAP QA/QC program and the revised QAPP is addressed in Section 1.0.

Specific Comments:

1. In order to make Figure 2-6 (p. 30) consistent with the text (p. 32) I suggest using "pCi/l" in the title of the figure.

2. The 2nd paragraph on p. 35 refers to DOE guidelines for uncontrolled areas, but does not state what these guidelines are (see general comment 3 above).

   Special Studies in Support of Feasibility Studies (Section 4.2) should consider the following items to determine compliance with requirements of the Missouri Air Pollution Control Program within MDNR:

   - Asbestos removal from buildings and pipes,

   - Permits may be required if the remedial action is to take longer than two years or if the potential annual emissions of any criteria pollutant exceeds 100 tons,

   - Special non-attainment area regulations for volatile organic compounds apply to facilities in St. Charles County,

   - Controls for noncriteria pollutants are expected to be promulgated by the end of 1988. This may be important for the Weldon Spring project when considering the potential for radiologically contaminated airborne particles and radon-222, especially during remedial activities.

Response:

See Response to General Comments 1, 2 and 3.

Comment:

4. The list of data users (p. 99) should include the Missouri Department of Health and the Agency for Toxic Substances and Disease Registry.

Response:

Names of these data users have been added to the RIQAPP (Rev. 0).

MISSOURI DEPARTMENT OF NATURAL RESOURCES (MoDNR)

March 21, 1988

MoDNR General Comments on the QAPP.

As discussed in our meeting of March 17, 1988, the MDNR concurs that information presented in pages 1-91 more properly belongs in the Remedial Investigation/Feasibility Study (RI/FS) Work Plan.

However, in order to facilitate preparation of the RI/FS Work Plan I offer the following comments:

1. The title should indicate whether this document applies to the entire project or only the Chemical Plan/Raffinate Pit area. Section 2.4 is ambivalent since 2.4.1 includes a discussion of the Quarry while 2.4.2 does not.

2. The QAPP contains a useful presentation of characterization data. However, the data would be more useful if presented in a clearer graphic form. For example, when presenting data showing the area of contamination, I suggest using maps with isopleth showing contaminant levels.

3. The meaning of the data could better be illustrated by including an isopleth for background levels. If clean-up levels have been established then another isopleth could be included showing the clean-up levels, thereby clearly indicating the area where remedial action is needed. If this information is not available at the time the RI/FS Work Plan is prepared it can be added in the RI/FS report.

4. Will the basis for and levels of clean-up standards be included in the RI/FS Work Plan?

Response to General Comments 1, 2, and 3:

Sections 1.0, 2.0 and 4.0 (pages 1-54 and 63-91) have been revised and included in the RI/FS-EIS Work Plan. Isopleth maps will be prepared and submitted with the RI report. Background levels will be addressed in the ARAR section of this report.

Response to General Comment 4:

Applicable Relevant and Appropriate Requirements (ARARs) have been identified on a preliminary basis in the RI/FS-EIS Work Plan. As additional information becomes available, ARARs used to identify clean-up goals will be presented at the completion of the RI Phase.

LTR015/TXTJOANN

Department of Energy
Oak Ridge Operations
Weldon Spring Site
Remedial Action Project Office
Route 2, Highway 94 South
St. Charles, Missouri 63303

March 8, 1988

Ms. B. Katherine Biggs, Chief
U. S. Environmental Protection Agency
Region VII
726 Minnesota Avenue
Kansas City, Kansas 66101

Dear Ms. Biggs:

QUALITY ASSURANCE PROGRAM PLAN (QAPP) AND RAFFINATE PIT SAMPLING PLANS

Our February 25, 1988 letter transmitted copies of the Quality Assurance Program Plan (QAPP) and the Raffinate Pit Sampling Plan for your review.

In accordance with prior agreements that these types of plans be reviewed within three (3) weeks, we are requesting your comments by March 21, 1988.

Sincerely,

Bennett A. Lawver

For Stephen H. McCracken
Deputy Project Manager
Weldon Spring Site
Remedial Action Project

cc: Dave Bedan, MDNR

JOHN ASHCROFT
Governor

DERICK A. BRUNNER
Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176
Jefferson City, MO 65102

Division of Energy
Division of Environmental Quality
Division of Geology and Land Survey
Division of Management Services
Division of Parks, Recreation, and Historic Preservation

March 21, 1988

Ms. B. Katherine Biggs, Chief
Environmental Review Branch
U.S. Environmental Protection Agency
Region VII
726 Minnesota Avenue
Kansas City, KS 66101

Dear Ms. Biggs:

This letter contains the comments of the Missouri Department of Natural Resources (MDNR) on the draft "Quality Assurance Program Plan" (QAPP), February 1988, prepared by the U.S. Department of Energy (DOE) for the Weldon Spring Site Remedial Action Project (WSSRAP). It also contains comments on DOE's draft "Waste Assessment Raffinate Pit Sampling Plan", February 1988.

General Comments on the QAPP

As discussed in our meeting of March 17, 1988, the MDNR concurs that information presented in pages 1-91 more properly belongs in the Remedial Investigation/Feasibility Study (RI/FS) Work Plan.

However, in order to facilitate preparation of the RI/FS Work Plan I offer the following comments:

1. The title should indicate whether this document applies to the entire project or only the Chemical Plan/Raffinate Pit area. Section 2.4 is ambivalent since 2.4.1 includes a discussion of the Quarry while 2.4.2 does not.

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4. Will the basis for and levels of clean-up standards be included in the RI/FS Work Plan?

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- Controls for noncriteria pollutants are expected to be promulgated by the end of 1988. This may be important for the Weldon Spring project when considering the potential for radiologically contaminated airborne particles and radon-222, especially during remedial activities.

4. The list of data users (p. 99) should include the Missouri Department of Health and the Agency for Toxic Substances and Disease Registry.

General Comments on the Waste Assessment Raffinate Pit Sampling Plan

1. General comments 2 and 3 on the QAPP (above) are also relevant to this plan. Graphic presentation of contaminant levels, background levels and clean-up levels would be helpful.

2. More specific labelling of figures would be helpful, for example, figure 1.4 should indicate that this was a sampling effort by BNI in 1986.

Specific Comments on the Waste Assessment Raffinate Pit Sampling Plan

Because of potential air pollution control considerations, the plan should consider sampling for appropriate volatile and Semi-volatile chemicals. The median vapor pressure of the organic fraction would also be helpful in emission rate calculations.

Since several concerns related to air pollution control have been mentioned, I suggest contacting Mr. Doug Baker of the Air Pollution Control Program at (314) 751-4817, for further information.

Thank you for this opportunity to comment on these draft documents. Please call me at (314) 751-4533 or 4758, if you have any questions regarding this letter.

Sincerely,

DIVISION OF ENVIRONMENTAL QUALITY

David E. Bedan

David E. Bedan
Weldon Spring Work Group Coordinator

DEB/jtw

cc: Rod Nelson, Project Manager, WSSRAP
Ron Kucera, Deputy Director, DNR
William Ford, Director, DEQ
Bob Hentges, WPCP
Nick Di Pasquale, Director, WMP
Doug Baker, APCP
Nick Nikkila, Director, APCP
Jim Long, Director, LSP
Jerry Lane, Director, PDWP
John Crellin, DOH
Bill Dieffenbach, DOC

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Cys: Rod
Steve
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Doc Control
Peer

APR 06 1988

Mr. Rodney R. Nelson
U.S. Department of Energy
Weldon Spring Site Remedial
Action Project
Route 2, Highway 94, South
St. Charles, Missouri 63303

Dear Mr. Nelson:

We have reviewed the draft Quality Assurance Program Plan (QAPP) and draft Raffinate Pit Sampling Plan. Many of our comments which follow were discussed at our meeting of March 17, 1988.

Although it is called a program plan, the QAPP basically has the elements of a project plan. However, we have no problem with using that title as long as the contents of the document are appropriate. As was discussed in our March 17 meeting, most of the information in the first 90 pages of the QAPP more appropriately belongs in the Remedial Investigation/Feasibility Study (RI/FS) work plan. The purpose of a QAPP is to provide guidelines for ensuring the quality of work conducted in a RI/FS. The QAPP should present and describe the organization, responsible personnel (including duties and responsibilities related to quality), requirements for planning document contents (i.e., sampling plan rationale, sampling procedures, sample locations, decontamination procedures, blanks, duplicates, etc.), auditing program (field and lab), reports to management and corrective action scheme.

In this case, most of these elements have been included in the QAPP; however, it is not made clear as to how each element relates to one another. The audit system is well described, but the specific responsibilities of each individual involved are not spelled out. This specific observation is representative of the entire plan. Many individual components are described, but understanding how each of the components impact one another is difficult.

In general, we suggest that the Raffinate Pit Sampling Plan provide a greater level of detail in Section 2.0, Sampling. This section should be expanded to include specific sampling locations identified by number, a table showing depth intervals and

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sampling locations, and a table showing analytical parameters with the depth intervals. This is necessary since one of the primary purposes of a sampling plan is to act as a field guide for the sampling program.

Specific comments on the QAPP and Raffinate Pit Sampling Plan are enclosed. Also enclosed is a copy of the comment letter prepared by the Missouri Department of Natural Resources. Thank you for the opportunity to comment on these documents. Please call me if you have any questions.

Sincerely yours,

Katie

B. Katherine Biggs
Chief, Environmental Review Branch

Enclosure

cc: Dave Bedan, MDNR (w/enclosure)

Comments on the Quality Assurance Program Plan
Weldon Spring Site

1. Section 3.0 - It is not made clear what role, if any, the DOE has regarding oversight of the contractor.

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