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Final

Meeting Minutes Transmittal/Approval
Unit Managers Meeting: 2101-M Pond
725 Stevens Center Building, Room 208
Richland, Washington

Meeting Held October 29, 1992

2101-M Pond Closure Plan, Unit Managers' Approval

Robert G. McLeod Date: 11-24-92
Robert G. McLeod, RL, Unit Manager, ERD/ERB

Not Present Date: _____
Daniel L. Duncan, EPA Region 10, RCRA Program Manager

Elizabeth A. Wiley Date: 11/24/92
Elizabeth A. Wiley, Washington State Department of Ecology, Unit Manager

2101-M Pond Closure Plan WHC Concurrence

Fred A. Ruck III Date: 11/24/92
Fred A. Ruck III, WHC, Contractor Representative

Michael A. Mihalic Date: 11/24/92
Michael A. Mihalic, WHC, Contractor Representative

Meeting Minutes are attached. The minutes are comprised of the following:

- Attachment #1 - Summary of Discussion
- Attachment #2 - Agenda
- Attachment #3 - Attendance List
- Attachment #4 - Action Items
- Attachment #5 - E.A. Wiley (Ecology) to R.G. McLeod (RL), Re: *Dispute Resolution regarding 2101-M Pond Data, October 23, 1992.*
- Attachment #6 - PTI Handout, Handout #1

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Attachment #1

Summary of Discussion

2101-M Pond Closure Plan
Meeting Held October 29, 1992

Summary of Discussion

Review, Amend, Approve, and Distribute Prior Meeting Minutes: The August 26, 1992, and October 2-5, 1992, Unit Manager Meeting Minutes were distributed and signed. It was verified in this meeting that no Unit Manager Meetings were held in February and March 1992 by mutual consent of the Unit Managers.

Issue Resolution Discussion: Ecology stated that as a result of discussions with their consultant (PTI) the letter from Ecology dated October 23, 1992 (Attachment #5) would have to be rescinded. Ecology stated that the data package was not complete. RL/WHC requested that Ecology document the retraction of the October 23, 1992, letter in writing including an explanation of why the data transmitted is unacceptable.

Action Item:

Ecology will formally rescind the October 23, 1992, letter from E.A. Wiley to R.G. McLeod (Re: Dispute Resolution Regarding 2101-M Pond Data) in writing. Ecology will document in this transmittal why the data is unacceptable.

A presentation concerning quality assurance as it applies to the Phase II sample analyses was given by J.J. McAteer Jr. (PTI, Ecology consultant). PTI supplied a handout (Attachment #6) summarizing the PARCC (Precision, Accuracy [bias], Representativeness, Completeness, and Comparability) evaluation process utilized in data validation by PTI. PTI stated that the data validation package supplied to Ecology by RL/WHC did not show that the PARCC evaluation criteria were followed and it was his and Ecology's opinion that it could not be determined that the Data Quality Objectives were met. For this reason the validated data was unacceptable to Ecology.

Specifically, PTI stated that WHC had not apparently reviewed the data that would have allowed them to evaluate the acceptability of the instrument calibrations, the precision and bias of the data, or the detection limits. In addition, he stated that the validation information was incomplete for a Level III analytical support level which he assumed the data was to be evaluated to.

RL/WHC stated that they would reevaluate the Phase II data validation package.

Action Item:

RL/WHC will reevaluate the Phase II data validation package concerning what information has or has not been reviewed and report the findings to Ecology.

A discussion concerning Ecology's position on issue resolution followed. Ecology stated that they would be willing to accept a percentage of split

(continued)

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Summary of Discussion (continued)

samples to be taken in any sampling episode regardless of the number of samples to be taken if RL/WHC obtains complete stand-alone data packages on 100% of the samples.

Modified Ecology Position: Ecology will request 10-20% of the total number of samples be split in any sampling episode for clean closure if RL/WHC will obtain full or stand-alone data packages on 100% of the samples obtained during the sampling episode.

Ecology was requested to comment on what their data validation requirements would be for groundwater samples. Previously Ecology had stated that they wanted to make the groundwater sample analyses data validation requirements commensurate with those they are trying to promulgate for soil. Ecology was unprepared to discuss this issue.

*EG
11-24-92*

Action Item:

Ecology will determine what their data validation requirements will be for groundwater sample analysis.

New Business: RL/WHC has prepared the Notice of Deficiency (NOD) responses for 2101-M Pond Closure plan and will formally transmit them to Ecology within two weeks.

The next unit managers meeting was scheduled for November 24, 1992.

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Attachment #2

Agenda

2101-M Pond Closure Plan
Unit Managers Meeting

Meeting Held October 29, 1992

- Review, Amend, Approve, and Distribute Prior Meeting Minutes
- Issue Resolution Discussion
- New Business

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Attachment #3

Attendance

2101-M Pond Closure Plan
 Unit Managers Meeting
 OCTOBER 29, 1992

(Please Print)

<u>Name</u>	<u>Organization</u>	<u>Role</u>	<u>Phone</u>
<u>BOB McLEOD</u>	<u>DOE</u>	<u>UM</u>	<u>(509) 372-0096</u>
<u>S.J. Lijek</u>	<u>SEC. Dondrae</u>	<u>GSSC</u>	<u>(509) 376-7829</u>
<u>R.M. Kaekel</u>	<u>DOE</u>	<u>RCRA Closures</u>	<u>(509) 376-4264</u>
<u>KA Ruck III</u>	<u>WAC</u>	<u>RCRA Closures mgr</u>	<u>(509) 376-9876</u>
<u>MA mihalic</u>	<u>WAC</u>	<u>RCRA Prog.</u>	<u>(509) 376 0967</u>
<u>F Pinto</u>	<u>DOE</u>	<u>W/ Bob McLeod</u>	<u>(509) 372-2400</u>
<u>JG Adler</u>	<u>WAC</u>	<u>RCRA closure</u>	<u>(509) 376-1674</u>
<u>AL Priguardo</u>	<u>WAC</u>	<u>"</u>	<u>(509) 376-7513</u>
<u>JA Lerch</u>	<u>WAC</u>	<u>OSM</u>	<u>(509) 373-3419</u>
<u>Elizabeth Anne Wiley</u>	<u>Ecology</u>	<u>Unit mgr</u>	<u>(206) 493-9426</u>
<u>JAMES J. McATZGER, JR.</u>	<u>PTI</u>	<u>Consultant</u>	<u>(206) 643-9803</u>
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Attachment #4

Action Items

2101-M Pond Closure Plan
Unit Managers Meeting

Meeting Held October 29, 1992

<u>Action Item</u>	<u>Description</u>
7-11-91:2	Forward the completed Ecological Risk Assessment to Ecology by the first week in September 1990. Action: Jim Hoover. OPEN
5-27-92:1	Ecology will provide a formal letter to RL requesting additional data for validation of the Phase II sampling results. Action: E. Wiley CLOSED (6/4/92)
10-5-92:1	The Issue Analysis Worksheet will be rewritten to include the modified issue and positions and will be faxed to Ecology along with draft meeting minutes for review. Action: R.G. McLeod CLOSED
10-29-92:1	Ecology will formally rescind the October 23, 1992 letter from E.A. Wiley to R.G. McLeod (Re: Dispute Resolution Regarding 2101-M Pond Data) in writing. Ecology will document in this transmittal why the data is unacceptable. Action: E.A. Wiley (Ecology) NEW
10-29-92:2	RL/WHC will reevaluate the Phase II data validation package concerning what information has or has not been reviewed and report the findings to Ecology. Action: J.A. Lerch (WHC) NEW
10-29-92:3	Ecology will determine what their data validation requirements will be for groundwater sample analysis. Action: E.A. Wiley (Ecology) NEW

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Attachment #5

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

October 23, 1992

Mr. Robert McLeod, Engineer
Office of Environmental Assurance,
Permits and Policy
U.S. Department of Energy
P.O. Box 550, MS: AS-15
Richland, WA 99352-0550

Dear Mr. McLeod:

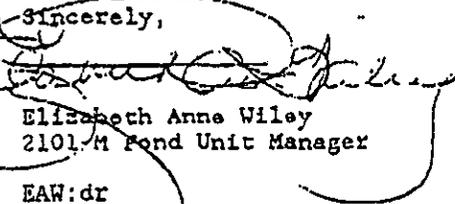
Re: Dispute Resolution Regarding 2101-M Pond Data

This correspondence is regarding the recent arrival of data received from the Department of Energy (DOE), and Warrington Hanford Company (WHC), concerning sampling at 2101-M Pond. An informal dispute resolution has been ongoing regarding the lack of raw data that Ecology had been provided on their project. This data was to be presented so that a data validation by Ecology contractors could take place. The GLP deliverables had been requested and both laboratories, Maxwell S-Cubed and Datachen, complied with the appropriate requirements regarding the submittal of raw data.

As the information in dispute has been transmitted, the informal dispute resolution process may be terminated. Further, Ecology believes the data submitted for the 2101 data package should be considered as the minimum package of information to verify clean closures at the Hanford site. We appreciate the DOE and WHC staffs efforts to resolve the dispute in a timely and cooperative manner.

Should you have any other questions, please contact me at (206) 493-9426.

Sincerely,


Elizabeth Anne Wiley
2101-M Pond Unit Manager

EAW:dr

cc. Paul Day, EPA
Dave Jansen, Ecology
Becky Austin, WHC
Dave Nylander, Ecology
Steven Wisness, USDOE
Fred Ruck, WHC
Ron Izatt, USDOE/RL

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Attachment #6

DATA USES	ANALYTICAL LEVEL	TYPE OF ANALYSIS
Site Characterization Monitoring During Implementation	LEVEL I	<ul style="list-style-type: none"> • Total Organic/Inorganic Vapor Detection Using Portable Instruments • Field Test Kits
Site Characterization Evaluation of Alternatives Engineering Design Monitoring During Implementation	LEVEL II	<ul style="list-style-type: none"> • Variety of Organics by GC; Inorganics by AA; XRF • Tentative ID; Analyte-Specific • Detection Limits Vary from Low ppm to Low ppb
Risk Assessment PRP Determination Site Characterization Evaluation of Alternatives Engineering Design Monitoring During Implementation	LEVEL III	<ul style="list-style-type: none"> • Organics/Inorganics Using EPA Procedures other than CLP can be Analyte-Specific • RCRA Characteristic Tests
Risk Assessment PRP Determination Evaluation of Alternatives Engineering Design	LEVEL IV	<ul style="list-style-type: none"> • HSL Organics/Inorganics by GC/MS; AA; ICP • Low ppb Detection Limit
Risk Assessment PRP Determination	LEVEL V	<ul style="list-style-type: none"> • Non-Conventional Parameters • Method-Specific Detection Limits • Modification of Existing Methods • Appendix 8 Parameters

Figure 2-3. Summary of analytical levels appropriate to data uses.

described. This information is especially important if numerical modeling is anticipated. If little existing information is available, the task descriptions may be very general, since it may not be clear which data evaluation techniques will be appropriate. If information is lacking, descriptions of potential

evaluation techniques could be included, and in addition to describing site characterization techniques, methods to be used in the risk assessment also should be described.

TABLE 2. LEVELS OF DATA QUALITY FOR HISTORICAL DATA

Level 1 Data are acceptable for all project uses.

The data are supported by appropriate documentation that confirms their comparability to data that will be generated in the current project.

Level 2 Data are acceptable for most project uses.

Appropriate documentation may not be available to confirm conclusions on data quality or to support legal defensibility. These data are supported by a summary of quality control information, and the environmental distribution of contamination suggested by these data is comparable to the distribution suggested by an independent analytical technique. The data are thus considered reliable and potentially comparable to data that will be produced in the project.

Level 3 Data are acceptable for reconnaissance-level analyses.

The data can be used to estimate the nature and extent of contamination. No supporting quality control information is available, but standard methods were used, and there is no reason to suspect a problem with the data based on 1) an inspection of the data, 2) their environmental distribution relative to data produced by an independent analytical technique, or 3) supporting technical reports. These data should be considered estimates and used only to provide an indication of the nature and possible extent of contamination.

Level 4 Data are not acceptable for use in the current project.

The data may have been acceptable for their original use. However, little or no supporting information is available to confirm the methods used, no quality control information is available, or there are documented reasons in technical reports that suggest the data may not be comparable to corresponding data to be collected in the current project.

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TABLE 3. CATEGORIES OF EPA PROJECTS
REQUIRING QA PROJECT PLANS

Category I	Projects that produce results that can stand alone. These projects are of sufficient scope and substance that their results could be used directly, without additional support, for compliance or other litigation. Such projects are of critical importance to EPA goals and must be able to withstand legal challenge. Accordingly, the quality assurance requirements for these projects will be the most rigorous and detailed to ensure that such goals are met.
Category II	Projects that produce results that complement information from other projects. These projects are of sufficient scope and substance that their results could be combined with the results of other projects of similar scope to produce narratives that would be used for making rules, regulations, or policies. In addition, projects that do not fit this pattern, but have high public visibility, would also be included in this category.
Category III	Projects that produce results for the purpose of evaluating and selecting basic options, or performing feasibility studies or reconnaissance of unexplored areas that might lead to further work.
Category IV	Projects that produce intermediate results used in testing assumptions.

Reference: *Preparing Perfect Project Plans: A Pocket Guide for the Preparation of Quality Assurance Project Plans* (U.S. EPA 1989c).

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STEP 2: SELECTING AN APPROPRIATE LEVEL OF DATA VALIDATION

Data validation, or the process of assessing data quality, can begin after determining that the data package is complete. Analytical laboratories strive to produce data that conform to the requested statement of work, and they typically perform internal checks to ensure that the data meet a standard level of quality. However, data validation is an independent check on laboratory performance and is intended to ensure that the quality of reported data meets the needs identified in the QA project plan.

The first major part of validation involves the checking of data for any possible errors resulting from transcription of tabulated results, misidentification, or miscalculation of data. This part is largely a mechanical process, a form of proofreading. Like proofreading, the data must be carefully checked, piece by piece, before it can be stated with confidence that the entire data package is 100-percent free of transcription and calculation errors. However, because a 100-percent check is not always convenient or cost-effective, project managers may have to determine whether a reduced level of effort in checking is appropriate.

The second major part of validation involves comparing the data against established criteria for acceptable performance. This comparison can be performed for all aspects of the analysis, including, for example, how well the analytical instrument was set up and calibrated for quantitative measurements. In some cases, an assessment of instrument performance or other detailed checks may not be required. For example, the comparison may be limited to an assessment of method blanks and the bias and precision of sample measurements.

The project manager should select an appropriate level of data validation for the intended data use. Examples of four alternative levels of data validation effort are summarized in Table 6. These four data validation levels are described further in the following sections and range from complete, 100-percent review of the data package to acceptance of the data package without any evaluation.

Project managers may be required to have data validated prior to submittal to a regulatory agency. The project manager should be aware of any specific data validation report formats and deliverables that may apply for the particular agency.

Level 1 Validation

Level 1 is validation of 100 percent of the data, including verifying that all calibrations, checks on quality control, and intermediate calculations have been properly performed for all samples. This level of validation is typically required for projects involving enforcement actions. Level 1 validation may also be required, for example, when assessing the risks posed by contaminants to public health at a controversial site, when

TABLE 6. LEVELS OF DATA VALIDATION

Level 1	100 percent of the data (including data for laboratory quality control samples) is independently validated using the data quality objectives established for the project. ^a Calculations are verified and all data are checked for transcription errors. Instrument performance and original data for the analytical standards ^b used to calibrate the method are evaluated to ensure that the values reported for detection limits and data values are appropriate. The bias and precision of the data are calculated and a summary of corrections and data quality is prepared. ^c
Level 2	20 percent of the sample data and 100 percent of the laboratory quality control samples are validated. Except for the lower level of effort in checking data for samples, the same checks conducted in Level 1 are performed. If transcription errors or other concerns (e.g., correct identification of chemicals in the samples) are found in the initial check on field samples, then data for an additional 10-20 percent of the samples should be reviewed. If numerous errors are found, then the entire data package should be reviewed.
Level 3	Only the summary results of the laboratory analyses are evaluated. The data values are assumed to be correctly reported by the laboratory. Data quality is assessed by comparing summary data reported by the laboratory for blanks, bias, precision, and detection limits with data quality objectives in the QA project plan. No checks on the calibration of the method are performed, other than comparing the laboratory's summary of calibrations with limits specified in the QA project plan.
Level 4	No additional validation of the data is performed. The internal reviews performed by the laboratory are judged adequate for the project.

^a See Chapter I (*Defining Analytical Objectives*) and Chapter II (*Planning for Quality Assurance*) for more information on formulating and implementing data quality objectives.

^b See Chapter IV (*Choosing Analytical Methods and Quality Control Checks*) for more information on these quality control checks.

^c Checks that can be easily performed by the project manager are provided in this manual. Step-by-step procedures used by quality assurance specialists to validate data for analyses of organic compounds and metals can be found in EPA's functional guidelines for data review (U.S. EPA 1988c,d). These guidelines were developed for analyses conducted according to the statements of work for EPA's Contract Laboratory Program and are updated periodically.

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using new analytical techniques or laboratories, or when previous results have been questioned.

Level 2 Validation

Level 2 is a check of only those data that pertain directly to certain critical elements of a study or that constitute a representative subsample of the total data set. For example, in routine monitoring of a well-characterized site, a project manager may decide to evaluate only the data for quality control check samples and high and low data values. In performing a reconnaissance of a large area of potential concern, the project manager may decide to evaluate the data for quality control check samples produced by the laboratory and a random 20 percent of the field data. An additional 10–20 percent of the data should be checked if any errors are discovered in this first batch of figures. In either example, if numerous errors are found, the entire data package should be reviewed in detail.

Level 3 Validation

Level 3 is a cursory review of only the summary results. In Level 3, quality control checks such as precision and accuracy of the data are evaluated, but no check of the supporting laboratory information is performed to validate the final data values. This level of effort may be appropriate when the data are not expected to be used outside of the current project and do not form the basis for critical decisions on expenditure of funds. In any case, the results of quality control samples should be reported with the field data so that others can make their own estimation of the data quality.¹⁶

Level 4 Validation

Level 4 is acceptance of the data package without conducting an independent review of the data quality. This level may be appropriate for noncritical projects when the project manager is already confident that the laboratory results are of known quality. Confidence may be based on the laboratory's internal quality assurance program or recent past experience with the same laboratory (and personnel) analyzing the same kinds of samples without problems. As with Level 3, all results of the laboratory quality control samples should be reported with the field data. Both the results and conclusions sections of any technical report using the data should note that the results were accepted without further validation and should provide a brief explanation of the reasons why.

¹⁶ A discussion of limitations that may be placed on historical data that do not have complete documentation of data quality is contained in the *Assessing Historical Results* section of Chapter I.

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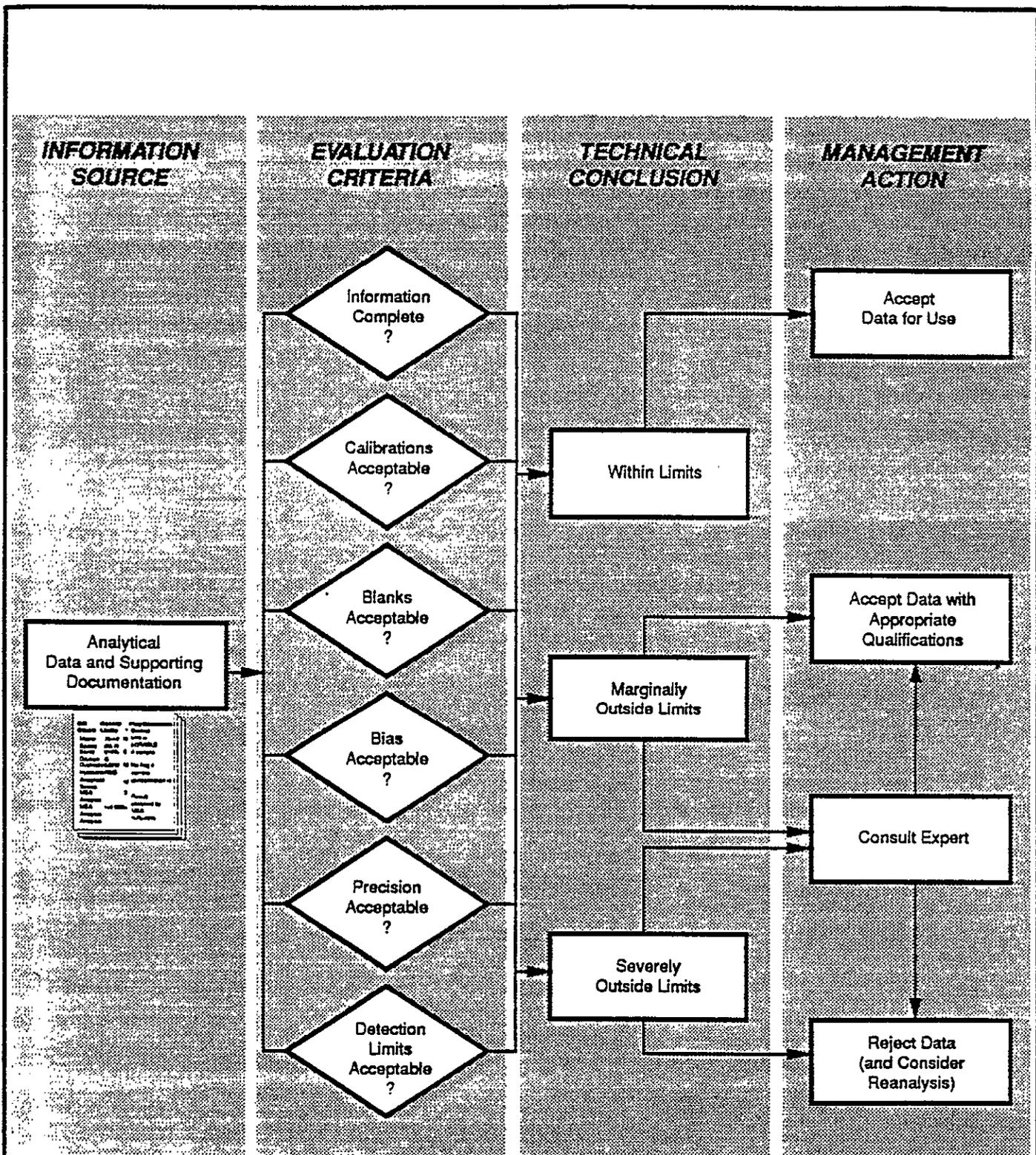


Figure 2. Guidance for data assessment and evaluation of data quality.

Distribution:

R.M. Carosino	DOE	(A4-52)
C.E. Clark	DOE	(A5-15)
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D.L. Duncan	EPA	(HW-106)
G.D. Forehand	WHC	(B2-35)
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F.A. Ruck III	WHC	(H6-23)
E.A. Wiley	Ecology	
B. Woods	EPA	(ES-095)

GSSC RCRA UMM File, A4-35

ADMINISTRATIVE RECORD (2101-M Pond) [Care of EDMC, WHC (H4-22)]

Washington Department of Ecology, Nuclear and Mixed Waste Library, MS PV-11

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Please send comments on distribution list to Steve Lijek (A4-35), 376-7829.

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