



## Department of Energy

Oak Ridge Operations Office  
P.O. Box 2001  
Oak Ridge, Tennessee 37831—

October 16, 2001

Mr. Luther V. Gibson, Jr.  
Oak Ridge Site Specific  
Advisory Board  
Post Office Box 2001, EM-90  
Oak Ridge, Tennessee 37831

Dear Mr. Gibson:

**TRANSMITTAL OF D2 2001 REMEDIATION EFFECTIVENESS REPORT/CERCLA  
FIVE-YEAR REVIEW FOR THE U.S. DEPARTMENT OF ENERGY, OAK RIDGE  
RESERVATION, OAK RIDGE, TENNESSEE (DOE/OR/01-1941&D2)**

The Department of Energy is pleased to deliver four copies of the D2 version of the *2001 Remediation Effectiveness Report/CERCLA Five-Year Review for the U.S. Department of Energy Oak Ridge Reservation*. Site Specific Advisory Board review comments on the D1 version of the document have been addressed, and the shaded portions of text within this D2 version indicate where changes have been made to address those comments. A compilation of individual responses to the review comments on the D1 document is included as Enclosure 2 to this submittal.

If you have any questions concerning this document, please contact Jason Darby at (865) 241-6343.

Sincerely,

A handwritten signature in black ink, appearing to read "Rodney R. Nelson".

Rodney R. Nelson  
Assistant Manager for  
Environmental Management

Enclosures

cc w/o enclosures:  
Pat Halsey, EM-922

**OAK RIDGE SITE SPECIFIC ADVISORY BOARD  
COMMENTS FOR THE 2001 REMEDIATION EFFECTIVENESS REPORT/  
CERCLA FIVE-YEAR REVIEW FOR THE U.S. DEPARTMENT OF ENERGY**

Oak Ridge Reservation, Oak Ridge, Tennessee  
DOE/OR/01-1941&D1, February 2001

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1.	General	<p>The SSAB believes that the Remediation Effectiveness Reports and the Five-Year Reviews are the most important and useful documents for current and future stakeholders and regulators. These documents provide an index to the status of CERCLA actions on the Reservation and those local sites that DOE-ORO is responsible for. As such, we recommend that each Remediation Effectiveness Report and Five-Year Review include appendices that list:</p> <ul style="list-style-type: none"> <li>• completed actions,</li> <li>• actions that while completed require monitoring and maintenance,</li> <li>• ongoing projects, and</li> <li>• future projects.</li> </ul>	<p>The information requested by the commenter is provided in Table 1.1 of the existing RER, with the exception of information on future projects. We believe that the RER is not the vehicle for discussing future projects. This information is negotiated and presented in the FFA Appendices E and J and the annual Life Cycle Baseline.</p>
2.	General	<p>For each entry, provide the titles of the supporting reports (e.g., those decision documents that describe how satisfactory completion is defined, those documents that justify reduced scrutiny, and those that describe the rationale for monitoring plans and long-term stewardship). If a few words would explain why remediation is complete, please include them to close the loop on completed actions (e.g., "Tank 399 had radioactive supernate and sediment removed, and the radioactive residuals measured before grouting amounted to about 0.1 Ci."). Such information provides a future user of the land an indication of what lies below the grass. In addition, for each entry, please provide the location of the supporting documentation.</p>	<p>Some information requested by the commenter has never been published for most actions (e.g., description of how satisfactory completion is defined). We do and will continue to attempt to include all pertinent information on the completion of an action, and will also continue to cite documents for monitoring and stewardship requirements, which are currently provided in Tables 1.1 and 1.2 of the RER.</p> <p>The RER currently provides a bibliography of decision documents for each site in Sect. 9. All decision documents are located at the DOE Information Resource Center.</p>

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3.	General	This 2001 report and the previous reports refer to dizzying panoplies of reference levels for toxic substances. Water quality standards, drinking water standards, action levels, FDA marketability standards for fish, and many others. Stakeholders will likely assume that observations are compared to the least conservative available standard whether or not it is appropriate. Readers will also not know whether the standard relates to acute or chronic exposures. This is a serious problem throughout the report. Since the EPA is an FFA party, we recommend that EPA standards be used, and if others are more appropriate an explanation be given in a footnote. Often, this will require that a consumption level of fish or turtle flesh is stated, and these should be standardized for the report, possibly on the basis of the consumption thresholds on warning signs. (We list under Detailed Comments some cases in which it appears an inappropriate standard has been chosen.)	We will continue to cite standards as they were identified by decision documents. EPA standards often are not the only standard identified in a ROD (e.g., many RODs identify state standards as remedial action objectives). It is not the purpose of the RER to revisit remediation goals that were established by an AM or ROD.  Aquatic species consumption standards have never been standardized across state and federal agencies; this has been an issue in setting ROD goals. As part of the Five-Year Review we evaluated whether ROD goals have been superceded in the regulatory process by more protective standards.  The best avenue for addressing this concern is participation in setting ROD goals for the watershed-scale RODs.
4.	General	Since the SSAB review committee was unclear about the content of future Remediation Effectiveness Reports and the date of the next Five-Year Review, we recommend that each document provide a statement upfront about the content of the current document, what to expect in the next year's document, and when to expect the next Five-Year Review.	Agreed. We will provide this information in each RER.
5.	General	Even a knowledgeable reader who knows many relevant acronyms will find these documents difficult to read. Furthermore, future stakeholders may not be as familiar with the Environmental Management Program and its acronyms as are the current stakeholders. Thus, while a list of acronyms is provided in each document, we recommend that acronyms be spelled out when used the first time and subsequently when separated by many pages or sections from their first use.	The document follows the ORO CERCLA-style procedures for using acronyms. We attempt to limit the use of acronyms and will review this each year.

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6.	General	<p>Oak Ridge stakeholders have continually voiced their concerns about clearly marking and describing the locations of the DOE-contaminated areas on and off the Reservation (see the 1998 and 1999 Stewardship Reports). This includes those areas where cleanup is complete and those areas in which there is residual contamination. Thus, we recommend that the DOE, in cooperation with the State of Tennessee and the City of Oak Ridge, initiate development and implementation of a GIS system that identifies and locates by coordinates all of the DOE areas subject to CERCLA actions on and off the Reservation. Furthermore, we recommend that these areas be marked with stellae similar to those used by surveyors to identify property lines.</p>	<p>As part of the WRRP program, we have established CADD/GIS capabilities that include:</p> <ol style="list-style-type: none"> <li>1) location of sites (as depicted in the RER maps);</li> <li>2) as-builts of remedial actions, where available;</li> <li>3) confirmation and monitoring sampling points, and more.</li> </ol> <p>Use of stellae should be discussed as part of the ROD process.</p>
7.	General	<p>Over time, DOE and its contractor staff change and there is a resulting loss of "corporate memory" about conditions on the Reservation. In order to preserve some of the understanding and experience gained during the Five-Year Reviews, we recommend a lesson learned summary be included in the next 5-year review report that addresses the following questions:</p> <ul style="list-style-type: none"> <li>• How are you applying the lessons learned from the first 5-year review to the annual remediation effectiveness reports?</li> <li>• How will you apply your experience and lessons learned to the next 5-year review?</li> <li>• Which of the items on Table 1.3, the Five-Year Review summary, present the most problems during a 5-year review and how can the table be revised to facilitate the review process?</li> </ul>	<p>The CERCLA Five-Year Review process has received attention on a national level, resulting in EPA's issuance of brand new guidance (released since the RER D1 was developed); thus, we expect that there will be changes to the process over time. The next Five-Year Review will attempt to deal with watershed-scale RODs, which will likely change the evaluation process even more.</p> <p>The most significant issue encountered this year was the lack of quantitative performance standards against which to assess the performance of actions. This finding has raised the awareness of DOE and the other FFA parties, resulting in a closer scrutiny of performance standards in new CERCLA decision documents. Evaluation of future decisions in the next Five-Year Review will illustrate how well this lesson learned is being applied.</p>
8.	General	<p>The Five-Year Review lessons learned summary should also include a list of site visits with brief observations, conclusions, and lessons learned for each site.</p>	<p>See response to comment 7</p>

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9.	General	Review of the questions asked on the 2001 RER 5-Year Review Site Visit/Site Manager Interview Form and the responses provided on the forms by the site visit teams often bore no relationship to one another. It appears that the 2001 form was designed by someone other than those persons charged with the responsibility for the site visits. While the structure of the form is satisfactory, it is lacking in clarity. <i>We recommend that future site visit teams be briefed on the intent and required/desired content of the form.</i>	The interview form used for the 2001 RER Five-Year Review site visits was taken verbatim from EPA's <i>Comprehensive Five-Year Review Guidance</i> . Questions in the guidance document that clearly did not apply to any ORO sites were omitted. The interview teams relied on the Site Manager to provide necessary information, and some discussions with site management personnel were more informative than others, based on individual knowledge and experience.
10.	General	The SSAB believes that the Remediation Effectiveness Report/Five Year Review reports could be useful when establishing the Stewardship Management Archival/Retrieval Tool (SMART) web-based information system for long-term stewardship requirements at each remediated site. <i>We recommend coordination of the SMART initiative and the development of a GIS system with the Remediation Effectiveness and Five-Year Reviews.</i>	DOE will consider using the RER/Five-Year Review report in developing such systems.
11.	General	The SSAB believes that information gathered during the Remediation Effectiveness and Five-Year Reviews must be factored into the development of the long-term stewardship life-cycle baselines. For example, items such as biological monitoring (see page A-29) and any other post-action monitoring and long-term stewardship requirements checked and described on the RER 5-Year Review Site Visit/Site Management Interview Forms provide the kind of information needed to develop accurate life-cycle baselines. <i>We recommend that these long-term requirements be given high priority during the Five-Year Review cycle and that the results of the reviews be provided to the people charged with preparation of life-cycle baselines.</i>	Remediation managers are encouraged to utilize the RER/Five-Year Review report in conjunction with other information sources during baselining activities.

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12.	Fig. ES.1	To meet its goal, this figure must clearly indicate the major drainage paths. Many readers will be looking at black and white copies. The Clinch River below the Rt 58 bridge cannot be followed, a stub of Poplar Creek above the East Fork entry should be indicated, and Bear Creek is lost. Maybe some other waterways from the text could be indicated such as First Creek and some tributaries to Bear Creek.	Disagree. Color is necessary for this figure to achieve its intended purpose. We will attempt to make the colors bolder and more definitive. There are other more detailed figures throughout the text with secondary drainages clearly labeled, and adding those drainages to this figure would not add to the understanding of the major migration pathways.
13.	Fig. 1.1	Clinch River/Poplar Creek Task 7.3 would be better placed at the confluence of the Clinch River and Poplar Creek, even though the task covers a broader area than that.	The location of the symbol denoting Task 7.3 has been moved as suggested.
14.	Figs. 1.1 and 2.1	Since many readers may have black and white report copies rather than reports with figures in color, it would be good to use different symbols for Completed CERCLA Actions versus CERCLA Actions in Progress.	Agree; however, this affects many more than these two figures, as each site has a blowup of a portion of this figure with indexed photographs. DOE will consider making this change for the 2002 RER.
15.	Fig. 2.3	Identify dash lines.	Agree. Dashed lines are secondary roads and the symbol has been added to the legend.
16.	Fig. 2.3.	We suggest locating all monitoring wells on figures when possible, e.g., ORW-035 and 068 and UNW-066 and 067 on Figure 2.3 for example.	Agree. Major monitoring points such as exit pathway points have been added to figures.
17.	Table ES.1.	A footnote could indicate that a list of CERCLA documents for these areas appears at the end.	Disagree. A listing of CERCLA documents for each action is given in Table 1.1. Table ES.1 has been deleted from the document
18.	Table 1.1.	The column that lists monitoring/stewardship requirements only mentions those that have been recognized explicitly. All units with residual contamination require some actions of documentation, information retention, and occasional surveillance at least until a more thorough stabilization is complete. A footnote could clarify this.	Agree. A statement as suggested has been added as a footnote to this table.
19.	Table 2.4.	Explain "baseline."	"Baseline" refers to all pre-1996 data. A footnote will be added to clarify this.

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20.	Table 2.7.	Second item under A: "Risk to human health not addressed due to return of fish to pond." Please explain this statement.	The risk to human health has not been mitigated because the fish have returned to the pond. The text has been revised to clarify this. Please refer to the last paragraph of Section 2.6.4.1 for explanation.
21.	Table 2.7. (Sect. 2.6.4.1).	If there is no "significant impediment to access K-901-A from the Clinch River" while risk to human health is not be addressed Table 2.7 (thus inferring there is a possibility of risk to human health which is unknown), some kind of stewardship requirements seems proper.	Clarification: The site undergoes routine surveillance and maintenance and is patrolled by security personnel. Any additional requirements will be addressed in future decision documents for this site.
22.	p. 1-25, Par. 4	Does the statement "...decisions did not require monitoring" mean that the documents list no monitoring, or that there really is no role for any quantitative assessment once the project was completed. In a number of cases, the latter position might be difficult to defend.	Clarification: The decisions did not <i>specify</i> monitoring. Text has been revised for clarity.
23.	Bullets near bottom of p. 1-25	The removal actions were justified because the risk driver was considered obvious. The DOE/EM should often find ways to quantify continued success.	Theoretically, once the problem is removed, the risk is removed and cannot readily be quantified. Risk assessments (human health and/or ecological) may be considered for many of the removal action sites as part of a future watershed-scale decision.
24.	p. 2-7, Par 2.	The DCG quantities are usually derived from a receptor dose limit, for example 1 milliSievert/year off site from an operating facility. The basis for a CERCLA action might be to achieve a lifetime cancer risk of 1 in 10,000 for a "civilian" industrial worker, likely a much tighter requirement. Does the reader know from what standard the limiting concentration was derived? And why? This difficulty occurs elsewhere also.	The RER reports on the effectiveness of actions. The criteria by which an action is deemed to be effective are discussed in the governing decision document.
25.	p. 2-12, Par. 2.2.2.2.	To be sufficiently complete, the statement should indicate where it is documented that waste drums were all removed and any fugitive waste from leaky drums was cleaned up. A careful survey must have been done at that time, and should be referenced. Many of the statements about completed actions fail closure in a similar way.	Documents describing previous actions at each site discussed in the RER are referenced in the first section of each chapter. These documents provide the type of information being requested by the reviewer.

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26.	p. 3-26	Tank WC-14 will no longer be noted except in summary tables. That can be justified if residual contamination cannot become an industrial hazard after the tank corrodes away. If a low residual contamination was demonstrated, say it here. If not, we need a new step before tank grouting. This problem occurs for other similar cases.	Per requests from the regulators, all actions will remain in the RER.
27.	p. 7-17, line 1.	Many points in the discussion refer to the RI/FS, and could not be understood without constant searching through that thick document. A much greater share of the points need to be made understandable without that burden.	In general, RI/FS results or conclusions serve as a point-of-reference for discussion of specific post-ROD monitoring results. To the extent practicable, such reference information is presented in the RER to enable direct comparison between RI sampling and post-ROD monitoring results. When this is not practicable, the RER may reference the appropriate predecision document. In the future, DOE will endeavor to make such references to predecision documents very specific (i.e., make reference to specific section numbers, page numbers, etc.) to enable readers to more easily locate reference material.



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28.	p. 7-53, par. under table.	<p>Mercury in fish flesh is assumed to be methylmercury unless otherwise shown. The ROD accepted that a pregnant woman should not eat fish from these areas. The EPA Reference Dose in this case is based on human data, so there is no huge safety factor as for inorganic mercury. How much fish with the sampled mercury concentration could a pregnant woman eat and not reach the RfD? Here and elsewhere the standards referred to often do not seem meaningful, and for mercury it may be important. (The fact that mercury is widespread from power plants only increases the importance of the large discharges from Y-12. Is mercury in the deep sediments from about 1960 truly removed from the riverine food chain?) The discussion needs much greater clarity.</p>	<p>Because of the variability in the data, it is not possible to state how much fish a pregnant woman can eat without reaching the RfD. However, a statement will be added that a pregnant woman of 62 kg who eats fish at the rate EPA's Exposure Factors Handbook suggests for the general population (6.6 g/d) should not average above 940 µg/kg fresh weight. One of 36 fish sampled had a concentration above 940 µg/kg, suggesting that a fish diet would not exceed the RfD. For consumption of fish at a rate typical of recreational fishers who eat their catch (14.2 g/d), the limit would be 435 µg/kg (exceeded by 11 of 36 fish sampled). The RfD would likely be exceeded if the diet were restricted to Poplar Creek and a few miles downstream of its confluence with the Clinch River. Calculations done for the LWB risk assessment indicate that a concentration of 158 µg/kg corresponds to an HQ of 1 for children, so this appears to be a more conservative point of comparison than the RfD for pregnant women. The comparison of results to the comparison concentration for children will be revised to refer to an HQ of 1.</p>

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29.	p. 7-54, par 3.	Does the Figure 7.3 refer to risks estimated in the RI or is newer data included? Reference to the independent analysis in vol. 4 of the Oak Ridge Dose Reconstruction final report dated 1999 would be appropriate. Also, if beautiful figures like 7.3 were coded so they would be interpretable in black and white, such copies would be more useful.	The text has been clarified to indicate that the figure is based on the data presented in Table 7.12. While the complex statistical analysis done for the Oak Ridge Dose Reconstruction report is beyond the scope of this document, text has been added stating the fraction of fish whose concentrations exceeded the RfD for light, moderate, and heavy consumers of fish in the discussion on page 7-53.  An effort will be made in future documents to use symbols that are not differentiated by color alone.
30.	p. 7-64, par. 3.	The Girls Club now occupies the former Jefferson tennis courts, and considerable fill was added. Robertsville Junior High is now Robertsville Middle School, with somewhat younger children. These land uses may not register as changed; the new data should be shown.	Agree. The text and related figure have been revised to reflect these changes.
31.	p. 7-72	The region East of Gum Hollow Road is a Sportsman Club, and has been for half a century. People there are alive, though lightly exposed.	Agree. Figure 7.14 has been revised to reflect use of the area by the Sportsman Club.
32.	p. 7-78.	While technically correct, the figure does not suggest the land use change taking place at ED-1. (May be wrong sheet. Rt. 95 is hard to find.)	We will look into this and additional land use changes for the 2002 RER. In the meantime Figs. 7.17 to 7.21 have been revised to indicate "DOE property transferring to commercial development."
33.	p. 7-80, par 7.4.4.5.	In line 6, "sulfate" should read "sulfide." The paragraph implies that theoretical solubility was used to set the 400 ppm goal. Four groups chemically analyzed samples, and consistent results were never obtained. Ralph Turner digested soil samples in mock stomach acid in the key results. These mock bioavailability studies were independent of the conflicting chemical analyses. Since samples yielded widely disparate results, the exact goal selection was difficult. (The samples were dirty, it seems.)	Agree with text change. Sulfate has been changed to sulfide in the text.

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34.	p. 8-7 (Editorial Item), next-to-last paragraph	The "K90a-A holding pond" is perhaps the K901-A pond.	Agree. Typographical error has been corrected.
35.	p. 8-14, last paragraph	There was prior residential land use at the time of the RI, at least near Wiltshire Drive and along the portion of EFPC north of the Turnpike. The statement is wrong, but there are indeed new regions of residential use	Agree. Text has been revised for clarity to state "...no residential land use along the creek south of Oak Ridge Turnpike."
36.	p. 9-1.	The bibliography should refer to the final reports of the Oak Ridge Dose Reconstruction Project in the volumes that are pertinent to current public exposures. This includes Volumes 2, 2A, 3, 4, 4A, 5, 6, and 7. The web address should be included, though copies are as available as CERCLA documents.	The Oak Ridge Dose Reconstruction Report (TDH 1999) is now referenced in Sect. 7.3.4.5 and the report title is listed in Sect. 10, References.
37.	Sect. 2.5.4.1	Where is the CNF?	The Central Neutralization Facility (CNF) is shown on Fig. 2.6 and has been added to Figs. 2.7 and 2.8.
38.	Sects. 4.7, 4.8, and 4.9 (under <u>Goals of Decision</u> )	What are the extenuating circumstances which prevent action on this particularly bad actor being started?	As indicated in Sect. 7.4.2, decommissioning of the MSRE is a multi-action process composed of the three removal actions described in Sect. 4.7, 4.8, and 4.9. The first action was initiated in 1994 and is scheduled for completion in 2002 (Sect. 4.7). The second action is ongoing and is scheduled for completion in FY 2001 (Sect. 4.8). The third action is scheduled for completion in FY 2002 (Sect. 4.9).

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<b>Comparison of the June 8, 2000, SSAB Recommendations and Comments on the 2000 Remediation Effectiveness Report with the 2001 Remediation Effectiveness Report/Five-Year Review Report</b>			
39.	Comparison	<p>Comparison of the SSAB 2000 recommendations and comments to the 2001 Report showed some outstanding items that we believe must be addressed in future documents. Thus, we continue to recommend that:</p> <ul style="list-style-type: none"> <li>• Remediation Effectiveness Reports and 5-year reviews be established as part of the Administrative Record,</li> <li>• Stewardship requirements be included in CERCLA Records of Decision and Action Memoranda, and</li> <li>• An appendix listing all remaining CERCLA remedial actions required for the ORR and their expected completion dates be included in the Remediation Effectiveness Reports and the Five-Year Reviews.</li> </ul>	<p>Noted.            The FFA Appendices E and J will serve the purpose of documenting remaining CERCLA actions.</p>
40.	Comparison	<p>With regard to the specific comments on the 2000 Remediation Effectiveness Report, in some cases, it was apparent that our comments resulted in improvements in the 2001 document. In particular, the "not established" category for stewardship/monitoring requirements in Table 1.1 was replaced with "to be determined in RARs and RmARs." While stakeholders have consistently asked that such information be provided in CERCLA decision documents, at least this provides future stakeholders with an idea of where to look for stewardship information.</p>	<p>Noted</p>

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41.	Comparison	<p>The Five-Year Review summary establishes in parts A and B (Table 1.3) that the basis for the review is the decision document. However, throughout Table 1.1, determination of long-term stewardship requirements is delayed to post-ROD documents (e.g. RARs and RmARs). Thus, remedial actions that depend on long-term stewardship cannot be effectively reviewed if the long-term stewardship requirements are unknown or unavailable to the reviewer. Over time, the lack of a clear understanding of remediation stewardship requirements will probably result in many of the same problems we now face on the Reservation, for example, lost records, lack of information about the characteristics of the waste and its disposal/remediation, uncertainty about the location of waste sites. <i>We recommend the stewardship requirements be an integral part of remediation planning and clearly described in CERCLA decision documents.</i></p>	<p>Determination of stewardship requirements are noted as delayed because these requirements simply were not identified as part of many past decisions. Future Five-Year Reviews will rely on the watershed-scale RODs and associated decision documents (remedial design work plans, remediation action reports, etc.) and additional future RODs for evaluating the effectiveness of stewardship requirements.</p>
42.	Comparison	<p>Other items not addressed in the 2001 report include the following:</p> <ul style="list-style-type: none"> <li>• We did not find any mention of organizational responsibility for stewardship functions nor was there any mention/commitment to stakeholders involvement in future 5-year reviews. (The SSAB also requested stakeholder involvement in 5-year reviews in its July 6, 2000 recommendation to DOE). <i>We recommend that a member of the public and local government be included in all 5-year reviews.</i></li> <li>• With regard to the eight comments on the contents of the various sections of the RERs, in some cases more complete information/data was provided and in other cases it appeared that our comments were ignored.</li> <li>• For the last seven comments, some improvement was noted (e.g. mercury and total uranium fluxes at station 17, detection of Sr<sup>90</sup> from well GW-205); some comments were ignored (e.g., elimination of sources of mercury and selenium in McCoy branch, study of the Union Valley plume to determine how to stop the sources of VOCs).</li> </ul>	<p>Noted. Each year the RER staff attempts to provide as much information and data analysis as resources and time permit.</p>

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43.	Comparison	<p>After reviewing the June 2000 SSAB comments, we realize that some of the comments were not as useful as others; however, we feel strongly that DOE should respond to each comment. The DOE September 5, 2000, letter response to the June 2000 SSAB recommendations and comments was unsatisfactory. In the future, we recommend that you respond to our CERCLA document recommendations and comments with the same level of consideration that you provide for NEPA documents.</p>	Noted.
44.	Appendix A	<p>Specific comments concerning Appendix A—Site Visits are as follows:</p> <ul style="list-style-type: none"> <li>• A common error is not providing the correct answer. Boxes are often not checked, but notes are included which were derived from a box, which should have been checked. If post-actions are performed at a site, then why is the A.4. question concerning operating procedures always checked NA with the statement "There are no operating procedures associated with the Removal Action." There have to be procedures to implement surveillance and maintenance. Perhaps this A.4. question means something else.</li> </ul>	

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Comment No.	Page/ Section	Comment	Response
		<ul style="list-style-type: none"> <li><i>We recommend that instructions accompany questions on the interview form to ensure that the interviewer understands the context. For instance, refer to Building 3001 Canal Removal Action. Question A.1. "Are Stewardship requirements specified in the Decision Document being met?" Answer is "All contamination has been fixed in place." This answer concerns the remedy, not stewardship. Question A.5. "Were there any unexpected toxic by-products of the remedy not addressed by the decision documents?" Answer is "Treatment did not involve chemical remedy." Are chemicals the only toxic by-products? There are other numerous examples. Also, other questions on the interview form require identification of site specific records, documents and as-built drawings. Negative answers to some questions lead the reader to believe that the remedy was designed or documented on the back of an envelope and then discarded. How can a remedy such as Building 3001 Canal Removal Action not have as-built drawings?</i></li> <li><i>The principal steward always is responsible for monitoring and the retention of monitoring records; however, we have difficulty with the absence of a monitoring entry in the list entitled "Stewardship Requirements." Admittedly post action monitoring under 5-Year CERCLA reviews is intended to evaluate the effectiveness of actions, but monitoring is also necessary for a long time to ensure continuous appropriate actions to maintain human health. We recommend that monitoring be included under stewardship requirements. (see page A-29).</i></li> </ul>	

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		<p><i>In summary, we recommend that:</i></p> <ul style="list-style-type: none"> <li>• <i>The site visit form be redesigned for clarity and to include instructions for the site visit review team.</i></li> <li>• <i>Site visit review teams provide responses/notes that are self explanatory and understandable rather than short and cryptic, and</i></li> <li>• <i>DOE revisit all 2001 RER 5-Year Review Site Visit/Site Manager Interview Forms and correct the entries so that readers 30 years hence understand the actual conditions in 2001.</i></li> </ul>	<p>Comments noted.</p> <p>a. Please see response to General Comment 9. Procedures to implement surveillance and maintenance are considered to be stewardship procedures, not operating procedures. Remedies involving treatment systems should have as-built documents; for the most part, removal actions do not. Once a source is removed, it is not deemed necessary to continue monitoring to establish the effectiveness of the remedy. Monitoring was separated from stewardship requirements because stewardship requirements should apply to all sites, while monitoring may apply only to a selected subset of sites.</p> <p>b. DOE will consider improvements to the site visit process for the next planned Five-Year Review.</p> <p>c. DOE will review site interview forms for consistency, ensure that a response is checked for all questions, and provide additional clarification as needed.</p>