

APPENDIX H

PUBLIC COMMENT MATRIX

This section includes the following information:

- Savannah River Site (SRS) Citizen's Advisory Board (CAB) Recommendation 216, *End State Vision*, with the Department of Energy (DOE) response
- Comments received on the March 2005 version of the *End State Vision* with DOE responses
- SRS CAB Recommendation 190, *Risk-Based End State Vision*, with DOE response
- Comments received on the March 2004 version of the *Risk-Based End State Vision* with DOE responses

NOTE: Each section has its own set of page numbers. The page numbers at the bottom are page numbers for the entire section.



Savannah River Site Citizens Advisory Board

Recommendation 216 End State Vision

Background

Since the 2002 independent review team's *Top-to-Bottom Review*, the Department of Energy's (DOE) Office of Environmental Management (EM) has taken aggressive action from simply managing risk to accelerating risk reduction by expeditiously cleaning up the Cold War legacy. In March 2004, DOE-EM developed a site-specific *Risk-Based End State* (RBES) Vision Document for each DOE site, pursuant to DOE Policy 455.1, *Use of Risk-based End States*, and associated guidance (Ref. 1).

Based upon feedback from the National Governors' Association Next Steps Workshop in October 2004, the title of this document was changed from RBES to simply *End State Vision* (ESV). Since End States are not strictly "risk-based" but are logical, technically defensible, and protective of human health and the environment the "risk-based" nomenclature was dropped in this new draft document. This draft ESV is more comprehensive than the March 2004 draft. It now describes current conditions and planned end states for contained and released hazards, where the earlier draft focused only on released hazards for inactive soil and groundwater units and EM legacy facilities. In addition, the previous draft used the word "Variances" to describe significant different cleanup approaches or different end states relative to the original August 2002 Savannah River Site (SRS) EM Program Performance Management Plan (PMP). The ESV uses the term "Alternative End States" to remove the perception of any deviation from laws and regulations (Ref. 2).

The SRS ESV is a concise stakeholder's guide to current conditions at SRS and the conditions DOE plans to achieve through the site's EM Clean-up Project. Since the site's EM Cleanup Project is not a static situation, the ESV is continually evolving and improving process and periodic reviews of the end states with stakeholders are planned. The ESV is designed to define and categorize hazards in such a manner that all stakeholders can understand the hazard and what actions are being taken to reduce and/or eliminate the hazard. SRS hazards are organized into five major classes: Nuclear Materials, Radiological Waste, Non-Radiological Waste, Inactive Waste Units, and EM Facilities.

The vision for the end state at the SRS when environmental cleanup is complete by 2025 is that all SRS land will be federally owned, controlled and maintained in perpetuity. SRS is a site with an enduring mission and is not a closure site. Additional missions will continue under National Nuclear Security Administration (NNSA) management.

Comment

The SRS Citizens Advisory Board (CAB) endorses the ESV document and the ESV but points-out while how the Site gets to an end state may change, the end states should be known and should not drastically change over time. As part of the discussions on site hazards and ultimate end-states, risk is defined as the chance of harm or loss. Without a hazard, there is no risk. The SRS CAB believes that any risk-based approach should be applied to the extent possible with existing environmental laws and regulations but as practiced by the Nuclear Regulatory Commission (NRC), any risk assessment should be based upon scientifically determined risks, not risks perceptions. The ESV should define and list all risks associated with the site hazards and include their probabilities estimated for workers, the environment, and the general public. These estimates derived from computer models would help convince the public that a closed SRS site is safe. If proposed cleanup does not sufficiently reduce risk, the public needs to know as well as the remedies the Site will undertake to make the Site safe.

Based upon two recent National Academy of Sciences (NAS) books on DOE's radiological waste

programs (Ref. 3), the SRS CAB supports the idea that the nation needs a formal, well-structured, risk-informed approach. DOE and its regulators should adopt the NAS proposed six step process [(1) initiate the process, laying out viable options and potential decisions; (2) scope the information and analysis; (3) collect data and refine models; (4) prepare refined risk assessments; (5) develop additional analyses to support the decision; and (6) make the decision] for risk-based decisions. The SRS CAB agrees that the biggest challenge to developing a meaningful risk-informed decision-making process is enabling meaningful participation by participants who have limited resources and technical knowledge. One way to help this process would be for DOE to release decision documents to the public at the same time they are released to the regulatory community. It hurts the public trust to discover private vetting of documents before the public sees them, plus it slows down the process, and leads to increased conflict and less acceptance. By having open dialogue with interested stakeholders now, EM and the future Site mission organization (NNSA) could avoid this situation.

An open dialogue is also needed with the general public to help clarify why several low risk facilities are being taken to their end states while higher risk facilities (i.e. reactors, canyons, etc.) are being left alone. In addition, an end state needs to be identified in the ESV for all facilities, especially the reactors and canyons. If the current end-state for the High Level Waste (HLW) (i.e. Yucca Mountain) is delayed, the risk to the public of maintaining HLW in interim storage around SRS should be included in the ESV as well as supporting legal and technical discussions. The SRS CAB would like to see the published disposition schedule for spent fuel and DOE's priority ranking for sending waste if Yucca actually opens. Whether Yucca Mountain opens or doesn't open is critical to the end state.

If DOE, the regulators and the public (consistent with previous statements about involving the public) determine that certain TRU wastes do not need the degree of isolation afforded by Waste Isolation Pilot Plant (WIPP) and that they can be disposed in a non-WIPP location based on a Performance Assessment (PA) that protects the public, the environment, and workers, then DOE should pursue this alternative instead of pursuing methods to overcome TRU shipping disposal obstacles. DOE should fully explain why residential scenarios are being used for low level waste (LLW) hazards if SRS is to remain in Federal ownership in perpetuity. It would help accelerate cleanup of the Inactive Waste Units hazard if site ownership was established by law. The SRS CAB supports formal Congressional Authorization to accomplish this objective but future public access to the SRS should be addressed in the ESV.

The SRS CAB would also like to see the ESV provide the end-state for facilities that once held mixed low level and hazardous waste (Non-Radiological Waste hazards). The Consolidated Incineration Facility (CIF) would be an example.

The SRS CAB recalls the designation of SRS as a National Environmental Research Park several years ago but is concerned about losing this status if no research is being conducted. We believe that this site designation should be discussed in the ESV and the types of current and end state research that could be expected.

The SRS CAB continues to be concerned about the 13 metric tons of plutonium (Pu) with no disposal plans or ultimate end-state. DOE needs to address this hazard as soon as possible.

Recommendation

The SRS Citizens Advisory Board (CAB) offers the following recommendations:

1. In an effort to strengthen the ESV process, the SRS CAB offers the following and expects a progress report on each recommendation on or before September 27, 2005:
 - DOE apply the risk-informed approach proposed by NAS to determine the acceptable end states for all buildings, waste management facilities, reactors and active and inactive waste units containing radionuclides, heavy metals, or organic contaminants (e.g. tritium, etc.).
 - DOE use a risk-informed application to determine the end state for Pu238 waste.
 - DOE release decision documents to the public at the same time they are released for external agency review.

- DOE evaluate the impact to SRS end states and risk to stakeholders if Yucca Mountain doesn't open and consider alternate plans should the repository not open.
 - DOE-HQ identify necessary actions to provide perpetual federal ownership of and responsibility for SRS.
 - DOE-HQ identify necessary actions to formally/legally name SRS as a National Environmental Research Park and discuss the types of current and end state research in the ESV.
2. DOE-HQ investigate and pursue Congressional Authorization to legitimize perpetual federal ownership of SRS and the identification of SRS as a National Environmental Research Park.
 3. DOE use performance assessments to determine risks and provide results to the SRS CAB.

References

1. Risk Based End State Workshop, Strategic and Legacy Management Committee, April 13, 2004.
2. End State Vision Workshop, Strategic and Legacy Management Committee, March 24, 2005.
3. "Risk and Decisions About Disposition of Transuranic and High-Level Radioactive Waste" and "Improving the Characterization and Treatment of Radioactive Wastes for the DOE's Accelerated Site Cleanup Program", National Academies Press, 2005.



©2002 SRS Citizen's Advisory Board. All rights reserved.

Last updated: May 27, 2005



Department of Energy
Savannah River Operations Office
P.O. Box A
Aiken, South Carolina 29802
JUN 28 2005

Ms. Jean Sulc, Chair
Savannah River Site Citizens Advisory Board
24 Harbor River Circle
St. Helena Island, South Carolina 29920

Dear Ms. Sulc:

SUBJECT: Savannah River Site (SRS) Citizens Advisory Board (CAB) Recommendation Number 216 – End State Vision (ESV)

Thank you for your recommendation regarding the SRS ESV. The Department of Energy (DOE) acknowledges your concerns noted in the three-part recommendation and is addressing each part and sub-part, individually.

Part 1: In an effort to strengthen the ESV process, the SRS CAB offers the following and expects a progress report on each recommendation on or before September 27, 2005:

On or before September 27, 2005, DOE will provide a progress report on each of the following recommendations that relates to ongoing or future actions.

- **DOE apply the risk-informed approach proposed by the National Academy of Sciences (NAS) to determine the acceptable end states for all buildings, waste management facilities, reactors and active and inactive waste units containing radionuclides, heavy metals, or organic contaminants (e.g., tritium, etc.).**

DOE recognizes the NAS risk-informed approach and its value in decision making. DOE utilizes those principles in determining end states for various hazards (e.g., the Comprehensive Environmental Response, Compensation and Liability Act risk assessments for soil and groundwater waste units, and performance assessments for radioactive waste management facilities). The NAS recognizes the difficulties and uncertainties associated with risk analysis, and that the results of the risk analysis are only a part of a decision-making process, not the sole basis for the final decision (*Risk and Decisions About Disposition of Transuranic and High-Level Radioactive Waste*, National Academy of Sciences, 2005). Many factors—political, economic, engineering, legal/regulatory, and risks to workers, the public, and the environment—will be considered in determining acceptable end states for all SRS hazards.

- **DOE use a risk-informed application to determine the end state for Plutonium (Pu) 238 waste.**

As DOE evaluates the end state alternatives for Pu-238 waste, DOE plans to use a performance assessment to evaluate the risk of near-surface disposal. Additionally,

DOE plans to review and consider the final National Research Council report (*Risk and Decisions About Disposition of Transuranic and High-Level Radioactive Waste*, National Academy of Sciences, 2005) related to this issue. However, while the decision must be risk-informed, there are other factors that will be considered, as described above.

- **DOE release decision documents to the public at the same time they are released for the external agency review.**

DOE intends to facilitate early community involvement in cleanup decision making under the Federal Facility Agreement (FFA), as stated in the draft *SRS Community Involvement Plan* (May 2005). In this way, the stakeholders can understand cleanup issues and express their preferences for DOE's management of them before decision documents are written. This will allow for informed stakeholder involvement when it can have its greatest effect on decision making. The same approach to early stakeholder involvement will be used for cleanup and end state issues that are not explicitly covered by the FFA.

DOE, as a courtesy, provides pre-decisional documents to DOE Headquarters (HQ) or SRS regulators before releasing them to the public. The SRS ESV document will provide a schematic diagram that depicts the decision process for FFA-related decisions (soil, groundwater, and deactivation and decommissioning) and other end state decisions. The diagram highlights the public involvement milestones and opportunities that are required by law or regulations, or those that DOE will provide to increase stakeholder awareness and allow for informed input.

- **DOE evaluate the impact to SRS end states and risk to stakeholders if Yucca Mountain does not open and consider alternate plans should the repository not open.**

DOE plans to use the repository, as required by law, and does not plan to develop an alternative "what-if" scenario for the related wastes and materials in the SRS ESV document at this time. DOE will continue to address the issues regarding Yucca Mountain and the need for its availability to meet the Performance Management Plan objectives. DOE will provide information to the SRS CAB on waste prioritization and the schedule for the shipment of high level waste and spent nuclear fuel to the Federal repository as it is made available.

DOE is continuing to put tank waste into a stable, retrievable form for temporary storage and shipment to the repository. Spent nuclear fuel will transition from wet to dry storage, a more stable form, in preparation for shipment to the repository.

- **DOE-HQ identify necessary actions to provide perpetual Federal ownership of and responsibility for SRS.**

DOE is working with the End States Working Group to reach agreement on the benefits of and determine what actions are needed to attain perpetual Federal ownership of

SRS. The End States Working Group is a national team of DOE stakeholders and regulators that was chartered by the Office of Environmental Management (EM-1) to provide guidance for a collaborative, periodic review and reevaluation of site-specific end states. The Group will discuss the importance of perpetual Federal ownership to DOE from a national perspective in the next several months.

- **DOE-HQ identify necessary actions to formally/legally name SRS as a National Environmental Research Park (NERP) and discuss the types of current and end state research in the ESV.**

SRS was formally named a NERP in 1972 by the Atomic Energy Commission. It was the first of seven DOE sites to be so designated.

The objectives of the research parks are, and will continue to be, to conduct research and education activities that will:

- Develop methods for assessing and documenting the environmental consequences of human actions related to energy and weapons use;
- Develop methods for predicting the environmental consequences of ongoing and proposed energy development;
- Explore methods for eliminating or minimizing predicted adverse effects of various energy and weapons activities on the environment;
- Train people in ecological and environmental sciences; and
- Use the parks for educating the public on environmental and ecological issues.

NERP-related activities will provide a recognized science base to verify and support the protectiveness and value of remedies, end states, and long-term stewardship activities.

NERP-related research will be addressed in Chapter 1 of the July 2005 ESV.

Part 2: DOE-HQ investigate and pursue Congressional Authorization to legitimize perpetual Federal ownership of SRS and the identification of SRS as a NERP.

DOE is working through the End States Working Group to pursue Congressional Authorization of perpetual Federal ownership. Perpetual Federal ownership of SRS will support the continuous study of the effects of nuclear and industrial operations on the environment, land use management resulting in the protection of largely undisturbed ecosystems, and DOE land-use control credibility. Such ownership must be established in law. DOE will consider pursuing NERP legislation in conjunction with pursuing Congressional Authorization regarding perpetual federal ownership of SRS.

JUN 28 2005

Ms. Jean Sulc

4

Part 3: DOE use performance assessments to determine risks and should provide results to the SRS CAB.

DOE will use performance assessments as required by DOE Order 435.1, "Radioactive Waste Management," to ensure that low level waste disposal facilities meet protective performance criteria. DOE will also discuss with the SRS CAB other appropriate uses for a performance assessment process. Consistent with DOE's desire for early stakeholder involvement in cleanup, the performance assessment results will be made available in time to support early SRS CAB and stakeholder involvement in cleanup or end state decisions.

If you have any questions, please call me or Mr. Brian Hennessey, of my staff, at (803) 952-8365.

Sincerely,

A handwritten signature in black ink that reads "Jeffrey M. Allison". The signature is written in a cursive style with a large, looping initial "J".

Jeffrey M. Allison
Manager

SGP-05-016

PUBLIC COMMENTS ON MARCH 2005 END STATE VISION

#	Comments on March 2005 End State Vision:	Status/Response:
1	<p>Correction Chapter 3.0, page 9, right-hand column, first complete paragraph: Change line 5 to read "...92 USFS-SR FTEs at SRS."</p> <p>According to the notes I find, USFS-SR defines FTEs as Full Time employees; however, I believe it is generally defined to be Full Time Equivalency.</p>	<p>The correction for the number of employees for the USFS-SR has been made to 92 employees.</p>
2	<p>Chapter 1, Figure 1.2: The C-Area bar shows D&D starting before 2006 and yet the Programmatic Agreement took it off the D&D list until 2006.</p>	<p>Figure 1.2 has been corrected.</p>
3	<p>Appendix E: I noted, of significance to me, that "long term stewardship responsibility rests with the site land lord for non closure sites." The CAB is currently circulating a resolution that deals with the turn over of records to the Office of Legacy Management. We should talk to the CAB about it on Thursday.</p>	<p>The long-term stewardship responsibility still rests with the site landlord for non-closure sites. For SRS, Environmental Management (EM) will cease to be the landlord in 2025, transition to National Nuclear Security Administration (NNSA) during 2026 with NNSA assuming full landlord responsibilities in 2026.</p>
4	<p>Appendix B on page 7: I question the advisability of C-Area going to maintenance instead of industrial if we eventually get C-Area open for public tours. This is not a big item and probably not worth changing in the document.</p>	<p>We agree: A statement was added to the third column of the table on Page 7 of Appendix B that read: "For facilities and/or resources that will be preserved and maintained as cultural resources as defined by the National Historic Preservation Act, appropriate land use and exposure scenarios will be negotiated that will accommodate any activities associated with these respective facilities/resources.."</p>
5	<p>Appendix E, Comment 31: There is a statement that the CRMP deals with archeological items. This is not true.</p>	<p>The correction has been made. The response now reads: "For pre-SRS artifacts, the University of South Carolina Institute of Archaeology and Anthropology handles artifacts. For SRS artifacts, DOE is working with several groups, described in Department of Energy Savannah River Operations Office, <i>Savannah River Site's Cold War Built Cultural Resources Management Plan, January 25, 2005.</i>"</p>
6	<p>Overview - Extend the public comment period date to the May CAB meeting or address the potential CAB recommendation that will be generated at the May CAB Meeting.</p>	<p>The CAB recommendation was considered in revising the final document. Final document submittal was delayed to accommodate CAB Recommendation 216 in May 2005.</p>

#	Comments on March 2005 End State Vision:	Status/Response:
7	Overview - Concerned why tritium was included as a hazard since the tritium mission is with the National Nuclear Security Administration.	The <i>End State Vision</i> (ESV) covers the entire site and all programs – not just EM.
8	Overview - The risk basis approach should be applied to the extent possible in addition to laws and regulations. The legal statutes are based on risk perceptions and not risk.	Most regulatory frameworks do consider risk in establishing cleanup requirements. The assumptions by which risk is estimated are sometimes conservative, but some flexibility to adapt them to more representative exposure scenarios does exist. Stakeholder review of risk assumptions in end state planning evaluations is valuable in this regard.
9	Overview - Concerned that there is emphasis on the changing of the end states when many of the end states are known. How the site gets to the end state may change, but the end states should not change.	<p>The <i>End State Vision</i> presents the planned end states for all of the hazard categories, and a rationale for them based on existing or reasonably anticipated disposition options. They are not tentative or conjectural, but are based on realistic assumptions. These planned end states are the objective of all EM work at SRS.</p> <p>The end states for some individual facilities may change in response to mission needs or further analysis of Decontamination and Decommissioning (D&D) alternatives. External events or the availability of better or more protective disposition options may cause planned end states to be re-evaluated in the future. However, that does not mean that planned end states are fluid or tenuous—only that DOE will be continually seeking better, more cost-effective ones.</p>
10	Overview - Was shocked at Chapter 4 relative to lack of inclusion of risk relative to the workers and the public. This risk should be addressed. Need to address residual risk to workers and the public in one document, which should be the End State Vision. This version is not an improvement over the previous draft in relation to the discussion on risk	It is not practical for the <i>End State Vision</i> to include a comprehensive discussion and analysis of risks from all sources. Rather, the risks from each source, and aggregate risk from sources within an area, will be modeled at the appropriate time, with ample stakeholder review, for decision making. That time will be the beginning of planning/scoping for facility deactivation/decommissioning or area completion, or another event that necessitates detailed end state planning, such as an alternative disposition option for a hazard or facility.
11	Overview - Concerned that low risk buildings are being taken down when higher risk buildings should be considered.	The planned end state is for all EM facilities to be decommissioned by 2025. Nuclear facilities will be decommissioned at a time and in a manner that supports the SRS Area Completion Strategy.
12	Overview - Need to provide the appropriate calculations that convince the public that SRS sites are safe. If cleanup is insufficient, the public needs to know now. The site has been silent on the 100 and 200 areas.	Chapter 4 of the ESV provides that current and projected Soil and Groundwater Projects (SGP) end states will accommodate final risk levels appropriate for the exposure scenario for the expected land use. SGP cleanups that have already been completed have met all applicable

#	Comments on March 2005 End State Vision:	Status/Response:
		<p>standards including protectiveness of human health and the environment which is documented (with appropriate calculations provided) in the Administrative Record supporting those cleanup decisions. Future SGCP cleanups will follow the identical process/protocol.</p> <p>Operating facilities and waste management facilities operate in accordance with applicable federal and state laws, DOE Orders, and the controlling documents listed in Chapter 4 for each hazard category, to ensure protection of human health and the environment.</p> <p>The completion and subsequent end states for the 100 and 200 areas will be addressed per the FFA and the schedule provided as Figure 1.2, <i>Critical Decision Path to Area Completion</i>.</p>
13	<p>Overview - Concerned there is no end state for the reactors and canyons. R-Reactor was shut down 30 years ago. The site ought to know what the end state is by now.</p>	<p>End states for nuclear and radiological facilities will be consistent with area future use, and will be determined considering the factors in ESV Section 4.2.11, <i>Nuclear and Radiological Facility End State Evaluation and Decision-Making</i>. Reactor and canyon facilities will be decommissioned in situ, not demolished, and the details of that end state will be determined, with stakeholder review, in the scoping process as their respective area completion projects begin.</p>
14	<p>Plutonium, Uranium and Spent Nuclear Fuel - Is there a published disposition schedule for spent fuel and DOE priority at Yucca Mountain?</p>	<p>A formal disposition schedule has not been published, but thermal concerns at the repository will require DOE materials (liquid radioactive waste [LRW] and spent nuclear fuel [SNF]) to be available shortly after the repository opens.</p>
15	<p>Plutonium, Uranium and Spent Nuclear Fuel - The risk to stakeholders should be stated in the document if Yucca Mountain doesn't open. Legal, public and technical support should be included in the document if Yucca Mountain doesn't open.</p>	<p>The federal repository is the planned disposition for several categories of hazards at SRS. Therefore, alternative dispositions and their associated short- and long-term risks have not been developed. Before any alternative to shipment to the federal repository is considered, risks and benefits will be carefully evaluated with full stakeholder involvement and review.</p>
16	<p>Plutonium, Uranium and Spent Nuclear Fuel - An analysis of terrorism should be included.</p>	<p>DOE facilities currently operate under the latest threat guidance available. As new guidance is issued, our security posture changes accordingly.</p>
17	<p>Liquid radioactive waste - The Defense Nuclear Facility Safety Board (DNFSB) has a question on the safety classification of the Caustic Side Solvent Extraction (CSSX) and Actinide Removal Process (ARP). The CAB also has a</p>	<p>The Department of Energy considers the ARP and Modular Caustic Side Solvent Extraction Unit (MCU) to be vital parts of our interim salt processing strategy. These facilities allow SRS to remove significant quantities of radionuclides from salt waste that will be processed between</p>

#	Comments on March 2005 End State Vision:	Status/Response:
	recommendation on these two facilities. Should DOE drop these two facilities?	2006 and the startup of Salt Waste Processing Facility (SWPF). Further it minimizes the quantity of radioactive material disposed in South Carolina. SRS will continue to design, construct, and operate these facilities.
18	Liquid Radioactive Waste - Dilute low activity salt is the best way to free up space in the tanks.	The Deliquification, Dissolution, and Adjustment (DDA) process involves the following steps: 1) Selection of the tanks containing the lowest curie content salt waste, 2) Removal of a portion of the cesium-bearing interstitial liquid, 3) Dissolution and transfer of the salt cake followed by settling of insoluble radionuclides, 4) Adjustment of chemistry to meet Saltstone Waste Acceptance Criteria (WAC) limits, and 5) Processing into grout for disposal. Under the interim salt processing strategy, approximately 7 million gallons of salt waste (out of an estimated 84 million total) will be treated in this manner. This quantity coupled with material processed by ARP and MCU will be processed prior to the startup of the SWPF in 2009 after which all salt waste will be processed via SWPF.
19	Liquid radioactive waste - The public has not heard of the closure of Saltstone and what are the end states of the vaults.	Saltstone vaults will have a closure cap installed at the end of the salt waste disposal program. This cap is described in <i>Saltstone Disposal Facility Closure Cap Configuration and Degradation Base Case: Institutional Control to Pine Forest</i> , WSRC-TR-2003-00436, Phifer and Nelson.
20	Liquid radioactive waste - Where does the public become involved with the performance based analysis?	SRS plans on revising the Performance Assessments for Saltstone in FY06 and for E-Area in FY07. We do not normally hold a public meeting for these documents. However, we do normally inform the CAB's Waste Management Committee when these activities take place and when the documents will be available. SRS will provide the CAB and/or Waste Management Committee a briefing on these documents upon their request. SRS has provided the CAB numerous briefings in the past on disposal activities at the site that would affect the Performance Assessment.
21	Liquid radioactive waste - It would be great if the appendix of the End State Vision (ESV) document had a flow chart that shows how and when the public becomes involved in closing facilities and areas.	A description of key factors in Facility End State Evaluation is presented in section 4.2.11, <i>Hazard: EM Facilities</i> . Public involvement is discussed there, as well as in Chapter 1 (see Figure 1.3, <i>Basic Area Completion Process</i> and in the <i>SRS Community Involvement Plan</i> (May 2005). DOE recognizes the importance of public review of the

#	Comments on March 2005 End State Vision:	Status/Response:
		assumptions and methods associated with facility end state decisions.
22	Liquid radioactive waste - What methodology was used to determine how clean the facilities/tanks are? What was the thought process? How is that handled?	Samples are taken and analyzed to determine if heel removal is done on a specific tank. The volume remaining in the tank is estimated and used as a source term for performance modeling. The contribution of the tank performance is added to the estimated or analyzed performance of the other tanks and facilities to ensure regulatory limits will not be exceeded.
23	Liquid radioactive waste - Recommend the public become involved at the time the site deems tanks are clean enough in order not to stall the effort in the future.	The process for determining if the tanks are clean enough for onsite disposition, including environmental impacts will be open to the public.
24	Liquid radioactive waste - The South Carolina Department of Health and Environmental Control (SCDHEC) has a copy of the closure plan but why doesn't the public? The public didn't get a copy of the Waste Determination Document before it is released. When the document leaves DOE, the public should get a copy.	When DOE provides a draft waste determination to the Nuclear Regulatory Commission (NRC), the public will also be provided a copy for review and comment. Following NRC and DOE consultation on the Waste Determination (WD), DOE shall submit a closure plan to SCDHEC which will also undergo public review.
25	TRU Waste - Is there a process for newly generated TRU Waste?	Currently generated TRU waste from EM missions at SRS is packaged to meet the Waste Isolation Pilot Plant (WIPP) waste acceptance criteria and is shipped concurrently with the legacy TRU waste. EM-generated TRU waste is expected to be completed in the timeframe the legacy TRU shipments are completed. Newly generated TRU waste beyond the EM missions will come from future missions currently planned to be managed by NNSA. Future NNSA missions at SRS have not been finalized at this time.
26	TRU Waste - The safe storage alternative for Pu238 should be pursued now, not after all the other TRU waste is shipped out.	As discussed at the ESV Workshop, DOE currently plans to ship all legacy TRU waste to WIPP by 2011 and does not need to pursue any on-site disposal or long term storage alternatives at this time.
27	TRU Waste - Is the schedule for shipment of TRU waste realistic?	The current shipping schedule is based on the DOE Complex availability of WIPP shipping resources and projected outyear funding for SRS. These are subject to change and could impact SRS abilities to execute the current shipping schedule.
28	Low Level Waste - Who makes the decision to ship LLW to Nevada or Envirocare?	Westinghouse Savannah River Company (WSRC) makes the decision to send waste to Nevada Test Site (NTS) or Envirocare. This decision is normally based upon the cost of disposal and meeting the respective Waste Acceptance Criteria of the disposal facility.

#	Comments on March 2005 End State Vision:	Status/Response:
29	Low Level Waste - DOE has promised to set aside the lands of SRS and ensure that they will remain under governmental control forever. I expect that these controls will not be forever thus SRS should evaluate the risk of unrestricted residential use to identify that risk and show where on SRS unrestricted residential is unacceptable.	The risk under unrestricted use is estimated during the cleanup decision (baseline risk assessment) process. Land use restrictions are included in Records of Decision when unrestricted use would have unacceptable risk. These restrictions are listed in the <i>Land Use Control Assurance Plan for the Savannah River Site</i> .
30	Low Level Waste - Is there a program in place to continually monitor LLW vaults?	Yes. The vault sumps are monitored for any liquids that might accumulate in the sumps monthly or after a rain of 2 inches or more. This liquid is sampled for any radionuclide content and disposed of as appropriate. The vaults are also monitored on a yearly basis for any cracking or subsidence issues..
31	Mixed Low Level and Hazardous Waste - What are the end states for the facilities that once held waste that was shipped off-site?	These facilities will be closed according to RCRA requirements, in accordance with a state-approved closure plan.
32	Soil and Groundwater Remediation - Site ownership should be established by law.	The site has proposed to DOE-HQ that legislation should be proposed that SRS property remain under federal ownership in perpetuity.
33	Soil and Groundwater Remediation - Ownership should assume future public access. Should be evaluated now.	Access to the site is being determined on an area by area basis, according to the specific regulatory agreements determined with each area completion.
34	Soil and Groundwater Remediation - What is going to be your record keeping in future years?	The FFA requires that DOE preserve the complete Administrative Record, including post-Record of Decision primary and secondary documents and reports, for at least ten years after the termination and satisfaction of the FFA. The Administrative Record contains all documentation supporting the cleanup decisions made and implemented under the FFA at SRS.
35	Soil and Groundwater Remediation - The public has been told SRS land use restrictions will not be placed in County Deeds until DOE relinquishes control of the lands. These restrictions should be included in County records as soon as Records of Decision has been completed so County and the public will see the needed restrictions.	The land use restrictions included in RODs for protectiveness are mandated by CERCLA and are not required to be placed in a deed until the property is sold. As such, there is no requirement that DOE place the restrictions in the deeds at this time. Also, at the time of any eventual transfer, the restrictions may or may not still be necessary. Further, since SRS comprises over 1500 individually deeded parcels, matching the restrictions with the right deed would be very time-consuming and of little benefit, since those individual parcels no longer exist but now form the SRS.

#	Comments on March 2005 End State Vision:	Status/Response:
		DOE will consider placing a simple notice of the land restrictions on the public record at each county's Register of Deeds. Also, on the matter of notice, while DOE has a statutory requirement to place the land use restrictions in a deed at the time of sale, the buyer also has its own due diligence obligation to research the history of the property for, among other things, environmental issues that might be of concern on the property. If a proper due diligence review is undertaken, any potential buyer would be able to discover the past use of the property and what land use restrictions would be applicable. Further, all the land use restrictions applicable to the site already exist in the <i>Land Use Control Assurance Plan for the SRS</i> , which should be publicly available and/or subject to Freedom of Information Act request.
36	General Discussion - Are the conclusions in the Performance Assessment and the end state document consistent?	The end state described for DOE's low-level waste management facilities is consistent with the end state assumed in the performance assessment.
37	General Discussion - What are the plans for off-site disposal of the 13 metric tons of plutonium (Pu) with no disposal plans?	DOE is currently evaluating several options for this material including Pu Vitrification and processing in H-Canyon.
38	General Discussion - When will we get a response to the questions asked today?	This question was asked at a workshop held on March 24, 2005. Comments from the workshop and other comments received are included in this Comment Response Matrix.
39	General Discussion - Concerned because I don't see any effort to ensure the government will fund the actions in the End State Vision.	The life-cycle scope and cost to complete the site's EM cleanup mission by 2025 have been validated and are annually audited independently. DOE is committed to requesting the necessary funds from Congress.
40	General Discussion - At one time the site was made a National Environmental Research Park. Is environmental research continuing at the site?	SRS is and will continue to be a National Environmental Research Park. Environmental research on SRS is ongoing, and is conducted by multiple organizations on-site, including SRNL, SREL, and the USFS. Please refer to Section 1.6, <i>National Environmental Research Park</i> , for additional information.
41	General Discussion - Need to ensure monitoring results from SRS are perpetual and available to the public.	Monitoring will continue as required by the FFA and DOE-HQ. Current plans are to continue to publish the <i>SRS Annual Environmental Report</i> , which provides all monitoring information, including all data.
42	Additional Comments - Recognizing that at the present time, the site can't do a "what-if" evaluation of every nuclear facility and its residual nuclear material after deactivation (to	A description of key factors in Facility End State Evaluation is presented in section 4.2.11, <i>Hazard: EM Facilities</i> . Public involvement is discussed there, as well as in Chapter 1 (see Figure 1.3, <i>Basic Area</i>

#	Comments on March 2005 End State Vision:	Status/Response:
	determine how much material could be safely left after decommissioning), but it would be of great value to describe HOW that evaluation will be done when it's time: What factors will be considered (what receptor, pathway), what time frame analyzed, what regulations or standards applicable, and (importantly) when/how the public will be involved in these facility end state decision. A tentative timetable for the completion of the evaluation for each nuclear facility should be provided.	<i>Completion Process</i>) and in the <i>SRS Community Involvement Plan</i> (May 2005). DOE recognizes the importance of public review of the assumptions and methods associated with facility end state decisions.
43	Additional Comments - Requested that; material DOE has decided to use EPA 40CFR191 performance objectives for TRU waste at SRS – if DOE and EPA (SCDHEC) determine that the TRU wastes do not need the degree of isolation afforded by Waste Isolation Pilot Plant (WIPP), they can be disposed in a non-WIPP location based on a Performance Assessment (PA) that protects the environment and workers.	Non-WIPP disposal of TRU wastes, based on performance assessment, that do not need that degree of isolation is an alternative end state described in Appendix B, <i>Alternative End States</i> . It will be evaluated in accordance with appropriate regulations and DOE Orders, with stakeholder review, in ample time to support a decision. The current plan for this material is disposal at WIPP.
44	Additional Comments - I understand that the PA – Composite Analysis (CA) modeling by Tetrattech is different from Jim Cook and Elmer Wilhite; Are the primary Constituents Of Concern the same? Are the threats to humans the same? Can you provide us with a comparison?	Although tank closure performance modeling and composite analysis modeling are done under different models, both evaluate constituents of concern for public and environmental impacts. All applicable performance modeling shall be available for public review during the WD process as well as the SCDHEC permitting closure plan approval process
45	Additional Comments - In an earlier motion (#155) CAB asked DOE to consider revising the lower limit of TRU waste definition based on risk; we understand that DOE has.	DOE has not changed the lower limit for TRU waste nor has any plans to change the definition of TRU waste
46	ES 2.11, p.6 - Under "next steps" at SRS are to: last bullet reads: "Amend the Core Team process with the regulators to establish an End State Core Team to ensure proactive regulatory involvement for measuring end state progress, evaluation of AES opportunities, long-term stewardship transition and monitoring area closure. : <i>such End State Core Team to include at least one representative from the Citizens Advisory Board or similar public entity and an alternate representative.</i> " Italics is the addition and recommendation - such a presence	The Core Team—those DOE, SCDHEC, and EPA representatives making cleanup decisions—wants to know the views, desires, and preferences of stakeholders early in the decision-making process. Examples include, in the consideration of future use and exposure assumptions that will guide risk assessment, the range of response actions that should be considered, and the end state that should be achieved. A framework for this stakeholder review and participation is in the <i>SRS Community Involvement Plan</i> (May2005). DOE is also committed to annually reviewing end states with stakeholders, continuing the comprehensive planning process that began in 1995 and recognizing that

#	Comments on March 2005 End State Vision:	Status/Response:
	would establish a precedent in the early stages of transition (or whatever issue) of including a CAB representative's in the process of the ESV evolution or for that matter other Core Team deliberations.	new disposition alternatives may arise.
47	<p>Comment: Portions of the SRS for which the federal government has no foreseen federal mission should be dispositioned in accordance with federal law including restoration to a hazard level that would permit unrestricted use by the state of South Carolina or by its citizens. Small portions of the site where cleanup to this level is not economically feasible may be cleaned to a lesser degree and maintained under the control of the federal government. The expectation should be that more than 90% of the site should be restored to a level that permits unrestricted use and these portions should be returned to the State accordingly.</p> <p>Justification: The SRS is a federal asset with great potential to meet the needs of the nation. It is also a great asset of the State with potential to be part of a technical foundation for future economic benefit. It is right and fitting that the federal government maintains control of the SRS and that the state of South Carolina continue to permit such control for the benefit of the nation to the extent that the federal government states and pursues a national mission for the site. Portions of the site not required for federal/national missions should be restored to the State so that they may be used for the economic benefit of the State and the nearby portions of the state of Georgia.</p>	<p>Since the issuance of CAB Recommendation #8, Future Land Use, in 1995 and the <i>SRS Future Use Project Report</i> in 1996, SRS stakeholders have consistently expressed the desire that SRS remain the property of the federal government. Most of the SRS land is not contaminated; there is no contamination-related restriction on use in those uncontaminated areas. However, there is no plan to relinquish control or convey ownership of SRS land to the state or any other non-federal entity.</p>
48	<p>Comment: Alternate end states #1, Future Land Use and Exposure Scenario Modification, and #3, In-situ Decommissioning in lieu of Demolition, should be used sparingly, if at all, in conjunction with long-term federal control of these particular areas. The total area designated for these end states should be less than 5% of the total site area, and should not impact the economic viability of the remaining 95% of the site.</p>	<p>As stated in response to the previous comment, there are vast tracts of SRS land that are suitable for industrial uses that are consistent with the site's mission. In-situ decommissioning of facilities in lieu of demolition will have no effect on those areas.</p>

#	Comments on March 2005 End State Vision:	Status/Response:
	<p>Justification: The SRS is a great national and state asset that can and should be an engine for regional economic growth and should help the nation solve its pressing problems in national security, energy security and environmental management. The total developed land area at the SRS is less than about 10% of the total available land area. Of this amount, it is reasonable to assume that less than half represents the buildings and areas for which total restoration would be economically infeasible. It is unreasonable to expect the nation or the entire state to accept a continuing economic liability with regard to the entire site for the sake of this small total portion of the site. A reasoned and appropriate remediation plan should permit sound economic decisions concerning these small, problematic areas while permitting the majority of the site to be available for other use, preferable unrestricted.</p>	
49	<p>We continue to encourage DOE-SR to more fully integrate into SRS site management, planning, and reports such as the ESV applicable historic presentation mandates, agreements with our office, as well as legacy issues related to the preservation and interpretation of SRS historic properties, artifacts, and cultural resources. Integration of historic preservation and interpretation concerns into current and future planning, management, and decision making is crucial to the education of SRS personnel and the public at large, the prevention of adverse incidents, and the survival of SRS's valuable historic resources.</p>	<p>DOE has fully integrated historical preservation planning into the site D&D and Operational and Maintenance planning processes to ensure that all Cold War historical resources are properly managed prior to any undertaking that could potentially impact the historic character of any Cold War historic SRS facility.</p>
50	<p>Acronyms, p.2: "SHPO" should be, State Historic Preservation Office, or alternately, can use "SC-SHPO" = South Carolina State Historic Preservation Office. (This mistake occurs elsewhere in the ESV, for example, Chapter 4, p. 30.)</p>	<p>This change was made throughout the document.</p>
51	<p>Executive Summary, p.7: Reference 11, add "Environment" to the CRMP title. (This mistake occurs elsewhere when referencing the CRMP, for example, Chapter 4, p.45.)</p>	<p>This change was made throughout the document.</p>

#	Comments on March 2005 End State Vision:	Status/Response:
52	Chapter 1, p.2: bottom right: The CRMP's summary needs rephrasing. We suggest "...applies only to the Site's Cold War National Register of Historic Places (NRHP)-eligible historic properties and...."	This wording was changed as suggested.
53	Chapter 1, P. 5-6: We recommend adding "Stewardship" mission(s) for cultural resources, natural resources, and/or historic preservation and interpretation. These missions, however, "non-core" they may be considered, are inclusive of the definition of stewardship and are immensely applicable to DOE-SR's management of the land under their ownership and the legacy that the Site will leave. Their importance should be reflected in the ESV and not just referenced in other SRS reports.	These missions were taken directly from the <i>SRS Strategic Plan</i> for consistency. If the <i>SRS Strategic Plan</i> is changed to reflect your suggestions, we will change the ESV.
54	Chapter 4, p.30, top paragraph: change end of last sentence, first paragraph, to "...within a NRHP-eligible SRS Cold War Historic District." Note: We would love for DOE to submit a National Register nomination for a SRS Cold War Historic District. Until then, however, it is misleading to use language stating there is a historic district, when one has only determined to be eligible for the NRHP.	The wording was changed to reflect your comment.
55	Chapter 4, p.30, second paragraph: change "Was" to War, and "SRHP" to NRHP.	These changes were made.
56	Appendix F: Here and elsewhere where references are noted it would be helpful to provide a research location or contact for where these items may be found and perused. Providing web links to documents, etc. available online would also be helpful.	Many of the references are not available on the internet; however, when they could be found on the internet, the URL was added to the reference. Also, the names of agencies or groups, when appropriate, were provided to facilitate where these documents can be found.
57	Appendix H, Public Comment Matrix: The inclusion of the matrix is helpful as a forum. However, we do not agree that our previous comments/concerns, as responded to in the matrix, are address in full by the CRMP or agreements between our office, DOE-SR, and consulting parties. The CRMP itself notes the importance of education and integration of historic preservation concerns into future	DOE leads the SRS Cold War Heritage Tourism Team, comprised of those consulting parties from the Programmatic Agreement and the CRMP. This team meets quarterly to seek ways to enhance public involvement, outreach, and education in Cold War heritage tourism. Meetings have been held in various museums and centers within the Central Savannah Regional Area.

#	Comments on March 2005 End State Vision:	Status/Response:
	decision making and planning.	
58	<p>A good document with lots of useful information. What I did not see was a specific listing of "orphaned" waste (or whatever the appropriate term is for that stuff - waste without a pathway to disposal). In my humble opinion, there is too much "orphan" waste to ignore or simply lump into a single pot and say "this will be addressed later as an Alternative End State."</p> <p>Waste which does not have an approved pathway (no equipment for processing, no way to prepare it for WIPP approval, no approved way to get it from its current state into an approved container, etc.) needs to be specifically identified by type, location, volume, etc. Perhaps something could be added concerning potential alternatives. - 1. build a \$400m piece of equipment capable of safely crushing it into an appropriate size. 2. disposal on site. 3. Pouring 3 feet of concrete all around it, etc. This is the only way the stakeholders will be able to begin to grasp the scope of problem and see the things that might get in the way of an "ideal" ESV.</p>	<p>DOE Order 435.1, <i>Radioactive Waste Management</i>, specifically states that the sites are to identify and the Site's Manager approve any waste that does not have a path for disposal. SRS has identified several wastes in this category, and we have continued to reduce the amount of waste on this list over the years. <i>The System Plan for Solid Waste Management</i> specifically identifies this waste along with the quantity of waste to be disposed. The <i>System Plan</i> is revised every year to update the treatment and disposal alternatives for these and other waste streams. SRS will continue to reduce the amount of waste on the "waste with no path for disposal" list through technology development or innovative disposal methodologies.</p>



SRS Citizen's Advisory Board

Savannah River Site Citizens Advisory Board

Recommendation 190 Risk Based End State Vision Document

Background

The principles of the Department of Energy's (DOE) Top-to-Bottom Review have transformed the Office of Environmental Management (EM) purpose from simply managing risk to accelerating risk reduction by expeditiously cleaning up the Cold War legacy. A cornerstone of this effort is the development of a site-specific Risk-Based End State (RBES) Vision document for each DOE site, pursuant to DOE Policy 455.1, *Use of Risk-based End States*, and other associated guidance.

RBES and its documentation in an associated RBES Vision document depict appropriately protective and sustainable site conditions, by which current regulatory and other parameters can be described, evaluated, and contrasted. This is not a decision document; rather, it is intended to support informed decisionmaking regarding responsible site cleanup. The Program Performance Management Plan (revised), however, is a definitive decision "path" to the Savannah River Site (SRS) end state. Therefore, the two documents are closely linked. Development of a RBES Vision and identification of potential variances from a current end state do not signal an intent to perform less cleanup, nor to pursue shortcuts around current laws, regulations, or agreements. Furthermore, while a RBES approach may ultimately reduce cleanup costs, the RBES Vision is not driven by cost considerations.

The new vision for the end state at the Savannah River Site (SRS) when environmental cleanup is completed by 2025 is that all of SRS land will be federally owned, controlled and maintained in perpetuity. SRS is a site with an enduring mission and is not a closure site. Additional missions will continue under the National Nuclear Security Administration (NNSA) management. SRS has identified five RBES variances, which are defined as a significant different cleanup approach or different end state relative to the original August 2002 SRS EM Program Performance Management Plan (PMP). These variances include (1) future land use and exposure scenario modification, (2) area risk methodology and protocols, (3) alternate disposal for Pu-238 contaminated waste, (4) in situ decommissioning in lieu of demolition, and (5) "glass durability" waste acceptance criteria for high level waste (HLW) federal repository (Ref. 1).

Comment

The SRS Citizens Advisory Board (CAB) endorses the RBES concept and the SRS End State Vision. The SRS CAB supports the use of minimum risk based end states protective of human health and the environment as long as best engineering and science can support them. The SRS CAB realizes that SRS will have a degree of contamination remaining at specific sites after the cleanup is complete in 2025. However, the perceived risk to human health and the environment from these sites may be quite different from the actual risks. The SRS CAB is concerned that the general public's lack of information will negatively affect the public's ability to discern the difference. Any outreach education effort to the general public needs to be at an understandable level with clear "common sense" examples and avoid the use of technical jargon and acronyms.

The SRS CAB is also concerned about the potential barriers to RBES success and the five RBES variances. Of major concern is the HLW classification issue and alternative disposal for Pu-238 contaminated waste. Both issues present the site with significant risk challenges. The SRS CAB was interested in reducing this risk by adopting Recommendation #155, which requested alternative disposal paths to the Waste Isolation Pilot Plant (WIPP) that are environmentally acceptable and without increased risks to SRS workers or the public. Some CAB members and the general public heard a brief discussion of these options at the National Academy of Science Committee on Risk Based Approaches for Disposition of Transuranic (TRU) and HLW on January 28, 2004, and think they are worth pursuing further. The SRS CAB, through individual committees, may later provide specific recommendations concerning these issues and variances.

Recommendation

The SRS CAB offers the following recommendations in an effort to strengthen the RBES process and expects a progress report on each recommendation on or before September 27, 2004:

1. SRS provide additional information about the risks, both human health and environment, associated with the end states proposed.
2. SRS clearly articulate the plan and approach for reaching public acceptance of the end state visions.
3. SRS develop a RBES outreach effort to educate the general public on the difference between perceived risks to human health and the environment and actual risks associated with SRS end states.
4. Regarding future land use, DOE-SR and DOE-HQ pursue Congressional Authorization to provide perpetual federal ownership and responsibility for SRS's fixed boundaries.
5. SRS include a discussion on how historic preservation, cultural resource management (CRM) goals, and continued National Environmental Research Park (NERP) designation are integrated into the SRS end state vision and how SRS will implement them.
6. SRS evaluate alternative disposal options for Pu-238 contaminated waste so that the risks associated with handling and shipments are protective of human health and the environment.
7. SRS continue to develop "area" risk assessment methodology and protocols protective of human health and the environment.
8. SRS determine and evaluate the risks of in situ decommissioning in lieu of demolition.
9. DOE-HQ request and work with the Nuclear Regulatory Commission to revise the HLW federal repository glass durability specifications to allow an increase in waste activity loading above the current specifications.

References

1. Risk Based End State Workshop, Strategic and Legacy Management Committee, April 13, 2004.

Agency Responses

Department of Energy-SR



©2002 SRS Citizen's Advisory Board. All rights reserved.

Last updated: September 14, 2004



Department of Energy
Savannah River Operations Office
P.O. Box A
Aiken, South Carolina 29802

JUL 21 2004

Ms. Jean Sulc, Chair
Savannah River Site Citizens Advisory Board
24 Harbor River Circle
St. Helena Island, SC 29920

Dear Ms. Sulc:

SUBJECT: Savannah River Site (SRS) Citizens Advisory Board (CAB) Recommendation 190 – Risk-Based End States (RBES) Vision Document

Thank you for your recommendation regarding the draft *SRS RBES Vision Document*. The Site continues to pursue accelerated risk reduction and completion of the Environmental Management (EM) cleanup mission at SRS. The draft *SRS RBES Vision Document* is a critical tool in this effort, in that it defines appropriately protective and sustainable Site conditions at the end of that mission. The Department of Energy (DOE) developed the draft *SRS RBES Vision Document* using a tailored approach for the data requirements. This approach was adopted to be consistent with the area closure strategy recently agreed upon with our regulators and reviewed with the public through the SRS CAB. DOE is committed to a continuous planning process and is accountable for execution of the EM cleanup mission at SRS using a risk-informed approach.

The SRS CAB recommendation comprises nine parts, each of which I would like to address:

Parts 1, 3, 6, and 8 all deal with the determination of risks at SRS and how those risks can be better shared with the public and stakeholders.

– The revised (“final”) *SRS RBES Vision Document* will include additional information on the human health and environmental risks associated with the Site’s currently planned end states and potential alternative end states for each of the hazard types at SRS, including EM facilities to be decommissioned and plutonium-238 contaminated wastes. Risk balancing (that is the risk reduction achieved by an action, as compared to the risk involved in taking the action, or other trade-offs) will be considered and discussed as well. As we progress with the cleanup of hazards by area at SRS, more information about these hazards will be obtained, and more detailed risk assessments will be developed where appropriate. Progress and issues will be discussed with the SRS CAB through periodic Board and committee meetings. The difference between perceived risks and actual risks will be discussed in the final *SRS RBES Vision Document* and will be a topic of the presentation on risk that DOE will develop for the public.

Part 2 asks that DOE clearly articulate the plan for reaching public acceptance of the RBES vision.

– The *SRS RBES Vision Document*, as an examination of the planned end states and possible alternatives to be achieved by the SRS cleanup program, will be an ongoing process that will involve SRS’s regulators and the public. New cleanup alternatives may arise in the future that will make it possible to realize protective and sustainable end states that have not been proposed or evaluated before.

The first phase of that process has been public and regulator input to the draft *SRS RBES Vision Document*. That input occurred in meetings with regulators, in the public workshop hosted by the CAB, and during a public comment period that ended in May. DOE's plan to promote public acceptance of the final RBES vision is to continue to work with our regulators and to inform the public as we determine appropriate end states. Within the regulatory framework, end states involve decisions that require negotiation with our regulators and public notification and involvement. We will also continue to inform the public through the SRS CAB and other public forums such as Environmental Justice meetings. In addition, DOE has determined that additional public participation is appropriate before finalizing the document in December of this year. A workshop will be conducted on October 5 – 6, 2004, to discuss the next steps in the risk-based end state process. The workshop will be conducted with assistance from the National Governors Association and details of the workshop will be provided when a location and agenda are determined.

Parts 4 and 5 deal with integration of risk-based end states, future land use, historic preservation, and environmental research.

- DOE is considering additional surety of future land use by pursuing Congressional authorization creating perpetual Federal ownership and responsibility for SRS. This initiative is in the early stages of planning. The final *SRS RBES Vision Document* will include a discussion of the integration of historic preservation, cultural resource management, and the Site's National Environmental Research Park status. Also the SRS RBES vision will be factored into updates to the SRS Comprehensive Plan including the Future Use Plan.

Part 7 deals with DOE's pursuit of area risk methodology and protocols to support the area closure strategy.

- DOE agrees to continue to work collaboratively with our regulators and stakeholders to develop an effective and efficient methodology for assessing risks on an area scale. This initiative advances accelerated cleanup decision-making and remediation at SRS.

Part 9 concerns efforts to increase waste activity loading by revising High Level Waste (HLW) Federal Repository glass durability specifications.

- DOE will continue to collaborate with the Nuclear Regulatory Commission, National Academies, and other associated parties to effect a change to the Federal Repository's specifications for HLW glass durability that would enable SRS to increase waste activity loading at the Defense Waste Processing Facility.

Again, we appreciate your interest in this effort, including your willingness to host a workshop dedicated to discussing the *SRS RBES Vision Document* with the SRS CAB and other stakeholders. This process of public participation adds value in building broad support for cleanup objectives that are protective, sustainable, and consistent with the future use of SRS.

Ms. Jean Sulc

3

JUL 21 2004

DOE is in the process of finalizing the *SRS RBES Vision Document* to address public comment. The final document is scheduled to be issued in December 2004 following completion of a national workshop in October that will be conducted with assistance from the National Governors Association.

If you have any questions, please contact me or have your staff contact Mr. Tony Polk at (803) 952-8394.

Sincerely,

A handwritten signature in black ink that reads "Jeffrey M. Allison". The signature is written in a cursive, flowing style.

Jeffrey M. Allison
Manager

EB-04-017

APPENDIX H
PUBLIC COMMENTS ON MARCH 2004 RISK BASED END STATE VISION

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
1	Asked for a formal extension of time for public comment so that any CAB motion could be presented to the full board for consideration and so that the recommendation could be part of the final Savannah Rive Site (SRS) policy.	Public Involvement comment period extended to May 21, 2004, per request.
2	In DOE Order 435.1, risk is not defined. It should be defined in the RBES.	Risk definition Department of Energy (DOE) Order 435.1 (Radioactive Waste Management). <i>End State Vision</i> (ESV) Section 1.3.1 defines risk and how it is applied in the SRS ESV. Additional information on risk can be found in Appendix G, <i>Land Use, Risk and Cleanup Decision Process</i> The ESV differentiates between “hazards” (source terms) and “risks” and between “contained hazards” and “released hazards”. SRS is preparing a "civic club-type" presentation to communicate risk concepts and methods.
3	Is "in perpetuity" DOE-Headquarters (HQ) guidance?	No. The perpetual federal ownership of SRS fixed boundaries is an SRS recommendation and is supported by SRS regulators and CAB. The SRS ESV recommendation formalizes the request. There is a draft action in the DOE-HQ ESV Implementation Plan that addresses federal legislation for land use.
4	Are all the DOE sites creating RBES documents?	No. Only DOE sites with a current Environmental Management (EM) cleanup mission (38 sites) are required to prepare an ESV, but 10 of these are not required to submit a final End State Vision for various reasons.
5	The RBES should consider risk perceptions by the public.	SRS is preparing a "civic club-type" presentation to communicate risk concepts and methods. This will also address real risk and perceived risk.

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
6	Variances in the RBES need more understanding, e.g., Are alternatives to disposing of salt included?	See Appendix B, <i>Alternative End States and Recommendations</i> . An Alternative End State is defined as significantly different cleanup approach or different end state relative to the SRS EM Performance Management Plan. Alternatives for disposing of salt are not included.
7	How do you deal with alternative uses of SRS? New missions? How are these put into the document?	See Chapter 1 for a list of potential new missions. Additional discussion on the new missions can be found in the <i>SRS Ten Year Site Plan</i> .
8	Does the RBES consider the ecology impact during remediation? This needs to go into the policy portion of the document.	For inactive waste unit cleanup, ecology impacts are evaluated under the Resource Conservation and Recovery Act (RCRA) and/or the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) in the Remedial Alternative (RA) selection process. The risk that contaminants pose to ecological receptors before remediation is also part of the baseline risk assessment process.
9	Will the Deactivation and Decommissioning (D&D) of the Mixed Oxide Fuel Fabrication Facility (MFFF) and the Pit Disassembly and Conversion Facility (PDCF) be covered in Environmental Management (EM)?	Current DOE policy is that future DOE programs will address their respective waste management and D&D. Since both of these facilities will be built and operated under the National Nuclear Security Administration (NNSA), NNSA will be responsible for the D&D of these facilities.
10	For the Spent Nuclear Fuel (SNF) disposition, will SNF go to the federal repository and will it be gone from SRS by 2025?	Yes. See Table 4.1 and Section 4.2.3, Spent Nuclear Fuel. The End State Vision is that SNF will be gone from SRS by 2020.
11	How do you identify facilities needed for future missions? Is there a DOE-wide review? Can a contingency list be set up for these?	There is a federal and DOE asset management process to make all excess assets (including facilities) available for reuse before D&D is approved.
13	How will the site take care of nuclear material in the nooks and crannies in the facilities?	Deactivation procedures address the appropriate level of cleanup before final Decommissioning.
14	Has the site put any SNF in dry casks for shipment yet? Will this be done for just-in-time shipments?	The site is not currently packaging spent nuclear fuel for shipment to the repository. When packaging does start, rate will support site closure, well ahead of repository shipment.

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
15	Will 235-F be available for storage of material from Hanford? Suggestion - Change K-Area and 235-F to "interim" storage facilities.	All plutonium will be removed from SRS by 2025, reference Table 4.1 and Section 4.2.1. The PMP addresses how the end state for the plutonium hazard will be attained.
16	Does the site have approval to send material to Yucca Mountain, e.g., spent fuel, aluminum clad fuel? What is the schedule for acceptance? What are the options for moving Plutonium (Pu) offsite?	Yucca Mountain is assumed to be licensed, constructed and available for SRS receipts of DWPF canisters by 2010. SNF is also assumed to be shipped to Yucca Mountain. Plutonium will be removed from SRS via Mixed Oxide (MOX) fuel fabrication, processed through the HB-Line facility or to a federal repository.
17	Referencing Bruce Schappell's presentation - Does the alternative analysis include effects on ecology?	For inactive waste unit cleanup, ecology impacts are evaluated under RCRA/CERCLA in the Remedial Alternative (RA) selection process. For example, CMS/FS (Corrective Measures Studies / Feasibilities Study). See Section 1.3, Hazard and Risk Relationship and Appendix G, Land Use, Risk and Cleanup Decision Process.
18	For the risk evaluation scenario's, the trespasser and future resident are not included in the RBES strategy. They should not be included in the evaluations either.	Residential use is not anticipated in either planned or alternative end state for SRS. The Trespasser scenario is for unintended exposure, but potential for some site areas (e.g. near site streams and/or boundaries that have potential offsite access) where industrial development is not feasible. It is typically a much smaller amount of exposure than industrial.
19	How do you show the RBES process has an impact on regulator acceptance? Has it made a difference?	ESV initiates dialog on planned and alternative end states. Final decisions are to be determined. Historically, SRS regulators have been receptive to sustainable and protective alternatives that comply with the law.
20	When looking at assessments, etc., do you consider the baseline of the National Environmental Research Park (NERP) and is the Savannah River Ecology Lab (SREL) part of the process?	SREL data and resources are used in cleanup assessments and remediation. SRS has an established environmental "baseline" largely due to the SREL initiatives, and the effects of SRS activities are protective of the environment through numerous regulatory requirements and DOE policies. SREL has extensively studied the effects of SRS nuclear and industrial activities on baseline environmental conditions for over 50 years. This well characterized

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
		and protected environmental baseline is the value of the NERP designation by DOE.
21	Can the site delete the 'resident' scenario for consideration? It is misleading to the public. In the RBES the site should explain how we use this scenario and why.	The site does not plan to delete the “resident” scenario in the cleanup assessment process. It is required. Additional explanation is provided on the resident scenario in Appendix G, <i>Land Use, Risk and Cleanup Decision Process</i> , in the ESV.
22	What is the status of the plug-in Record of Decision (ROD)? What can be done to speed up the process and/or reduce the paperwork?	The FFA three parties continue to negotiate appropriate application of the plug-in ROD approach. An initial plug-in approach was successfully implemented for all reactor seepage basins at SRS. An area completion approach is being developed in which all remaining hazards and releases in an SRS area are assessed and remediated through a single project.
23	What is the status and plans for the use of mixing zones?	Several mixing zones are in effect through signed RODs at SRS and future groundwater remedial decisions will consider mixing zones and/or Monitored Natural Attenuation. See ESV Chap 4, Section 4.2.12, for a discussion for SRS Groundwater cleanup strategy.
24	What is the process for de-listing from the National Priority List (NPL)?	After remediation goals are achieved, DOE will petition the EPA for deletion of the appropriate portion of the SRS from the NPL. See EPA reference for additional deletion info.
25	What is the time frame for remediation of the 69 "high" risk sites?	All will be complete and in long term stewardship (if needed) by 2025.
26	How do you address non-carcinogenic risks, e.g., VOC, etc.?	Hazard Indices (HI) for non-carcinogens are addressed for all inactive waste unit assessments. Additional risk evaluation description has been incorporated in the ESV hazard and risk section 1.3. All SRS soil remediations are currently and projected to accommodate the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) cancer risk assessment levels of either less than one in a million (< 10 ⁻⁶) for a residential (unrestricted) scenario or between a one in ten thousand to one in a

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
		million (10-4 to 10-6) industrial worker scenario with institutional controls. A corollary approach is implemented for non-cancer risk (presented in terms of hazard indexes) but is not presented to simplify SRS's end state concept.
27	On Page 5 of the Soil and Groundwater presentation, what does "inaccessible" mean?	Waste units that are currently not accessible due to continuing operations in industrial areas.
28	Is there any agreement from NNSA to pick up ownership of site facilities?	NNSA currently owns the Defense Program tritium facilities and will own the planned Nuclear Nonproliferation MOX, Pit Disassembly and Conversion Facility and the Waste Storage Facility. There is no agreement for NNSA to assume responsibility for other SRS facilities at this time.
29	Will SRS submit more information to the State Historic Preservation Office (SHPO)?	Not part of ESV initiative; however, a Programmatic Agreement with the Advisory Council on Historic Preservation and State Historic Preservation Officer and Memoranda of Agreements were signed in 2004.
30	What is the schedule for information to go to SHPO on the D&D'ed buildings of historical significance? Is the material that goes to SHPO available to the public?	See the Department of Energy Savannah River Operations Office, <i>Savannah River Site's Cold War Built Cultural Resources Management Plan</i> , January 25, 2005.
31	What is the process for handling artifacts?	For pre-SRS artifacts, the University of South Carolina Institute of Archaeology and Anthropology handles artifacts. For SRS artifacts, DOE is working with several groups, described in Department of Energy Savannah River Operations Office, <i>Savannah River Site's Cold War Built Cultural Resources Management Plan</i> , January 25, 2005.
32	Is there a role at SRS for the Office of Legacy Management (LM)?	No. Currently, LM is responsible for Closure sites only. SRS is not a closure site.
33	How do we get facilities for potential future missions on the list for consideration to be saved from D&D?	There is a federal and DOE asset management process to make all excess assets (including facilities) available for reuse before D&D is approved.

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
34	What happens when NNSA, etc., takes ownership of a facility, is it immediate?	Usually there is a memo documenting the transfer of assets from one DOE programmatic office to another. There is not an official process. The DOE FIMS (Facility Information Management System) is the official DOE asset management database and the DOE program owner is established in this database.
35	There needs to be an early evaluation (cost and alternatives) of facilities scheduled for in situ end state to verify that in situ makes sense.	Please see Savannah River Site, <i>SRS Environmental Management Integrated Deactivation and Decommissioning Plan</i> , May 2003 "super model" which addresses the initial preliminary evaluation process. Also see ESV Appendix B, <i>Alternative End States and Recommendations</i> .
36	DOE should consider NRC's work on how to decommission facilities.	NRC's decommissioning process is being considered by the D&D program.
37	In relation to the Composite Analysis and in order to make risk informed decisions, what is the inventory in the LRW tanks? Canyons? The 100 Area?	See information in Table 4.1. The residual source terms in each of these facilities after their decommissioning will be determined when their decommissioning is planned and executed and accounted for in the final area closure (soil and groundwater cleanup) activities. Composite analysis may help to determine acceptable residual source terms, along with other exposure/risk factors.
38	What is the alternative path to the WIR lawsuit?	The FY 2005 National Defense Authorization Act, Section 3116, has provided clear direction for SRS LRW waste disposition. No alternative plan is needed.
39	What is the volume of LRW generated annually?	The volume of LRW generated annually varies with the H and F Area Canyon activities. Special efforts have been implemented to reduce the amount of LRW generated. The current rate is about 550,000 gallons annually after evaporation.
40	Is the site still reevaluating non-compliant items for WIPP?	No, for drum waste and yes, for large container waste. SRS will ship the majority of its drum waste to WIPP by the end of 2006 without the need for relief on non-compliant items. SRS will need to look for relief with non-compliant items in its large container waste after it

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
		can x-ray a large sample of the waste in late FY2006.
41	At one time there was talk about the definition of TRU waste being revised, is that still being considered?	No, DOE is not considering redefining TRU waste.
42	What was the role of the regulators in the creation of the RBES document?	Regulators were consulted and briefed on the initial RBES guidance and process on multiple occasions. They are aware of the <i>SRS End State Vision</i> , but declined to comment on previous versions, since binding decisions are made on specific issues through regulatory processes. Future land use alternatives were reviewed and discussed with them.
43	<p>I think the concept of development of a Risk Based End State vision document for SRS is a worthwhile effort and can be useful in reaching consensus within DOE and with the public. I like the integration with the PMP. I agree with the proposed end states, for the most part, but find the document falls short of its defined objective.</p> <p>As I understand the objective of this initiative, it is to provide information defining the proposed end states and sufficient information that supports why the proposed end states are the proper end state. That latter information is missing from the RBES document. I will site two end state visions that are probably reasonable but no information is provided to substantiate the proposed end states.</p> <p>The two examples of too little information to reach agreement on the end vision are discussed below:</p>	<p>Since there is still significant work needed to arrive at what will be the acceptable amounts of residuals left in tanks and facilities, based on performance assessment work in the future, some of the information does not exist today. The ESV describes the strategy and expected end state goals. (See Table 4.1.)</p> <p>Additional text was added to Section 4.2.5 to address this comment.</p>

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
	<p><u>First Example: Liquid radioactive waste Disposition.</u> At the RBES Open House Mr. Joe Carter described the LRW disposition proposed to reach the planned end states of offsite disposal and onsite disposal of closed and stabilization of 51 underground LRW tanks (F- & H-Areas) and saltstone in 2 vaults in Z-Area. Mr. Carter's presentation was focused on how the waste processing (sludge and supernate) end visions could be met and not on LRW tank closure and those end state.</p>	<p>The sampling, analysis and determination activities will be ongoing for the next ten years or more. The strategy supports a performance based approach to LRW disposition and tank closure that will meet air, water and radiation safety regulations.</p> <p>Please see information that has been added to section 4.2.5, Liquid radioactive waste. Additional text was added to Section 4.2.5 to address this comment</p>
	<p>As I read the RBES vision document, I note that F-Area has 22 of the LRW tanks (Table 4.12a of the RBES) and H-Area has the remaining LRW tanks (Table 4.13a). The descriptive information from Chapter 4 page 19 states that all 22 LRW tanks in F-Area will be "closed (removed from service and filled with grout)". The text on page 22 states that LRW tanks in H-Area will be deactivated before in-situ disposal and the text goes on to say that emptied tanks will be removed from service and filled with grout. Page 32 of Chapter 4 gives the end state vision of the DWPF and SWPF as deactivation by isolating and filling with grout. It goes on to discuss closure of the Failed Equipment Storage Vaults and the GWSB. Z-Area end state vision is to close the grout plant and install a perimeter fence. There is no mention of the end vision of the saltstone vaults and how they will be stabilized.</p>	<p>Please see information that has been added to section 4.2.5, Liquid radioactive waste. Additional text was added to Section 4.2.5 to address this comment</p>

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
	<p>The description of this end vision contains no discussion of the amounts of radionuclides and hazardous waste that will be left in the LRW tanks, closed process facilities, and saltstone vaults. Acceptance of this end vision depends upon the residual inventories left at SRS, the cost of further cleanup, and the hazards of further cleanup and the final residual hazards. None of these have been discussed in this LRW system section of the RBES. Mr. Carter discussed some of these at the open house. Just about all we know from the draft RBES is how many facilities will be demolished and how many will be in-situ disposal.</p>	<p>Please see information that has been added to section 4.2.5, Liquid radioactive waste. All residual inventories will be demonstrated to be protective of human health and the environment through the processes required by law and/or DOE Orders. <i>DOE Environmental Impact Statements on Salt Processing Alternatives</i> (DOE/EIS-0082-S2D; July 2001) and <i>High Level Waste Tank Closure</i> (DOE/EIS-0303; May 2002) discuss quantities that may remain after closure of these facilities. Additional text was added to Section 4.2.5 to address this comment</p>
	<p><u>Second Example: End States for Major Production Facilities at SRS.</u> The end states for the five reactor buildings (C, P, R, L, & K) use slightly different words but basically state that all hardened reactor buildings will be deactivated. The production buildings in F-, H-Areas are said to be decommissioned and placed in in-situ disposal. S-Area facilities are stated to be deactivated by isolating utilities and filling the canyon cells with grout. At the open house a DOE representative stated that F-Canyon and B-Line equipment would probably be removed before placing the building in in-situ disposal. These differences may not be significant but point out that SRS has not considered the real meaning of in-situ disposal.</p>	<p>See response above. The details of the in-situ disposal end state for these facilities have not been determined yet. The hazard that will remain after each facility is decommissioned will be manageable through the area cleanup remedy. DOE believes that complete demolition is not warranted or necessary for long-term protectiveness.</p>

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
	<p>There is no information given on why these general end visions were made. No risk information is provided to show that the public and workers on the SRS site in the future will be safe. What level of decontamination of these facilities is acceptable? This information needs to be available before SRS will get a stakeholder consensus on in-situ disposal.</p> <p>I hope the two examples assist SRS in upgrading the RBES before its issue so that the SRS end visions are understood and leads to discussion and commitments that lead to consensus on this important view of the end visions for the various portions of SRS. As I see it this document should focus on the end visions and the PMP should contain the commitment milestone needed to reach these visions.</p>	<p>Since the end state conditions of the facilities are not known in detail, and the type and frequency of exposure to the residual hazards is based on a future use assumption that may change, future risk information is difficult to produce.</p> <p>Facility and hazard end states will be demonstrably protective in order to meet, requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), state and federal regulatory permits, and DOE.</p>
44	<p>I would like to turn my discussion to the vision of land use at SRS. A major premise of the SRS RBES vision is that the lands of SRS will be owned by the federal government in perpetuity (page 3 of the Executive Summary) and used for industrial purposes for future DOE and non-DOE missions. This condition (federal ownership in perpetually) is a DOE controlled condition and not established by any law. Page 4 of the ES states that SRS has recommended Congressional Authorization. No further information is provided on this Congressional Authorization.</p> <p>I am not comfortable with this assumption of federal ownership in perpetuity so long as it is only a DOE decision that could be overturned by a future Secretary of Energy or other high-level DOE employee. It needs to be institutionalized by congressional action. Also, all governmental agencies are not equal in this area. The governmental agency should be knowledgeable in management of lands that are contaminated with nuclear and hazardous chemical wastes.</p>	<p>See Section 2.9 of the Executive Summary. DOE agrees with you and recommends formal Congressional Authorization to provide perpetual federal ownership and responsibility for SRS within its current fixed boundaries.</p>

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
	<p>This important premise undergirds many of the vision end states. This is used in much (but not all of the RBES document) and prevents consideration of turning the lands over to public occupation and use (no private homes, subdivisions, private utilities, etc. are allowed). This end vision should be used consistently throughout the document. I noted groundwater and soils end visions do not use the same vision. They assume cleanup of lands and groundwater to allow residential scenarios.</p>	<p>Land (soil) cleanup is not designed to achieve residential levels. Industrial cleanup levels are generally used.</p> <p>Current regulations and state policies require that groundwater be remediated to achieve drinking water standards over time.</p>
45	<p>Now again I will turn my comments to the variances discussed in Appendix E. I will take one variance and discuss it. It is an alternative disposal for Pu-238 contaminated solid waste (see Appendix E, page 7). If this TRU waste were to be stored in a saltstone or other concrete vault, the Pu-238 that is currently called TRU waste would rapidly decay so that the waste would no longer be TRU waste but LLW long before the concrete storage container would be breached. This alternative should be given wide consideration. The details of this alternative, its safety, the environmental regulatory requirement changes, cost savings, etc. should be discussed and if warranted proposed end vision modified to those associated with this variances. The PMP should include milestones for consideration of the benefits of the variance and approaches for their adoption.</p>	<p>DOE has made no policy change in disposing of TRU waste. Until DOE makes a policy change, all SRS TRU waste will go to WIPP. In the future, if DOE finds it will be difficult to ship some of its TRU waste to WIPP due to technical or worker risk issues, then it will consider alternatives to WIPP disposal. At that time, DOE will prepare details of alternatives. (See Alternative 2 in Appendix B, <i>Alternative End States and Recommendations</i>.)</p>
46	<p>All five variances in Appendix E are given very little attention in this report. It is my understanding that the RBES guidance required discussion of changes needed for alternate end states. These alternatives need to be given more attention and should be included in the body of the report (not in an Appendix). Again the RBES should describe the variances (alternatives) and the PMP should define a process for their consideration with milestone steps needed for their acceptance.</p>	<p>See Appendix B, <i>Alternative End States and Recommendations</i>. Each of the alternative end states described there has value to accelerating or increasing risk reduction at SRS. The appropriate timing for pursuing each of them is discussed in Appendix B.</p>

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
47	<p>Overall, the RBES is a well developed and produced report reflecting Savannah River Site's impact and imprint on the region. DOE-SR and their contract partners should be commended for developing processes and goals to ensure that the legacy of SRS will be a responsible one. However, our office remains concerned that preservation and interpretation of historic properties owned by DOE-SR has not been fully integrated into site planning reports such as the RBES, or into the legacy of the important missions that occurred at SRS. We encourage DOE-SR to more fully integrate into SRS site planning and end state reports such as the RBES applicable historic preservation mandates such as Section 106 and 110 of the National Historic Preservation Act and Executive Order 13287. The intent of these mandates requires such planning and mission related integration to be undertaken by federal agencies.</p>	<p>Since the March 2004 draft was written several Memoranda of Agreements have been signed, including the following:</p> <ul style="list-style-type: none"> ♦ <i>Programmatic Agreement (PA) Among the U. S. Department of Energy (DOE), the South Carolina State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation for the Management of Cold War Historic Properties on the Savannah River Site (SRS), Aiken, Barnwell, and Allendale Counties</i> (the ACHP includes the SRS Citizens Advisory Board, the Citizens for Nuclear Technology Awareness, City of Augusta, City of Aiken, and the City of New Ellenton. ♦ <i>Memorandum of Agreement Between the U. S. Department of Energy – Savannah River Operations Office (DOE-SR) and the South Carolina State Historic Preservation Office (SHPO) Pursuant to 36CFE Part 800.6 for the Mitigation of Certain Adverse Effects to D-, M-, and T-Areas, Savannah River Site (SRS), Aiken and Barnwell Counties, South Carolina</i> <p>In addition, DOE-SR published the <i>Savannah River Site's Cold War Built Environment Cultural Resources Management Plan (CRMP)</i> in February 2005.</p> <p>These MOAs and the CRMP address these concerns.</p>

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
	<p>While the RBES may not have historic preservation concerns as its goal, we believe that the RBES should better incorporate these concerns into the environmental cleanup mission (for example, the condition of buildings and potential for re-use). The RBES should also discuss how historic preservation and cultural resources management (CRM) goals will be integrated into SRS's end state vision and how DOE-SR site management will implement it. For example, the RBES details how selected facilities will be decommissioned through in situ disposal (due to the fact of demolition being very expensive and unnecessary) but does not discuss in situ disposal as a means towards preservation of such facilities, or how such facilities own end state vision should include proper maintenance, preservation and interpretation. Consequently, preservation should also be included within the scope and recommendations made within the section "Alternate End State - In Situ Decommissioning in lieu of Demolition."</p>	<p>See response above</p>
	<p>In reference to, "The SRS EM PMP is being currently revised to reflect significant changes since issuance of the first PMP in August 2002," we believe the list of significant changes should include the Savannah River Site's Cold War Built Environmental Cultural Resource Management Plan (CRMP), in addition to current Programmatic Agreement (PA) consultations between DOE-SR, SHPO, and other signatory and concurring parties. The CRMP and the PA, once agreed to and implemented, will certainly affect how DOE-SR will manage the SRS.</p>	<p>The CRMP is mentioned frequently in the latest version of the ESV and included in the <i>Appendix F, References</i>.</p>
	<p>In reference to the section "Cultural Resource Management," discussed under "Other EM Programs," we recommend expansion of this section to include why DOE-SR undertook the related CRM actions (compliance with the NHPA), agreements and mitigation that have resulted from this compliance, and further discussion of the</p>	<p>The CRMP addresses these concerns and is referenced in the ESV.</p>

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
	<p>way stewardship of historic properties will be integrated with ongoing site missions. This discussion should include the preservation of historic properties and associated artifacts, public education and interpretation as tools of CRM that DOE-SR will use to describe the Cold War contribution that SRS made to our nation's history. Lastly, this section, unlike the rest of the RBES, contains many technical errors. Thus, this section needs to be corrected and revised carefully.</p>	
	<p>We also recommend the RBES Appendices include applicable tables from the CRMP or the SRS Cold War Context and Resource Study such as the SRS Cold War Historic District and Cold War Resources Inventory Tables.</p> <p>Thank you for consideration of our comments on the draft RBES. If you have any questions concerning these comments, please contact John Sylvest at 803-896-6129.</p>	<p>The CRMP includes the information that the reviewer requested to be included. To avoid duplication, this information is not provided in the ESV, but the ESV references the CRMP.</p>
48	<p>Page 11, Acronyms: USFS - United States Forestry Service at Savannah River Site. Change to USFS-SR - USDA United States Forest Service - Savannah River</p>	<p>Change made.</p>
49	<p>I appreciate the opportunity to review the draft Risk-Based End State (RBES) Vision document dated March 30, 2004. Even though the Savannah River Site is not a 'closure site' and has long-term continuing missions, I concur it is important for the Department of Energy and the communities surrounding SRS to be in agreement regarding the end state of facilities and lands under Environmental Management stewardship as DOE/EM programs and projects are completed. The draft RBES vision document is a good basis for discussions to achieve agreement in this important matter.</p> <p>On behalf of this organization, I offer the following comments and recommendations as you revise the RBES Vision document and submit it to DOE Washington for approval.</p>	<p>No response needed.</p>

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
	<p>1. We strongly concur that the present SRS boundaries remain intact and that SRS lands remain under federal jurisdiction in perpetuity.</p> <p>a. We support the assumption that SRS lands not be used for residential type applications. We recommend that end state standards be established consistent with industrial uses, not more restrictive and costly residential uses.</p> <p>b. We support the concept that SRS boundaries be established in legislation. SRS is a national asset, and protections should be established which preclude its dismemberment by administrative action.</p> <p>c. SRS's designation as a National Environmental Research Park should be included in future legislation. Maintaining the long-term environmental baseline is important for ongoing and future studies of the interaction between industrial activities and the environment.</p>	<p>DOE-SR appreciates your support and concurrence in these initiatives.</p>
50	<p>2. We recommend that disposition of excess facilities be coordinated with state and local community organizations and that <u>a moratorium immediately be placed on demolition of SRS facilities.</u></p> <p>a. Many current and future excess SRS facilities have potential uses for off-site economic development activity. This is especially true for general purpose facilities located near the SRS boundary.</p> <p>b. We note that SRS is proposing to demolish facilities that have been identified as site assets for the pending Modern Pit Facility. Demolition of these facilities (1) reduces SRS's advantage in competing for this important new mission and (2) causes an increase in MPF project costs.</p> <p>c. We note that you have not yet responded to the March 30, 2004 letter from Dr. Tom Hallman, Chairman, Savannah River Site Redevelopment Authority concerning the availability of specific buildings.</p>	<p>Since the March 2004 draft was written several Memoranda of Agreements have been signed, including the following:</p> <ul style="list-style-type: none"> ♦ <i>Programmatic Agreement (PA) Among the U. S. Department of Energy (DOE), the South Carolina State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation for the Management of Cold War Historic Properties on the Savannah River Site (SRS), Aiken, Barnwell, and Allendale Counties</i> (the ACHP includes the SRS Citizens Advisory Board, the Citizens for Nuclear Technology Awareness, City of Augusta, City of Aiken, and the City of New Ellenton. <p>In addition, before facilities are demolished, economic development groups are contacted to determine if the facility could be used for economic development.</p>

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
51	<p>3. We recommend the document identify the specific disposal pathways for plutonium which will not be used in the MOX process and for research reactor fuel received and stored at SRS.</p> <p>a. Without a disposal pathway, there is little confidence that the proposed end state is valid. Facilities and processes must be developed to achieve final disposition for these materials, and these new facilities/processes can influence the end state.</p> <p>b. Long-term storage of excess plutonium on SRS is not an acceptable end state. The communities and public surrounding SRS expect that materials with no future use be placed in ultimate disposition, not remain in storage at SRS.</p> <p>c. Recent discussion of consolidating excess plutonium from other DOE sites to SRS further underscores the importance of this concern.</p>	<p>Options for disposition of these materials exist to meet the proposed end states. However, these options are still under development and are pre-decisional. Therefore, they are not available for discussion now, but they will be discussed in a forum specific to this issue, to support decision making. They will also be included in future revisions of this document. The intent is to disposition these materials by 2019 to enable SRS to meet the 2025 end state for the material storage facilities.</p>
52	<p>4. The proposed 'variance' for alternate disposal of plutonium 238 contaminated wastes is not well described and a potential source of concern. Pending resolution of our questions, we recommend against adoption of this variance.</p> <p>a. As we understand the variance, it is proposed that certain Pu-238 contaminated wastes remain, in perpetuity, at SRS because of anticipated difficulties and hazards associated with retrieval, sorting and transportation. The RBES draft does not identify the quantities of materials (volume and curies content) proposed for final disposition at SRS.</p> <p>b. SRS has not conducted a performance assessment and risk assessment for materials to be disposed at SRS. Given the long half-life of Pu-238 and its highly mobile nature, we believe that these materials cannot be contained on SRS, will be released into the environment and will reach the offsite public.</p> <p>c. Significant scientific and engineering studies concluded that disposal of TRU wastes in salt deposits (WIPP) was the preferred</p>	<p>DOE has made no policy change in disposing of TRU waste. The planned end state is that all SRS TRU waste will go to WIPP. In the future, if DOE finds it problematic to ship some of its TRU waste to WIPP due to technical or worker risk issues, then it will consider alternatives to WIPP disposal. At that time, DOE will prepare details of alternatives. Any alternatives evaluated would include a performance assessment as well as risk assessment.</p> <p>Appendix B, <i>Alternative End States, and Recommendations</i>, has been rewritten to explain the evaluation of an alternative end state for Pu-238-contaminated waste.</p>

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
	disposal option. Why would SRS want to take a contrary position?	
53	<p>The SRS CAB's Long Term Stewardship Subcommittee (2000 -) identified one of the priorities to be addresses by the SRS as: develop and provide a mechanism for public participation to educate the public on (the then term) long term stewardship. That effort was set aside when DOE-HQ guidance and organization on LTS changed. The RBES Vision document can and should be a catalyst to begin raising the public's awareness about the transition occurring within the Savannah River Site. SRS is not a closure site but is undergoing various forms of transition: from EM units to NNSA; from inactive to D&D; and eventually from decommissioning to Legacy Management (or the old Long Term Stewardship). Each of these types of transition may entail flexible forms of and appropriate public participation processes. They need to be defined. For instance, the SRS Citizens Advisory Board structure may not be the most effective structure for public input as these three types of transition occur.</p>	<p><i>See Appendix E, Long Term Stewardship; DOE Policy 454.1, Use of Institutional Controls and DOE Policy 141.2, Public Participation and Community Relations</i></p>

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
	<p>The site needs to begin a dialogue as to what processes will be most effective as these changes occur.</p> <p>The RBES Vision document can be used to conceptualize then organize the appropriate public participation processes for these transitions (or the initial group which can develop the processes).</p> <p>The site can begin by using the RBES Appendix F regional planning organizations as core team members (at minimum) to begin developing the public participation process and schedule of implementation. This initiative would be separate from the SRS CAB recommendation on educating the public on the nature of "risk" as used in the RBES document.</p> <p>Finally, the issue of long term stewardship or public participation as the site transitions to legacy management should be addressed in the main body of the report, not just in the Appendix (App H). <u>This should be included as one of the needs addressed by the RBES document (Chapter 1).</u></p>	<p>See response above.</p> <p>Long-term stewardship or public participation as the site transitions to legacy management will be addressed in the next iteration of the SRS ESV.</p>
	<p>Note: at the end of the RBES workshop, I asked, "What is the process for determining the end-state of the (SRS) CAB? (There were a few chuckles...) The question <u>is</u> related to the heart of the use of the RBES Vision document and the (end) vision of <u>future uses of public input.</u></p>	<p>See response above.</p>
54	<p>Chapter 1: p. 7, Table 1.2 Gold Metrics: It would be helpful to the layman to <u>see a percent (of completions) column</u> between "To Go" and "Life-Cycle Scope".</p>	<p>Table 1.2 will be changed to reflect %.</p>
55	<p><u>Ex Summary</u>, Barriers to..., third bullet: "s "poisoning" the correct word?"</p>	<p>Poisoning is correct.</p>
	<p>The following nine comments are the SRS Citizens Advisory Board (CAB) Recommendation 190 on the Risk-Based End State Vision. The responses are the ones provided to the SRS CAB at that time.</p>	

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
	<p>1. SRS provide additional information about the risks, both human health and environment, associated with the end states proposed.</p>	<p>The revised <i>SRS End State Vision</i> will include additional information on the human health and environmental risks associated with the Site’s currently planned end states and potential alternative end states for each of the hazard types at SRS, including EM facilities to be decommissioned and plutonium-238 contaminated wastes. Risk balancing (that is the risk reductions achieved by an action, as compared to the risk involved in taking the action or other trade-offs) will be considered and discussed as well. As we progress with the cleanup of hazards by area at SRS, more information about these hazards will be obtained, and more detailed risk assessments will be developed where appropriate. Progress and ideas will be discussed with the SRS CAB through periodic Board and committee meetings. The difference between perceived risk and actual risk are discussed in the SRS ESV in Appendix G, Land Use, <i>Risk and Cleanup Decision Process</i>, and will be topic of the presentation on risk that DOE will develop for the public.</p>
	<p>2. SRS clearly articulate the plan and approach for reaching public acceptance of the end state visions.</p>	<p>The SRS ESV, as an examination of planned end states and possible alternatives to be achieved by the SRS cleanup program, will be an ongoing process that will involve SRS regulators and the public. New cleanup alternatives may arise in the future that will make it possible to realize protective and sustainable end states that have not been proposed or evaluated before.</p> <p>The first phase of that process has been public and regulator input to the draft SRS RBES Vision Document. That input occurred in meetings with regulators, in the public workshop hosed by the CAB, and during a public comment period that ended in May. DOE’s plan to promote public acceptance of the final ESV is to continue to work with our regulators and to inform the public as we determine appropriate end states. Within the regulatory framework, end states involve decisions that require negotiation with our regulators and public notification and involvement. We will also continue to inform</p>

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
		the public through the SRS CAB and other public forums such as Environmental Justice meetings. In addition, DOE has determined that additional public participation is appropriate before finalizing the document in December of this year. A workshop will be conducted on October 5-6, 2004, to discuss the next steps in the risk-based end state process. The workshop will be conducted with assistance from the National Governor’s Association and details of the workshop will be provided when a location and agenda are determined.
	SRS develop a RBES outreach effort to educate the general public on the difference between perceived risks to human health and the environment and actual risks associated with SRS end states.	See response to CAB Recommendation 1.
3.	Regarding future land use, DOE-SR and DOE-HQ pursue Congressional Authorization to provide perpetual federal ownership and responsibility for SRS’s fixed boundaries.	DOE is considering additional surety of future land use by pursuing Congressional authorization creating perpetual Federal ownership and responsibility for SRS. This initiative is in the early stages of planning. The SRS ESV includes a discussion of the integration of historic preservation, cultural resources management, and the Site’s National Environmental Research Park status. Also the SRS ESV will be factored into updates to the <i>SRS Comprehensive Plan</i> including the <i>SRS Future Use Plan</i> .
	SRS include a discussion on how historic preservation, cultural resource management (CRM) goals, and continued National Environmental Research Park (NERP) designation are integrated into the SRS end state vision and how SRS will implement them.	See response to CAB Recommendation 4.
	SRS evaluate alternative disposal options for Pu-238 contaminated waste so that the risks associated with handling and shipments are protective of human health and the environment.	See response to CAB Recommendation 1.
	SRS continue to develop “area” risk assessment methodology and protocols protective of human health and the environment.	DOE is working collaboratively with our regulators and stakeholders to develop an effective and efficient methodology for assessing risks on an area scale. This initiative advances accelerated cleanup decision-making and remediation at SRS.

#	Comments: on the March 2004 Risk-Based End State Vision	Status/Response:
	SRS determine and evaluate the risks of in situ decommissioning in lieu of demolition.	See response to CAB Recommendation 1.
	DOE-HQ request and work with the Nuclear Regulatory Commission to revise the LRW federal repository glass durability specifications to allow an increase in waste activity loading above the current specifications.	DOE will continue to collaborate with the Nuclear Regulatory Commission, National Academies, and other associated parties to effect a change to the Federal Repository’s specifications for LRW glass durability that would enable SRS to increase waste activity loading at the Defense Waste Processing Facility.

THIS PAGE INTENTIONALLY LEFT BLANK