

Table L-2. DOE Responses to Comments on Draft EIS
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Comment number	Comments	Responses
	TESTIMONY OF MR. R. LEWIS SHAW SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL	
	June 4, 1987	
	Mr. S. R. Wright Director, Environmental Division U.S. Department of Energy Savannah River Operations Office Post Office Box A Aiken, South Carolina 29802	
	Re: Draft Environmental Impact Statement (DEIS), Waste Management Activities for Ground Water Protection at the Savannah River Plant, April, 1987	
	Dear Mr. Wright:	
	The South Carolina Department of Health and Environmental Control (DHEC) has reviewed the referenced DEIS and offers the following comments and recommendations for finalizing the EIS. Comments are provided with regard to the general scope and content as well as program specific concerns.	
	<u>E.I.S. - Regulatory Interface</u>	
	The DEIS has been submitted at a time when DHEC's regulatory coverage over a number of waste management activities has recently been clarified creating a somewhat duplicative coverage. For this reason, DHEC's comments today are limited to the programmatic, long-range aspects of waste-management practices at SRP. Our project-specific requirements will be developed and transmitted to DOE in the future through normal regulatory processes, incorporating the applicable	

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F-1	<p>regulatory requirements into a multi-media approach which is consistent with the programmatic and long-range concerns raised in our comments today. In this multi-media, regulatory process, DHEC is fairly confident that the "Combination Strategy" proposed in the DEIS will be conceptually acceptable within the scope of applicable regulations.</p> <p>However, there are two categorical exceptions to this approach. First, sanitary solid waste and land-applied wastewater are not covered in the DEIS, as we requested, in our comment number 2 in the scoping process.</p>	<p>The sanitary landfill and land-applied wastewater facilities are currently operated in accordance with permits issued by SCDHEC. Since these operations are prescribed by the conditions of the SCDHEC permits, alternative operational strategies will not be developed through the general NEPA process or this specific EIS. These facilities are not currently considered to be either mixed, radioactive, or hazardous waste sites. DOE will continue to interact with SCDHEC on these permitted operations.</p>
F-2	<p>Second, high level waste and TRU waste are not clearly covered by any regulatory authorities outside of DOE and are not covered in the DEIS. DHEC recommends that the final EIS, in order to be comprehensive, discuss the impacts of all waste management activities on ground water at SRP.</p>	<p>High-level waste and transuranic (TRU) waste have been evaluated in other NEPA documents prepared by DOE and are referenced in this FEIS. HLW is stored in tanks at the SRP awaiting processing in the Defense Waste Processing Facility (DWPF) and repository disposal. Stored TRU waste will also be disposed of in a Federal repository. The impacts on human health and the environment of buried TRU waste are assessed as a part of the 643-G facility. Pursuant to the <u>Federal Register</u> notice of May 1, 1987, DOE and EPA are consulting to determine the regulatory status of the sites containing these wastes.</p>

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Comment number	Comments	Responses
F-3	<p><u>Waste Minimization</u></p> <p>As we recommended in the scoping process (comment 5) waste minimization should be preferred over land-based treatment, storage, and disposal. DHEC recommends that Appendix D of the final EIS should be expanded to thoroughly discuss the impacts of recycling; reuse, incineration, and/or further treatment on a project-specific basis for all wastes generated both currently and in the future at SRP.</p>	<p>This FEIS (Appendix D) includes discussion of recycling, reuse, incineration, and other pre-treatment technologies but does not discuss the site-specific impacts of these technologies due to its programmatic focus. Discussions in Appendix D, as well as the FEIS, are limited to "hazardous," low-level radioactive, and mixed wastes, not all wastes (See pages 1-4 and 2-14). The EIS bounds the environmental consequences of alternative actions. Programs which are in place at the SRP (e.g., waste minimization) will reduce the level of impact discussed in the EIS. Further, project-specific actions will be developed as a part of ongoing interactions with SCDHEC following DOE's Record of Decision which deals with the selection of a waste management strategy.</p>
F-4	<p><u>The Role of Hydrogeologic Considerations in Strategy Development and Site Selection</u></p> <p>DHEC recommends that the final EIS be revised to further emphasize and clarify that all priority ranking systems, selections of remedies under the "Combination Strategy", and site selections of future land-based waste management facilities will give strong consideration to hydrogeology. Specifically, we feel the following major factors should be ranked and considered, at a minimum:</p>	<p>Selection of remedial actions will be based on interactions with SCDHEC and/or EPA and will be reflective of the hydrogeological discussions in Chapter 3 and Appendix A as well as further site-specific studies developed during the regulatory process. The final selection of remedial actions will be based on these regulatory interactions and decisions. Similar regulatory interaction will also precede the selection of new disposal/storage facility sites (See pages 1-4 and 2-35 of this EIS).</p>
	<ol style="list-style-type: none"> 1) presence or absence of a potentiometric head reversal and the relative difference (location in a recharge or discharge area). 2) quality of confinement. 3) thickness and quality of the unsaturated zone. 4) role of the calcareous zone. 	

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	<p>In the development of DHEC's regulatory requirements, we will consider these variables in the future and recommend that the final EIS outline an approach or ranking system to assist in this effort in order to provide a consistent base for future data collection and decision making. It is further recommended that the priority ranking system and the remedy selection system place a minor weighting factor on proximity to the SRP boundary since environmental standards apply plantwide.</p> <p>In addition to these general programmatic comments on the DEIS, DHEC has the following, more program-specific comments:</p>	
	<p><u>Bureau of Radiological Health</u></p> <p>It is our view that an overall combination strategy would provide maximal remediation, evaluated on a case by case basis for each area. As presented in this document the elimination strategy poses a significant occupational risk of radiation exposure. Therefore the elimination strategy should only be considered in cases of extreme radiological contamination, or in special cases where hazardous concerns greatly outweigh the potential radiological exposure.</p>	
F-5	As shown in this report, there are several areas where radionuclide concentrations exceed ground-water standards. It is our opinion that present low level waste trench construction should be modified to decrease the probability of	Technologies considered and evaluated in the EIS for new low-level radioactive waste disposal facilities include liners and leachate collection systems to reduce the probability that radioactive constituents

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	<p>migration of the radioactive constituents. The following should be included in addition to present requirements:</p>	<p>will migrate.</p>
1.	<p>French drains and sumps should be included.</p>	<p>The Engineered Low Level Trench (ELLT) design includes a French drain which is sloped to a central sump. The sump can be checked and pumped to remove any liquids.</p>
2.	<p>Trenches should be excavated so that there is a minimum separation of 5 feet between the trench bottom and the highest recorded water-table elevation.</p>	<p>A minimum separation of ten feet is maintained between the bottom of the trench and the permanent water-table elevation.</p>
3.	<p>Superficial sand layers should be removed.</p>	<p>Superficial sand layers are not removed in individual trenches; however, any sand layers present at the boundary of the burial ground will be evaluated and SCDHEC will be consulted to determine how the presence of these layers might affect the ability of the closure cap to retard migration of potential contaminants. A low-level waste compaction process is operational at SRP prior to placement. The compaction program is expected to inhibit subsidence at the disposal facility.</p>
4.	<p>Quality assurance should be inacted to inhibit the severity of future trench subsidence. (i.e., waste placement, backfilling procedures, etc.)</p>	<p>Current SRP practices require liquids to be absorbed on non-biodegradable absorbent with a 3 to 1 ratio (absorbent to liquid) prior to acceptance which significantly decreases waste leachability. Oils and lubricants are not accepted for disposal.</p>
	<p>We also feel that more stringent requirements should be placed on the waste forms to decrease their leachability. All waste should be dewatered to less than 0.5% free standing liquid by volume, and liquid waste solidified. Absorbed liquids, oils, and lubricants should not be accepted.</p>	<p>Compliance with DOE Order 5820.2 will be assured before the construction of additional LLW disposal facilities. DOE-HQ</p>

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F-6	It is our understanding the DOE has adopted the general requirements specified in 10 CFR Part 61, Land Disposal of Radioactive Waste. In our opinion, DOE should establish stricter requirements for disposal of radioactive waste and mixed waste due to the specific geohydrology and humid environment of the Savannah River Plant.	is evaluating DOE Order 5820.2 to determine if stricter requirements are warranted for humid, eastern sites. Mixed waste will not be disposed of in the same facility as low-level waste. DOE will continue to work with SCDHEC to define groundwater protection limits.
F-7	The proposed ground-water monitoring program states that for most areas, sampling will be performed quarterly for the first year and annually for the next 29 years. Our opinion is that sampling for radionuclides should be performed on a more frequent basis, and for a longer period of time.	The 30-year monitoring requirement was chosen to provide a consistent basis for cost comparisons in this EIS. The type of radionuclides that may be present in groundwater underneath the site would determine the adequacy of the sampling period and the frequency of sampling. Sampling would be performed quarterly for the first year or as negotiated with the regulatory process.
F-8	It is stated on p.3-47 that "The only other nuclear facility operating within 80 kilometers of SRP is the low-level radioactive waste burial site operated by Chem-Nuclear Systems, Inc..." There are several other nuclear facilities within 80 kilometers of SRP. It is also mentioned that "the Alvin W. Vogtle plant is currently under construction." It should be noted that this plant has received an operating license.	Unit 1 of Plant Vogtle began full power operation in May 1987. Page 3-52 of text has been corrected to reflect this changed condition.

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Comment number	Comments	Responses
<u>Bureau of Water Supply and Special Programs</u>		
<u>General Comments</u>		
F-9	<p>1. The proposed ground-water monitoring to be conducted under each strategy is essentially the same, quarterly for one year and annually for twenty-nine years. As many of the waste sites are considered to be solid waste management units (SWMU's) under RCRA, ground-water monitoring must be conducted such that the spirit of the South Carolina Hazardous Waste Management Regulations (SCHWMMR's) is met. In general, for any waste site where either any waste is to remain in place or ground-water contamination exists, ground-water monitoring which meets the requirements of R.61-79.264.98 and 264.99 of the SCHWMMR's must be performed. The appropriate monitoring program should be determined based on the requirements of 264.91. If remediation of contaminated groundwater is necessary then monitoring should be performed per 264.100.</p>	<p>The 30-year monitoring requirement was chosen to provide a consistent basis for cost comparisons in the EIS. The specification of the exact monitoring program to be implemented at each site is beyond the scope of this EIS and NEPA objectives. These details are being determined in the RCRA permitting (Part B) process. Where appropriate, solid waste management units (SWMU) are discussed explicitly only in R.61-79.264.101. Groundwater monitoring regulations for SWMUs have not yet been developed under either Federal or state statutes. As part of the RCRA permitting process, the SRP is currently negotiating with SCDHEC and EPA to identify groundwater monitoring requirements for SWMU.</p>
F-10	<p>2. In general, the combination strategy is most compatible with existing closure activities being addressed under the SCHWMMR's. However, this strategy calls for waste removal at only seven waste sites, the old F-Area seepage basin and the six R-Area seepage basins. Additional sites should be considered for inclusion on this list. In particular, waste should be removed from sites where the physical nature and/or mode of containment (or lack thereof) would provide an ongoing source of leachate and groundwater contamination. Remediation of contaminated groundwater by pumping at such sites, without source removal, could necessitate corrective action programs without any foreseeable stopping point.</p>	<p>The seven sites included in the Combination strategy were selected based on multipathway transport modeling and are considered preliminary choices for purposes of comparison and strategy selection in this EIS. The final number of sites at which waste will be removed will be determined following DOE's Record of Decision, subsequent regulatory agency interactions, ongoing and future monitoring, modeling, and site-specific characterizations.</p>

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F-11	<p>3. Several remediation methods are described in Appendix C of the EIS (Volume 2). The list of methods includes Permeable Treatment Beds, Ground Water Pumping, and Impermeable Barriers. Of these three major methodologies, pumpage of contaminated ground water is most applicable to the SRP because of physical and technological limitations of the other two methodologies at some sites, and because the use of permeable treatment beds could be considered hazardous waste land treatment and possibly subject to the RCRA permitting requirements as hazardous waste units. The use of impermeable barriers, as stated in Appendix C, is limited to sites where the water table is shallow and a confining unit is present. It should be noted that the use of barriers in a water table aquifer that is hydraulically interconnected with underlying aquifers could increase head pressure in the water table and enhance discharge to the lower aquifer. In these situations ground-water recovery wells should be used in conjunction with the impermeable barriers to relieve head pressures and recover contaminated groundwater. In general, the use of ground-water recovery wells at all sites with ground-water contamination, supplemented with impermeable barriers systems on a case by case basis would be the preferred remedial methodology. In place source remediation technologies, for example, vadose zone extraction, should also be considered.</p>	<p>Appendix C provides a generic description of potential remedial, treatment, and closure action technologies and their applicability to existing waste sites at the SRP. The scope of this EIS is not intended to select any specific remedial, treatment, or closure technique or combinations thereof. Appropriate techniques will be selected as part of project-specific actions subsequent to DOE's Record of Decision (ROD) and future permitting actions and studies.</p>
F-12	<p>4. Special consideration should be given to locating permanent waste disposal facilities in areas where the head reversal between the Congaree and Black Creek Aquifers is not present. As this situation will allow recharge to the Black Creek Aquifer from overlying and potentially contaminated units. Alternate, less vulnerable, areas should be considered.</p>	<p>The sites proposed for new SRP disposal facilities are in locations where there is a head reversal between the Congaree and Black Creek aquifers. The candidate sites selected for the proposed new disposal facilities for hazardous, mixed, low-level radioactive, and cement/fly ash matrix (CFM) wastes are located in areas of upward gradient (i.e., "head reversal") from the Black Creek to the Congaree aquifers.</p>

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<u>Specific Comments</u>		
F-13	5. The discussions in the DEIS pertaining to the vertical extent of ground-water contamination implies that only water table aquifers have been affected. As ground-water contamination has been observed in the Congaree and Black Creek aquifers the discussion should be revised to include the deeper leaky confined aquifers as well.	The EIS specifically discusses impacts to aquifers on page 3-20. Further discussion of confined aquifers is found at A.2.2 and A.2.3 of the FEIS.
F-14	6. The description of recharge and discharge areas at the SRP should include the A/M area as a potential recharge area for the Black Creek aquifer. The A/M area is characterized in Figure 3-5 as an area where the Congaree head exceeds the head in the Black Creek Aquifer. It has also been determined during the ground-water quality assessment that units of the Ellenton Formation are absent in this area. Figure 3-5 also shows a no head reversal area in the Par Pond and R-Area vicinity.	This comment is addressed in the FEIS (see Section 3.4.2.2; page 3-20, and Appendix A; page A-23, and revised Figures A-6 and A-7 on pages A-25 and A-26.
F-15	7. Paragraph two of section 2.1 (page 2-2) implies that long term monitoring (post closure care) will not be required at sites where the waste is removed as part of the closure operation. It should be noted that clean closure is not possible if ground-water contamination has occurred. Therefore, long term monitoring will be necessary at any site where waste is left in place (i.e., closed as a landfill) or ground-water contamination is confirmed.	The FEIS addresses long-term monitoring in Section 2.1, page 2.2. The following sentence is added. "Long-term monitoring will be necessary at any site where waste is left in place (i.e., closed as a landfill) or ground-water contamination is confirmed."
F-16	8. The discussion of hydrostratigraphy in paragraph four of section 3.4.1 describes the Ellenton Formation as an "effective barrier to downward migration". It should be noted that	See the response to comments F-13 and F-18. Changes have been made to text on pages 3-17 and 3-20.

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	current data confirms the presence of VOC's in the Black Creek aquifer in the A/M area, suggesting that leakage between the Ellenton and Black Creek occurs.	
F-17	9. Additional discussion is needed describing the source and nature of the hydraulic conductivity data presented in Table 3.6. Specifically, are they data lab or field generated, and if lab generated were samples disturbed or undisturbed?	The data on Table 3-6 were obtained from laboratory analyses of undisturbed samples. This information has been added to the EIS.
F-18	10. Section 3.4.2.2 paragraph 3 states that impact to the Black Creek aquifer has been confirmed in only one well cluster at SRP. It should be noted that other Black Creek wells in M-Area exhibit VOC's, specifically MSB-23TA and MSC-37TA, however, the validity of the data is considered by SRP to be questionable due to supposed leakage along the well casings. Also, the contaminant plume concentration and extent illustrations (figure A-13) should be revised to reflect more recent data than the April/July 1984 sampling.	The occurrence of VOCs in wells other than MSB-37 is addressed in this FEIS in Section 3.4.1, page 3-17, and Section 3.4.1, page 3-20.
F-19	11. The potential for plume convergence from the A/M Area and the Silverton Road waste site and it's affect on water quality should be discussed in section 4.2.1.1 regarding ground-water impacts.	This comment is the subject of ongoing discussion with SCDHEC and is being addressed through the RCRA permitting process. If this interaction does occur, it will not significantly affect the type or extent of environmental impacts or change the EIS conclusions.
F-20	12. The discussion of ground-water impacts on page 4-34 describes re-injection of treated ground water as part of the remedial action process. It should be noted that waste injection is not permitted under state regulations.	The EIS discusses reinjection as a potential offset to groundwater impacts such as surface subsidence or excessive drawdown. Reinjection of treated recovered groundwater is not construed in the EIS as waste reinjection. Reinjection will only be used to offset groundwater impacts if permitted using applicable regulatory processes.

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F-21	13. The discussion in Section 5.2.1 regarding ground-water contaminants confirmed in F and H-Areas should be revised to reflect current data. Specifically, the presence of lead, mercury and cadmium should be described. Also, Tables A-10, A-11, and B-13 should be revised accordingly.	First quarter 1987 analytical results indicated that concentrations of lead, cadmium, and mercury exceeded the Primary Drinking Water Standard at some F-Area Seepage Basin Wells. These data are presented in the final EIS at Table 3-8 and new Table B-12.
F-22	14. More of the recent data should be used in describing site ground-water elevations and flow directions. The maps in Appendix A are generally based on 1982 data. Maps should be prepared from several years of data, including current water level measurements, so that any changes in water level can be evaluated.	In preparing the EIS the 1982 groundwater elevation data were compared with the more recent 1985 data; no significant changes were observed. Accordingly, DOE believes that the 1982 data is appropriate for use in the EIS.
F-23	15. The discussion of the hydraulic characteristics of the various units in Appendix A should be expanded to include a description of onsite recharge areas for the Black Creek aquifer. Section A.3.2 describes offsite recharge but no mention is made of the onsite areas of no head reversal (A/M and Par Pond Areas).	Site-specific data will be included as necessary during regulatory interactions.
<u>Bureau of Solid & Hazardous Waste Management</u>		
F-24	1. Even though the DEIS is not to be considered as a regulatory permitting vehicle, there should be some discussion as to how it may affect current and future permitting activities. Problems may arise between RCRA permitting activities, such as the RCRA Facility Assessment, and waste site identifications performed in the DEIS.	DOE will fully comply with RCRA as stated on page 1-3 of the EIS. The EIS serves as a focal point and provides an overall view of the environmental impacts of alternative waste management activities. Required regulatory actions, including those required by RCRA and/or SCDHEC requirements, will be implemented by DOE. While specific actions at individual waste sites may differ from EIS discussions, significant changes in

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		<p>impacts are not anticipated, and in most cases the actual impacts will be lower. Deviations from the specific action descriptions of the EIS will be made as required by regulatory interactions; however, DOE feels that these deviations will not contradict the value of the EIS or the overall impact conclusions of the Record of Decision.</p>
F-25	<p>2. The DEIS continuously states that it uses the terms "hazardous", "low level radioactive", and "mixed-waste" in their most common everyday sense, without specific regard to technical or regulatory definitions. Without the knowledge of what is referred to when using these terms, understanding how different sites will be addressed is difficult.</p>	<p>Table 2-4 lists the potential categories of waste vs. waste sites. The terms "hazardous," "low-level radioactive," and "mixed wastes" are primarily terms to identify and categorize the wastes regardless of whether individual constituents levels exceed regulatory definition. Negotiation of the applicable regulations will determine the categorization of individual sites. See page 1-2 for examples of waste terms and types.</p>
	<p>3. The strategies developed in the DEIS appear to be in accordance with RCRA which allows for either removing the waste (elimination) or leaving it in place with proper monitoring (dedication).</p>	
F-26	<p>4. When developing alternative strategies for existing waste sites, the term cost-effective is used. The context in which possible cost-effective analysis were used should be discussed.</p>	<p>Cost-effective or cost benefit analyses will be part of future project-specific actions. Although these types of analyses were not used in the EIS, costs were provided to give the decisionmaker a basis for deciding on an alternative strategy).</p>
F-27	<p>5. The priority that DOE is using in the process of proceeding with waste management activities, to comply with applicable requirements, is unclear.</p>	<p>Site-specific waste management priorities will be established as part of regulatory and permitting activities.</p>

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F-28	6. It appears that the environmental impacts under the dedication strategy and the combination strategy would be basically the same, since there would be dedicated disposal sites included in either strategy.	The most significant differences between the Dedication and Combination strategies are in the number of sites dedicated to waste management use and acreages. The comparison of and differences in environmental impacts of all waste management strategies including differences in impacts between the Dedication and Combination strategies are given in Table 2-10.
F-29	7. Two of the proposed strategies (elimination and combination) provide for removing waste to the extent possible. While this may be acceptable for non-RCRA sites, RCRA requires the removal of hazardous constituents to background levels or provide for post-closure.	The language of the EIS is "to the extent practicable." Future regulatory interactions will be used to determine final cleanup requirements and post-closure care.
F-30	8. Section 6.2.3.1 does not include all of the units which DOE has included in the Part A for SRP. In addition to those units listed, the following units are also operating under interim status at SRP: - Mixed Waste Storage Facility 633-29G - Mixed Waste Oil (Tritiated) Storage Tank S-32 - Process Waste Interim Storage Facility	These units have been added to Section 6.2.3.1
	<u>Bureau of District Services, Lower Savannah District Office</u>	
F-31	1. In the list of sites investigated, the sanitary landfill is excluded. As was the past general practice, hazardous wastes were buried in many sanitary landfills and may have been buried at the SRP landfill. In any case, we believe ground water contamination is beginning to show up beneath the landfill and therefore should be addressed.	See the response to comment F-1.

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F-32	2. Should not the Water Classifications and Standards Regulations, Regulations 61-68 and 61-69, be included, as they relate to groundwater contamination? Table 6-2 on regulations does not include these regulations.	Water Classifications and Standards Regulations R.61-68 and 61-69 have been added to Table 6-2.
F-33	3. The summary states that "Groundwater contamination of some water table aquifers has occurred occasionally at some sites because of these waste management practices." This statement is somewhat misleading in that water table and other deeper aquifers are contaminated around some of the basins. It is misleading in that these areas were contaminated some 30 years ago and waste has been continually released into the aquifer.	This statement in the Summary has been changed to read "Groundwater contamination of some aquifers has occurred because of these previously acceptable waste management practices."

If you have any questions regarding these comments, please contact us.

Very truly yours,

R. Lewis Shaw, P.E.
Deputy Commissioner
Environmental Quality Control

RLS/JMF/cm

cc: Governor's Office

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	<p>STATEMENT OF MR. GARY K. SPEIRAN U.S. DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY</p> <p>Water Resources Division 1835 Assembly St., Suite 677A Columbia, SC 29201-2492 May 29, 1987</p> <p>Mr. S. R. Wright Director, Environmental Division U.S. Department of Energy Savannah River Operations Office P. O. Box A Aiken, South Carolina 29802</p> <p>Dear Mr. Wright:</p> <p>I have briefly reviewed the draft environmental impact statement "Waste Management Activities for Groundwater Protection, Savannah River Plant, Aiken, South Carolina." This review has consisted of a general review of the content and organization. Technical merit of the report from a hydrologic and water-quality standpoint was not reviewed because much remains unknown about the geohydrology and water chemistry of the systems affected at the scale necessary to provide such review.</p> <p>The comments provided are ones that I believe would enhance the readability, understanding, and credibility of this and similar reports. The volume of material included makes it easy for the reader to feel overwhelmed and confused by what is provided. If such a volume of material is not presented clearly the reader may feel that there is an attempt to cover up problems and confuse the situation.</p>	<p>Groundwater protection is the primary EIS focus as cited in the Notice of Intent (50 FR 16535, April 26, 1985). Other</p>
G-1	<p>Impressions are important. One of the first impressions is created by the title, which implies that the report relates waste-management activities</p>	<p>Groundwater protection is the primary EIS focus as cited in the Notice of Intent (50 FR 16535, April 26, 1985). Other</p>

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	to ground-water protection only. The text also relates these activities to surface-water, ecological, and other protection. To bring the report to the attention of those not interested in ground-water protection but interested in other aspects discussed, the contents of the title and text should be the same.	environmental impacts are also evaluated. See the Cover Sheet.
G-2	Section 1 (Purpose and Need) contains a lot of background material relating to waste-management activities that may best be put into an introduction. The purpose and need section should briefly give the purpose and need for this report, not for the waste-management activities. In this way the reader will know why this report has been written. Also, material in the heading and in the body of the section should be put in the same order.	The EIS was prepared in accordance with CEQ regulations (40 CFR 1500-1508) implementing NEPA. 40 CFR 1502.13, Purpose and Need, states, "The statement shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action."
G-3	In some instances material could be more effective if located elsewhere. Subsections 2.5.4-2.5.12 discuss impacts of the waste-management alternatives on the ground water, surface water, and other parts of the environment. These systems have not been described to this point which makes it difficult for the reader to evaluate the validity of the statements made. It appears that an attempt is being made to convince the reader of these points before the data supporting or refuting them is presented. The impacts are also described in Section 4 after the affected environments are described in Section 3. The impact discussion in Section 2 should be deleted.	Chapter 2 is a description of alternative waste management strategies and their associated environmental impacts taken from Chapter 4. The Summary sets the stage for all subsequent discussions. See the response to comment G-2.
G-4	Subsections 3.7 (Radiation and Hazardous Chemical Environment) and 3.8 (Control and Security) do not seem to belong in a section on affected environments as separate subsections. Radiation and hazardous chemicals are not environments, but constituents that can be monitored in the existing environments. Control and security does not relate to the description of environments. Both subsections should be made into separate sections or integrated into existing sections.	See the response to comment G-2.

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G-5	<p>One discrepancy was noted in the text on page A-15 in the second paragraph. In the third sentence, the green clay is said to be continuous, but then is said to be discontinuous north and west of Upper Three Runs in sentence 5. These should be made to agree.</p> <p>I hope that this discussion is useful in helping to improve the readability, understanding, and credibility of the report.</p> <p>Sincerely,</p> <p>Gary K. Speiran Hydrologist</p> <p>GKS/vwf</p>	The EIS text states, "The green clay <u>appears</u> to be continuous...." See also page A-6.

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STATEMENT OF MS. BARBARA W. GERTH		
<p>June 10, 1987 1105 Fontanna Avenue West Columbia, S. C. 29169</p>		
<p>Mr. S. R. Wright Director of Environmental Division U.S. Department of Energy Savannah River Office P. O. Box A Aiken, South Carolina 29802</p>		
<p>Thank you Mr. Wright for sending me a copy of the Draft Environmental Impact Statement concerning Groundwater Protection at the Savannah River in Aiken, South Carolina.</p>		
H-1	<p>From reading the statement I have concluded that your "dedication" plan either by itself or as it occurs within the combination plan is not a viable plan and should not be tolerated by any citizen of S.C. or this country. You or we will not "dedicate" land that we have destroyed through carelessness, lack of consideration, and ignoring rules and regulations that we impose on others.</p> <p>"Elimination" of all toxic chemicals, radiated particles, and mixed chemicals areas must be the only option. All temporary storage for cleanup and recycling should be above ground.</p> <p>The goal of this draft must be total cleanup through the elimination of toxic wastes and radiation at all sites within an immediate time frame.</p> <p>Due to the magnitude, mixing, and buildup of wastes seeping into the plants environment, this problem will receive top priority at the plant and supercede new plans of creating further wastes at the site.</p>	<p>The alternative waste management strategies considered in the EIS represent a range of waste management activities. The assessments of these strategies provide DOE decisionmakers with reasonable choices.</p>

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Comment number	Comments	Responses
	<p>Through our final draft of "Total cleanup" this problem will be given priority status to ensure adequate financing to restore this land and cease seepage of wastes.</p>	
	<p>I am aware that this draft pertains to Savannah River site, but let's set a precedent and actually have DOE clean up a site. Think of the jobs for engineers, chemists, physicists, etc. New technologies may be discovered. Universities could be involved.</p>	
H-2	<p>With all of the technologies used, they must employ strict safety standards concerning the environment and the personnel involved.</p>	<p>Occupational and worker risks are discussed and assessed under each strategy.</p>
H-3	<p>We must also address the problem of nuclear and chemical wastes being created and encourage their reduction due to the massive problem of controlling their wastes. We should not accept wastes from other states.</p>	<p>See the response to comment D-5.</p>
	<p>We should halt nuclear weapons testing and decrease the amount of nuclear weapons that are made. We must decrease the amount of wastes from nuclear medicine and research and substitute other less dangerous techniques.</p>	
	<p>DOE must present the draft to other agencies of the Federal government to ensure a reduction in arms and nuclear testing safely due to an inability to handle wastes from the production of these materials. Also to encourage the cleanup of other sites the defense department has polluted in our state.</p>	
H-4	<p>As our main goal in the final draft DOE must eliminate all polluted waste sites at the Savannah River Plant in Aiken, S.C. to stop the seepage of</p>	<p>DOE has proposed three "action" waste management strategies for removal, closure, and remedial action at existing waste sites;</p>

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Comment number	Comments	Responses
	chemicals and radioactive particles into the groundwater aquifers, vegetation, and in the near future us.	establishment of new disposal/storage facilities, and discharge of disassembly basin purge water.
	Sincerely,	
	Barbara W. Gerth	

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Comment number	Comments	Responses
	STATEMENT OF MR. JOHN C. SNEDEKER SYNERGISTICS DYNAMICS, INC.	
	US DEPARTMENT OF ENERGY Savannah River Operations Office Box A Aiken, SC 29802	
	Attention: Mr. S. R. Wright, Director-Environmental Division	
	Re: Draft Environmental Impact Statement 0120D - "Waste Management EIS"	
	Dear Mr. Wright:	
	I respond herewith, as a private citizen, and as President of SYNERGISTIC DYNAMICS, INC., a professional services firm with expertise and experience in the aerospace, defense and high technology industries, to DOE's call for comments on the subject DEIS. These comments are summarized as follows:	
	<ol style="list-style-type: none">(1) The DEIS is adequate for the purpose for which it is intended,(2) The "combination strategy" recommended by DOE appears to be the best of the four alternatives,(3) The undersigned supports the concept of an independent Oversight Committee, subject to the reservations set forth herein.	
	The DOE's Savannah River Plant (SRP) is well known as a facility that produces weapons-grade nuclear materials. It is also the second source of fuel materials for Naval Nuclear Propulsion Systems. It is less well known that the entire 300 square mile reservation was designated (in 1972) as the Nation's first National Environmental Research Park. Laboratories and plants within SRP are	

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Table L-2. DOE Responses to Comments on Draft EIS
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Comment number	Comments	Responses
I-1	<p>involved in a broad range of activities relating to the protection of the environment, including programs for immobilization and subsequent permanent storage of high-level, liquid radioactive waste; continuing high-level radiological waste management; chemical reprocessing technology; and studies of the environmental effects of nuclear and industrial operations. The laboratories administered by the Savannah River Operations Office (SRO) having major missions related to the environment are the Savannah River Laboratory (SRL), the Savannah River Ecology Laboratory (SREL), and the Savannah River Forest Station.</p> <p>Ensuring radiation safety of the public and protection of the environment from a variety of nuclear and non-nuclear wastes has been a primary objective of DOE and its operating contractors at the SRP since 1952, when construction of the facility first began. Many of the waste management strategies and facilities involving low-level radioactive, hazardous, and mixed wastes were not in strict compliance with the National Environmental Policy Act (NEPA), when it was enacted seventeen years later. The DOE has embarked on a major program to bring waste management and disposal facilities at SRP into full compliance with NEPA and other applicable federal and state statutes. Alternative strategies are presented in considerable detail in a Draft Environmental Impact Statement (DEIS), issued in April 1987, and which was the subject of public hearing held in Savannah and Aiken, S.C. in early June. The strategy recommended by DOE is termed the "Combination Strategy" which will involve removal of wastes at certain sites, closure of others, establishment of new retrievable storage and disposal facilities, and continued research of new technologies for permanent disposal of nuclear</p>	<p>Chapter 6 describes the applicable statutes and regulations (i.e., RCRA, HSWA, CERCLA, SARA, and South Carolina Hazardous Waste Management Regulations, SCHWMR) which govern SRP waste management activities.</p>

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Comment number	Comments	Responses
	<p>wastes. Capital costs could be as high as \$2 billion. Estimated annual operating costs range from \$18 to 26 million.</p>	
	<p>As a large industrial complex, SRP is, in many ways, similar to a small city, and has the same problems of supply of utilities and disposal of a broad spectrum of wastes, including sewage and emissions from coal-fired power plants. Many of the so-called "hazardous" wastes that are the subject of the DEIS are chemicals common to many industrial plants. Few municipalities, if any, have the combination of monitoring stations and laboratories dedicated to waste management that exist at SRP. The research activities of the DOE laboratories at SRP contribute significantly to the public welfare throughout the Nation and the World.</p>	
	<p>The safety record at SRP is outstanding. During construction in the early 1950's, Du Pont and its many sub-contractors earned the distinction of running the world's safest construction project. SRP has consistently been ranked first or very close to first in safety among all industries in the Nation. There has never been an injury or death caused by a nuclear accident at SRP. Environmental surveillance activities at and in the vicinity of SRP (including monitoring stations on the Savannah River as far away as Port Wentworth) comprise the most comprehensive environmental monitoring program at any site in the United States. Results of this monitoring have been reported to the public every year since 1959, showing insignificant impacts on public health.</p>	
I-2	<p>During the past several years, there have been an increasing number of calls from public officials, environmental groups, and private citizens for the appointment of an Oversight Committee to provide</p>	<p>See the response to comment C-153 on oversight.</p>

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Comment number	Comments	Responses
I-3	<p>independent monitoring and assessment of the effectiveness of environmental protection strategies involving both the public and workers at the facility. There are management and oversight functions within DOE and within the corporate structure of Du Pont, the SRP's operating contractor. DOE also contracts with outside consultants for performance audits on an annual basis. In addition, all of the review and oversight functions of the Federal government are, and have been available, including the Government Accounting Office (GAO), and the Inspectors General of DOE, DOD, and other agencies having an interest. The South Carolina Department of Health and Environmental Control (SCDHEC) has primary responsibility for enforcement of the Federal Safe Drinking Water Act and its 1986 Amendments (PL 99-339).</p>	<p>See the response to comment C-153 on oversight.</p>
	<p>It would appear, therefore, that the proposed SRP Oversight Committee could contribute very little to the regulatory, monitoring and enforcement functions already in place at the Federal, State and local levels. Moreover, it will require substantial courage to resist placing people on the Committee whose agendas are more political than scientific. Nevertheless, the Savannah River Plant is a vital National resource, not just for its nuclear material production capabilities, but for its research activities that center on the broad problems of environmental protection in the nuclear age, including high-level nuclear waste disposal applicable to both weapons production and to the nuclear power industry. If an independent Oversight Committee could be selected that would possess the proper combination of scientific expertise and personal objectivity, it could make a contribution to better public understanding and support of DOE's missions.</p>	

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Comment number	Comments	Responses
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Very truly yours,

John C. Snedeker
President

cc: Senator Sam Nunn
Senator Wyche Fowler
Congressman Lindsay Thomas
Elizabeth Stewart, Savannah Area Chamber of
Commerce

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Comment number	Comments	Responses
STATEMENT OF MR. JOSEPH R. FRANZMATHES, U.S. ENVIRONMENTAL PROTECTION AGENCY REGION IV, ATLANTA	U.S. Environmental Protection Agency Region IV 345 Courtland Street Atlanta, GA 30365	Mr. S. R. Wright Director, Environmental Division Department of Energy Savannah River Operations Office P.O. Box A Aiken, South Carolina 29802
	SUBJECT: Draft Environmental Impact Statement (EIS) for Waste Management Activities for Groundwater Protection at SRP EPA Log Number: D-DOE-E26001-SC	
	Dear Mr. Wright:	
	Pursuant to our responsibilities under Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA), the Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for Waste Management Activities for Groundwater Protection at the Savannah River Plant (SRP). Our review of the document, which has focused on the long-range environmental issues of current and future waste management activities at SRP, has involved all the pertinent media programs.	
	The overall stated general purpose of this EIS is to provide a more comprehensive framework to evaluate SRP's future waste management for groundwater protection projects and to evaluate the cumulative effects of integrating the individual project actions. We commend the Department of Energy (DOE) for preparing this extensive document, using an appropriate 100-year institutional period,	

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Comment number	Comments	Responses
	<p>and believe the EIS can serve as a useful programmatic framework to assist in guiding future project/site-specific actions. Since State and Federal regulatory actions at SRP are in progress, the regulatory and NEPA actions should occur concurrently as required by law.</p> <p>In addressing its broad objective of modification of waste management practices for protection of groundwater, human health, and the environment, the DEIS considers both programmatic waste management strategies and some project/site-specific actions. In summary these are stated to be:</p> <ul style="list-style-type: none"> • The selection of a strategy for the removal, remedial and closure actions at active and inactive hazardous, low-level radioactive, and mixed waste sites. • The identification of new waste disposal and storage facilities for hazardous, low-level radioactive, and mixed wastes. • The selection of alternatives to replace the present discharge of disassembly-basin purge water from the C-, K-, and P-Reactors. <p>In our review, therefore, we have considered this stated dual-nature of the EIS and assessed its ability to evaluate both levels of actions for the purpose of complying with NEPA.</p> <p><u>General Scope</u></p>	
J-1	<p>First of all, we understand the basis for limiting the scope of the DEIS to hazardous, mixed, and low-level radioactive wastes (LLW). However, since the Final Rulemaking for Byproduct Material (May 1, 1987, FR) clarifies the regulatory responsibilities for mixed wastes, the FEIS should indicate the effects of this recent promulgation on the programmatic strategy as well as the specific</p>	<p>DOE-SR is discussing implementation of the "Byproduct" rule with Region-IV EPA and SCDHEC. Application and implementation of the rule will be made on the basis of site-specific information. Accordingly, DOE feels that it is unlikely that the rulemaking will affect the selection of alternative waste management strategies</p>

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Comment number	Comments	Responses
J-2	<p>remedial actions and proposed facilities for the entire SRP operations. This means, that in order for this EIS to provide the necessary, broad frame-work to assess the impacts on groundwater, health and safety and the environment, all waste management activities should be considered including transuranic (TRU) and high level radioactive (HLW). In particular, this should include the impacts of TRU waste disposal, both prior and after 1970, on the siting considerations for future LLW and mixed waste facilities.</p> <p>Second, the DEIS goes to some effort to separate the NEPA actions from the on-going or future regulatory processes. We understand the rationale for this approach, however since the actions being addressed are basically of a regulatory nature, a clearer and more extensive discussion of the interrelationship of the NEPA and regulatory process is warranted. This should include a more detailed description of anticipated follow-up NEPA documentation for project - specific actions and other requirements for implementation including permits under RCRA, NESHAPS, etc.</p>	<p>since the strategy selection was based on environmental impacts, human health effects, and institutional considerations. Compliance with regulatory requirements, including the byproduct rulemaking is a part of the Combination strategy. TRU waste that was non-retrievably disposed of in the SRP low-level waste burial ground prior to 1970 was considered part of the "source term" of burial ground radionuclides, as were any chemical constituents (Sections 4.2.1, 4.2.2, 4.2.3, 4.2.4 and F.2.7). TRU waste that is retrievably stored is being assessed in a separate DOE environmental assessment. The management of HLW at the SRP and its environmental effects are discussed in ERDA-1537 and the Defense Waste Processing Facility FEIS, DOE/EIS-0082.</p> <p>Text in the FEIS has been expanded to provide broader discussions of NEPA-regulatory interactions. A table has been added in Section 2.1.6 to show some of these actions.</p>
J-3	<p>In addition, there should be a discussion of the prioritization system and proposed project implementation schedule that will be used by DOE in achieving the proposed waste management objectives.</p>	<p>Priorities and plans have been established through the regulatory process for some facilities (e.g., see Table 6-1 for plans at interim status facilities); however, the actual implementation of project-level actions will be dependent on completion of required regulatory interactions. Priorities for closure of other sites will be determined through these interactions.</p>

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Table L-2. DOE Responses to Comments on Draft EIS
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Comment number	Comments	Responses
J-4	<p>Third, in this and subsequent project-specific NEPA documents, the EIS should address the actions necessary under each alternative to meet State and Federal environmental regulations.</p>	<p>See the response to comment J-2.</p>
	<p><u>Waste Management Strategies</u></p>	
J-5	<p>For the purposes of bracketing the relative environmental impacts and implementation costs, we note the EIS approach of delineating three discreet action strategies for addressing existing waste sites. The No Action Strategy, in addition to complying with a NEPA requirement, provides one-end of the cost and impact spectrum, although it obviously would not meet current regulatory requirements. The Elimination Strategy, which proposes waste removal at all the 77 sites considered, provides for the other end of the cost and impact spectrum. However, we are not sure the linkage of the generic strategy to more project specific actions in regard to new facilities and purge water discharge is really necessary or is the mix of actions always consistent (i.e., continued discharge of purge water under the Combination Strategy). Our concerns about these site specific actions will be discussed separately.</p>	<p>The linkage of new disposal facilities and disassembly basin purge water disposal to actions of existing waste sites was made so that an SRP waste management strategy could be developed for hazardous, low-level radioactive, and mixed waste. The rationale for linking project-specific actions within a strategy is explained in the Summary under the title heading "Alternative Strategies."</p>
J-6	<p>Of the programmatic strategies identified we accept the Combination Strategy as providing the greatest degree of flexibility in determining the exact measures necessary at each waste management unit. Because of the environmental hazards, worker exposure, and other reasons, removal of waste at all sites is not a desirable option. However, the exact number of sites at which removal of waste is warranted should be based on the result of site specific remedial investigations. For the purposes of this document, we can accept the seven sites proposed in the Combination Strategy for waste removal as a useful starting point.</p>	

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Comment number	Comments	Responses
<u>New Disposal/Storage Facilities</u>		
J-7	<p>In general, the alternative disposal/storage technologies being considered for new facilities for low level radioactive, mixed and hazardous waste are acceptable in so far as they meet the appropriate regulatory requirements. In that regard, alternatives such as the cement/fly ash matrix vault may have limited application for mixed wastes since they do not meet the RCRA engineering requirements and thus would require that any constituent hazardous waste be delisted (40 CFR 260.22). In addition, because of the complex and vulnerable geohydrology of the SRP site, we expect that additional precautions will be necessary for improved near-surface land disposal technologies.</p>	<p>The cement/fly ash matrix vault concept is discussed in the EIS as a facility type which conceptually would comply with the intent of RCRA as well as being a facility which could be built at the SRP by DOE. The final design of such a mixed waste facility, including the appropriateness of the vault matrix and the need for liners and a leachate collection system, will be determined through regulatory compliance activities.</p> <p>DOE's preferred alternative waste management strategy includes design features for new facilities that would include essentially zero release for solid low-level radioactive waste, hazardous waste, and mixed waste.</p>
J-8	<p>In terms of siting new waste facilities, we note that three candidate sites have been identified in the DEIS for consideration. However, if this EIS is to be the definitive NEPA documentation on this action, we do not consider the information provided in this DEIS to be sufficient from a NEPA decision-making standpoint. In particular, the entire discussion in Appendix E (and in the main document) needs to be expanded to include: a more complete explanation of the screening methodology and siting criteria, discussion of alternatives considered but not selected, and the rationale for selecting Candidate Sites B, G, and L.</p>	<p>Appendix E has been revised to provide explanation of screening methodology and siting criteria, alternative sites and rationales. Additional maps and tables have also been prepared and included in the FEIS.</p>
J-9	<p>The type of information considered acceptable should be sufficient to ensure a reasonable, yet conservative assessment of radioactivity release into each of the most significant radioactivity transport mechanisms for each of the five periods of concern in the life of the disposal facility. The most significant radioactivity transport mechanisms include: groundwater, air, surface water, direct radiation, and biotic pathways. The five periods of concern include: the operational,</p>	<p>The PATHRAE code, health risk, and air models, such as XQDDQ, LADTAP, and GASPAP, used to model radioactive releases from existing waste sites take into account the major environmental pathways specified in the comment (see Appendix H). Use of transport models in this document, however, was intended to provide the decision maker with a relative basis for comparison of alternative strategies, not for site-</p>

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Comment number	Comments	Responses
J-10	<p>closure, observation and surveillance, active institutional control, and passive institutional control periods. The information should include an analysis that identifies and quantifies the most significant release scenarios on the basis of the specific details of the site environment, waste acceptance criteria, facility design and operating practices. Use of other than the most conservative release models or parameter values should be fully discussed and justified. If credit is taken for the reduction of radioactivity releases as a result of special waste forms, waste packaging, or disposal techniques; those waste streams that will be disposed of using these techniques should be clearly identified. The influence of these special waste forms, packaging, or disposal techniques on radioactivity releases should be quantified.</p> <p>The issue of appropriate siting criteria also needs further consideration. Any new facilities for hazardous and mixed waste disposal will have to meet siting criteria as part of the RCRA permitting process. This criteria, which is under development by EPA in response to the Hazardous and Solid Waste Amendments (HSWA) of 1984, will give heavy emphasis to geohydrological factors and protection of vulnerable groundwater resources.</p>	<p>specific determinations. A one hundred-year institutional control period is assumed. Health effects were modeled for 1000 years after the assumed closure of the SRP waste site.</p> <p>A conservative health effects model (280 excess cancers per million population per rem) was used throughout the EIS. Other model bases are explained at 4.2, and Appendix H and technical reference documentation (e.g., DPST-85-904, DPST-86-291, and DPST-86-298) provide further detail concerning the selection of conservative parameter values used in the health effects and transport models.</p> <p>See the responses to comments J-7 and J-8. The final siting of new facilities will be coordinated with EPA and SCDHEC as a part of applicable regulatory requirements and will meet RCRA siting criteria, including geohydrological factors, as appropriate. DOE has reviewed recently proposed siting standards in the July 1, 1987, proposed rulemaking for 40 CFR 264, 265, and 270.</p>
J-11	<p><u>Disposal of Disassembly-Basin Purge Water</u></p> <p>As was mentioned earlier, we recommend that the alternative means of disposing of disassembly-basin purge water be evaluated separately from the overall waste management strategy. Rather than linking the continued use of the seepage basins with the Combination Strategy, we recommend that appropriate alternatives be pursued to eliminate this practice which has resulted in groundwater contamination with tritium.</p>	<p>Seepage basins are used to treat and dispose of purges of reactor disassembly-basin water because they have proven to be a cost-effective method of reducing occupational and offsite radiation doses. Although tritium levels in water table monitoring wells adjacent to the seepage basins are high, there is no use of these groundwater resources for drinking or process purposes. Offsite releases are</p>

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Comment number	Comments	Responses
	<p>The DEIS identifies a number of alternatives to the current practice. Of these, direct discharge to surface streams does not appear to be advisable based on possible stream and Savannah River water quality impacts. Therefore, we recommend that other alternatives be evaluated further including detritiation and evaporation utilizing waste heat from the reactors.</p>	<p>greatly reduced from their initial levels because radionuclide travel time to surface outcrops is increased, allowing radioactive decay to occur. This decay factor is especially significant for radionuclides with exceptionally long travel times. Offsite doses from seepage basin use are calculated to be less than one mrem per year to the maximally exposed individual.</p>
	<p>Detailed comments on the above actions are attached.</p>	<p>There are two alternative treatment/disposal methods which are readily available: evaporation into the atmosphere and direct discharge to onsite streams. Evaporation of tritium to the atmosphere or direct discharge of tritium to the onsite streams would result in an annual release of 17,100 curies. Radiation doses to the public from evaporation are discussed in Section 4.4.6 of the EIS. In addition, direct discharge of tritium to the onsite streams would also result in the release of other radionuclides (e.g., Cr-51, Sr-90, Cs-137). The continued use of seepage basins for treatment/disposal of disassembly-basin purge water would result in annual average tritium releases of 11,700 curies. Detritiation of reactor moderator has also been considered (since its actual implementation would take several years, it is not considered a readily available technology). Initial reviews indicate moderator tritium levels might be reduced by a factor of approximately 10 and environmental releases by a factor of 2.</p>
	<p><u>Conclusion</u></p>	<p>The cost-benefit of a moderator detritiation facility would be in excess of \$3.0 million per person-rem averted. The cost-benefit of evaporation would be approximately \$500,000 per person-rem averted.</p>
	<p>Based on the our review of the DEIS, EPA rates the proposed action EC-2, i.e., we have environmental concerns with certain aspects of the proposed action(s) which may require modifications and refinements of the preferred alternative. In addition, we request that supplemental information be provided in the FEIS on the selection of the candidate waste disposal sites (along with other requested information and changes). We believe this information is necessary to fully evaluate the project alternatives.</p>	
	<p>We appreciate the opportunity of reviewing this document and will be glad to meet with you and your staff to discuss our concerns. If you have any questions about our comments please call me or Heinz Mueller of my staff at FTS 257-3776.</p>	
	<p>Sincerely yours,</p>	
	<p>Joseph R. Franzmathes Assistant Regional Administrator for Policy and Management</p>	
	<p>Attachment: Detailed Comments</p>	

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Comment number	Comments	Responses
cc: J. Leonard Ledbetter, GADNR R. Lewis Shaw, SCDHEC		<p>Accordingly, DOE has proposed in the EIS as a part of its preferred alternative that seepage basin use be continued because:</p> <p>each of the available purge water disposal options increase tritium releases;</p> <p>the direct discharge alternative increases doses to Savannah River drinking water users; and,</p> <p>the evaporation alternative has an extremely high cost per person-rem averted.</p> <p>DOE believes that the continued use of seepage basins is an environmentally sound (resulting in the lowest releases of tritium and calculated onsite and offsite effective whole body doses of less than 1 mrem per year) and cost-effective treatment/disposal method for disassembly-basin purge water. DOE agrees that contamination of groundwater with tritium should be avoided if a practical alternative can be found; none presently exists. DOE will pursue additional monitoring in reactor areas and modeling potential travel paths of tritium in the groundwater beneath the seepage basins to increase confidence that future potential users of groundwater resources will not be affected. If any significant environmental or health effects are predicted, remedial actions will be undertaken.</p>

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Comment number	Comments	Responses
DETAILED COMMENTS		
<u>Waste Management</u>		
J-12	<ul style="list-style-type: none"> Waste minimization should receive additional attention in the preferred Combination Strategy (required under HSWA of 1984). More project-specific information should be provided for proposals such as incineration to provide a basis for NEPA evaluation and eventual permitting action. If these actions are not addressed as part of this overall waste management strategy EIS, then appropriate separate NEPA documentation will be required. 	<p>Volume reduction and incineration are discussed in Appendixes D and J of the FEIS. Waste minimization programs are continuing efforts at the SRP; many are in the demonstration phase and are not currently specific alternatives for remedial actions or other actions within the scope of the EIS.</p>
J-13	<ul style="list-style-type: none"> Data from EPA's model analysis for LLW indicates that geohydrological conditions which exist at southeastern, humid permeable sites warrant the use of conservative disposal techniques for radioactive and hazardous waste disposal to minimize the need for future remedial action due to possible leaching and groundwater contamination. 	<p>See the response to comment J-7.</p>
J-14	<ul style="list-style-type: none"> Even though SRP provides waste isolation not normally found at some waste disposal facilities, EPA has reservations about the disposal of LLW in a sanitary/industrial landfill because of the potential for worker exposure and long-term intruder risk. Further assessment and projections of potential releases should be provided dependent on the radionuclide inventory and concentrations. 	<p>See the response to comment J-7.</p>
J-15	<ul style="list-style-type: none"> Because it does not meet RCRA permitting engineering criteria, Cement/Flyash Matrix (CFM) would only be an appropriate disposal technology for non-RCRA-hazardous waste. Any proposed use for mixed waste would first require delisting of the RCRA hazardous waste and thus may limit its potential operational flexibility. 	<p>See the response to comment J-7.</p>

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Comment number	Comments	Responses
J-16	<ul style="list-style-type: none"> In determining the extent of the clean-up, ALARA considerations, and which waste sites are to be considered for removal, the risk during site cleanup of significant occupational radiation exposure should be an important factor. 	<p>DOE agrees that occupational risk is an important factor in determining which waste sites are to be considered for waste removal (see the first paragraph of Section 4.2.4).</p>
J-17	<ul style="list-style-type: none"> The issue of LLW regulatory guidance standards used for risk assessment requires more attention. We note that the DEIS uses values that are inconsistent with the emerging regulatory direction. Therefore, the FEIS should contain additional technical justification and further evidence that the dose to any member of the public in the general environment does not exceed 25 mrem/yr. The exposure scenarios for the "de minimis" (below regulatory concern) should include: landfill workers, reuse of materials, intruder-construction, intruder-agriculture, off-site exposed individuals, and off-site critical population groups. 	<p>DOE's current guidelines for exposure are 100 mrem per year from all pathways of which 25 mrem per year is from atmospheric pathways. These guidelines are used throughout the EIS and also in annual environmental reports. Compliance with current regulations is an explicit component of the Dedication, Elimination, and Combination strategies. Therefore, if the referenced "emerging regulatory direction" is finalized, closure and remedial action plans that meet these regulations would be established through appropriate regulatory interactions.</p>
J-18	<ul style="list-style-type: none"> We note that the DEIS uses a number of different criteria in assessing the required clean-up levels. Although we realize these limits were assumed for the purposes of NEPA evaluation, RCRA currently requires either the clean-up to achieve background levels or in-place closure with long-term monitoring for regulated units. Regulations concerning corrective actions at solid waste units are currently under development by EPA. If cleanup standards are promulgated that are more stringent than levels assumed for this DEIS, then all DEIS proposed site-specific closure actions will have to be reconsidered. 	<p>Consideration of closure and remedial actions at waste sites to achieve required residual contaminant levels will be made during regulatory compliance interactions. The levels discussed in the EIS are based on modeling and monitoring data and are used for the purpose of illustrating a relative risk level associated with alternative strategies. The final acceptable residual contaminant level will be determined through appropriate regulatory interactions.</p>

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Comment number	Comments	Responses
J-19	<ul style="list-style-type: none"> DOE considers 77 of 168 waste sites for action in the DEIS. Very little justification is given for not looking at the other 91 waste disposal sites. The DEIS itself does not address site selection criteria. Assuming that the risk assessment selection criteria in the Environmental Information Document (DPST-86-291) was used, we offer the following comments on this criteria: 	<p>DPST-86-291 was not used to select the 77 existing waste sites. Section 2.2.1 summarizes the selection of 77 of 168 waste sites for detailed assessment of alternative closure and remedial actions. Section B.1.1 provides justification for not assessing the other 91 sites.</p>
J-20	<p>a) The criteria for nonradioactive constituents does not include all hazardous constituents in 40 CFR §261 Appendix VIII. Justification should be given for any constituents not included in selection criteria.</p>	<p>See the response to comment J-19.</p>
J-21	<p>b) Any site with levels of Appendix VIII constituents that are above background should at least be considered for remedial action.</p>	<p>See the response to comment J-19.</p>
J-22	<p>c) Background documents should present data on all units not selected for consideration. The FEIS should justify choosing the "no action" alternative for these sites.</p>	<p>Background documents, particularly DPST-83-829, present data on units not selected for detailed consideration in this EIS. This EIS neither justifies nor chooses "no action" for these sites.</p>
J-23	<ul style="list-style-type: none"> All site specific decisions concerning closure and remedial action at solid waste management units will have to be reviewed through the RCRA permitting process. This authority should be addressed in the FEIS and site-specific recommendations in the document should be identified as "pending regulatory review." The dedication strategy may be deemed unacceptable for some sites. 	<p>DOE is committed to comply with RCRA and its authority and all other environmental regulations in pursuing site-specific decisions and actions.</p>

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Comment number	Comments	Responses
<u>Groundwater</u>		
J-24	<ul style="list-style-type: none"> A major issue with respect to groundwater protection at SRP is the continued use of the seepage basins for disposal of tritiated purge water from the disassembly basins. It is our recommendation that this practice be discontinued. 	See the response to comment J-11.
J-25	Use of these seepage basins has resulted in significant groundwater contamination with tritium, as reported in DOE's Savannah River Plant Environmental Report for 1985. According to the information contained in this report during its migration to the surface water streams, sufficient decay of the tritium to achieve drinking water standards will not occur.	Analyses of raw Savannah River water downriver from the SRP show that average tritium concentrations are 3,900 pCi/L. This tritium concentration is only about 20 percent of the (SRP Environmental Report for 1986) EPA drinking water standard of 20,000 pCi/L for finished water. Offsite drinking water analyses at treatment plants consistently show levels less than Primary Drinking Water Standards. Concentrations at the Beaufort-Jasper and Port Wentworth drinking water supplies were 3,100 pCi/L and 3,400 pCi/L, respectively (SRP Environmental Report for 1986).
J-26	Direct discharge of disassembly-basin purge water to surface streams is cited as a possible alternative to continued use of the seepage basins. However, the DEIS does not indicate the concentration levels of tritium which are discharged to the seepage basins nor are the impacts of these increased concentration levels assessed on the stream environment. Until these issues are addressed, the discharge of disassembly-basin purge water directly to surface waters cannot be considered a viable alternative.	The direct discharge of tritiated disassembly basin purge water to onsite streams, while increasing tritium concentration levels in these controlled access area streams, does not increase offsite drinking water concentrations or radiological doses above standards or guidelines. When compared to the preferred alternative of discharging to the reactor seepage basins, direct discharge would cause an incremental increase in Savannah River concentration of about 779 pCi/L, less than four percent of the current drinking water standard of 20,000 pCi/L (Section 4.4). DOE has no plans for directly discharging disassembly-basin purge water directly to surface water.

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Comment number	Comments	Responses
J-27	<p>It is our belief that the use of these seepage basins contributes to elevated tritium levels in the Savannah River and tributaries to the Savannah River. Levels of tritium in excess of 20,000 pCi/l have been observed for short durations in the Savannah River which serves as a source of drinking water supply for cities in Georgia and South Carolina. As such, neither continued use of the seepage basins nor direct discharge of disassembly-basin purge water to area surface streams would appear to be advisable alternatives.</p>	<p>See the responses to comments J-11 and J-25.</p>
J-28	<p>We recommend that other alternatives for disposal of the disassembly basin purge water be developed. Detritiation and/or evaporation utilizing waste heat from the reactors should be examined as alternatives. Of course, the health affects and associated risks involved in evaporative release of tritium to the atmosphere would have to be added to the cumulative SRP facility's releases of tritium. In addition, these releases would have to be further evaluated as potential air emissions of radioactivity under authority of the Clean Air Act NESHAP regulations.</p>	<p>See the response to comment J-11.</p> <p>Health risks for evaporation are presented in Section 4.4.4</p> <p>Section 4.4.6 states that the cost-benefit of detritiation would be more than \$3 million per person-rem averted compared to the DOE preferred alternative and about \$500,000 per person-rem averted for evaporation. This substantially exceeds the 10 CFR 50, Appendix I criteria of \$1000 per person-rem averted.</p>
J-29	<ul style="list-style-type: none"> It is implied throughout the DEIS that release of contaminants into groundwaters at the site will affect only water table aquifers and not underlying confined aquifers such as the Congaree or Black Creek formations. Groundwater contamination has been observed, however, in the Congaree and Black Creek aquifers at Savannah River Plant (SRP), as a result of site-specific activities. Under any strategy which involves containment of contaminated groundwater at a site which lies in a potential recharge zone on SRP, consideration should be given to 	<p>The text of the EIS has been revised in terms of groundwater contamination at the SRP. SRP recharge zones are discussed in Appendix A and in Chapter 3. Improved groundwater head data based on April 1987 measurements have been incorporated (e.g., Figures 3-5, A-6, and A-16). The potential for vertical contaminant migration is discussed in Chapter 4 in terms of expected health effects (i.e., the expected contaminant concentrations following closure actions and the end of institutional control).</p>

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Table L-2. DOE Responses to Comments on Draft EIS
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Comment number	Comments	Responses
	<p>contaminant containment in the vertical direction as well as the horizontal direction. Complete hydraulic separation of the water table aquifer from the underlying formations cannot be assumed, especially in light of the evidence of downward migration in some areas. In discussions of alternative actions for groundwater protection as presented in the DEIS, the need for the prevention of vertical contaminant migration in potential recharge areas should be addressed as part of any containment strategies.</p>	
J-30	<ul style="list-style-type: none"> Because of the criticality of impacts on the groundwater resources and the complexity of the geohydrology underlying SRP, greater emphasis should be given in developing a set of siting and evaluation criteria to include geohydrological factors. Under HSWA of 1984, siting criteria are being developed which will be considered in permitting of new facilities. 	See the response to comment J-10.
J-31	<ul style="list-style-type: none"> On page 4-74, it appears that when the TNX is included, six sites (not five), are predicted to exceed the EPA 4 mrem annual drinking water limit after implementation of the Combination Strategy. 	The 10.7 millirem dose from the old TNX seepage basin outfall is not a drinking water dose. It is an atmospheric dose and is below the DOE annual dose limit of 25 millirem for the atmospheric pathway.
J-32	<ul style="list-style-type: none"> Discussion of groundwater contamination at SRP should more fully reflect the extent of the problem of the observed contamination in the Congaree and Black Creek aquifers. Statements such as "Previously acceptable waste management practices...have caused occasional cases of groundwater contamination, mostly in water-table aquifers," clearly understate the problem. 	The statement has been revised to read "Some aquifers have been contaminated as a result of these practices." Other current data and information on these conditions will be included in the FEIS, particularly in Chapters 3 and Appendix A.
J-33	<ul style="list-style-type: none"> For all waste management units regulated under RCRA, groundwater monitoring must comply with 	See the response to comment J-23.

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Comment number	Comments	Responses
	<p>Part 264 of RCRA. At sites where the waste has been removed and groundwater contamination has occurred, long-term monitoring will be required and a leachate collection system may be necessary as part of post-closure care.</p>	
J-34	<ul style="list-style-type: none"> For remedial action of groundwater contamination, pumping appears to be the most effective and applicable to SRP. Impermeable barriers should only be used in cases where geological confining strata is continuously present and complete, and the water table is shallow. 	<p>Appendix C discusses the applicability of groundwater pumping and barriers at SRP sites and acknowledges the limited applicability of impermeable barriers (Section C.1.3.3). Groundwater recovery and treatment of VOCs by air stripping is currently under way in the M-Area.</p>
	<p><u>General</u></p>	
J-35	<ul style="list-style-type: none"> Further clarification is necessary in Chapter 2.0 and Appendix E in regard to the impact of waste minimization on the estimated volumes and costs. 	<p>See the response to comment J-7.</p>
J-36	<ul style="list-style-type: none"> Further consideration should be given in the FEIS in regard to the cost/benefits of pre-disposal processing, continuing sample analysis, long-term stream/groundwater monitoring, etc. as these ongoing costs affect the selection of appropriate disposal technologies. There may well be a trade-off between the higher, longer-term monitoring and maintenance costs and initial capital savings from the use of alternatives such as near-surface land disposal. 	<p>See the response to comment J-7.</p>
J-37	<ul style="list-style-type: none"> To ensure that the summary conclusions presented in the body of the EIS are consistent with the more detailed data in the appendices and the EIDs, some supporting technical data should be provided along with the conclusions. This is particularly in evidence in discussions of the de minimis radioactivity levels. 	<p>The Summary and Chapters 2, 3, and 4 have been revised.</p>

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Comment number	Comments	Responses
J-38	<ul style="list-style-type: none">Although we are aware that the data base is continually evolving and on the whole a good attempt has been made to incorporate the best and most current data, we note the use of outdated data in some instances (e.g., M-Area well sampling data and F- and H-Areas heavy metal contamination, etc.) where more recent than 1984 data is available. The FEIS should reflect the best and most current information (in that regard the Annual Environmental Report data base is an important resource that should be more fully utilized).	Updated information and current data have been incorporated in the FEIS as appropriate. The DOE Annual Environmental Report was issued during the DEIS public comment period. It has been referenced and used as a data source in the FEIS (Chapters 3, 4, and 5 and Appendixes F and L).

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Comment number	Comments	Responses
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STATEMENT OF MR. JOHN C. VILLFORTH
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE

June 26, 1987

Mr. S. R. Wright
Director, Environmental Division
U.S. Department of Energy
Savannah River Operations Office
P. O. Box A
Aiken, South Carolina 29802

Dear Mr. Wright:

The staff of the Center for Devices and Radiological Health have reviewed the Draft Environmental Impact Statement (DOE/EIS-0120D) for Waste Management Activities for Groundwater Protection, Savannah River Plant, Aiken, South Carolina, dated April 1987. Our effort is primarily directed to evaluation of the public health and radiological safety impacts associated with the four alternative strategies for waste management facilities. We have the following comments to offer:

1. The presentation of alternate waste management strategies for hazardous, low-level radioactive and mixed waste in Chapter 2 provides a reasonable assessment of the mechanisms and technology available for reducing the public health impact from the SRP waste management activities and project-specific actions. All of the strategies, except that of No-Action, have merit; but considering our concern for protection of the public from potential sources of radiation exposure, we agree with DOE that the Combination strategy would be the preferred alternative. The summary and comparison of alternate waste management strategies shown in Table 2-10 and the project-specific actions for

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Comment number	Comments	Responses
	<p>new low-level radioactive waste disposal facilities and the discharge of disassembly-basin purge water shown in Table 2-11 and 2-12, respectively, provides the data in summary format to support the selection of the Combination alternative as the preferred strategy.</p>	
K-1	<p>2. Section 3.2.3.3 discusses the occurrence of tornadoes in the SRP area. South Carolina is in Region I, as shown in the NRC's Regulatory Guide 1.76, "Design Basis for Nuclear Power Plants." Table 1 of this reference indicates that the maximum wind speed could be 360 miles per hour, which is the sum of the 290 miles per hour rotational speed and a maximum of 70 miles per hour translational speed. Under such tornado conditions, it would be possible for radioactive waste material stored at any waste site awaiting disposal to be lifted up by the force of the tornado and could result in (1) airborne radioactivity, and (2) surface radioactive contamination at some other location on site. If such a situation is likely to occur, it would be appropriate to expand this Section to include predicted extent of environmental contamination and population exposure. In the unlikely event of a tornado striking the SRP, the consequences could be as devastating as those at Saragosa, Texas, on May 23, 1987.</p>	<p>The design-basis tornado has a very low probability of occurrence; therefore, the effects resulting from the scenarios presented in this comment were not analyzed.</p>
K-2	<p>3. It appears from the discussion in Section 3.7 that releases of radioactive material to the atmosphere result in calculated average concentrations at the plant perimeter that range from 10^{-2} to 10^{-5} percent of the DOE derived concentration guide (Table 3-18). A continuing environmental and potential public</p>	<p>The intent of Section 3.7 is to present the environment as it exists at the SRP now. In contrast, Appendixes F and G present the strategies that can be employed to mitigate the impacts that would result from no action such that appropriate standards can be met.</p>

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Comment number	Comments	Responses
K-3	<p>health problem that is of concern to us is related to the solid and liquid low-level radioactive wastes that are treated and disposed of on the SRP. Radioactive releases from such operations can enter the groundwater at specific locations. Further, migration of radionuclides to the groundwater can result from (1) seepage basins that have received low-level radioactive waste streams and (2) the leachates from buried solid low-level radioactive wastes. The discussion on the groundwater environment, Section 3.7.1.2, page 3-51, points out that tritium is the most abundant radionuclide entering the groundwater and that the measurements in 1984 and 1985 indicate that the tritium concentrations exceed the EPA drinking water standard of 20,000 pCi/l. We believe that the proposed actions at existing waste sites for alternative strategies as presented in Appendix F and Appendix G would provide the technological means for reducing the releases of radionuclides to the groundwater so that these are either not detectable or less than current radiation protection standards and less than EPA's drinking water standard of 4 mrem per year from all radionuclides.</p> <p>4. The primary environmental transport pathway is through the groundwater and the secondary pathway is via the atmosphere where population exposure results from deposition of radioactive material and subsequent uptake from food consumption and by inhalation. The computational methodology with models for the groundwater pathway (Appendix H.1) and the atmospheric pathway (Appendix H.2) provide a basis for determining relative environmental consequences of the various approaches</p>	<p>The intent of the EIS is to present a strategy that will allow the implementation of actions which will assure that all applicable standards, including those for radiation protection, will be met.</p>

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Comment number	Comments	Responses
K-4	<p>5. The environmental surveillance program for the SRP is considered to be capable of measuring the extent of releases of radioactive materials to the environment, and of verifying that the dose commitment to individuals and populations meets current radiation protection standards. Chapter 5 describes the studies and monitoring</p>	<p>The surveillance program for the SRP has demonstrated its capability to measure the extent of releases of radioactive materials to the environment and verify that the dose commitment to individuals and the public meet radiation protection standards.</p>

considered for existing waste site and new disposal facilities. The data from these two models provide reasonable estimates of the annual maximum individual and collective doses. Results of these calculations are shown in Appendix H, Table H-1, and indicate that the doses from SRP are within current radiation protection standards. We note in Chapter 4, Section 4.2.1.3 (No-Action), 4.2.2.3 (Dedication), 4.2.3.3 (Elimination) and 4.2.4.3 (Combination) that the peak annual doses to the maximally exposed individual from 21 low-level radioactive and mixed waste sites should meet three conditions. These are (1) be within the 100 mrem DOE Annual dose limit for all pathways, (2) the 4 mrem per year EPA drinking water standard, and (3) all sites must meet individually the 25 mrem DOE annual dose limit for the atmospheric pathway. The peak annual dose to the maximally exposed individual from radiological releases and the year of peak exposure are shown in Tables 4-11, 4-26, 4-36 and 4-42 for No-Action, Dedication, Elimination, and Combination strategies, respectively. It appears from the discussion of these Tables that meeting the EPA drinking water limit is an important factor that must be considered in the implementation of the selected strategy. We believe that the release of all radionuclides to the groundwater must be controlled to comply with applicable radiation protection standards.

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Comment number	Comments	Responses
K-5	<p>program that are essential to characterize the SRP radiation environment. We commend DOE in its commitment to conduct a comprehensive monitoring program. In particular, we recognize the extensive monitoring activities that are being conducted to determine (1) the radioactivity in groundwater from F Area to H Area, and reactor seepage basins, (2) the migration of radionuclides from burial ground storage locations, and (3) the potential groundwater contamination by means of an early detection monitoring program to be carried out in conjunction with site closure activities of the mixed waste management facility.</p> <p>6. The DEIS does not contain any specific information on emergency planning and coordination with the State of South Carolina in the unlikely event of an accident. In our judgement, Section 2.5.14, page 2-68, should be expanded to briefly present plans and describe the coordination that would be in place during the modification of waste management activities for hazardous, low-level radioactive and mixed wastes at the SRP.</p> <p>Thank you for the opportunity to review and comment on this Draft Environmental Impact Statement.</p> <p>Sincerely yours,</p> <p>John C. Villforth Director Center for Devices and Radiological Health</p>	<p>The recommended change in the EIS has been made.</p>

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Table L-2. DOE Responses to Comments on Draft EIS
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Comment number	Comments	Responses
	STATEMENT OF BEATRICE D. JONES June 27, 1987	
L-1	It should be noted that the Department of Energy has taken two years to respond to comments made during the public scoping period of May 1985.	Responses to scoping comments appear in Appendix K of the draft and final EIS.
L-2	In contrast, members of the public had slightly over two months to study and respond to the D.E.I.S. "Waste Management Activities for Groundwater Protection at the Savannah River Plant, Aiken, South Carolina." I would like to see greater consideration given to those who make comments at D.O.E. hearings	DOE makes every attempt to accomodate and encourage public participation in its public hearings in terms of location and schedule. Comments may always be submitted to DOE in writing by these individuals who find it inconvenient or impossible to attend the public hearings.
	Beatrice D. Jones 1829 Senate Street Columbia, SC 29201	

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Comment number	Comments	Responses
<p>STATEMENT OF MARY T. KELLEY, Ph.D. LEAGUE OF WOMEN VOTERS OF SOUTH CAROLINA</p>		
<p>June 28, 1987</p>		
<p>Mr. S. R. Wright Director, Environmental Division U.S. Department of Energy Savannah River Operations Office Post Office Box A Aiken, SC 29802</p>		
<p>Dear Mr. Wright:</p>		
<p>The League of Women Voters of South Carolina appreciates the opportunity to comment on the Draft Environmental Impact Statement for Waste Management Activities for Groundwater Protection at the Savannah River Plant. Although we were present at the public hearing in Aiken on June 4, 1987 we were unable to prepare testimony in time for that meeting and would like to have the following comments included with the final record.</p>		
<p>M-1</p>	<p>As we stated in our remarks submitted for the scoping phase for this EIS in May of 1985, we believe that the Savannah River Plant should comply with state and Federal environmental laws and regulations for water quality, air quality, groundwater quality and protection, and hazardous waste management; and that state and Federal regulatory agencies must be accorded full access for inspection and monitoring as well as complete cooperation. We applaud the fact that at this time there is much greater compliance and cooperation.</p>	<p>DOE is committed to compliance with applicable State and Federal environmental laws and regulations. Agencies with jurisdiction and regulatory authority have access to DOE facilities to perform inspections.</p>
<p>We strongly support congressional efforts for independent oversight and monitoring as protective of not only the public interest but the interests of the dedicated and capable people who are entrusted with managing this important defense facility.</p>		

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Comment number	Comments	Responses
M-2	<p>Since work on this Draft EIS was initiated two years ago, much has changed in the RCRA law through various amendments, and in the applicability of RCRA to DOE facilities. The law suit that is now pending, brought by Energy Research Foundation and the League of Women Voters could extend even further the number of affected sites. The EIS must take these factors into account. DOE's actions must be based on this new set of circumstances. We are disappointed that so many decision are based on cost- we contend that costs avoided are costs deferred and more expensive in the long run.</p>	<p>DOE is fully committed to implementation of RCRA and ensuing amendments and regulations. The exact number of sites affected by future DOE regulatory interactions will be decided following DOE's Record of Decision on this EIS. See the response to comment C-1. The FEIS has updated and revised its regulatory discussions. The cost comparisons presented in this EIS are identified as preliminary and are subject to revision. See the response to comment C-116.</p>
M-3	<p>Because this draft EIS is intended for use by the general public, it is too bad that it could not have been written in a more lucid, better organized fashion. One gets the impression on reading any such document (there are a few exceptions) that the work of many people was put together, without any real attempt to integrate the parts. It makes it most difficult to read. The data used are in many instances outmoded- why are we spending so much money to collect new and pertinent data if it is not being used?</p>	<p>The EIS uses data obtained in the first quarter of 1987 or the last quarter of 1986.</p>
M-4	<p>It is most important that DOE get its SRP environmental house in order. The prospect exists that a new production reactor could be built at this site. It is most unacceptable that such an action occur until it can be shown that existing environmental problems will be eliminated, and no new ones created.</p>	<p>See the responses to comments A-3, A-4, and A-5.</p>
M-5	<p>Thank you for permitting us to comment on the draft EIS. As an organization dedicated to facilitating the involvement of the public in the public's business, we urge that all the comments you receive be given serious consideration. Many of them suggest changes based on valid technical</p>	

Table L-2. DOE Responses to Comments on Draft EIS
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Comment number	Comments	Responses
	considerations. Please evaluate them carefully, and where appropriate, we urge that actions be modified.	
	Sincerely yours,	
	Mary T. Kelly, Ph.D Natural Resources Chairman LWVSC	

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