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Sent: Wednesday, February 10, 2021 4:43 PM
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Subject: Core Team Protocol for Review & Concurrence on Facility Decommissioning Evaluations and Decommissioning Project Final Reports (SRNS-RP-2021-00120, Rev 0, Feb 2021) & SRS Responses to SCDHEC's Comments on Draft D&D Core Team Protocol (Apr 2017 & Nov 2020)
Attachments: Protocol for Review and Concurrence of FDEs and DPFRs_SRNS-RP-2021-00120_Feb 2021.pdf; Comment Responses for Protocol for Review and Concurrence of FDEs and DPFRs_SRNS-RP-2021-00120-CR.pdf

SRNS-J2000-2021-00118

Jon and Heather,

Attached for your review and approval is the final *Core Team Protocol for Review and Concurrence on Facility Decommissioning Evaluations and Decommissioning Project Final Reports*, and the Savannah River Site's (SRS) comment response package for all regulatory comments received on the draft protocol in 2017 and 2020. The information listed below is attached.

- (1) *Core Team Protocol for Review and Concurrence on Facility Decommissioning Evaluations and Decommissioning Project Final Reports* (SRNS-RP-2021-00120, Revision 0, February 2021). (Please note protocol name change and new document number).
- (2) SRS' Responses to South Carolina Department of Health and Environmental Control's (SCDHEC) Comments (combined in a single file):
 - (a) SCDHEC Comments on the Deactivation and Decommissioning (D&D) Core Team Protocol for Review and Concurrence on Facility Decommissioning Evaluations and Decommissioning Project Final Reports (ERD-EN-2016-0029, Revision 0 DRAFT, April 2017) received May 2, 2017, comments received June 2, 2017.
 - (b) Additional SCDHEC Comments Received Via E-mail on the Draft SRS Responses to SCDHEC Comments on the Deactivation and Decommissioning (D&D) Core Team Protocol for Review and Concurrence on Facility Decommissioning Evaluations and Decommissioning Project Final Reports (ERD-EN-2016-0029, Revision 0 Draft, April 2017) received May 2, 2017, comments received December 22, 2020.
 - (c) Additional SCDHEC Comments Received Via E-mail on the Deactivation and Decommissioning (D&D) Core Team Protocol for Review and Concurrence on Facility Decommissioning Evaluations and Decommissioning Project Final Reports (ERD-EN-2016-0029, Revision 0a Draft, November 2020), comments received December 22, 2020.

Draft SRS' Responses to SCDHEC Comments on the *Deactivation and Decommissioning (D&D) Core Team Protocol for Review and Concurrence on Facility Decommissioning Evaluations and Decommissioning Project Final Reports* (ERD-EN-2016-0029, Revision 0 DRAFT, April 2017) and a November 2020 Revision 0a DRAFT protocol was transmitted to the USEPA and SCDHEC via email on December 1, 2020. SCDHEC reviewed the draft responses and revised protocol and submitted additional comments via email on December 22, 2020. The USEPA replied on January 7, 2021 that they had no remaining concerns. The attached SRS' final responses and final protocol address all comments received.

In addition, SRS performed an internal review of the final protocol and comment responses that resulted in the need for additional corrections. As documented in the comment response package under “Additional Protocol Corrections Based on Internal SRS Review (February 2021), the following corrections were made.

- (3) The title of the protocol was changed to remove the term “Deactivation and Decommissioning (D&D)” since the deactivation process is not addressed by the protocol. Changing the title required a new document number. The final protocol is titled, “*Core Team Protocol for Review and Concurrence on Facility Decommissioning Evaluations and Decommissioning Project Final Reports*, SRNS-RP-2021-00120, Revision 0, February 2021”. The term “D&D” was replaced throughout the protocol with the term “facility decommissioning” with the exception of “D&D” in the title of the FFA Appendices.
- (4) Minor editorial and punctuation corrections were made to the final protocol based on the internal review.

Please review the attached SRS responses to comments and the February 2021 protocol and reply by **COB, March 1, 2021** if both are acceptable. For questions related to the attached materials, please contact Brian Hennessey at 803-952-8365, brian.hennessey@srs.gov or Dena Brett at 803-952-6031, dena.brett@srs.gov.

Please contact me if you have any questions, comments, or concerns.

Thanks

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General Comments

1. Please apply the utilized phrase, “with the goal of obtaining” to all the state regulatory review time frames. When the SRS D&D program began, SCDHEC agreed to the specified regulatory review time frames with the caveat that the Department would, in good faith, try and meet the time frames but there was no guarantee. For example, should DOE return to submitting 8 – 15 documents per month, the stated review time frames may not be met.

Response: Agree.

The protocol has been updated to include the phrase “with the goal of obtaining” or “with the goal of responding” to regulatory and USDOE submittal and review time frames, where appropriate.

2. SCDHEC is aware that some sites with assigned building numbers are exempt from the SRS Building Inventory represented by FFA Appendix K.1. Please provide an explanation concerning the exempt status qualification(s).

Response: Agree.

When the D&D Program was established at SRS, the following criteria were used to identify the SRS structures that will be tracked by the Environmental Management (EM) program to their final end state. These criteria were intended to identify those structures for inclusion or exclusion in FFA Appendix K.1, D&D Facilities to be Decommissioned as shown below.

- A. **Only Environmental Management (EM) structures/facilities were included.**
- B. **NNSA structures/facilities were excluded. This criterion was dictated by the source of DOE funding since EM and NNSA are funded independently.**
- C. **All structures/facilities that had been demolished between FY94 through FY02 were excluded.**
- D. **Structures/facilities are included or excluded utilizing the following logic:**
 - 1) **Include the following structures if the capital value exceeds \$250,000.**
 - a. **100 Series Structure Numbers (Reactors and Spent Fuel Storage)**
 - b. **200 Series Structure Numbers (Separations and High Level Waste)**
 - c. **300 Series Structure Numbers (Raw Materials)**
 - d. **400 Series Structure Numbers (Heavy Water and non-Heavy Water)**
 - e. **500 Series Structure Numbers**
 1. **512 Shelters**
 - f. **600 Series Structure Numbers**
 1. **607 Sanitary Sewer Structures and Facilities**

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2. 614 Wind Towers
 3. 619 Fuel Oil Storage Tanks
 4. 620 Underground Storage Tanks
 5. 623 Radio Transmitter Facilities
 6. 627 Fire Observation Towers
 7. 628 A-2 Air Strippers
 8. 641 Inter Area Transfer Lines
 9. 645 Hazardous Waste Storage Building
 10. 651 Electrical Substations
 11. 652 Electrical Substations
 12. 654 Generators
 13. 660 TRU Waste Storage Pads
 14. 671 Tankage
 15. 672 Cooling Tower
 16. 675 Slurry Tank
 17. 678 Mock-Up Facilities
 18. 681 Water Tanks
 19. 682 Elevated Water Storage Tanks
 20. 686 Docks
 - g. 700 Series Structure Numbers
 - h. 900 Series Structure Numbers
 1. 906 Air Strippers
 2. 915 Domestic Water Elevated Storage Tanks
 3. 952 Transformer
 4. 956 Standby Diesel Generator
 5. 980 Water Tanks
- 2) Exclude the following structures:
- a. 000 Series Structure Numbers
 - b. 500 Series Structure Numbers
 1. 501 Fence and Road Lighting
 2. 503 Electrical Distribution System (Lines, Poles, Towers and Cables)
 3. 505 Fire Alarm System
 4. 506 Telephone Cable and Instruments
 - c. 600 Series Structure Numbers
 - a. 601 Standard Gage Track
 - b. 603 Road and Culverts
 - c. 604 Walks

The initial list of EM structures/facilities slated for D&D targeted large capital facilities and their respective ancillary facilities. In practice, SRS has not always implemented the

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D&D program as designed. For example, D&D of capital facilities and associated ancillary facilities are not always addressed in the same time frames, and ancillary facilities have been added to FFA Appendix K independent of the capital facility. In addition, demolished facilities with a capital cost less than \$250K that have not had an obvious release to the environment were addressed by SCDHEC issued demolition permits. Although trailers are not specifically called out by the criteria above, trailers are always excluded from the D&D process.

The basis for using a \$250K capital value threshold when the D&D program was established is not known. As explained above, the intent of the D&D selection criteria was to target large capital facilities and their respective ancillary facilities. The \$250K capital value threshold may have been chosen to ensure that other uses for the structure/facility were considered before the capital facility was identified for facility disposition. SRS agrees that the capital value of a structure/facility is not indicative of the potential risk to human health and the environment, and the criteria has not been implemented as designed as noted above. Examples of SRS structures/facilities with capital values less than \$250K that have been addressed include Observation Towers (904-114G, 904-117G, 904-118G, 904-121G, and 904-122G), the 607-18A Underground Trade Waste Tank (607-18G) closed under Industrial Water Permit #LOA-004946 Closure Plan, and the Liquid Waste Solvent Storage Tanks (607-33H, 607-34H, 607-35H, 607-36H) closed under a Resource Conservation and Recovery Act Closure Plan.

Provided below is additional clarification to Criteria D.1 and D.2 with respect to inclusion/exclusion in FFA Appendix K.1.

- 000 Series Structure numbers include flag poles, signs, bulletin boards, rain shelters, monitoring wells, flow monitoring stations, storage pads, open pavement storage, etc., and are excluded.**
- Structures/facilities whether capital buildings or structures with 100, 200, 300, and 400 Series Structure numbers that either have a value \geq \$250,000, may pose industrial or environmental hazards, or both, and are evaluated for inclusion.**
- Structures/facilities with 500 Series Structure Number 512 (Shelters) are exempt if the value is \leq \$250,000.**
 - Structures/facilities with 500 Series Structure Numbers 501, 503, 505, and 506 are exempt regardless of value, as they pose no industrial or environmental hazards.**
- Most Other Structures and Facilities (OSF) (i.e., not buildings or trailers) are 600 Series Structure numbers and consist of the types of structures listed in their description with a value of \leq \$250,000 and are evaluated for inclusion.**
- OSF structures with 601, 603, and 604 Series Structure numbers are exempt regardless of value, as they pose no industrial or environmental hazards.**

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- **700 Series Structure include capital buildings primarily office/administration structures, all of which have a value \geq \$250,000, and OSF facilities (primarily portable structures) with a value of \leq \$250,000 and are evaluated for inclusion. Examples of 700 Series Structure buildings include the 703-A Administrative Building and 706-H SRS Central Training Facility Building.**
- **800 Series Structure numbers are for piping supports, steam lines, domestic water pipes, sanitary sewers, etc., do not contain OSF structures, and are not included.**
- **OSF structures with 900 Series Structure numbers consist of the types of structures listed in their description, most of which have a value of \leq \$250,000, and are evaluated for inclusion.**

No change to the Core Team Protocol for Review and Concurrence on FDEs and DPFs is required in response to this comment.

3. Due to employee transitions, the majority of our current FFA staff is unfamiliar with the characterization and risk evaluation process implemented by the D&D program. SCDHEC requests that DOE arrange a meeting to, in part, provide an overview of the D&D program. At a minimum, the Department would like the following topics discussed during the overview:
 - i. Conceptual site model for concrete slabs
 - ii. Final verification surveys
 - iii. Derivation and application of Derived Concentration Guideline Levels (DCGLs)
 - iv. Risk-based end states – risk evaluation/risk management

If possible, SCDHEC would like to work to finalize the D&D protocol revision at the meeting.

Response: Clarification.

The SRS D&D program for facilities and concrete slabs was developed in the mid-2000s to merge into the already established FFA Remedial Investigation/Feasibility Study (RI/FS) program following decommissioning activities. Under the D&D program, SRS implemented a robust statistical sampling design process and risk evaluation based on risk-based Derived Concentration Guideline Levels (DCGLs). DCGLs were used to set target levels for decontamination and to support the final verification survey step to determine if residual contamination following decommissioning activities had met the target levels. The statistical sampling designs were based on the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) (2000) methodology which applies to radiological contaminants and was designed for unconditional release to the public. D&D Program DCGLs were developed by the Savannah River National Laboratory (SRNL) using the RESidual RADioactive (RESRAD) model for radionuclides and the USEPA Soil Screening Guidance for chemicals based on similar assumptions for concrete as that used for soil media. The statistical design and development of DCGLs was complicated and costly.

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USEPA Regional Screening Levels (RSLs) for non-radionuclides establish threshold criteria for concrete and soil media and are available on the USEPA web page. In the 2009/2010 timeframe, USEPA published the USEPA Preliminary Remediation Goals for Outdoor Surfaces (SPRGS) appropriate for concrete slabs, and the USEPA Preliminary Remediation Goals for Radionuclides in Buildings (BRPGs). The SPRGS and BRPGs calculators are updated as needed and available on the USEPA web page. PRGs and RSLs are based on exposure pathways for which generally accepted methods, models, and assumptions have been developed by the USEPA. The USEPA PRGs and RSLs are the agreed-upon methodology for conducting risk evaluations for the SRS FFA RI/FS waste units. In contrast, the SRNL calculated DCGLs were not maintained when the FFA RI/FS program and D&D program were combined under the same organization (i.e., EC&ACP formerly known as SGCP) in support of program efficiencies and given the advent of the above mentioned risk evaluation tools that were more suited to building materials and concrete slabs.

The risk methodology used in the D&D program versus the FFA RI/FS program did not allow for an easy translation of the results between the two programs. Facilities decommissioned and transferred to Appendix C.4, D&D Facilities (or remnants) that May Warrant Response Action, usually require rework of the risk evaluation under the FFA RI/FS program. For this reason, SRS will use the same methodology for sampling and risk evaluations in both the D&D and RI/FS programs consistently. Implementation of a simplified verification sampling scheme, data summary tables, USEPA risk-based threshold values, and risk calculations consistent with the RI/FS program will result in overall time and cost savings associated with performance of a risk assessment to document the final facility/remnants condition.

The approach was most recently demonstrated in the Integrated Sampling Model DPF for the Building 728-N, Shipping Cask and Railroad Car Repair Facility (V-PCOR-N-00022, Rev.1, 6/30/2020). The risk evaluation for the 728-N Cask Car Repair Facility used EPA SPRGs as threshold levels for final survey verification. The facility was transferred to Appendix C.4, D&D Facilities (or remnants) that May Warrant Response Action, with the expectation that any rework under the FFA RI/FS program would not be due to different risk assessment methodologies.

SRS replaced the previous D&D characterization and risk assessment approach in favor of that used in the FFA RI/FS program to better align with Area Closure. The details of the D&D characterization and risk evaluation process are not a topic for inclusion in the Core Team Protocol for Review and Concurrence on FDEs and DPFs. A final risk-based decision on the need for further investigation or action on a building remnant will generally be made during assessment of the operable unit of which it is a part/subunit. If there is interest in understanding the previous D&D approach, SRS will provide a copy

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**of the “Technical Guidance Document for Final Verification of Decommissioning
Facilities at the Savannah River Site,” WSRC-TR-2003-00448, Revision 0, January 2005.**

Specific Comments

1. Section 2.0, Facility Walk Downs, page 1. The second sentence of this section implies that a walk down could be scheduled prior to submittal of an FDE. Not all FDE facilities (i.e., some Simple Model facilities) will require a walk down. This sentence should be re-worded to state: “Should a walk down be required or requested, it will be scheduled no sooner than ten (10) working days after submittal of the FDE to provide adequate review time by the Core Team.”

Response: Agree with clarification. The first three sentences in Section 2.0 Facility Walkdowns have been replaced with new text in the revised protocol as follows:

“Facility walkdowns prior to decommissioning are an integral part of a facility decommissioning project and are scheduled at the request of the Core Team. If needed, SRS will prepare a schedule for the Core Team to highlight those facilities that will be subject to a walkdown. A close-out meeting will be conducted upon completion of the walkdown.”

If a walkdown is requested, the walkdown will be scheduled no sooner than ten (10) business days after submittal of the FDE to provide adequate review time by the Core Team.”

2. Section 2.0, Facility Walk Downs, page 2. The first bullet on this page indicates that a vote will be taken at meetings involving Simple Model facilities as to whether or not a walk down would be required. This is an awkward sentence for two reasons: 1) the necessity for a meeting that potentially would not include a walk down is unclear, and 2) this bullet falls directly under the paragraph that addresses close-out meetings to be held after walk downs, implying that the walk down has already occurred. This bullet should be relocated to the beginning of Section 2.0 and should state: “Correspondence among the Core Team may determine the need, if any, for a walk down of a Simple Model facility with a close-out meeting afterwards.”

Response: Agree with clarification.

Section 2.0 Facility Walkdowns has been revised and reorganized extensively to clarify the walkdown process. The suggested wording at the beginning of Section 2.0 is no longer needed for the revised text. The revised text for Section 2.0 is provided below.

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“2.0 FACILITY WALKDOWNS

Facility walkdowns prior to decommissioning are an integral part of a facility decommissioning project and are scheduled at the request of the Core Team. If needed, SRS will prepare a schedule for the Core Team to highlight those facilities that will be subject to a walkdown. A close-out meeting will be conducted upon completion of the walkdown.

If a walkdown is requested, the walkdown will be scheduled no sooner than ten (10) business days after submittal of the FDE to provide adequate review time by the Core Team.

The following guidelines will be utilized for facility walkdowns associated with facility decommissioning projects.

- **SRS will provide briefing packages to the Core Team a minimum of five (5) working days prior to the walkdown. The briefing package will include the following:**
 - **Type of decommissioning model SRS intends to employ.**
 - **History of operations, process information, permits, environmental and waste management history, and/or suggested sampling locations (if any).**
 - **Copy of the floor plan will be available to aid in the discussion and selection of sampling locations (if any).**
 - **Additional supporting information (figures, spills reports, etc.) as appropriate.**
- **Close-out meetings will be held following the walkdowns to document discussions, resolve minor comments, verify selected sampling locations (as appropriate), and resolve any remaining issues.**
- **Meeting notes will be used, as appropriate, to document any agreements, comment resolutions, and other items. The meeting notes are prepared by SRS and will be provided to the Core Team and meeting attendees. Core Team concurrence and non-concurrence will be documented in the meeting notes.**
- **USEPA and SCDHEC will provide a formal concurrence or non-concurrence letter at a later date. The USDOE will provide responses to any comments received.**

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- See Sections 4.0, 5.0, and 6.0 for information on additional walkdowns that may be required.”
3. Section 4.0, Simple Model, page 3. The document states, “If during decommissioning of a Simple Model facility, some condition is identified that may contradict the Simple Model assumption, SCDHEC and USEPA will be notified and provided an opportunity to inspect the facility before decommissioning can proceed. If the facility warrants further evaluation for response action, the DPFR will reflect the findings and will recommend that the facility be added to Appendix C.4, D&D Facilities (or remnants) that May Warrant Response Action, of the FFA.” A mechanism needs to be provided for reevaluation of the decommissioning model before decommissioning proceeds following the discovery of any identified condition that may contradict the Simple Model assumption. This mechanism also needs to be captured in Figure 1, Decommissioning Planning Process.

Response. Agree with clarification.

If during decommissioning of a Simple Model facility, some condition is identified that may contradict the Simple Model assumption, SCDHEC and USEPA will be notified. In some cases, it may be unsafe to leave a facility/partially decommissioned facility while waiting for regulatory concurrence to proceed. For this reason, a mechanism to stop decommissioning activities to reevaluate the decommissioning model was not included. Instead, the protocol was revised to explain that the unexpected condition will be discussed with the USEPA and SCDHEC as soon as possible following the discovery, and a facility walkdown may be conducted if safe to do so. The DPFR will recommend transfer of the facility/remnants to Appendix C.4 or Appendix K.2 depending on the decommissioning conclusions. The text in Section 4.0, Simple Model, has been revised to identify the path forward as follows:

“Concurrence on the Simple Model FDE establishes that upon completion of decommissioning and the approval of the facility DPFR, the facility/remnants can be transferred to Appendix K.2, D&D Facilities (or remnants) that Require No Further Action.

If during decommissioning of a Simple Model facility, some condition is identified that may contradict the Simple Model assumption, SCDHEC and USEPA will be notified in writing. SRS will evaluate the new condition with the FDE Evaluation Checklist and provide justification on whether the facility should remain as a Simple Model. If requested, SCDHEC and USEPA will be provided an opportunity to inspect the facility if safe to do so. Any facility walkdowns/inspections must be scheduled and conducted expeditiously.

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If the facility warrants further evaluation for response action, the DPFRR will reflect the findings and will recommend that the facility be added to Appendix C.4, D&D Facilities (or remnants) that May Warrant Response Action.

If, for some reason, a Simple Model facility slated for decommissioning is not decommissioned, it will remain in Appendix K.1, D&D Facilities to be Decommissioned.”

In addition, Figure 1. Decommissioning Planning Process will be revised to include a footnote at the Implementing Decommissioning step for both the Simple and Integrated Sampling Model flow paths as follows:

“USEPA and SCDHEC will be notified if an unexpected condition is identified during decommissioning to determine final disposition to Appendix C.4 or K.2.”

4. Section 5.0, Integrated Sampling Model, page 3. Please provide the proposed criteria for distinguishing between Integrated Sampling Models being referred to FFA Appendix K.2 and to FFA Appendix C.4 (i.e., risk-based). Please note if the criteria is risk-based, the Department will require that the risk be at or below 1×10^{-6} in order for a facility to be moved to Appendix K.2.

Response: Agree.

Section 5.0 Integrated Sampling Model has been revised to identify the criteria for recommending that the remaining facility/remnants be transferred to FFA Appendix C.4 or Appendix K.2 following decommissioning as follows:

“Disposition of the facility/remnants to Appendix C.4, D&D Facilities (or remnants) that May Warrant Response Action or Appendix K.2, D&D Facilities (or remnants) that Require No Further Action will be based on the following criteria:

- **When a final verification survey is performed, sampling and analysis of sampling points agreed to by USEPA and SCDHEC will be used to determine residual contaminant levels. If a comparison of sampling results to contaminant thresholds identify the potential for an unacceptable risk greater than 1×10^{-6} for unrestricted use, the facility/remnants will be transferred to Appendix C.4, D&D Facilities (or remnants) that May Warrant Response Action.**
- **During or after decommissioning, if the potential or presumed condition is evident through observation or field screening, the facility/remnants may be dispositioned to Appendix C.4, D&D Facilities (or remnants) that May Warrant Response Action with**

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USEPA and SCDHEC approval for final characterization under the FFA Remedial
Investigation/Feasibility Study program.

- During or after decommissioning, if the potential or presumed condition is not evident through observation, field screening, and/or residual contaminant levels, the facility/remnants may be dispositioned to Appendix K.2, D&D Facilities (or remnants) that Require No Further Action with USEPA and SCDHEC concurrence.

The technical basis and proposed disposition of the facility/remnants to FFA Appendix C.4, D&D Facilities (or remnants) that May Warrant Response Action or FFA Appendix K.2, D&D Facilities (or remnants) that Require No Further Action will be documented in the DPFR.”

An example of where the proposed criteria would apply is the DPFR for Building 651-6G, PAR Pond Primary Transformer Substation (V-PCOR-G-00026, Rev. 0, September 12, 2011). A review of the existing characterization data, process/building history and walkdowns of the facility supported an initial determination that this facility met the criteria for a Simple Model. During FDE review, SCDHEC and USEPA agreed to decommission the facility using the Integrated Sampling Model due to the presence of oil stains identified on the concrete foundations/gravel which could potentially contain polychlorinated biphenyls (PCBs). The oil-stained gravel was sampled, and the oil stained concrete was swiped. Based on visual inspection, oil had not reached the soil beneath the gravel. Additionally, the oil from the five transformers were drained and sampled with all results below the PCB regulatory thresholds. The DPFR concluded that there was no potential for contamination following decommissioning, and the facility was a candidate for Appendix K.2, D&D Facilities (or remnants) that Require No Further Action.

SCDHEC responded in a letter dated November 10, 2011 (*RE: Decommissioning Project Final Report (DPRF): PAR Pond Primary Transformer Substation, Building 651-6G, V-PCOR-G-00026, Revision 0, September 12, 2011 (Cover letter dated September 21, 2011)*) that while the Department did not disagree with the intent of, or rationale for, the proposed action to disposition the facility to Appendix K.2, D&D Facilities (or remnants) that Require No Further Action, neither the FDE protocol or DPFR protocol provided a mechanism for Integrated Sampling Model facilities to be transferred to an FFA appendix other than Appendix C.4, D&D Facilities (or remnants) that May Warrant Response Action.

Even though decommissioning is complete, Building 651-6G, PAR Pond Primary Transformer Substation remains on Appendix K.1, D&D Facilities to be Decommissioned. According to the proposed logic above (i.e., during or after decommissioning, the potential or presumed condition is not evident through

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observation, field screening, or residual contaminant levels), this facility could be dispositioned to Appendix K.2, D&D Facilities (or remnants) that Require No Further Action.

5. Section 6.0, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Model, page 4. Please explain the justification for modifying the name of the model from Engineering Evaluation/Cost Analysis to CERCLA Model. Also, this same explanation should be incorporated into the protocol so that past EE/CA models can be linked to the CERCLA model process.

Response: Agree.

Reference to the “EE/CA model” in the initial stages of the D&D program was based on a 1995 USDOE/USEPA Policy on Decommissioning Department of Energy Facilities under CERCLA which generally advocated use of the non-time critical removal action process for decommissioning. Revising the name from EE/CA model to CERCLA model allowed for the implementation of a graded approach to select from multiple CERCLA administrative pathways used in the FFA RI/FS program including Removal Actions, Early Remedial Actions, standard Remedial Actions, etc. A description of each decommissioning model was added to the beginning of Section 3.0 Facility Decommissioning Evaluations and includes the rationale for the CERCLA model name modification as follows:

“3.0 FACILITY DECOMMISSIONING EVALUATIONS

“The FDE assessment is used to determine which decommissioning model (Simple Model, Integrated Sampling Model, or CERCLA Model) is to be used for the facility based on the facility history, process knowledge, visual inspections, and identification of potential or presumed conditions that could pose a potential for release of a hazardous substance. A description of each decommissioning model is provided below.

- **Simple Model – Designed for clean facilities where there have been no hazardous releases within the facility or to the environment. The only potential risk is safety risks for workers who perform decommissioning activities. Following decommissioning, the administrative disposition for Simple Model facilities is Federal Facility Agreement (FFA) Appendix K.2, D&D Facilities (or remnants) that Require No Further Action, as documented in the DPFR.**
- **Integrated Sampling Model – Designed for low hazard chemical facilities and other industrial facilities that may contain small amounts of contamination from**

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former operation activities. Following decommissioning, the administrative disposition for Integrated Sampling Model facilities is either FFA Appendix C.4, D&D Facilities (or remnants) that May Warrant Response Action; or FFA Appendix K.2, D&D Facilities (or remnants) that Require No Further Action, as documented in the DPFR.

- CERCLA Model – Designed for nuclear facilities (Hazard Category 2 or 3), radiological facilities, and high hazard chemical facilities. The DPFR administrative pathway is not implemented for CERCLA Model facilities. Rather, the USDOE, USEPA, and SCDHEC reach concurrence on the CERCLA administrative path and CERCLA documentation. The CERCLA Model was formerly titled the Engineering Evaluation/Cost Analysis Model in earlier facility decommissioning documentation but was renamed to allow for the ability to select from multiple CERCLA administrative pathways (i.e., Removal Action, Early Remedial Action, standard Remedial Action, etc.).”

6. Section 6.0, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Model, page 4. Please address the submission of an Action Memorandum in this section. Also, include that step in Figure 1, Decommissioning Planning Process.

Response: Clarification.

The purpose of the protocol is to describe the process for obtaining concurrence on FDE and DPFRs. Once the FDE assessment determines that a facility will be disposed using the CERCLA model, a DPFR is no longer required. Under the CERCLA model, both removal and remedial actions are considered, but the Action Memorandum would only apply for a removal action. For this reason, SRS revised Section 6.0 to support multiple CERCLA administrative paths with the understanding that the appropriate CERCLA regulatory deliverables as specified by the FFA will be submitted for review and approval. In addition, Figure 1 has been revised to clarify the CERCLA model pathway.

Section 6.0 has been revised to support multiple administrative paths as follows:

“6.0 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Model

The transmittal memo for FDEs selecting the CERCLA model will refer the facility to Appendix C.4, D&D Facilities (or remnants) that May Warrant Response Action upon completion of decommissioning activities and issuance of the appropriate CERCLA completion report.

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For facilities undergoing decommissioning by means of the CERCLA Model, USDOE will seek concurrence on the appropriate CERCLA documentation from USEPA and SCDHEC.

After the decommissioning is completed under CERCLA, the appropriate post-removal action documentation (i.e., RAR) or post-remedial action documentation (i.e., Post Construction Report (PCR), Corrective Measures Implementation Report/Remedial Action Completion Report (CMIR/RACR), or PCR/CMIR/RACR) will be submitted to the USEPA and SCDHEC for their review and comment or approval in accordance with the process specified in the FFA.

If, for some reason, a CERCLA Model facility slated for decommissioning is not decommissioned, it will remain in Appendix K.1, D&D Facilities to be Decommissioned.”

7. Section 7.0, DPFR (Simple Model and Integrated Sampling Model), page 6. This section should provide a sentence stating that a post-decommissioning walk down will be scheduled if requested by either USEPA or SCDHEC, similar to the first bullet on page 4.

Response: Agree.

The first paragraph of Section 7.0 has been revised to include a facility walkdown if requested by EPA or SCDHEC as follows:

“The USDOE will submit Revision 0 of the DPFR to USEPA and SCDHEC for their review and comment and/or concurrence with the goal of responding within sixty (60) calendar days of receipt. A walkdown following decommissioning activities will be scheduled if requested by either USEPA or SCDHEC.”

8. Figure 1, Decommissioning Planning Process, page 8. Please revised the flow path rectangle “FDE Report Transmittal Memo Recommending Administrative End-State FFA Appendix C.4, K.2” to include the recommended decommissioning model.

Response: Agree.

The subject flow path rectangle has been revised as follows: **“FDE Report Transmittal Memo Recommending Appropriate Decommissioning Model and Administrative Disposition to FFA Appendix C.4 or Appendix K.2.”**

< End of SRS Responses To Comments Received June 2, 2017 >

**SRS Responses to Additional SCDHEC Comments Received Via E-mail
on the:**

Draft SRS Responses to SCDHEC Comments on the Deactivation and Decommissioning (D&D) Core Team Protocol for Review and Concurrence on Facility Decommissioning Evaluations and Decommissioning Project Final Reports (ERD-EN-2016-0029, Revision 0 Draft, April 2017) received May 2, 2017

and the

**Deactivation and Decommissioning (D&D) Core Team Protocol for Review and Concurrence on Facility Decommissioning Evaluations and Decommissioning Project Final Reports (ERD-EN-2016-0029, Revision 0a Draft, November 2020)
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**< Beginning of SRS Responses To SCDHEC Comments
Received via e-mail on December 22, 2020 >**

SCDHEC has reviewed the draft comments and revised protocols and has the following comments.

DRAFT SRS Responses to South Carolina Department of Health and Environmental Control Comments on: Deactivation and Decommissioning (D&D) Core Team Protocol for Review and Concurrence on Facility Decommissioning Evaluations and Decommissioning Project Final Reports (ERD-EN-2016-0029, Revision 0 Draft, April 2017) received May 2, 2017.

Specific Comments

Response to General Comment #2, Item C, Page 1 of 12. Please provide the mechanism by which the structures/facilities that were demolished between FY94 through FY02 can be tracked.

Response: Agree.

The Shared Site Structure Database (SSSD) is the site database that contains all SRS real property structures data including structures/facilities demolished between FY1994 through FY2002. No change to the D&D Core Team Protocol for Review and Concurrence on FDEs and DPFs is required in response to this comment.

Response to General Comment #2, Item D. 1, Page 1 of 12. Please explain why all structures/facilities with capital values less than \$250,000 were excluded from FFA Appendix K.1, D&D Facilities to be Decommissioned. The monetary value of the structures/facilities is not necessarily indicative of any potential risk to human health or the environment.

Response: Agree.

The basis for using a \$250K capital value threshold when the D&D program was established is not known but may have been chosen to ensure that other uses for the structure/facility were considered before the structure/facility was identified for facility disposition. SRS agrees that the capital value of a structure/facility is not indicative of the potential risk to human health and the environment, and the \$250K capital value threshold criteria has not been implemented as initially designed. Please see the revised response to General Comment #2 (Comments Received June 2, 2017) for additional detail about the criteria for inclusion/exclusion to FFA Appendix K.1.

**SRS Responses to Additional SCDHEC Comments Received Via E-mail
on the:**

Draft SRS Responses to SCDHEC Comments on the Deactivation and Decommissioning (D&D) Core Team Protocol for Review and Concurrence on Facility Decommissioning Evaluations and Decommissioning Project Final Reports (ERD-EN-2016-0029, Revision 0 Draft, April 2017) received May 2, 2017

and the

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Response to General Comment #2, Items D.1 & D.2, Page 2 of 12. What structures qualify as 000 Series and 700 Series? Are there any 800 Series structures, and if so, what type structures are in that series?

Response: Agree.

000 Series Structure numbers include flag poles, signs and bulletin boards, rain shelters, shuttle stop shelters, 2-wheeled extinguisher shelters, monitoring wells, hydrology well groups and clusters, flow monitoring stations, storage pads, open pavement storage, small storage buildings, etc. 700 Series Structure numbers are typically administrative buildings used for offices such as the 703-A Administration Building and 766-H SRS Central Training Facility Building. 800 Series Structure numbers are used for piping supports, steam lines, domestic water pipes, sanitary sewers, etc. Please see the revised response to General Comment #2 (Comments Received June 2, 2017).

DEACTIVATION AND DECOMMISSIONING (D&D) CORE TEAM PROTOCOL FOR REVIEW AND CONCURRENCE ON FACILITY DECOMMISSIONING EVALUATIONS AND DECOMMISSIONING PROJECT FINAL REPORTS, ERD-EN-2016-0029, Revision 0a Draft, November 2020

General Comment

SCDHEC would like to decompress the FDE review period by extending it from 30 days to 45 days. Using input from the D&D Core Team, applicable time frames within the FDE review period should be adjusted accordingly.

Response: Agree.

The FDE review period will be extended from thirty (30) days to forty-five (45) days. In addition, time for the USDOE to prepare comment responses and e-mail the responses to the USEPA and SCDHEC will be extended from two (2) calendar weeks to thirty (30) calendar days. The goal for obtaining e-mail concurrence will be extended from seven (7) calendar days to fourteen (14) calendar days. Decommissioning activities will be allowed to proceed based on informal (e.g., via e-mail) approval by SCDHEC and USEPA on the draft responses. Specifically, the text in the final protocol will be revised as shown below.

**SRS Responses to Additional SCDHEC Comments Received Via E-mail
on the:**

**Draft SRS Responses to SCDHEC Comments on the Deactivation and Decommissioning
(D&D) Core Team Protocol for Review and Concurrence on Facility Decommissioning
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Section 3.0, FACILITY DECOMMISSIONING EVALUATIONS

“The transmittal memo will identify that upon receipt of the FDE, USEPA and SCDHEC will either approve and/or comment on the FDE with the goal of responding within ~~thirty (30)~~ forty-five (45) days of receipt.”

Section 4.0 SIMPLE MODEL

“For facilities undergoing ~~D&D~~ decommissioning using the Simple Model, USDOE will seek concurrence on the FDE from USEPA and SCDHEC.

If comments are received on the Simple Model FDE, USDOE will prepare comment responses and e-mail responses to USEPA and SCDHEC with the goal of responding within ~~two (2)~~ thirty (30) calendar ~~weeks~~ days.

USDOE will call (if necessary) and discuss the responses to comments with the goal of obtaining e-mail concurrence within ~~seven (7)~~ fourteen (14) calendar days of sending the responses. Decommissioning activities are allowed to proceed based on informal (e.g., via e-mail) approval by SCDHEC and USEPA on the draft responses.”

Section 5.0 INTEGRATED SAMPLING MODEL

“If a final verification survey is performed, identification of sampling points is determined as follows:

- If USEPA and SCDHEC are unable to provide input on sampling locations during the initial facility walkdown (if held) as described in Section 2.0, a follow-up walkdown will be scheduled if requested by either USEPA or SCDHEC. The walkdowns will be scheduled during the ~~thirty (30)~~ forty-five (45) day FDE review period.**
- The USEPA and SCDHEC may provide written input on sampling locations with the goal of responding during the ~~thirty (30)~~ forty-five (45) day FDE review period. If USEPA or SCDHEC specifies any additional sampling points, the sampling locations will be identified and submitted to USDOE along with comments and/or concurrence on the FDE.”**

**SRS Responses to Additional SCDHEC Comments Received Via E-mail
on the:**

**Draft SRS Responses to SCDHEC Comments on the Deactivation and Decommissioning
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Evaluations and Decommissioning Project Final Reports (ERD-EN-2016-0029, Revision 0
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If comments are received on the Integrated Sample Model FDE, USDOE will prepare comment responses and e-mail responses to USEPA and SCDHEC with the goal of responding within ~~two (2)~~ thirty (30) calendar weeks days.

USDOE will call (if necessary) and discuss the responses to comments with the goal of obtaining e-mail concurrence within ~~seven (7)~~ fourteen (14) calendar days of sending the responses. Decommissioning activities are allowed to proceed based on informal (e.g., via e-mail) approval by SCDHEC and USEPA on the draft responses."

Section 7.0 DECOMMISSIONING PROJECT FINAL REPORT (SIMPLE MODEL AND INTEGRATED SAMPLING MODEL)

"If comments are received on the Revision 0 DPCR, USDOE will prepare comment responses and e-mail responses to USEPA and SCDHEC with the goal of responding within ~~two (2)~~ thirty (30) calendar weeks days.

USDOE will call (if necessary) and discuss the responses to comments with the goal of obtaining e-mail concurrence within ~~seven (7)~~ fourteen (14) calendar days of sending the responses."

Specific Comment

Section 3.0, Facility Decommissioning Evaluations, Second Complete Paragraph, Page 3 of 8. Please revise the paragraph to state, "within thirty (30) days of receipt".

Response: Agree with clarification.

The text in Section 3.0 will be modified as requested to add the words "of receipt"; however, the FDE review period will be changed from 30 days to 45 days as requested in the first General Comment.

Editorial Comment

Section 1.0, Introduction, Third Paragraph, Page 1 of 8. In the second line, insert the word "have" between "activities" and "been".

Response: Agree.

**SRS Responses to Additional SCDHEC Comments Received Via E-mail
on the:**

Draft SRS Responses to SCDHEC Comments on the Deactivation and Decommissioning (D&D) Core Team Protocol for Review and Concurrence on Facility Decommissioning Evaluations and Decommissioning Project Final Reports (ERD-EN-2016-0029, Revision 0 Draft, April 2017) received May 2, 2017

and the

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The editorial correction will be made as follows: “The DPF~~R~~ is a document prepared for facilities that are decommissioned using the Simple Model or Integrated Sampling Model after the decommissioning activities have been performed and verified.”

While a meeting is not required to address our comments, a meeting is requested to discuss and educate the Core Team and associated personnel of the new protocols. This meeting should be held once the protocols have been finalized.

Response: Agree.

SRS will schedule a meeting to discuss the D&D process with the Core Team and associated personnel once the Core Team Protocol for Review and Concurrence on FDEs and DPF~~R~~s has been finalized.

Additional Protocol Corrections Based on Internal SRS Review (February 2021)

- 1. The title of the protocol has been changed to remove the term “Deactivation and Decommissioning (D&D)” since the deactivation process is not addressed by the protocol. Changing the title required a new document number. The final protocol is titled, “Core Team Protocol for Review and Concurrence on Facility Decommissioning Evaluations and Decommissioning Project Final Reports, SRNS-RP-2021-00120, Revision 0, February 2021”.**

The term “D&D” was replaced throughout the protocol with the term “facility decommissioning” with the exception of “D&D” in the title of the FFA Appendices.

- 2. Minor editorial and punctuation corrections were made to the final protocol based on an internal review.**