

APPENDIX C

EVALUATION OF DATA QUALITY OBJECTIVES ATTAINMENT

Activity	Objectives	Action	Objective Attained?	Recommendations
Objective 1: Meet TNRCC Requirements for Site Closure				
Attainment of Risk Reduction Standard Number 1: Closure/Remediation to Background				
	Remove all hazardous and non-hazardous waste and waste residues and contaminated design and operating system components such as liners, leachate collection systems, and dikes from the unit or area of the unauthorized discharge. For remediation of media that have become contaminated by releases from a waste management unit or by other unauthorized discharge of hazardous or non-hazardous waste, the contaminated media must be removed or decontaminated to cleanup levels specified in this section (30 TAC 335.554(b) and (c)).	Geophysical survey was conducted to determine if there is evidence of buried waste at the site. Survey indicated no anomalies or evidence of past waste management activities.	Yes.	RRS1 site closure is recommended.

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	<p>Determine compliance with RRS1 closure requirements by comparing background as represented by results of analyses of samples taken from media that are unaffected by waste management or industrial activities. If the practical quantitation limit (PQL) is greater than background, then the PQL rather than background shall be used as the cleanup level provided that the person satisfactorily demonstrates to the executive director that lower levels of quantitation of a contaminant are not possible (30 TAC 335.554(d)).</p>	<p>Contaminant concentrations were compared to revised background levels (Parsons, February 2002) or RLs, which are equivalent to PQLs.</p>	<p>Yes. All results were below background metals levels or RLs.</p>	<p>RRS1 site closure is recommended.</p>
	<p>Attainment of cleanup levels shall be demonstrated by collection and analysis of samples from the media of concern (30 TAC 335.554(e)).</p>	<p>Surface soil samples were collected at the site and analyzed for contaminants of potential concern, including metals, VOCs, and SVOCs.</p>	<p>Yes. See above.</p>	<p>RRS1 site closure is recommended.</p>

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Objective 2: Meet Requirements of 3008(h) Order for RFI				
RFI Workplan Requirements				
Field Sampling <i>(Detailed listing of methods and procedures are provided in project plans which are incorporated by reference).</i>	Conduct field sampling in accordance with procedures defined in the project work plan, SAP, QAPP, and HSP.	All sampling was conducted in accordance with the procedures described in the project plans.	Yes.	NA
Facility Investigation				
Characterization of Environmental Setting - Hydrogeology (B.3.A.1)	Evaluate hydrogeologic conditions at the site.	Not included in this phase of the RFI at AOC 61. Groundwater of the Trinity Aquifer is being addressed through the Groundwater Investigation.	NA	NA
Characterization of Environmental Setting- Soils (B.3.A.2)	Characterize soils in accordance with USCS soil classification system (B.3.A.2(a)).	Soil types at the site are based on the SCS Bexar County Soil Survey (USDA, 1991) and are described in Section 1.2.1.	Yes.	NA
	Determine soil pH (B.3.A.2(e)).	The pH of each of the soil types evaluated as part of the background metals concentration study was determined through laboratory analysis. According to those analyses, the pH of Brackett soils is 7.85.	Yes.	NA
	Determine moisture content (B.3.A.2(g)).	The moisture content of each sample was analyzed and reported in the laboratory package.	Yes.	NA
Characterization of Environmental Setting – Surface Water and Sediment (B.3.A.3)	Characterize marshes, creeks, wetland areas, or ditches at the site.	No marshes, creeks, wetland areas, or ditches are present at the site. An intermittent creek is located 600 feet west of AOC 61. Direction of runoff flow has been evaluated in Section 1.2.1.	Yes.	NA

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Source Characterization (B.3.B)	Identify the source area (B.3.B.1).	A description of the potential source area is provided in Section 1.1.2.2.	Yes. Sampling at the site was biased toward areas most suspected of contamination. None of the samples collected exceeded closure criteria.	NA
	Identify the location of the unit/disposal area (B.3.B.2(a)).	The boundaries were initially marked from aerial photographs, and confirmed by field investigations.	Yes. Although the accuracy of the boundary survey of the site is estimated to have an approximate error of 25 feet, this accuracy is sufficient for closure under RRS1.	NA
	Identify the type of unit/disposal area (B.3.B.2(b)).	A possible waste disposal trench was identified in the AOC 61 location in a 1966 aerial photograph. A geophysical survey indicated that no subsurface disturbances were present at the site.	Yes. A geophysical survey and surface soil sampling were performed. No evidence of buried waste was found, and surface soil samples indicated no waste residue on the surface.	NA
	Identify design features (B.3.A.2(c)).	All available information regarding the design of the disposal site is provided in Section 1.1.	Yes. All investigation evidence indicates that the site was used for temporary surface storage of palletized equipment and supplies.	NA
	Identification of past and present operating practices, period of operation, age of unit/disposal area, and method used to close the unit/disposal area (B.3.B.2(d), (e), (f), and (h)).	All known information regarding these items is provided in Section 1.1.2.1. This information is from records review, interviews, aerial photo review, and visual observations.	Yes. To the extent possible with data available.	NA
	Determine general physical conditions of the site (B.3.B.2(g))	The general physical condition of the site was determined during the field investigation. This information is presented in Section 1.1.2.3.	Yes.	NA

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	Identify waste characteristics, including type of waste placed in the unit, physical and chemical characteristics of the wastes, and migration and dispersal characteristics of the waste (B.3.B.3).	Records regarding historic waste disposal practices at CSSA are very limited. All known information, derived from the Environmental Assessment (if appropriate for your site), records review, interviews, and visual observations at the site is provided in Section 1.3.	Yes. To the extent possible with the data available.	NA
Contamination Characterization – Groundwater (B.3.C.1)	Characterize the vertical and horizontal extent of groundwater contamination.	Not included in this phase of the RFI at the AOC 61 area. Groundwater of the Trinity Aquifer is being addressed through the Groundwater Investigation.	NA	NA
Contamination Characterization – Soil (B.3.C.2)	Determine vertical and horizontal extent of contamination (B.3.C.2(a)).	Surface soil samples were collected to determine horizontal extent of contamination, if any. Subsurface soils were not evaluated because there was no evidence that waste was buried at the site.	NA	NA
	Describe contaminant and soil properties with the contaminant source area, including contaminant solubility, speciation, adsorption, leachability, exchange capacity, biodegradability, hydrolysis, photolysis, oxidation, and other factors that might affect contaminant migration and transformation (B.3.C.2(b)).	No samples collected at AOC 61 exceeded closure criteria.	NA	NA

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	Describe soil properties (B.3.C.2(c)).	See “Characterization of Environmental Setting – Soils” above.	NA	NA
	Identify the direction of contaminant movement (B.3.C.2(d)).	No samples collected at AOC 61 exceeded closure criteria.	NA	NA
	Extrapolate future contaminant movement (B.3.C.2(e)).	No samples collected at AOC 61 exceeded closure criteria.	NA	NA
	Implement a soil boring investigation to determine the extent of soil contamination. Soil gas monitoring will be performed during drilling of all borings. Laboratory analysis of borings for contaminants of potential concern will be performed on soils at depths where either visual contamination is evident, or soil gas concentrations indicate contamination. All boreholes shall be properly abandoned.	Not included in this report for AOC 61. A soil boring investigation is not considered necessary for this site since there is no evidence of buried waste.	Yes.	NA
	Prepare a map of all areas included in the investigation (B.3.C.2(i)).	Figures included in this report show all areas included in the investigation.	Yes.	NA
	All reporting limits should be below regulatory criteria.	RLs were approved by TNRCC on October 5, 1999. RLs are considered RRS1 standards for all analytes except metals.	Yes.	NA

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	Perform all analyses in accordance with the AFCEE QAPP.	All analyses were performed in accordance with the AFCEE QAPP and approved variances.	Yes.	NA
		All data flagged with “U,” “F,” “M,” and “J” are considered usable for site characterization purposes.	Yes.	NA
		All “R” flagged data are considered unusable. However, only one SVOC analyte was flagged “R” for this site. Despite non-compliance of the percent difference for the continuing calibration, all of the initial calibration, second source verification and internal standard criteria were within quality control limits.	Yes.	As the analyte is not a constituent of concern, all of the data are usable for site characterization and closure purposes.
Contaminant Characterization – Sediment and Surface Water (B.3.C.3)	Conduct a surface water and sediment investigation to characterize contamination resulting from releases at the Facility.	AOC 61 is located 600 feet east of an intermittent creek. This creek only contains water during and shortly after heavy precipitation. Therefore, surface water was not sampled as part of the AOC 61 investigation. Sampling of sediments in association with the AOC 61 investigation is not warranted due to the very limited amount of contamination detected at AOC 61.	NA	NA
Potential Receptors (B.3.D).	Collect the information necessary to describe the human populations and environmental systems that are susceptible to contaminant exposure from the Facility.	Information regarding receptors is provided in the Risk Assessment Technical Approach Document (Volume 1-6). In addition, the Well Research Report identifies private groundwater users within 0.25-mile and public water suppliers within 0.5-mile of CSSA	Yes.	NA