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UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 6

IN THE MATTER OF:)	
)	U.S. EPA Region 6
)	CERCLA Docket No. 06-05-21
San Jacinto River Waste Pits)	
Superfund Site, Harris County, Texas)	
)	
International Paper Company,)	
)	
Respondent)	
)	
Proceeding under Section 106(a))	UNILATERAL ADMINISTRATIVE
of the Comprehensive Environmental)	ORDER FOR REMEDIAL ACTION
Response, Compensation, and Liability)	
Act, 42 U.S.C. § 9606(a).)	
)	
)	

**UNILATERAL ADMINISTRATIVE ORDER FOR
REMEDIAL ACTION OF THE SOUTHERN IMPOUNDMENT**

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I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Order (“Order”) is issued under the authority vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, 42 U.S.C. § 9606(a). This authority was delegated to the Administrator of the United States Environmental Protection Agency (EPA) by Executive Order No. 12580, 52 Fed. Reg. 2923 (Jan. 23, 1987), and further delegated to the Regional Administrators by EPA Delegation Nos. 14-14-A and 14-14-B. This authority was further redelegated by the Regional Administrator of EPA Region 6 to the Director of the Superfund and Emergency Management Division by Delegation Nos. R6-14-14-A and R6 14-14B and the Region 6 Realignment: General Redelegation.

2. This Order pertains to an area located on a peninsula on the western bank of the San Jacinto River and extending south of Interstate 10 (“I-10”) in Harris County, Texas, and includes a former impoundment approximately 20 acres in size (the “Southern Impoundment”), which is part of the San Jacinto River Waste Pits Superfund site (“Site”). This Order directs Respondent to perform the remedial action (“RA”) for the Southern Impoundment described in the Record of Decision (“ROD”) for the San Jacinto River Waste Pits Superfund Site, dated October 11, 2017.

3. EPA has notified the State of Texas (the “State”) of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

II. PARTIES BOUND

4. This Order applies to and is binding upon Respondent and its successors and assigns. Any change in ownership or control of the Site or change in corporate or partnership status of the Respondent, including, but not limited to, any transfer of assets or real or personal property, shall not alter Respondent’s responsibilities under this Order.

5. This Order does not apply to, and in no way effects, the obligations of Respondent under Administrative Settlement Agreement and Order on Consent for Remedial Design, CERCLA Docket No. 06-02-18, and the Settlement Agreement and Order on Consent for Time-Critical Removal Action for the Site, CERCLA Docket No. 06-12-10.

6. Respondent shall provide a copy of this Order to each contractor hired to perform the Work required by this Order and to each person representing Respondent with respect to the Southern Impoundment or the Work, and shall condition all contracts entered into hereunder upon performance of the Work in conformity with the terms of this Order. Respondent or its contractors shall provide written notice of the Order to all subcontractors hired to perform any portion of the Work required by this Order. Respondent shall nonetheless be responsible for ensuring that its contractors and subcontractors perform the Work in accordance with the terms of this Order.

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III. DEFINITIONS

7. Unless otherwise expressly provided in this Order, terms used in this Order that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Order or in its appendices, the following definitions shall apply solely for the purposes of this Order:

“Affected Property” shall mean all real property at the Site and any other real property where EPA determines, at any time, that access, land, water, or other resource use restrictions, and/or Institutional Controls are needed to implement the Remedial Action for the Southern Impoundment, including, but not limited to, the following properties: Musgrove Towing Services, Inc. (“Musgrove”) property, adjoining Kirby Inland Marine (“Kirby”) property, and Market Street (portion(s) owned by Kirby, Southwest Shipyards, Musgrove, and Harris County).

“CERCLA” shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601-9675.

“Day” or “day” shall mean a calendar day. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or federal or State holiday, the period shall run until the close of business of the next working day.

“Effective Date” shall mean the effective date of this Order as provided in Section VIII.

“EPA” shall mean the United States Environmental Protection Agency and its successor departments, agencies, or instrumentalities.

“EPA Hazardous Substance Superfund” shall mean the Hazardous Substance Superfund established by the Internal Revenue Code, 26 U.S.C. § 9507.

“Institutional Controls” or “ICs” shall mean Proprietary Controls and state or local laws, regulations, ordinances, zoning restrictions, or other governmental controls or notices that: (a) limit land, water, or other resource use to minimize the potential for human exposure to Waste Material at or in connection with the Southern Impoundment; (b) limit land, water, or other resource use to implement, ensure non-interference with, or ensure the protectiveness of the RA; and/or (c) provide information intended to modify or guide human behavior at or in connection with the Southern Impoundment.

“Interest” shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year. Rates are available online at <https://www.epa.gov/superfund/superfund-interest-rates>.

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“National Contingency Plan” or “NCP” shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

“Non-Respondent Owner” shall mean any person, other than Respondent, that owns or controls any Affected Property, including Musgrove, Kirby, Southwest Shipyards, and Harris County. The phrase “Non-Respondent Owner’s Affected Property” means Affected Property owned or controlled by a Non-Respondent Owner.

“Operation and Maintenance” or “O&M” shall mean all activities required to operate, maintain, and monitor the effectiveness of the RA as specified in the SOW or any EPA-approved O&M Plan.

“Order” shall mean this Unilateral Administrative Order and all appendices attached hereto. In the event of conflict between this Order and any appendix, this Order shall control.

“Paragraph” or “¶” shall mean a portion of this Order identified by an Arabic numeral or an upper or lower case letter.

“Parties” shall mean EPA and Respondent.

“Performance Standards” shall mean the cleanup standards and other measures of achievement of the goals of the remedial action objectives, as set forth in the ROD.

“Proprietary Controls” shall mean easements or covenants running with the land that: (a) limit land, water, or other resource use and/or provide access rights; and (b) are created pursuant to common law or statutory law by an instrument that is recorded in the appropriate land records office.

“RCRA” shall mean the Resource Conservation and Recovery Act, also known as the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901-6992.

“Record of Decision” or “ROD” shall mean the EPA Record of Decision relating to the Site signed on October 11, 2017, by the Administrator of EPA, and all attachments thereto. The ROD is attached as Appendix A.

“Remedial Action” or “RA” shall mean the remedial action selected in the ROD for the Southern Impoundment.

“Remedial Design” or “RD” shall mean shall mean those final plans and specifications for the RA for the Southern Impoundment developed and approved by EPA pursuant to the Administrative Settlement Agreement and Order on Consent for Remedial Design, CERCLA Docket No. 06-02-18. The RD was approved by EPA on May 7, 2021.

“Respondent” shall mean International Paper Company.

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“Response Costs” shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in monitoring and supervising Respondent’s performance of the Work to determine whether such performance is consistent with the requirements of this Order, including costs incurred in reviewing deliverables submitted pursuant to this Order, as well as costs incurred in overseeing implementation of this Order, including, but not limited to, payroll costs, contractor costs, travel costs, and laboratory costs.

“Section” shall mean a portion of this Order identified by a Roman numeral.

“Site” shall mean the San Jacinto River Waste Pit Superfund Site, including both the Northern and Southern Impoundments, located in Harris County, Texas, east of the City of Houston, between two unincorporated areas known as Channelview and Highlands. The Site includes impoundments used for the disposal of solid and liquid pulp and paper mill wastes, and the surrounding areas containing sediments and soils impacted by waste materials disposed of in the impoundments. The Northern Impoundments, encompassing approximately 14 acres in size, are located on a partially submerged 20-acre parcel on the western bank of the San Jacinto River, immediately north of the I-10 bridge over the San Jacinto River, and the Southern Impoundment, approximately 20 acres in size, is located on a small peninsula that extends south of I-10. The Site’s location is depicted generally on the aerial photographs and maps attached as Appendix C Figures 1 and 2.

“Southern Impoundment” shall mean the area of the Site located on a peninsula on the western bank of the San Jacinto River and extending south of I-10, and includes a former impoundment approximately 20 acres in size. The Southern Impoundment’s location is depicted in Appendix C Figures 2 and 3. For purposes of implementing the Remedial Action, the Southern Impoundment includes the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of the response action.

“State” shall mean the State of Texas.

“Statement of Work” or “SOW” shall mean the document, attached as Appendix B, describing the activities Respondent must perform to implement the RA and O&M for the Southern Impoundment of the Site.

“Supervising Contractor” shall mean the principal contractor retained by Respondent to supervise and direct the implementation of the Work under this Order.

“TCEQ” shall mean the Texas Commission on Environmental Quality and any successor departments or agencies of the State.

“Transfer” shall mean to sell, assign, convey, lease, mortgage, or grant a security interest in, or where used as a noun, a sale, assignment, conveyance, or other disposition of any interest by operation of law or otherwise.

“United States” shall mean the United States of America and each department, agency, and instrumentality of the United States, including EPA.

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“Waste Material” shall mean: (a) any “hazardous substance” under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (b) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); (c) any “solid waste” under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27); and (d) any “hazardous substance” or “solid waste” under Sections 361.003(11) and (35) of the Texas Solid Waste Disposal Act.

“Work” shall mean all activities Respondent is required to perform under this Order, except those required by Section XVII (Record Retention).

IV. FINDINGS OF FACT

8. The San Jacinto River Waste Pits Superfund Site, generally depicted in Appendix C Figures 1 and 2, is located in Harris County in the State of Texas. The Site consists of impoundments built in the 1960s for the disposal of solid and liquid pulp and paper mill wastes, and the surrounding areas containing sediments and soils impacted by waste materials disposed of in the impoundments. The Site is east of the City of Houston where the Interstate Highway 10 Bridge crosses over the San Jacinto River, between two unincorporated areas known as Channelview and Highlands. The Site includes the Northern Impoundments and the Southern Impoundment, both on the west bank of the San Jacinto River; an area of the San Jacinto River bottom (i.e., river sediment that is contaminated with certain hazardous substances from released material from the impoundments); and the Sand Separation Area.

9. The Southern Impoundment, approximately 20 acres in size, is located on a small peninsula that extends south of I-10. The oldest aerial photo that contains evidence of the construction of berms at the Southern Impoundment is from 1964. The aerial photograph from 1964 indicates that the impoundment south of I-10 appears to have been constructed by forming berms adjacent to the western shoreline of the peninsula south of I-10.

10. Aerial photographs and anecdotal information described in the Remedial Investigation (“RI”) indicate that the impoundment berms were levelled in the early 1970s. According to the RI, the impoundment on the southern peninsula was also used for dumping of various anthropogenic wastes (e.g., wood, plastic sheeting, paint chips, ceramic shards) since at least the early 1970s. The entire peninsula south of I-10 was subject to continuous and significant modification from the early 1970s through the 1980s. The RI states that from 1985 to 1998, Southwest Shipyards leased a portion of the western shoreline of the southern peninsula, immediately to the south of the present-day location of Glendale Boat Works operations on property owned by New Lost River, LLC. This area includes the shoreline area that appears to be flooded in the 1973 aerial photograph and that was filled in by 1984. As stated in the RI, aerial photographs provide evidence of deposition and transport of large volumes of material, significant changes in the form of the landscape, and continuous physical change at the Site from at least 1972 to the present, with active road development, building construction and industrial activity.

11. In 1965 and 1966, pulp and paper mill wastes (both solid and liquid) were transported by barge from the Champion Papers, Inc. (“Champion” or Champion Papers”) paper mill in Pasadena, Texas, and deposited in the Site impoundments. Ole Peterson Construction Co., Inc. (“Ole Peterson”) disposed of pulp and paper mill waste from Champion Papers at the

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Southern Impoundment. Ole Peterson removed waste materials from the Champion plant in Pasadena, Texas, transported the waste material by barge, and unloaded the waste into the Southern Impoundment prior to the assignment of Ole Peterson's contract for the removal of Champion's waste materials to McGinnes Industrial Maintenance Corporation.

12. An April 29, 1965 contract between Champion Papers and Ole Peterson provides for the removal and barge transportation of pulp and paper mill waste from the Champion plant in Pasadena, Texas for disposal; this contract was assigned to McGinnes Industrial Maintenance Corporation in September 1965. A Texas State Department of Health interoffice memorandum dated May 6, 1966, states that disposal of Champion waste at the Site began in June 1965 by Ole Peterson, with McGinnes taking over the operation in September 1965. The memorandum describes the older site for disposal as being adjacent to the San Jacinto River on the south side of Highway 73 (now Interstate 10) and consisting of a pond between 15 and 20 acres. The memorandum states that the older pond on the south side was used prior to McGinnes taking over the waste disposal activities.

13. According to Champion's business records, Champion's Pasadena paper mill produced pulp and paper using chlorine as a bleaching agent. These processes used various forms of chlorine, including liquid chloride, aluminum chloride and sodium chlorate. The pulp bleaching process forms polychlorinated dibenzo-p-dioxins ("PCDDs") and polychlorinated dibenzofurans ("PCDFs") as a by-product, and those by-products are found in the paper mill waste sludge generated from this process. The USEPA/Paper Industry Cooperative Dioxin Studies (the "Five Mill Study" and "The 104 Mill Study") document that 2,3,7,8-Tetrachlorodibenzo-p-dioxin and 2,3,7,8-Tetrachlorodibenzofuran formed during the bleaching of kraft wood pulps with chlorine and chlorine derivatives are the principal PCDDs and PCDFs formed during this process in the mills studied.

14. The primary hazardous substances identified at the Site are polychlorinated dibenzo-p-dioxins, including 2,3,7,8-Tetrachlorodibenzo-p-dioxin ("TCDD"), and polychlorinated dibenzofurans including 2,3,7,8-Tetrachlorodibenzofuran ("TCDF"). Results of the RI and the baseline human health risk assessment ("BHHRA") document that the contaminants of concern ("COCs") at the Site and the Southern Impoundment include the TCDD toxicity equivalent ("TEQ") as the principal contaminant driving the cleanup actions, and dioxin TEQ is the basis for the cleanup levels in the Record of Decision ("ROD"). The ROD cleanup level for the Southern Impoundment is 240 nanograms per kilogram ("ng/kg") TEQ.

15. The RI for the Site identified the Southern Impoundment investigation area as Soil Investigation Area 4. As reported in the RI and the ROD, dioxin/furan concentrations in surface soil from Soil Investigation Area 4 and adjacent sampled areas range from 1.35 to 36.9 ng/kg, while in subsurface soils from 6 to 24 inches, dioxin/furan sample results from the RI range from 0.134 to 303 ng/kg. The dioxin/furan concentrations in the Southern Impoundment soils, as reported in the RI, significantly increase at a depth greater than 2 feet. The RI dioxin/furan results deeper than 2 feet range from 0.092 to 50,100 ng/kg and average 743 ng/kg. The maximum RI core sample of dioxin/furan occurred at a depth of 6 to 8 feet and was at Station SJSB019 in the southern part of Soil Investigation Area 4 (see Figure 25 of the ROD). Station SJSB023 has the second-highest TEQ concentration found during the RI (35,500 ng/kg), at depth interval of 4 to 6 feet (ROD Figure 25)).

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16. TCDD is considered the most toxic of the dioxins and dibenzofurans. Non-TCDD and dibenzofurans are usually expressed as a fraction of the toxicity attributed to TCDD.

17. The RD for the Southern Impoundment included two phases of Pre-Design Investigations (“PDIs”) which refined the known extent of dioxin contamination at the Southern Impoundment, including levels of TCDD and TCDF. During the PDIs 1 and 2 (sampled from November 1 through 19, 2019, and September 3 through December 11, 2019, respectively) additional borings were conducted. Focusing on the TCDD data for the Southern Impoundment as presented in Tables 3 and 4 in the RD, sampling results ranged up to 175,000 ng/kg TCDD. The highest TCDD sample of 175,000 ng/kg was found at station SJSB019-E1, with the second highest sample of 165,000 ng/kg found at SJSB019-N2. Of the 49 non-composite sample borings presented in the final results in RD Tables 3 and 4, 31 of them, or approximately 63%, had TCDD contamination above 240 ng/kg. Of those sample borings, 15 of them, or approximately 45%, were between 0 and 4 ft below ground surface (“bgs”), and ranged between 350 and 59,800 ng/kg, which indicates high levels of contamination relatively close to the ground surface in nearly half of the boring locations sampled. Focusing solely on the TCDF data as presented in Tables 3 and 4 in the RD, results ranged up to 279,000 ng/kg TCDF, with the highest TCDF sample of 279,000 ng/kg found at station SJSB019-N2 and the second highest sample of 277,000 ng/kg at SJSB019-E1.

18. Regarding the TEQ data from the PDIs, of the 49 non-composite sample borings presented in the final results Tables 3 and 4 in the RD, 38 of them, or approximately 78%, had individual depth interval calculations of $TEQ_{DF,M}$ above 240 ng/kg, ranging between 260 and 206,000 ng/kg. The highest $TEQ_{DF,M}$ was found at station SJSB019-E1 with the second highest $TEQ_{DF,M}$ of 199,000 ng/kg found at SJSB019-N2. Of those boring locations with $TEQ_{DF,M}$ above 240 ng/kg, 20 of them, or 53%, were found between 0 and 4 ft bgs, ranging between 260 and 71,300 ng/kg, with 8 of them, or 21%, found between 0 and 2 ft bgs, ranging between 262 and 13,700 ng/kg, which indicates high levels of contamination relatively close to the ground surface in over half of the boring locations sampled. Individual depth interval calculations of $TEQ_{DF,M}$ above 240 ng/kg between 4 and 10 ft bgs ranged between 291 and 206,000 ng/kg.

19. The PDI sampling results confirm that dioxin contamination above the TEQ cleanup level, including TCDD and TCDF contamination, is now beyond the historical impoundment boundaries to the southwest of the former impoundment and toward the Old Channel to the west of the southern peninsula.

20. The waste material at the Site is highly toxic, and dioxin is also very persistent in the environment and expected to remain toxic for a long time, estimated in the ROD to be approximately 500 years. Dioxins cause many adverse health effects and are probable cancer causing agents.

21. As discussed in the ROD, the Site has been and likely will continue to be affected by extreme weather conditions such as strong storm winds, flooding, tornadoes, and hurricanes, which may cause a potential release or migration of dioxin and furan contaminated materials. The San Jacinto River Waste Pits Site is located in a Federal Emergency Management Agency (“FEMA”) designated “VE” Floodway Zone, meaning that it is prone to inundation by the 1percent annual chance flood event with additional hazards due to storm induced waves (Brody

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and others, 2014). The area receives an average of 54-inches of rain annually; the monthly average precipitation varies from approximately 2.5 inches in February to over 7 inches in June. It is not uncommon to have precipitation events that exceed 2 inches per day, and rain events bringing 10 inches of precipitation or higher in a day occur on a decadal scale.

22. The ROD presents information regarding the potential for extreme storms in the vicinity of the Site, including information provided in a September 2017 U.S. Geologic Survey memorandum regarding geomorphology at the Site. The frequency of hurricanes along any 50-mile segment of the Texas coast is about 1 every 6 years; the annual average occurrence of a tropical storm or hurricane is about 1 per year. In September 2008, the eye of Hurricane Ike made landfall at the east end of Galveston Island. Ike made its landfall as a strong Category 2 hurricane, with Category 5 equivalent storm surge, and hurricane-force winds that extended 120 miles from the storm's center. The Texas Gulf coast was recently struck by Hurricane Harvey, which made landfall near Rockport, Texas about 170 miles southwest of the Site. While Hurricane Harvey did not make landfall in the Houston area, the hurricane pushed moisture inland, which stalled over Houston causing historic rainfall, runoff, and flooding. The highest rainfall amount totaled 48.20 inches at a rain gauge on Clear Creek and Interstate-45 near Houston Texas. It was the highest rainfall amount in a single storm for any place in the continental United States (NOAA, 2017). Climate models predict an increase in the intensity of tropical cyclones and hurricanes in the Gulf, meaning greater risk of flooding and storm surges over the long time frame that the dioxin waste at the Site would remain hazardous.

23. The San Jacinto River has been prone to severe flooding with major floods occurring prior to the 1994 flood in 1907, 1929, 1932, 1935, 1940, 1941, 1942, 1943, 1945, 1946, 1949, 1950, 1959, 1960, 1961, 1972, and 1978 (NTSB, 1996). Flooding in 1994 caused major soil erosion and created water channels outside of the San Jacinto River bed. This flooding caused eight pipelines to rupture and 29 others were undermined at river crossings and in new channels created in the flood plain outside of the San Jacinto River boundaries. Two other recorded floods in the San Jacinto River actually exceeded the 1994 flood, including during 1929 (32.90-feet) and during 1940 (31.50-feet).

24. A May 2021 analysis by the U.S. Army Corps of Engineers Engineer Research and Development Center evaluated the potential for future erosion of soils in the dioxin-contaminated areas of the Southern Impoundment; transport of eroded soils in the dioxin-contaminated areas through surface water flow during future rain events; and transport of eroded soils from the contaminated areas of the Southern Impoundment beyond the current boundaries of the contamination to the San Jacinto River and/or to other areas of the southern peninsula during the next 100 years and/or the timeframe in which the dioxin will remain toxic (estimated in the ROD to be 500 years). Findings from this analysis concluded that the entire Southern Impoundment is expected to be inundated during a 1 percent chance precipitation event, which could be caused by a large riverine flood (e.g., the San Jacinto River flood in October 1994) or a storm surge during a hurricane (e.g., Hurricane Ike in September 2008). There is also a high potential for scour of the non-armored portions of the surface of the impoundment and a high potential that the scoured soil will be transported by the combined river and tidal flows across the surface of the impoundment and ultimately into the waters around the impoundment. Additionally, signs of erosion are apparent on the shoreline surrounding the Southern Impoundment as of January 2017 via naturally formed drainage channels that drain runoff from

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the surface of the impoundment to the waters around the impoundment. The analysis also concluded that there is a moderate to high potential for soil loss and rill formation from the Southern Impoundment during normal rainfall/runoff events.

25. Chemical fingerprinting analysis confirms that dioxin and furan contamination at the Site are the result of the disposal of paper mill waste, and that this waste material has entered the San Jacinto River from the Site, based on the relative amounts of the different forms of dioxin found in samples. The EPA and TCEQ performed a general fingerprint analysis of Site waste materials and compared that to known paper mill waste characteristics. This paper mill material contains many different types of dioxin/furan, but it is characterized by relatively higher proportions of TCDD/TCDF. The paper mill waste material in the Site pits has proportionately more TCDD - with 4 chlorine molecules attached to the dioxin - and TCDF. The dioxin from other, more common sources has more OCDD (octa-chloro-di-benzo-p-dioxin) – with 8 chlorine molecules attached to the dioxin - and octachlorodibenzofuran, with very little TCDD or TCDF. While dioxin can come from many sources (including tailpipe emissions and combustion activities such as burning household trash, forest fires, and waste incineration), this more common, ‘background’ dioxin is distinguishable from the paper mill waste at the Site because it does not have significant quantities of TCDD or TCDF.

26. The San Jacinto River upstream of the San Jacinto Site (the “Upstream Fingerprint” attached to the EPA/TCEQ fingerprint analysis) mostly contains OCDD/OCDF and little or no 2,3,7,8 TCDD/TCDF, which indicates that dioxin upstream of the Site is likely to have come from different sources than the waste pits. Because additional activities took place at the Southern Impoundment, particularly in surface soils, not all samples were consistent with papermill waste. However, many RI samples from the Southern Impoundment also show similar relative quantities of TCDD and TCDF to the quantities found in the general Waste Pit Fingerprint. While mixed to varying degrees with other waste materials, this indicates the presence of the paper mill waste in the Southern Impoundment.

27. The RI also contains a fingerprinting-type analysis, and identified the paper mill waste as “EM2” in that analysis. The RI’s analysis indicates that soils with the same dioxin and furan fingerprint as in wastes in the impoundments north of I-10 are present in soils from the area south of I-10. In both the samples taken in the Northern Impoundments and in some soil samples from south of I-10, TCDD and TCDF dominate the fingerprint (see Figure 6-21 of the RI), together making up nearly 80 percent of dioxin and furan congeners in the mixture by weight (see Table 6-14 of the RI). TCDD and TCDF, and particularly the latter, are therefore useful as indicators of the paper mill wastes. The RI confirmed that the dioxin and furan mixtures in paper mill wastes in the impoundments north of I-10 and in the affected soils south of I-10 had similar chemical compositions, evidence that both originated at the Champion Paper mill at around the same time. The RI concluded that many of the soil samples with the highest TEQ_{DF,M} from the Southern Impoundment (see Table 6-15 of the RI) appear to be predominantly (greater than 80 percent) associated with paper mill waste.

28. In the vicinity of the Southern Impoundment, three surface sediment samples around the southern end of the peninsula (generally downstream) contain dioxin/furan at an estimated 74.6 ng/kg, 52.6 ng/kg, and 49.3 ng/kg. The highest subsurface sediment sample in this area was 133 ng/kg dioxin/furan TEQ adjacent to the southwest part of the Southern

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Impoundment. These results indicate a waste material release from the Southern Impoundment because the sediment results north of these sample locations, but south of the northern waste pits, are at much lower concentrations and indicative of background values.

29. The RI found three or more dioxin and furan congeners were detected in all three groundwater monitoring wells south of I-10. For those that were detected, the highest concentrations consistently occurred in SJMW001. The dioxin/furan result in SJMW001 of 47.3 picograms per liter (pg/L) is within the waste material. The average concentration of 2,3,7,8-TCDD in the waste material in all wells is 17.1 pg/L (using the estimated result in SJMW002 of 8.92 pg/L and the detection limit in SJMW003 of 9.9 pg/L). Table 19 of the ROD presents summary statistics for groundwater samples collected south of I-10.

30. According to the 2013 Draft RI Addendum Table 3-1 Detected Analytes in Groundwater in Soil Investigation Area 4, TCDD was detected in unfiltered groundwater samples in 3 of the 6 monitoring wells evaluated. The concentration levels were 32.4 pg/L in SJMW001, estimated at 8.92 pg/L in SJMW002, and 43.3 pg/L in SJMW004S. TCDF was detected in unfiltered groundwater samples in 4 of the 6 monitoring wells. The concentrations levels were 110 pg/L in SJMW001, 29.3 pg/L in SJMW002, 59.9 pg/L in SJMW003, and 145 pg/L in SJMW004S. Dioxin/furans bind to sediments typically, so filtration removing particulate matter would be expected to also reduce concentration levels of those contaminants. TCDD and TCDF levels in samples from well SJMW004S were still detected even after filtration, estimated at concentration levels of 6.56 pg/L and 20.7 pg/L respectively. Additionally, the unfiltered sample in SJMW004S for dioxin/furans had an estimated $TEQ_{DF,M}$ concentration of 60.2 pg/L, which is over twice the Texas Risk Reduction Program Protective Concentration Level of 30 pg/L.

31. The 2016 Data Summary Report indicated that two of the ten wells sampled detected TCDD and TCDF. Wells SJMW003 and SJMW004S were drilled into the waste material, and the estimated $TEQ_{DF,M}$ in these two wells are greater than the Texas Surface Water Quality Standard of 0.0797 pg/L.

32. Dioxins and furans break down very slowly and releases from long ago remain in the environment. Dioxins and furans are therefore classified as persistent organic pollutants.

33. After being absorbed, dioxin distributes to organs according to lipid (fat) content and readily accumulates in body fat. TCDD is a tetrachlorinated congener of dioxin found in the Site waste. The half-life of TCDD in the human body ranges from 7 to 12 years. The most common health effect in people exposed to large amounts of dioxins, in particular TCDD, is chloracne. Chloracne cases have typically been the result of accidents or significant contamination events. Chloracne is a severe skin disease with acne-like lesions that occur mainly on the face and upper body. Other skin effects noted in people exposed to high doses of TCDD include skin rashes, discoloration, and excessive body hair (ATSDR, 1998).

34. In addition to chloracne, dioxins can cause several health effects, including long-term changes in glucose metabolism, subtle changes in hormone levels, transient mild liver damage (hepatotoxicity) and peripheral nerve damage (neuropathy). Other potential effects include porphyria cutanea tarda (liver dysfunction and photosensitive skin lesions), Type 2

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diabetes, neurobehavioral development effects in infants, and men in highly exposed populations are less likely to father boys (ATSDR, 1998). Noncancer adverse health effects were observed in sensitive susceptible very young members of the population during their development in utero. As discussed in the ROD, increased thyroid-stimulating hormone levels in newborns born to mothers who were exposed to TCDD during the Seveso accident (a 1976 chemical factory accident near Seveso, Italy, involving high levels of TCDD exposure) was reported (Baccarelli et al., 2008). Decreased sperm concentration and sperm motility in men who were exposed to TCDD during childhood during the Seveso accident was also reported and identified the first 10 years of life as a critical window of susceptibility to TCDD induced sperm effects in young children (Mocarelli et al., 2008).

35. In certain animal species, 2,3,7,8-TCDD is especially harmful and can cause death after a single exposure. Exposure to lower levels can cause a variety of effects in animals, such as weight loss, liver damage, and disruption of the endocrine system. In many species of animals, TCDD weakens the immune system and causes a decrease in the system's ability to fight bacteria and viruses. In other animal studies, exposure to TCDD has caused reproductive damage and birth defects.

36. TCDD carcinogenicity in animals is well established. However, the specific carcinogenic mechanism for TCDD has not been fully elucidated. TCDD produces cancer at all sites in animals. Epidemiological data support that TCDD increases cancer incidence in all sites for humans (The World Health Organization (WHO, 1997), and the U.S. National Toxicology Program (NTP, 2001)). Dioxin also increases the risk for several individual cancers, including soft-tissue malignant tumor (sarcoma), lung cancer, cancer of the lymphatic tissue (non-Hodgkin's lymphoma), and malignant enlargement of the lymph nodes, spleen, and liver (Hodgkin's disease) (ATSDR, 2006).

37. A site-specific BHHRA and a Baseline Ecological Risk Assessment ("BERA") were conducted to determine potential pathways by which people (human receptors) or animals (ecological receptors) could be exposed to upland or aquatic contamination in sediment, soil, water, or biota, the amount of contamination receptors of concern may be exposed to, and the risk of those contaminants if no action were taken to address contamination at the Site.

38. Land use on the peninsula south of I-10 is commercial/industrial. Current land use surrounding the Site includes mixed residential and industrial uses to the west, and undeveloped or residential areas to the east and north. Immediately south of the Site is commercial/industrial land use. Moving farther from the Site, the amount of residential land use increases, along with other land use categories not found in the immediate vicinity, such as undeveloped land, farms, parks, and lands listed as "other" (e.g., schools and hospitals). The future land use is not anticipated to be different from the current land use. For the Southern Impoundment, trespassers, commercial workers, and construction workers were identified as groups that may potentially come into contact with impacted media, and exposure pathways were quantitatively evaluated for these groups in the BHHRA. Commercial workers, who perform maintenance or other work-related outdoor activities, might have potential direct contact with surface and shallow subsurface soil. Potentially complete exposure pathways for the commercial worker are incidental ingestion and dermal contact with surface and shallow subsurface soil. In the future, construction work could occur in the area of the Southern Impoundment. Under this

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future scenario, construction workers may have direct contact with surface and subsurface soil. Potentially complete exposure pathways for the construction worker are incidental ingestion and dermal contact with surface and subsurface soils.

39. For the Southern Impoundment, the BHHRA identified some future construction worker exposure scenarios with unacceptable risks to the construction worker.

40. The Hazard Index (“HI”) is generated by adding the Hazard Quotients (“HQs”) for all COCs that affect the same target organ (e.g., liver) or that act through the same mechanism of action within a medium or across all media to which a given individual may reasonably be exposed. An $HI < 1$ indicates that, based on the sum of all HQs from different contaminants and exposure routes, toxic noncarcinogenic effects from contaminants are unlikely. An $HI \geq 1$ indicates that site-related exposures may present a risk to human health.

41. The Southern Impoundment poses unacceptable risks to the construction worker (Hazard Index 46). These risks result from the release or threatened releases of dioxins and furans from the Site. For the area south of I-10, the future construction worker noncancer HIs are greater than one for three exposure areas. The table for the Southern Impoundment in Section 2.7.1 of the ROD (Summary of Human Health Risk Assessment – South of I-10 Non-Cancer Hazards For a Future Construction Worker) provides endpoint-specific HIs for future construction worker exposure scenarios through direct exposure to surface and subsurface soils.

42. Pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, EPA placed the Site on the National Priorities List (“NPL”), set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on April 18, 2008, 73 Fed. Reg. 14719.

43. In response to a release or a substantial threat of a release of hazardous substances at or from the Site, International Paper Company and McGinnes Industrial Maintenance Corporation were issued a Unilateral Administrative Order on November 20, 2009, CERCLA Docket No. 06-03-10, to conduct a Remedial Investigation and Feasibility Study (“RI/FS”) for the Site pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a), and 40 C.F.R. § 300.430.

44. EPA approved an RI Report on May 23, 2013, and EPA completed a Feasibility Study (“FS”) Report in September 2016.

45. Pursuant to Section 117 of CERCLA, 42 U.S.C. § 9617, EPA published notice of the completion of the FS and of the proposed plan for remedial action on September 29, 2016, in a major local newspaper of general circulation. EPA provided an opportunity for written and oral comments from the public on the proposed plan for remedial action. A copy of the transcript of the public meeting is available to the public as part of the administrative record upon which the Administrator based the selection of the response action.

46. The decision by EPA on the RA to be implemented at the Site is embodied in a final ROD, executed on October 11, 2017, on which the State had a reasonable opportunity to review and comment. The ROD includes EPA’s explanation for any significant differences between the final plan and the proposed plan as well as a responsiveness summary to the public comments. Notice of the final plan was published in accordance with Section 117(b) of CERCLA, 42 U.S.C. § 9617(b).

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47. The cleanup level for the dioxin in the Southern Impoundment is 240 ng/kg TEQ (based on a Southern Impoundment construction worker exposure risk). The 240 ng/kg cleanup level applies to waste material and sub-surface soil for the Southern Impoundment. In this case, a construction worker was assumed to be exposed to contaminated sub-surface soils in the area during construction activities.

48. The ROD determined that the complete removal of the impacted soil in the depth interval of potential excavation (Alternative 4S) will provide the highest level of long-term effectiveness because complete removal minimizes the potential for inappropriate future use of the area or any erosion/scour of the waste material that may result from a future extreme weather event. Groundwater monitoring is not a part of this Alternative 4S because material containing dioxin above the cleanup level will be removed and disposed of off-site.

49. The remedy for the Southern Impoundment, as described in more detail in the ROD, includes: excavation of approximately 50,000 cubic yards (cy) of waste material exceeding the paper mill waste material soil cleanup goal for the Southern Impoundment of 240 ng/kg TEQ to a depth of 10 feet below grade;-and institutional controls to prevent disturbance of soils through construction or excavation and to alert future property owners of waste and soil with dioxin concentrations exceeding EPA’s protective level of 51 ng/kg TEQ for unlimited use and unrestrictive access.

50. The Remedial Design for the Southern Impoundment was completed pursuant to the Administrative Settlement Agreement and Order on Consent for Remedial Design, CERCLA Docket No. 06-02-18. The RD for the Southern Impoundment was approved by EPA on May 7, 2021.

51. Respondent International Paper Company is a corporation incorporated in the State of New York. International Paper Company is the successor to Champion Papers, Inc. which arranged for disposal or treatment of hazardous substances, which were owned or possessed by said company, at the Site, and specifically at the Southern Impoundment.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

52. Based on the Findings of Fact set forth above and the administrative record, EPA has determined that:

a. The San Jacinto River Waste Pits Site, and specifically the Southern Impoundment, is a “facility” as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

b. Respondent is a “person” as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

c. Respondent is a liable party under one or more provisions of Section 107(a) of CERCLA, 42 U.S.C. § 9607(a). Respondent International Paper Company is the successor to Champion Paper, Inc. which arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment of hazardous substances at the facility, including the Southern Impoundment, within the meaning of Section 107(a)(3) of CERCLA, 42 U.S.C. § 9607(a)(3).

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d. The contamination, including 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) and polychlorinated dibenzofurans including 2,3,7,8-Tetrachlorodibenzofuran (TCDF) found at the Site, including the Southern Impoundment and as identified in the Findings of Fact above, includes “hazardous substances” as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

e. The conditions described in ¶¶ 11, 13-15, 17-19, 21-24, 28-31, and 38 of the Findings of Fact above constitute an actual and/or threatened “release” of a hazardous substance from the facility, including the Southern Impoundment, as defined by Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

f. The conditions at the Southern Impoundment may constitute a threat to public health or welfare or the environment, based on the factors set forth in the ROD. These factors include, but are not limited to, the sampling results for the Southern Impoundment, the toxicity of dioxin, the persistence of dioxin in the environment, the risks identified in the BHHRA, and the potential for inappropriate use and climate and storm-related erosion and scour, as further identified in Section 2.5.1 of the ROD (Physical Characteristics – Surface Features, Climate and Surface Water Hydrology); Section 2.5.3 of the ROD (Nature and Extent of Contamination); Section 2.5.4 of the ROD (Chemical Fate and Transport); Section 2.7.1 of the ROD (Summary of Human Health Risk Assessment); Section 2.7.3 of the ROD (Basis for Action); and the ROD’s Summary of the Rationale for the Selected Remedy.

g. Solely for purposes of Section 113(j) of CERCLA, 42 U.S.C. § 9613(j), the remedy set forth in the ROD and the Work to be performed by Respondent shall constitute a response action taken or ordered by the President for which judicial review shall be limited to the administrative record.

h. The conditions described in ¶¶ 14-24 and 28-41 of the Findings of Fact above may constitute an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance from the facility, and specifically the Southern Impoundment, within the meaning of Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

i. The actions required by this Order are necessary to protect the public health, welfare, or the environment.

VI. ORDER

53. Based on the Findings of Fact, Conclusions of Law, and Determinations set forth above, and the administrative record, Respondent is hereby ordered to comply with this Order and any modifications to this Order, including, but not limited to, all appendices and all documents incorporated by reference into this Order.

VII. OPPORTUNITY TO CONFER

54. No later than 10 days after the Order is signed by the Director of the Superfund and Emergency Management Division or her delegatee, Respondent may, in writing, a) request a conference with EPA to discuss this Order, including its applicability, the factual findings and

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the determinations upon which it is based, the appropriateness of any actions Respondent is ordered to take, or any other relevant and material issues or contentions that Respondent may have regarding this Order, or b) notify EPA that it intends to submit written comments or a statement of position in lieu of requesting a conference.

55. If a conference is requested, Respondent may appear in person or by an attorney or other representative. Due to pandemic restrictions and social distance guidances, any such conference shall be held virtually, and any such conference shall be held no later than 7 days after the conference is requested. Any written comments or statements of position on any matter pertinent to this Order must be submitted no later than 5 days after the conference or 15 days after this Order is signed if Respondent does not request a conference. This conference is not an evidentiary hearing, does not constitute a proceeding to challenge this Order, and does not give Respondent a right to seek review of this Order. Any request for a conference or written comments or statements should be submitted via e-mail to:

Anne Foster, Office of Regional Counsel
Superfund Branch
U.S. Environmental Protection Agency, Region 6
1201 Elm Street
Dallas, TX 75270
foster.anne@epa.gov
214-665-2169

VIII. EFFECTIVE DATE

56. This Order shall be effective 10 days after the Order is signed by the Director of the Superfund and Emergency Management Division or her delegatee unless a conference is requested or notice is given that written materials will be submitted in lieu of a conference in accordance with Section VII (Opportunity to Confer). If a conference is requested or such notice is submitted, this Order shall be effective on the 10th day after the day of the conference, or if no conference is requested, on the 10th day after written materials, if any, are submitted, unless EPA determines that the Order should be modified based on the conference or written materials. In such event, EPA shall notify Respondent, within the applicable 10-day period, that EPA intends to modify the Order. The modified Order shall be effective 5 days after it is signed by the Superfund and Emergency Management Division Director or her delegatee.

IX. NOTICE OF INTENT TO COMPLY

57. On or before the Effective Date, Respondent shall notify EPA in writing of Respondent's irrevocable intent to comply with this Order. Such written notice shall be sent to EPA as provided in ¶ 55.

58. Respondent's written notice shall describe, using facts that exist on or prior to the Effective Date, any "sufficient cause" defenses asserted by such Respondent under Sections 106(b) and 107(c)(3) of CERCLA, 42 U.S.C. §§ 9606(a) and 9607(c)(3). The absence of a response by EPA to the notice required by this Section shall not be deemed to be acceptance of

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Respondent's assertions. Failure of Respondent to provide such notice of intent to comply within this time period shall, as of the Effective Date, be treated as a violation of this Order by such Respondent.

X. PERFORMANCE OF THE WORK

59. **Compliance with Applicable Law.** Nothing in this Order limits Respondent's obligations to comply with the requirements of all applicable federal and state laws and regulations. Respondent must also comply with all applicable or relevant and appropriate requirements of all federal and state environmental laws as set forth in the ROD and the SOW.

60. Permits

a. As provided in Section 121(e) of CERCLA, 42 U.S.C. § 9621(e), and Section 300.400(e) of the NCP, no permit shall be required for any portion of the Work conducted entirely on-site (i.e., within the areal extent of contamination or in very close proximity to the contamination and necessary for implementation of the Work). Where any portion of the Work that is not on-site requires a federal or state permit or approval, Respondent shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals.

b. This Order is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation

61. Coordination and Supervision

a. Project Coordinators

(1) Respondent's Project Coordinator must have sufficient technical expertise to coordinate the Work. Respondent's Project Coordinator may not be an attorney representing any Respondent in this matter. Respondent's Project Coordinator may assign other representatives, including other contractors, to assist in coordinating the Work.

(2) EPA shall designate and notify the Respondent of EPA's Project Coordinator and Alternate Project Coordinator. EPA may designate other representatives, which may include its employees, contractors and/or consultants, to oversee the Work. EPA's Project Coordinator/Alternate Project Coordinator will have the same authority as a remedial project manager and/or an on-scene coordinator, as described in the NCP. This includes the authority to halt the Work and/or to conduct or direct any necessary response action when he or she determines that conditions at the Site constitute an emergency or may present an immediate threat to public health or welfare or the environment due to a release or threatened release of Waste Material.

(3) Respondent's Project Coordinators shall meet with EPA's Project Coordinators at least monthly.

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b. **Supervising Contractor.** Respondent’s proposed Supervising Contractor must have sufficient technical expertise to supervise the Work and a quality assurance system that complies with ASQ/ANSI E4:2014, “Quality management systems for environmental information and technology programs - Requirements with guidance for use” (American Society for Quality, February 2014).

c. **Procedures for Disapproval/Notice to Proceed**

(1) Respondent shall designate, and notify EPA, within 10 days after the Effective Date, of the name[s], title[s], contact information, and qualifications of the Respondent’s proposed Project Coordinator and Supervising Contractor, whose qualifications shall be subject to EPA’s review for verification based on objective assessment criteria (e.g., experience, capacity, technical expertise) and that they do not have a conflict of interest with respect to the project.

(2) EPA shall issue notices of disapproval and/or authorizations to proceed regarding the proposed Project Coordinator and Supervising Contractor, as applicable. If EPA issues a notice of disapproval, Respondent shall, within 21 days, submit to EPA a list of supplemental proposed Project Coordinators and/or Supervising Contractors, as applicable, including a description of the qualifications of each. EPA shall issue a notice of disapproval or authorization to proceed regarding each supplemental proposed coordinator and/or contractor. Respondent may select any coordinator/contractor covered by an authorization to proceed and shall, within 21 days, notify EPA of Respondent’s selection.

(3) Respondent may change its Project Coordinator and/or Supervising Contractor, as applicable, by following the procedures of ¶¶ 61.c(1) and 61.c(2).

62. **Performance of Work in Accordance with SOW.** Respondent shall: (a) perform the RA; (b) operate, maintain, and monitor the effectiveness of the RA; and (c) support EPA’s periodic review efforts; all in accordance with the SOW, the RD, and all EPA-approved, conditionally-approved, or modified deliverables as required by the SOW. All deliverables required to be submitted for approval under the Order or SOW shall be subject to approval by EPA in accordance with ¶ 5.6 (Approval of Deliverables) of the SOW.

63. **Emergencies and Releases.** Respondent shall comply with the emergency and release response and reporting requirements under ¶ 3.3 (Emergency Response and Reporting) of the SOW.

64. **Community Involvement.** If requested by EPA, Respondent shall conduct community involvement activities under EPA’s oversight as provided for in, and in accordance with, Section 2 (Community Involvement) of the SOW. Such activities may include, but are not limited to, designation of a Community Involvement Coordinator.

65. **Modification**

a. EPA may, by written notice from the EPA Project Coordinator to Respondent, modify, or direct Respondent to modify, the SOW and/or any deliverable developed

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under the SOW, if such modification is necessary to achieve or maintain the Performance Standards or to carry out and maintain the effectiveness of the RA, and such modification is consistent with the Scope of the Remedy set forth in ¶ 1.3 of the SOW. Any other requirements of this Order may be modified in writing by signature of the Director of the Superfund and Emergency Management Division, EPA Region 6.

b. Respondent may submit written requests to modify the SOW and/or any deliverable developed under the SOW. If EPA approves the request in writing, the modification shall be effective upon the date of such approval or as otherwise specified in the approval. Respondent shall modify the SOW and/or related deliverables in accordance with EPA's approval.

c. No informal advice, guidance, suggestion, or comment by the EPA Project Coordinator or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondent shall relieve Respondent of its obligation to obtain any formal approval required by this Order, or to comply with all requirements of this Order, unless it is formally modified.

d. Nothing in this Order, the attached SOW, the RD, any deliverable required under the SOW, or any approval by EPA constitutes a warranty or representation of any kind by EPA that compliance with the work requirements set forth in the SOW or related deliverable will achieve the Performance Standards.

XI. PROPERTY REQUIREMENTS

66. **Agreements Regarding Access and Non-Interference.** Respondent shall, with respect to any Non-Respondent Owner's Affected Property, use best efforts to secure from such Non-Respondent Owner an agreement, enforceable by Respondent and by EPA, providing that such Non-Respondent Owner: (i) provide EPA and the Respondent, and their representatives, contractors, and subcontractors with access at all reasonable times to such Affected Property to conduct any activity regarding the Order, including those listed in ¶ 66.a (Access Requirements); and (ii) refrain from using such Affected Property in any manner that EPA determines will pose an unacceptable risk to human health or to the environment due to exposure to Waste Material, or interfere with or adversely affect the implementation, integrity, or protectiveness of the Remedial Action, including the restrictions listed in ¶ 66.b (Land, Water, or Other Resource Use Restrictions). Respondent shall provide a copy of such access and use restriction agreement(s) to EPA and the State.

a. **Access Requirements.** The following is a list of activities for which access is required regarding the Affected Property:

- (1) Monitoring the Work;
- (2) Verifying any data or information submitted to EPA;
- (3) Conducting investigations regarding contamination at or near the Southern Impoundment;

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- (4) Obtaining samples;
- (5) Assessing the need for, planning, or implementing additional response actions at or near the Southern Impoundment;
- (6) Assessing implementation of quality assurance and quality control practices as defined in the approved construction quality assurance quality control plan as provided in the SOW;
- (7) Implementing the Work pursuant to the conditions set forth in ¶ 90 (Work Takeover);
- (8) Inspecting and copying records, operating logs, contracts, or other documents maintained or generated by Respondent or its agents, consistent with Section XVI (Access to Information);
- (9) Assessing Respondent’s compliance with the Order;
- (10) Determining whether the Affected Property is being used in a manner that is prohibited or restricted, or that may need to be prohibited or restricted under the Order; and
- (11) Implementing, monitoring, maintaining, reporting on, and enforcing any land, water, or other resource use restrictions and any Institutional Controls regarding the Affected Property.

b. **Land, Water, or Other Resource Use Restrictions.** The following is a list of land, water, or other resource use restrictions applicable to the Affected Property:

- (1) Prohibiting activities that could interfere with the RA;
- (2) Prohibiting land use other than for commercial/industrial activities;
- (3) Prohibiting the use of contaminated groundwater;
- (4) Prohibiting the following activities that could result in exposure to contaminants in subsurface soils and groundwater: construction involving disturbance of subsurface soils beyond a depth of 5 feet below grade; excavation; and installation of wells;
- (5) Ensuring that any new structures on the Southern Impoundment will not be constructed in a manner that could interfere with the RA; and
- (6) Ensuring that any new structures on the Southern Impoundment will be constructed in a manner that will minimize potential risk of exposure to contaminants.

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67. **Proprietary Controls.** Respondent shall, with respect to any Non-Respondent Owner's Affected Property, use best efforts to secure Non-Respondent Owner's cooperation in executing and recording, in accordance with the procedures of this ¶ 67, Proprietary Controls that: (i) grant a right of access to conduct any activity regarding the Order, including those activities listed in ¶ 66.a (Access Requirements); and (ii) grant the right to enforce the land, water, or other resource use restrictions set forth in ¶ 66.b (Land, Water, or Other Resource Use Restrictions).

a. **Grantees.** The Proprietary Controls must be granted to one or more of the following persons and their representatives, as determined by EPA: the United States, the State, Respondent, and other appropriate grantees. Proprietary Controls in the nature of a Uniform Environmental Covenants Act (UECA) document granted to persons other than the United States must include a designation that EPA (and/or the State as appropriate) is a "third-party beneficiary" expressly granted the right of access and the right to enforce the covenants allowing EPA and/or the State to maintain the right to enforce the Proprietary Controls without acquiring an interest in real property.

b. **Initial Title Evidence.** Respondent shall, within 120 days after the Effective Date:

(1) **Record Title Evidence.** Submit to EPA a title insurance commitment or other title evidence acceptable to EPA that: (i) names the proposed insured or the party in whose favor the title evidence runs, or the party who will hold the real estate interest, or if that party is uncertain, names EPA, the State, the Respondent, or "To Be Determined;" (ii) covers the Affected Property that is to be encumbered; (iii) demonstrates that the person or entity that will execute and record the Proprietary Controls is the owner of such Affected Property; (iv) identifies all record matters that affect title to the Affected Property, including all prior liens, claims, rights (such as easements), mortgages, and other encumbrances (collectively, "Prior Encumbrances"); and (v) includes complete, legible copies of such Prior Encumbrances; and

(2) **Non-Record Title Evidence.** Submit to EPA a report of the results of an investigation, including a physical inspection of the Affected Property, which identifies non-record matters that could affect the title, such as unrecorded leases or encroachments.

c. **Release or Subordination of Prior Liens, Claims, and Encumbrances**

(1) Respondent shall secure the release, subordination, modification, or relocation of all Prior Encumbrances on the title to the Affected Property revealed by the title evidence or otherwise known to Respondent, unless EPA waives this requirement as provided under ¶¶ 67.c(2)-(4).

(2) Respondent may, by the deadline under ¶ 67.b (Initial Title Evidence), submit an initial request for waiver of the requirements of ¶ 67.c(1) regarding one or more Prior Encumbrances, on the grounds that such Prior

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Encumbrances cannot defeat or adversely affect the rights to be granted by the Proprietary Controls and cannot interfere with the remedy or result in unacceptable exposure to Waste Material.

(3) Respondent may, within 150 days after the Effective Date, or if an initial waiver request has been filed, within 45 days after EPA’s determination on the initial waiver request, submit a final request for a waiver of the requirements of ¶ 67.c(1) regarding any particular Prior Encumbrance on the grounds that Respondent could not obtain the release, subordination, modification, or relocation of such Prior Encumbrance despite best efforts.

(4) The initial and final waiver requests must include supporting evidence including descriptions of and copies of the Prior Encumbrances and maps showing areas affected by the Prior Encumbrances. The final waiver request also must include evidence of efforts made to secure release, subordination, modification, or relocation of the Prior Encumbrances.

d. Update to Title Evidence and Recording of Proprietary Controls

(1) Respondent shall submit all draft Proprietary Controls and draft instruments addressing Prior Encumbrances to EPA for review and approval within 180 days after the Effective Date; or if an initial waiver request has been filed, within 135 days after EPA’s determination on the initial waiver request; or if a final waiver request has been filed, within 90 days after EPA’s determination on the final waiver request.

(2) Upon EPA’s approval of the proposed Proprietary Controls and instruments addressing Prior Encumbrances, Respondent shall, within 30 days, update the original title insurance commitment (or other evidence of title acceptable to EPA) under ¶ 67.b (Initial Title Evidence). If the updated title examination indicates that no liens, claims, rights, or encumbrances have been recorded since the effective date of the original commitment (or other title evidence), Respondent shall secure the immediate recordation of the Proprietary Controls and instruments addressing Prior Encumbrances in the appropriate land records. Otherwise, Respondent shall secure the release, subordination, modification, or relocation under ¶ 67.c(1), or the waiver under ¶¶ 67.c(2)-c(4), regarding any newly-discovered liens, claims, rights, and encumbrances, prior to recording the Proprietary Controls and instruments addressing Prior Encumbrances.

(3) If Respondent submitted a title insurance commitment under ¶ 67.b(1) (Record Title Evidence), then upon the recording of the Proprietary Controls and instruments addressing Prior Encumbrances, Respondent shall obtain a title insurance policy that: (i) is consistent with the original title insurance commitment; (ii) is for \$100,000 or other amount approved by EPA; (iii) is issued to EPA, Respondent, or other person approved by EPA; and (iv) is issued on a

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current Texas Land Title Association (TLTA) form or other form approved by EPA.

(4) Respondent shall, within 30 days after recording the Proprietary Controls and instruments addressing Prior Encumbrances, or such other deadline approved by EPA, provide EPA and to all grantees of the Proprietary Controls: (i) certified copies of the recorded Proprietary Controls and instruments addressing Prior Encumbrances showing the clerk's recording stamps; and (ii) the title insurance policy(ies) or other approved form of updated title evidence dated as of the date of recording of the Proprietary Controls and instruments.

e. Respondent shall monitor, maintain, enforce, and annually report on all Proprietary Controls required under this Order.

68. **Best Efforts.** As used in this Section, “best efforts” means the efforts that a reasonable person in the position of Respondent would use so as to achieve the goal in a timely manner, including the cost of employing professional assistance and the payment of reasonable sums of money to secure access and/or use restriction agreements, Proprietary Controls, releases, subordinations, modifications, or relocations of Prior Encumbrances that affect the title to the Affected Property, as applicable. If, within 30 days after the Effective Date, Respondent is unable to accomplish what is required through “best efforts,” it shall notify EPA, and include a description of the steps taken to comply with the requirements. If EPA deems it appropriate, it may assist Respondent, or take independent action, in obtaining such access and/or use restrictions, Proprietary Controls, releases, subordinations, modifications, or relocations of Prior Encumbrances that affect the title to the Affected Property, as applicable. EPA reserves the right to pursue cost recovery regarding all costs incurred by the United States in providing such assistance or taking such action, including the cost of attorney time and the amount of monetary consideration or just compensation paid.

69. In the event of any Transfer of the Affected Property, unless EPA otherwise consents in writing, Respondent shall continue to comply with their obligations under the Order, including their obligation to secure access and ensure compliance with any land, water, or other resource use restrictions regarding the Affected Property, and to implement, maintain, monitor, and report on Institutional Controls.

XII. FINANCIAL ASSURANCE

70. In order to ensure completion of the Work, Respondent shall secure financial assurance, initially in the amount of \$9,932,000 (“Estimated Cost of the Work”). The financial assurance must be one or more of the mechanisms listed below, in a form substantially identical to the relevant sample documents available from EPA or under the “Financial Assurance - Orders” category on the Cleanup Enforcement Model Language and Sample Documents Database at <https://cfpub.epa.gov/compliance/models/>, and satisfactory to EPA. Respondent may use multiple mechanisms if they are limited to trust funds, surety bonds guaranteeing payment, and/or letters of credit.

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- a. A trust fund: (1) established to ensure that funds will be available as and when needed for performance of the Work; (2) administered by a trustee that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency; and (3) governed by an agreement that requires the trustee to make payments from the fund only when the Superfund and Emergency Management Division Director advises the trustee in writing that: (i) payments are necessary to fulfill the affected Respondent’s obligations under the Order; or (ii) funds held in trust are in excess of the funds that are necessary to complete the performance of Work in accordance with this Order;
- b. A surety bond, issued by a surety company among those listed as acceptable sureties on federal bonds as set forth in Circular 570 of the U.S. Department of the Treasury, guaranteeing payment or performance in accordance with ¶ 76 (Access to Financial Assurance);
- c. An irrevocable letter of credit, issued by an entity that has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency, guaranteeing payment in accordance with ¶ 76 (Access to Financial Assurance);
- d. A demonstration by Respondent that it meets the relevant financial test criteria of ¶ 73; or
- e. A guarantee to fund or perform the Work executed by a company (1) that is a direct or indirect parent company of Respondent or has a “substantial business relationship” (as defined in 40 C.F.R. § 264.141(h)) with Respondent; and (2) can demonstrate to EPA’s satisfaction that it meets the financial test criteria of ¶ 73.

71. **Standby Trust.** If Respondent seeks to establish financial assurance by using a surety bond, a letter of credit, or a corporate guarantee, Respondent shall at the same time establish and thereafter maintain a standby trust fund, which must meet the requirements specified in ¶ 70.a, and into which payments from the other financial assurance mechanism can be deposited if the financial assurance provider is directed to do so by EPA pursuant to ¶ 76 (Access to Financial Assurance). An originally signed duplicate of the standby trust agreement must be submitted, with the other financial mechanism, to EPA in accordance with ¶ 72. Until the standby trust fund is funded pursuant to ¶ 76 (Access to Financial Assurance), neither payments into the standby trust fund nor annual valuations are required.

72. Within 30 days after the Effective Date, Respondent shall submit to EPA proposed financial assurance mechanisms in draft form in accordance with ¶ 70 for EPA’s review. Within 60 days after the Effective Date, or 30 days after EPA’s approval of the form and substance of Respondent’s financial assurance, whichever is later, Respondent shall secure all executed and/or otherwise finalized mechanisms or other documents consistent with the EPA-approved form of financial assurance and shall submit such mechanisms and documents to the Region 6 Financial Management Officer and to the EPA Project Coordinator.

73. A Respondent seeking to provide financial assurance by means of a demonstration or guarantee under ¶ 70.d or 70.e must, within 30 days of the Effective Date:

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a. Demonstrate that:

(1) the affected Respondent or guarantor has:

- i. Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and
- ii. Net working capital and tangible net worth each at least six times the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee; and
- iii. Tangible net worth of at least \$10 million; and
- iv. Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee; or

(2) The affected Respondent or guarantor has:

- i. A current rating for its senior unsecured debt of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A or Baa as issued by Moody's; and
- ii. Tangible net worth at least six times the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee; and
- iii. Tangible net worth of at least \$10 million; and
- iv. Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee; and

b. Submit to EPA for the affected Respondent or guarantor: (1) a copy of an independent certified public accountant's report of the entity's financial statements for the latest completed fiscal year, which must not express an adverse opinion or disclaimer of opinion; and (2) a letter from its chief financial officer and a report from an independent certified public

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accountant substantially identical to the sample letter and reports available from EPA or under the “Financial Assurance – Orders” subject list category on the Cleanup Enforcement Model Language and Sample Documents Database at <https://cfpub.epa.gov/compliance/models/>.

74. Respondent shall diligently monitor the adequacy of the financial assurance. If Respondent becomes aware of any information indicating that the financial assurance provided under this Section is inadequate or otherwise no longer satisfies the requirements of this Section, such Respondent shall notify EPA of such information within 30 days. If EPA determines that the financial assurance provided under this Section is inadequate or otherwise no longer satisfies the requirements of this Section, EPA will notify the Respondent of such determination. Respondent shall, within 30 days after notifying EPA or receiving notice from EPA under this Paragraph, secure and submit to EPA for approval a proposal for a revised or alternative financial assurance mechanism that satisfies the requirements of this Section. Respondent shall follow the procedures of ¶ 77 (Modification of Amount, Form, or Terms of Financial Assurance) in seeking approval of, and submitting documentation for, the revised or alternative financial assurance mechanism. Respondent’s inability to secure financial assurance in accordance with this Section does not excuse performance of any other obligation under this Order.

75. A Respondent providing financial assurance by means of a demonstration or guarantee under ¶ 70.d or 70.e must also:

a. Annually resubmit the documents described in ¶ 73.b within 90 days after the close of the Respondent’s or guarantor’s fiscal year;

b. Notify EPA within 30 days after the affected Respondent or guarantor determines that it no longer satisfies the relevant financial test criteria and requirements set forth in this Section; and

c. Provide to EPA, within 30 days of EPA’s request, reports of the financial condition of the affected Respondent or guarantor in addition to those specified in ¶ 73.b; EPA may make such a request at any time based on a belief that the affected Respondent or guarantor may no longer meet the financial test requirements of this Section.

76. Access to Financial Assurance

a. If EPA determines that Respondent (1) has ceased implementation of any portion of the Work, (2) is seriously or repeatedly deficient or late in their performance of the Work, or (3) is implementing the Work in a manner that may cause an endangerment to human health or the environment, EPA may issue a written notice (“Performance Failure Notice”) to both Respondent and the financial assurance provider regarding the Respondent’s failure to perform. Any Performance Failure Notice issued by EPA will specify the grounds upon which such notice was issued and will provide Respondent a period of 10 days within which to remedy the circumstances giving rise to EPA’s issuance of such notice. If, after expiration of the 10-day period specified in this Paragraph, Respondent has not remedied to EPA’s satisfaction the circumstances giving rise to EPA’s issuance of the relevant Performance Failure Notice, then, in accordance with any applicable financial assurance mechanism, EPA may at any time thereafter direct the financial assurance provider to immediately: (i) deposit any funds assured pursuant to

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this Section into the standby trust fund; or (ii) arrange for performance of the Work in accordance with this Order.

b. If EPA is notified by the provider of a financial assurance mechanism that it intends to cancel the mechanism, and the Respondent fails to provide an alternative financial assurance mechanism in accordance with this Section at least 30 days prior to the cancellation date, EPA may, prior to cancellation, direct the financial assurance provider to deposit any funds guaranteed under such mechanism into the standby trust fund for use consistent with this Section.

77. **Modification of Amount, Form, or Terms of Financial Assurance.** Respondent may submit, on any anniversary of the Effective Date or following Respondent's request for, and EPA's approval of, another date, a request to reduce the amount, or change the form or terms, of the financial assurance mechanism. Any such request must be submitted to the EPA individual(s) referenced in ¶ 72, and must include an estimate of the cost of the remaining Work, an explanation of the bases for the cost calculation, a description of the proposed changes, if any, to the form or terms of the financial assurance, and any newly proposed financial assurance documentation in accordance with the requirements of ¶¶ 70 and 71 (Standby Trust). EPA will notify Respondent of its decision to approve or disapprove a requested reduction or change. Respondent may reduce the amount or change the form or terms of the financial assurance only in accordance with EPA's approval. Within 30 days after receipt of EPA's approval of the requested modifications pursuant to this Paragraph, Respondent shall submit to the EPA individual(s) referenced in ¶ 72 all executed and/or otherwise finalized documentation relating to the amended, reduced, or alternative financial assurance mechanism. Upon EPA's approval, the Estimated Cost of the Work shall be deemed to be the estimate of the cost of the remaining Work in the approved proposal.

78. **Release, Cancellation, or Discontinuation of Financial Assurance.** Respondent may release, cancel, or discontinue any financial assurance provided under this Section only: (a) after receipt of documentation issued by EPA certifying completion of the Work; or (b) in accordance with EPA's written approval of such release, cancellation, or discontinuation.

XIII. INSURANCE

79. Not later than 15 days before commencing any on-site Work, Respondent shall secure, and shall maintain until the first anniversary after the Notice of RA Completion pursuant to ¶ 3.5 of the SOW, commercial general liability insurance with limits of liability of \$1 million per occurrence, and automobile insurance with limits of liability of \$1 million per accident, and umbrella liability insurance with limits of liability of \$5 million in excess of the required commercial general liability and automobile liability limits, naming the United States as an additional insured with respect to all liability arising out of the activities performed by or on behalf of Respondent pursuant to this Order. In addition, for the duration of the Order, Respondent shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing Work on behalf of Respondent in furtherance of this Order. Within the same time period, Respondent shall provide EPA with certificates of such insurance and a copy of each insurance policy. Respondent shall submit such certificate and copies of policies each

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year on the anniversary of the Effective Date. If Respondent demonstrates by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in a lesser amount, then, with respect to that contractor or subcontractor, Respondent need provide only that portion of the insurance described above that is not maintained by the contractor or subcontractor. Respondent shall ensure that all submittals to EPA under this Paragraph identify the San Jacinto River Waste Pits Superfund Site, Harris County, Texas, and the EPA docket number for this action.

XIV. DELAY IN PERFORMANCE

80. Respondent shall notify EPA of any delay or anticipated delay in performing any requirement of this Order. Such notification shall be made by telephone and email to the EPA Project Coordinator within 48 hours after Respondent first knew or should have known that a delay might occur. Respondent shall adopt all reasonable measures to avoid or minimize any such delay. Within seven days after notifying EPA by telephone and email, Respondent shall provide to EPA written notification fully describing the nature of the delay, the anticipated duration of the delay, any justification for the delay, all actions taken or to be taken to prevent or minimize the delay or the effect of the delay, a schedule for implementation of any measures to be taken to mitigate the effect of the delay, and any reason why Respondent should not be held strictly accountable for failing to comply with any relevant requirements of this Order. Increased costs or expenses associated with implementation of the activities called for in this Order is not a justification for any delay in performance.

81. Any delay in performance of this Order that, in EPA’s judgment, is not properly justified by Respondent under the terms of ¶ 80 shall be considered a violation of this Order. Any delay in performance of this Order shall not affect Respondent’s obligations to fully perform all obligations under the terms and conditions of this Order.

XV. PAYMENT OF RESPONSE COSTS

82. Response Cost Payments

a. On a periodic basis, EPA will send Respondent a bill requiring payment of all Response Costs incurred by the United States regarding this Order that includes a full EPA cost package. Respondent shall, within 30 days, make full payment of the amount billed, in accordance with the instructions below:

Fedwire EFT: Federal Reserve Bank of New York
ABA: 021030004
Account: 68010727
SWIFT address: FRNYUS33
Field Tag 4200: D 68010727 Environmental Protection Agency

b. At the time of payment, Respondent shall send notice that payment has been made to the EPA representative identified in ¶ 55 and to the EPA Cincinnati Finance Office by mail or by email at:

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EPA Cincinnati Finance Center
26 W. Martin Luther King Drive
Cincinnati, Ohio 45268
cinwd_acctsreceivable@epa.gov

Such notice shall reference Site/Spill ID Number 06ZQ and the EPA docket number for this matter.

83. **Interest.** In the event that the payments for Response Costs are not made within 30 days after Respondent's receipt of a written demand requiring payment, Respondent shall pay Interest on the unpaid balance. The Interest on Response Costs shall begin to accrue on the date of the written demand and shall continue to accrue until the date of payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to EPA by virtue of Respondent's failure to make timely payments under this Section. Respondent shall make all payments under this Paragraph in accordance with ¶ 82.a and ¶ 82.b.

XVI. ACCESS TO INFORMATION

84. Respondent shall provide to EPA, upon request, copies of all records, reports, documents, and other information (including records, reports, documents, and other information in electronic form) (hereinafter referred to as "Records") within Respondent's possession or control or that of their contractors or agents relating to activities at the Southern Impoundment or to the implementation of this Order, including, but not limited to, sampling, analysis, geospatial data, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information regarding the Work. Respondent shall also make available to EPA, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

85. **Privileged and Protected Claims**

a. Respondent may assert that all or part of a Record requested by EPA is privileged or protected as provided under federal law, in lieu of providing the Record, provided Respondent complies with ¶ 85.b, and except as provided in ¶ 85.c.

b. If Respondent asserts a claim of privilege or protection, it shall provide EPA with the following information regarding such Record: its title; its date; the name, title, affiliation (e.g., company or firm), and address of the author, of each addressee, and of each recipient; a description of the Record's contents; and the privilege or protection asserted. If a claim of privilege or protection applies only to a portion of a Record, Respondent shall provide the Record to EPA in redacted form to mask the privileged or protected portion only. Respondent shall retain all Records that it claims to be privileged or protected until EPA has had a reasonable opportunity to dispute the privilege or protection claim and any such dispute has been resolved in the Respondent's favor.

c. Respondent may make no claim of privilege or protection regarding:
(1) any data regarding the Southern Impoundment, including, but not limited to, all sampling,

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analytical, monitoring, hydrogeologic, scientific, chemical, radiological, or engineering data, or the portion of any other Record that evidences conditions at or around the Southern Impoundment; or (2) the portion of any Record that Respondent is required to create or generate pursuant to this Order.

86. **Business Confidential Claims.** Respondent may assert that all or part of a Record provided to EPA under this Section or Section XVII (Record Retention) is business confidential to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Respondent shall segregate and clearly identify all Records or parts thereof submitted under this Order for which Respondent asserts business confidentiality claims. Records claimed as confidential business information will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies Records when they are submitted to EPA, or if EPA has notified Respondent that the Records are not confidential under the standards of CERCLA § 104(e)(7) or 40 C.F.R. Part 2, Subpart B, the public may be given access to such Records without further notice to Respondent.

XVII. RECORD RETENTION

87. During the pendency of this Order and for a minimum of 10 years after EPA provides Notice of Work Completion under ¶ 3.7 of the SOW, Respondent shall preserve and retain all non-identical copies of Records (including Records in electronic form) now in its possession or control or that come into its possession or control that relate in any manner to its liability under CERCLA with respect to the Southern Impoundment, provided, however, that Respondents who are potentially liable as owners or operators of the Site must retain, in addition, all Records that relate to the liability of any other person under CERCLA with respect to the Site. Respondent must also retain, and instruct its contractors and agents to preserve, for the same period of time specified above, all non-identical copies of the last draft or final version of any Records (including Records in electronic form) now in its possession or control or that come into its possession or control that relate in any manner to the performance of the Work, provided, however, that Respondent (and its contractor and agents) must retain, in addition, copies of all data generated during performance of the Work and not contained in the aforementioned Records to be retained. Each of the above record retention requirements shall apply regardless of any corporate retention policy to the contrary.

88. At the conclusion of this document retention period, Respondent shall notify EPA and the State at least 90 days prior to the destruction of any such Records, and, upon request by EPA or the State, and except as provided in ¶ 85, Respondent shall deliver any such Records to EPA or the State.

89. Within 30 days after the Effective Date, Respondent shall submit a written certification to EPA's Project Coordinator that, to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed, or otherwise disposed of any Records (other than identical copies) relating to its potential liability regarding the Southern Impoundment since notification of potential liability by the United States or the State and that it has fully complied with any and all EPA requests for information regarding the Site pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927, and state law. Any Respondent unable to so certify shall submit a

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modified certification that explains in detail why it is unable to certify in full with regard to all Records.

XVIII. ENFORCEMENT/WORK TAKEOVER

90. Any willful violation, or failure or refusal to comply with any provision of this Order may subject Respondent to civil penalties up to the maximum amount authorized by law. CERCLA § 106(b)(1), 42 U.S.C. § 9606(b)(1). As of the date of issuance of this Order, the statutory maximum amount is \$59,017 per violation per day. This maximum amount may increase in the future, as EPA amends its civil penalty amounts through rulemaking pursuant to the 1990 Federal Civil Penalties Inflation Adjustment Act (Public Law 101-410, codified at 28 U.S.C. § 2461), as amended by the 2015 Federal Civil Penalties Inflation Adjustment Act Improvement Act (Section 701 of Public Law 114-74)). The maximum amount to be applied to this violation will be set as the most recent maximum amount set forth in 40 CFR section 19.4 as of the date that the U.S. District Court assesses any such penalty. In the event of such willful violation, or failure or refusal to comply, EPA may unilaterally carry out the actions required by this Order, pursuant to Section 104 of CERCLA, 42 U.S.C. § 9604, and/or may seek judicial enforcement of this Order pursuant to Section 106 of CERCLA, 42 U.S.C. § 9606. In addition, nothing in this Order shall limit EPA’s authority under Section XII (Financial Assurance). Respondent may also be subject to punitive damages in an amount up to three times the amount of any cost incurred by the United States as a result of such failure to comply, as provided in Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3).

XIX. RESERVATIONS OF RIGHTS

91. Nothing in this Order limits the rights and authorities of EPA and the United States:

- a. To take, direct, or order all actions necessary, including to seek a court order, to protect public health, welfare, or the environment or to respond to an actual or threatened release of Waste Material on, at, or from the Southern Impoundment or the Site;
- b. To select further response actions for the Southern Impoundment or the Site in accordance with CERCLA and the NCP;
- c. To seek legal or equitable relief to enforce the terms of this Order;
- d. To take other legal or equitable action as they deem appropriate and necessary, or to require Respondent in the future to perform additional activities pursuant to CERCLA or any other applicable law;
- e. To bring an action against Respondent under Section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of any costs incurred by EPA or the United States regarding this Order or the Site and not paid by Respondent;
- f. Regarding access to, and to require land, water, or other resource use restrictions and/or Institutional Controls regarding the Southern Impoundment under CERCLA, RCRA, or other applicable statutes and regulations; or

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g. To obtain information and perform inspections in accordance with CERCLA, RCRA, and any other applicable statutes or regulations.

XX. OTHER CLAIMS

92. By issuance of this Order, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. The United States or EPA shall not be deemed a party to any contract entered into by Respondent or its directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Order.

93. Nothing in this Order constitutes a satisfaction of or release from any claim or cause of action against Respondent or any person not a party to this Order, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

94. Nothing in this Order shall be deemed to constitute preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or C.F.R. § 300.700(d).

95. No action or decision by EPA pursuant to this Order shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XXI. ADMINISTRATIVE RECORD

96. EPA has established an administrative record that contains the documents that form the basis for the issuance of this Order, including, but not limited to, the documents upon which EPA based the selection of the Remedial Action selected in the ROD. EPA will make the administrative record available for review by contacting Anne Foster, Assistant Regional Counsel at 214-665-2169 and via e-mail at foster.anne@epa.gov. An index of the administrative record is attached.

XXII. APPENDICES

97. The following appendices are attached to and incorporated into this Order:

“Appendix A” is the ROD.

“Appendix B” is the SOW.

“Appendix C” is the description and/or map of the Site and the Southern Impoundment.

“Appendix D” is the Index of the Administrative Record.

XXIII. SEVERABILITY

98. If a court issues an order that invalidates any provision of this Order or finds that Respondent has sufficient cause not to comply with one or more provisions of this Order, Respondent shall remain bound to comply with all provisions of this Order not invalidated or determined to be subject to a sufficient cause defense by the court’s order.

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It is so ORDERED.

BY: _____ DATE: _____

Wren Stenger
Director, Superfund and Emergency Management Division
Region 6
U.S. Environmental Protection Agency