STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

IN RE:

HRK Holdings, L.L.C.'s (HRK) a.k.a. Eastport Terminal

OGC File No. 21-0323

EMERGENCY FINAL ORDER

Under Section 120.569(2)(n) of the Florida Statutes, and upon the following findings of fact, the State of Florida Department of Environmental Protection (Department) enters this Emergency Final Order (Order), including Findings of Fact and Conclusions of Law, in response to the imminent or immediate danger to the public health, safety, and welfare of the citizens of the State of Florida resulting from a potential breach in the liner at the Eastport Terminal facility.

FINDINGS OF FACT

1. HRK Holdings, L.L.C.'s (HRK) is responsible for operation of the closed phosphogypsum stacks at the former Piney Point facility, now operated as the Eastport Terminal facility (Facility or Site), located in Manatee County, Florida. HRK is authorized to manage operations at the Facility under the Department's Administrative Agreement FL0000124-003-AA (hereinafter "HRK AA"), as well as Administrative Agreement, OGC No. 06-1685, as amended, hereafter known as the Site Comprehensive Administrative Agreement (SCAA) and NPDES Permit No. FL0000124-003-AA. The HRK AA addresses the management of wastewater and stormwater at the Facility, via authorized outfall structures 001, 002 & 003, along with closure related operation and maintenance requirements. The SCAA addresses, among other provisions, HRK's long-term care obligations at the site, and prior approvals for use of three of the lined reservoir

compartments on top of the closed phosphogypsum stack for management and disposal of Port Manatee dredge material and clarification of transport seawater.

2. The 466 acre phosphogypsum stack system (hereinafter "System"), which includes the phosphogypsum stack with HDPE lined reservoir compartments discussed below, plus the south cooling pond system, north cooling pond system and associated lined stormwater ponds, was closed in 2010 based on the requirements for closing Systems under Chapter 62-673, Florida Administrative Code (F.A.C.). The top of the closed stack was constructed with various top gradient stormwater areas and four 80-mil HDPE lined reservoir compartments. Process water continues to be managed separately in the new gypsum stack north (NGS-N) lined reservoir compartment. The remaining three lined compartments only contained rainwater run-off prior to commencement of dredge operations and are designated as the: new gypsum stack south (NGS-S), old gypsum stack north (OGS-N), and old gypsum stack south (OGS-S) compartments. The OGS-S, OGS-N, & NGS-S compartments were subsequently used as an alternate disposal area for the management of dredge materials and for clarification of dredge decant water as authorized by Port Manatee Permit Modification No. 0129291-016-EM.

3. HRK and Port Manatee executed an April 19, 2007, Dredged Materials Containment Agreement to address their operating, maintenance and related responsibilities for the management of dredge materials, focusing initially on Port Manatee's then planned Berth 12 construction dredging project. The Berth 12 dredging project began on April 22, 2011, with HRK performing operational and monitoring requirements for dredge disposal operations at the Site. On May 11, 2011, HRK reported increased flows, conductivity, and chloride concentrations in the buried drains based on monitoring that was required specifically for the approved dredge disposal operations at the Site. Ultimately, the Department issued an Emergency Final Order (EFO No. 11-0813) that required HRK to take actions to protect the integrity of the stack system and its impoundments, and authorized controlled emergency discharges as needed to protect the integrity of the System, including its impoundments, and to protect public health and safety, and waters of the state from a potential catastrophic release. The site conducted emergency discharges of 169 MGal consisting primarily of dredged seawater with detectable process water constituents, and prevented an uncontrolled failure of the stack

system and its impoundments. HRK completed grouting and repair operations to the stack system and its impoundments by July 2011 so that the Port Manatee Berth 12 construction dredging project was then completed, and later completed repairs and cleanup operations for onsite areas and offsite drainage ditches that contained solids from the emergency discharge and turbidity from the dredged seawater.

4. The site currently has options for discharges from the site to both freshwater locations, and an additional discharge option to marine surface waters of the state. The freshwater discharge locations include outfalls 001 and 003, which are NPDES permitted discharge locations to freshwater drainage ditches and then to Bishop Harbor, a Class III Outstanding Florida Waterbody (OFW) in Tampa Bay; and 002 which discharges to Piney Creek which subsequently flows to Tampa Bay. The existing dredge related decant structures provide an additional discharge location that is used to transport seawater from prior dredging operations and subsequent rainfall for discharge into Class III marine surface waters at Berth 12 in Manatee Harbor.

5. On March 25, 2021, HRK reported increased flow and specific conductance (conductivity) measurements in the buried seepage interceptor drains that surround the System and flow to the Structure No. 1 pump station (Structure 1) at the Site. Based on HRK's information and a Department site visit conducted on the evening of March 25, 2021, it appears that increased flows and conductivity measurements may indicate the presence of a leak from the Site's NGS-S lined compartment. The NGS-S compartment contains about 480 million gallons (MGal) as a mixture of seawater and remnant process water from the historical fertilizer manufacturing operations at the site. HRK's reported information identifies the potential for a leak that may be developing likely in the NGS-S lined compartment, or elsewhere in the System. HRK and their third-party engineer are reviewing conditions at the site, to identify any response actions and repairs that may be necessary.

6. Since the March 25, 2021, report HRK has continued increased monitoring of the drain flow rates and conductivity, pH, and other parameters to characterize the drain flow at Structure 1 and at selected cleanout locations within the Site's drain system. The drain conductivity, pH, and other characteristics indicate that the drain flows contain elevated conductivity consistent with the introduction of seawater remaining in the NGS-S compartment from the 2011 dredge operation. The NGS-S also contains initial transfer of

72 to 107 MGal of process water that was transferred by HRK initially beginning in August 2012 from the NGS-N compartment to the NGS-S, followed by subsequent smaller transfers conducted as needed to ensure that the NGS-N had safe-storage capacities in the event of a hurricane or other seasonally expected extreme rainfall events.

Department inspections show that the quality of the mixture of seawater and 7. process water in the NGS-S (Mixed Seawater) has moderated over time, now supporting fish, other aquatic organisms, and waterfowl that frequent the NGS-S compartment during at least the past five years. Department water quality results from the NGS-S compartment in 2019 and since indicate the presence of total dissolved solids, chlorides, and conductivity on the order of 14,000 mg/L, 5,900 mg/L, and 21,738 umhos/cm, respectively, indicative of the seawater from the 2001 Berth 12 construction project. The NGS-S also contains remnant fertilizer constituents including approximately 160 mg/L of total phosphorus and 230 mg/L of total nitrogen. The most recent pH results from the last seven days indicates that pH ranges from 4.7 to 5.3 s.u. in the NGS-S, which is below the applicable lower pH standard of 6.5 for marine waters. Total ammonia nitrogen (TAN) is above the marine Class III water quality standard assuming a pH less than 6.5 s.u., and expected water temperatures. The water quality for other trace constituents that were detected in the NGS-S Mixed Seawater were all below or within Class III marine water quality standards in Chapter 62-302, F.A.C. The process water in the NGS-N compartment also exhibits moderated characteristics consistent with aged process water including fertilizer constituents, with approximately 350 mg/L of total phosphorus and 310 mg/L of total nitrogen, and pH on the order of 4.8 s.u. However, the process water in the NGS-N compartment exhibits significantly less seawater influences from the 2011 dredge operations at the Site with total dissolved solids, chlorides, and conductivity on the order of 6,850 mg/L, 850 mg/L, and 9,273 umhos/cm, respectively.

8. HRK has explored options for removing process water from the NGS-N compartment, and for additional options for removing the Mixed Seawater from the NGS-S compartment at the Site, and currently operates a spray evaporation system to remove process water located in the NGS-N compartment. HRK is in the process of commencing a permitted discharge to the Manatee County Publicly Owned Treatment System (POTW), and that discharge is expected to recommence March 30, 2021, following replacement of a

faulty flow meter. Near-term but likely rate limited options for managing or removing water from the Site include seeking an increased POTW discharge once the performance of the currently permitted discharge is established and a determination is confirmed by Manatee County of the ability of its POTW to safely accommodate an increased discharge.

9. Other options identified by HRK and others for removing process water, including the Mixed Seawater from the NGS-S compartment were identified and summarized in the Department's updated October 1, 2020, summary memo on HRK Holdings LLC and Piney Point Long-term Care & Water Management. The identified options included a variety of treatment and surface water discharge technologies, treatment and underground injection control well disposal, as well as options for the resumption of the POTW discharge, and expanded spray evaporation systems, all of which would take time for implementation ranging from several months for some limited spray evaporation that could take from 6 to 24 months to implement.

Contingency measures at the site include the ability to transfer a limited 10. portion of the 480 MGal of Mixed Seawater from the NGS-S to other lined areas at the Site. A Department review of the available contingency areas shows that there is relatively limited storage capacity, particularly when compared to the full quantity of Mixed Seawater in the NGS-S. The suitable existing lined contingency storage areas are those where control structures may be operated or installed to retain water. These contingency areas have initially estimated storage capacities of approximately 21, 28, 6, and 7 MGal, respectively in the following lined areas: Basin 2 stormwater pond, OGS-N compartment, NGS-N Relief Ditch, and the SCP Cap area. For these lined areas, the total volume of potential contingency storage capacity would be less than 65 MGal; however, their activation would increase the contaminated process watershed by 80 acres, or an increase in the process watershed catchment of approximately 70%. There may be other options for transfer of water from the NGS-S, or other System compartments if needed, where a similar industrial facility may be able to receive, store, and properly dispose of the mixture of seawater and process water; however, it is likely that even with expedited development of emergency or contingency options, that implementation of the necessary logistics for transfers to a suitable offsite location would take three weeks or more before the transfers could begin.

11. As of March 28, 2021, the drain flow rates and conductivity measurements at Structure 1 have remained elevated and the source of these changed conditions has not been identified. Given the uncertainty in the source of the increased drain flow rates and increased conductivity measurements at Structure 1, there are potential risks associated with each of the lined compartments currently storing process water or a mixture of seawater and process water, specifically including the process water in the NGS-N compartment and the Mixed Seawater in the NGS-S compartment. At the present time, the observations noted above are suspected to be from the Mixed Seawater in the NGS-S that appears to be at risk of pressurizing the buried drain system at the Site, and potentially causing System instability including uncontrolled boils in the lined stormwater ditches, south or west of the OGS-S or south and east of the NGS-S, or failure of the gypsum dikes or the earthen dikes that may result in an uncontrolled failure and discharge offsite, particularly along the exterior walls of OGS-S and NGS-S compartments.

12. HRK has taken and continues to take measures, which include increased monitoring and pumping from Structure 1 at the Site, monitoring water levels in System compartments, including the NGS-S compartment, and relieving head pressures from the System drains below the lined stormwater ditches, particularly adjacent to the south wall of OGS-S and NGS-S compartments.

13. The Department has determined that the condition described in paragraph 11 above, creates an imminent threat of a potential loss of containment and a catastrophic release of large amounts of seawater, mixed process water, and embankment materials, if immediate actions cannot be accomplished to reduce the volume of Mixed Seawater in or suspected to be leaking from the NGS-S, or loss of containment from other System compartments if occurring; and to prevent the accumulation of pressure within the drains and associated System components in the affected areas. A catastrophic release of Mixed Seawater, process water, and embankment materials from the System could result in personal injury or severe property and environmental damage.

14. The Department is entering this Emergency Final Order to protect human health and safety and to protect the environment from a potential catastrophic failure of the containment system at the Facility. Action is necessary to prevent loss of life, personal injury, or severe property damage.

CONCLUSIONS OF LAW

15. The Department is empowered to administer and enforce Chapters 373 and 403 of the Florida Statutes and the rules promulgated and adopted thereunder.

16. Based on the findings recited above, it is hereby concluded that the emergency caused by the potential breach in the liner system and the resulting conditions associated with Mixed Seawater in the NGS-S compartment, or process water primarily in the NGS-N compartment and elsewhere in the System, pose an immediate danger to the public health, safety, or welfare and requires an immediate order of the Department.

17. Under Sections 120.569(2)(n) of the Florida Statutes, the Secretary of the Department, or designee, is authorized to issue this Emergency Final Order.

<u>ORDER</u>

THEREFORE, IT IS ORDERED THAT:

18. HRK shall continue to take immediate emergency actions as necessary to ensure the stability of all System dikes, berms, and ditches to prevent a containment failure and catastrophic release of Mixed Seawater, process water and embankment materials. At a minimum, the HRK shall continue pumping and water management operations as needed to reduce or mitigate the potential development of pressures within the OGS-S and NGS-S wall and associated drain system; to eliminate or reduce potential impacts to the stability of the OGS-S and NGS-S stack walls and the OGS-S and NGS-S ditch embankments; to continue exploratory operations to locate, isolate, and repair as needed any potential liner breaches contributing to the conditions described in paragraph 11 herein, and to continue all feasible efforts to implement options for safely removing process water from the System, including any expedited efforts that may be needed to remove the Mixed Seawater from the NGS-S compartment and utilize the associated NGS-S decant water management system as needed to prevent a containment failure at the Site.

19. If HRK determines, based on recommendation of a third party registered professional engineer, that (1) the immediate emergency actions -described in Paragraph 18 above, along with other emergency actions to prevent destabilization of containment

structures within the System, are not adequate to contain Mixed Seawater within the NGS-S or process water in the NGS-N without a risk of a catastrophic release and (2) there is no feasible alternative, then HRK is hereby approved to first begin temporarily discharging the Mixed Seawater through the NGS-S decant structure to Class-III marine waters of the state at Port Manatee as a bypass pursuant to NPDES Permit No. FL0000124003-AA-. Such a bypass would potentially avoid an emergency discharge to Bishop Harbor, an Outstanding Florida Water. If the bypass does not alleviate the risk of catastrophic release, then as a last option, HRK is hereby may discharge via Outfall 003, or otherwise to any portion of the unnamed ditch along Buckeye Road or downstream of Outfall 003 that leads to Bishop Harbor so as to avoid or reduce the amount of an uncontrolled release that may otherwise result from a loss of containment and unpermitted discharge to surface waters of the state. The bypasses/discharges specified herein are hereinafter referred to as "Emergency Temporary Discharge." The Emergency Temporary Discharge shall be made solely to preserve the integrity of the System and shall be subject to the conditions further specified herein. Notwithstanding an Emergency Temporary Discharge hereunder, all feasible efforts to locate and repair as needed any liner breaches, or other sources of leakage within System containment areas shall be continued.

20. Prior to commencing an Emergency Temporary Discharge, HRK shall inspect all downstream conveyances to ensure no impedances exist that may cause adverse flooding or harm to public safety, health, welfare, or the property of others based on the expected range of emergency discharge flow rates. HRK shall notify the Department of the result of such an inspection of the downstream conveyances to Bishop Harbor, including any impedances that may cause adverse flooding impacts as noted above, prior to discharging to these conveyances. The Emergency Temporary Discharge shall be operated to reduce or not cause adverse flooding or harm to public safety, health, welfare, or the property of others. This discharge shall not cause adverse scouring to and excessive sedimentation of either Manatee Harbor or Bishop Harbor.

21. HRK shall provide a status report, at least once every 24 hours, during the effective period of this Emergency Final Order that shall include, at a minimum, the following information: 1) Number, location, capacity, and types of pumps operating for emergency purposes within the System; 2) Condition of the System containment including the south

walls of the OGS-S and NGS-S compartments, the earthen ditch embankments, and the System stormwater ditches and drains; 3) Location, condition and number of boils detected, if any; 4) Any other adverse condition within the System; 5) Response actions taken since the last status report; 6) Planned response actions for the upcoming or subsequent periods; 7) Estimated flow rates or ranges for any Emergency Temporary Discharge; and 8) Representative water quality data including turbidity, pH, and specific conductance, as measured for the Emergency Temporary Discharge.

22. HRK shall submit information required herein to the Department's Phosphate Management Program by electronic mail, or as otherwise directed, to the Tallahassee and Tampa area offices.

23. After any Emergency Temporary Discharge has ceased, HRK shall inspect the System, and any downstream conveyances to ensure no adverse impacts have occurred, or to propose any necessary corrective measures in the event of adverse impacts to public safety, health, welfare, or the property of others. If corrective measures are needed for any adverse impacts, HRK shall submit a detailed plan to correct these impacts to the Department within 30 days of cessation of the Emergency Temporary Discharge and shall implement such plan, as approved, within 15 days of Department approval. The System shall also be inspected by HRK's third party engineer to evaluate damage to its component portions, assess integrity of its containment dams and propose recommendations for corrective actions.

24. This Emergency Final Order shall take effect immediately upon execution by the Secretary of the Department or an authorized designee, and shall expire on April 30, 2021, unless modified, extended, or cancelled by further Order.

25. This Emergency Final Order does not preclude the Department from enforcing any criminal or civil liabilities which may arise under Florida law as related to matters herein, nor does it relieve HRK of the need to comply with applicable federal, state, or local laws, rules, or ordinances.

NOTICE OF RIGHTS

Pursuant to Section 120.569(2)(n) of the Florida Statutes, any party adversely affected by this Order has the right to seek an injunction of this Order in circuit

court or judicial review of it under Section 120.68 of the Florida Statutes. Judicial review must be sought by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, Mail Station 35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within thirty days after this Order is filed with the Clerk of the Department.

DONE AND ORDERED on this 29th day of March, 2021, in Tallahassee, Florida.

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

John J. Truitt Deputy Secretary, Regulatory Programs 3900 Commonwealth Boulevard Tallahassee, Florida 32399-3000

FILED on this date, pursuant to §120.52 Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

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CLERK

DATE: March 29, 2021