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March 4, 2021

SENT VIA EMAIL TO: Eescdcopy.enrd@usdoj.gov

David Roskam
U.S. Dept. of Justice
Ben Franklin Station
PO Box 7611
Washington, DC 20044-7611

RE: Phosphogypsum Stack Operation Plans

Appendix 1.B. of the Consent Decree (U.S. v. J.R. Simplot Company) has several requirements related to operation plans for phosphogypsum stacks:

- Interim Stack System Management Plan (ISSMP): Appendix 1.B.I.A.6.
- Phosphogypsum Stack System Operation Plan: Appendix 1.B.VIII.E.
- Third-Party Engineer Approval of Operation Plan: Appendix 1.B.VIII.E.
- Water Balance Analysis: Appendix 1.B.VIII.F.
- Third-Party Engineer Review of Water Balance Analysis: Appendix 1.B.VIII.F.

Enclosed is a copy of the "Phosphogypsum Storage Area Manual Operations and Maintenance Plan" in which any confidential business information has been redacted. Included in this document are the Interim Stack System Management Plan, Phosphogypsum Stack System Operation Plan, and the Water Balance Analysis.

Also enclosed are the following third-party engineer reviews by Ardaman and Associates:

- Review of Water Balance Model
- Operation Plan Review

Please let me know if you have any questions about these documents. I can be reached at (208) 780-7365.

Sincerely,

A handwritten signature in black ink, appearing to read 'A. Prouty', with a long horizontal stroke extending to the right.

Alan L. Prouty
Vice President, Environmental & Regulatory Affairs

Attachments:

Certification

Attachment A: Phosphogypsum Storage Area Manual (redacted)

Attachment B: Third-Party Engineer Reviews



Cc: EES Case Management Unit, Environment and Natural Resources
Division by mail
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Certification Statement

**RE: Phosphogypsum Stack Operational Plan Requirements – Redacted Version
Simplot Phosphates LLC
Sweetwater County, Rock Springs, Wyoming**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties of submitting false information, including the possibility of fine and imprisonment for knowing violations.

A handwritten signature in black ink, appearing to read "Alan L. Prouty", written over a horizontal line.

Alan L. Prouty
VP Environmental & Regulatory Affairs – Boise

March 4, 2021
Date

Appendix 1: Interim Stack System Management Plan (ISSMP)

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1 Purpose

The purpose of this plan is to address the Rock Springs Bevill consent decree requirement to develop an interim stack system management plan (ISSMP) in the event of a plant shutdown of up to 2 years (Appendix 1B Section 1.A.6). By July 1 of each year, this plan will be revised and submitted to the EPA for approval, taking into account the pond water levels and the existing configuration of the gypsum stack as of June 1 of that year.

2 Roles and Responsibilities

The following table outlines the roles and responsibilities of personnel involved in the execution of the interim stack system management plan. The table also indicates the number of estimated personnel required for each position during execution of the interim stack system management plan.

Position	# of Personnel Required	Responsibilities
Gyp Stack Manager	1 (5 days per week) *available nights & weekends as needed	<ul style="list-style-type: none"> • Ensures work is performed under safe conditions. Unsafe conditions and/or acts will be corrected immediately. • Ensures each employee is trained in the proper use of safety equipment. This equipment is available and maintained in good working order. • Ensures daily equipment checklists are completed and any noted conditions are addressed. • Ensures job assignments with potential hazards are closely monitored through completion • Ensures procedures are in place for other Simplot employees, contractors, and visitors to check-in with the Gyp Stack Manager or operations personnel upon entering the gypsum stack. • Investigates all accidents in timely manner. Ensures incidents are entered in Enablon on the same day. • Enters work orders and schedules maintenance work. • Parts procurement • Schedules contractor support as needed • Completes reports and communicates the status of plant shutdown and associated activities with appropriate regulatory agencies and corporate managers • Coordinates groundwater sampling and reporting following the requirements in Appendix 1.A of the Bevill Consent Decree
Pond Operator	2-3 (at least 1 pond operator onsite 7 days per week)	<ul style="list-style-type: none"> • Performs daily and weekly inspections • Maintains roads around and within the gyp stack area to ensure all areas can be accessed for inspections and maintenance • Maintains safe working conditions • Maintains discharge location for pond water during day shift

Position	# of Personnel Required	Responsibilities
		<ul style="list-style-type: none"> Ensures all cells and ponds are filled in the proper rotation. Adds or removes weir structures as needed. Monitors and controls decanting pond levels as needed Monitors exposed liners for any damage or problems Monitors cutoff ditches and pumps. Ensures all pumps are operable Maintains all pipes and valves Rotates valves and lines to prevent lines from settling or freezing Communicates with Gyp Stack Manager
Utility Operator	4 (at least 1 utility operator onsite for 2 shifts per day 7 days per week)	<ul style="list-style-type: none"> Maintains discharge location of pond water when no pond operator(s) onsite (i.e. nights) Performs daily inspections when no pond operator(s) onsite (i.e. nights) Starts generators for electrical power to operate engine heaters on equipment to facilitate better starting capability.
Mechanics	10 day-shift-only mechanics (5 days per week) and 8 shift mechanics (at least 2 mechanics onsite for 2 shifts per day 7 days per week)	<ul style="list-style-type: none"> Maintains plant and gyp stack equipment as necessary to ensure circulation of pond water Performs predictive maintenance activities to improve reliability of equipment Communicates with Gyp Stack Manager on parts needed, including spare parts for critical equipment
Contract Mechanics	1-2 as needed	<ul style="list-style-type: none"> Maintains heavy equipment

2.1 Training

All personnel should receive training prior to engaging in inspection or operation activities for the gypsum stack system. Key gyp stack personnel should read this manual on an annual basis while in plant shutdown conditions. In addition, all new hires should read this manual in its entirety and be trained in their functions as identified in this manual. Records documenting training of inspectors and operators should be maintained for a period of 5 years.

3 Interim Operations and Maintenance

3.1 Safety and Security

3.1.1 Applicable Safety Policies

All applicable Rock Springs Safety policies will be followed at the gypsum stack. The following RS guidelines may be applicable to the gypsum stack. They provide detailed information concerning the safety program at the Plant.

- RS-ENV-01 Environmental Compliance
- RS-SFT-01 Emergency Response
- RS-ENV-04 Government Inspections
- RS-SFT-02 Hazard Communication
- RS-SFT-05 Facial Hair
- RS-SFT-04 Respiratory Protection
- RS-SFT-08 Hearing Conservation
- RS-SFT-09 Lockout/Tag-out Procedures
- RS-SFT-06 Confined Space Entry
- RS-SFT-07 Atmospheric Testing
- RS-SFT-10 Personal Protective Equip.
- RS-SFT-03 Bloodborne Pathogens Program
- RS-SFT-29 Industrial Hygiene
- RS-SFT-19 Line Breaking Procedure
- RS-SFT-26 Incident Investigation
- RS-SFT-27 Safety Committee
- RS-SFT-18 Hotwork Permit
- RS-SFT-30 Contractor Safety Requirements
- RS-SFT-20 Compressed Gas Cylinders
- RS-SFT-21 Trenching and Excavations
- RS-SFT-11 Fall Prevention & Protection
- RS-SFT-13 Scaffolding
- RS-SFT-14 Mobile Equipment Operations
- RS-SFT-12 Portable Ladders
- RS-SFT-17 Guarding of Equipment
- RS-SFT-15 Mobile Crane Operation
- RS-SFT-16 Crane Suspended Personnel Baskets
- RS-SFT-25 Housekeeping
- RS-SFT-23 Barricades
- RS-ENV-42 Empty Container Management
- RS-ENV-43 Hazardous Media Disposal
- RS-ENV-44 Materials Authorized for Disposal in Trash Cans and Dumpsters
- RS-SFT-32 Pressure Washer Use Procedures
- RS-ENV-46 Battery Management
- RS-ENV-47 Spill Clean-up Procedures
- RS-SFT-22 Electrical Safety
- RS-SFT-33 Work Release Permit
- Contingency Plan for Process Wastewater Releases at the Rock Springs Phosphogypsum Storage Area

3.1.2 Chemical Handling

The chemical SDS should be referenced for safe chemical handling. A copy of the SDS for any substance encountered at the gypsum stack can be obtained from the electronic

3E database¹³. While working at or around the gypsum stack area you may be exposed to the following chemicals:

- Phosphoric Acid
- Gypsum (Calcium Sulfate)
- Hydrogen Fluoride (HF)
- Lime
- Gasoline
- Diesel
- Anti-freeze
- Motor & hydraulic oils
- Process Water

3.1.2.1 Exposure Monitoring

Employees may be asked to participate in the Simplot Phosphates LLC exposure-monitoring program. Selected employees will be asked to wear a sampling device to measure exposure to such things as noise, hydrogen fluoride, H₂S, and SO₂.

The results obtained from this study are used to assess the impact these exposures might have on the employee's health, as well as to those who perform similar tasks within the area. Changing conditions in the plant may prompt more frequent monitoring. In addition any employee may request monitoring for any substance found in the Rock Springs facility by contacting the Safety Department.

3.1.2.2 HF Exposure Prevention

The following are ways to prevent exposure to hydrogen fluoride gas:

1. Respiratory Protection
 - a. Wear approved respiratory protection when working in an area where HF concentration is 3ppm or above.
2. Ventilation
 - a. Areas where this material is present must be adequately ventilated to keep airborne concentrations below recommended exposure limits.
3. Sanitation
 - a. Keep eating areas clean
 - b. Wash hands after exposure and before eating or smoking
 - c. Do not eat, drink, smoke, chew tobacco or gum in areas where there is exposure to hydrogen fluoride gas

¹³ <https://www.3eonline.com/EeeOnlinePortal/DesktopDefault.aspx?tabid=53>

3.1.3 Security & Minimum Training for Visitors

Visitors to the gypsum stack must check-in with security, watch the contractor orientation video, and must be escorted, until completion of training on applicable site safety policies listed in Section 3.1.1 of this plan.

3.1.4 Safety Expectations, Potential Hazards, and PPE Requirements

All applicable Rock Springs Safety policies will be followed at the gypsum stack. The chemical SDS should be referenced for safe chemical handling. Visitors to the gypsum stack must check-in with security and non-trained personnel must be escorted.

Every person working at the gypsum stack, employee or contractor, is responsible for accident prevention in the performance of their duties. Therefore, it is each person's responsibility to understand and observe safe practices and instructions during the performance of all work. **(Ask questions when there is any doubt.)** Specific employee responsibilities for safety include but are not limited to:

- Using sound safety practices in the performance of every job
- Understanding and following safety standards as a primary consideration when planning work
- Understanding potential hazards present at the gyp stack:
 - Heavy Equipment and light duty vehicle operation (blind spots and traffic)
 - Potential Chemical Exposure (inhalation or skin contact)
 - Slick and uneven driving and walking surfaces (slopes, synthetic liner)
- Use of prescribed personal protective equipment. PPE required is hard hat with goggles attached, safety glasses, safety toed footwear and long sleeve shirt. Gloves must be with each person at the gyp stack and hearing protection is available as needed.
- Taking additional protective steps and/or using equipment as required for the job:
 - Life Rings stationed around the process pond and aux pond areas
 - Life vests stored in each piece of Simplot equipment
 - Safety eye wash stations in the seep ditch pump house and the process pond pumping station
 - Fire extinguishers stationed on all gyp stack mobile equipment, beside fuel storage tanks and inside all pump houses, shops and break rooms
- Reporting all injuries, incidents that were potential injuries and equipment damage immediately. Participate in and cooperate with all investigations.
- Actively participating in all safety programs to prevent injuries and damage from accidental causes
- Initiating corrective action for any unsafe practice and/or condition.
- Consulting a member of the safety department for additional clarification as needed

3.2 Contingency for Releases of Pond Water

It is anticipated that Simplot will manage any release of pond water (process wastewater) during an extended plant shutdown in like manner to current practices, following Simplot's Contingency Plan for Process Wastewater Releases at the Rock Springs Phosphogypsum Storage Area. Resources available on-site and/or requesting offsite assistance will be evaluated on a case-by-case basis.

3.3 Pond Water Management

Unlike the humid subtropical climate in the southeastern U.S., where annual rainfall normally exceeds lake evaporation, the climate in the Rock Springs area is cold, semiarid, with evaporation rates far exceeding precipitation. The average rainfall near the Rock Spring plant is on the order of 8.4 inches per year, with lake or pond evaporation rates of 46.2 inches per year, equating to a net ponded area evaporation loss of about 37.8 inches per year. Given the high evaporation rates for this area, the proposed water management plan for the Rock Springs facility differs from those used in the humid subtropical climate of the Southeast U.S. During the ISSMP timeframe after the phosphoric acid plant ceases operations, any remaining ponded water as well as consolidation and drainage water seeping from the stack will be allowed to partially evaporate using pond or spray irrigation on top of the phosphogypsum stack and seep back into the stack, where it will be retained by surface water tension and adsorption in the phosphogypsum above the phreatic surface (water table) in the stack.

Considering an initial ponded area of 152 acres for ponds on top of the gypsum stack and a net evaporation rate of 37.8 inches per year, it is theoretically possible to evaporate just over 465 acre-feet of water per year, provided that the ponds are kept fully ponded or fully surface wetted. Using water management techniques (recycling water collected in perimeter flow channels and the seepage collection drains back to the top of the stack to keep the uppermost compartments ponded and/or surface wet), all of the water that seeps from the stack and any remaining ponded water can be evaporated from the top gradient of the phosphogypsum stack.

The conceptual water management plan during the ISSMP timeframe is to maximize evaporation rates from the gypsum stack top ponds by initially recycling collected seepage and free water back to the top of the stack in such a manner as to keep the surface area fully ponded or surface wet. Irrigation piping will be used as needed to distribute the water over the top gradient of the stack when the volume of water collected from stack seepage is no longer enough to pond the entire top surface.

In order to prevent pond water from spilling, leaking or flowing off the lined gypsum stack area during a plant shutdown, the following criteria will be followed:

- Maintain gypsum stack decanting pond levels at a minimum of 5-feet below the top of the outer berm

- Maintain the rim-ditch inner berm at a minimum height of 1 foot below the outer berm or, alternatively, provide an overflow. Under these measures, if the rim-ditch drain pipes were to plug or are not able to keep up with the flow into the rim-ditch, the pond water will wash out into the pond and not to the outer slopes of the gypsum stack. Maintain the outer seepage collection ditch at a minimum of 5-ft below the top of the seepage dike
- Inspect the gyp stack crossover pipe to the process pond at least monthly and keep clean of any debris or build-up
- Check daily and maintain level control on the seep ditch. Inspect the seep ditch liner monthly and repair as needed.
- Maintain the process water return pond level at or below 10-feet below the top of the pump deck handrail. Strap and log daily.
- In the case of a power outage, install blinds in the cross over pipes between current ponds #6 & #7 if the level in the process pond reaches the maximum level. Adjust weirs and cross over pipes to store pond water on top of the gyp stack as necessary.

In the event of a plant shutdown, the process water return pond pumps and the blend tank return pumps could be used to circulate process water back and forth between the plant and the gypsum stack. Additionally, the gyp tanks / pumps could be used in this recirculation process as needed.

To maintain water temperatures in the wintertime to prevent line blockages from crystallization, the pond water may be pumped to the phosphoric acid plant evaporators, utilizing the process water return pond pumps. Once in the evaporators, the pond water will be heated utilizing low pressure steam.

Finally, portable fuel-driven pumps could be transported from the plant or obtained from an outside source very quickly as mentioned in Section 3.5 below.

Note: If the blend tank system is not available for recirculation, PP-5206-D process pond pump can be pumped to the plant and with the removal of a blind from a crossover connection, the pond water could be recirculated to the gypsum stack.

3.4 Daily Operation and Routine Maintenance

Process water recirculation will occur daily as described above in the event of a plant shutdown. Some maintenance will be necessary to ensure that pumps, piping and associated equipment continuously remain in adequate working condition. The entire gypsum stack and return pond area will continue to be inspected daily and water levels logged. Pond operators will be responsible for this work, obtaining maintenance help as needed.

3.5 Machinery, Equipment, and Materials Needed

Existing equipment will be used to keep process water recirculating as described above. In addition, Simplot has large-volume portable pumps that could be transported to the return pond area and used to pump pond water from the process pond directly to the

gypsum stack, in the event the existing equipment is not available for an extended period. Portable light plants can be brought to the gypsum stack area from the plant site if needed to facilitate necessary work at night. The following heavy equipment is readily available for use: five (5) excavators, two (2) front end loaders, and two (2) dozers. In addition, a dump truck, additional loaders, cranes and carry decks are available on the plant site. A contracted vacuum truck is routinely onsite or can be obtained from town on the same day.

3.6 Sources of Power and Fuel Requirements

All plant electrical equipment will remain operational in the event of a plant shutdown. The existing pumps used to recirculate process water are electrically powered. In the event of an electrical outage, fueled portable pumps could be obtained within 2-3 days to pump pond water from the process pond directly to the gypsum stack.

3.7 Environmental Sampling

The Gypsum Stack Manager will be responsible for ensuring continued compliance with Appendix 1.A Groundwater Requirements of the Consent Decree, which will include the "Fresh Water" Cut-off Ditch. The "Fresh Water" Cut-off Ditch will still be pumped to the Auxiliary Pond for storage. The Auxiliary Pond will need to be pumped to the gypsum stack periodically for level control. The sprinkler system at the gypsum stack can be utilized as desired to promote evaporation of the water from the Auxiliary Pond.