Water Safety

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TABLE OF CONTENTS

1. PURPOSE

To establish a program that includes safe work procedures for all persons operating near water on Mosaic property.

2. SCOPE

This program applies to all Mosaic Phosphates personnel, contractors, and visitors while on Mosaic property. The program will cover the following elements in specific modules for each:

- General Requirements
- Gypsum Work Near Water
- Earth Work Near Water
- Equipment Work Near Water (Non-Earth and Non Gypsum Work Near Water)
- Driving Near Water
- Persons Near Water
- Watercraft
- Marine Terminal Docks
- Dredging (refer to Dredging Operational procedures document)
- Commercial Diving Operations (refer to Commercial Diving Policy)
- Other Work Near Water

3. DEFINITIONS

3.1 Authorized Supervisor - Mosaic management or designee who has received Water Safety Hazard Training, has general knowledge of water safety issues and ground conditions in the work areas, and is authorized by the Facility Manager to issue Water Safety Work Permits.

3.2 Berm –a soil strip along the road edge. Please note that MSHA defines a berm as being half the axle height of the largest vehicle that frequently travels that road.

3.3 Body of Water – Any area with standing water and/or mud/slimes where the depth is greater than 5 ft. or where the depth is unknown. Bodies of water include both process water and fresh water.

3.4 Crest - The top surface of a dam, dike, bank, dock, or berm which typically has a roadway to permit vehicular traffic or facilitate operation, maintenance, and examination of the structure (i.e. the road's edge at the top of a dam, dike, bank, dock, or berm).

3.5 Dam – A barrier built across a watercourse to impound or divert water. A barrier that obstructs, directs, retards, or stores the flow of water.

3.6 Dike – A low embankment constructed to close low areas of a reservoir rim, restrain a river or stream, or contain water within a given course.

3.7 Driving Near Water – operating motor vehicles within 10 feet from the edge of the crest near a Body of Water where the depth is greater than 5 feet (or unknown). Where there is no crest, then the 10 feet is measured from the edge of the water.

3.8 Earth Work Near Water – any type of earth work (moving/disturbing earth, tailings, overburden, etc.) within 50 feet from the edge of the crest near a Body of Water where the depth is greater than 5 feet (or unknown). Mining draglines are exempted from this definition. Where there is no crest, then the 50 feet is measured from the edge of the water.

3.9 Equipment Work Near Water - any type of non-earth and non-gypsum related work ***in or with equipment*** within 10 feet from the edge of the crest near a Body of Water where the depth is greater than 5 feet (or unknown). Examples include mobile cranes, aerial lifts, rough terrain forklifts, pay loaders, backhoes, track hoes, etc. Where there is no crest, then the 10 feet is measured from the edge of the water.

3.10 Vibratory Construction Work Near Water – any type of constant pounding of surface in a localized area with equipment, within 75 feet from the edge of the crest near a Body of Water where the depth is greater than 5 feet (or unknown). Examples include pile driving (any subsurface impact driven activities) or earth compaction (rollers or pneumatic compactors). Evaluation of alternatives and other risks should be considered when using vibratory equipment within 100 feet of water.

3.11 Escape Plan – A plan that is developed and reviewed with personnel that includes steps to take in the event of a water safety incident, primarily vehicles or equipment driving or being submerged into water. An Escape Plan shall be established for all specified Work Near Water.

3.12 Gypsum Work Near Water – any type of gypsum work (moving/disturbing gypsum) within 10 feet from the edge of the crest near a Body of Water where the depth is greater than 5 feet (or unknown).

3.13 Persons Near Water – personnel within ten (10) feet from an ***unprotected*** edge of the crest near a Body of Water where the depth is greater than 5 feet (or unknown). Where there is no crest, then the 10 feet is measured from the edge of the water.

3.14 PPE – personal protective equipment which includes clothing and special equipment worn to protect personnel from workplace hazards.

3.15 PFD – U.S Coast Guard (USCG) approved personal flotation device.

3.16 PFD Type III– A vest style USCG approved PFD designed to provide a stable position in calm inland water for persons floating with their head tilted back where help is always nearby, or where there is a chance of prompt rescue.

3.17 PFD Type IV– A throwable USCG approved PFD. Is designed to be thrown to a person in the water. Throwable devices include cushions, ring buoys, and Frisbee style, torpedo style or horseshoe buoys. Distance between ring buoys shall not exceed 200 feet. 90 feet of rope is required to be attached to Type IV PFD's.

3.18 PFD Belt Style Type V - A special use device include work belt with un-inflated USCG approved PFD, can include either manual or automatic inflatable device.

3.19 PFD Vest Style Type V– A special use device. Special use USCG approved PFD's include work vests, deck suits, and hybrids for use in specific situations. For the purposes of this procedure, a Type V PFD is a flotation vest which is wearable, or requires manual or automatic inflation, as appropriate.

3.20 Throwable devices - Such as rope bags and throw sticks are approved for rescue where a USCG approved flotation device is also available as a backup.

3.21 Water Safety Hazard Training - training programs developed for personnel exposed to water hazards.

3.22 Water Safety Condition Inspection Form (see Appendix B) - Inspection form to document water safety inspections and workplace observations prior to Gypsum Work Near Water, Earth Work Near Water, Vibratory Construction Work Near Water, and other Equipment Work Near Water. A Water Safety Inspection Form will be completed by each operator for each piece of equipment.

3.23 Water Safety Matrix (see Appendix C) – Document that outlines water safety PPE and procedural guidelines for work performed near water.

3.24 Water Safety Operator Training - Training programs developed for equipment operators performing earth work or gypsum work near water.

3.25 Water Safety Work Permit (see Appendix A) - Permit Form to be completed and authorized by Mosaic supervision prior to any work activities near water. The Permit will only be valid for one shift up to 12 hours. Any extension or exceptions to the permit duration shall be approved by the Facility Manager.

3.26 Water Safety Spotter (Competent/Authorized Person) - An individual, who can be a Mosaic employee or Contract employee, who has received Water Safety Hazard Training and is equipped with a communication device and water safety PPE and is designated to observe work activities near water. Duties include ensuring compliance with Mosaic's Water Safety Programs, to observe and correct any water safety hazards, and summon for help in an event of an incident. In no event shall the Water Safety Spotter enter the water for rescue. The spotter may be able to watch more than one piece of mobile equipment, provided the equipment is within zone of vision (within peripheral vision) where the spotter can identify potential hazards. The Spotter shall be positioned out of the immediate work area to eliminate exposure to mobile equipment, sloughing, and other hazards associated with earthwork or gypsum work near water.

4. GENERAL REQUIREMENTS

4.1 Water Level

4.1.1 The safest means of working near water is to reduce and/or eliminate the water therefore, the first step in working safely near water is to reduce the water level. Each work near water situation shall be assessed to determine if it is possible, feasible and viable to reduce the water level. If it is possible, feasible and viable, then take action to reduce the water level. Reducing the water level in a body of water will take thoughtful planning, resources, and significant lead time, from a few days to several months

4.2 Personnel Floatation Device (PFD) Requirements

4.2.1 Personnel shall wear an appropriate PFD in the following circumstances:

a. When in any area that is posted as a life vest area

b. Within 10 feet of any Body of Water that is without physical barriers. Barriers, if present, shall capable of preventing someone from falling into the water under reasonable circumstances

c. When operating equipment near a Body of Water as defined above as Earth Work, Gypsum Work, Equipment Work Near Water, or Vibratory Construction Work
d. In a motor vehicle traveling above 15 mph, within 10 feet of a Body of Water, and where the road is without a berm or barrier
e. At all times during watercraft operations
f. When walking out to spillways, on floating platforms, with sustained wind above 25 mph
g. When deemed necessary by Supervision
h. Alternatively, in place of a PFD, a person may use a body harness and properly anchored lanyard that prevents entry into the water.

4.2.2 Type III and V PFDs:

a. Inflatable types shall be used and inspected following manufacturer's recommendations.
b. Shall be visually inspected prior to use for any signs of deterioration of material or strapping. Defective units shall be relinquished to a supervisor for proper disposal.
c. Shall be of a bright color

4.2.3 Type IV PFDs

a. A Type IV PFD(s) shall be onboard all vehicles and heavy mobile equipment when working around water
b. Shall be present on all jobsites and readily available to spotters when working around water
c. Marine terminals and docks shall have the 30-inch ring PFD with 90 feet of rope.

4.3 Water Safety Work Permit

4.3.1 A Water Safety Work Permit (Appendix A) is required for the following work:

a. All other Equipment Work Near Water (equipment within 10 feet of water). Including high reaches, cranes, pay loaders, backhoes, track hoes, etc.

4.3.2 A Water Safety Work Permit (Appendix A) ***and*** designated Water Safety Spotter is required for the following work:

a. All Gypsum Work Near Water (within 10 feet of water)
b. All Earth Work Near Water (within 50 feet of water)
c. Persons entering water over 2-foot-deep with high flow
d. Watercraft in water
e. Vibratory Construction Work including pile driving and any soil compaction.

4.3.3 Exceptions from a Water Safety Work Permit are:

a. Dredging operations including transporting people to and from the barge
   i. See paragraph 4.13.1.a. for NO EXCEPTION in low pH water.
b. Dragline operations (including tractor grading and moving power cable directly associated with dragline operations).

4.3.4 The Water Safety Work Permit includes:

a. Verification of Water Safety Hazard Training for the people involved in the work
b. The designation of a Water Safety Spotter
c. Water level
d. Escape plan
e. The availability of Water Safety PPE (seat belt cutter, PFDs, life ring, glass breakers)

f. Communication device and ability to summon emergency services
g. Signature of the equipment operator, the supervisor, and approval by Contractor Management and Mosaic Management
h. Documentation of at least one audit of a permitted job at the worksite, by any Mosaic Authorized Supervisor (or approved designee), or more senior member of management, with Water Safety Hazard Training, if the job is expected to last more than 4 hours. This audit will be documented on the permit itself.

4.4 Water Safety Condition Inspection Form (Appendix B)

4.4.1 The Water Safety Condition Inspection Form shall be completed by each operator on all equipment performing Earth Work, Gypsum Work, Vibratory Construction Work, or other Equipment Work Near Water.

a. The inspection form shall be updated every 4 hours by the operator
b. The Water Safety Spotter will be designated on the form.

4.5 Escape plan

4.5.1 An escape plan shall be developed and reviewed with operators for all mobile equipment and mobile vehicles that operate near water. Escape plans shall be posted in the equipment cab or vehicle. The escape plan should include but not be limited to the following:

a. Before working in equipment inspect PFD, put on PFD and know location of pull cord
b. Know your exits from your equipment or vehicle
c. Determine the route you would take if you had to swim to shore
d. If equipment starts going under water turn off engine and lower blade or bucket if possible
e. Push back in seat
f. Wait until equipment stops, release seat belt
g. Ensure that you have an emergency window break available if necessary
h. Take a deep breath and hold it and close eyes if water enters cab
i. Exit to the high side of the equipment
j. Once out of the cab, pull cord on PFD and stay with equipment if not submerged
k. If equipment is submerged swim to shoreline, to a spot when the soil is stable

4.6 Incident and Near Miss Reporting

4.6.1 All incidents and near misses associated with water shall be reported.

4.7 Gypsum Work Near Water

4.7.1 Gypsum Stack Disposal Operations

a. Access –
   i. All roads shall be trafficable with a minimum width of 22 feet for the outer dike and 18 feet for the inner dike unless written approval is obtained by Mosaic management. In no circumstances shall dike width be less than 18 feet. **For Louisiana Uncle Sam Operations**, the width of the inner dike is not applicable, and the width of the outer dike shall be a minimum of 40 feet.
   ii. All elevated ponds and roads shall have a minimum of two trafficable access points.
   iii. When through access is not permitted, block-off ramps and access points at a location where motor vehicle traffic can safely turn around.
   iv. Maintain a minimum of 2 ft. high berm on the water side of the road and the outer slope. Drainage windows will be allowed for adequate draining of

rainwater. All roads without 2 ft. berms shall have reflectors installed on the crest on both sides of the road; recommended reflector spacing is 50 to 75-foot intervals. For below grade ponds, reflectors are required on the edge of the road on the water side only.

b. Water Levels
   i. Water levels will be kept at or below the required freeboard. If the water level exceeds the minimum freeboard level, Mosaic management shall be notified, and a Water Safety Work Permit will be required for any work activities in the freeboard encroachment areas.

c. Equipment –
   i. All Gypsum Work Near Water is required to have a Water Safety Work Permit (Appendix A) issued daily.
   ii. All work areas near water shall be inspected for before the work begins. A Water Safety Conditions Inspection Form (Appendix B) shall be completed before each shift by each equipment operator and updated every four hours. Supervision shall be notified when water safety hazards are observed such as cracks or slope failures. Corrective actions shall be approved by Mosaic management.
      A. For routine gypsum work performed throughout each day, equipment operators can “spot” one another, provided they maintain radio or telephone communication and line of sight with each other.
      B. A Spotter is required for all other permitted work.
   iii. Any individual or equipment working alone within 10 feet of water shall be accompanied and observed by a Water Safety Spotter.
   iv. Doors may be closed on mobile equipment working with gypsum (due to the nature of process water and gypsum dust). However,
      A. a *manually inflatable* Type III or V vest style PFD shall be worn by the operator, and
      B. a seat belt cutter and glass break shall be readily available to the operator
   v. Use of a “quick release” or push button style seat belt is acceptable
   vi. All operators shall have means of communication in the event of an emergency
   vii. All equipment at or over 100,000 lbs. (such as PC 600, or PLC 345 w/ long boom) shall operate at a minimum of 4 feet away from the edge of any dike provided water level is at or below the freeboard level. Equipment shoe/track shall be positioned outside the 4 feet zone.
   viii. Tractor size shall be limited to 40,000 lbs. or less (Cat D6 or similar). If larger equipment is used, Mosaic management shall be notified for approval.
   ix. Cast behind the track hoe and only blade off cast material after it has sufficiently dewatered
   x. Operators will limit lifts to 4 feet or less of fresh gypsum to ensure adequate compaction and fresh gypsum will not be stacked any steeper than the design specification or as directed by the gyp engineer.
   xi. Call out work shall include two operators, or a Water Safety Spotter shall be provided.

d. Other Activities
   i. All service activities such as fueling shall be performed on the outer dike.

4.7.2 Gypsum stack expansion and closure construction

a. If construction areas contain ponds, all construction equipment shall be equipped with Vehicle Escape Device and Type IV PFD with rope.

b. Prior to any construction activities on water ponds, efforts shall be made to reduce the water level as stated in Item 4.1.1.
c. All construction activities within 10 feet of a Body of Water activities, on top of the gypsum stack are required to have a Water Safety Work Permit (Appendix A) issued daily.
d. All work areas near water shall be inspected before the work begins. A Water Safety Conditions Inspection Form shall be completed before each shift by all equipment operators and updated every four hours. Mosaic supervision shall be notified when water safety hazards are observed such as cracks or slope failures. Corrective actions shall be approved by Mosaic management
e. All employees and visitors traveling on foot in the active construction areas shall wear a reflective traffic vest. During daylight hours, brightly colored clothing such as fluorescent orange or green shirts will be acceptable.

4.7.3 All other activities near water

a. If there is no line of sight between operators and employees, a Water Safety Spotter shall be provided.

4.7.4 All elevated roads on the gypsum stack and process water system shall be trafficable with a minimum width of 22 feet unless written approval is obtained by Mosaic management. In no circumstances shall dike width be less than 18 feet. All roads without 2 ft. berms shall have reflectors installed on the crest on both sides of the road; recommended reflector spacing is 50 to 75-foot intervals. For below grade ponds, reflectors are required on the water side edge of the road only. All operators conducting Gypsum Work Near Water shall have Water Safety Operator Training

4.7.5 Due to the slippery nature of wet gypsum roads, driving on the gypsum stack should be minimized during rainstorms. Care shall be taken after a rainfall until the road conditions return to normal.

4.7.6 Gypsum Stack Hauling Activity Requirements

a. A berm, at least as high as the mid-axle of the tallest vehicle tire (largest diameter), shall be maintained on the water side of the road where the water depth is greater than 5 ft (or unknown) and the outer slope. All roads that do not meet this shall have reflectors installed, on the crest, on both sides of the road (refer to 4.2.4 for spacing).
b. A map shall be generated showing the route with direction of travel. It shall include locations for high traffic areas and/or high hazard tasks being performed (i.e. equipment backing up) and control measures to be used, i.e. spotters.
c. All equipment along the route path shall have a radio for means of communication.
d. Signage will be used along the route path indicating travel direction, hazards (i.e. overhead power lines), stop locations, etc.
e. The contractor superintendent or a competent representative shall drive the entire haul route daily before work begins, prior to implementing any new haul routes, and after any change of conditions (i.e. rain).

4.8 Earth Work Near Water

4.8.1 Efforts shall be made to reduce the water level as stated in Item 4.1.1.

4.8.2 Water Safety Work Permit (Appendix A) will be required where water is greater than 5 feet (or unknown) and earth work is occurring within 50 feet from the edge of the crest near the body of water. The permit shall be obtained each day prior to working.

4.8.3 Each Operator shall complete a Water Safety Condition Inspection Form (Appendix B) and update every 4 hours.

4.8.4 The operators shall be aware and specifically trained in Water Safety Hazard Training. The hazards associated with earth work near water can include:

a. Sloughing, cracking, caving, bank failures, soft spots, erosion, spoil run out / displacement
b. Differences in water levels in adjacent mine cuts

4.8.5 Mobile equipment

a. The use of open cab equipment is the safest means with respect to r Earth Work Near Water.
   i. Open cab equipment is the preferred type of equipment and should be used for Earth Work Near Water.
   ii. A *manually inflatable* Type III or V vest style PFD shall be worn.
   iii. To minimize operator exposure to the elements, use of open cab equipment should be specifically limited to Earth Work Near Water. Any exception to the use of open cab equipment shall be approved by the respective Mosaic Area Superintendent.
b. Where open cab equipment is not available:
   i. All doors shall be secured open
   ii. a manually inflatable Type III or V vest style PFD shall be worn
   iii. a seat belt cutter and glass break shall be readily available to the operator
   iv. Use of a "quick release" or push-button style seat belt is acceptable
c. All operators shall have means of communication in the event of an emergency.
d. All operators conducting Earth Work Near Water shall have Water Safety Operator Training.
e. ***Dozer*** operators shall utilize proper technique for pushing spoils (push a load with a load, and timing of punch).
f. ***Backhoe*** operators shall be acutely aware of rotating door side up in an emergency. When traveling, test ground with bucket and inspect ground every 25 ft., rotate and then travel to next testing spot with cab facing up slope, repeat until in position.
g. ***Pan*** operators shall be aware of their proximity to water.

4.8.6 Mining and Reclamation only –

a. Efforts shall be made to reduce the water level as discussed in Item 4.1.1.
b. Mining operations in conjunction with reclamation and geotechnical personnel will establish a spoil grading plan.
c. Spoil grading and topping will be done as soon as practical once mining is completed and prior to removal of active dewatering infrastructure.
d. A formal Dewatering Plan will be developed for each reclamation or dam construction project prior to the initiation of construction by the project manager. This plan will include contour maps with general pit bottom elevations and site set up with respect to pump locations and flow direction. The plan shall be approved the by project manager's immediate supervisor. The plan shall be communicated to all employees and contractors involved.

4.9 Equipment Work Near Water (Non-Earth and Non-Gypsum related)

4.9.1 Equipment Work Near Water includes any type of non-earth and non-gypsum related work ***in or with*** equipment within 10 feet from the edge of the crest near the body of water where the depth is greater than 5 feet (or unknown).

4.9.2 Efforts shall be made to reduce the water level as stated in Item 4.1.1.

4.9.3 Water Safety Work Permit (Appendix A) is required where water is greater than 5 feet (or unknown) and work is occurring within 10 feet from the edge of the crest near the body of water or dock. The permit shall be obtained each day prior to working.

4.9.4 Each Operator shall complete a Water Safety Condition Inspection Form (Appendix B) and update every 4 hours.

4.9.5 The operators shall be aware and specifically trained in Water Safety Hazard Training. The hazards associated with earth work near water can include:

a. Sloughing, cracking, caving, bank failures, soft spots, erosion, spoil run out / displacement

4.9.6 Equipment

a. Requirements for equipment include:
   i. All doors shall be secured open
   ii. a *manually inflatable* Type III or V vest style PFD shall be worn
   iii. a seat belt cutter and glass break shall be readily available to the operator
b. Use of a “quick release” or push button style seat belt is acceptable
c. For aerial lifts - operators are not required to be hooked by a lanyard to the aerial lift platform only while wearing a PFD, and when the aerial lift platform is operating the basket over water.

   Note: Aerial lift equipment tipping radius shall be taken into consideration for the situation and set up near water.

d. Equipment shall minimize any work running parallel to water.
e. All operators shall have means of communication in the event of an emergency.

4.10 Vibratory Construction Near Water

4.10.1 Vibratory Construction Work Near Water includes any type of constant pounding of surface in a localized area with equipment, within 75 feet from the edge of the crest of Body of Water where the depth is greater than 5 feet or unknown.

4.10.2 All Vibratory Construction Work shall be planned ahead of time and schedule communicated to ALL contractors working in the immediate area.

4.10.3 Water Safety Work Permit (Appendix A) will be required where water is greater than 5 feet (or unknown) and work is occurring within 75 feet from the edge of the crest near the body of water or dock. The permit shall be obtained each day prior to working.

4.10.4 Each Operator shall complete a Water Safety Condition Inspection Form (Appendix B) and update every 4 hours.

4.10.5 The operators shall be aware and specifically trained in Water Safety Hazard Training. The hazards associated with Vibratory Construction Work Near water can include:

a. Sloughing, cracking, caving, bank failures, soft spots, erosion, spoil run out / displacement

4.10.6 Equipment

a. Requirements for equipment include:
   i. All doors shall be secured open
   ii. a *manually inflatable* Type II or V vest style PFD shall be worn
   iii. a seat belt cutter and glass break shall be readily available to the operator
b. Use of a “quick release” ” or push button style seat belt is acceptable
c. Equipment shall minimize any work running parallel to water.
d. All operators shall have means of communication in the event of an emergency.

4.11 Driving Near Water

4.11.1 Personnel are frequently required to operate vehicles around water. The following apply to operating motor vehicles within 10 feet from the edge of the crest or dock near a body of water where the depth is greater than 5 feet (or unknown).

a. All operators of motor vehicles shall have Water Safety Hazard Training.
b. All motor vehicles shall have water escape plan in the vehicle which should be familiar to all occupants.
c. All occupants shall have a vehicle escape device in their possession or immediate proximity – seat belt cutter and glass breaker.
d. All occupants shall have a manually inflatable Type III or V PFD, readily accessible within arm's reach.
e. At least one occupant shall have a means of communication in the event of an emergency.
f. When traveling OVER 15 mph on roads without berms or without barriers, all occupants shall wear a *manually inflatable* vest style PFD.
g. All elevated roads or dikes shall be trafficable at all time with two point of access.
h. All elevated roads elsewhere shall be trafficable with a minimum width 18 feet.
i. All roads without berms or without barriers shall have reflectors installed every 500 feet on the edge on both sides of the road where water is present over 5 feet. For below grade ponds, reflectors are required on the edge of the road on the water side only.

Note: This section (4.11 Driving Near Water) requirements are not applicable when driving on public roads.

j. **Concentrates Only -** As stated in Item 4.2.4, all elevated roads on the gypsum stack and process water system shall be trafficable with a minimum width of 22 feet unless written approval is obtained by Mosaic management. In no circumstances shall dike width be less than 18 feet.

4.12 Persons Near Water

4.12.1 Some work activities require that individuals work around or in water of varying depths and velocities. These work activities may include inspections, collecting samples, surveying, and outfall maintenance. In most cases, engineering controls such as platforms, guardrails, walkways, large diameter pipes, chains, or other substantial barriers are in place to protect workers from potential water hazards. The following precautions shall be taken:

a. Be aware of alligators, water moccasins, or other environmental hazards.
b. Work with No water entry – A Vest style PFD or Belt style PFD shall be worn whenever work is being conducted within ten (10) feet from the edge of the crest near the body of water. Where the depth of the water is greater than five feet (or unknown) and is not protected by physical barriers, persons shall wear a Vest style Type III or V PFD at all times. (*Also refer to the section named "Marine Terminal Docks" for specific requirements on a Marine Terminal Dock regulated by OSHA*)
c. Water entry up to a 2 foot depth - a Vest style PFD or Belt style PFD shall be worn whenever work requires entry 2 feet into water with no or low flow (where the watercourse depth multiplied by the velocity is less than 5 cubic feet/sec)
d. Water entry over a 2 foot depth with low flow - any person going 2 feet or more into water with no or low flow (where the watercourse depth multiplied by the velocity is less than 5 Cubic feet/Sec)
    i. A Vest style Type III or V PFD shall be worn
    ii. A spotter is required be onshore with a Type IV PFD and 90 ft. of rope

iii. Where a spotter has no line of sight, workers shall work in groups of 4 or more with a communications method to notify the spotter in case of an emergency.

e. Water entry over 2 foot with high flow - any person going 2 feet or more into water where the watercourse depth multiplied by the velocity is greater than 5 cubic feet/sec. requires:
   i. A Water Safety Work Permit (Appendix A) shall be obtained prior to work
   ii. A Vest Style Type III or V PFD shall be worn
   iii. A spotter is required be onshore with a Type IV PFD and 90 ft. of rope
f. In no case shall a person enter a stream where the depth multiplied by the stream velocity equals or exceeds 10 cubic feet/sec.

4.13 Concentrates Dredge Operations in low pH water (i.e. process pond water).

4.13.1 General requirements

a. Due to the added risk of low pH water the Water Safety Work Permit shall be used for this type of dredge work.
b. All dredge vessels used for operations shall meet applicable regulatory and licensing requirements.
c. All dredge vessels shall meet and adhere to all U.S. Coast Guard and State water safety requirements while conducting operations.
d. Risks associated with low pH water on equipment shall be addressed and have a mitigation plan in place.
e. Risks to workers associated with low pH water shall be addressed and have mitigation plans in place (example – man overboard plan).

4.14 Watercraft (boats)

4.14.1 Any watercraft (boating) activity will require a Water Safety Work Permit to be completed prior to beginning work.

4.14.2 A spotter stationed onshore is required for all watercraft

a. Where a spotter has no line of sight, the watercraft shall have more than one occupant with a communications method to notify the spotter in case of an emergency.

4.14.3 Watercraft shall be the appropriate type of watercraft for the task. For example, a canoe should not be used for soundings as a canoe requires a low center of gravity to maintain stability.

4.14.4 All vessels, except for non-motor-powered vessels less than 16 feet in length, shall be registered through applicable local government licensing office.

4.14.5 Personnel involved in watercraft operations will always wear a vest style Type III or V PFD when exposed to water hazards.

4.14.6 A whistle or horn is required in all watercraft.

a. No watercraft shall operate where the sustained wind is greater than 25 mph or waves are greater than 1 foot from the trough to crest. Operators shall obtain a weather report prior to launch and heed it. Operators should be aware that thunderstorms can appear suddenly during the summer.
b. All occupants shall have a means of communication in the event of an emergency.
c. The Water Safety Permit and watercraft section 4.7.2 must be reviewed each day prior to launch.
d. During construction activities above or adjacent to water, as defined by 29 CFR 1926, a rescue skiff/boat shall be present and ready to deploy.

4.15 Marine Terminal Docks

4.15.1 A Coast Guard approved thirty (30) inch life ring with at least ninety (90) feet of rope shall be stationed at all dock areas where workers are exposed to water hazards (per OSHA 1914.26).

4.15.2 Flotation devices stationed on docks shall be inspected monthly.

4.15.3 If employees are performing work within ten (10) feet of water that poses a drowning hazard without the protection of standard guardrails or barriers, a harness and lifeline properly anchored or attended, or a personal flotation device (PFD) shall be worn.

4.15.4 A vest style type III or V PFD shall be worn when handling ships lines, when on dolphins, gangways, ships, boats, and barges or other floating platform not protected by handrails.

4.15.5 Other Work Near Water

a. All other work near water requires a Water Safety Work Permit

5. TRAINING

5.1 **Water Safety Hazard Training** - The Water Safety Hazard Training program was developed for personnel exposed to water hazards and includes safe work procedures for all persons near water on Mosaic property. Training will cover key components of the Mosaic Water Safety program and any specific hazards that personnel or contractors may encounter during their work. Further, it will include soil conditions, various PFD types and their uses, Water Safety Permits, Water Safety Condition Inspection Forms, Water Matrix, and basic emergency response. All employees and contractors who enter gypsum stack systems, mining/reclamation areas, or who regularly travel and/or work near water shall attend Water Safety Hazard Training. The Mosaic Training Department will coordinate the Water Safety Hazard Training Program which will be implemented by department heads for employees and contractors working in their areas.

5.2 **Water Safety Operator Training** - The Water Safety Operator Training program was developed for equipment operators and workers performing or supporting earth work or gypsum work near water. Training will cover key components of operating equipment safely while conducting earth work or gypsum work near water. It will also include spotter responsibilities, basic mobile equipment hand signals, simulated emergency scenarios and responses, and utilizing water safety rescue equipment in a controlled environment. The water rescue safety equipment portion of training should include “in water” training as part of the syllabus; however, it is not a mandatory requirement. The Mosaic Training Department will coordinate the Water Safety Operator Training Program which will be implemented by department heads for employees and contractors working in their areas.

6. PROGRAM REVIEW / INSPECTIONS

6.1 Each facility shall review this policy annually for accuracy and completeness. The review shall be initiated by the Safety Department and documented by the placement of a letter to file.

6.2 Inspections of all equipment and water safety PPE shall be made per manufacturer’s guidelines.

6.3 This policy is to be reviewed every seven years by the EHSS Department.

7. CONTRACTORS

7.1 Contractors shall be responsible for following all requirements of the Mosaic Water Safety Program.

8. APPENDICES

8.1 Appendix A - Water Safety Permit
8.2 Appendix B - Condition Inspection Form
8.3 Appendix C - Requirements Matrix

9. REFERENCES
9.1 None

10. REVISION LOG

Revision Log

Rev. No.	Requested By	Approved By	Revised By	Rev. Date
0	Initial Issue	AVP Safety		5/8/ 2009
1	Revision		R. Barefield	8/12/2009
1	Reformat for ISO		D. Allen	9/19/2011
2	Mike Neal - review for compliance.		M. McDowell	8/22/2011
3	Mike Neal	Mike Neal	M. McDowell	10/10/2012
4	Review Cycle Due	Health and Safety	SME	5/10/2016
5	Training and Health and Safety	PMO	PMO	9/20/2021
6	Field Request	NA Health and Safety	PMO	8/22/2023