

ACC RUCKERSVILLE

# Environmental Plans and Procedures

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OMM and SWPPP

Permit # VAG110065

**581 Luckstone Rd Ruckersville, Va. 22968**

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## OMM

### O&M practices for wastewater treatment

Process water is generated on this site from truck cleaning and drum washout. Both of these operations are done at the washrack area, which directs the water into a series of no discharge basins. This series allows most solids to settle out before reaching the third basin. The water from the third basin is then used in concrete production, and reused in drum washout. If needed water from the third basin may be used in dust suppression.

In the event that the water cannot be utilized in dust suppression or concrete production frequently enough to maintain freeboard, Rivanna Water Sewer Authority has authorized us to bring water to their Moore's Creek Facility in Charlottesville to be used in their processes. A water tanker would be used to transport the water.

### Chemical and material storage

Admixture tanks used in concrete production and the fuel tank are located inside the batch building.

The fuel tank is inside secondary containment, and the water holding tanks<sup>i</sup> below this structure provide additional containment until cleanup can occur.

Truck Cleaning Solution is stored inside the building beside the washrack area.

Truck lubricants<sup>ii</sup> are stored in the Maintenance Shop Area which (with the maintenance pit) would provide containment.

Stone and Sand piles are maintained in 3 wall bins, with the exception bin filling area where a pile of sand (back wall only) and a pile of stone (2 walls) are kept to reduce the loader travel when filling bins.

Cement and Flyash are stored in silos.

### Methods for estimating process wastewater flows

Process water is not discharged from this site, so no flow is estimated.

## Solids management and disposal procedures

Solids come from water basin cleaning operations, returned concrete, and site housekeeping.

### Water basin Cleaning

- Water from the basin to be cleaned is pumped into the other two basins.
- A Front End Loader is used to scoop out the solids and move them to the drying bin where they are allowed to dry<sup>iii</sup>.
- Once dry these solids will be piled with other dried solids in the next bin.

Site housekeeping solids are moved to the dry solids bin.

Returned concrete can be handled by

- Creating Yard Block
- Reclaimed through the reclaimer

If neither option is available, the concrete will be discharged in the solids management area, broken up by the loader, and stored in the dry solids bin.

As needed the solids are disposed of at the landfill or when possible sold/used as fill<sup>iv</sup>.

## Temporary and long-term facility closure plans

The site if operating infrequently will have personnel at the facility from time to time to check the condition of the site. Basin freeboard will be checked and recorded after a rainfall event.

In the event of a long term closure,

- The materials would be moved to another Allied Concrete site.
- Basins would be filled or covered as appropriate.
- Facility would be secured to prevent unauthorized access.

## Testing requirements and procedures

Quarterly visual monitoring and Annual DMRs are required.

The DMR sample is taken within the first 30 minutes of discharge from Outfall 001 using the sample container<sup>v</sup>; a pH reading<sup>vi</sup> is taken and recorded immediately using a temperature compensating pH meter<sup>vii</sup>. The sample is then stored in a cooler with ice and transported to the lab<sup>viii</sup> to be tested for TSS. These findings along with flow calculation<sup>ix</sup> are recorded on the DMR and sent into DEQ on an annual basis.

QV monitoring is taken within the first 30 minutes of discharge, the sample is checked for clarity, odor, color, floating solids, settled solids, suspended solids, foam, oil sheen, and other indicators of storm water pollution. Also any probable sources of storm water contamination will be recorded.

## **Recordkeeping and reporting requirements**

Freeboard is done during each production day by the batcher. It is measured from the top wall and recorded on the online Freeboard log<sup>x</sup>. Results can be accessed through the batch PC.

The Quarterly Visual Sample is taken once per quarter during a qualifying storm event by the safety environmental manager. The results are recorded on the QV Form. They are then scanned and made available on the Batch PC.

Quarterly Site Inspections are conducted once each quarter by the Safety Environmental Manager. Once per year this inspection should be conducted during a qualifying storm event. Results are recorded on the QI form. They are then scanned and made available on the Batch PC.

Annual Compliance/Unauthorized Discharge Evaluations are conducted once per year by the Safety Environmental Manager with the Plant manager present if possible. Results are recorded on the Annual Comp Eval form and the Unauth Discharge Eval form. They are then scanned and made available on the Batch PC.

DMR samples are taken once per year during a qualifying storm event by the Safety Environmental Manager. The sample data is recorded on the DMR Sample Log, and a Chain of Custody is completed for it to be delivered to the Lab, and the Flow Calculation Spreadsheet is used to calculate flow<sup>xi</sup>. Once the results return a DMR form (from the permit) is completed and sent into DEQ no later than the 10<sup>th</sup> of January. All documents are scanned and made available on the Batch PC

Any person sampling will have completed an Initial Demonstration of Capability for pH, the results of which are available on the Batch PC.

Annual Thermometer Calibration Records are available on the Batch PC.

Training records and training outline are available on the Batch PC.

## **Duties and roles of responsible officials**

Duties and Roles are outlined in the Pollution Prevention Team

# SWPPP

## Pollution Prevention Team

### Team Leaders:

**BJ Barbrow, Safety and Environmental Manager and the Plant Manager (none at this time)**

#### Team Leader Responsibilities

The Team Leader is responsible for overall content and implementation of the SWP3. Potential non-compliance areas or concerns are presented to the team leader by other team members. The Team Leader will ensure that changes to facility drainage, exposed materials, spill response, pollution control measures, inspections and training are incorporated into the plan.

### Team Members:

**Batch Person, Yard Man, Drivers**

#### Team Member Responsibilities

Team members will responsible for implementing and following the procedures outlined in this plan. This includes checking site condition, reporting any spills or releases with a potential to pollute storm water, directing and performing any housekeeping tasks, and report to the Team Leader any permit compliance issues or recommendations for improved BMPs.

## Potential Pollutant Sources

Activity	Potential Pollutant	BMPs
Truck Maintenance	Lubricants, fluids <sup>xii</sup>	Maintenance is performed in designated area, and area cleaned as needed. Absorbent materials are available if needed.
Filling Bins/Unloading aggregates	Natural Sand, Crushed Stone, Manufactured Sand	Aggregates are unloaded to aggregate holding areas, and materials are pushed into piles. Bin filling operations use a front end loader. The bucket should be filled and excess shaken off at the pile.
Truck Loading	Cement, Aggregates, Admixtures	The truck is backed into a shrouded area and (with proper truck alignment) the material is put into the truck through a boot to ensure the material goes into the truck. The shroud has a fugitive dust collection system. The area (including tracked materials) will be cleaned as needed, no less than once per week.
Truck Washing	Process water, truck cleaning agents	Truck cleaning operations are performed in a washrack that directs all process water (rinse water) into no discharge basins. The water from here is recycled into concrete production.
Unloading to Silo	Cement, Fly Ash	Silos are filled via a pipe that leads to the top of the silo. A tanker connects to this with a flexible rubber hose. The dust collector on the silo allows venting while filtering out any potential dust. The person unloading the tanker is responsible for ensuring that all dust filtration systems are operating properly during the unloading process.
Fueling	Diesel	Trucks are fueled off site; the loader is fueled onsite from a fuel pump in the fueling area. Employee is to monitor the fueling to prevent overfill

Solids Management	Cement, Aggregates	The managed solids come from returned concrete, basin cleaning, and housekeeping. Returned concrete that cannot be resold or reused to create yard block is dumped in the solids management area, allowed to harden, then pushed into the drying basins. Basin cleaning and housekeeping solids are put into the drying bins. Solids are evaluated during quarterly inspections to determine if hauling or other action is needed. The material is sold for fill or if that's not available given to the landfill for fill material.
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### Spills and Leaks

No significant spills or leaks have occurred on this site.

### Preventative Maintenance

The loading shroud vacuum system and silo dust collectors are checked monthly by maintenance personnel. Team members should note any deficiencies in the containment areas and report them to the team leader. During the quarterly site inspections, containment areas are checked for deficiencies. During the quarterly site inspections the gravel filters around the inlet are checked to see if maintenance is needed.

### Spill Prevention and Response Procedures

Chemicals that have the potential for spilling are stored in secondary containment as outlined in Chemicals and material storage in the OMM portion. If a spill were to occur, sand would be used to control any spilled chemicals. It would then be disposed of according to the manufactures recommendation, and in compliance with local ordinances. In the event of a spill contact:

BJ Barbrow (540) 718-4862 Safety/Environmental Manager

Pete Hawes (540) 480-2763 Safety Director

Clay Hubbard (434) 249-2213 Operations Manager

### Facility Inspections

Facility Inspections are done quarterly. Any deficiencies noted from these inspections are documented<sup>xiii</sup>, brought to the attention of the rest of the team, and taken care of in a timely manner.

## Employee Training

Employee training on the permit and this plan is conducted annually for all Allied Concrete Ready Mix/Maintenance/Block/Sales employees.

## Sediment and Erosion Control/Management of Runoff

The inlet to Outfall 001 has 3 parts to it for sediment and erosion control. The first part is a strip of #57 stone, followed by a grassy area, and directly surrounding the inlet is a ring of #3 stone.

The grassy area of the outfall also receives drainage from approximately a half acre of the Luck Stone Residential materials area. Storm water traveling through the grassy area typically handles any solids that may generate from their site, this is evaluated during quarterly visuals. If the effectiveness of this is found to be lacking during an evaluation, Allied Concrete will work together with Luck Stone to determine the cause and adjust our BMPs going forward.

Cleaning of the truck loading area and aggregate storage areas should occur as needed, but no less than once per week of normal production. This includes clearing the travel areas of any aggregates spilled during the bin filling process and restacking the aggregate piles as needed.

## Comprehensive Site Compliance

Comprehensive site compliance evaluations will be conducted annually by the Environmental Team Leader. Results of the evaluation as well as the results of the Annual sample lab results will be shared with the team, for any deficiencies found a plan of action will be determined and documented<sup>xiv</sup> (along with a time frame for correction) with the evaluation.

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<sup>i</sup> Tanks are used to store well water for concrete production. In the event of a spill the water and admixture in the tanks would be disposed of in an appropriate manner.

<sup>ii</sup> Hydraulic Oil, Grease, Motor Oil, Gear Oil

<sup>iii</sup> Evaporation

<sup>iv</sup> Sold and used are based on demand

<sup>v</sup> 1L Plastic Container

<sup>vi</sup> Standards Method 4500-H+B-2011

<sup>vii</sup> Thermometer calibrations are done annually. Results are available on the corporate server.

<sup>viii</sup> Environmental Systems Services in Culpeper

<sup>ix</sup> Drainage area acreage and impervious factor is estimated and used with the precipitation amount to calculate flow.

<sup>x</sup> An effort should be made to check the freeboard at the same time of day during consecutive operation days.

<sup>xi</sup> 
$$\left( \left( \left( 0.4[\text{Impervious Factor}] * 130,681[\text{Total Area}[\text{ft}^2]] \right) * \text{Rainfall}[\text{ft}] \right) * 7.48[\text{convert to gallons}] \right) / 1000000[\text{convert to MGD}]$$

<sup>xii</sup> Hydraulic Oil, Grease, Motor Oil, Gear Oil

<sup>xiii</sup> Corrective Action Form

<sup>xiv</sup> Corrective Action Form