BUCKEYE BRINE

Treatment & Disposal

Spill Prevention Control and Countermeasure Plan

Buckeye Brine, LLC
Riverside Recycling Facility
Tuscarawas, Ohio

December, 2013
SPCCP - Revision 1.0.0

A. Foreword

Buckeye Brine, LLC is committed to conduct its operation as a constructive member of society, and to prevent by all reasonable means, the harmful spilling of materials potentially hazardous to the environment. In the event of a material spill, every effort will be made to contain and recover it, thus preventing the material from presenting a fire hazard, or damage to property, wildlife and the environment.

B. General Information

This document is the Spill Prevention Control and Countermeasure Plan (S.P.C.C. Plan) for the Buckeye Brine, LLC Riverside Recycling Facility. The facility treats, stores and processes aqueous fluids and sludges generated during the exploration and production of Oil and Gas.

Street Address:	**Mailing Address:**
6505 State Route 36 Rear Tuscarawas, Ohio 44682	23986 Airport Road Coshocton, Ohio 43812

The person at the Riverside facility responsible for spill prevention is:

Name	**Position**	**Phone**
Lynn Goldston	Vice President, Operations	903-235-1477

C. Registered Professional Engineer's Certification

This plan was prepared according to the guidances provided by the EPA, but is not required by law due to the distances to navigable waters or other conduits to navigable waters. As such, no PE certification is required or provided.

D. Description of Facility

Buckeye Brine, LLC's Riverside Recycling Facility receives, off-loads, stores, transfers, recycles, and treats aqueous based residuals from the exploration and production of Natural Gas and Crude Oil.

While the primary operation is recycling, certain residuals are also shipped for land disposal at appropriately permitted facilities.

The attached site plan (See Figure #1) shows the location of the tank farms, off-loading, and disposal wells at the Coshocton facility. Total number of fixed storage units:

4 - 380 barrel receiving tanks
1 - 300 barrel crude oil tank
1 - 200 barrel pump tank
2 - 500 barrel Oil/Water separation tanks
10 - 400 barrel water processing tanks
2 - 5000 barrel filtered water tanks

E. Potential Spill Volume and Rate

Potential Situation	Volume Released	Rate of Spilling	Spill Into Containment
Tank overfill	1 to several gallons	up to 250 GPM	Yes
Pipe Failure (process area)	1 to several gallons	Up to 250 GPM	Yes
Leaking Valve	several ounces to a few gallons	Up to 250 GPM	Yes
Tank Truck Unloading	Up to 150 barrels	Gradual to Instantaneous	Yes
Complete Tank Failure	Up to 500 barrels	Gradual to Instantaneous	Yes
Partial Tank Failure	Up to 500 barrels	Gradual to Instantaneous	Yes
Tank Truck Staging	Up to 150 barrels	Gradual to Instantaneous	No
Intra-plant Transfer Line	1 to several gallons	Up to 250 GPM	Yes

F. Storage Tanks

Tank design and fabrication are in accordance with API 12 standards associated with storage of oilfield liquids. Preparedness and prevention features included in tank design and installation are:

1. Tanks and associated piping systems are electrically grounded.
2. Vacuum/Pressure relief hatches.
3. Vapor balanced vent lines.
4. Cathodic corrosion protection.
5. Interior polymeric lining for corrosion protection.

G. Transfer Operations

Pump stations are in controlled access areas, and all intra-tank piping is above ground and within containment structure.

Pipe racks are of adequate strength to support the piping.

Piping to well heads consists of a 4” ID pipe contained within a 7 5/8” ID, 8 5/8” OD outer containment pipe. Any leakage in to the outer pipe is routed back to the system containment system.

H. Unloading Operations

Secondary containment for accidental rupture, spill, or mechanical failure is provided with a combination of side dike walls and floor sloping into trench with a sump and automatic sump pump system.

The tank unloading area is designed to hold the entire contents of a tank trailer in the event of a catastrophic release. Tanker and transfer operations are conducted by operators skilled and trained in these operations. Transfer operations are attended and completely within secondary containment.

I. Secondary Containment

Bulk storage tanks are located within earthen containment dikes. The containment surface is compatible with the materials stored inside the tanks.

Containment areas are designed to hold the contents of the largest tank in the dike plus a provision for a 25 year 24 hour stormwater event.

Pump stations are located within concrete containment. Truck unloading stations have secondary containment provisions mentioned in section H.

J. Tertiary Containment

All secondary containment has a gravel underlayer with a 60 mil reinforced polymer liner with integral liquid collection system.

K. Storm Water Drainage

There are no automatic pumping provisions for stormwater collecting inside containment areas. Collected stormwater is transferred for treatment, recycle, or disposed of on-site.

Non-contact storm water runoff is directed to a runoff drainage pipe.

L. Security

The Riverside Facility is attended 24 hours per day, and maintains surveillance cameras with views of access and critical operations areas.

M. Inspections

Buckeye Brine, LLC personnel conduct regular inspections of tanks, process lines, and equipment for structural deterioration, operator error, malfunctions, or other hazards that may result in a spill or release into containment of materials being handled or stored.

Routine Inspections Include:

Type	Basis
Site Security Inspection	Daily
Container Inspections	Daily
Storage Tanks	Daily
Unloading, Process Area, Piping and Transfer Lines	Daily
Safety Equipment	Monthly
Fire Extinguishers	Monthly
Emergency Response Equipment	Monthly

N. Employee Training

All employees are trained in general, safe work practices and are given specific instructions to hazard awareness, preparedness inspections, spill prevention and spill response. Two categories of training are used:

Classroom: Where an experienced instructor or supervisor presents information, leads a discussion, answers questions, and gives a test if it is applicable to regulations.

Task: Where an experienced employee teaches, supervises, and observes the new employee in the correct way to perform his or her job function.

O. Spill Response and Reporting

A Contingency Plan is available within the facility and describes emergency response procedures covering spills, material release, evacuation plans, fires, and related issues. The activities associated with spill response are summarized below.

The initial response action will concentrate on:

1. Attending injured or threatened persons
2. Stopping the flow of material
3. Retaining, controlling, or containing the flow of material as much as possible
4. Notification of emergency Coordinator and other required reporting

The emergency coordinator will evaluate the incident including estimated quantity of material released, any injuries involved, direction in which any spill vapors may be headed, extent of damage to equipment or structures, and whether or not the material was contained in a diked area.

The release may result in an increase in ignitable vapor concentration. The emergency coordinator will evaluate the situation for determination on whether or not to discontinue any welding, cutting, grinding activities, and disconnect electrical service to the area.

The emergency coordinator's assessment of the incident will include a determination on whether or not the accident can be contained and/or controlled by the facility emergency response efforts. If the incident is within local capabilities, the coordinator will contact and deploy plant personnel. If additional outside emergency response/spill control assistance is needed, the emergency response coordinator will call for outside assistance.

Detailed procedures for clean up of a spill inside a concrete dike are:

1. Stop the flow of material.
2. Transfer the spilled material to an available tank via sump pump.
3. Clean all traces of residue after the bulk of material has been transferred.
4. Should a residuals release not be contained within a dike, a temporary barrier will be constructed using spill control material and equipment on site or from nearby contractors.

Name	**Phone**
Lynn Goldston	Cell: 903-235-1477
Dave Durakovich	Cell: 313-790-6483

Company policy requires immediate reporting by telephone of all incidents associated with spills or material releases. State and federal reporting actions are coordinated with company headquarters and are determined by the nature of the event, quantity of material(s) involved, and related factors.

Telephone numbers for local, state, and federal emergency reporting:

Agency	**Telephone**
Ohio Department of Natural Resources	(740) 439-9079
National Response Center	(800) 424-8802
Tuscarawas County LEPC	(330) 308-6670

If the spilled material is of sufficient quantity that it can reach a navigable waterway, lake, river, stream, or tributary which is used for recreation or fishing, it must be reported in accordance with applicable regulations.

Minor spills must be reported within 24 hrs.

P. History of Spills

Buckeye Brine has experienced no spills at this location since beginning operations.