

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0111686

Owner: Continental Cement Company, LLC
Address: 10107 Highway 79, Hannibal, MO 63401

Continuing Authority: Same as above
Address: Same as above

Facility Name: Continental Cement Company
Address: 10107 Highway 79, Hannibal, MO 63401

Legal Description: SEE PAGES 2 & 3
Latitude/Longitude: SEE PAGES 2 & 3

Receiving Stream: SEE PAGES 2 & 3
First Classified Stream and ID: SEE PAGES 2 & 3
USGS Basin & Sub-watershed No.: SEE PAGES 2 & 3

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

SEE PAGES 2 & 3

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

November 10, 2011
Effective Date

April 22, 2015
Revised Date

Sara Parker Pauley, Director, Department of Natural Resources

November 9, 2016
Expiration Date

John Madras, Director, Water Protection Program

FACILITY DESCRIPTION (continued)Outfall #001 – Domestic Waste / Industrial Cement Processing Facility – SIC #3241

Extended aeration / sludge holding tank / sludge disposal is by contract hauler or used onsite in the artificial soil program onsite. Discharged effluent from Outfall #001 flows to lift station at Outfall #003 where it is either pumped to Outfall #006 for recycle or discharge or it can be discharged from Outfall #003 during large rainfall events (in excess of the 10-year, 24-hour rainfall event).

Design population equivalent is 150.
 Design flow is 15,000 gallons per day.
 Actual flow is 9,000 gallons per day.
 Design sludge production is 2.7 dry tons/year.

Legal Description: NE ¼, SE ¼, NW ¼, Sec. 2, T56N, R4W, Ralls County
 UTM Coordinates: X=644631.066, Y=4393585.453
 Receiving Stream: Unnamed tributary to Mississippi River
 First Classified Stream and ID: Mississippi River (P) (3699)
 USGS Basin & Sub-watershed No.: (07110004-0504)

Outfall #002 – Industrial Cement Processing Facility / SIC #3241

Stormwater / Cement Kiln Dust Management Area and the Synthetic Gypsum storage pile

Design flow rate over 1 MGD
 Actual Flow is dependent upon precipitation

Legal Description: NW ¼, NE ¼, NW ¼, Sec. 2, T56N, R4W, Ralls County
 UTM Coordinates: X=644434.245, Y=4394080.379
 Receiving Stream: Unnamed tributary to Mississippi River
 First Classified Stream and ID: Mississippi River (P) (3699)
 USGS Basin & Sub-watershed No.: (07110004-0504)

Outfall #003 – Industrial Cement Processing Facility / SIC #3241

Stormwater / Northern Industrial Area, Main Processing plant, kiln, and alternative waste fuel facility

Effluent from Outfall #001 and collected stormwater is pumped from the lift station at Outfall #003 to the sedimentation basin at Outfall #006 or the collected water can be discharged from Outfall #003 during large rainfall events (in excess of the 10-year, 24-hour rainfall event).

Design flow rate over 1 MGD
 Actual Flow is dependent upon precipitation

Legal Description: SW ¼, NW ¼, NE ¼, Sec. 2, T56N, R4W, Ralls County
 UTM Coordinates: X=644772.146, Y=4393768.728
 Receiving Stream: Unnamed tributary to Mississippi River
 First Classified Stream and ID: Mississippi River (P) (3699)
 USGS Basin & Sub-watershed No.: (07110004-0504)

Outfall #004 – Industrial Cement Processing Facility / SIC #3241

Stormwater / Gypsum Belt loading areas

Collected stormwater is pumped from the lift station to the detention pond at outfall #006 or the collected water can be discharged from Outfall #004 during large rainfall events (in excess of the 10-year, 24-hour rainfall event).

Design flow rate over 1 MGD
 Actual Flow is dependent upon precipitation

Legal Description: NE ¼, SW ¼, NE ¼, Sec. 2, T56N, R4W, Ralls County
 UTM Coordinates: X=644958.580, Y=4393530.542
 Receiving Stream: Unnamed tributary to Mississippi River
 First Classified Stream and ID: Mississippi River (P) (3699)
 USGS Basin & Sub-watershed No.: (07110004-0504)

FACILITY DESCRIPTION (continued)

Outfall #005 – Industrial Cement Processing Facility / SIC #3241

Stormwater / Artificial soil reclamation area

Stormwater discharges from the artificial soil areas flow to the settling pond. The settling pond can discharge or be pumped to an emergency holding pond for further treatment. The holding pond is pumped back to settling pond prior to release. The collected stormwater in the settling pond can discharge or be used for spray irrigation onto artificial soil program area as needed for consumptive irrigation and treated effluent discharge to surface wet weather ditch during remainder of the time.

Design flow rate over 1 MGD

Actual Flow is dependent upon precipitation

Legal Description: NE ¼, NE ¼, SW ¼, Sec. 3, T56N, R4W, Ralls County
UTM Coordinates: X=643031.113, Y= 4393195.364
Receiving Stream: Unnamed tributary to Mississippi River
First Classified Stream and ID: Mississippi River (P) (3699)
USGS Basin & Sub-watershed No.: (07110004-0504)

Outfall #006 – Industrial Cement Processing Facility / SIC #3241

Southern Industrial Area, Coal Storage Area, Non-Contact Cooling Water Gypsum Belt Loading Areas, Northern Industrial Area, Main Processing Plant, Kiln, Alternative Waste Fuel, and Domestic Waste

Stormwater and treated domestic effluent from lift station at Outfall #003, stormwater from lift station at Outfall #004, storm water from main industrial areas / grit chambers / sedimentation pond/recycle for cooling water / discharged into Mississippi River.

Design flow rate over 1 MGD

Actual Flow is dependent upon precipitation

Legal Description: SE ¼, SW ¼, NE ¼, Sec. 2, T56N, R4W, Ralls County
UTM Coordinates: X=645041.036, Y=4393401.960
Receiving Stream: Unnamed tributary to Mississippi River
First Classified Stream and ID: Mississippi River (P) (3699)
USGS Basin & Sub-watershed No.: (07110004-0504)

Outfall #007 – Industrial Cement Processing Facility / SIC #3241

Stormwater / Artificial soil reclamation area

Stormwater discharges from the artificial soil areas flow to the settling pond. The collected stormwater in the settling pond can discharge or be used for spray irrigation onto artificial soil program area as needed for consumptive irrigation and treated effluent discharge to surface wet weather ditch during remainder of the time.

Design flow rate over 1 MGD

Actual Flow is dependent upon precipitation

Legal Description: SE ¼, SE ¼, SE ¼, Sec. 11, T56N, R4W, Ralls County
UTM Coordinates: X=645334.332, Y=4391064.221
Receiving Stream: Unnamed tributary to Marble Creek
First Classified Stream and ID: Mississippi River (P) (3699)
USGS Basin & Sub-watershed No.: (07110004-0504)

Outfall #008 – Industrial Cement Processing Facility / SIC #3241

Stormwater / Artificial soil reclamation area

Stormwater discharges from the artificial soil areas.

Design flow rate over 1 MGD.

Actual Flow is dependent upon precipitation.

Legal Description: SE ¼, SE ¼, Sec. 12, T56N, R4W, Ralls County
UTM Coordinates: X=645334.332, Y=4391064.221
Receiving Stream: Unnamed tributary to Mississippi River
First Classified Stream and ID: Unnamed tributary to Mississippi River (C) (3960)
USGS Basin & Sub-watershed No.: (07110004-0504)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective December 31, 2013 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u> - Domestic wastewater						
Flow	MGD	*		*	once/quarter****	24 hr. estimate
Biochemical Oxygen Demand ₅	mg/L		45	30	once/quarter****	Composite**
Total Suspended Solids	mg/L		45	30	once/quarter****	Composite**
pH – Units	SU	***		***	once/quarter****	grab
Ammonia as N	mg/L	*		*	once/quarter****	grab
E.coli (Notes 1 & 2)	#/100mL	630		126	once/quarter****	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE JANUARY 28, 2014. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED PARTS I & III STANDARD CONDITIONS DATED October 1, 1980 and August 15, 1994, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** A composite sample made up from a minimum of four grab samples collected within a 24 hour period with a minimum of two hours between each grab sample.
- *** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.
- **** See table below for quarterly sampling

Sample discharge at least once for the months of:	Report is due:
January, February, March (1st Quarter)	April 28
April, May, June (2nd Quarter)	July 28
July, August, September (3rd Quarter)	October 28
October, November, December (4th Quarter)	January 28

Note 1 - Final limitations and monitoring requirements for *E. coli* are applicable only during the recreational season from April 1 through October 31. The Monthly Average Limit for *E. coli* is expressed as a geometric mean.

Note 2 – First Quarter sampling for *E. coli* is not required. Fourth quarter sampling for *E. coli* must occur in the month of October.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfalls #002, #003, #004, #006 (Note 3)						
Flow	MGD	*		*	once/quarter****	24 hr. estimate
Precipitation (Note 4)	inches	*		*	once/day	measured
Total Suspended Solids	mg/L	50		50	once/quarter****	grab
Chemical Oxygen Demand	mg/L	*		*	once/quarter****	grab
Oil & Grease	mg/L	15		10	once/quarter****	grab
pH – Units	SU	***		***	once/quarter****	grab
Chloride + Sulfate	mg/L	*		*	once/quarter****	grab
Chloride	mg/L	*		*	once/quarter****	grab
Aluminum, Total Recoverable	µg/L	*		*	once/quarter****	grab
Antimony, Total Recoverable	µg/L	*		*	once/quarter****	grab
Arsenic, Total Recoverable	µg/L	*		*	once/quarter****	grab
Beryllium, Total Recoverable	µg/L	*		*	once/quarter****	grab
Cadmium, Total Recoverable	µg/L	*		*	once/quarter****	grab
Chromium III, Total Recoverable	µg/L	*		*	once/quarter****	grab
Chromium VI, Dissolved	µg/L	*		*	once/quarter****	grab
Copper, Total Recoverable	µg/L	*		*	once/quarter****	grab
Iron, Total Recoverable	µg/L	*		*	once/quarter****	grab
Lead, Total Recoverable	µg/L	*		*	once/quarter****	grab
Mercury, Total Recoverable	µg/L	*		*	once/quarter****	grab
Nickel, Total Recoverable	µg/L	*		*	once/quarter****	grab
Selenium, Total Recoverable	µg/L	*		*	once/quarter****	grab
Silver, Total Recoverable	µg/L	*		*	once/quarter****	grab
Thallium, Total Recoverable	µg/L	*		*	once/quarter****	grab
Zinc, Total Recoverable	µg/L	*		*	once/quarter****	grab
Hardness, Total	mg/L	*		*	once/quarter****	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE JANUARY 28, 2012. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #006						
Total Toxic Organics (Note 5)	µg/L	*		*	once/year	grab

MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE OCTOBER 28, 2012. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

Outfalls #005, #006

2,3,7,8-tetrachlorodibenzo-p-dioxin	ng/L	*		*	once / 5 years	grab
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MONITORING REPORTS SHALL BE SUBMITTED ONCE PER PERMIT CYCLE; THE FIRST REPORT IS DUE NO LATER THAN JANUARY 28, 2017. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED PART I STANDARD CONDITIONS DATED October 1, 1980 and August 15, 1994, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- *** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.
- **** See table below for quarterly sampling

Sample discharge at least once for the months of:	Report is due:
January, February, March (1st Quarter)	April 28
April, May, June (2nd Quarter)	July 28
July, August, September (3rd Quarter)	October 28
October, November, December (4th Quarter)	January 28

Note 3 – Any untreated overflow from best management practices designed, constructed and operated to treat the volume of runoff from materials storage piles which is associated with a 10-year, 24-hour rainfall event (USDA TR-55 Urban Hydrology for Small Watersheds) is not subject to the pH and TSS limitations. (40 CFR 411.32 b).

Note 4 – Precipitation can be reported for all outfalls from a single rain gauge located at the main plant

Note 5 – See List on Page 13

Note 6 – Storm water samples shall be collected within the first 60 minutes of storm events of 0.1 inches or greater, that result in a discharge. Storm events include rainfall as well as run-off from the melting of frozen precipitation.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective two (2) years before the date of expiration of this permit and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #005</u> (Note 6)						
Flow	MGD	*		*	once/month	24 hr. estimate
Precipitation (Note 4)	inches	*		*	once/day	measured
Biochemical Oxygen Demand ₅	mg/L	65		45	once/month	grab
Total Suspended Solids	mg/L	50		50	once/month	grab
Ammonia as N (May 1 – Oct 31) (Nov 1 – April 30)	mg/L	4.4 7.5		1.4 2.9	once/month	grab
Chloride + Sulfate	mg/L	1000		*	once/month	grab
Chloride	mg/L	404.9		177.2	once/month	grab
Oil & Grease	mg/L	15		10	once/month	grab
pH – Units	SU	***		***	once/month	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE JANUARY 28, 2015. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Parts I STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only.

*** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

Note 4 – Precipitation can be reported for all outfalls from a single rain gauge located at the main plant

Note 6 – Storm water samples shall be collected within the first 60 minutes of storm events of 0.1 inches or greater, that result in a discharge. Storm events include rainfall as well as run-off from the melting of frozen precipitation.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #005 (Note 6)						
Aluminum, Total Recoverable	µg/L	*		*	once/quarter****	grab
Antimony, Total Recoverable	µg/L	*		*	once/quarter****	grab
Arsenic, Total Recoverable	µg/L	*		*	once/quarter****	grab
Beryllium, Total Recoverable	µg/L	*		*	once/quarter****	grab
Cadmium, Total Recoverable	µg/L	*		*	once/quarter****	grab
Chromium III, Total Recoverable	µg/L	*		*	once/quarter****	grab
Chromium VI, Dissolved	µg/L	*		*	once/quarter****	grab
Copper, Total Recoverable	µg/L	*		*	once/quarter****	grab
Iron, Total Recoverable	µg/L	*		*	once/quarter****	grab
Lead, Total Recoverable	µg/L	*		*	once/quarter****	grab
Mercury, Total Recoverable	µg/L	*		*	once/quarter****	grab
Nickel, Total Recoverable	µg/L	*		*	once/quarter****	grab
Selenium, Total Recoverable	µg/L	*		*	once/quarter****	grab
Silver, Total Recoverable	µg/L	*		*	once/quarter****	grab
Thallium, Total Recoverable	µg/L	*		*	once/quarter****	grab
Zinc, Total Recoverable	µg/L	*		*	once/quarter****	grab
Hardness, Total	µg/L	*		*	once/quarter****	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE JANUARY 28, 2012. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED PARTS I STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only.

**** See table below for quarterly sampling

Sample discharge at least once for the months of:	Report is due:
January, February, March (1st Quarter)	April 28
April, May, June (2nd Quarter)	July 28
July, August, September (3rd Quarter)	October 28
October, November, December (4th Quarter)	January 28

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective two (2) years before the date of expiration of this permit and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #007</u> (Note 6)						
Flow	MGD	*		*	once/month	24 hr. estimate
Precipitation (Note 4)	inches	*		*	once/day	measured
Biochemical Oxygen Demand ₅	mg/L	65		45	once/month	grab
Total Suspended Solids	mg/L	50		50	once/month	grab
Ammonia as N	mg/L	*		*	once/month	grab
Chloride + Sulfate	mg/L	*		*	once/month	grab
Chloride	mg/L	*		*	once/month	grab
Oil & Grease	mg/L	15		10	once/month	grab
pH – Units	SU	***		***	once/month	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE JANUARY 28, 2015. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Parts I STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only.

*** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

Note 4 – Precipitation can be reported for all outfalls from a single rain gauge located at the main plant

Note 6 – Storm water samples shall be collected within the first 60 minutes of storm events of 0.1 inches or greater, that result in a discharge. Storm events include rainfall as well as run-off from the melting of frozen precipitation.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance of modification, **April 22, 2015**, and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #008</u> (Note 6)						
Flow	MGD	*		*	once/month	24 hr. estimate
Precipitation (Note 4)	inches	*		*	once/day	measured
Biochemical Oxygen Demand ₅	mg/L	65		45	once/month	grab
Total Suspended Solids	mg/L	50		50	once/month	grab
pH – Units	SU	***		***	once/month	grab
Ammonia as N	mg/L	*		*	once/month	grab
Chloride + Sulfate	mg/L	*		*	once/month	grab
Chloride	mg/L	*		*	once/month	grab
Oil & Grease	mg/L	15		10	once/month	grab
Nitrogen, Total as N	mg/L	*		*	once/quarter ****	grab
Phosphorus, Total as P	mg/L	*		*	once/quarter ****	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE JULY 28, 2015. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Parts I STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- *** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.
- **** See table below for quarterly sampling.

Minimum Sampling Requirements			
Quarter	Months	Effluent Parameters	Report is Due
First	January, February, March	Sample at least once during any month of the quarter	April 28 th
Second	April, May, June	Sample at least once during any month of the quarter	July 28 th
Third	July, August, September	Sample at least once during any month of the quarter	October 28 th
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28 th

Note 4 – Precipitation can be reported for all outfalls from a single rain gauge located at the main plant

Note 6 – Stormwater samples shall be collected within the first 60 minutes of storm events of 0.1 inches or greater, that result in a discharge. Storm events include rainfall as well as run-off from the melting of frozen precipitation.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

Total Toxic Organics

Acenaphthene	4-chlorophenyl phenyl ether
Acrolein	4-bromophenyl phenyl ether
Acrylonitrile	Bis (2-chloroisopropyl) ether
Benzene	Bis (2-chloroethoxy) methane
Benzidine	Methylene Chloride (dichloromethane)
Carbon Tetrachloride (tetrachloromethane)	Methyl Chloride (chloromethane)
Chlorobenzene	Methyl bromide (bromomethane)
1,2,4-trichlorobenzene	Bromoform (tribromomethane)
Hexachlorobenzene	Dichlorobromomethane
1,2-dichloroethane	Chlorodibromomethane
1,1,1-trichloroethane	Hexachlorobutadiene
Hexachloroethane	Hexachlorocyclopentadiene
1,1-dichloroethane	Isophorone
1,1,2-trichloroethane	Naphthalene
1,1,2,2-tetrachloroethane	Nitrobenzene
Chloroethane	2-nitrophenol
Bis (2-chloroethyl) ether	4-nitrophenol
2-chloroethyl vinyl ether	2,4-dinitrophenol
N-nitrosodi-n-propylamine	4,6-dinitro-o-cresol
Pentachlorophenol	N-nitrosodimethylamine
Phenol	N-nitrosodiphenylamine
Bis (2-ethylhexyl) phthalate	Phenanthrene
Butyl benzyl phthalate	1,2,5,6-dibenzanthracene (dibenzo(a,h)anthracene)
Di-n-butyl phthalate	Indeno (1,2,3-cd) pyrene (2,3-o-phenylene pyrene)
Di-n-octyl phthalate	Pyrene
Diethyl phthalate	Tetrachloroethylene
Dimethyl phthalate	Toluene
1,2-benzanthracene (benzo(a)anthracene)	Trichloroethylene
Benzo(a)pyrene (3,4-benzopyrene)	Vinyl Chloride (chloroethylene)
3,4-benzofluoranthene (benzo(b)fluoranthene)	Aldrin
11,12-benzofluoranthene (benzo(k)fluoranthene)	Dieldrin
Chrysene	Chlordane (technical mixture and metabolites)
Anthracene	4,4-DDT
1,12-benzoperylene (benzo(ghi)perylene)	4,4-DDE (p,p-DDX)
Fluorene	4,4-DDD (p,p-TDE)
2-chloronaphthalene	Alpha-endosulfan
2,4,6-trichlorophenol	Beta-endosulfan
Parachlorometa cresol	Endosulfan sulfate
Chloroform (trichloromethane)	Endrin
2-chlorophenol	Endrin aldehyde
1,2-dichlorobenzene	Heptachlor
1,3-dichlorobenzene	Heptachlor epoxide (BHC hexachlorocyclohexane)
1,4-dichlorobenzene	Alpha-BHC
3,3-dichlorobenzidine	Beta-BHC
1,1-dichloroethylene	Gamma-BHC
1,2-trans-dichloroethylene	Delta-BHC (PCB polychlorinated biphenyls)
2,4-dichlorophenol	PCB-1242 (Arochlor 1242)
1,2-dichloropropane (1,3-dichloropropane)	PCB-1254 (Arochlor 1254)
2,4-dimethylphenol	PCB-1221 (Arochlor 1221)
2,4-dinitrotoluene	PCB-1232 (Arochlor 1232)
2,6-dinitrotoluene	PCB-1248 (Arochlor 1248)
1,2-diphenylhydrazine	PCB-1260 (Arochlor 1260)
Ethylbenzene	PCB-1016 (Arochlor 1016)
Fluoranthene	Toxaphene

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.
2. All outfalls must be clearly marked in the field.
3. Permittee will cease discharge of domestic wastewater by connection to a facility with an area-wide management plan per 10 CSR 20-6.010(3)(B)1. or 2. within 90 days of notice of its availability. The permittee shall obtain department approval for closure or alternate use of the facility.
4. **Changes in Discharges of Toxic Substances**

The permittee shall notify the Director as soon as it knows or has reason to believe:

 - (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
 - (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
5. Report as no-discharge when a discharge does not occur during the report period.
6. **Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities**
 - (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
 - (b) If sludge is not removed by a contract hauler, permittee is authorized to land apply biosolids. Permit Standard Conditions, Part III shall apply to the land application of biosolids. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.
7. Outfalls #005 and #007 – The storm water from the detention pond shall not be land applied to areas outside of the artificial soil program area or outside of the watershed for the sedimentation basin.
8. **Water Quality Standards**
 - (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
 - (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;

C. SPECIAL CONDITIONS (continued)

- (6) There shall be no acute toxicity to livestock or wildlife watering;
- (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
- (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

9. The permittee shall comply with any applicable requirements listed in 10 CSR 20-8 for the domestic wastewater treatment plant.

10. APPENDIX A TO 40 CFR PART 423—126 PRIORITY POLLUTANTS

The facility must sample the cooling tower blowdown discharge at least **once per permit cycle in Calendar Year 2012** and there shall be no detectable amount of the 126 Priority Pollutants contained in chemicals added for cooling tower maintenance as listed in Appendix A to Part 423 [40 CFR 423.15(j)(1)], except as allowed in the regulation for Total Chromium (0.2 mg/L) and zinc (1.0 mg/L). The sample results shall be included in an annual report submitted to the Department by **January 28, 2013**, and shall be for the reporting period of January 1st to December 31st.

001 Acenaphthene	044 Methylene chloride (dichloromethane)	089 Aldrin
002 Acrolein	045 Methyl chloride (dichloromethane)	090 Dieldrin
003 Acrylonitrile	046 Methyl bromide (bromomethane)	091 Chlordane (technical mixture and metabolites)
004 Benzene	047 Bromoform (tribromomethane)	092 4,4-DDT
005 Benzidine	048 Dichlorobromomethane	093 4,4-DDE (p,p-DDX)
006 Carbon tetrachloride (tetrachloromethane)	051 Chlorodibromomethane	094 4,4-DDD (p,p-TDE)
007 Chlorobenzene	052 Hexachlorobutadiene	095 Alpha-endosulfan
008 1,2,4-trichlorobenzene	053 Hexachloromyclopentadiene	096 Beta-endosulfan
009 Hexachlorobenzene	054 Isophorone	097 Endosulfan sulfate
010 1,2-dichloroethane	055 Naphthalene	098 Endrin
011 1,1,1-trichloroethane	056 Nitrobenzene	099 Endrin aldehyde
012 Hexachloroethane	057 2-nitrophenol	100 Heptachlor
013 1,1-dichloroethane	058 4-nitrophenol	101 Heptachlor epoxide (BHC-hexachlorocyclohexane)
014 1,1,2-trichloroethane	059 2,4-dinitrophenol	
015 1,1,2,2-tetrachloroethane	060 4,6-dinitro-o-cresol	102 Alpha-BHC
016 Chloroethane	061 N-nitrosodimethylamine	103 Beta-BHC
018 Bis(2-chloroethyl) ether	062 N-nitrosodiphenylamine	104 Gamma-BHC (lindane)
019 2-chloroethyl vinyl ether (mixed)	063 N-nitrosodi-n-propylamin	105 Delta-BHC (PCB-polychlorinated biphenyls)
020 2-chloronaphthalene	064 Pentachlorophenol	106 PCB-1242 (Arochlor 1242)
021 2,4, 6-trichlorophenol	065 Phenol	107 PCB-1254 (Arochlor 1254)
022 Parachlorometa cresol	066 Bis(2-ethylhexyl) phthalate	108 PCB-1221 (Arochlor 1221)
023 Chloroform (trichloromethane)	067 Butyl benzyl phthalate	109 PCB-1232 (Arochlor 1232)
024 2-chlorophenol	068 Di-N-Butyl Phthalate	110 PCB-1248 (Arochlor 1248)
025 1,2-dichlorobenzene	069 Di-n-octyl phthalate	111 PCB-1260 (Arochlor 1260)
026 1,3-dichlorobenzene	070 Diethyl Phthalate	112 PCB-1016 (Arochlor 1016)
027 1,4-dichlorobenzene	071 Dimethyl phthalate	113 Toxaphene
028 3,3-dichlorobenzidine	072 1,2-benzanthracene (benzo(a) anthracene)	114 Antimony
029 1,1-dichloroethylene	073 Benzo(a)pyrene (3,4-benzo-pyrene)	115 Arsenic

C. SPECIAL CONDITIONS (continued)

10. APPENDIX A TO 40 CFR PART 423—126 PRIORITY POLLUTANTS (continued)

030 1,2-trans-dichloroethylene	074 3,4-Benzofluoranthene (benzo(b) fluoranthene)	116 Asbestos
031 2,4-dichlorophenol	075 11,12-benzofluoranthene (benzo(b) fluoranthene)	117 Beryllium
032 1,2-dichloropropane	076 Chrysene	118 Cadmium
033 1,2-dichloropropylene (1,3-dichloropropene)	077 Acenaphthylene	119 Chromium
	078 Anthracene	120 Copper
034 2,4-dimethylphenol	079 1,12-benzoperylene (benzo(ghi) perylene)	121 Cyanide, Total
035 2,4-dinitrotoluene	080 Fluorene	122 Lead
036 2,6-dinitrotoluene	081 Phenanthrene	123 Mercury
037 1,2-diphenylhydrazine	082 1,2,5,6-dibenzanthracene (dibenzo(,h) anthracene)	124 Nickel
038 Ethylbenzene	083 Indeno (,1,2,3-cd) pyrene (2,3-o-pheynylene pyrene)	125 Selenium
039 Fluoranthene	084 Pyrene	126 Silver
040 4-chlorophenyl phenyl ether	085 Tetrachloroethylene	127 Thallium
041 4-bromophenyl phenyl ether	086 Toluene	128 Zinc
042 Bis(2-chloroisopropyl) ether	087 Trichloroethylene	129 2,3,7,8-tetrachloro-dibenzo-p-dioxin (TCDD)
043 Bis(2-chloroethoxy) methane	088 Vinyl chloride (chloroethylene)	

11. The permit requires development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP must be prepared within 60 days and implemented within 90 days of the permit issuance. The SWPPP must be kept on-site and should not be sent to DNR unless specifically requested. The permittee shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in the following document:

Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators, (Document number EPA 833-B-09-002) published by the United States Environmental Protection Agency (USEPA) in February 2009.

The SWPPP must include the following:

- An assessment of all stormwater discharges associated with the facility. This must include a list of potential contaminants and an annual estimate of amounts that will be used in the described activities.
- A listing of Best Management Practices (BMPs) and a narrative explaining how BMPs will be implemented to control and minimize the amount of potential contaminants that may enter stormwater.
- A schedule for implementing the BMPs.
- An assessment of all chemical handling and storage procedures are required to be addressed under the conditions of this section.
- Provisions for preventing the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehousing activities and prevent the contamination of stormwater from these substances.
- A provision for providing training to all personnel involved in material handling and storage, and housekeeping of areas having materials exposed to stormwater. Proof of training shall be submitted on request of the Department.
- The SWPPP must contain a list of all benchmark testing and modifications to the SWPPP based on exceedances of those benchmarks. Only data within the previous five years is required to be maintained.
- The SWPPP must include a schedule for twice per month site inspections and brief written reports. At least one of the monthly inspections must be conducted after a precipitation event that causes runoff to occur onsite, including snow melt. If runoff does not occur during the month, the facility shall conduct an inspection within the last three business days of the month regardless of precipitation. The inspections must include observations and evaluations of BMP effectiveness, deficiencies, and corrective measures that will be taken. Deficiencies must be corrected within seven days and the actions taken to correct the deficiencies shall be included with the written report. Any corrective measure that necessitates major construction may also need a construction permit.
- A provision for designating an individual to be responsible for environmental matters. The provision shall also include alternates in the event that the primary responsible person is not available.
- Inspection reports must be kept on site with the SWPPP and retained in accordance with the Records, Retention, and Recording section listed below. These must be made available to DNR personnel upon request.
- Provisions that prevent contamination of stormwater runoff from delivery vehicles/railcars that carry significant materials (e.g. corn, distillers grains, etc) to and from the facility, and how the facility will deal with leakage or spillage from vehicles/railcars or containers.

C. SPECIAL CONDITIONS (continued)

12. Permittee shall adhere to the following minimum Best Management Practices:
 - (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of storm water from these substances.
 - (b) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
 - (c) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that these materials are not exposed to storm water or provide other prescribed BMP's such as plastic lids and/or portable spill pans to prevent the commingling of storm water with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.
 - (d) Provide good housekeeping practices on the site to keep solid waste from entry into waters of the state.
 - (e) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property.
13. The purpose of the SWPPP and the BMPs listed therein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effective in preventing pollution [10 CSR 20-2.010(56)] of waters of the state, and corrective action means the facility took steps to eliminate the deficiency.
14. An annual operating report must be submitted to the appropriate Regional Office by October 28th of each year (notwithstanding any reporting requirements contained in the attached "Standard Conditions"). The report shall detail any unusual occurrences such as spills, tank failures or overflows, ruptured piping, fish kills, fire fighting activities, or other upsets which resulted in any loss of product. Product includes, but is not limited to, ethanol, fuels, oils, and paints. The report shall also detail any remedial work undertaken to recover product or clean up the site. The report must also indicate if nothing unusual has occurred.
15. Effluent shall not elevate or depress the temperature of the first classified receiving stream more than five degrees Fahrenheit.
16. All fueling facilities present on the site shall adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, including spill prevention, control and counter measures.
17. Substances, regulated by federal law under the Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERLA), that are transported, stored, or used for maintenance, cleaning or repair, shall be managed according to RCRA and CERLA.
18. Any pesticide discharge from any point source shall comply with the requirements of Federal Insecticide, Fungicide and Rodenticide Act, as amended (7 U.S.C. 136 et. seq.) and the use of such pesticides shall be in a manner consistent with its label.
19. In accordance with, and in addition to, Standard Conditions Part I, the permittee is to notify the department by telephone within 24 hours of becoming aware of any event that may endanger health or the environment. Leaving a message on a department staff member's voicemail does not satisfy this reporting requirement. During holidays, during the weekends, after normal business hours, or if the permit holder cannot reach regional office staff for any reason, the permit holder is instructed to report the situation to the department's 24 hour Environmental Emergency Response hotline at (573) 634-2436. In addition, the permittee shall submit to the department a written report with five (5) days of the time the permittee becomes aware of the circumstances. The written report shall include a description of the discharge or situation and cause of any noncompliance, the period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the non-complying discharge. These events include but are not limited to (a) any spill, of any material, that leaves the property of the facility and (b) any spill, of any material outside of secondary containment and exposed to precipitation, greater than 25 gallons or an equivalent volume of solid material.

Federal Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.
20. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure that the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards. A method is "sufficiently sensitive" when (1) the method quantitation level is at or below the level of the applicable water quality criterion for the pollutant or (2) the method quantitation level is above the applicable water quality criterion, but the amount of pollutant in a facility's discharge is high enough that the method detects and quantifies the level of pollutant in the discharge. These methods are even required for parameters that are listed as monitoring only, as the data collected may be used to determine if limitations need to be established.

PERMIT TRANSFER

This permit may be transferred to a new owner by submitting an “Application for Transfer of Operating Permit” signed by the seller and buyer of the facility, along with the appropriate modification fee.

PERMIT RENEWAL REQUIREMENTS

Unless this permit is terminated, the permittee shall submit an application for the renewal of this permit no later than six (6) months prior to the permit’s expiration date. Failure to apply for renewal may result in termination of this permit and enforcement action to compel compliance with this condition and the Missouri Clean Water Law.

TERMINATION

In order to terminate this permit, the permittee shall notify the department by submitting Form J, included with the State Operating Permit. The permittee shall complete Form J and mail it to the department at the address noted in the cover letter of this permit. Proper closure of any storage structure is required prior to permit termination. A closure plan shall be submitted to the department and approved prior to initiating closure activities.

DUTY OF COMPLIANCE

The permittee shall comply with all conditions of this permit. Any noncompliance with this permit constitutes a violation of Chapter 644, Missouri Clean Water Law, and 10 CSR 20-6. Noncompliance may result in enforcement action, termination of this authorization, or denial of the permittee's request for renewal. This permit authorizes only the activities described in this permit.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
STATEMENT OF BASIS
MO-0111686
CONTINENTAL CEMENT COMPANY, L.L.C.

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92 500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of stormwater from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a statement of basis shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

A statement of basis is not an enforceable part of an operating permit. This statement of basis is for an industrial facility.

Part I – Facility Information

Facility Type: Industrial, quarry mining and cement processing facility
Facility SIC Code(s): #3241

Facility Description:

Quarry mining and cement processing facility. See the facility information in the factsheet below for a detailed description of the facility.

Part II – Modification Rationale

This operating permit is hereby modified to add Outfall #008 as a discharge point for stormwater runoff from a land reclamation area. This land reclamation area will be operated in the same way as the artificial soil project associated with Outfall #007. For this reason, the permit writer has used best professional judgment to require the same effluent monitoring and limitations for Outfall #008 as already exist for Outfall #007. Please see the effluent limits determination discussion below.

Additionally, all interim effluent limitations and monitoring requirement dates for all outfalls have passed. All final effluent limitations and monitoring requirements are now effective. Therefore, the Part D. Schedule of Compliance has been removed from the permit, as well as all interim effluent limitations and monitoring requirements tables for all outfalls.

No other changes were made at this time. Please see the original factsheet below this statement of basis for further discussion on the permit conditions that were not changed during this modification. The version of the standard conditions that was effective during the time of original issuance of this permit applies to the new outfall. The standard condition requirements will be updated during renewal of the permit.

Part III – Effluent Limits Determination

Outfall #008 – Stormwater Outfall

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	Basis for Limits	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	GPD	1	*		*	YES	NEW OUTFALL
PRECIPITATION	INCHES	6	*		*	YES	NEW OUTFALL
BOD ₅	MG/L	1, 6	65		45	YES	NEW OUTFALL
TSS	MG/L	1, 6	50		50	YES	NEW OUTFALL
pH	SU	1, 6	6.5-9.0		6.5-9.0	YES	NEW OUTFALL
AMMONIA AS N	MG/L	1, 6	*		*	YES	NEW OUTFALL
CHLORIDE PLUS SULFATE	MG/L	6	*		*	YES	NEW OUTFALL
CHLORIDE	MG/L	6	*		*	YES	NEW OUTFALL
OIL & GREASE (MG/L)	MG/L	1, 6	15		10	YES	NEW OUTFALL
NITROGEN, TOTAL AS N	MG/L	1	*		*	YES	NEW OUTFALL
PHOSPHORUS, TOTAL AS P	MG/L	1	*		*	YES	NEW OUTFALL

* - Monitoring requirement only

** - Parameter not previously established in previous state operating permit.

Basis for Limitations Codes:

- | | |
|--|-----------------------------------|
| 1. State or Federal Regulation/Law | 5. Water Quality Model |
| 2. Water Quality Standard (includes RPA) | 6. Best Professional Judgment |
| 3. Water Quality Based Effluent Limits | 7. TMDL or Permit in lieu of TMDL |
| 4. Antidegradation Review/Policy | 8. WET Test Policy |

OUTFALL #008 – DERIVATION AND DISCUSSION OF LIMITS:

Flow

In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.

Precipitation

Monitoring only requirement; measuring the amount of precipitation [(10 CSR 20-6.200(2)(C)1.E(VI)] during an event is necessary to ensure adequate stormwater management exists at the site. Knowing the amount of potential stormwater runoff can provide the permittee a better understanding of specific control measure that should be employed to ensure protection of water quality.

Biochemical Oxygen Demand (BOD₅)

65 mg/L as a daily maximum and 45 mg/L as a monthly average. The permit currently contains these effluent limitations for Outfall #007. Since the activity being conducted at the site discharging to the new Outfall #008 is the same, these effluent limitations will apply to Outfall #008.

Total Suspended Solids (TSS)

50 mg/L as a daily maximum and 50 mg/L as a monthly average. The permit currently contains these effluent limitations for Outfall #007. Since the activity being conducted at the site discharging to the new Outfall #008 is the same, these effluent limitations will apply to Outfall #008.

pH

6.5-9.0 SU. Technology based effluent limitations of 6.0-9.0 SU [10 CSR 20-7.015] are not protective of the Water Quality Standard, which states water contaminants shall not cause pH to be outside the range of 6.5-9.0 SU.

Ammonia, Total as Nitrogen

Monitoring only requirement; Early Life Stages Present Total Ammonia Nitrogen criteria apply [10 CSR 20-7.031(5)(B)7.C]. The data collected will be used to determine the reasonable potential for this outfall to exceed water quality standards during the following permit renewal.

Chloride plus Sulfate

Monitoring only requirement; permit currently contains these monitoring for Outfall #007. Since the activity being conducted at the site discharging to the new Outfall #008 is the same, these effluent limitations will apply to Outfall #008. The data collected will be used to determine the reasonable potential for this outfall to exceed water quality standards during the following permit renewal.

Chloride

Monitoring only requirement; permit currently contains these monitoring for Outfall #007. Since the activity being conducted at the site discharging to the new Outfall #008 is the same, these effluent limitations will apply to Outfall #008. The data collected will be used to determine the reasonable potential for this outfall to exceed water quality standards during the following permit renewal.

Oil & Grease.

Conventional pollutant, in accordance with 10 CSR 20-7.031 Table A effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.

Nitrogen, total N

Per 10 CSR 20-7.015(9)(D)7, nutrient monitoring shall be instituted on a quarterly basis for facilities with a design flow greater than 0.1 MGD.

Phosphorous, total P

Per 10 CSR 20-7.015(9)(D)7, nutrient monitoring shall be instituted on a quarterly basis for facilities with a design flow greater than 0.1 MGD.

MINIMUM SAMPLING AND REPORTING FREQUENCY REQUIREMENTS

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/month	once/quarter
Precipitation	once/day	once/quarter
BOD ₅	once/month	once/quarter
TSS	once/month	once/quarter
pH	once/month	once/quarter
Ammonia as N	once/month	once/quarter
Chloride plus Sulfate	once/month	once/quarter
Chloride	once/month	once/quarter
Oil & Grease	once/month	once/quarter
Nitrogen, Total as N	once/quarter	once/quarter
Phosphorus, Total as P	once/quarter	once/quarter

SAMPLING FREQUENCY JUSTIFICATION

Sampling and reporting frequencies were established by mirroring the frequencies required for Outfall #007. Monitoring for nitrogen and phosphorus was set at the regulatory requirement of once per quarter. Due to the similarity in activity associated with Outfall #007, frequencies from Outfall #007 are deemed adequate to monitor and control pollutant runoff through Outfall #008.

SAMPLING TYPE JUSTIFICATION

Sampling types were also established using the types required for Outfall #007. Due to the nature of the discharge being stormwater runoff, grab samples are deemed representative.

Part IV – Administrative Requirements

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

PUBLIC NOTICE:

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

- The Public Notice period for this operating permit began March 13, 2015 and ended April 13, 2015. No comments were received during the Public Notice period.

DATE OF STATEMENT OF BASIS: APRIL 14, 2015

COMPLETED BY:

**LOGAN COLE, ENVIRONMENTAL SPECIALIST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION - DOMESTIC WASTEWATER UNIT
(573) 751-5827
logan.cole@dnr.mo.gov**

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL OF
MO-0111686
CONTINENTAL CEMENT COMPANY

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a Factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

A Factsheet is not an enforceable part of an operating permit.

This Factsheet is for a Industrial Facility

Part I – Facility Information

Facility Type: Industrial Cement Processing Facility
Facility SIC Code(s): 3241

Facility Description:

Outfall #001 is for domestic wastewater from an extended aeration activated sludge plant. The effluent from Outfall #001 flows to the lift station at Outfall #003. The effluent and collected stormwater is pumped from the lift station to the sedimentation basin at Outfall #006 or the water can be discharged from Outfall #003 during large rainfall events. Outfall #002 is stormwater runoff from the Cement Kiln Dust Management Area (Monofill) & the Syn-Gyp storage pile. Outfall #003 is for stormwater runoff from a series of sedimentation ponds, from the Northern Industrial Area, Main Processing plant, kiln, and alternative waste fuel facility and effluent from Outfall #001, which is pumped by the lift station to the sedimentation basin at Outfall #006 or is discharged from Outfall #003 during large rainfall events. Outfall #004 is for stormwater runoff, for the Gypsum Belt loading areas. Collected stormwater is pumped from the lift station to the detention pond at Outfall #006 or the collected water can be discharged from Outfall #004 during large rainfall events. Outfall #005 is for stormwater runoff through a detention pond (with an additional emergency holding pond), for a pre-law quarry site (for an artificial soil program), with spray irrigation onto the artificial soil program area as needed for consumptive irrigation or treated effluent discharge. Outfall #006 is served by a sedimentation pond, which collects water and wastewater from the lift stations at Outfalls #003 and #004, stormwater from the Southern Industrial Area and Coal Storage Area, and non-contact cooling water. Outfalls #007 is for stormwater runoff through a detention pond, for a land reclamation quarry site (for an artificial soil program), with spray irrigation onto the artificial soil program area as needed for consumptive irrigation, or treated effluent discharge. Outfall #007 has not had any cement kiln dust used as part of the artificial soil program and there are no plans currently to start using cement kiln dust at that location.

Have any changes occurred at this facility or in the receiving water body that effects effluent limit derivation?

- No

Application Date: 10/06/2009
Expiration Date: 04/7/2010
Last Inspection: 02/14/2005 Non-Compliance The facility was returned to compliance on September 8, 2005.

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (GPD)	TREATMENT LEVEL	EFFLUENT TYPE	DISTANCE TO CLASSIFIED SEGMENT (MI)
#001	15,000	Secondary	Domestic	~ 0.5
#002	> 1,000,000	Primary/BMPs	Stormwater	~ 0.5
#003	> 1,000,000	Primary/BMPs	Stormwater/Domestic	~ 0.05
#004	> 1,000,000	Primary/BMPs	Stormwater	~ 0.05
#005	> 1,000,000	Primary/Land Application	Stormwater	~ 1.3
#006	> 1,000,000	Primary/BMPs	Stormwater/Domestic/Industrial	~ 0.5
#007	> 1,000,000	Primary/Land Application	Stormwater	~ 1.8

Outfall #001

Legal Description: NE ¼, SE ¼, NW ¼, Sec. 2, T56N, R4W, Ralls County
UTM Coordinates: X=644631.066, Y=4393585.453
Receiving Stream: Unnamed tributary to Mississippi River (U)
First Classified Stream and ID: Mississippi River (P) (00001)
USGS Basin & Sub-watershed No.: (07110004-0504)

Outfall #002

Legal Description: NW ¼, NE ¼, NW ¼, Sec. 2, T56N, R4W, Ralls County
UTM Coordinates: X=644434.245, Y=4394080.379
Receiving Stream: Unnamed tributary to Mississippi River (U)
First Classified Stream and ID: Mississippi River (P) (00001)
USGS Basin & Sub-watershed No.: (07110004-0504)

Outfall #003

Legal Description: SW ¼, NW ¼, NE ¼, Sec. 2, T56N, R4W, Ralls County
UTM Coordinates: X=644772.146, Y=4393768.728
Receiving Stream: Unnamed tributary to Mississippi River (U)
First Classified Stream and ID: Mississippi River (P) (00001)
USGS Basin & Sub-watershed No.: (07110004-0504)

Outfall #004

Legal Description: NE ¼, SW ¼, NE ¼, Sec. 2, T56N, R4W, Ralls County
UTM Coordinates: X=644958.580, Y=4393530.542
Receiving Stream: Unnamed tributary to Mississippi River (U)
First Classified Stream and ID: Mississippi River (P) (00001)
USGS Basin & Sub-watershed No.: (07110004-0504)

Outfall #005

Legal Description: NE ¼, NE ¼, SW ¼, Sec. 3, T56N, R4W, Ralls County
UTM Coordinates: X=643031.113, Y= 4393195.364
Receiving Stream: Unnamed tributary to Mississippi River (U)
First Classified Stream and ID: Mississippi River (P) (00001)
USGS Basin & Sub-watershed No.: (07110004-0504)

Outfall #006

Legal Description: SE ¼, SW ¼, NE ¼, Sec. 2, T56N, R4W, Ralls County
UTM Coordinates: X=645041.036, Y=4393401.960
Receiving Stream: Unnamed tributary to Mississippi River (U)
First Classified Stream and ID: Mississippi River (P) (00001)
USGS Basin & Sub-watershed No.: (07110004-0504)

Legal Description: SE ¼, SE ¼, SE ¼, Sec. 11, T56N, R4W, Ralls County
UTM Coordinates: X=645334.332, Y=4391064.221
Receiving Stream: Unnamed tributary to Marble Creek (U)
First Classified Stream and ID: Mississippi River (P) (00001)
USGS Basin & Sub-watershed No.: (07110004-0504)

Receiving Water Body's Water Quality & Facility Performance History:

No stream surveys have been conducted for this facility. The facility failed to meet Total Suspended Solids limits for Outfall #001 on the 4th Quarter 2009 Discharge Monitoring Report (DMR), for Outfall #002 on the 2nd Quarter 2007 DMR, for Outfall #005 on the September 2008 DMR and for Outfall #006 on the November 2008, July 2009, August 2009, September 2009 and June 2010 DMRs. The facility failed to meet Biochemical Oxygen Demand limits for Outfall #005 on the September 2008 and February 2009 DMRs. The facility failed to meet Oil & Grease limits for Outfall #006 on the February and March 2008 DMRs.

Part II – Operator Certification Requirements

Not Applicable ; This facility is not required to have a certified operator.

Part III – Receiving Stream Information

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:

As per Missouri's Effluent Regulations [10 CSR 20-7.015], the waters of the state are divided into the below listed seven (7) categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall's Effluent Limitation Table and further discussed in the Derivation & Discussion of Limits section.

- Missouri or Mississippi River [10 CSR 20-7.015(2)]:
- All Other Waters [10 CSR 20-7.015(8)]:

10 CSR 20-7.031 Missouri Water Quality Standards, the Department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and/or 1st classified receiving stream's beneficial water uses to be maintained are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(3)].

RECEIVING STREAM(S) TABLE:

WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	8-DIGIT HUC	EDU**
Unnamed tributary to Mississippi River	U	NA	General Criteria	07110004	Central Plains / Cuivre / Salt
Unnamed tributary to Marble Creek	U	NA	General Criteria		
Mississippi River (P) (00001)	P	03699	LWW, AQL, WBC-A***, DWS, SCR, IND		

* - Irrigation (IRR), Livestock & Wildlife Watering (LWW), Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL), Cool Water Fishery (CLF), Cold Water Fishery (CDF), Whole Body Contact Recreation (WBC), Secondary Contact Recreation (SCR), Drinking Water Supply (DWS), Industrial (IND), Groundwater (GRW).

** - Ecological Drainage Unit

*** - UAA has not been conducted.

Part IV – Rationale and Derivation of Effluent Limitations & Permit Conditions

ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:

As per [10 CSR 20-7.015(4)(A)], discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

Not Applicable ; The facility does not discharge to a Losing Stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)], or is an existing facility.

ANTI-BACKSLIDING:

A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(I)] that requires a reissued permit to be as stringent as the previous permit with some exceptions.

- All limits in this operating permit are at least as protective as those previously established; therefore, backsliding does not apply.

ANTIDegradation:

In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(2)], the Department is to document by means of Antidegradation Review that the use of a water body's available assimilative capacity is justified. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

- Renewal no degradation proposed and no further review necessary.

AREA-WIDE WASTE TREATMENT MANAGEMENT & CONTINUING AUTHORITY:

As per [10 CSR 20-6.010(3)(B)], ...An applicant may utilize a lower preference continuing authority by submitting, as part of the application, a statement waiving preferential status from each existing higher preference authority, providing the waiver does not conflict with any area-wide management plan approved under section 208 of the Federal Clean Water Act or any other regional sewage service and treatment plan approved for higher preference authority by the Department.

BIOSOLIDS, SLUDGE, & SEWAGE SLUDGE:

Bio-solids are solid materials resulting from wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). Sludge is any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such waste having similar characteristics and effect. Sewage sludge is solids, semi-solids, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Additional information regarding biosolids and sludge is located at the following web address: <http://dnr.mo.gov/env/wpp/pub/index.html>, items WQ422 through WQ449.

- Sludge/biosolids are removed by contract hauler.

COMPLIANCE AND ENFORCEMENT:

Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.

Not Applicable ; The permittee/facility is not currently under Water Protection Program enforcement action.

REASONABLE POTENTIAL ANALYSIS (RPA):

Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard.

In accordance with [40 CFR Part 122.44(d)(iii)] if the permit writer determines that any give pollutant has the reasonable potential to cause, or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for that pollutant.

Applicable ; A RPA was conducted on appropriate parameters. Please see **APPENDIX A – RPA RESULTS**.

REMOVAL EFFICIENCY:

Removal efficiency is a method by which the Federal Regulations define Secondary Treatment and Equivalent to Secondary Treatment, which applies to Biochemical Oxygen Demand 5-day (BOD₅) and Total Suspended Solids (TSS) for Publicly Owned Treatment Works (POTWs)/municipals. Please see the United States Environmental Protection Agency's (EPA) website for interpretation of percent removal requirements for National Pollutant Discharge Elimination System Permit Application Requirements for Publicly Owned Treatment Works and Other Treatment Works Treating Domestic Sewage @ www.epa.gov/fedrgstr/EPA-WATER/1999/August/Day-04/w18866.htm.

Not Applicable ; Influent monitoring is not being required to determine percent removal.

SANITARY SEWER OVERFLOWS (SSO) AND INFLOW AND INFILTRATION (I&I):

Sanitary Sewer Overflows (SSOs) are defined as an untreated or partially treated sewage release are considered bypassing under state regulation [10 CSR 20-2.010(11)] and should not be confused with the federal definition of bypass. SSO's have a variety of causes including blockages, line breaks, and sewer defects that allow excess storm water and ground water to (1) enter and overload the collection system, and (2) overload the treatment facility. Additionally, SSO's can be also be caused by lapses in sewer system operation and maintenance, inadequate sewer design and construction, power failures, and vandalism. SSOs also include overflows out of manholes and onto city streets, sidewalks, and other terrestrial locations.

Additionally, Missouri RSMo §644.026.1 mandates that the Department require proper maintenance and operation of treatment facilities and sewer systems and proper disposal of residual waste from all such facilities.

- Not applicable. This facility is not required to develop or implement a program for maintenance and repair of the collection system; however, it is a violation of Missouri State Environmental Laws and Regulations to allow untreated wastewater to discharge to waters of the state.

SCHEDULE OF COMPLIANCE (SOC):

A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit.

Applicable ; The time given for effluent limitations of this permit listed under Interim Effluent Limitation and Final Effluent Limitations were established in accordance with [10 CSR 20-7.031(10)]. A schedule of compliance was included for E. coli for Outfall #001 and a schedule of compliance was included for Chloride, Chloride + Sulfate, Oil and Grease, and Ammonia as N for Outfall #005, and a schedule of compliance was included for Oil & Grease for Outfall #007.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP):

In accordance with 40 CFR 122.44(k) *Best Management Practices (BMPs)* to control or abate the discharge of pollutants when: (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; (2) Authorized under section 402(p) of the CWA for the control of storm water discharges; (3) Numeric effluent limitations are infeasible; or (4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering (regarding this operating permit) waters of the state. BMPs may take the form of a process, activity, or physical structure.

Additionally in accordance with the Storm Water Management, a SWPPP is a series of steps and activities to (1) identify sources of pollution or contamination, and (2) select and carry out actions which prevent or control the pollution of storm water discharges.

Applicable ; A SWPPP shall be developed and implemented for each site and shall incorporate required practices identified by the Department with jurisdiction, incorporate erosion control practices specific to site conditions, and provide for maintenance and adherence to the plan.

VARIANCE:

As per the Missouri Clean Water Law § 644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §§644.006 to 644.141.

Not Applicable ; This operating permit is not drafted under premises of a petition for variance.

WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:

As per [10 CSR 20-2.010(78)], the amount of pollutant each discharger is allowed by the Department to release into a given stream after the Department has determined total amount of pollutant that may be discharged into that stream without endangering its water quality.

Applicable ; Wasteload allocations were calculated where applicable using water quality criteria or water quality model results and the dilution equation below:

$$C = \frac{(Cs \times Qs) + (Ce \times Qe)}{(Qe + Qs)} \quad (\text{EPA/505/2-90-001, Section 4.5.5})$$

Where C = downstream concentration
Cs = upstream concentration
Qs = upstream flow
Ce = effluent concentration
Qe = effluent flow

Chronic wasteload allocations were determined using applicable chronic water quality criteria (CCC: criteria continuous concentration) and stream volume of flow at the edge of the mixing zone (MZ). Acute wasteload allocations were determined using applicable water quality criteria (CMC: criteria maximum concentration) and stream volume of flow at the edge of the zone of initial dilution (ZID).

Water quality based maximum daily and average monthly effluent limitations were calculated using methods and procedures outlined in USEPA's "Technical Support Document For Water Quality-based Toxics Control" (EPA/505/2-90-001).

Number of Samples "n":

Additionally, in accordance with the TSD for water quality-based permitting, effluent quality is determined by the underlying distribution of daily values, which is determined by the Long Term Average (LTA) associated with a particular Wasteload Allocation (WLA) and by the Coefficient of Variation (CV) of the effluent concentrations. Increasing or decreasing the monitoring frequency does not affect this underlying distribution or treatment performance, which should be, at a minimum, be targeted to comply with the values dictated by the WLA. Therefore, it is recommended that the actual planned frequency of monitoring normally be used to determine the value of "n" for calculating the AML. However, in situations where monitoring frequency is once per month or less, a higher value for "n" must be assumed for AML derivation purposes. Thus, the statistical procedure being employed using an assumed number of samples is "n = 4" at a minimum. For Total Ammonia as Nitrogen, "n = 30" is used.

WLA MODELING:

There are two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs). If TBELs do not provide adequate protection for the receiving waters, then WQBEL must be used.

Not Applicable ; A WLA study was either not submitted or determined not applicable by Department staff.

WATER QUALITY STANDARDS:

Per [10 CSR 20-7.031(3)], General Criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, [40 CFR 122.44(d)(1)] directs the Department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including State narrative criteria for water quality.

WHOLE EFFLUENT TOXICITY (WET) TEST:

A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with or through synergistic responses when mixed with receiving stream water.

Not Applicable ; At this time, the permittee is not required to conduct WET test for this facility.

40 CFR 122.41(M) - BYPASSES:

The federal Clean Water Act (CWA), Section 402 prohibits wastewater dischargers from "bypassing" untreated or partially treated sewage (wastewater) beyond the headworks. A bypass, which includes blending, is defined as an intentional diversion of waste streams from any portion of a treatment facility, [40 CFR 122.41(m)(1)(i)]. Additionally, Missouri regulation 10 CSR 20-2.010(11) defines a bypass as the diversion of wastewater from any portion of wastewater treatment facility or sewer system to waters of the state. Only under exceptional and specified limitations do the federal regulations allow for a facility to bypass some or all of the flow from its treatment process. Bypasses are prohibited by the CWA unless a permittee can meet all of the criteria listed in 40 CFR 122.41(m)(4)(i)(A), (B), & (C). Any bypasses from this facility are subject to the reporting required in 40 CFR 122.41(l)(6) and per Missouri's Standard Conditions I, Section B, part 2.b. Additionally, Anticipated Bypasses include bypasses from peak flow basins or similar.

- Not Applicable, this facility does not bypass.

303(d) LIST & TOTAL MAXIMUM DAILY LOAD (TMDL):

Section 303(d) of the federal Clean Water Act requires that each state identify waters that are not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock and wildlife. The 303(d) list helps state and federal agencies keep track of waters that are impaired but not addressed by normal water pollution control programs.

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation

Applicable ; Mississippi River is listed on the 2002 Missouri 303(d) List for Chlordane and PCBs.

– This facility is not considered to be a source of the above listed pollutant(s) or considered to contribute to the impairment of Mississippi River.

Part V – Effluent Limits Determination

Outfall #001 – Domestic Wastewater

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
Flow	MGD	1	*		*	NO	S
Biochemical Oxygen Demand ₅	mg/L	1		45	30	NO	S
Total Suspended Solids	mg/L	1		45	30	NO	S
pH	SU	1	6.5 – 9		6.5 – 9	YES	6.0 – 9.0
Ammonia as N	mg/L	2/3/5	*		*	YES	***
ESCHERICHIA COLI (INTERIM)	**	1/9	*		*	YES	***
ESCHERICHIA COLI (FINAL)	**	1/9	630		126	YES	*
MONITORING FREQUENCY	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

* - Monitoring requirement only.

** - # of colonies/100mL; the Monthly Average for *E. coli* is a geometric mean.

*** - Parameter not previously established in previous state operating permit.

S – Same as previous operating permit

Basis for Limitations Codes:

- | | |
|--|------------------------------------|
| 5. State or Federal Regulation/Law | 7. Antidegradation Policy |
| 6. Water Quality Standard (includes RPA) | 8. Water Quality Model |
| 7. Water Quality Based Effluent Limits | 9. Best Professional Judgment |
| 8. Lagoon Policy | 10. TMDL or Permit in lieu of TMDL |
| 9. Ammonia Policy | 11. WET Test Policy |
| 10. Dissolved Oxygen Policy | 12. Antidegradation Review |

OUTFALL #001 – DERIVATION AND DISCUSSION OF LIMITS:

- **Flow.** In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.

- **Biochemical Oxygen Demand (BOD₅)**. Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream’s Water Quality. Therefore, effluent limitations have been retained from previous state operating permit, please see the **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Receiving Stream Information**.
- **Total Suspended Solids (TSS)**. Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream’s Water Quality. Therefore, effluent limitations have been retained from previous state operating permit, please see the **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Receiving Stream Information**.
- **Total Ammonia Nitrogen**. Monitoring only requirement to determine if the discharge has a potential to violate water quality standards.

Water Quality Based Effluent Limitations

- **pH**. Effluent limitation range is 6.5 to 9.0 Standard pH Units (SU), as per the applicable section of 10 CSR 20-7.015. pH is not to be averaged.
- **Escherichia coli (E. coli)**. Monthly average of 126 per 100 ml as a geometric mean and Daily Maximum of 630 during the recreational season (April 1 – October 31), to protect Whole Body Contact Recreation (A) designated use of the receiving stream, as per 10 CSR 20-7.031(4)(C). Daily Maximum effluent variability will be evaluated in development of a future effluent limit. An effluent limit for both monthly average and daily maximum is required by 40 CFR 122.45(d).
- **Minimum Sampling and Reporting Frequency Requirements**.

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/quarter	once/quarter
Biochemical Oxygen Demand ₅	once/quarter	once/quarter
Total Suspended Solids	once/quarter	once/quarter
pH	once/quarter	once/quarter
Ammonia as N	once/quarter	once/quarter
E.coli	once/quarter	once/quarter

- Outfall #002** – Stormwater / Cement Kiln Dust Management Area and the Synthetic Gypsum storage pile
- Outfall #003** – Stormwater / Northern Industrial Area, Main Processing plant, kiln, and alternative waste fuel facility
- Outfall #004** – Stormwater / Gypsum Belt loading areas
- Outfall #006** – Southern Industrial Area, Coal Storage Area, non-contact cooling water

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supercede the terms and conditions, including effluent limitations, of this operating permit.

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
Flow	MGD	1	*		*	NO	S
Precipitation	inches	1	*		*	YES	***
Total Suspended Solids	mg/L	1	50		50	NO	S
Chemical Oxygen Demand	mg/L	9	*		*	YES	***
Oil & Grease	mg/L	1/3	15		10	NO	S
pH	SU	1	6.5 – 9		6.5 – 9	YES	6.0 – 9.0
Chloride + Sulfate	mg/L	2/3	*		*	YES	***
Chloride	mg/L	2/3	*		*	YES	***
Aluminum, Total Recoverable	µg/L	2/3	*		*	YES	***
Antimony, Total Recoverable	µg/L	2/3	*		*	YES	***
Arsenic, Total Recoverable	µg/L	2/3	*		*	YES	***
Beryllium, Total Recoverable	µg/L	2/3	*		*	YES	***
Cadmium, Total Recoverable	µg/L	2/3	*		*	YES	***
Chromium III, Total Recoverable	µg/L	2/3	*		*	YES	***
Chromium VI, Dissolved	µg/L	2/3	*		*	YES	***
Copper, Total Recoverable	µg/L	2/3	*		*	YES	***
Iron, Total Recoverable	µg/L	2/3	*		*	YES	***
Lead, Total Recoverable	µg/L	2/3	*		*	YES	***
Mercury, Total Recoverable	µg/L	2/3	*		*	YES	***
Nickel, Total Recoverable	µg/L	2/3	*		*	YES	***
Selenium, Total Recoverable	µg/L	2/3	*		*	YES	***
Silver, Total Recoverable	µg/L	2/3	*		*	YES	***
Thallium, Total Recoverable	µg/L	2/3	*		*	YES	***
Zinc, Total Recoverable	µg/L	2/3	*		*	YES	***
Hardness, Total	mg/L	9	*		*	YES	***
Total Toxic Organics (Outfall #006 only)	µg/L	9	*		*	NO	S
2,3,7,8-tetrachlorodibenzo-p-dioxin (Outfalls #005 and #006 only)	ng/L	9	*		*	YES	***
MONITORING FREQUENCY	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

* - Monitoring requirement only.

*** - Parameter not previously established in previous state operating permit.

N/A – Not applicable

S – Same as previous operating permit

Basis for Limitations Codes:

- | | |
|--|------------------------------------|
| 1. State or Federal Regulation/Law | 7. Antidegradation Policy |
| 2. Water Quality Standard (includes RPA) | 8. Water Quality Model |
| 3. Water Quality Based Effluent Limits | 9. Best Professional Judgment |
| 4. Lagoon Policy | 10. TMDL or Permit in lieu of TMDL |
| 5. Ammonia Policy | 11. WET Test Policy |
| 6. Dissolved Oxygen Policy | 12. Antidegradation Review |

OUTFALLS #002, #003, #004, #006 – DERIVATION AND DISCUSSION OF LIMITS:

- **Flow.** In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.
- **Precipitation.** Monitoring only requirement. Precipitation data obtained from DMRs is used to aid in the determination of this facilities specific runoff coefficient and theoretical loading in the watershed.
- **Chemical Oxygen Demand.** Monitoring requirement only. The Department will review the effluent data upon the next permit renewal to determine if effluent limitations are needed.
- **Chloride + Sulfate.** Monitoring requirement only. The Department will review the effluent data upon the next permit renewal to determine if effluent limitations are needed.
- **Chloride.** Monitoring requirement only. The Department will review the effluent data upon the next permit renewal to determine if effluent limitations are needed.

Metals

- **Total Hardness.** Monitoring only requirement due to the fact that Metals toxicity varies by hardness.
- **Aluminum, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri's WQS.
- **Antimony, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri's WQS.
- **Arsenic, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri's WQS.
- **Beryllium, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri's WQS.
- **Cadmium, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri's WQS.
- **Chromium (III), Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri's WQS.
- **Chromium (VI), Dissolved.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri's WQS.
- **Copper, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri's WQS.
- **Iron, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri's WQS.
- **Lead, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri's WQS.

- **Mercury, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Nickel, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Selenium, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Silver, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Thallium, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Zinc, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Total Toxic Organics.** Monitoring requirement only. As the facility stores and incinerates hazardous wastes, this parameter is included to determine if any of the individual contaminants are being discharged. Outfall #006 only.
- **2,3,7,8-tetrachlorodibenzo-p-dioxin.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS. Outfalls #005 and #006 only.

Water Quality Based Effluent Limitations

- **Oil & Grease.** Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.
- **pH.** Effluent limitation range is 6.5 to 9.0 Standard pH Units (SU), as per the applicable section of 10 CSR 20-7.015. pH is not to be averaged.

Technology Based Effluent Limitations

- **Total Suspended Solids (TSS).** Effluent limitations of 50 mg/L as a Daily Maximum and as a Monthly Average are applicable to this facility as per 40 CFR 411.32.
- **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/quarter	once/quarter
Precipitation	once/day	once/quarter
Total Suspended Solids	once/quarter	once/quarter
Chemical Oxygen Demand	once/quarter	once/quarter
Oil & Grease	once/quarter	once/quarter
pH	once/quarter	once/quarter
Chloride + Sulfate	once/quarter	once/quarter
Chloride	once/quarter	once/quarter
Aluminum, Total Recoverable	once/quarter	once/quarter
Antimony, Total Recoverable	once/quarter	once/quarter
Arsenic, Total Recoverable	once/quarter	once/quarter
Beryllium, Total Recoverable	once/quarter	once/quarter
Cadmium, Total Recoverable	once/quarter	once/quarter
Chromium III, Total Recoverable	once/quarter	once/quarter
Chromium VI, Dissolved	once/quarter	once/quarter
Copper, Total Recoverable	once/quarter	once/quarter

Iron, Total Recoverable	once/quarter	once/quarter
Lead, Total Recoverable	once/quarter	once/quarter
Mercury, Total Recoverable	once/quarter	once/quarter
Nickel, Total Recoverable	once/quarter	once/quarter
Selenium, Total Recoverable	once/quarter	once/quarter
Silver, Total Recoverable	once/quarter	once/quarter
Thallium, Total Recoverable	once/quarter	once/quarter
Zinc, Total Recoverable	once/quarter	once/quarter
Hardness, Total	once/quarter	once/quarter
Total Toxic Organics	once/year	once/year
2,3,7,8-tetrachlorodibenzo-p-dioxin	once/ 5 years	once/ 5 years

Outfall #005 – Stormwater / Artificial soil reclamation area

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
Flow	MGD	1	*		*	NO	S
Precipitation	inches	9	*		*	YES	***
Biochemical Oxygen Demand	mg/L	9	65		45	NO	S
Total Suspended Solids	mg/L	1	50		50	YES	110/70
Ammonia as N (Interim)	mg/L	2/3/5	*		*	NO	S
Ammonia as N (Final) (May 1 – Oct 31)	mg/L	2/3/5	4.4		1.4	YES	*
Ammonia as N (Final) (Nov 1 – Apr 30)	mg/L	2/3/5	7.5		2.9	YES	*
Chloride + Sulfate (Interim)	mg/L	2/3	*		*	YES	Previously Sulfate
Chloride + Sulfate (Final)	mg/L	2/3	1000		*	YES	***
Chloride (Interim)	mg/L	2/3	*		*	NO	S
Chloride (Final)	mg/L	2/3	404.9		177.2	YES	*
Oil & Grease (Interim)	mg/L	1/3	*		*	NO	S
Oil & Grease (Final)	mg/L	1/3	15		10	YES	*
pH	SU	1	6.5 – 9.0		6.5 – 9.0	YES	6.0 – 9.0
Aluminum, Total Recoverable	µg/L	2/3	*		*	YES	***
Antimony, Total Recoverable	µg/L	2/3	*		*	YES	***
Arsenic, Total Recoverable	µg/L	2/3	*		*	YES	***
Beryllium, Total Recoverable	µg/L	2/3	*		*	YES	***
Cadmium, Total Recoverable	µg/L	2/3	*		*	YES	***
Chromium III, Total Recoverable	µg/L	2/3	*		*	YES	***
Chromium VI, Dissolved	µg/L	2/3	*		*	YES	***
Copper, Total Recoverable	µg/L	2/3	*		*	YES	***
Iron, Total Recoverable	µg/L	2/3	*		*	YES	***
Lead, Total Recoverable	µg/L	2/3	*		*	YES	***
Mercury, Total Recoverable	µg/L	2/3	*		*	YES	***
Nickel, Total Recoverable	µg/L	2/3	*		*	YES	***
Selenium, Total Recoverable	µg/L	2/3	*		*	YES	***

Silver, Total Recoverable	µg/L	2/3	*		*	YES	***
Thallium, Total Recoverable	µg/L	2/3	*		*	YES	***
Zinc, Total Recoverable	µg/L	2/3	*		*	YES	***
Hardness, Total	mg/L	9	*		*	YES	***
MONITORING FREQUENCY	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

* - Monitoring requirement only.

*** - Parameter not previously established in previous state operating permit.

S – Same as previous operating permit

Basis for Limitations Codes:

- | | |
|--|------------------------------------|
| 1. State or Federal Regulation/Law | 7. Antidegradation Policy |
| 2. Water Quality Standard (includes RPA) | 8. Water Quality Model |
| 3. Water Quality Based Effluent Limits | 9. Best Professional Judgment |
| 4. Lagoon Policy | 10. TMDL or Permit in lieu of TMDL |
| 5. Ammonia Policy | 11. WET Test Policy |
| 6. Dissolved Oxygen Policy | 12. Antidegradation Review |

OUTFALL #005– DERIVATION AND DISCUSSION OF LIMITS:

- **Flow.** In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.
- **Precipitation.** Monitoring only requirement. Precipitation data obtained from DMRs is used to aid in the determination of this facilities specific runoff coefficient and theoretical loading in the watershed.
- **Biochemical Oxygen Demand (BOD₅).** Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream’s Water Quality. Therefore, effluent limitations have been retained from previous state operating permit, please see the **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Receiving Stream Information.**

Metals

- **Total Hardness.** Monitoring only requirement due to the fact that Metals toxicity varies by hardness.
- **Aluminum, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Antimony, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Arsenic, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Beryllium, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Cadmium, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Chromium (III), Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Chromium (VI), Dissolved.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Copper, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.

- **Iron, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Lead, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Mercury, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Nickel, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Selenium, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Silver, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Thallium, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Zinc, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.

Water Quality Based Effluent Limitations

- **Oil & Grease.** Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.
- **pH.** Effluent limitation range is 6.5 to 9.0 Standard pH Units (SU), as per the applicable section of 10 CSR 20-7.015. pH is not to be averaged.
- **Chloride.** Warm-water Protection of Aquatic Life CCC = 230 mg/L, CMC = 860 mg/L [10 CSR 20-7.031, Table A].
 Background Chloride = 0.0 mg/L.

Chronic WLA: $C_e = ((1.55 + 0.0)230 - (0.0 * 0.0))/1.55$
 $C_e = 230 \text{ mg/L}$

Acute WLA: $C_e = ((1.55 + 0.0)860 - (0.0 * 0.0))/1.55$
 $C_e = 860 \text{ mg/L}$

$LTA_c = 230 (0.251) = 101.53 \text{ mg/L}$ [CV = 0.795, 99th Percentile]
 $LTA_a = 860 (0.441) = 215.7 \text{ mg/L}$ [CV = 0.795, 99th Percentile]

Use most protective number of LTA_c or LTA_a .

$MDL = 101.53 (3.988) = 404.9 \text{ mg/L}$ [CV = 0.795, 99th Percentile]
 $AML = 101.53 (1.745) = 177.2 \text{ mg/L}$ [CV = 0.795, 95th Percentile, n = 27]

- **Chloride + Sulfate.** Effluent limitation of 1000 mg/L as a Daily Maximum and Monthly Average is applicable as per [10 CSR 20-7.031(L)1.].
- **Ammonia as N.** Early Life Stages Present Total Ammonia Nitrogen criteria apply [10 CSR 20-7.031(4)(B)7.C. & Table B3] default pH 7.8 SU Background total ammonia nitrogen = 0.01 mg/L.

Season	Temp (°C)	pH (SU)	Total Ammonia Nitrogen CCC (mg/L)	Total Ammonia Nitrogen CMC (mg/L)
Summer	26	7.8	1.5	12.1
Winter	6	7.8	3.1	12.1

Summer: May 1 – October 31

Chronic WLA: $C_e = ((1.55 + 0.0)1.5 - (0.0 * 0.01))/1.55$
 $C_e = 1.5 \text{ mg/L}$

Acute WLA: $C_e = ((1.55 + 0.0)12.1 - (0.0 * 0.01))/1.55$
 $C_e = 12.1 \text{ mg/L}$

$LTA_c = 1.5 \text{ mg/L} (0.711) = 1.07 \text{ mg/L}$
 $LTA_a = 12.1 \text{ mg/L} (0.240) = 2.91 \text{ mg/L}$

[CV = 0.834, 99th Percentile, 30 day avg.]
[CV = 0.834, 99th Percentile]

Use most protective number of LTA_c or LTA_a .

MDL = $1.07 \text{ mg/L} (4.16) = 4.4 \text{ mg/L}$
AML = $1.07 \text{ mg/L} (1.27) = 1.4 \text{ mg/L}$

[CV = 0.834, 99th Percentile]
[CV = 0.834, 95th Percentile, n =30]

Winter: November 1 – April 30

Chronic WLA: $C_e = ((1.55 + 0.0)3.1 - (0.0 * 0.01))/1.55$
 $C_e = 3.1 \text{ mg/L}$

Acute WLA: $C_e = ((1.55 + 0.0)12.1 - (0.0 * 0.01))/1.55$
 $C_e = 12.1 \text{ mg/L}$

$LTA_c = 3.1 \text{ mg/L} (0.780) = 2.42 \text{ mg/L}$
 $LTA_a = 12.1 \text{ mg/L} (0.321) = 3.89 \text{ mg/L}$

[CV = 0.6, 99th Percentile, 30 day avg.]
[CV = 0.6, 99th Percentile]

Use most protective number of LTA_c or LTA_a .

MDL = $2.42 \text{ mg/L} (3.11) = 7.5 \text{ mg/L}$
AML = $2.42 \text{ mg/L} (1.19) = 2.9 \text{ mg/L}$

[CV = 0.6, 99th Percentile]
[CV = 0.6, 95th Percentile, n =30]

Technology Based Effluent Limitations

- **Total Suspended Solids (TSS).** Effluent limitations of 50 mg/L as a Daily Maximum and as a Monthly Average are applicable to this facility as per 40 CFR 411.32. These limits have replaced the previous effluent limits as 40 CFR 411.32 applies to any material storage pile, as the artificial soil reclamation area is considered storage of waste materials from the process.
- **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/month	once/quarter
Precipitation	once/day	once/quarter
Biochemical Oxygen Demand	once/month	once/quarter
Total Suspended Solids	once/month	once/quarter
Ammonia as N	once/month	once/quarter
Chloride + Sulfate	once/month	once/quarter
Chloride	once/month	once/quarter
Oil & Grease	once/month	once/quarter
pH	once/month	once/quarter
Aluminum, Total Recoverable	once/quarter	once/quarter
Antimony, Total Recoverable	once/quarter	once/quarter
Arsenic, Total Recoverable	once/quarter	once/quarter
Beryllium, Total Recoverable	once/quarter	once/quarter
Cadmium, Total Recoverable	once/quarter	once/quarter
Chromium III, Total Recoverable	once/quarter	once/quarter
Chromium VI, Dissolved	once/quarter	once/quarter
Copper, Total Recoverable	once/quarter	once/quarter
Iron, Total Recoverable	once/quarter	once/quarter
Lead, Total Recoverable	once/quarter	once/quarter
Mercury, Total Recoverable	once/quarter	once/quarter

Nickel, Total Recoverable	once/quarter	once/quarter
Selenium, Total Recoverable	once/quarter	once/quarter
Silver, Total Recoverable	once/quarter	once/quarter
Thallium, Total Recoverable	once/quarter	once/quarter
Zinc, Total Recoverable	once/quarter	once/quarter
Hardness, Total	once/quarter	once/quarter

Outfall #007 – Stormwater / Artificial soil reclamation area

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supercede the terms and conditions, including effluent limitations, of this operating permit.

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
Flow	MGD	1	*		*	NO	S
Precipitation	inches	9	*		*	YES	***
Biochemical Oxygen Demand	mg/L	9	65		45	NO	S
Total Suspended Solids	mg/L	1	50		50	YES	110/70
Ammonia as N	mg/L	2/3/5	*		*	NO	S
Chloride + Sulfate	mg/L	2/3	*		*	YES	previously Sulfate
Chloride	mg/L	2/3	*		*	NO	S
Oil & Grease (Interim)	mg/L	1/3	*		*	NO	S
Oil & Grease (Final)	mg/L	1/3	15		10	YES	*
pH	SU	1	6.5 – 9.0		6.5 – 9.0	YES	6.0 – 9.0
Aluminum, Total Recoverable	µg/L	2/3	*		*	YES	***
Antimony, Total Recoverable	µg/L	2/3	*		*	YES	***
Arsenic, Total Recoverable	µg/L	2/3	*		*	YES	***
Beryllium, Total Recoverable	µg/L	2/3	*		*	YES	***
Cadmium, Total Recoverable	µg/L	2/3	*		*	YES	***
Chromium III, Total Recoverable	µg/L	2/3	*		*	YES	***
Chromium VI, Dissolved	µg/L	2/3	*		*	YES	***
Copper, Total Recoverable	µg/L	2/3	*		*	YES	***
Iron, Total Recoverable	µg/L	2/3	*		*	YES	***
Lead, Total Recoverable	µg/L	2/3	*		*	YES	***
Mercury, Total Recoverable	µg/L	2/3	*		*	YES	***
Nickel, Total Recoverable	µg/L	2/3	*		*	YES	***
Selenium, Total Recoverable	µg/L	2/3	*		*	YES	***
Silver, Total Recoverable	µg/L	2/3	*		*	YES	***
Thallium, Total Recoverable	µg/L	2/3	*		*	YES	***
Zinc, Total Recoverable	µg/L	2/3	*		*	YES	***
Hardness, Total	mg/L	9	*		*	YES	***
MONITORING FREQUENCY	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

* - Monitoring requirement only.

*** - Parameter not previously established in previous state operating permit.

S – Same as previous operating permit

Basis for Limitations Codes:

- | | |
|--|------------------------------------|
| 1. State or Federal Regulation/Law | 7. Antidegradation Policy |
| 2. Water Quality Standard (includes RPA) | 8. Water Quality Model |
| 3. Water Quality Based Effluent Limits | 9. Best Professional Judgment |
| 4. Lagoon Policy | 10. TMDL or Permit in lieu of TMDL |
| 5. Ammonia Policy | 11. WET Test Policy |
| 6. Dissolved Oxygen Policy | 12. Antidegradation Review |

OUTFALL #007– DERIVATION AND DISCUSSION OF LIMITS:

- **Flow.** In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.
- **Precipitation.** Monitoring only requirement. Precipitation data obtained from DMRs is used to aid in the determination of this facilities specific runoff coefficient and theoretical loading in the watershed.
- **Biochemical Oxygen Demand (BOD₅).** Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream’s Water Quality. Therefore, effluent limitations have been retained from previous state operating permit, please see the **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Receiving Stream Information**.
- **Oil & Grease.** Monitoring requirement only. This parameter needs further monitoring to determine if it has potential to violate Missouri’s WQS.
- **Chloride.** Monitoring requirement only. This parameter needs further monitoring to determine if it has potential to violate Missouri’s WQS.
- **Chloride + Sulfate.** Monitoring requirement only. This parameter needs further monitoring to determine if it has potential to violate Missouri’s WQS.
- **Ammonia as N.** Monitoring requirement only. This parameter needs further monitoring to determine if it has potential to violate Missouri’s WQS.

Metals

- **Total Hardness.** Monitoring only requirement due to the fact that Metals toxicity varies by hardness.
- **Aluminum, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Antimony, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Arsenic, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Beryllium, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Cadmium, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Chromium (III), Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Chromium (VI), Dissolved.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Copper, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.

- **Iron, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Lead, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Mercury, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Nickel, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Selenium, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Silver, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Thallium, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.
- **Zinc, Total Recoverable.** Monitoring requirement only. This parameter needs monitoring to determine if it has potential to violate Missouri’s WQS.

Water Quality Based Effluent Limitations

- **pH.** Effluent limitation range is 6.5 to 9.0 Standard pH Units (SU), as per the applicable section of 10 CSR 20-7.015. pH is not to be averaged.

Technology Based Effluent Limitations

- **Total Suspended Solids (TSS).** Effluent limitations of 50 mg/L as a Daily Maximum and as a Monthly Average are applicable to this facility as per 40 CFR 411.32. These limits have replaced the previous effluent limits as 40 CFR 411.32 applies to any material storage pile, as the artificial soil reclamation area is considered storage of waste materials from the process.

- **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/month	once/quarter
Precipitation	once/day	once/quarter
Biochemical Oxygen Demand	once/month	once/quarter
Total Suspended Solids	once/month	once/quarter
Ammonia as N	once/month	once/quarter
Chloride + Sulfate	once/month	once/quarter
Chloride	once/month	once/quarter
Oil & Grease	once/month	once/quarter
pH	once/month	once/quarter
Aluminum, Total Recoverable	once/quarter	once/quarter
Antimony, Total Recoverable	once/quarter	once/quarter
Arsenic, Total Recoverable	once/quarter	once/quarter
Beryllium, Total Recoverable	once/quarter	once/quarter
Cadmium, Total Recoverable	once/quarter	once/quarter
Chromium III, Total Recoverable	once/quarter	once/quarter
Chromium VI, Dissolved	once/quarter	once/quarter
Copper, Total Recoverable	once/quarter	once/quarter

Iron, Total Recoverable	once/quarter	once/quarter
Lead, Total Recoverable	once/quarter	once/quarter
Mercury, Total Recoverable	once/quarter	once/quarter
Nickel, Total Recoverable	once/quarter	once/quarter
Selenium, Total Recoverable	once/quarter	once/quarter
Silver, Total Recoverable	once/quarter	once/quarter
Thallium, Total Recoverable	once/quarter	once/quarter
Zinc, Total Recoverable	once/quarter	once/quarter
Hardness, Total	once/quarter	once/quarter

Part VI – Administrative Requirements

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

PUBLIC NOTICE:

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

- The Public Notice period for this operating permit is tentatively scheduled to begin on August 26, 2011 or is in process.

- The Public Notice period for this operating permit was from (DATE) to (DATE). Responses to the Public Notice of this operating permit warrant the modification of effluent limits and/or the terms and conditions of this permit. (Please explain). (Also if applicable – Due to the major modifications of this permit, this operating permit is to be placed on Public Notice again, which is tentatively scheduled to begin on (DATE) or is in process.

- The Public Notice period for this operating permit was from (DATE) to (DATE). No responses received or responses to the Public Notice of this operating permit do not warrant the modification of effluent limits and/or the terms and conditions of this permit.

DATE OF FACT SHEET: JULY 13, 2011

Submitted by

Brant Farris, Environmental Specialist
Northeast Regional Office
(660) 385-8000
brant.farris@dnr.mo.gov

Reviewed by

Joe Bowdish, Environmental Specialist
Northeast Regional Office
(660) 385-8000
joe.bowdish@dnr.mo.gov

Part VII – Appendices

APPENDIX A – RPA RESULTS:

Outfall #005

Parameter	CMC*	RWC Acute*	CCC*	RWC Chronic*	n**	Range max/min	CV***	MF	RP Yes/No
Total Ammonia as Nitrogen (Summer) mg/L	12.1	112.227	1.5	112.227	19	36.7 / 0.7	0.834	3.158	Yes
Total Ammonia as Nitrogen (Winter) mg/L	12.1	848	3.1	848	9	265 / 2.7	0.6	3.2	Yes
Chloride mg/L	860	17703.78	230	17703.78	27	7035/697	0.795	2.517	Yes
Chloride + Sulfate mg/L	1000	17211.22	1000	17211.22	54	7035/23	1.229	2.447	Yes

N/A – Not Applicable

* - Units are (µg/L) unless otherwise noted.

** - If the number of samples is greater than 10, then the CV value must be used in the WQBEL for the applicable constituent.

*** - Coefficient of Variation (CV) is calculated by dividing the Standard Deviation of the sample set by the Mean of the same sample set.

RWC – Receiving Water Concentration. It is the concentration of a toxicant or the parameter toxicity in the receiving water after mixing (if applicable).

n – Is the number of samples.

MF – Multiplying Factor. 99% Confidence Level and 99% Probability Basis.

RP – Reasonable Potential. It is where an effluent is projected or calculated to cause an excursion above a water quality standard based on a number of factors including, as a minimum, the four factors listed in 40 CFR 122.44(d)(1)(ii).

Reasonable Potential Analysis is conducted as per (TSD, EPA/505/2-90-001, Section 3.3.2). A more detailed version including calculations of this RPA is available upon request.

**STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION**

**Revised
October 1, 1980**

**PART I - GENERAL CONDITIONS
SECTION A - MONITORING AND REPORTING**

1. **Representative Sampling**
 - a. Samples and measurements taken as required herein shall be representative of the nature and volume, respectively, of the monitored discharge. All samples shall be taken at the outfall(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.
 - b. Monitoring results shall be recorded and reported on forms provided by the Department, postmarked no later than the 28th day of the month following the completed reporting period. Signed copies of these, and all other reports required herein, shall be submitted to the respective Department Regional Office, the Regional Office address is indicated in the cover letter transmitting the permit.
2. **Schedule of Compliance**

No later than fourteen (14) calendar days following each date identified in the "Schedule of Compliance", the permittee shall submit to the respective Department Regional Office as required therein, either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements, or if there are no more scheduled requirements, when such noncompliance will be corrected. The Regional Office address is indicated in the cover letter transmitting the permit.
3. **Definitions**

Definitions as set forth in the Missouri Clean Water Law and Missouri Clean Water Commission Definition Regulation 10 CSR 20-2.010 shall apply to terms used herein.
4. **Test Procedures**

Test procedures for the analysis of pollutant shall be in accordance with the Missouri Clean Water Commission Effluent Regulation 10 CSR 20-7015.
5. **Recording of Results**
 - a. For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:
 - (i) the date, exact place, and time of sampling or measurements;
 - (ii) the individual(s) who performed the sampling or measurements;
 - (iii) the date(s) analyses were performed;
 - (iv) the individual(s) who performed the analyses;
 - (v) the analytical techniques or methods used; and
 - (vi) the results of such analyses.
 - b. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six (6) months per violation, or both.
 - c. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.
6. **Additional Monitoring by Permittee**

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Monitoring Report Form. Such increased frequency shall also be indicated.

7. **Records Retention**

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recording for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

SECTION B - MANAGEMENT REQUIREMENTS

1. **Change in Discharge**
 - a. All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant not authorized by this permit or any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.
 - b. Any facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants shall be reported by submission of a new NPDES application at least sixty (60) days before each such change, or, if they will not violate the effluent limitations specified in the permit, by notice to the Department at least thirty (30) days before such changes.
2. **Noncompliance Notification**
 - a. If, for any reason, the permittee does not comply with or will be unable to comply with any daily maximum effluent limitation specified in this permit, the permittee shall provide the Department with the following information, in writing within five (5) days of becoming aware of such conditions:
 - (i) a description of the discharge and cause of noncompliance, and
 - (ii) the period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.
 - b. Twenty-four hour reporting. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally with 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided with five (5) days of the time the permittee becomes aware of the circumstances. The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.
3. **Facilities Operation**

Permittees shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions. Operators or supervisors of operations at publicly owned or publicly regulated wastewater treatment facilities shall be certified in accordance with 10 CSR 209.020(2) and any other applicable law or regulation. Operators of other wastewater treatment facilities, water contaminant source or point sources, shall, upon request by the Department, demonstrate that wastewater treatment equipment and facilities are effectively operated and maintained by competent personnel.
4. **Adverse Impact**

The permittee shall take all necessary steps to minimize any adverse impact to waters of the state resulting from noncompliance with any effluent limitations specified in this permit or set forth in the Missouri Clean Water Law and Regulations (hereinafter the Law and Regulations), including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

- a. Any bypass or shut down of a wastewater treatment facility and tributary sewer system or any part of such a facility and sewer system that results in a violation of permit limits or conditions is prohibited except:
 - (i) where unavoidable to prevent loss of life, personal injury, or severe property damages; and
 - (ii) where unavoidable excessive storm drainage or runoff would catastrophically damage any facilities or processes necessary for compliance with the effluent limitations and conditions of this permit;
 - (iii) where maintenance is necessary to ensure efficient operation and alternative measures have been taken to maintain effluent quality during the period of maintenance.
 - b. The permittee shall notify the Department in writing of all bypasses or shut down that result in a violation of permit limits or conditions. This section does not excuse any person from liability, unless such relief is otherwise provided by the statute.
6. **Removed Substances**
Solids, sludges, filter backwash, or any other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutants from entering waters of the state unless permitted by the Law, and a permanent record of the date and time, volume and methods of removal and disposal of such substances shall be maintained by the permittee.
 7. **Power Failures**
In order to maintain compliance with the effluent limitations and other provisions of this permit, the permittee shall either:
 - a. in accordance with the "Schedule of Compliance", provide an alternative power source sufficient to operate the wastewater control facilities; or,
 - b. if such alternative power source is not in existence, and no date for its implementation appears in the Compliance Schedule, halt or otherwise control production and all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.
 8. **Right of Entry**
For the purpose of inspecting, monitoring, or sampling the point source, water contaminant source, or wastewater treatment facility for compliance with the Clean Water Law and these regulations, authorized representatives of the Department, shall be allowed by the permittee, upon presentation of credentials and at reasonable times;
 - a. to enter upon permittee's premises in which a point source, water contaminant source, or wastewater treatment facility is located or in which any records are required to be kept under terms and conditions of the permit;
 - b. to have access to, or copy, any records required to be kept under terms and conditions of the permit;
 - c. to inspect any monitoring equipment or method required in the permit;
 - d. to inspect any collection, treatment, or discharge facility covered under the permit; and
 - e. to sample any wastewater at any point in the collection system or treatment process.
 9. **Permits Transferable**
 - a. Subject to Section (3) of 10 CSR 20-6.010 an operating permit may be transferred upon submission to the Department of an application to transfer signed by a new owner. Until such time as the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
 - b. The Department, within thirty (30) days of receipt of the application shall notify the new permittee of its intent to revoke and reissue or transfer the permit.
 10. **Availability of Reports**
Except for data determined to be confidential under Section 308 of the Act, and the Law and Missouri Clean Water Commission Regulation for Public Participation, Hearings and Notice to Governmental Agencies 10 CSR 20-6.020, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by statute, effluent data shall not be considered confidential. Knowingly making any false statement on any such report shall be subject to the imposition of criminal penalties as provided in Section 204.076 of the Law.
 - a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
 - (i) violation of any terms or conditions of this permit or the Law;
 - (ii) having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
 - (iii) a change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge, or
 - (iv) any reason set forth in the Law and Regulations.
 - b. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
12. **Permit Modification - Less Stringent Requirements**
If any permit provisions are based on legal requirements which are lessened or removed, and should no other basis exist for such permit provisions, the permit shall be modified after notice and opportunity for a hearing.
 13. **Civil and Criminal Liability**
Except as authorized by statute and provided in permit conditions on "Bypassing" (Standard Condition B-5) and "Power Failures" (Standard Condition B-7) nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.
 14. **Oil and Hazardous Substance Liability**
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act, and the Law and Regulations. Oil and hazardous materials discharges must be reported in compliance with the requirements of the Federal Clean Water Act.
 15. **State Laws**
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state statute or regulations.
 16. **Property Rights**
The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of or violation of federal, state or local laws or regulations.
 17. **Duty to Reapply**
If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for a new permit 180 days prior to expiration of this permit.
 18. **Toxic Pollutants**
If a toxic effluent standard, prohibition, or schedule of compliance is established, under Section 307(a) of the Federal Clean Water Act for a toxic pollutant in the discharge of permittee's facility and such standard is more stringent than the limitations in the permit, then the more stringent standard, prohibition, or schedule shall be incorporated into the permit as one of its conditions, upon notice to the permittee.
 19. **Signatory Requirement**
All reports, or information submitted to the Director shall be signed (see 40 CFR-122.6).
 20. **Rights Not Affected**
Nothing in this permit shall affect the permittee's right to appeal or seek a variance from applicable laws or regulations as allowed by law.
 21. **Severability**
The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

**STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION
AUGUST 15, 1994**

PART III – SLUDGE & BIOSOLIDS FROM DOMESTIC WASTEWATER TREATMENT FACILITIES

SECTION A – GENERAL REQUIREMENTS

1. This permit pertains to sludge requirements under the Missouri Clean Water Law and regulation and incorporates applicable federal sludge disposal requirements under 40 CFR 503. The Environmental Protection Agency (EPA) has principal authority for permitting and enforcement of the federal sludge regulations under 40 CFS 503 until such time as Missouri is delegated the new EPA sludge program. EPA has reviewed and accepted these standard sludge conditions. EPA may choose to issue a separate sludge addendum to this permit or a separate federal sludge permit at their discretion to further address federal requirements.
2. These PART III Standard Conditions apply only to sludge and biosolids generated at domestic wastewater treatment facilities, including public owned treatment works (POTW) and privately owned facilities.
3. Sludge and Biosolids Use and Disposal Practices.
 - a. Permittee is authorized to operate the sludge and biosolids treatment, storage, use, and disposal facilities listed in the facility description of this permit.
 - b. Permittee shall not exceed the design sludge volume listed in the facility description and shall not use sludge disposal methods that are not listed in the facility description, without prior approval of the permitting authority.
 - c. Permittee is authorized to operate the storage, treatment or generating sites listed in the Facility Description section of this permit.
 - d. A separate operating permit is required for each operating location where sludge or biosolids are generated, stored, treated, or disposed, unless specifically exempted in this permit or in 10 CSR 20, Chapter 6 regulations. For land application, see section H, subsection 3 of these standard conditions.
4. Sludge Received From Other Facilities
 - a. Permittees may accept domestic wastewater sludge from other facilities including septic tank pumpings from residential sources as long as the design sludge volume is not exceeded and the treatment facility performance is not impaired.
 - b. The permittee shall obtain a signed statement from the sludge generator or hauler that certifies the type and source of the sludge.
 - c. Sludge received from out-of-state generators shall receive prior approval of the permitting authority and shall be listed in the facility description or special conditions section of the permit.
5. These permit requirements do not supersede nor remove liability for compliance with county and other local ordinances.
6. These permit requirements do not supersede nor remove liability for compliance with other environmental regulations such as odor emissions under the Missouri Air Pollution Control Law and regulations.
7. This permit may (after du process) be modified, or alternatively revoked and reissued, to comply with any applicable sludge disposal standard or limitation issued or approved under Section 405(d) of the Clean Water Act or under Chapter 644 RsMo.
8. In addition to the STANDARD CONDITIONS, the department may include sludge limitations in the special conditions portion or other sections of this permit.
9. Alternate Limits in Site Specific Permit.

Where deemed appropriate, the department may require an individual site specific permit in order to authorize alternate limitations:

 - a. An individual permit must be obtained for each operating location, including application sites.
 - b. To request a site specific permit, an individual permit application, permit fees, and supporting documents shall be submitted for each operating location. This shall include a detailed sludge/biosolids management plan or engineering report.
10. Exceptions to these Standard Conditions may be authorized on a case-by-case basis by the department, as follows:
 - a. The department will prepare a permit modification and follow permit public notice provisions as applicable under 10 CSR 20-6.020, 40 CFR 124.10, and 40 CFR 501.15(a)(2)(ix)(E). This includes notification of the owners of property located adjacent to each land application site, where appropriate.
 - b. Exceptions cannot be granted where prohibited by the federal sludge regulations under 40 CFR 503.
11. Compliance Period
Compliance shall be achieved as expeditiously as possible but no later than the compliance dates under 40 CFR 503.2.

SECTION B – DEFINITIONS

1. Biosolids means an organic fertilizer or soil amendment produced by the treatment of domestic wastewater sludge. Untreated sludge or sludge that does not conform to the pollutants and pathogen treatment requirements in this permit is not considered biosolids.
2. Biosolids land application facility is a facility where biosolids are spread onto the land at agronomic rates for production of food or fiber. The facility includes any structures necessary to store the biosolids until soil, weather, and crop conditions are favorable for land application.
3. Class A biosolids means a material that has met the Class A pathogen reduction requirements or equivalent treatment by a Process to Further Reduce Pathogens (PFRP) in accordance with 40 CFR 503.
4. Class B biosolids means a material that has met the Class B pathogen reduction requirements or equivalent treatment by a Process to Significantly Reduce Pathogens (PFRP) in accordance with 40 CFR 503.
5. Domestic wastewater means wastewater originating from the sanitary conveniences of residences, commercial buildings, factories and institutions; or co-mingled sanitary and industrial wastewater processed by a public owned treatment works (POTW) or privately owned facility.
6. Mechanical treatment plants are wastewater treatment facilities that use mechanical devices to treat wastewater, including septic tanks, extended aeration, activated sludge, contact stabilization, trickling filters, rotating biological discs, and other similar facilities. It does not include unaerated wastewater treatment lagoons and constructed wetlands for wastewater treatment.
7. Operating location as defined in 10 CSR 20-2.010 is all contiguous lands owned, operated or controlled by one (1) person or by two (2) or more persons jointly or as tenants in common.
8. Plant Available Nitrogen (PAN) is the nitrogen that will be available to plants during the next growing season after biosolids application.
9. Sinkhole is a depression in the land surface into which surface water flows to join an underground drainage system.
10. Site Specific Permit is a permit that has alternate limits developed to address specific site conditions for each land application site or storage site.
11. Sludge is the solid, semisolid, or liquid residue removed during the treatment of wastewater. Sludge includes septage removed from septic tanks.
12. Sludge lagoon is an earthen basin that receives sludge that has been removed from a wastewater treatment facility. It does not include a wastewater treatment lagoon or sludge treatment units that are not a part of a mechanical wastewater treatment facility.
13. Wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamp, marshes, bogs, and similar areas. Wetlands do not include constructed wetlands used for wastewater treatment.

SECTION C – MECHANICAL WASTEWATER TREATMENT FACILITIES

1. Sludge shall be routinely removed from the wastewater treatment facilities and handled according to the permit facility description and sludge conditions in this permit.
2. The permittee shall operate the facility so that there is no sludge loss into the discharged effluent in excess of permit limits, no sludge bypassing, and no discharge of sludge to waters of the state.
3. Mechanical treatment plants shall have separate sludge storage compartments in accordance with 10 CSR 20, Chapter 8. Failure to remove sludge from these storage compartments on the required design schedule is a violation of this permit.

SECTION D – SLUDGE DISPOSED AT OTHER TREATMENT FACILITY OR CONTRACT HAULER

1. This section applies to permittees that haul sludge to another treatment facility for disposal or use contract haulers to remove and dispose of sludge.
2. Permittees that use contract haulers are responsible for compliance with all the terms of this permit including final disposal, unless the hauler has a separate permit for sludge or biosolids disposal issued by the department; or the hauler transports the sludge to another permitted treatment facility.
3. The permittee shall require documentation from the contractor of the disposal methods used and permits obtained by the contractor.
4. Testing of sludge, other than total solids content, is not required if sludge is hauled to a municipal wastewater treatment facility or other permitted wastewater treatment facility.

SECTION E – WASTEWATER TREATMENT LAGOONS AND STORMWATER RETENTION BASINS

1. Sludge that is retained within a wastewater treatment lagoon is subject to sludge disposal requirements when the sludge is removed from the lagoon or when the lagoon ceases to receive and treat wastewater.
2. If sludge is removed during the year, an annual sludge report must be submitted.
3. Storm water retention basins or other earthen basins, which have been used as sludge storage for a mechanical treatment system is considered a sludge lagoon and must comply with Section G of this permit.

SECTION F – INCINERATION OF SLUDGE

1. Sludge incineration facilities shall comply with the requirements of 40 CFR 503 Subpart E; air pollution control regulations under 10 CSR 10; and solid waste management regulations under 10 CSR 80.
2. Permittee may be authorized under the facility description of this permit to store incineration ash in lagoons or ash ponds. This permit does not authorize the disposal of incineration ash. Incineration ash shall be disposed in accordance with 10 CSR 80; or if the ash is determined to be hazardous waste, shall be disposed in accordance with 10 CSR 25.
3. In addition to normal sludge monitoring, incineration facilities shall report the following as part of the annual report, quantity of sludge incinerated, quantity of ash generated, quantity of ash stored; and ash use or disposal method, quantity, and location. Permittee shall also provide the name of the disposal facility and the applicable permit number.
4. Additional limitations, monitoring, and reporting requirements may be addressed in the Special Conditions sections of this permit.

SECTION G – SURFACE DISPOSAL SITES AND SLUDGE LAGOONS

1. Surface disposal sites shall comply with the requirements in 40 CFR 503 Subpart C, and solid waste disposal regulations under 10 CSR 80.
2. Additional limitations, monitoring, and reporting requirements may be addressed in the Special Conditions section of this permit.
3. Effective February 19, 1995, a sludge lagoon that has been in use for more than two years without removal of accumulated sludge, or that has not been properly closed shall comply with one of the following options:
 - a. Permittee shall obtain a site specific permit to address surface disposal requirements under 40 CFR 503, ground water quality regulations under 10 CSR 20, Chapter 7 and 8, and solid waste management regulations under 10 CSR 80;
 - b. Permittee shall clean out the sludge lagoon to remove any sludge over two years old and shall continue to remove accumulated sludge at least every two years or an alternate schedule approved under 40 CFR 503.20(b). In order to avoid damage to the lagoon seal during cleaning, the permittee may leave a layer of sludge on the bottom of the lagoon, upon prior approval of the department; or
 - c. Permittee shall close the lagoon in accordance with Section 1.

SECTION H – LAND APPLICATION

1. The permittee shall not land apply sludge or biosolids unless land application is authorized in the Facility Description or special conditions section of the permit.
2. This permit replaces and terminates all previous sludge management plan approvals by the department for land application of sludge or biosolids.
3. Land application sites within a 20 mile radius of the wastewater treatment facility are authorized under this permit when biosolids are applied for beneficial use in accordance with these standard conditions unless a site specific permit is required under Section A, Subsection 9.
4. Biosolids shall not be applied unless authorized in this permit or exempted under 10 CSR 20, Chapter 6.
 - a. This permit does not authorize the land application of sludge except when sludge meets the definition of biosolids.
 - b. This permit authorizes “Class A or B” biosolids derived from domestic wastewater sludges to be land applied onto grass land, crop land, timber land or other similar agricultural or silviculture lands at rates suitable for beneficial use as organic fertilizer and soil conditioner.
5. Public Contact Sites.
Permittees who wish to apply Class A biosolids to public contact sites must obtain approval from the department. Applications for approval shall be in the form of an engineering report and shall address priority pollutants and dioxin concentrations. Authorization for land applications must be provided in the special conditions section of this permit or in a separate site-specific permit.

6. Agricultural and Silvicultural Sites.

In addition to specified conditions herein, this permit is subject to the attached Water Quality Guides numbers WQ 422 through 426 published by the University of Missouri, and hereby incorporated as though fully set forth herein. The guide topics are as follows:

WQ 422	Land Application of Septage
WQ 423	Monitoring Requirements for Biosolids Land Application
WQ 424	Biosolids Standards for Pathogens and Vectors
WQ 425	Biosolids Standards for Metals and Other Trace Substances
WQ 426	Best Management Practices for Biosolids Land Applications

SECTION I – CLOSURE REQUIREMENTS

1. This section applies to all wastewater treatment facilities (mechanical and lagoons) and sludge or biosolids storage and treatment facilities and incineration ash ponds. It does not apply to land application sites.
2. Permittees who plan to cease operation must obtain department approval of a closure plan which addresses proper removal and disposal of all residues, including sludge, biosolids, and ash. Permittee must maintain this permit until the facility is properly closed per 10 CSR 20-6.010 and 10 CSR 20-6.015.
3. Residuals that are left in place during closure of a lagoon or earthen structure shall not exceed the agricultural loading rates as follows:
 - a. Residuals shall meet the monitoring and land application limits for agricultural rates as referenced in Section H of these standard conditions.
 - b. If a wastewater treatment lagoon has been in operation for 15 years or more, the sludge in the lagoon qualifies for Class B with respect to pathogens (see WQ 424, Table 3), and testing for fecal coliform is not required. For other lagoons, testing for fecal coliform is required to show compliance with Class B limitations. See WQ 423 and 424.
 - c. The allowable nitrogen loading that may be left in the lagoon shall be based on the plant available nitrogen (PAN) loading. See WQ 426 for calculation procedures. For a grass cover crop, the allowable PAN is 300 pounds/acre.
4. When closing a wastewater treatment lagoon with a design treatment capacity equal or less than 150 persons, the residuals are considered “septage” under the similar treatment works” definition. See WQ 422. Under the septage category, residuals may be left in place as follows:
 - a. Testing for metals or fecal coliform is not required.
 - b. If the wastewater treatment lagoon has been in use for less than 15 years, mix lime with the sludge at the rate of 50 pounds of hydrated lime per 1000 gallons (134 cubic feet) of sludge.
 - c. The amount of sludge that may be left in the lagoon shall be based on the plant available nitrogen (PAN) loading. 100 dry tons/acre of sludge may be left in the basin without testing for nitrogen. If more than 100 dry tons/acre will be left in the lagoon, test for nitrogen and determine the PAN in accordance with WQ 426. Allowable PAN loading is 300 pounds/acre.
5. Residuals left within the lagoon shall be mixed with soil on at least a 1 to 1 ratio, the lagoon berms shall be demolished, and the site shall be graded and vegetated so as to avoid ponding of storm water and provide adequate surface water drainage without creating erosion.
6. Lagoon closure activities shall obtain a storm water permit for land disturbance activities that equal or exceed five acres in accordance with 10 CSR 20-6.200.
7. If sludge exceeds agricultural loading rates under Section H or I, a landfill permit or solid waste disposal permit shall be obtained to authorize on-site sludge disposal under the Missouri Solid Waste Management Law and regulations per 10 CSR 80, and the permittee must comply with the surface disposal requirements under 40 CFR 503, Subpart C.

SECTION J – MONITORING FREQUENCY

1. At a minimum, sludge or biosolids shall be tested for volume and percent total solids on a frequency that will accurately represent sludge quantities produced and disposed.
2. Testing for land application is listed under Section H, Subsection 6 of these standard conditions (see WQ 423). Once per year is the minimum test frequency. Additional testing shall be performed for each 100 dry tons of sludge generated or stored during the year.
3. Additional testing may be required in the special conditions or other sections of the permit. Permittees receiving industrial wastewater may be required to conduct additional testing upon request from the department.
4. Monitoring requirements shall be performed in accordance with, “POTW Sludge Sampling and Analysis Guidance Document”, United States Environmental Protection Agency, August 1989, and subsequent revisions.

SECTION K – RECORD KEEPING AND REPORTING REQUIREMENTS

1. The permittee shall maintain records on file at the facility for at least five years for the items listed in these Standard Conditions and any additional items in the Special Conditions section of this permit. This shall include dates when the sludge facility is checked for proper operation, records of maintenance and repairs and other relevant information.
2. Reporting Period
 - a. By January 28th of each year, an annual report shall be submitted for the previous calendar year period for all mechanical wastewater treatment facilities, sludge lagoons, and sludge or biosolids disposal facilities.
 - b. Permittees with wastewater treatment lagoons shall submit the above annual report only when sludge or biosolids are removed from the lagoon during the report period or when the lagoon is closed.
3. Report Forms. The annual report shall be submitted on report forms provided by the department or equivalent forms approved by the department.
4. Report shall be submitted as follows:
Major facilities (those serving 10,000 persons or 1 million gallons per day) shall report to both the department and EPA. Other facilities need to report only to the department. Reports shall be submitted to the addresses listed as follows:

DNR regional office listed in your permit
(See cover letter of permit)

EPA Region VII
Water Compliance Branch (WACM)
Sludge Coordinator
901 N 5th Street
Kansas City, KS 66101

5. Annual Report Contents. The annual report shall include the following:
 - a. Sludge/biosolids testing performed. Include a copy or summary of all test results, even if not required by this permit.
 - b. Sludge or Biosolids quantity shall be reported as dry tons for quantity generated by the wastewater treatment facility, the quantity stored on site at end of year, and the quantity used or disposed.
 - c. Gallons and % solids data used to calculate the dry ton amounts.
 - d. Description of any unusual operating conditions.
 - e. Final disposal method, dates, and location, and person responsible for hauling and disposal.
 - (1) This must include the name, address and permit number for the hauler and the sludge facility. If hauled to a municipal wastewater treatment facility, sanitary landfill, or other approved treatment facility, give the name and permit number of that facility.
 - (2) Include a description of the type of hauling equipment used and the capacity in tons, gallons, or cubic feet.
 - f. Contract Hauler Activities.
If contract hauler, provide a copy of a signed contract or billing receipts from the contractor. Permittee shall require the contractor to supply information required under this permit for which the contractor is responsible. The permittee shall submit a signed statement from the contractor that he has complied with the standards contained in this permit, unless the contract hauler has a separate sludge disposal or biosolids use permit.
 - g. Land Application Sites.
 - (1) Report the location of each application site, the annual and cumulative dry tons/acre for each site, and the landowners name and address. The location for each spreading site shall be given as legal description for nearest ¼, ¼, Section, Township, Range, and County, or as latitude and longitude.
 - (2) If biosolids application exceeds 2 dry tons/acre/year, report biosolids nitrogen results. Plant Available Nitrogen (PAN) in pounds/acre, crop nitrogen requirement, available nitrogen in the soil prior to biosolids application, and PAN calculations for each site.
 - (3) If the “Low Metals” criteria is exceeded, report the annual and cumulative pollutant loading rates in pounds per acre for each applicable pollutant, and report the percent of cumulative loading which has been reached at each site.
 - (4) Report the method used for compliance with pathogen and vector attraction requirements.
 - (5) Report soil test results for pH, CEC, and phosphorus. If none was tested during the year, report the last date when tested and results.

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AP 20683



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
FORM A - APPLICATION FOR NONDOMESTIC PERMIT UNDER MISSOURI
CLEAN WATER LAW

FOR AGENCY USE ONLY	
CHECK NUMBER	165241
DATE RECEIVED	2/13/15
FEE SUBMITTED	\$1250.00 SB

Note ▶ PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.

1. This application is for:

An operating permit for a new or unpermitted facility:
Please indicate the original Construction Permit # _____

An operating permit renewal:
Please indicate the permit # MO- _____ Expiration Date _____

An operating permit modification:
Please indicate the permit # MO- 0111686 Modification Reason: new

1.1 Is the appropriate fee included with the application? (See instructions for appropriate fee) YES NO

2. FACILITY

NAME Continental Cement Company, LLC		TELEPHONE NUMBER WITH AREA CODE (573) 221-1740	
		FAX (573) 221-1689	
ADDRESS (PHYSICAL) 10107 Highway 79	CITY Hannibal	STATE MO	ZIP CODE 63401

3. OWNER

NAME Continental Cement Company, LLC		TELEPHONE NUMBER WITH AREA CODE (573) 221-1740	
		FAX (573) 221-1689	
ADDRESS (MAILING) 10107 Highway 79	CITY Hannibal	STATE MO	ZIP CODE 63401

3.1 Request review of draft permit prior to public notice? YES NO

4. CONTINUING AUTHORITY

NAME Continental Cement Company, LLC		TELEPHONE NUMBER WITH AREA CODE (573) 221-1740	
		FAX (573) 221-1689	
ADDRESS (MAILING) 10107 Highway 79	CITY Hannibal	STATE MO	ZIP CODE 63401

5. OPERATOR

NAME		CERTIFICATE NUMBER		TELEPHONE NUMBER WITH AREA CODE	
				FAX	
ADDRESS (MAILING)		CITY		STATE	ZIP CODE

6. FACILITY CONTACT

NAME Melissa Myers		TITLE Environmental Engineer		TELEPHONE NUMBER WITH AREA CODE (573) 221-1740	
		E-MAIL ADDRESS mmyers@continentalcement.com		FAX (573) 221-1689	

7. ADDITIONAL FACILITY INFORMATION

7.1 Legal Description of Outfalls. (Attach additional sheets if necessary.)

001 _____ 1/4 _____ 1/4 Sec _____ T _____ R _____ County _____
UTM Coordinates Easting (X): _____ Northing (Y): _____
For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

002 _____ 1/4 _____ 1/4 Sec _____ T _____ R _____ County _____
UTM Coordinates Easting (X): _____ Northing (Y): _____

003 _____ 1/4 _____ 1/4 Sec _____ T _____ R _____ County _____
UTM Coordinates Easting (X): _____ Northing (Y): _____

004 _____ 1/4 _____ 1/4 Sec _____ T _____ R _____ County _____
UTM Coordinates Easting (X): _____ Northing (Y): _____

7.2 Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes.

001 - SIC _____ and NAICS _____ 002 - SIC _____ and NAICS _____
003 - SIC _____ and NAICS _____ 004 - SIC _____ and NAICS _____



Continental Cement Company, L.L.C.
Green America Recycling, L.L.C.
10107 Hwy 79 South
Hannibal, MO 63401
Phone 573-221-1740
866-823-6364
Fax 573-221-1689



February 10, 2015

Missouri Department of Natural Resources
Water Protection Program
P. O. Box 176
Jefferson City, MO 65102-0176

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FEB 13 2015

WATER PROTECTION PROGRAM

To whom it may concern,

Please find enclosed Forms A and C and applicable permit fees submitted by Continental Cement Company, LLC, located in Hannibal, MO, for an operating permit modification to permit #MO-0111686.

Continental Cement Company, LLC (CCC) is requesting to establish a new outfall to be named SS Outfall 008. This outfall will receive storm water runoff from a land reclamation area where material from CCC's artificial soil project at SS Outfall 007 will be used. Presently, there aren't any analyses or a known flow for this outfall since the soil hasn't been moved to the reclamation area yet. It is assumed there should be little to no flow at the proposed outfall due to the berms located in the reclamation area. Also, any analyses of pollutants in the storm water will more than likely be similar to that found at SS Outfall 007. The information from the last analyses of SS Outfall 007 has been used on Form C to give a representative example of what CCC expects to sample at the proposed SS Outfall 008. A maximum flow of 1 MGD is also used on Form C for calculations; however, CCC assumes the flow at the proposed outfall to be less.

After speaking with Amanda Sappington on January 26, 2015, concerning how to address this addition, she stated that Forms A and C should be filled out with the proposed outfall information and the information about the other established outfalls wasn't necessary on the forms since it was already on file, thus the reason why only information pertaining to the proposed outfall is listed on the forms.

If there are any questions or more information needed, please contact me at 573-221-1740 x305 or email me at mmyers@continentalcement.com.

Respectfully submitted,

A handwritten signature in black ink that reads "Melissa Myers". The signature is written in a cursive, flowing style.

Melissa Myers
Environmental Engineer
Continental Cement Company, LLC
10107 Highway 79
Hannibal, MO 63401



Continental Cement Company, L.L.C.
Green America Recycling, L.L.C.
10107 Hwy 79 South
Hannibal, MO 63401
Phone 573-221-1740
866-823-6364
Fax 573-221-1689



Attachments: Form A – Application for Nondomestic Permit under Missouri Clean Water Law
Form C – Application for Discharge Permit – Manufacturing, Commercial, Mining, Silviculture Operations,
Process and Stormwater
Applicable Permit Fees (Check #165261)
Topo Map for Hannibal East Quadrangle showing location of proposed SS Outfall 008

Form A – Application for Nondomestic Permit under Missouri Clean Water Law

7. Additional Facility Information

7.1. Legal Description of Outfalls

008 SE ¼ SE ¼ Sec 12 T 56N R 4W Ralls County

7.2. Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes

008 – SIC 3241

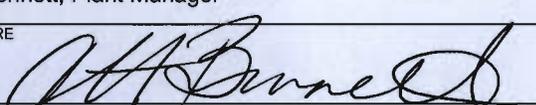
8. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION
 (Complete all forms that are applicable.)

- A. Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility?
 If yes, complete Form C or 2F.
 (2F is the U.S. EPA's Application for Storm Water Discharges Associate with Industrial Activity.) YES NO
- B. Is application for storm water discharges only?
 If yes, complete Form C or 2F. YES NO
- C. Is your facility considered a "Primary Industry" under EPA guidelines:
 If yes, complete Forms C or 2F and D. YES NO
- D. Is wastewater land applied?
 If yes, complete Form I. YES NO
- E. Is sludge, biosolids, ash or residuals generated, treated, stored or land applied?
 If yes, complete Form R. YES NO
- F. If you are a Class IA CAFO, please disregard part D and E of this section. However, please attach any revision to your Nutrient Management Plan.
- F. Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.

9. DOWNSTREAM LANDOWNER(S) Attach additional sheets as necessary. See Instructions.
 (PLEASE SHOW LOCATION ON MAP. SEE 8.D ABOVE).

NAME Kennedy et al			
ADDRESS SW 1/4 NW 1/4 Book 116 Page 398	CITY Hannibal	STATE MO	ZIP CODE 63401

10. I certify that I am familiar with the information contained in the application, that to the best of my knowledge and belief such information is true, complete and accurate, and if granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders and decisions, subject to any legitimate appeal available to applicant under the Missouri Clean Water Law to the Missouri Clean Water Commission.

NAME AND OFFICIAL TITLE (TYPE OR PRINT) Terry Bennctt, Plant Manager	TELEPHONE NUMBER WITH AREA CODE (573) 221-1740
SIGNATURE 	DATE SIGNED 2/10/15

MO 780-1479 (07-14)

BEFORE MAILING, PLEASE ENSURE ALL SECTIONS ARE COMPLETED AND ADDITIONAL FORMS, IF APPLICABLE, ARE INCLUDED.

Submittal of an incomplete application may result in the application being returned.

HAVE YOU INCLUDED:

- Appropriate Fees?
- Map at 1" = 2000' scale?
- Signature?
- Form C or 2F, if applicable?
- Form D, if applicable?
- Form I (Irrigation), if applicable?
- Form R (Sludge), if applicable?
- Revised Nutrient Management Plan, if applicable?

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MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
FORM C - APPLICATION FOR DISCHARGE PERMIT
MANUFACTURING, COMMERCIAL, MINING,
SILVICULTURE OPERATIONS, PROCESS AND STORMWATER

FOR AGENCY USE ONLY	
SHEET NO.	
DATE RECEIVED	FEE SUBMITTED

NOTE: DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS

1.00 NAME OF FACILITY
Continental Cement Company, LLC

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER
#MO-0111686

1.20 THIS IS A NEW FACILITY AND WAS CONSTRUCTED UNDER MISSOURI CONSTRUCTION PERMIT NUMBER (COMPLETE ONLY IF THIS FACILITY DOES NOT HAVE AN OPERATING PERMIT).

2.00 LIST THE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES APPLICABLE TO YOUR FACILITY (FOUR DIGIT CODE)

A. FIRST 3241 B. SECOND _____
C. THIRD _____ D. FOURTH _____

2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION.

OUTFALL NUMBER 008 SE 1/4 SE 1/4 SEC 12 T 56N R 4W Ralls COUNTY

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST)	RECEIVING WATER
008	unnamed tributary to Mississippi River

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS
Quarry mining and cement processing facility.

Continental Cement Company, Permit #MO-0111686

Proposed Outfall #008



Water Balance: Flow is dependent on the amount of rainfall

2.40 CONTINUED

C. EXCEPT FOR STORM RUNOFF, LEAKS OR SPILLS, ARE ANY OF THE DISCHARGES DESCRIBED IN ITEMS A OR B INTERMITTENT OR SEASONAL?

YES (COMPLETE THE FOLLOWING TABLE) NO (GO TO SECTION 2.50)

1. OUTFALL NUMBER <i>(list)</i>	2. OPERATION(S) CONTRIBUTING FLOW <i>(list)</i>	3. FREQUENCY		4. FLOW				C. DURATION <i>(in days)</i>
		A. DAYS PER WEEK <i>(specify average)</i>	B. MONTHS PER YEAR <i>(specify average)</i>	A. FLOW RATE <i>(in mgd)</i>		B. TOTAL VOLUME <i>(specify with units)</i>		
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	4. LONG TERM DAILY	3. MAXIMUM AVERAGE	

2.50 MAXIMUM PRODUCTION

A. DOES AN EFFLUENT GUIDELINE LIMITATION PROMULGATED BY EPA UNDER SECTION 304 OF THE CLEAN WATER ACT APPLY TO YOUR FACILITY?

YES (COMPLETE B.) NO (GO TO SECTION 2.60)

B. ARE THE LIMITATIONS IN THE APPLICABLE EFFLUENT GUIDELINES EXPRESSED IN TERMS OF PRODUCTION (OF OTHER MEASURE OF OPERATION)?

YES (COMPLETE c.) NO (GO TO SECTION 2.60)

C. IF YOU ANSWERED "YES" TO B. LIST THE QUANTITY THAT REPRESENTS AN ACTUAL MEASUREMENT OF YOUR MAXIMUM LEVEL OF PRODUCTION, EXPRESSED IN THE TERMS AND UNITS USED IN THE APPLICABLE EFFLUENT GUIDELINE AND INDICATE THE AFFECTED OUTFALLS.

1. MAXIMUM QUANTITY			2. AFFECTED OUTFALLS <i>(list outfall numbers)</i>
A. QUANTITY PER DAY	B. UNITS OF MEASURE	C. OPERATION, PRODUCT, MATERIAL, ETC. <i>(specify)</i>	

2.60 IMPROVEMENTS

A. ARE YOU NOW REQUIRED BY ANY FEDERAL, STATE OR LOCAL AUTHORITY TO MEET, ANY IMPLEMENTATION SCHEDULE FOR THE CONSTRUCTION, UPGRADING OR OPERATION OF WASTEWATER TREATMENT EQUIPMENT OR PRACTICES OR ANY OTHER ENVIRONMENTAL PROGRAMS THAT MAY AFFECT THE DISCHARGES DESCRIBED IN THIS APPLICATION? THIS INCLUDES, BUT IS NOT LIMITED TO, PERMIT CONDITIONS, ADMINISTRATIVE OR ENFORCEMENT ORDERS, ENFORCEMENT COMPLIANCE SCHEDULE LETTERS, STIPULATIONS, COURT ORDERS AND GRANT OR LOAN CONDITIONS.

YES (COMPLETE THE FOLLOWING TABLE) NO (GO TO 3.00)

1. IDENTIFICATION OF CONDITION AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
				A. REQUIRED	B. PROJECTED

B. OPTIONAL: YOU MAY ATTACH ADDITIONAL SHEETS DESCRIBING ANY ADDITIONAL WATER POLLUTION CONTROL PROGRAMS (OR OTHER ENVIRONMENTAL PROJECTS WHICH MAY AFFECT YOUR DISCHARGES) YOU NOW HAVE UNDER WAY OR WHICH YOU PLAN. INDICATE WHETHER EACH PROGRAM IS NOW UNDER WAY OR PLANNED, AND INDICATE YOUR ACTUAL OR PLANNED SCHEDULES FOR CONSTRUCTION.

MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED.

3.10 BIOLOGICAL TOXICITY TESTING DATA

DO YOU HAVE ANY KNOWLEDGE OR REASON TO BELIEVE THAT ANY BIOLOGICAL TEST FOR ACUTE OR CHRONIC TOXICITY HAS BEEN MADE ON ANY OF YOUR DISCHARGES OR ON RECEIVING WATER IN RELATION TO YOUR DISCHARGE WITHIN THE LAST THREE YEARS?

YES (IDENTIFY THE TEST(S) AND DESCRIBE THEIR PURPOSES BELOW.) NO (GO TO 3.20)

3.20 CONTRACT ANALYSIS INFORMATION

WERE ANY OF THE ANALYSES REPORTED PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

YES (LIST THE NAME, ADDRESS AND TELEPHONE NUMBER OF AND POLLUTANTS ANALYZED BY EACH SUCH LABORATORY OR FIRM BELOW.) NO (GO TO 3.30)

A. NAME	B. ADDRESS	C. TELEPHONE (area code and number)	D. POLLUTANTS ANALYZED (list)
Prairie Analytical Systems	1210 Capital Airport Drive Springfield, IL 62707	217-753-1148	BOD, TSS, Ammonia, Chloride+Sulfate, Chloride, Oil&Grease

3.30 CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS APPLICATION AND ALL ATTACHMENTS AND THAT, BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

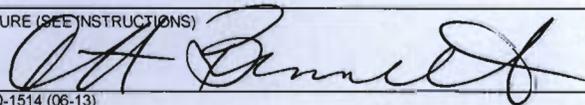
NAME AND OFFICIAL TITLE (TYPE OR PRINT)

Terry Bennett, Plant Manager

TELEPHONE NUMBER WITH AREA CODE

(573) 221-1740

SIGNATURE (SEE INSTRUCTIONS)



DATE SIGNED

2/10/15

PLEASE PRINT OR TYPE. You may report some or all of this information on separate sheet (Use the same format) instead of completing these pages.
SEE INSTRUCTIONS

FORM C
TABLE 1 FOR 3.00 ITEM A AND B

OUTFALL NO.
005

INTAKE AND EFFLUENT CHARACTERISTICS

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT				3. UNITS (specify if blank)				4. INTAKE (optional)		B. NO. OF ANALYSES	
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE (1) CONCENTRATION		(2) MASS
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						
A. Biochemical Oxygen Demand (BOD)	23.0	192					1	mg/L	lbs/day			
B. Chemical Oxygen Demand (COD)	-	-										
C. Total organic Carbon (TOC)	-	-										
D. Total Suspended Solids (TSS)	19	158.7					1	mg/L	lbs/day			
E. Ammonia (as N)	25.2	210.4					1	mg/L	lbs/day			
F. Flow	VALUE 1		VALUE		VALUE			MGD		VALUE		
G. Temperature (winter)	VALUE		VALUE		VALUE			°C		VALUE		
H. Temperature (summer)	VALUE 21.5		VALUE		VALUE			°C		VALUE		
I. pH	MINIMUM 6.9	MAXIMUM 6.9	MINIMUM	MAXIMUM				STANDARD UNITS				

PART B - Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark column 2A for any pollutant, you must provide the results for at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS				5. INTAKE (optional)		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	B. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	C. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE (1) CONCENTRATION	(2) MASS	B. NO. OF ANALYSES
	CONVENTIONAL AND NONCONVENTIONAL POLLUTANTS												
A. Bromide (24959-67-9)		X											
B. Chlorine, Total Residual		X											
C. Color	X												
D. Fecal Coliform		X											
E. Fluoride (16984-48-8)		X											
F. Nitrate - Nitrate (as N)	X												

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVRG. VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
G. Nitrogen, Total Organic (as N)	X													
H. Oil and Grease	X		4.00	33.4					1	mg/L	lbs/day			
I. Phosphorus (as P), Total (7723-14-0)		X												
J. Sulfate (as SO ₄) (14808-79-8)	X		18	2903.9					1	mg/L	lbs/day			
K. Sulfide (as S)		X												
L. Sulfite (as SO ₃) (14265-45-3)		X												
M. Surfactants		X												
N. Aluminum, Total (7429-90-5)		X												
O. Barium, Total (7440-39-3)		X												
P. Boron, Total (7440-42-8)		X												
Q. Cobalt, Total (7440-48-4)		X												
R. Iron, Total (7439-89-6)		X												
S. Magnesium, Total (7439-95-4)		X												
T. Molybdenum, Total (7439-98-7)		X												
U. Manganese, Total (7439-96-5)		X												
V. Tin, Total (7440-31-5)		X												
W. Titanium, Total (7440-32-6)		X												

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVRG. VALUE		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, AND TOTAL PHENOLS														
1M. Antimony, Total (7440-36-9)		X												
2M. Arsenic, Total (7440-38-2)		X												
3M. Beryllium, Total (7440-41-7)		X												
4M. Cadmium, Total (7440-43-9)		X												
5M. Chromium III (16065-83-1)		X												
6M. Chromium VI (18540-29-9)		X												
7M. Copper, Total (7440-50-8)		X												
8M. Lead, Total (7439-92-1)		X												
9M. Mercury, Total (7439-97-6)		X												
10M. Nickel, Total (7440-02-0)		X												
11M. Selenium, Total (7782-49-2)		X												
12M. Silver, Total (7440-22-4)		X												
13M. Thallium, Total (7440-28-0)		X												
14M. Zinc, Total (7440-66-6)		X												
15M. Cyanide, Amenable to Chlorination		X												
16M. Phenols, Total		X												
RADIOACTIVITY														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												