



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

AUG 04 2016

Mr. John Baumgartner, Plant Manager
17700 South Highway T
Deerfield, MO 64741

RE: ADM Deerfield, Construction of No-discharge Earthen Basin, MO-0134139,
Construction Permit Number CP0001669, Construction Permit Modification

Dear Mr. Baumgartner:

The Department of Natural Resources, Water Protection Program has approved the construction permit modification request received May 13, 2016 for construction permit number CP0001669 for the construction of the ADM Deerfield No-Discharge Earthen Basin. This change has been reviewed for compliance with 10 CSR 20-8. These changes modify the plans and specifications and increase the construction time by 365 days.

The original construction permit was for a new wastewater earthen holding basin to be constructed northeast of the existing process wastewater holding basin and designed to be no-discharge. The proposed wastewater holding basin would be 290' x 145' with a design capacity of 1,452,395 gallons. After constructing the new holding basin, the current holding basin will be connected to the current small south sewage basin doubling the holding volume for domestic wastewater. Each of those basins has a design capacity of 588,148 gallons.

This construction permit modification includes the following:

- Convert the existing process water storage pond to an industrial wastewater holding pond. Remove the existing overflow discharge structure (existing Outfall 003) located on the southeast side of the existing process water pond. Redirect wastewater piping to new no-discharge wastewater pond.
- Convert the permitted industrial wastewater holding pond (Permitted Feature 006) to a process water storage pond. Redirect process water piping to new process water pond. Install an overflow discharge structure on the southeast side of the new pond (manhole with discharge pipe, relocated Outfall 003). A discharge ditch will be constructed to convey discharge towards existing Outfall 002.

Mr. John Baumgartner
Page Two

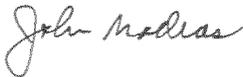
A construction permit extension request was also submitted with the modification. The request for additional time for Construction Permit number CP0001669 has been granted for a period of 12 months and will expire August 21, 2017. This permit extension authorizes construction of the facilities described on the permit dated August 22, 2014 and as modified above. This construction permit extension does not supersede any requirements of the operating permit.

In accordance with 10 CSR 20-6.010(4)(G), the department can only grant time extensions once. Thus, if the project is not complete by August 21, 2017, the applicant must submit a new construction permit application and fee.

If you have any questions concerning this matter, please contact Cailie Carlile, of the Water Protection Program, at 573-751-1714, cailie.carlile@dnr.mo.gov, or Department of Natural Resources, P.O. Box 176, Jefferson City, Missouri 65102.

Sincerely,

WATER PROTECTION PROGRAM



John Madras
Director

JM: ccn

Enclosure

c: Dillon Baird, P.E., SCS Engineers
Southwest Regional Office

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



CONSTRUCTION PERMIT

The Missouri Department of Natural Resources hereby issues a permit to:

Archer Daniels Midland (ADM)- Deerfield
17700 South Highway T
Deerfield, MO 64741

for the construction of (described facilities):

See attached.

Permit Conditions:

See attached.

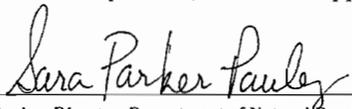
Construction of such proposed facilities shall be in accordance with the provisions of the Missouri Clean Water Law, Chapter 644, RSMo, and regulation promulgated thereunder, or this permit may be revoked by the Department of Natural Resources (Department).

As the Department does not examine structural features of design or the efficiency of mechanical equipment, the issuance of this permit does not include approval of these features.

A representative of the Department may inspect the work covered by this permit during construction. Issuance of a permit to operate by the Department will be contingent on the work substantially adhering to the approved plans and specifications.

This permit applies only to the construction of water pollution control components; it does not apply to other environmentally regulated areas.

August 22, 2014
Effective Date


Sara Parker Pauley, Director, Department of Natural Resources

August 21, 2016
Expiration Date


John Madras, Director, Water Protection Program

CONSTRUCTION PERMIT

I. CONSTRUCTION DESCRIPTION

The proposed wastewater earthen holding basin will be constructed northeast of the existing process wastewater holding basin and is designed to be a no-discharge holding basin. The proposed wastewater holding basin will be constructed as 290' x 145' and will have a design capacity of 1,452,395 gallons. With the construction of the new wastewater holding basin, approximately 350' of new 4 inch PVC transport pipe will be constructed to connect to the existing wastewater holding basin and will transport wastewater into the new proposed basin through the bottom of the basin. ADM will pump water from the basin into tanker trucks for transport to the Fort Scott, Kansas WWTP (KS0095923) for disposal.

After constructing the new holding basin, the contents from the current holding basin will either be pumped into the new basin or transported to the Fort Scott WWTP. After cleaning the sludge out of the current (north) holding basin, approximately 90 feet of piping will be added to connect it to the current small south sewage basin doubling the holding volume for domestic wastewater (sewage). Each of those basins has a design capacity of 588,148 gallons, with one foot (1') of freeboard.

The project will also include general site work appropriate to the scope and purpose of the project and all necessary appurtenances to make a complete and usable wastewater holding basins.

II. FINDING OF AFFORDABILITY

The Finding of Affordability is not applicable. The permittee is not a combined or separate sanitary sewer system or a publicly owned treatment works.

III. CONSTRUCTION PERMIT CONDITIONS

The permittee is authorized to construct subject to the following conditions:

1. This construction permit does not authorize discharge.
2. All construction shall be in accordance with the plans and specifications submitted by SCS Aquaterra on July 18, 2014.
3. The Department must be contacted in writing prior to making any changes to the approved plans and specifications that would directly or indirectly have an impact on the capacity, flow, system layout, or reliability of the proposed wastewater treatment facilities or any design parameter that is addressed by 10 CSR 20-8, in accordance with 10 CSR 20-8.110(8).
4. State and Federal Law does not permit bypassing of raw wastewater, therefore steps must be taken to ensure that raw wastewater does not discharge during construction. If a sanitary sewer overflow or bypass occurs, report the appropriate information to the Department's Southwest Regional Office per 10 CSR 20-7.015(9)(E)2.
5. This Construction Permit is invalid for projects required to comply with the requirements contained in 10 CSR 20-4, "Grants and Loans"

6. Protection of drinking water supplies shall be in accordance with 10 CSR 20-8.120(10). "There shall be no physical connections between a public or private potable water supply system and a sewer, or appurtenance thereto which would permit the passage of any wastewater or polluted water into the potable supply. No water pipe shall pass through or come in contact with any part of a sewer manhole."
7. Sewers in relation to water works structures shall meet the requirements of 10 CSR 23-3.010 with respect to minimum distances from public water supply wells or other water supply sources and structures.
 - A. Sewer mains shall be laid at least ten feet horizontally from any existing or proposed water main. The distances shall be measured edge-to-edge. In cases where it is not practical to maintain a ten foot separation, the Department may allow a deviation on a case-by-case basis, if supported by data from the design engineer. Such a deviation may allow installation of the sewer closer to a water main, provided that the water main is in a separate trench or on an undisturbed earth shelf located on either side of the sewer and at an elevation so the bottom of the water main is at least 18 inches above the top of the sewer. If it is impossible to obtain proper horizontal and vertical separation as described above for sewers, the sewer must be constructed of slip-on or mechanical joint pipe or continuously encased and be pressure tested to 150 pounds per square inch to assure water tightness.
 - B. Manholes should be located at least ten feet horizontally from any existing or proposed water main.
 - C. Sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to maintain line and grade. When it is impossible to obtain proper vertical separation as stipulated above, one of the following methods must be specified:
 - a. The sewer shall be designed and constructed equal to the water pipe and shall be pressure tested to assure water tightness prior to backfilling; or
 - b. Either the water main or sewer line may be continuously encased or enclosed in a watertight carrier pipe which extends ten feet on both sides of the crossing, measured perpendicular to the water main. The carrier pipe shall be of materials approved by the Department for use in water main construction.
8. In addition to the requirements for a construction permit, 10 CSR 20-6.200 requires land disturbance activities of one acre or more to obtain a Missouri State Operating Permit to discharge stormwater. The permit requires Best Management Practices sufficient to control runoff and sedimentation to protect waters of the state. Land disturbance permits will only be obtained by means of the Department's ePermitting system available online at www.dnr.mo.gov/env/wpp/epermit/help.htm. See www.dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm for more information.

9. A United States (U.S.) Army Corps of Engineers (COE) permit (404) and a Water Quality Certification (401) issued by the Department or permit waiver may be required for the activities described in this permit. This permit is not valid until these requirements are satisfied. If construction activity will disturb any land below the ordinary high water mark of Jurisdictional Waters of the U.S. then a 404/401 will be required. Since the COE makes determinations on what is jurisdictional, you must contact the COE to determine permitting requirements. You may call the Department's Water Protection Program at 573-751-1300 for more information. See www.dnr.mo.gov/env/wpp/401/ for more information.
10. Upon completion of construction;
 - A. Archer Daniels Midland (ADM) will become the continuing authority for operation, maintenance, and modernization of these facilities;
 - B. Submit the enclosed form Statement of Work Completed to the Department in accordance with 10 CSR 20-6.010(5)(D); and
 - C. Submit an electronic copy of the as builts if the project was not constructed in accordance with previously submitted plans and specifications.

IV. REVIEW SUMMARY

1. CONSTRUCTION PURPOSE

The proposed wastewater earthen holding basin will be constructed northeast of the existing process wastewater holding basin and is designed to be a no-discharge holding basin. ADM will pump water from the basin into tanker trucks for transport to the Fort Scott, Kansas wastewater treatment plant for disposal, as necessary. A new PVC transport pipe will be connected to the existing pipe outside of the existing wastewater lagoon and will transport wastewater into the proposed wastewater basin through the bottom of the basin.

After constructing the new holding basin, the contents from the current holding basin will either be pumped into the new basin or transported to the Fort Scott, Kansas wastewater treatment plant (KS0095923), for disposal. After cleaning the sludge out of the current (north) holding basin, it will be piped together with the current small south sewage basin doubling the holding volume for domestic wastewater (sewage). The sludge removed from the existing holding basin will be hauled to the Oak Grove Landfill in Arcadia, Kansas (KS0100480).

2. FACILITY DESCRIPTION

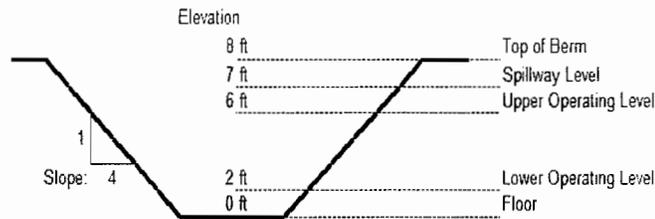
Archer Daniels Midland (ADM) Deerfield facility is a soybean crushing mill, oil refinery and 30 MMGY biodiesel manufacturing facility 4 miles west of Deerfield, Missouri. The soybean processing plant includes material handling operations (such as unloading, crushing, conveying, pelletization and storage), soy meal conditioning (thermal/mechanical), solvent extraction (with hexane), and distillation for solvent recovery. Products from the soybean processing plant include crude soy oil, soy meal and soy hulls.

The facility has one process wastewater storage basin (Outfall 003), one wastewater holding basin and one existing domestic sewage holding basin, plus a stormwater holding basin. Construction will combine the holding basin and the domestic wastewater holding basin, plus construct a new holding basin for wastewater. The holding basins are pumped and hauled for discharge at Fort Scott, KS by contract haulers.

3. REVIEW of MAJOR TREATMENT DESIGN CRITERIA

The existing wastewater holding pond, which is being converted to sewage holding basin and the existing sewage holding basin have the same geometry and were constructed under previous construction permits from Southwest Regional Office in 2007 and 2008, SWRO-1924 and 2128. Each of those basins has a design capacity of 588,148 gallons, with one foot (1') of freeboard. As part of this construction project, the sludge will be removed from the existing wastewater holding basin and taken to the landfill. Additionally, approximately 90 feet of piping will be added connecting the two existing basins. Existing water in these basins will be placed in the new holding basin or hauled to the Fort Scott WWTP (KS0095923). The expected flow into the basins is 8,219 gpd.

The proposed wastewater holding basin to be constructed as 290' x 145' and will have a design capacity of 1,452,395 gallons. The basin will include a one foot (1') thick soil liner with a permeability less than or equal to 1.0×10^{-7} cm/sec. The concrete splash pad the pipe enters on is 3 feet by 3 feet by 4 feet with a 14" diameter and 6' tall Sonotube round concrete form on the concrete splash pad. At the top of the Sonotube concrete form; there is a 4" PVC pipe with a riser pipe extending approximately 6" above the highest allowable liquid level. This riser pipe will be used to gauge liquid levels during operations.



Design Basis:

Design dry weather flows: 8,219 gpd
 Design with 1-in-10 year flows: 10,500 gpd

Storage Capacity:

Storage volume (minimum to maximum water levels): 1,452,395 gallons
 Design for Dry weather flows: 177 days
 Design with 1-in 10 year flows: 138 days

With the construction of the new wastewater holding basin, approximately 350 feet of 4-inch PVC pipe will be constructed. The project will also include general site work appropriate to the scope and purpose of the project and all necessary appurtenances to make a complete and usable wastewater holding basins.

4. OPERATING PERMIT MODIFICATION

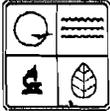
Operating permit MO-0134139 requires modification to reflect the construction activities. ADM Deerfield has submitted an application to modify their operating permit to include the no discharge basin. The modification is being processed currently and will be issued by the completion of the construction activities.

Review Engineer: Leasue Meyers, EIT
Unit Chief Approval: Cindy LePage, PE
Date: August 12, 2014
Leasue.Meyers@dnr.mo.gov

RECEIVED

Crowley
AP1907

C13576



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
APPLICATION FOR CONSTRUCTION PERMIT -
WASTEWATER TREATMENT FACILITY

JUL 18 2014

FOR DEPARTMENT USE ONLY	
APP NO.	CP NO.
SEE RECEIVED	CHECK NO.
1150.00	114749
DATE RECEIVED	
7-18-14	J.S.

WATER PROTECTION PROGRAM

APPLICATION OVERVIEW

The Application for Construction Permit – Wastewater Treatment Facility form has been developed in a modular format and consists of Part A and B. All applicants must complete Part A. Part B should be completed for applicants who currently land-apply wastewater or propose land application for wastewater treatment. Please read the accompanying instructions before completing this form. Submittal of an incomplete application may result in the application being returned.

PART A – BASIC INFORMATION

1.0 APPLICATION INFORMATION (Note – If any of the questions in this section are answered NO, this application may be considered incomplete and returned.)

- 1.1 Is this a Federal/State funded project? YES N/A Funding Agency: _____ Project #: _____
 - 1.2 Has the Missouri Department of Natural Resources approved the proposed project's antidegradation review?
 YES Date of Approval: N/A No-discharge Holding Pond
 Attached is the No Degradation Evaluation Conclusion of Antidegradation Review form
 - 1.3 Has the department approved the proposed project's facility plan*?
 YES Date of Approval: _____ NO N/A (If Not Applicable, complete No. 1.4.)
 - 1.4 [Complete only if answered Not Applicable on No. 1.3.] Is a copy of the engineering report* for wastewater treatment facilities with a design flow less than 22,500 gpd included with this application?
 YES NO
 - 1.5 Is a copy of the appropriate plans* and specifications* included with this application?
 YES Denote which form is submitted: Hard copy Electronic copy (See instructions.) NO
 - 1.6 Is a summary of design* included with this application? YES NO
 - 1.7 Has the appropriate operating permit application (A, B, or B2) been submitted to the department?
 YES Date of submittal: 7/24/12
 Enclosed is the appropriate operating permit application submittal. Denote which form: A B B2
 N/A Please explain: _____
 - 1.8 Is the facility currently under enforcement with the department or the Environmental Protection Agency? YES NO
 - 1.9 Is the appropriate fee included with this application? YES NO (See instructions for appropriate fee.)
- * Must be affixed with a Missouri registered professional engineer's seal, signature and date.

2.0 PROJECT INFORMATION

2.1 NAME OF PROJECT

Wastewater Holding Pond (No-Discharge)

2.2 PROJECT DESCRIPTION

Construct a no-discharge wastewater holding pond approximately 290' x 145' which will double the current size of a small wastewater holding pond. After constructing the new holding pond, the contents from the current holding pond will either be pumped into the new pond or transported to the Fort Scott, Kansas wastewater treatment plant for disposal. After cleaning the sludge out of the current (north) holding pond we would like to pipe it together with the current small south sewage pond doubling the holding volume for sewage.

2.3 SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION

The sludge removed from these ponds would be hauled to the Oak Grove Landfill in Arcadia, Kansas after special waste permits are acquired. Wastewater will be hauled to the Fort Scott, Kansas wastewater treatment plant, if necessary.

2.4 DESIGN INFORMATION

- A. Current population: N/A ; Design population: N/A
- B. Actual Flow: N/A gpd; Design Average Flow: N/A gpd;
 Actual Peak Daily Flow: N/A gpd; Design Maximum Daily Flow: N/A gpd

2.5 ADDITIONAL INFORMATION

- A. Is a topographic map attached? YES NO
- B. Is a process flow diagram attached? YES NO

3.0 WASTEWATER TREATMENT FACILITY

NAME Archer Daniels Midland	TELEPHONE NUMBER WITH AREA CODE 417-927-3400	E-MAIL ADDRESS john.baumgartner@adm.com
--------------------------------	---	--

ADDRESS (PHYSICAL) 17700 South Highway T	CITY Deerfield	STATE Missouri	ZIP CODE 64741	COUNTY Vernon
---	-------------------	-------------------	-------------------	------------------

Wastewater Treatment Facility: Mo- 0134139 (Outfall Of)

3.1 Legal Description: NE 1/4, SW 1/4, _____ 1/4, Sec. 9, T 35N, R 33W
(Use additional pages if construction of more than one outfall is proposed.)

3.2 UTM Coordinates Easting (X): 361696 Northing (Y): 4188524
For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

3.3 Name of receiving streams: N/A

4.0 PROJECT OWNER

NAME Archer Daniels Midland	TELEPHONE NUMBER WITH AREA CODE (417) 927-3400	E-MAIL ADDRESS john.baumgartner@adm.com
--------------------------------	---	--

ADDRESS 17700 South Highway T	CITY Deerfield	STATE Missouri	ZIP CODE 64741
----------------------------------	-------------------	-------------------	-------------------

5.0 CONTINUING AUTHORITY: Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the wastewater collection system.

NAME Same as above	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
-----------------------	---------------------------------	----------------

ADDRESS	CITY	STATE	ZIP CODE
---------	------	-------	----------

5.1 A letter from the continuing authority, if different than the owner, is included with this application. YES NO N/A

5.2 COMPLETE THE FOLLOWING IF THE CONTINUING AUTHORITY IS A MISSOURI PUBLIC SERVICE COMMISSION REGULATED ENTITY.

A. Is a copy of the certificate of convenience and necessity included with this application? YES NO

5.3 COMPLETE THE FOLLOWING IF THE CONTINUING AUTHORITY IS A PROPERTY OWNERS ASSOCIATION.

A. Is a copy of the as-filed restrictions and covenants included with this application? YES NO

B. Is a copy of the as-filed warranty deed, quitclaim deed or other legal instrument which transfers ownership of the land for the wastewater treatment facility to the association included with this application? YES NO

C. Is a copy of the as-filed legal instrument (typically the plat) that provides the association with valid easements for all sewers included with this application? YES NO

D. Is a copy of the Missouri Secretary of State's nonprofit corporation certificate included with this application? YES NO

6.0 ENGINEER

ENGINEER NAME / COMPANY NAME Nathan Hamm, P.E./SCS Aquaterra	TELEPHONE NUMBER WITH AREA CODE (913) 681-0030	E-MAIL ADDRESS nhamm@scsengineers.com
---	---	--

ADDRESS 7311 West 130th Street, Suite 100	CITY Overland Park	STATE Kansas	ZIP CODE 66213
--	-----------------------	-----------------	-------------------

7.0 PROJECT OWNER: I hereby certify that I am familiar with the information contained in this application and 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 Missouri Clean Water Law. I also understand the issuance of the construction permit does not guarantee the proposed wastewater treatment will meet the required effluent limitations of the issued Missouri State Operating Permit for this facility.

PROJECT OWNER SIGNATURE


PRINTED NAME John Baumgartner	DATE 7/10/2014
----------------------------------	-------------------

TITLE OR CORPORATE POSITION Plant Manager	TELEPHONE NUMBER WITH AREA CODE (417) 927-3400	E-MAIL ADDRESS john.baumgartner@adm.com
--	---	--

Mail completed copy to: MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
P.O. BOX 176
JEFFERSON CITY, MO 65102-0176

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHETHER PART B NEEDS TO BE COMPLETE.