

**STATE OF MISSOURI**  
**DEPARTMENT OF NATURAL RESOURCES**  
**MISSOURI CLEAN WATER COMMISSION**



**CONSTRUCTION PERMIT**

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

Alan Johnston  
Complex Manager  
Tyson Poultry, Inc. – Sedalia Processing Plant  
19571 Whitfield Road  
Sedalia, MO 65301

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.

July 24, 2020  
Effective Date

  
Edward B. Galbraith, Director, Division of Environmental Quality

July 23, 2022  
Expiration Date

  
Chris Wieberg, Director, Water Protection Program

## **CONSTRUCTION PERMIT**

### **I. CONSTRUCTION DESCRIPTION**

The scope of this project involves constructing a new 2.5 acre, 15 feet deep, 750 feet long, and 200 feet wide wastewater cooling pond east of the current Outfall 001. This cooling pond can be operated year round with only passive cooling. Six floating aerators will be installed to increase the rate of heat loss. A 24 inch diameter pipe will be anchored at the bottom of the cooling pond. The 24 inch diameter pipe will extend up the side wall, over the berm to a rock apron on the outside slope of the pond and into the existing ditch. The design flow of the facility will remain at 2.5 million gallons per day.

This 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 treatment facility.

### **II. COST ANALYSIS FOR COMPLIANCE**

Pursuant to Section 644.145, RSMo, when issuing permits under this chapter that incorporate a new requirement for discharges from publicly owned combined or separate sanitary or storm sewer systems or publicly owned treatment works, or when enforcing provisions of this chapter or the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., pertaining to any portion of a publicly owned combined or separate sanitary or storm sewer system or [publicly owned] treatment works, the Department of Natural Resources shall make a “finding of affordability” on the costs to be incurred and the impact of any rate changes on ratepayers upon which to base such permits and decisions, to the extent allowable under this chapter and the Federal Water Pollution Control Act. This process is completed through a cost analysis for compliance. Permits that do not include new requirements may be deemed affordable.

The Department is not required to complete a cost analysis for compliance because the facility is not a combined or separate sanitary sewer system for a publically-owned treatment works.

The Department is not required to determine Cost Analysis for Compliance because the permit contains no new conditions or requirements that convey a new cost to the facility.

### **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 consistent with plans and specifications signed and sealed by Tyson Poultry, Inc. and as described in this permit.

3. The Department must be contacted in writing prior to making any changes to the 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(11).
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 Northeast Regional Office per 10 CSR 20-7.015(9)(G).
5. The wastewater treatment facility shall be located at least fifty feet (50') from any dwelling or establishment. Lagoons-200 ft to residence and 50 ft to property line, Open RMFs- 200 ft to residence, Other discharging-50 ft to residence per 10 CSR 20-8.140(C)(2)
6. The wastewater treatment facility shall be located above the twenty-five (25)-year flood level.
7. The wastewater facility structures, electrical equipment, and mechanical equipment shall be protected from physical damage by not less than the one hundred- (100-) year flood elevation per 10 CSR 20-8.140(2)(B). The minimum distance between wastewater treatment facilities and all potable water sources shall be at least three hundred feet (300') per 10 CSR 20-8.140(2)(C)1.
8. In addition to the requirements for a construction permit, 10 CSR 20-6.200 requires land disturbance activities of 1 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 [dnr.mo.gov/env/wpp/epermit/help.htm](http://dnr.mo.gov/env/wpp/epermit/help.htm). See [dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm](http://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 [dnr.mo.gov/env/wpp/401/](http://dnr.mo.gov/env/wpp/401/) for more information.
10. All construction must adhere to applicable 10 CSR 20-8 (Chapter 8) requirements listed below.

### **10 CSR 20-8.140 Wastewater Treatment Facilities**

- Flood protection shall apply to new construction and to existing facilities undergoing major modification. The wastewater facility structures, electrical equipment, and mechanical equipment shall be protected from physical damage by not less than the one hundred- (100-) year flood elevation. 10 CSR 20-8.140 (2) (B)
- Unless another distance is determined by the Missouri Geological Survey or by the department's Public Drinking Water Branch, the minimum distance between wastewater treatment facilities and all potable water sources shall be at least three hundred feet (300'). 10 CSR 20-8.140 (2) (C) 1.
- Facilities shall be readily accessible by authorized personnel from a public right-of-way at all times. 10 CSR 20-8.140 (2) (D)
- The alarm shall be activated in cases of high water levels. Follow the provisions in subsection (7)(C) of this rule for alarm systems. 10 CSR 20-8.140 (4) (D)
- The outfall shall be so constructed and protected against the effects of flood water, ice, or other hazards as to reasonably ensure its structural stability and freedom from stoppage. 10 CSR 20-8.140 (6) (A)
- All sampling points shall be designed so that a representative and discrete twenty-four (24) hour automatic composite sample or grab sample of the effluent discharge can be obtained at a point after the final treatment process and before discharge to or mixing with the receiving waters. 10 CSR 20-8.140 (6) (B)
- All outfalls shall be posted with a permanent sign indicating the outfall number (i.e., Outfall #001). 10 CSR 20-8.140 (6) (C)
- An audiovisual alarm or a more advanced alert system, with a self-contained power supply, capable of monitoring the condition of equipment whose failure could result in a violation of the operating permit, shall be provided for all wastewater treatment facilities. 10 CSR 20-8.140 (7) (C)
- A means of flow measurement shall be provided at all wastewater treatment facilities. 10 CSR 20-8.140 (7) (E)
- Effluent twenty-four (24) hour composite automatic sampling equipment shall be provided at all mechanical wastewater treatment facilities and at other facilities where necessary under provisions of the operating permit. 10 CSR 20-8.140 (7) (F)

### **10 CSR 20-8.200 Wastewater Treatment Lagoons and Wastewater Irrigation Alternatives.**

- The minimum berm width shall be eight feet (8') to permit access of maintenance vehicles. 10 CSR 20-8.200 (4) (A) 2.
- Minimum freeboard shall be two feet (2'). 10 CSR 20-8.200 (4) (A) 3.

- An emergency spillway shall be provided. 10 CSR 20-8.200 (4) (A) 4.
- An emergency spillway must have the ability for a representative sample to be collected if a discharge occurs. 10 CSR 20-8.200 (4) (A) 4. C.
- Unlined corrugated metal pipe shall not be used for influent lines due to corrosion problems. 10 CSR 20-8.200 (4) (D) 1.
- The influent line(s) shall be located along the bottom of the lagoon so that the top of the pipe is just below the average elevation of the lagoon seal; however, there shall be an adequate seal below the pipe. 10 CSR 20-8.200 (4) (D) 3.

11. Upon completion of construction:

- A. Tyson Poultry, Inc. will become the continuing authority for operation and maintenance of these facilities;
- B. Submit an electronic copy of the as builts if the project was not constructed in accordance with previously submitted plans and specifications; and
- C. Submit the enclosed form Statement of Work Completed to the Department in accordance with 10 CSR 20-6.010(5)(N).
- D. When the facility applies for their next operating permit renewal, they will be expected to include an updated facility description on their application.

#### **IV. REVIEW SUMMARY**

##### **1. CONSTRUCTION PURPOSE**

The current operating permit expiring on September 30, 2020 will incorporate new effluent limitations becoming effective on February 1, 2021. These new effluent limitations include daily maximum temperature of 90 °F, and delta temperature of ±5 °F (not raising or lowering the temperature of a stream more than 5°F). This purpose of this construction project is to install a cooling pond after Outfall 001. This will increase the passive cooling of the effluent water before it is discharged to the unnamed tributary to the tributary to Little Muddy Creek.

##### **2. FACILITY DESCRIPTION**

The Tyson Poultry, Inc. – Sedalia Processing Plant is located at 19571 Whitfield Road, Sedalia, in Pettis County, Missouri. Tyson Poultry operates a poultry complex with a full treatment, direct discharge wastewater treatment plant which treats wastewater from their Feedmill, Hatchery, Processing Plant, and Rendering Plant. The facility has a design average flow of 2.16 million gpd and serves an organic

population equivalent of approximately 53,040 people. The purpose of construction will add a 2.5 acre cooling pond east-northeast of the current Outfall #001.

### **3. COMPLIANCE PARAMETERS**

The proposed project is required to meet final effluent daily maximum temperature limits of 90 °F and Delta T of  $\pm 5$  °F as established in Operating Permit MO-0115061.

### **4. REVIEW of MAJOR TREATMENT DESIGN CRITERIA**

#### **Construction will cover the following items:**

- Cooling Pond – The influent into the colling pond by an existing outfall on the treatment plant site. The Cooling Pond is a passive cooling pond with surface aerators and has a surface area of 2.5 acres with a 8,284,000 gallons capacity. This cell has 2 ft of freeboard, 15 ft of operating depth, and a high density polyethylene membrane liner with an average thickness of 60 mils. This provides approximately 3.8 days of retention at the proposed design flow. The side walls will have a slope of 3:1, and the earthen berm will have a 20 foot wide gravel road surrounding the perimeter.
- Cooling Pond Discharge – The cooling pond discharge location is approximately 658 ft east northeast from Outfall #001. The compliance point for temperature will be the cooling pond discharge which consists of a 24 inch discharge pipe. Outfall #001 will remain the compliance point for all other parameters.
- Aerators – A total of 6 x 20hp floating aerators will be installed along the center of the lagoon. Additional aerators can be installed if needed.

### **5. OPERATING PERMIT**

Operating permit MO-0115061 will require a modification to reflect the construction activities, altered facility description, and process flow diagram. An operating modification (OPMOD) was submitted with the construction permit application. Submit the Statement of Work Completed and OPMOD fee of \$1,250 to the Department in accordance with 10 CSR 20-6.010(5)(N) and request the operating permit modification be issued.

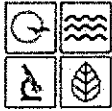
## **V. NOTICE OF RIGHT TO APPEAL**

If you were adversely affected by this decision, you may be entitled to an appeal before the Administrative Hearing Commission (AHC) pursuant to Section 621.250 RSMo. To appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC. Any appeal should be directed to:

Administrative Hearing Commission  
U.S. Post Office Building, Third Floor  
131 West High Street, P.O. Box 1557  
Jefferson City, MO 65102-1557  
Phone: 573-751-2422  
Fax: 573-751-5018  
Website: <https://ahc.mo.gov>

Steven Hamm, P.E.  
Engineering Section  
[steven.hamm@dnr.mo.gov](mailto:steven.hamm@dnr.mo.gov)

Cindy LePage, P.E.  
Engineering Section  
[cindy.lepage@dnr.mo.gov](mailto:cindy.lepage@dnr.mo.gov)



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

FOR DEPARTMENT USE ONLY	
APP NO.	CP NO.
FEE RECEIVED	CHECK NO.
DATE RECEIVED	

**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
- 1.3 Has the department approved the proposed project's facility plan\*?  
 YES Date of Approval: 3/16/20  NO (If No, complete No. 1.4.)
- 1.4 [Complete only if answered No on No. 1.3.] Is a copy of the facility plan\* for wastewater treatment facilities included with this application?  
 YES  NO  Exempt because \_\_\_\_\_
- 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: \_\_\_\_\_  
 Enclosed is the appropriate operating permit application and fee submittal. Denote which form:  A  B  B2  
 N/A: However, in the event the department believes that my operating permit requires revision to permit limitation such as changing equivalent to secondary limits to secondary limits or adding total residual chlorine limits, please share a draft copy prior to public notice?  YES  NO
- 1.8 Is the facility currently under enforcement with the department or the Environmental Protection Agency?  YES  NO
- 1.9 Is the appropriate fee or JetPay confirmation included with this application?  YES  NO  
 See Section 7.0

\* Must be affixed with a Missouri registered professional engineer's seal, signature and date.

**2.0 PROJECT INFORMATION**

2.1 NAME OF PROJECT Cooling Pond	2.2 ESTIMATED PROJECT CONSTRUCTION COST \$ 1.8 million
2.3 PROJECT DESCRIPTION Installation of a 2.5 acre cooling pond to allow time for treated wastewater discharged from Outfall 001 to warm or cool passively and through mechanical aeration and/or mixing as needed to meet future Operating Permit temperature requirements.	
2.4 SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION There is no additional sludge handling, use or disposal associated with the addition of the cooling pond.	
2.5 DESIGN INFORMATION A. Current population: <u>1800</u> ; Design population: <u>53 K</u> B. Actual Flow: <u>2.093</u> gpd; Design Average Flow: <u>2.16</u> gpd; Actual Peak Daily Flow: <u>2.833</u> gpd; Design Maximum Daily Flow: <u>2.60</u> gpd; Design Wet Weather Event: <u>10 yr</u>	
2.6 ADDITIONAL INFORMATION A. Is a topographic map attached? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO B. Is a process flow diagram attached? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	



**3.0 WASTEWATER TREATMENT FACILITY**

NAME Tyson Poultry Inc. - Sedalia Processing Plant		TELEPHONE NUMBER WITH AREA CODE 660-827-9690	E-MAIL ADDRESS jason.mccauley@tyson.com	
ADDRESS (PHYSICAL) 19571 Whitfield Rd.	CITY Sedalia	STATE MO	ZIP CODE 65301	COUNTY Pettis

Wastewater Treatment Facility: Mo- 0115061 (Outfall 001 Of 1 )

3.1 Legal Description: SE ¼, SW ¼, NW ¼, Sec. 36, T 46N, R 25W  
(Use additional pages if construction of more than one outfall is proposed.)3.2 UTM Coordinates Easting (X): 472533 Northing (Y): 4289606  
For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)3.3 Name of receiving streams: Tributary to Little Muddy Creek, Little Muddy Creek**4.0 PROJECT OWNER**

NAME Tyson Poultry Inc.		TELEPHONE NUMBER WITH AREA CODE 479-290-7272	E-MAIL ADDRESS kirby.mccalister@tyson.com	
ADDRESS 2200 Don Tyson Parkway	CITY Springdale	STATE AR	ZIP CODE 72762	

**5.0 CONTINUING AUTHORITY:** A continuing authority is a company, business, entity or person(s) that will be operating the facility and/or ensuring compliance with the permit requirements.

NAME Tyson Poultry Inc.		TELEPHONE NUMBER WITH AREA CODE 479-290-7272	E-MAIL ADDRESS kirby.mccalister@tyson.com	
ADDRESS 2200 Don Tyson Parkway	CITY Springdale	STATE AR	ZIP CODE 72762	

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  NOB. 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  NOC. 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  NOD. 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 Power Engineers Inc.		TELEPHONE NUMBER WITH AREA CODE 513-326-1509	E-MAIL ADDRESS john.wentz@powereng.com	
ADDRESS 11733 Chesterdale Rd.	CITY Cincinnati	STATE OH	ZIP CODE 45246	

**7.0 APPLICATION FEE** CHECK NUMBER 5166  JETPAY CONFIRMATION NUMBER**8.0 PROJECT OWNER:** I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.PROJECT OWNER SIGNATURE  
PRINTED NAME  
Alan JohnstonDATE  
4/3/20TITLE OR CORPORATE POSITION  
Complex ManagerTELEPHONE NUMBER WITH AREA CODE  
660-827-8503E-MAIL ADDRESS  
alan.johnston@tyson.comMail 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.**