Official Draft Public Notice Version **October 29th, 2024**
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STATE OF UTAH
DIVISION OF WATER QUALITY
DEPARTMENT OF ENVIRONMENTAL QUALITY
SALT LAKE CITY, UTAH

UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES) PERMITS

Major Industrial Permit No. **UT0000281**
Biosolids Permit No. **UTL000281**

In compliance with provisions of the Utah *Water Quality Act, Title 19, Chapter 5, Utah Code* (the *"Act"*),

SWIFT BEEF COMPANY

is hereby authorized to discharge from

SWIFT BEEF COMPANY'S WATER RECLAMATION FACILITY

to receiving waters named **IRRIGATION DITCH THENCE TO SOUTH FORK OF SPRING CREEK**,

to dispose of biosolids,

and to distribute effluent for reuse,

in accordance with specific limitations, outfalls, and other conditions set forth herein.

This permit shall become effective on **Month Date, 2024**

This permit expires at midnight on **Month Date, 2029**.

Signed this XXth day of Month, 20XX.

John K. Mackey, P.E.
Director

DWQ-2024-000242

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I. DISCHARGE LIMITATIONS AND REPORTING REQUIREMENTS

A. Description of Discharge Points. The authorization to discharge wastewater provided under this part is limited to those outfalls specifically designated below as discharge locations. Discharges at any location not authorized under an UPDES permit are violations of the *Act* and may be subject to penalties under the *Act*. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge may be subject to criminal penalties as provided under the *Act.*

Outfall Number	Location of Discharge Outfall
001	Located at latitude 41°39'20.4" and longitude 111°52'8.0"; the discharge pipe is located on the northwest corner of Swift Beef Company Water Reclamation Facility (SBCWRF) property between 1200 West and 1500 West in Nibley, Cache County. The water is discharged inside the fenced area and flows under the chain-link fence to the receiving irrigation ditch.

Outfall Number	Location of Effluent Reuse Discharge Outfall
001R	Located at latitude 41°39'19.4" and longitude 111°52'5.16". Treated effluent for reuse is stored in Pond 4 and Pond 5 at the SBCWRF until it is needed for irrigation.

Outfall Number	Location of Effluent Reuse Discharge Outfall
002R	Located at latitude 41°39'20.4" and longitude 111°52'8.0". Treated effluent for reuse will be pumped directly into the irrigation distribution system.

B. Narrative Standard. It shall be unlawful, and a violation of this permit, for the Permittee to discharge or place any waste or other substance in such a way as will be or may become offensive such as unnatural deposits, floating debris, oil, scum, or other nuisances such as color, odor or taste, or cause conditions which produce undesirable aquatic life or which produce objectionable tastes in edible aquatic organisms; or result in concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life, or undesirable human health effects, as determined by a bioassay or other tests performed in accordance with standard procedures.

C. Specific Limitations and Self-Monitoring Requirements.

1. Effective immediately, and lasting through the duration of this permit, there shall be no acute or chronic toxicity in Outfall(s) 001, 001R and 002R as defined in *Part VIII* and determined by test procedures described in *Part I. C.4.a* of this permit.

2.

a. Effective immediately and lasting the duration of this permit, the Permittee is authorized to discharge from Outfall 001. Such discharges shall be limited and monitored by the Permittee as specified below in **Tables 1** and **2**:

Parameter	Table 1: Effluent Limitations at Outfall 001[(a)]				
	Maximum Monthly Avg	Maximum Weekly Avg	Yearly Average	Daily Minimum	Daily Maximum
Total Flow	2.0	--	--	--	--
BOD_5, mg/L	25	35	--	--	55
TSS, mg/L	25	35	--	--	64
DO, mg/L [(d)]	--	--	--	4.0	--
Total Ammonia (as N), mg/L	4.0	--	--	--	8.0
TRC, mg/L					
October-March	0.129	--	--	--	0.221
April-September	0.119	--	--	--	0.205
Nitrogen (as N), mg/L	134	--	--	--	194
E. coli, No./100mL	126	157	--	--	--
Total Phosphorus, mg/L	--	--	1.0	--	--
WET, Chronic Biomonitoring			--		IC_{25}> effluent (from WLA)
1st and 4th Quarter	--	--	--	--	45.0%
2nd and 3rd Quarter	--	--		--	32.0%
Oil & Grease, mg/L	--	--	--	--	10
pH, Standard Units	--	--	--	6.5	9
TDS, mg/L[(g)]	--	--	--	--	3,000/ 1,206

Table 2: Self-Monitoring and Reporting Requirements at Outfall 001[a]			
Parameter	Frequency	Sample Type	Units
Total Flow[b][c]	Continuous	Recorder	MGD
BOD_5	Weekly	Composite	mg/L
TSS	Weekly	Composite	mg/L
DO[d]	Weekly	Grab	mg/L
Total Ammonia (as N)	Weekly	Grab	mg/L
TRC[e]	Weekly	Grab	mg/L
Nitrogen (as N)	Monthly	Composite	mg/L
E. coli	Weekly	Grab	No./100mL
Total Phosphorus			
Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
WET, Chronic Biomonitoring[f]			
Ceriodaphnia – Chronic	1st and 3rd Quarter	Composite	Pass/Fail
Fathead Minnows – Chronic	2nd and 4th Quarter	Composite	Pass/Fail
Oil and Grease	Weekly	Grab	mg/L
pH	Weekly	Grab	SU
TDS[g]	Weekly	Grab	mg/L
Temperature	Weekly	Grab	°C
Total Kjeldahl Nitrogen, TKN as (N)[h]			
Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
Orthophosphate (as P)[h],			
Effluent	Monthly	Composite	mg/L
Nitrate, NO_3[h]	Monthly	Composite	mg/L
Nitrite, NO_2[h]	Monthly	Composite	mg/L
Metals[i], Effluent			
Arsenic, Total	2X per Year	Composite	mg/L
Boron, Total	2X per Year	Composite	mg/L
Cadmium, Total	2X per Year	Composite	mg/L
Chromium, Total	2X per Year	Composite	mg/L
Copper, Total	2X per Year	Composite	mg/L
Cyanide, Total	2X per Year	Composite	mg/L
Lead, Total	2X per Year	Composite	mg/L
Mercury, Total	2X per Year	Composite	mg/L
Nickel, Total	2X per Year	Composite	mg/L
Selenium, Total	2X per Year	Composite	mg/L
Silver, Total	2X per Year	Composite	mg/L
Zinc, Total	2X per Year	Composite	mg/L

Notes Tables 1 and 2

a. See Definitions, *Part VIII*, for definition of terms.
b. Flow measurements of influent/effluent volume shall be made in such a manner that the Permittee can affirmatively demonstrate that representative values are being obtained.
c. If the rate of discharge is controlled, the rate and duration of discharge shall be reported.
d. DO samples will be collected at the discharge location weekly, with a limitation of 4.0 mg/L, consistent with the previous UPDES Permit. In addition, the Permittee has agreed to work with DWQ and Hyrum City to sample DO at the location where the irrigation ditch flows into Spring Creek to ensure that the 6.5 mg/L DO Class 3A Water Quality Standard is met in the South Fork of Spring Creek.
e. Analytical results less than 0.06 mg/l will not be considered out of compliance with the permit. For purposes of calculating averages and reporting on the Discharge Monitoring Report form, the following will apply:

a. analytical values less than 0.02 mg/L shall be considered zero; and
b. analytical values less than 0.06 mg/L and equal to or greater than 0.02 mg/L will be recorded as measured.

f. Chronic Ceriodaphnia will be tested during the 1st and 3rd quarters and the chronic fathead minnows will be tested during the 2nd and 4th quarters.
g. Interim limitation (3,000 mg/L) in effect permit issuance through permit modification or August 1, 2027. See Part I.C.3. of the permit.
h. These reflect changes required with the adoption of UAC R317-1-3.3, Technology-based Phosphorus Effluent Limits rule.
i. Metals shall be collected twice per year, once during irrigation season and once during non-irrigation season. Metals data is being collected to support a reasonable potential analysis.

b. The permittee is authorized to discharge from Outfall 001R and 002R. Such discharges shall be limited and monitored by the permittee as specified below in **Table 3** and **4**:

Parameter	**Table 3: Type II Reuse Outfall 001R and 002R Effluent Limitations[(a)]**				
	Max Monthly Average	Max Weekly Average	Max Daily Average	Daily Minimum	Daily Maximum
BOD_5, mg/L	25	--	--	--	--
TSS, mg/L	25	35	--	-	--
E. coli, No/100mL	--	126	--	--	500
pH, Standard Units	--	--	--	6.0	9.0

Table 4: Type II Reuse Outfall 001R and 002R Self-Monitoring and Reporting Requirements[(a)]			
Parameter	Frequency	Sample Type	Units
Total Flow[(b)(c)]	Continuous	Recorder	MGD
BOD_5	Weekly	Composite	mg/L
TSS	Weekly	Composite	mg/L
E. coli	Weekly	Grab	No./100mL
pH	Weekly	Grab	SU

Notes Tables 3 and 4
a. See Definitions, *Part VIII*, for definition of terms.
b. Flow measurements of influent/effluent volume shall be made in such a manner that the Permittee can affirmatively demonstrate that representative values are being obtained.
c. If the rate of discharge is controlled, the rate and duration of discharge shall be reported.

c. Management Practices for Land Application of Treated Effluent:

(1) The application of treated effluent to frozen, ice-covered, or snow-covered land is prohibited.

(2) No person shall apply treated effluent where the slope of the site exceeds 6 percent.

(3) The use should not result in a surface water runoff.

(4) The use must not result in the creation of an unhealthy or nuisance condition, as determined by the local health department.

(5) Any irrigation with treated effluent must be at least 300 feet from a potable well.

(6) For Type I reuse, any irrigation must be at least 50 feet from any potable water well.

(7) For Type II reuse, any irrigation must be at least 300 feet from any potable water well.

(8) For Type II reuse, spray irrigation must be at least 100 feet from areas intended for public access. This distance may be reduced or increased by the Director.

(9) Impoundments of treated effluent, if not sealed, must be at least 500 feet from any potable well.

(10) Public access to effluent storage and irrigation or disposal sites shall be restricted by a stock-tight fence or other comparable means which shall be posted and controlled to exclude the public (Compliance Schedule for a Particular Parameter if necessary)

3. Compliance Schedule

a. Below is the Compliance Schedule for Total Dissolved Solids (TDS).

TDS Compliance Schedule	
Date	**Milestones**
Permit Issue – January 1, 2027	The Permittee collects data at the new monitoring location for model input. See the table below for location, parameters, and frequency.
February 1, 2027	The permittee submits all data and requests a modified WLA based on the data collected.
April 1, 2027	DWQ provides modified WLA to the Permittee.
May 1, 2027	Permittee requests to modify the Permit to reflect the new TDS limitation provided in the WLA or requests to modify the Compliance Schedule to align with the time required to implement new technology to treat TDS.
August 1, 2027	If a permit modification is not made, the final TDS limitation of 1,206 mg/L in 2024 WLA will take effect.

TDS Limitations	
Date	TDS Daily Maximum Limit
Permit Issue – Permit Modification or August 1, 2027	3,000 mg/L

New Monitoring Location Sampling Requirements Upstream Monitoring Location: 41°39'27.9"N. 111°51'46.0"W	
Parameter	**Frequency***
Flow	Monthly
Total Dissolved Solids [TDS]	Monthly
Temperature	Monthly
pH	Monthly
Specific Conductance	Monthly
Total Suspended Solids	Monthly
Dissolved Oxygen	Monthly
BOD5	Monthly
Organic Nitrogen	Monthly
NH4-Nitrogen	Monthly
NO3-Nitrogen	Monthly

Total Phosphorus	Monthly
Inorganic Phosphorus	Monthly
E. coli Bact. Indicator	Monthly
Alkalinity	Monthly

* If there is no flow in the ditch, please report that finding.

b. If the Permittee concludes sampling at any point, the Compliance Schedule will end, and the limits in the current WLA will go into effect.
c. Any violation of a Compliance Schedule is a violation of this UPDES Permit and shall be reported as any other violation.

4. Chronic Whole Effluent Toxicity (WET) Testing.

a. *Whole Effluent Testing – Chronic Toxicity*.

Starting immediately, the permittee shall quarterly, conduct chronic static renewal toxicity tests on a composite sample of the final effluent at Outfall 001. The sample shall be collected at the point of compliance before mixing with the receiving water.

Three samples are required and samples shall be collected on Monday, Wednesday and Friday of each sampling period or collected on a two day progression for each sampling period. This may be changed with Director approval. Chronic toxicity tests shall be conducted in general accordance with the procedures set out in the latest revision of *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms, Fourth Edition*, October 2002, *EPA—821-R-02-013* as per *40 CFR 136.3(a)* TABLE IA-LIST OF APPROVED BIOLOGICAL METHODS. Test species shall consist of *Ceriodaphnia dubia* and *Pimephales promelas* (i.e., fathead minnow).

A multi dilution test consisting of at least five concentrations and a control is required at two dilutions below and two above the receiving water concentration (RWC), if possible. If test acceptability criteria are not met for control survival, growth, or reproduction, the test shall be considered invalid. A valid replacement test is required within the specified sampling period to remain in compliance with this permit. Chronic toxicity occurs when, during a chronic toxicity test, the 25% inhibition concentration (IC25) calculated on the basis of test organism survival and growth or survival and reproduction, is less than or equal to 45.0% effluent concentration for the 1st and 4th quarter and 32.0% effluent concentration for the 2nd and 3rd quarter (equivalent to the RWC). If a sample is found to be chronically toxic during a routine test, the monitoring frequency shall become biweekly (see Part I.C.4.b Accelerated Testing). If possible, dilution water should be obtained from the receiving stream.

If the permit contains a total residual chlorine limitation such that it may interfere with WET testing (>0.20 mg/L), the permittee may dechlorinate the sample in accordance with the standard method. If dechlorination is negatively affecting the test, the permittee may collect the sample just before chlorination with Director approval.

Quarterly test results shall be reported along with the Discharge Monitoring Report (DMR) submitted for the end of the required reporting period (e.g., biomonitoring results for the calendar quarter ending March 31 shall be reported with the DMR due April 28, with the remaining biomonitoring reports submitted with DMRs due each July 28, October 28, and January 28). The format for the report shall be consistent with Appendix C of "Utah Pollutant Discharge Elimination System (UPDES) Permitting

and Enforcement Guidance Document for Whole Effluent Toxicity, Utah Division of Water Quality, February, 2018.

b. *Accelerated Testing*. When whole effluent toxicity is indicated during routine WET testing as specified in this permit, the permittee shall notify the Director in writing within 5 days after becoming aware of the test result. The permittee shall perform an accelerated schedule of WET testing to establish whether a pattern of toxicity exists unless the permittee notifies the Director and commences a PTI, TIE, or a TRE. Accelerated testing or the PTI, TIE, or TRE will begin within fourteen days after the permittee becomes aware of the test result. Accelerated testing shall be conducted as specified under Part I. Pattern of Toxicity. If the accelerated testing demonstrates no pattern of toxicity, routine monitoring shall be resumed.

c. *Pattern of Toxicity*. A pattern of toxicity is defined by the results of a series of up to five biomonitoring tests pursuant to the accelerated testing requirements using a full set of dilutions for acute (five plus the control) and five effluent dilutions for chronic (five plus the control), on the species found to be more sensitive, once every week for up to five consecutive weeks for acute and once every two weeks up to ten consecutive weeks for chronic.

If two (2) consecutive tests (not including the scheduled test which triggered the search for a pattern of toxicity) do not result in an exceedance of the acute or chronic toxicity criteria, no further accelerated testing will be required and no pattern of toxicity will be found to exist. The permittee will provide written verification to the Director within 5 days of determining no pattern of toxicity exists, and resume routine monitoring.

A pattern of toxicity may or may not be established based on the following:

WET tests should be run at least weekly (acute) or every two weeks (chronic) (note that only one test should be run at a time), for up to 5 tests, until either:

1) 2 consecutive tests fail, or 3 out of 5 tests fail, at which point a pattern of toxicity will have been identified, or

2) 2 consecutive tests pass, or 3 out of 5 tests pass, in which case no pattern of toxicity is identified.

d. *Preliminary Toxicity Investigation*.

(1) When a pattern of toxicity is detected the permittee will notify the Director in writing within 5 days and begin an evaluation of the possible causes of the toxicity. The permittee will have 15 working days from demonstration of the pattern of toxicity to complete an optional Preliminary Toxicity Investigation (PTI) and submit a written report of the results to the Director. The PTI may include, but is not limited to: additional chemical and biological monitoring, examination of Pretreatment Program records, examination of discharge monitoring reports, a thorough review of the testing protocol, evaluation of treatment processes and chemical use, inspection of material storage and transfer areas to determine if any spill may have occurred.

(2) If the PTI identifies a probable toxicant and/or a probable source of toxicity, the permittee shall submit, as part of its final results, written notification of that effect to the Director. Within thirty days of completing the PTI the permittee shall

submit to the Director for approval a control program to control effluent toxicity and shall proceed to implement such plan in accordance with the Director's approval. The control program, as submitted to or revised by the Director, will be incorporated into the permit. After final implementation, the permittee must demonstrate successful removal of toxicity by passing a two species WET test as outlined in this permit. With adequate justification, the Director may extend these deadlines.

(3) If no probable explanation for toxicity is identified in the PTI, the permittee shall notify the Director as part of its final report, along with a schedule for conducting a Phase I Toxicity Reduction Evaluation (TRE).

(4) If toxicity spontaneously disappears during the PTI, the permittee shall submit written notification to that effect to the Director, with supporting testing evidence.

e. *Toxicity Reduction Evaluation (TRE)*. If a pattern of toxicity is detected the permittee shall initiate a TIE/TRE within 7 days unless the Director has accepted the decision to complete a PTI. With adequate justification, the Director may extend the 7-day deadline. The purpose of the TIE portion of a TRE will be to establish the cause of the toxicity, locate the source(s) of the toxicity, and the TRE will control or provide treatment for the toxicity.

A TRE may include but is not limited to one, all, or a combination of the following:

(1) Phase I – Toxicity Characterization

(2) Phase II – Toxicity Identification Procedures

(3) Phase III – Toxicity Control Procedures

(4) Any other appropriate procedures for toxicity source elimination and control.

If the TRE establishes that the toxicity cannot be immediately eliminated, the permittee shall submit a proposed compliance plan to the Director. The plan shall include the proposed approach to control toxicity and a proposed compliance schedule for achieving control. If the approach and schedule are acceptable to the Director, this permit may be reopened and modified.

If toxicity spontaneously disappears during the TIE/TRE, the permittee shall submit written notification to that effect to the Director.

If the TRE shows that the toxicity is caused by a toxicant(s) that may be controlled with specific numerical limitations, the permittee shall submit the following:

(a) An alternative control program for compliance with the numerical requirements.

(b) If necessary, as determined by the Director, provide a modified biomonitoring protocol which compensates for the pollutant(s) being controlled numerically.

This permit may be reopened and modified to incorporate any additional numerical limitations, a modified compliance schedule if judged necessary by the Director, and/or modified WET testing requirements without public notice.

Failure to conduct an adequate TIE/TRE plan or program as described above, or the submittal of a plan or program judged inadequate by the Director, shall be considered a violation of this permit. After implementation of TIE/TRE plan, the permittee must demonstrate successful removal of toxicity by passing a two species WET test as outlined in this permit.

D. Reporting of Monitoring Results.

1. Reporting of all wastewater discharge/reuse monitoring results obtained at Outfall 001, 001R, and 002R during the previous month shall be summarized for each month and reported on a Discharge Monitoring Report Form (EPA No. 3320-1)* or by NetDMR, post-marked, or entered into NetDMR no earlier than the first day and no later than the 28th day of the month following the end of the completed monitoring period. The first report is due on **Month XX, 2024**. If no discharge/reuse occurs during the reporting period, "no discharge/reuse" shall be reported. Legible copies of these, and all other reports including whole effluent toxicity (WET) test reports required herein, shall be signed and certified in accordance with the requirements of *Signatory Requirements (see Part VII.G*), and submitted by NetDMR, or to the Division of Water Quality at the following address:

   Department of Environmental Quality
   Division of Water Quality
   PO Box 144870
   Salt Lake City, Utah 84114-4870

2. Annual Reporting of Reuse Wastewater Monitoring Results.

   Annual Reporting of Land Application per Crop Type. Monitoring results obtained during the previous year shall be summarized and reported annually, no later than January 28th day of the month following the completed reporting period. The first report is due on **January 28, 2025**. If no reuse occurs during the reporting period, "no reuse" shall be reported for those applicable effluent parameters. Legible copies of these, and all other reports required herein, shall be signed and certified in accordance with the requirements of Signatory Requirements (see Part VII.G), and submitted to the Division of Water Quality at the following address:

   Department of Environmental Quality
   Division of Water Quality
   PO Box 144870
   Salt Lake City, Utah 84114-4870

* Starting January 1, 2017 monitoring results must be submitted using NetDMR unless the permittee has successfully petitioned for an exception.

II. PRETREATMENT REQUIREMENTS

A. Definitions. For this section, the following definitions shall apply:

1. *Indirect Discharge* means the introduction of pollutants into a Publicly Owned Treatment Works (POTW) from any non-domestic source regulated under section 307 (b), (c) or (d) of the CWA.

2. *Interference* means a discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

   a. Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and

   b. Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

3. *Pass Through means* a Discharge which exits the POTW into waters of the State or waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

4. *Publicly Owned Treatment Works* or *POTW* means a treatment works, as defined by section 212 of the CWA, which is owned by a State or municipality (as defined by section 502(4) of the CWA). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality, as defined in section 502(4) of the CWA, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.

5. *Significant Industrial User (SIU)* is defined as an Industrial User discharging to a POTW that satisfies any of the following:

   a. Has a process wastewater flow of 25,000 gallons or more per average work day;

   b. Has a flow greater than five percent of the flow carried by the municipal system receiving the waste;

   c. Is subject to Categorical Pretreatment Standards, or

   d. Has a reasonable potential for adversely affecting the operation of the POTW or violating any pretreatment standard or requirement.

6. *User or Industrial User (IU)* means a source of Indirect Discharge.

B. Discharge to POTW. Any wastewaters discharged to the sanitary sewer, either as a direct discharge or as a hauled waste, are subject to Federal, State and local pretreatment regulations. Pursuant to Section 307 of The Water Quality Act of 1987, the Permittee shall comply with all applicable federal General Pretreatment Regulations promulgated at 40 CFR 403, the State Pretreatment Requirements at UAC R317-8-8, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the wastewaters. At a minimum, the discharge into a POTW must meet the requirements of Part II. D. and E. of the permit.

C. Hazardous Waste Notification. The Permittee must notify the POTW, the EPA Regional Waste Management Director, the Director and the State hazardous waste authorities in writing if they discharge any substance into a POTW that, if otherwise disposed of, would be considered a hazardous waste under 40 CFR 261. This notification must include the name of the hazardous waste, the EPA hazardous waste number, and the type of discharge (continuous or batch).

D. General and Specific Prohibitions.

1. General Prohibitions. The Permittee may not introduce into a POTW any pollutant(s) which cause Pass Through or Interference. These general prohibitions and the specific prohibitions in paragraph 2. of this section apply to the introducing pollutants into a POTW whether or not the Permittee is subject to other National Pretreatment Standards or any national, State, or local Pretreatment Requirements.

2. Specific Prohibitions. The following pollutants shall not be introduced into a POTW:

   a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, wastestreams with a closed cup flashpoint of less than 140˚F (60˚C);

   b. Pollutants, which will cause corrosive structural damage to the POTW, but in no case, discharges with a pH lower than 5.0;

   c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in Interference;

   d. Any pollutant, including oxygen demanding pollutants (BOD, etc.), released in a discharge at such volume or strength as to cause Interference in the POTW;

   e. Heat in amounts, which will inhibit biological activity in the POTW, resulting in Interference, but in no case, heat in such quantities that the influent to the sewage treatment works exceeds 104˚F (40˚C));

   f. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;

   g. Pollutants, which result in the presence of toxic gases, vapor, or fumes within the POTW in a quantity that may cause worker health or safety problems;

   h. Any trucked or hauled pollutants, except at discharge points designated by the POTW; or

i. Any pollutant that causes Pass Through or Interference at the POTW.

j. Any specific pollutant which exceeds any Local Limitation established by the POTW.

E. Categorical Standards. In addition to the general and specific limitations expressed in *Part II. D.* of this section, applicable National Categorical Pretreatment Standards must be met by all Industrial Users discharging into a POTW. These standards are published in the federal regulations at *40 CFR 405 through 471*.

III. BIOSOLIDS REQUIREMENTS

A. Biosolids Treatment and Disposal. The authorization to dispose of biosolids provided under this permit is limited to those biosolids produced from the treatment works owned and operated by the Permittee. The treatment methods and disposal practices are designated below.

1. Treatment

a. Wastewater enters the system into an anerobic lagoon where the solids are first digested and reduced before flowing into anoxic basins. The solids are further treated in an aeration basin then allowed to settle out in clarifiers. Settled solids are then sent to one of two Huber screw presses for dewatering. The dewatered sludge is then augured into dump trucks where it is then hauled to Miller Companies for further treatment before being sold as compost.

2. Description of Biosolids Disposal Method

a. Class A biosolids may be sold or given away to the public for lawn and garden use or land application.

b. Class B biosolids may be land applied for agriculture use or at reclamation sites at agronomic rates.

c. Biosolids may be disposed of in a landfill or transferred to another facility for treatment and/or disposal.

3. Changes in Treatment Systems and Disposal Practices.

a. Should the Permittee change their disposal methods or the biosolids generation and handling processes of the plant, the Permittee must notify the Director at least 30 days in advance if the process/method is specified in *40 CFR Part 503*. This includes, but is not limited to, the permanent addition or removal of any biosolids treatment units (i.e., digesters, drying beds, belt presses, etc.) and/or any other change.

b. Should the Permittee change their disposal methods or the biosolids generation and handling processes of the plant, the Permittee must notify the Director at least 180 days in advance if the process/method is not specified in *40 CFR Part 503*. This includes, but is not limited to, the permanent addition or removal of any biosolids treatment units (i.e., digesters, drying beds, belt presses, etc.) and/or any other change.

For any biosolids that are landfilled, the Permittee shall follow the requirements in *Section 2.12* of the latest version of the *EPA Region VIII Biosolids Management Handbook* must be followed

B. Specific Limitations and Monitoring Requirements. All biosolids generated by this facility to be sold or given away to the public shall meet the requirements of *Part III.B.1, 2, 3* and *4* listed below.

1. Metals Limitations. All biosolids sold or given away in a bag or similar container for application to lawns and home gardens must meet the metals limitations as described below. If these metals limitations are not met, the biosolids must be landfilled.

Table 5: Pollutant Limits, (40 CFR Part 503.13(b)) Dry Mass Basis				
Heavy Metals	Table 1	Table 2	Table 3	Table 4
	Ceiling Conc. Limits[a], (mg/kg)	CPLR[b], (mg/ha)	Pollutant Conc. Limits[c] (mg/kg)	APLR[d], (mg/ha-yr)
Total Arsenic	75	41	41	2.0
Total Cadmium	85	39	39	1.9
Total Copper	4300	1500	1500	75
Total Lead	840	300	300	15
Total Mercury	57	17	17	0.85
Total Molybdenum	75	N/A	N/A	N/A
Total Nickel	420	420	420	21
Total Selenium	100	100	100	5.0
Total Zinc	7500	2800	2800	140

Notes for Table 5

a. If the concentration of any 1 (one) of these parameters exceeds the Table 1 limit, the biosolids cannot be land applied or beneficially used in any way.

b. CPLR - Cumulative Pollutant Loading Rate - The maximum loading for any 1 (one) of the parameters listed that may be applied to land when biosolids are land applied or beneficially used on agricultural, forestry, or a reclamation site.

c. If the concentration of any 1 (one) of these parameters exceeds the Table 3 limit, the biosolids cannot be land applied or beneficially used in on a lawn, home garden, or other high potential public contact site. If any 1 (one) of these parameters exceeds the Table 3 limit, the biosolids may be land applied or beneficially reused on an agricultural, forestry, reclamation site, or other high potential public contact site, as long as it meets the requirements of Table 1, Table 2, and Table 4.

d. APLR - Annual Pollutant Loading Rate - The maximum annual loading for any 1 (one) of the parameters listed that may be applied to land when biosolids are land applied or beneficially reused on agricultural, forestry, or a reclamation site, when they do not meet Table 3, but do meet Table 1.

2. Pathogen Limitations. All biosolids sold or given away in a bag or a similar container for application to lawns and home gardens must meet the pathogen limitations for Class A. Land applied biosolids must meet the pathogen limitations for Class B as described below. If the pathogen limitations are not met, the biosolids must be landfilled.

   a. Class A biosolids shall meet one of the pathogen measurement requirements in the following Pathogen Control Class table or shall meet the requirements for a Process to Further Reduce Pathogens as defined in *40 CFR Part 503.32(a) Sewage Sludge – Class A.*

      (1) At this time Swift Beef Company does not intend to directly distribute biosolids to the public for use on the lawn and garden and thus is not required meet Class A Biosolids requirements currently.

   b. Class B biosolids shall meet the pathogen measurement requirements in the following Pathogen Control Class table or shall meet the requirements for a Process to Significantly Reduce Pathogens as defined in *40 CFR Part 503.32(b) Sewage Sludge – Class B.*

      (1) At this time Swift Beef Company does not intend to directly distribute bulk biosolids for land application and thus is not required meet Class B Biosolids requirements currently.

   c. In addition, the permittee shall comply with all applicable site restrictions listed below *(40 CFR 503.32,(b),(5)):*

(1) Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after application.

(2) Food crops with harvested parts below the land surface shall not be harvested for 20 months after application if the biosolids remains on the land surface for four months or more prior to incorporation into the soil.

(3) Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than four months prior to incorporation into the soil.

(4) Food crops, feed crops, and fiber crops shall not be harvested from the land for 30 days after application.

(5) Animals shall not be allowed to graze on the land for 30 days after application.

(6) Turf grown on land where biosolids is applied shall not be harvested for one year after application if the harvested turf is placed on either land with a high potential for public exposure or a lawn.

(7) Public access to land with a high potential for public exposure shall be restricted for one year after application.

(8) Public access to land with a low potential for public exposure shall be restricted for 30 days after application.

(9) The sludge or the application of the sludge shall not cause or contribute to the harm of a threatened or endangered species or result in the destruction or adverse modification of critical habitat of a threatened or endangered species after application.

Table 6: Pathogen Control Class	
503.32 (a)(1) - (5), (7), (8), Class A	503.32 (b)(1) - (5), Class B
B Salmonella species –less than three (3) MPN[(a)] per four (4) grams total solids (DWB)[(b)] or Fecal Coliforms – less than 1,000 MPN per gram total solids (DWB).	Fecal Coliforms – less than 2,000,000 MPN or CFU[(c)] per gram total solids (DWB).
503.32 (a)(6) Class A—Alternative 4	
B Salmonella species –less than three (3) MPN per four (4) grams total solids (DWB) or less than 1,000 MPN Fecal Coliforms per gram total solids (DWB), And - Enteric viruses –less than one (1) plaque forming unit per four (4) grams total solids (DWB) And - Viable helminth ova –less than one (1) per four (4) grams total solids (DWB)	

Notes for Table 6

a. MPN – Most Probable Number
b. DWB – Dry Weight Basis
c. CFU – Colony Forming Units

3. Vector Attraction Reduction Requirements.

   a. The Swift Beef Company will meet vector attraction reduction through use of one of the methods listed in *40 CFR Part 503.33*. Facility is meeting the requirements though the following methods.

      (1) At this time Swift Beef Company does not intend to distribute biosolids directly and thus is not required meet Vector Attraction Reduction requirements currently

   If the Permittee intends to use another one of the alternatives, the Director and the EPA must be informed at least thirty (30) days prior to its use.

4. Self-Monitoring Requirements.

   a. At a minimum, upon the effective date of this permit, all chemical pollutants, pathogens and applicable vector attraction reduction requirements shall be monitored according to *40 CFR Part 503.16(1)(a)*.

Table 7: Minimum Frequency of Monitoring (40 CFR Part 503.16, 503.26. and 503.46)		
Amount of Biosolids Disposed Per Year		Monitoring Frequency
Dry US Tons	Dry Metric Tons	Per Year or Batch
> 0 to < 320	> 0 to < 290	Once Per Year or Batch
> 320 to < 1650	> 290 to < 1,500	Once a Quarter or Four Times
> 1,650 to < 16,500	> 1,500 to < 15,000	Bi-Monthly or Six Times
> 16,500	> 15,000	Monthly or Twelve Times
Swift Beef Company produces and transfers less than 1500 DMT of biosolids per year on average, therefore they need to sample at least once a quarter or four times a year. Currently they are below the 15000 DMT cutoff for production level to sample 6 times per year. This is a self-implementing limit that they should adhere to when they anticipate producing more than 1500 DMT in a year		

   b. Sample collection, preservation and analysis shall be performed in a manner consistent with the requirements of *40 CRF 503* and/or other criteria specific to this permit. A metals analysis is to be performed using *Method SW 846* with *Method 3050* used for digestion. For the digestion procedure, an amount of biosolids equivalent to a dry weight of one gram shall be used. The methods are also described in the latest version of the *Region VIII Biosolids Management Handbook.*

   c. The Director may request additional monitoring for specific pollutants derived from biosolids if the data shows a potential for concern.

   d. After two (2) years of monitoring at the frequency specified, the Permittee may request that the Director reduce the sampling frequency for the heavy metals. The frequency cannot be reduced to less than once per year for biosolids that are sold or given away to the public for any parameter. The frequency also cannot be reduced for any of the pathogen or vector attraction reduction requirements listed in this permit.

C. Management Practices of Biosolids.

1. Biosolids Distribution Information

a. For biosolids that are sold or given away, an information sheet shall be provided to the person who receives the biosolids. The label or information sheet shall contain:

(1) The name and address of the person who prepared the biosolids for a sale or to be given away.

(2) A statement that prohibits the application of the biosolids to the land except in accordance with the instructions on the label or information sheet.

2. Biosolids Application Site Storage

a. For biosolids or material derived from biosolids that are stored in piles for one year or longer, measures shall be taken to ensure that erosion (whether by wind or water) does not occur. However, best management practices should also be used for piles used for biosolids treatment. If a treatment pile is considered to have caused a problem, best management practices could be added as a requirement in the next permit renewal

3. Land Application Practices

a. The permittee shall operate and maintain the land application site operations in accordance with the following requirements:

(1) The permittee shall provide to the Director and the EPA within 90 days of the effective date of this permit a land application plan.

(2) Application of biosolids shall be conducted in a manner that will not contaminate the groundwater or impair the use classification for that water underlying the sites.

(3) Application of biosolids shall be conducted in a manner that will not cause a violation of any receiving water quality standard from discharges of surface runoff from the land application sites. Biosolids shall not be applied to land 10 meters or less from waters of the United States (as defined in 40 CFR 122.2).

(4) No person shall apply biosolids for beneficial use to frozen, ice-covered, or snow-covered land where the slope of such land is greater than three percent and is less than or equal to six percent unless one of the following requirements is met:

(a) there is 80 percent vegetative ground cover; or,

(b) approval has been obtained based upon a plan demonstrating adequate runoff containment measures.

(5) Application of biosolids is prohibited to frozen, ice-covered, or snow-covered sites where the slope of the site exceeds six percent.

(6) Agronomic Rate

(a) Application of biosolids shall be conducted in a manner that does not exceed the agronomic rate for available nitrogen of the crops grown on the site. At a minimum, the permittee is required to follow the methods for calculating agronomic rate outlined in the latest version of the *Region VIII Biosolids Management Handbook* (other methods may be approved by the Director).

The treatment plant shall provide written notification to the applier of the biosolids of the concentration of total nitrogen (as N on a dry weight basis) in the biosolids. Written permission from the Director is required to exceed the agronomic rate.

(b) The permittee may request the limits of *Part III.C.6*. be modified if different limits would be justified based on local conditions. The limits are required to be developed in cooperation with the local agricultural extension office or university.

(c) Deep soil monitoring for nitrate-nitrogen is required for all land application sites (does not apply to sites where biosolids are applied less than once every five years). A minimum of six samples for each 320 (or less) acre area is to be collected. These samples are to be collected down to either a 5-foot depth, or the confining layer, whichever is shallower (sample at 1 foot, 2 foot, 3 foot, 4 foot and 5 foot intervals). Each of these one-foot interval samples shall be analyzed for nitrate-nitrogen. In addition to the one-foot interval samples, a composite sample of the 5-foot intervals shall be taken, and analyzed for nitrate-nitrogen as well. Samples are required to be taken once every five years for non-irrigated sites that receive more than 18 inches of precipitation annually or for irrigated sites

(7) Biosolids shall not be applied to any site area with standing surface water. If the annual high groundwater level is known or suspected to be within five feet of the surface, additional deep soil monitoring for nitrate-nitrogen as described in *Part III.C.(6)(c).* is to be performed. At a minimum, this additional monitoring will involve a collection of more samples in the affected area and possibly more frequent sampling. The exact number of samples to be collected will be outlined in a deep soil monitoring plan to be submitted to the Director and the EPA within 90 days of the effective date of this permit. The plan is subject to approval by the Director.

(8) The specified cover crop shall be planted during the next available planting season. If this does not occur, the permittee shall notify the Director in writing. Additional restrictions may be placed on the application of the biosolids on that site on a case-by-case basis to control nitrate movement. Deep soil monitoring may be increased under the discretion of the Director.

(9) When weather and or soil conditions prevent adherence to the biosolids application procedure, biosolids shall not be applied on the site.

(10) For biosolids that are sold or given away, an information sheet shall be provided to the person who receives the biosolids. The label or information sheet shall contain:

(a) The name and address of the person who prepared the biosolids for sale or give away for application to the land.

(b) A statement that prohibits the application of the biosolids to the land except in accordance with the instructions on the label or information sheet.

(c) The annual whole biosolids application rate for the biosolids that do not cause the metals loading rates in Tables 1, 2, and 3 (*Part III.B.1.*) to be exceeded.

(11) Biosolids subject to the cumulative pollutant loading rates in Table 2 (*Part III.B.1.*) shall not be applied to agricultural land, forest, a public contact site, or a reclamation site if any of the cumulative pollutant loading rates in Table 2 have been reached.

(12) If the treatment plant applies the biosolids, it shall provide the owner or leaseholder of the land on which the biosolids are applied notice and necessary information to comply with the requirements in this permit.

(13) The permittee shall inspect the application of the biosolids to active sites to prevent malfunctions and deterioration, operator errors and discharges, which may cause or lead to the release of biosolids to the environment or a threat to human health. The permittee must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment. The permittee shall keep an inspection log or summary including at least the date and time of inspection, the printed name and the handwritten signature of the inspector, a notation of observations made and the date and nature of any repairs or corrective action.

D. Special Conditions on Biosolids Storage. Permanent storage of biosolids is prohibited. Biosolids shall not be temporarily stored for more than two (2) years. Written permission to store biosolids for more than two years must be obtained from the Director. Storage of biosolids for more than two years will be allowed only if it is determined that significant treatment is occurring.

E. Representative Sampling. Biosolids samples used to measure compliance with *Part III* of this Permit shall be collected at locations representative of the quality of biosolids generated at the treatment works and immediately prior to land application.

F. Reporting of Monitoring Results.

1. Biosolids. The Permittee shall provide the results of all monitoring performed in accordance with Part III.B, and information on management practices, biosolids treatment, site restrictions and certifications shall be provided no later than February 19 of each year. Each report is for the previous calendar year. If no biosolids were sold or given away during the reporting period, "no biosolids were sold or given away" shall be reported. Legible copies of these, and all other reports required herein, shall be signed and certified in accordance with the Signatory Requirements (see Part VII.G), and submitted to the Utah Division of Water Quality and the EPA by the NeT-Biosolids system through the EPA Central Data Exchange (CDX) System.

G. Additional Record Keeping Requirements Specific to Biosolids.

1. Unless otherwise required by the Director, **the permittee is not required to keep records** on compost products if the permittee prepared them from biosolids that meet the limits in Table 3 (*Part III.B.1*), the Class A pathogen requirements in *Part III.B.2* and the vector attraction reduction requirements in *Part III.B.3*. The Director may notify the permittee that additional record keeping is required if it is determined to be significant to protecting public health and the environment.

2. **The permittee is required** to keep the following information for at least 5 years:

a. Concentration of each heavy metal in Table 3 (*Part III.B.1*).

b. A description of how the pathogen reduction requirements in *Part III.B.2* were met.

c. A description of how the vector attraction reduction requirements in *Part III.B.3* were met.

d. A description of how the management practices in *Part III.C* were met (if necessary).

e. The following certification statement:

"I certify under the penalty of law, that the heavy metals requirements in *Part III.B.1*, the pathogen requirements in *Part III.B.2*, the vector attraction requirements in *Part III.B.3*, the management practices in *Part III.C*. This determination has been made under my direction and supervision in accordance with the system designed to assure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements, the vector attraction reduction requirements and the management practices have been met. I am aware that there are significant penalties for false certification including the possibility of imprisonment."

3. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings 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 the life of the permit. Data collected on site, copies of Biosolids Report forms, and a copy of this UPDES biosolids-only permit must be maintained on site during the duration of activity at the permitted location.

IV. STORM WATER REQUIREMENTS.

A. Industrial Storm Water Permit. Based on the type of industrial activities occurring at the facility, the permittee is required to maintain separate coverage or an appropriate exclusion under the Multi-Sector General Permit (MSGP) for Storm Water Discharges Associated with Industrial Activities (UTR000000). If the facility is not already covered, the permittee has 30 days from when this permit is issued to submit the appropriate Notice of Intent (NOI) for the MSGP or exclusion documentation.

B. Construction Storm Water Permit. Any construction at the facility that disturbs an acre or more of land, including less than an acre if it is part of a common plan of development or sale, is required to obtain coverage under the UPDES Construction General Storm Water Permit (UTRC00000). Permit coverage must be obtained prior to land disturbance. If the site qualifies, a Low Erosivity Waiver (LEW) Certification may be submitted instead of permit coverage.

V. MONITORING, RECORDING & GENERAL REPORTING REQUIREMENTS

A. Representative Sampling. Samples taken in compliance with the monitoring requirements established under *Part I* shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge. Samples of biosolids shall be collected at a location representative of the quality of biosolids immediately prior to the use-disposal practice.

B. Monitoring Procedures. Monitoring must be conducted according to test procedures approved under Utah Administrative Code ("UAC") *R317-2-10*, *UAC R317-8-4.1(10)(d)*, and/or *40 CFR 503* utilizing sufficiently sensitive test methods unless other test procedures have been specified in this permit. Monitoring must be conducted according to the test procedures listed above unless another method is required under 40 CFR subchapters N or O. Sufficiently sensitive test method means: (1) The method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or (2) The method has the lowest ML of the analytical methods approved under *40 CFR part 136* or required under *40 CFR chapter I, subchapter N or O* for the measured pollutant or pollutant parameter as per *40 CFR 122.44(i)(1)(iv)(A).*

C. Penalties for Tampering. The *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 months per violation, or by both.

D. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.

E. Additional Monitoring by the Permittee. If the permittee monitors any parameter more frequently than required by this permit, using test procedures approved under Permit Part V.B., the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or the Biosolids Report Form.

F. Records Contents. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements:
2. The individual(s) who performed the sampling or measurements;
3. The date(s) and time(s) analyses were performed;
4. The individual(s) who performed the analyses;
5. The analytical techniques or methods used; and,
6. The results of such analyses.

G. Retention of Records. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings 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 five years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time. A copy of this UPDES permit must be maintained on site during the duration of activity at the permitted location

H. Twenty-four Hour Notice of Noncompliance Reporting.

1. The permittee shall (orally) report any noncompliance including transportation accidents, spills, and uncontrolled runoff from biosolids transfer or land application sites which may seriously endanger health or environment, as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of circumstances. The report shall be made to DWQ via the 24-hour answering service (801) 536-4123.

2. The following occurrences of noncompliance shall initially be reported by telephone to the DWQ via the 24-hour answering service as soon as possible but no later than 24 hours from the time the permittee becomes aware of the circumstances:

   a. Any noncompliance which may endanger health or the environment;

   b. Any unanticipated bypass, which exceeds any effluent limitation in the permit (See *Part VI.G, Bypass of Treatment Facilities)*;

   c. Any upset which exceeds any effluent limitation in the permit (See *Part VI.H*, *Upset Conditions*);

   d. Violation of a daily discharge limitation for any of the pollutants listed in the permit. For other permit violations which will not endanger health or the environment, DWQ may otherwise be notified during business hours (801) 536-4300; or,

   e. Violation of any of the Table 3 metals limits, the pathogen limits, the vector attraction reduction limits or the management practices for biosolids that have been sold or given away.

3. A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:

   a. A description of the noncompliance and its cause;

   b. The period of noncompliance, including exact dates and times;

   c. The estimated time noncompliance is expected to continue if it has not been corrected;

   d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and,

   e. Steps taken, if any, to mitigate the adverse impacts on the environment and human health during the noncompliance period.

4. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Division of Water Quality, (801) 536-4300.

5. Reports shall be submitted to the addresses in *Part I.D*, *Reporting of Monitoring Results*.

I. Other Noncompliance Reporting. Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for *Part I.D* are submitted. The reports shall contain the information listed in *Part V.H.3*

J. Inspection and Entry The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, including but not limited to, biosolids treatment, collection, storage facilities or area, transport vehicles and containers, and land application sites;

4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the *Act*, any substances or parameters at any location, including, but not limited to, digested biosolids before dewatering, dewatered biosolids, biosolids transfer or staging areas, any ground or surface waters at the land application sites or biosolids, soils, or vegetation on the land application sites; and,

5. The permittee shall make the necessary arrangements with the landowner or leaseholder to obtain permission or clearance, the Director, or authorized representative, upon the presentation of credentials and other documents as may be required by law, will be permitted to enter without delay for the purposes of performing their responsibilities.

VI. COMPLIANCE RESPONSIBILITIES

A. Duty to Comply. The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of *the Act* and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity, which may result in noncompliance with permit requirements.

B. Penalties for Violations of Permit Conditions. The *Act* provides that any person who violates a permit condition implementing provisions of the *Act* is subject to a civil penalty not to exceed $10,000 per day of such violation. Except as provided at *Part VI.G*, *Bypass of Treatment Facilities* and *Part VI.H*, *Upset Conditions*, nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.

C. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to Mitigate. The Permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit, which has a reasonable likelihood of adversely affecting human health or the environment. The permittee shall also take all reasonable steps to minimize or prevent any land application in violation of this permit.

E. Proper Operation and Maintenance. The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

F. Removed Substances. Collected screening, grit, solids, sludge, or other pollutants removed in the course of treatment shall be disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard. Sludge/digester supernatant and filter backwash shall not directly enter either the final effluent or waters of the state by any other direct route.

G. Bypass of Treatment Facilities.

1. Bypass Not Exceeding Limitations. The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to paragraph 2 and 3 of this section.

2. Prohibition of Bypass.

a. Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

(1) Bypass was unavoidable to prevent loss of human life, personal injury, or severe property damage;

(2) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance, and

(3) The Permittee submitted notices as required under *Part VI.G.3*.

b. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed in *Parts VI.G.2.a (1), (2) and (3)*.

3. Notice.

a. *Anticipated bypass*. Except as provided above in *Part VI.G.2* and below in *Part VI.G.3.b*, if the permittee knows in advance of the need for a bypass, it shall submit prior notice, at least ninety days before the date of bypass. The prior notice shall include the following unless otherwise waived by the Director:

(1) Evaluation of alternative to bypass, including cost-benefit analysis containing an assessment of anticipated resource damages:

(2) A specific bypass plan describing the work to be performed including scheduled dates and times. The permittee must notify the Director in advance of any changes to the bypass schedule;

(3) Description of specific measures to be taken to minimize environmental and public health impacts;

(4) A notification plan sufficient to alert all downstream users, the public and others reasonably expected to be impacted by the bypass;

(5) A water quality assessment plan to include sufficient monitoring of the receiving water before, during and following the bypass to enable evaluation of public health risks and environmental impacts; and,

(6) Any additional information requested by the Director.

b. *Emergency Bypass*. Where ninety days advance notice is not possible, the permittee must notify the Director, and the Director of the Department of Natural Resources, as soon as it becomes aware of the need to bypass and provide to the Director the information in *Part VI.G.3.a.(1) through (6)* to the extent practicable.

c. *Unanticipated bypass*. The permittee shall submit notice of an unanticipated bypass to the Director as required under *Part V.H*, Twenty-Four Hour Reporting. The permittee shall also immediately notify the Director of the Department of Natural

Resources, the public and downstream users and shall implement measures to minimize impacts to public health and environment to the extent practicable.

H. Upset Conditions.

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the requirements of paragraph 2 of this section are met. Director's administrative determination regarding a claim of upset cannot be judiciously challenged by the permittee until such time as an action is initiated for noncompliance.

2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

   a. An upset occurred and that the permittee can identify the cause(s) of the upset;

   b. The permitted facility was at the time being properly operated;

   c. The permittee submitted notice of the upset as required under *Part V.H*, *Twenty-four Hour Notice of Noncompliance Reporting*; and,

   d. The permittee complied with any remedial measures required under *Part VI.D*, *Duty to Mitigate*.

3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

I. Toxic Pollutants. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of *The Water Quality Act of 1987* for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

J. Changes in Discharge of Toxic Substances. Notification shall be provided to the Executive Secretary as soon as the permittee knows of, or has reason to believe:

1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

   a. One hundred micrograms per liter (100 ug/L);

   b. Two hundred micrograms per liter (200 ug/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;

   c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with *UAC R317-8-3.4(7)* or (10); or,

   d. The level established by the Executive Secretary in accordance with *UAC R317-8-4.2(6)*.

2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":\

    a. Five hundred micrograms per liter (500 ug/L);

    b. One milligram per liter (1 mg/L) for antimony:

    c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with *UAC R317-8-3.4(9)*; or,

    d. The level established by the Executive Secretary in accordance with *UAC R317-8-4.2(6)*.

VII. GENERAL REQUIREMENTS

A. Planned Changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 122.29(b); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit nor to notification requirements under Subsection R317-8-4.1(15).

3. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. The permittee shall give notice to the Director of any planned changes at least 30 days prior to their implementation.

B. Anticipated Noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity, which may result in noncompliance with permit requirements.

C. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. 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.

D. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit.

E. Duty to Provide Information. The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

F. Other Information. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Director, it shall promptly submit such facts or information.

G. Signatory Requirements. All applications, reports or information submitted to the Director shall be signed and certified.

1. All permit applications shall be signed by either a principal executive officer or ranking elected official. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described above and submitted to the Director, and,

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. A duly authorized representative may thus be either a named individual or any individual occupying a named position.

(1) For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who perfoms similar policy- or decision-making functions for the corporation, or

(b) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) For a partnership or sole proprietorship. By a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(a) The chief executive officer of the agency, or

(b) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. All reports required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person.

3. Changes to authorization. If an authorization under *paragraph VII.G.2* is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of *paragraph VII.G.2.* must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this section shall make the following certification:

   "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."

H. Penalties for Falsification of Reports. The *Act* provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than $10,000.00 per violation, or by imprisonment for not more than six months per violation, or by both.

I. Availability of Reports. Except for data determined to be confidential under *UAC R317-8-3.2*, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the office of Director. As required by the *Act*, permit applications, permits and effluent data shall not be considered confidential.

J. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the permittee of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under the *Act*.

K. Property Rights. The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

L. 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.

M. Transfers. This permit may be automatically transferred to a new permittee if:

1. The current permittee notifies the Director at least 20 days in advance of the proposed transfer date;

2. The notice includes a written agreement between the existing and new permittee's containing a specific date for transfer of permit responsibility, coverage, and liability between them; and,

3. The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph *2* above.

N. State or Federal 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 law or regulation under authority preserved by Sections 19-5-117 and 510 of the Clean Water Act or any applicable Federal or State transportation regulations, such as but not limited to the Department of Transportation regulations.

O. Water Quality - Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations and compliance schedule, if necessary, if one or more of the following events occurs:

1. Water Quality Standards for the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit.

2. A final wasteload allocation is developed and approved by the State and/or EPA for incorporation in this permit.

3. Revisions to the current CWA § 208 areawide treatment management plans or promulgations/revisions to TMDLs (40 CFR 130.7) approved by the EPA and adopted by DWQ which calls for different effluent limitations than contained in this permit.

P. Biosolids – Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include the appropriate biosolids limitations (and compliance schedule, if necessary), management practices, other appropriate requirements to protect public health and the environment, or if there have been substantial changes (or such changes are planned) in biosolids use or disposal practices; applicable management practices or numerical limitations for pollutants in biosolids have been promulgated which are more stringent than the requirements in this permit; and/or it has been determined that the permittees biosolids use or land application practices do not comply with existing applicable state of federal regulations.

Q. Toxicity Limitation - Reopener Provision. Use the following paragraph if WET testing is required at the facility:

This permit may be reopened and modified (following proper administrative procedures) to include, whole effluent toxicity (WET) limitations, a compliance date, a compliance schedule, a change in the whole effluent toxicity (biomonitoring) protocol, additional or modified numerical limitations, or any other conditions related to the control of toxicants if one or more of the following events occur;

1. Toxicity is detected, as per *Part I.C.4.a* of this permit, during the duration of this permit.

2. The TRE results indicate that the toxicant(s) represent pollutant(s) or pollutant parameter(s) that may be controlled with specific numerical limits, and the Director concludes that numerical controls are appropriate.

3. Following the implementation of numerical control(s) of toxicant(s), the Director agrees that a modified biomonitoring protocol is necessary to compensate for those toxicants that are controlled numerically.

4. The TRE reveals other unique conditions or characteristics, which in the opinion of the permit issuing authority justify the incorporation of unanticipated special conditions in the permit.

VIII. DEFINITIONS

A. Wastewater.

1. The "7-day (and weekly) average", other than for *E. coli* bacteria, fecal coliform bacteria, and total coliform bacteria, is the arithmetic average of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. Geometric means shall be calculated for *E. coli* bacteria, fecal coliform bacteria, and total coliform bacteria. The 7-day and weekly averages are applicable only to those effluent characteristics for which there are 7-day average effluent limitations. The calendar week, which begins on Sunday and ends on Saturday, shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for that calendar week shall be included in the data for the month that contains Saturday.

2. The "30-day (and monthly) average," other than for *E. coli* bacteria, fecal coliform bacteria and total coliform bacteria, is the arithmetic average of all samples collected during a consecutive 30-day period or calendar month, whichever is applicable. Geometric means shall be calculated for *E. coli* bacteria, fecal coliform bacteria and total coliform bacteria. The calendar month shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms.

3. "Average annual discharge limit" means maximum allowable average of monthly discharges over a calendar year, calculated as the sum of all monthly discharges measured during a calendar year divided by the number of monthly discharges measured during the year. The timeframe is defined as from January 1st to December 31st.

4. "Act," means the *Utah Water Quality Act*.

5. "Acute toxicity" occurs when 50 percent or more mortality is observed for either test species at any effluent concentration (lethal concentration or "LC_{50}").

6. "Bypass," means the diversion of waste streams from any portion of a treatment facility.

7. "Chronic toxicity" occurs when the IC_{25}< XX% effluent. The XX% effluent is the concentration of the effluent in the receiving water, at the end of the mixing zone expressed as per cent effluent.

8. "IC_{25}" is the concentration of toxicant (given in % effluent) that would cause a 25% reduction in mean young per female, or a 25% reduction in overall growth for the test population.

9. "Composite Samples" shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the compositing period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:

a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;

b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;

c. Constant sample volume, time interval between samples proportional to flow (i.e., sample taken every "X" gallons of flow); and,

d. Continuous sample volume, with sample collection rate proportional to flow rate.

10. "CWA" means *The Federal Water Pollution Control Act*, as amended, by *The Clean Water Act of 1987*.

11. "Daily Maximum" (Daily Max.) is the maximum value allowable in any single sample or instantaneous measurement.

12. "EPA," means the United States Environmental Protection Agency.

13. "Director," means Director of the Division of Water Quality.

14. A "grab" sample, for monitoring requirements, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.

15. An "instantaneous" measurement, for monitoring requirements, is defined as a single reading, observation, or measurement.

16. "Severe Property Damage," means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

17. "Upset," means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

B. Biosolids.

1. "Biosolids," means any material or material derived from sewage solids that have been biologically treated.

2. "Dry Weight-Basis," means 100 percent solids (i.e. zero percent moisture).

3. "Land Application" is the spraying or spreading of biosolids onto the land surface; the injection of biosolids below the land surface; or the incorporation of biosolids into the land so that the biosolids can either condition the soil or fertilize crops or vegetation grown in the soil. Land application includes distribution and marketing (i.e. the selling or giving away of the biosolids).

4. "Pathogen," means an organism that is capable of producing an infection or disease in a susceptible host.

5. "Pollutant" for the purposes of this permit is an organic substance, an inorganic substance, a combination of organic and inorganic substances, or pathogenic organisms that after discharge and upon exposure, ingestion, inhalation, or assimilation into an organism either directly from the environment or indirectly by ingestion through the food-chain, could on the basis of information available to the Administrator of EPA, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunction in reproduction), or physical deformations in either organisms or offspring of the organisms.

6. "Runoff" is rainwater, leachate, or other liquid that drains over any part of a land surface and runs off the land surface.

7. "Similar Container" is either an open or closed receptacle. This includes, but is not limited to, a bucket, a box, a carton, and a vehicle or trailer with a load capacity of one metric ton or less.

8. "Total Solids" are the materials in the biosolids that remain as a residue if the biosolids are dried at 103^{o} or 105^{o} Celsius.

9. "Treatment Works" are either Federally owned, publicly owned, or privately owned devices or systems used to treat (including recycling and reclamation) either domestic sewage or a combination of domestic sewage and industrial waste or liquid manure.

10. "Vector Attraction" is the characteristic of biosolids that attracts rodents, flies mosquito's or other organisms capable of transporting infectious agents.

11. "Animals" for the purpose of this permit are domestic livestock.

12. "Annual Whole Sludge Application Rate" is the amount of sewage sludge (dry-weight basis) that can be applied to a unit area of land during a cropping cycle.

13. "Agronomic Rate is the whole sludge application rate (dry-weight basis) designed to: (1) provide the amount of nitrogen needed by the crop or vegetation grown on the land; and

(2) minimize the amount of nitrogen in the sewage sludge that passes below the root zone of the crop or vegetation grown on the land to the ground water.

14. "Annual Pollutant Loading Rate" is the maximum amount of a pollutant (dry-weight basis) that can be applied to a unit area of land during a 365-day period.

15. "Application Site or Land Application Site" means all contiguous areas of a users' property intended for sludge application.

16. "Cumulative Pollutant Loading Rate" is the maximum amount of an inorganic pollutant (dry-weight basis) that can be applied to a unit area of land.

17. "Grit and Screenings" are sand, gravel, cinders, other materials with a high specific gravity and relatively large materials such as rags generated during preliminary treatment of domestic sewage at a treatment works and shall be disposed of according to *40 CFR 258*.

18. "High Potential for Public Contact Site" is land with a high potential for contact by the public. This includes, but is not limited to, public parks, ball fields, cemeteries, plant nurseries, turf farms, and golf courses.

19. "Low Potential for Public Contact Site" is the land with a low potential for contact by the public. This includes, but is not limited to, farms, ranches, reclamation areas, and other lands which are private lands, restricted public lands, or lands which are not generally accessible to or used by the public.

20. "Monthly Average" is the arithmetic mean of all measurements taken during the month.

21. "Volatile Solids" is the amount of the total solids in sewage sludge lost when the sludge is combusted at 550 degrees Celsius for 15-20 minutes in the presence of excess air.

Official Draft Public Notice Version **October 29th, 2024**
The findings, determinations, and assertions contained in this document are not final and subject to change following the public comment period.

FACT SHEET AND STATEMENT OF BASIS
SWIFT BEEF COMPANY
RENEWAL PERMIT: DISCHARGE, REUSE & BIOSOLIDS
UPDES PERMIT NUMBER: UT0000281
UPDES BIOSOLIDS PERMIT NUMBER: UTL-000281
MAJOR INDUSTRIAL

FACILITY CONTACTS

Operator Name:	Swift Beef Company
Person Name:	Marvin Spidle
Position:	Plant Manager
Phone Number:	(435) 245-2209
Person Name:	Ruben Van Tassell
Position:	Environmental and Sustainability Manager
Phone Number:	(435) 245-2259
Person Name:	John C. Starnes
Position:	Water Reclamation Supervisor
Phone Number:	(435) 245-2351
Permittee Name:	Swift Beef Company
Facility Name:	Swift Beef Company Water Reclamation Facility
Mailing and Facility Address:	410 North 200 West Hyrum, Utah 84219
Telephone:	(435) 245-6456
Actual Address:	4195 South 1200 West Nibley, Utah 84219

DESCRIPTION OF FACILITY

Swift Beef Company (Swift Beef), formerly known as EA Miller, located at 410 North 200 West, Hyrum Utah, is a beef slaughterhouse and meat packing facility. It is defined as a complex slaughterhouse in the 40 Code of Federal Regulations (40 CFR 432.21) and the Standard Industrial Classification Code 2011 applies. Slaughterhouse operations began in 1935. Since then, the operation has grown in the number of cattle processed and products produced. From 2018 through 2022, the facility processed an average of 803 million pounds of beef into various products such as large meat cuts, ground beef products, edible and inedible tallow, hides, tripe, organ meats, bone meal, blood products, and pet food. The facility was upgraded in 2011 to provide treatment for significant reductions in phosphorus in the effluent as required by the Spring Creek Total Maximum Daily Load (TMDL).

Outfall 001 for the Swift Beef Company Water Reclamation Facility (SBCWFR) is located approximately 0.75 miles north of the slaughter/packing plant at latitude 41°39'20.4" and longitude 111°52'8.0". The wastewater from the by-products manufacturing process, refinery/boilers, and harvest flows through a primary clarifier. Wastewater from the harvest and fabrication flows through a dissolved air flotation unit before combining and flowing into a converted anaerobic lagoon system. Wastewater goes through a modified Ludzack-Ettinger (MLE) process for activated sludge by flowing through two-stage anoxic and aerobic/aeration basins followed by one of four clarifiers for further polishing. Wastewater then flows through one of two disk filters and ultraviolet (UV) disinfection or chlorination/dechlorination prior to discharge or reuse. Sludge is directed to a screw press where it is dewatered and hauled offsite for further treatment. The filtrate is directed back to the beginning of the treatment process. Reuse water follows the same treatment process and is held in ponds four and five before discharge into the irrigation distribution system. Reuse outfall 001R is located at 41°39'19.4" and longitude 111°52'5.16". Reuse water may also be pumped directly to the irrigation distribution system at outfall 002R located at latitude 41°39'20.4" and longitude 111°52'8.0".

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

Total Dissolved Solids (TDS):

The TDS limitations in this permit are based on the Class 4 Water Quality Standard, in accordance with Utah Administrative Code (UAC) R317-2-14.1 and the mass balance model applied in the Wasteload Analysis (WLA). The Permittee states that the data inputted into the QUAL2Kw model used to develop the WLA does not represent site conditions, specifically claiming upstream flow and TDS are not accurate. To validate claims, the Permittee must collect the following data at the frequency listed below. DWQ will provide a Compliance Schedule, with an interim limit of 3,000 mg/L for TDS, consistent with the current permit, while the Permittee collects data to input into the model. This data will be collected through January 1, 2027, to ensure data is collected in irrigation and non-irrigation seasons.

New Monitoring Location Sampling Requirements Upstream Monitoring Location: 41°39'27.9"N. 111°51'46.0"W	
Parameter	**Frequency***
Flow	Monthly
Total Dissolved Solids [TDS]	Monthly
Temperature	Monthly
pH	Monthly
Specific Conductance	Monthly
Total Suspended Solids	Monthly
Dissolved Oxygen	Monthly
BOD5	Monthly
Organic Nitrogen	Monthly
NH4-Nitrogen	Monthly
NO3-Nitrogen	Monthly
Total Phosphorus	Monthly
Inorganic Phosphorus	Monthly
E. coli Bact. Indicator	Monthly
Alkalinity	Monthly

* If there is no flow in the ditch, please report that finding.

The Compliance Schedule is as follows and is also reflected in Part I.C.3. of the permit:

TDS Compliance Schedule	
Date	**Milestones**
Permit Issue – January 1, 2027	The Permittee collects data at the new monitoring location for model input.
February 1, 2027	The permittee submits all data and requests a modified WLA based on the data collected.
April 1, 2027	DWQ provides modified WLA to the Permittee.
May 1, 2027	Permittee requests to modify the Permit to reflect the new TDS limitation provided in the WLA or requests to modify the Compliance Schedule to align with the time required to implement new technology to treat TDS.
August 1, 2027	If a permit modification is not made, the final TDS limitation of 1,206 mg/L in 2024 WLA will take effect.

TDS Limitations	
Date	TDS Daily Maximum Limit
Permit Issue – Permit Modification or August 1, 2027	3,000 mg/L

If the Permittee concludes sampling at any point, the Compliance Schedule will end, and the limits in the current WLA will go into effect.

Dissolved Oxygen (DO):

Discharge from SBCWFR initially discharges into a Class 2B, 3E, and 4 waterbody, then flows into a Class 3A water (Spring Creek) approximately 2 miles downstream. The Permittee has agreed to work with DWQ and Hyrum City to sample DO at the location where the irrigation ditch flows into Spring Creek to ensure that the 6.5 mg/L DO Class 3A Water Quality Standard is met in the South Fork of Spring Creek, downstream of SBCWFR's discharge location. DWQ will maintain the current permit limit of 4.0 mg/L minimum DO at the UPDES Permit point source discharge location, which is consistent with the current permit.

This solution was requested by the Permittee and agreed to by DWQ, and it is reflected in the Permit. It will be reevaluated during each Permit renewal. If it is found that the downstream 3A DO criteria are not being met, the permit may be reopened ahead of the renewal date.

Reuse:

The facility will produce Type II reuse water, and the renewal permit will include provisions covering the Type II reuse of the effluent. After a discussion with the Utah Division of Water Rights, it was determined that there are no water rights issues with the application of reuse water by Swift Beef (see DWQ-2024-002298).

Outfall 002R requested by the permittee, was added to this permit to give the permittee the option of discharging treated wastewater directly to the irrigation distribution system rather than holding the water in ponds before introduction to the irrigation distribution system.

Other:

Metals testing twice yearly has been added to this permit to gather sufficient data to run a reasonable potential (RP) analysis. Outfall 001 ammonia sampling frequency was reduced to weekly sampling based on historical data, and to make it consistent with other permit parameters. Outfall 001R has reduced sampling frequencies, as requested by the permittee and allowed for under UAC R317-3-11.5.C.

Receiving waters were revaluated and updated in accordance with the wasteload analysis (WLA). Some effluent limitations were calculated and converted from mass-based limits to concentration-based limits in accordance with 40 CFR 403.6.C. Concentration-based limitations are most consistent with the rest of the permit and are defensible as this permit contains a flow limitation.

Storm water will no longer be covered by this permit. Permittee will need to obtain coverage as required; see the storm water section below for details.

DISCHARGE

DESCRIPTION OF DISCHARGE

Wastewater is collected from the following operations: blood and hide processing, the on-site rendering facility, holding pen runoff, production area cleaning water, equipment washing, steam making, freshly slaughtered beef washing, and paunch washings.

Swift Beef has been reporting self-monitoring results on Discharge Monitoring Reports (DMRs) monthly. In general, Swift Beef has been compliant with the requirements included in their previous UPDES Permit. Effluent monitoring and compliance data information is available for public review at www.echo.epa.gov.

Outfall	Description of Discharge Point
001	Located at latitude 41°39'20.4" and longitude 111°52'8.0"; the discharge pipe is located on the northwest corner of SBCWRF property between 200 West and 500 West in Hyrum City, Cache County. The water is discharged inside the fenced area and flows under the chain-link fence to the receiving irrigation ditch.

Outfall	Description of Reuse Water Discharge Point
001R	Located at latitude 41°39'19.4" and longitude 111°52'5.16". Treated effluent for reuse is stored in Pond 4 and Pond 5 at the SBCWRF until it is needed for irrigation.

Outfall	Description of Reuse Water Discharge Point
002R	Located at latitude 41°39'20.4" and longitude 111°52'8.0". Treated effluent for reuse will be pumped directly into the irrigation distribution system.

RECEIVING WATERS AND STREAM CLASSIFICATION

Swift Beef discharges into a complex ditch system that runs for approximately 2.5 miles before coalescing as the South Fork of Spring Creek at Highway 89. As per UAC R317-2-13.9, all irrigation canals and ditches statewide, except as otherwise designated, are 2B, 3E, and 4. As per UAC R317-2-13.3(a), the

designated beneficial uses of Little Bear River and tributaries, from Cutler Reservoir to headwaters are 2B, 3A, 3D, 4.

Class 2B -- Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.
Class 3A -- Protected for cold water species of game fish and other cold water aquatic life, including the necessary aquatic organisms in their food chain.
Class 3D -- Protected for waterfowl, shore birds and other water-oriented wildlife not included in Classes 3A, 3B, or 3C, including the necessary aquatic organisms in their food chain.
Class 3E -- Severely habitat-limited waters. Narrative standards will be applied to protect these waters for aquatic wildlife.
Class 4 -- Protected for agricultural uses including irrigation of crops and stock watering.

TMDL REQUIREMENTS

Spring Creek-Hyrum (UT16010203-008_00, Spring Creek and tributaries from confluence with Little Bear River to headwaters) is currently listed as impaired in Utah's 2022 Integrated Report for E. coli, temperature, ammonia, and total dissolved solids (TDS). TMDL's for Spring Creek were approved by the USEPA (U.S. Environmental Protection Agency) in 2002 which addressed impairments for dissolved oxygen, ammonia, E. coli and total phosphorus (TP). The TP target/endpoint was set at 0.05 mg/l at the watershed outlet. Since that time, major upgrades have been made to both Hyrum City's WWTP and Swift Beef's treatment plant, resulting in greatly improved effluent quality. A monitoring plan was developed to track the instream water quality improvements from the treatment facility upgrades. Spring Creek has not been removed from the impaired list; however, water quality improvements continue to be seen and Best Management Practices continue to be applied to agricultural lands in the basin.

WATER REUSE AND WATER RIGHTS

Via email on March 29, 2024, B. Skyler Buck, P.E. Northern Area Water Rights Engineer stated: "Our understanding is that the conditional approval of the State Engineer only applies to public agencies proposing reuse under section 73-3c-2023. Although JBS Swift is using water provided by a public entity, JBS Swift is not a public entity so this section of code doesn't apply to them. JBS purchases their water from Hyrum City and the additional depletions will be counted against the city's water rights. However, from a water rights perspective, we do not see there is an issue with JBS Swift land applying the water as they purchased it from a municipality." Based on this email, DWQ is not pursuing additional State Engineer approval (see DWQ-2024-003152).

BASIS FOR EFFLUENT LIMITATIONS

Effluent limitations for BOD_5 and TSS were evaluated in accordance with 40 CFR 432.22.b (Complex Slaughterhouse) based on live kill weight (LKW). With an average LKW over the last five years (2018 through 2022) of 2,201,397 lbs./day, effluent limitations were calculated and converted from mass-based limits to concentration-based limits in accordance with 40 CFR 403.6.c. Comparing the calculated limits from 40 CFR 432.22.b and the effluent limits presented in the WLA, the WLA limits were more stringent and thus were used in this permit for maximum monthly and weekly averages. Effluent limits for daily maximum are derived from the 40 CFR effluent guidelines.

Effluent limits for ammonia and nitrogen can also be found in 40 CFR 432.22.b, 40 CFR 432.13, and the WLA. Comparing the calculated values, the limits stipulated in 40 CFR 432.22.b are more stringent and,

therefore, used in this permit. Oil and Grease effluent limits were calculated based on the standards stipulated in 40 CFR 432.22.b and converted from mass-based limits to concentration-based limits. However, consistent with other industrial permits in Utah, DWQ will utilize Best Professional Judgment (BPJ) to determine the oil and grease limitation, which is more stringent.

Effluent limitations for flow, total residual chlorine (TRC), and TDS are based on the WLA. Effluent limitations for E.coli and pH are based on current Utah Secondary Treatment Standards, UAC R317-1-3.2. and the WLA. The dissolved oxygen (DO) is based on meeting 3A criteria when discharge, combined with other flows, enters Spring Creek.

The Water Quality Board adopted UAC R317-1-3.3, Technology-Based Phosphorus Effluent Limit (TBPEL) Rule in 2014. The TBPEL rule, as it relates to "non-lagoon" wastewater treatment plants, establishes new regulations for the discharge of phosphorus to surface waters and is self-implementing. The TBPEL requires that all non-lagoon wastewater treatment works discharging wastewater to surface waters of the state shall provide treatment processes that will produce effluent less than or equal to an annual mean of 1.0 mg/L for total phosphorus. The TBPEL rule is being evaluated to determine its effect on Spring Creek drainage and its ability to meet the Spring Creek TMDL.

The Type II Reuse Limitations for BOD_5, TSS, E-Coli, and pH are based upon UAC R317-3-11.5.

Attached is a WLA for this discharge into the unnamed irrigation ditch. It has been determined that this discharge will not cause a violation of water quality standards. An Antidegradation Level II review is not required since the Level I review shows that water quality impacts are minimal. The permittee is expected to be able to comply with these limitations.

Reasonable Potential Analysis

Since January 1, 2016, DWQ has conducted reasonable potential analysis (RP) on all new and renewal applications received after that date. RP for this permit renewal was conducted following DWQ's September 10, 2015 Reasonable Potential Analysis Guidance (RP Guidance). There are four outcomes defined in the RP Guidance: Outcome A, B, C, or D. These Outcomes provide a framework for what routine monitoring or effluent limitations are required.

A quantitative RP analysis was not performed on metals at this time due to insufficient data; therefore, metals have been added to this permit to collect the required data to perform an RP analysis.

The permit limitations for Outfall 001 are:

Parameter	**Table 1: Effluent Limitations at Outfall 001[(a)]**				
	Maximum Monthly Avg	Maximum Weekly Avg	Yearly Average	Daily Minimum	Daily Maximum
Total Flow	2.0	--	--	--	--
BOD_5, mg/L	25	35	--	--	55
TSS, mg/L	25	35	--	--	64
DO, mg/L [(d)]	--	--	--	4.0	--
Total Ammonia (as N), mg/L	4.0	--	--	--	8.0
TRC, mg/L					
October-March	0.129	--	--	--	0.221
April-September	0.119	--	--	--	0.205
Nitrogen (as N), mg/L	134	--	--	--	194

E. coli, No./100mL	126	157	--	--	--
Total Phosphorus, mg/L	--	--	1.0	--	--
WET, Chronic Biomonitoring			--		IC_{25}> effluent (from WLA)
1st and 4th Quarter	--	--	--	--	45.0%
2nd and 3rd Quarter	--	--		--	32.0%
Oil & Grease, mg/L	--	--	--	--	10
pH, Standard Units	--	--	--	6.5	9
TDS, mg/L[(g)]	--	--	--	--	3,000/ 1,206

The permit limitations for Reuse Outfall 001R and 002R are:

Parameter	**Table 3: Type II Reuse Outfall 001R and 002R Effluent Limitations[(a)]**				
	Max Monthly Average	Max Weekly Average	Max Daily Average	Daily Minimum	Daily Maximum
BOD_5, mg/L	25	--	--	--	--
TSS, mg/L	25	35	--	-	--
E. coli, No/100mL	--	126	--	--	500
pH, Standard Units	--	--	--	6.0	9.0

SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring and reporting requirements for Outfall 001 are not the same as in the previous permit. Ammonia monitoring was reduced to weekly, and metals and temperature monitoring has been included in this permit. Self-monitoring and reporting requirements for Outfall 001R and 002R have changed as outlined below. The permit will require discharge monitoring reports to be submitted monthly and a reuse report to be submitted annually. DMR forms shall be submitted no earlier than the first day and no later than the 28th day of the month following the end of the monitoring period. Effective January 1, 2017, monitoring results must be submitted using NetDMR unless the permittee has successfully petitioned for an exception. Lab sheets for biomonitoring must be attached to the biomonitoring DMR. Lab sheets for metals and toxic organics must be attached to the DMRs.

Table 2: Self-Monitoring and Reporting Requirements at Outfall 001[a]			
Parameter	Frequency	Sample Type	Units
Total Flow[b][c]	Continuous	Recorder	MGD
BOD_5	Weekly	Composite	mg/L
TSS	Weekly	Composite	mg/L
DO[d]	Weekly	Grab	mg/L
Total Ammonia (as N)	Weekly	Grab	mg/L
TRC[e]	Weekly	Grab	mg/L
Nitrogen (as N)	Monthly	Composite	mg/L
E. coli	Weekly	Grab	No./100mL
Total Phosphorus			
Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
WET, Chronic Biomonitoring[f]			
Ceriodaphnia – Chronic	1st and 3rd Quarter	Composite	Pass/Fail
Fathead Minnows – Chronic	2nd and 4th Quarter	Composite	Pass/Fail
Oil and Grease	Weekly	Grab	mg/L
pH	Weekly	Grab	SU
TDS[g]	Weekly	Grab	mg/L
Temperature	Weekly	Grab	°C
Total Kjeldahl Nitrogen, TKN as (N)[h]			
Influent	Monthly	Composite	mg/L
Effluent	Monthly	Composite	mg/L
Orthophosphate (as P)[h],			
Effluent	Monthly	Composite	mg/L
Nitrate, NO_3[h]	Monthly	Composite	mg/L
Nitrite, NO_2[h]	Monthly	Composite	mg/L
Metals[i], Effluent			
Arsenic, Total	2X per Year	Composite	mg/L
Boron, Total	2X per Year	Composite	mg/L
Cadmium, Total	2X per Year	Composite	mg/L
Chromium, Total	2X per Year	Composite	mg/L
Copper, Total	2X per Year	Composite	mg/L
Cyanide, Total	2X per Year	Composite	mg/L
Lead, Total	2X per Year	Composite	mg/L
Mercury, Total	2X per Year	Composite	mg/L
Nickel, Total	2X per Year	Composite	mg/L
Selenium, Total	2X per Year	Composite	mg/L
Silver, Total	2X per Year	Composite	mg/L
Zinc, Total	2X per Year	Composite	mg/L

Notes Tables 1 and 2

a. See Definitions, *Part VIII*, for definition of terms.
b. Flow measurements of influent/effluent volume shall be made in such a manner that the Permittee can affirmatively demonstrate that representative values are being obtained.
c. If the rate of discharge is controlled, the rate and duration of discharge shall be reported.
d. DO samples will be collected at the discharge location weekly, with a limitation of 4.0 mg/L, consistent with the previous UPDES Permit. In addition, the Permittee has agreed to work with DWQ and Hyrum City to

sample DO at the location where the irrigation ditch flows into Spring Creek to ensure that the 6.5 mg/L DO Class 3A Water Quality Standard is met in the South Fork of Spring Creek.

e. Analytical results less than 0.06 mg/l will not be considered out of compliance with the permit. For purposes of calculating averages and reporting on the Discharge Monitoring Report form, the following will apply:
    a. analytical values less than 0.02 mg/L shall be considered zero; and
    b. analytical values less than 0.06 mg/L and equal to or greater than 0.02 mg/L will be recorded as measured.
f. Chronic Ceriodaphnia will be tested during the 1st and 3rd quarters and the chronic fathead minnows will be tested during the 2nd and 4th quarters.
g. Interim limitation (3,000 mg/L) in effect permit issuance through permit modification or August 1, 2027. See Part I.C.3. of the permit.
h. These reflect changes required with the adoption of UAC R317-1-3.3, Technology-based Phosphorus Effluent Limits rule.
i. Metals shall be collected twice per year, once during irrigation season and once during non-irrigation season. Metals data is being collected to support a reasonable potential analysis.

The following is a summary of the Type II reuse self-monitoring and reporting requirements.

Table 4: Type II Reuse Outfall 001R and 002R Self-Monitoring and Reporting Requirements[(a)]

Parameter	Frequency	Sample Type	Units
Total Flow[(b)(c)]	Continuous	Recorder	MGD
BOD_5	Weekly	Composite	mg/L
TSS	Weekly	Composite	mg/L
E. coli	Weekly	Grab	No./100mL
pH	Weekly	Grab	SU

Notes Tables 3 and 4

a. See Definitions, *Part VIII*, for definition of terms.
b. Flow measurements of influent/effluent volume shall be made in such a manner that the Permittee can affirmatively demonstrate that representative values are being obtained.
c. If the rate of discharge is controlled, the rate and duration of discharge shall be reported.

Management Practices for Land Application of Treated Effluent:

(1) The application of treated effluent to frozen, ice-covered, or snow covered land is prohibited.
(2) No person shall apply treated effluent where the slope of the site exceeds 6 percent.
(3) The use should not result in a surface water runoff.
(4) The use must not result in the creation of an unhealthy or nuisance condition, as determined by the local health department.
(5) Any irrigation with treated effluent must be at least 300 feet from a potable well.
(6) For Type I reuse, any irrigation must be at least 50 feet from any potable water well.
(7) For Type II reuse, any irrigation must be at least 300 feet from any potable water well.
(8) For Type II reuse, spray irrigation must be at least 100 feet from areas intended for public access. This distance may be reduced or increased by the Director.
(9) Impoundments of treated effluent, if not sealed, must be at least 500 feet from any potable well.
(10) Public access to effluent storage and irrigation or disposal sites shall be restricted by a stock-tight fence or other comparable means which shall be posted and controlled to exclude the public (Compliance Schedule for a Particular Parameter if necessary)

BIOSOLIDS

For clarification purposes, sewage sludge is considered solids, until treatment or testing shows that the solids are safe and meet beneficial use standards. After the solids are tested or treated, the solids are then known as biosolids. Class A biosolids, may be used for high public contact sites, such as home lawns and gardens, parks, or playing fields, etc. Class B biosolids may be used for low public contact sites, such as farms, rangeland, or reclamation sites, etc.

SUBSTANTIAL BIOSOLIDS TREATMENT CHANGES

No substantial changes have been made in regard to biosolids treatment or disposal.

DESCRIPTION OF TREATMENT AND DISPOSAL

The Permittee submitted their 2021 annual biosolids report on February 7, 2022. The report states the Permittee produced 1441 dry metric tons (DMT) of solids.

Wastewater enters the system into an anerobic lagoon where the solids are first digested for approximately 11.31 days assuming an average flow 1.114 MGD and reduced before flowing into anoxic basins for approximately 22.38 hours. The solids are further treated in an aeration basin for approximately 28.42 hours then allowed to settle out in clarifiers. Retention times in clarifiers #1, #2, #3 and #4 are 18.88 hrs., 10.56 hrs., 10.56 hrs. and 20.23 hrs. respectively. Settled solids are then sent to one of two Huber screw presses for dewatering. The dewatered sludge is then augured into sump trucks where it is then hauled to Miller Companies for further treatment before being sold as compost.

SELF-MONITORING REQUIREMENTS

Under *40 CFR 503.16(a)(1),* the self-monitoring requirements are based upon the amount of biosolids disposed per year and shall be monitored according to the chart below.

Minimum Frequency of Monitoring (40 CFR Part 503.16, 503.26. and 503.46)		
Amount of Biosolids Disposed Per Year		Monitoring Frequency
Dry US Tons	Dry Metric Tons	Per Year or Batch
> 0 to < 320	> 0 to < 290	Once Per Year or Batch
> 320 to < 1650	> 290 to < 1,500	Once a Quarter or Four Times
> 1,650 to < 16,500	> 1,500 to < 15,000	Bi-Monthly or Six Times
> 16,500	> 15,000	Monthly or Twelve Times

Swift Beef produces and transfers less than 1500 DMT of biosolids per year on average, therefore they need to sample at least once a quarter or four times a year. Currently they are below the 15000 DMT cutoff for production level to sample 6 times per year. This is a self-implementing limit that they should adhere to when they anticipate producing more than 1500 DMT in a year.

Landfill Monitoring

Under *40 CFR 258,* the landfill monitoring requirements include a paint filter test. If the biosolids do not pass a paint filter test, the biosolids cannot be disposed in the sanitary landfill *(40 CFR 258.28(c)(1).*

No biosolids have been landfilled by Swift Beef

BIOSOLIDS LIMITATIONS

Heavy Metals

Class A Biosolids for Home Lawn and Garden Use

The intent of the heavy metals regulations of Table 3, *40 CFR 503.13* is to ensure the heavy metals do not build up in the soil in home lawn and gardens to the point where the heavy metals become phytotoxic to plants. The permittee will be required to produce an information sheet (see *Part III. C*. of the permit) to made available to all people who are receiving and land applying Class A biosolids to their lawns and gardens. If the instructions of the information sheet are followed to any reasonable degree, the Class A biosolids will be able to be land applied year after year, to the same lawns and garden plots without any deleterious effects to the environment. The information sheet must be provided to the public, because the permittee is not required, nor able to track the quantity of Class A biosolids that are land applied to home lawns and gardens.

Class A Requirements With Regards to Heavy Metals

If the biosolids are to be applied to a lawn or home garden, the biosolids shall not exceed the maximum heavy metals in Table 3 below. If the biosolids do not meet these requirements, the biosolids cannot be sold or given away for applications to home lawns and gardens.

Class B Requirements for Agriculture and Reclamation Sites

The intent of the heavy metals regulations of Tables 1, 2 and 3, of *40 CFR 503.13* is to ensure that heavy metals do not build up in the soil at farms, forest land, and land reclamation sites to the point where the heavy metals become phytotoxic to plants. The permittee will be required to produce an information sheet (see *Part III. C*. of the permit) to be handed out to all people who are receiving and land applying Class B biosolids to farms, ranches, and land reclamation sites (if biosolids are only applied to land owned by the permittee, the information sheet requirements are waived). If the biosolids are land applied according to the regulations of *40 CFR 503.13*, to any reasonable degree, the Class B biosolids will be able to be land applied year after year, to the same farms, ranches, and land reclamation sites without any deleterious effects to the environment.

Class B Requirements With Regards to Heavy Metals

If the biosolids are to be land applied to agricultural land, forest land, a public contact site or a reclamation site it must meet at all times:

> The maximum heavy metals listed in *40 CFR Part 503.13(b) Table 1* and the heavy metals loading rates in *40 CFR Part 503.13(b) Table 2*; or
>
> The maximum heavy metals in *40 CFR Part 503.13(b) Table 1* and the monthly heavy metals concentrations in *40 CFR Part 503.13(b) Table 3*.

Tables 1, 2, and 3 of Heavy Metal Limitations

Table 5: Pollutant Limits, (40 CFR Part 503.13(b)) Dry Mass Basis				
Heavy Metals	Table 1	Table 2	Table 3	Table 4
	Ceiling Conc. Limits[a], (mg/kg)	CPLR[b], (mg/ha)	Pollutant Conc. Limits[c] (mg/kg)	APLR[d], (mg/ha-yr)
Total Arsenic	75	41	41	2.0
Total Cadmium	85	39	39	1.9
Total Copper	4300	1500	1500	75
Total Lead	840	300	300	15
Total Mercury	57	17	17	0.85
Total Molybdenum	75	N/A	N/A	N/A
Total Nickel	420	420	420	21
Total Selenium	100	100	100	5.0
Total Zinc	7500	2800	2800	140

Notes for Table 5

a. If the concentration of any 1 (one) of these parameters exceeds the Table 1 limit, the biosolids cannot be land applied or beneficially used in any way.
b. CPLR - Cumulative Pollutant Loading Rate - The maximum loading for any 1 (one) of the parameters listed that may be applied to land when biosolids are land applied or beneficially used on agricultural, forestry, or a reclamation site.
c. If the concentration of any 1 (one) of these parameters exceeds the Table 3 limit, the biosolids cannot be land applied or beneficially used in on a lawn, home garden, or other high potential public contact site. If any 1 (one) of these parameters exceeds the Table 3 limit, the biosolids may be land applied or beneficially reused on an agricultural, forestry, reclamation site, or other high potential public contact site, as long as it meets the requirements of Table 1, Table 2, and Table 4.
d. APLR - Annual Pollutant Loading Rate - The maximum annual loading for any 1 (one) of the parameters listed that may be applied to land when biosolids are land applied or beneficially reused on agricultural, forestry, or a reclamation site, when they do not meet Table 3, but do meet Table 1.

Any violation of these limitations shall be reported in accordance with the requirements of Part III.F.1. of the permit. If the biosolids do not meet these requirements, they cannot be land applied.

Pathogens

The Pathogen Control class listed in the table below must be met;

Table 6: Pathogen Control Class	
503.32 (a)(1) - (5), (7), (8), Class A	503.32 (b)(1) - (5), Class B
B Salmonella species –less than three (3) MPN[a] per four (4) grams total solids (DWB)[b] or Fecal Coliforms – less than 1,000 MPN per gram total solids (DWB).	Fecal Coliforms – less than 2,000,000 MPN or CFU[c] per gram total solids (DWB).
503.32 (a)(6) Class A—Alternative 4	
B Salmonella species –less than three (3) MPN per four (4) grams total solids (DWB) or less than 1,000 MPN Fecal Coliforms per gram total solids (DWB), And - Enteric viruses –less than one (1) plaque forming unit per four (4) grams total solids (DWB) And - Viable helminth ova –less than one (1) per four (4) grams total solids (DWB)	

Notes for Table 6

a. MPN – Most Probable Number
b. DWB – Dry Weight Basis
c. CFU – Colony Forming Units

Class A Requirements for Home Lawn and Garden Use

If biosolids are land applied to home lawns and gardens, the biosolids need to be treated by a specific process to further reduce pathogens (PFRP), and meet a microbiological limit of less than less than 3 most probable number (MPN) of *Salmonella* per 4 grams of total solids (or less than 1,000 most probable number (MPN/g) of fecal coliform per gram of total solids) to be considered Class A biosolids. At this time Swift Beef does not intend to directly distribute biosolids to the public for use on the lawn and garden and thus is not required meet Class A Biosolids requirements currently. Swift Beef dewaters solids generated onsite then transfers the solids to Miller Companies for further processing.

The practice of sale or giveaway to the public is an acceptable use of biosolids of this quality as long as the biosolids continue to meet Class A standards with respect to pathogens. If the biosolids do not meet Class A pathogen standards the biosolids cannot be sold or given away to the public, and the permittee will need find another method of beneficial use or disposal.

If the permittee changes their intentions in the future, they will need to meet a specific PSRP, the Director and the EPA must be informed at least thirty (30) days prior to its use. This change may be made without additional public notice

Pathogens Class B

If biosolids are to be land applied for agriculture or land reclamation the solids need to be treated by a specific process to significantly reduce pathogens (PSRP). At this time Swift Beef does not intend to directly distribute bulk biosolids for land application and thus is not required meet Class B Biosolids requirements currently. Swift Beef dewaters solids generated onsite then transfers the solids to Miller Companies further processing.

If the permittee changes their intentions in the future, they will need to meet a specific PSRP, the Director and the EPA must be informed at least thirty (30) days prior to its use. This change may be made without additional public notice

Vector Attraction Reduction (VAR)

If the biosolids are land applied Swift Beef will be required to meet VAR through the use of a method of listed under *40 CFR 503.33.* Swift Beef y dewaters solids generated onsite then transfers the solids to Miller Companies for windrow composting. Swift Beef does not intend to land apply the biosolids and will therefore not be required to meet VAR. If the permittee intends to land apply in the future, they need to meet one of the listed alternatives in 40 CFR 503.33, the Director and the EPA must be informed at least thirty (30) days prior to its use. This change may be made without additional public notice.

If the biosolids do not meet a method of VAR, the biosolids cannot be land applied.

If the permittee intends to use another one of the listed alternatives in *40 CFR 503.33*, the Director and the EPA must be informed at least thirty (30) days prior to its use. This change may be made without additional public notice

Landfill Monitoring

Under *40 CFR 258,* the landfill monitoring requirements include a paint filter test to determine if the biosolids exhibit free liquid. If the biosolids do not pass a paint filter test, the biosolids cannot be disposed in the sanitary landfill *(40 CFR 258.28(c)(1).*

Record Keeping

The record keeping requirements from *40 CFR 503.17* are included under *Part III.G*. of the permit. The amount of time the records must be maintained are dependent on the quality of the biosolids in regards to the metals concentrations. If the biosolids continue to meet the metals limits of *Table 3* of *40 CFR 503.13*, and are sold or given away the records must be retained for a minimum of five years. If the biosolids are disposed in a landfill the records must retained for a minimum of five years.

Reporting

Swift Beef must report annually as required in *40 CFR 503.18*. This report is to include the results of all monitoring performed in accordance with *Part III.B* of the permit, information on management practices, biosolids treatment, and certifications. This report is due no later than February 19 of each year. Each report is for the previous calendar year.

MONITORING DATA

Swift Beef's biosolids are handled by Miller Companies. Therefore, the facility is not Class A or Class B. Miller Companies completes monitoring as required.

METALS MONITORING DATA

The Swift Beef has been sampling biosolids for metals at least four times a year since they were first permitted. All biosolids transferred has met *Table 3* of *40 CFR 503.13.* The Swift Beef's biosolids qualify as EQ with regards to metals. The monitoring data is below.

Swift Beef Metals Monitoring Data

Metals Monitoring Data, 2018-2024			
Parameter	Table 3, mg/kg (Exceptional Quality)	Average, mg/kg	Maximum, mg/kg
Arsenic	41.0	8.0	26
Cadmium	39.0	1.3	4.3
Copper	1,500.0	65	170
Lead	300.0	5.0	17
Mercury	17.0	0.3	4.4
Molybdenum	75.0	12.0	31
Nickel	400.0	6.3	17
Selenium	36.0	7.6	26
Zinc	2,800.0	270	760

PATHOGEN MONITORING DATA

The Swift Beef transfers all biosolids to another facility for further processing, therefore they have not been

required to monitor the biosolids for pathogens.

STORM WATER

Separate storm water permits may be required based on the types of activities occurring on site.

Permit coverage under the Multi Sector General Permit (MSGP) for Storm Water Discharges from Industrial Activities is required based on the Standard Industrial Classification (SIC) code for the facility and the types of industrial activities occurring. If the facility is not already covered, it has 30 days from when this permit is issued to submit the appropriate Notice of Intent (NOI) for the MSGP or exclusion documentation. Previously storm water discharge requirements and coverage were combined in this individual permit. These have been separated to provide consistency among permittees, electronic reporting for storm water discharge monitoring reports, and increase flexibility to changing site conditions.

Permit coverage under the Construction General Storm Water Permit (CGP) is required for any construction at the facility which disturb an acre or more, or is part of a common plan of development or sale that is an acre or greater. A Notice of Intent (NOI) is required to obtain a construction storm water permit prior to the period of construction.

Information on storm water permit requirements can be found at http://stormwater.utah.gov

PRETREATMENT REQUIREMENTS

Swift Beef treats the process wastewater generated by the facility. However, if any process wastewater is discharged to a Publicly Owned Treatment Works (POTW) either as indirect discharge or as a hauled waste, the waste is subject to federal, state and local pretreatment regulations. Pursuant to Section 307 of the Clean Water Act, the permittee shall comply with all applicable Federal General Pretreatment Regulations promulgated, found in 40 CFR section 403, the State Pretreatment Requirements found in UAC R317-8-8, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the waste.

In addition, in accordance with 40 CFR 403.12(p)(1), the permittee must notify the POTW, the EPA Regional Waste Management Director, and the State hazardous waste authorities, in writing, if they discharge any substance into a POTW which if otherwise disposed of would be considered a hazardous waste under 40 CFR 261. This notification must include the name of the hazardous waste, the EPA hazardous waste number, and the type of discharge (continuous or batch).

BIOMONITORING REQUIREMENTS

A nationwide effort to control toxic discharges where effluent toxicity is an existing or potential concern is regulated in accordance with the Utah Pollutant Discharge Elimination System Permit and Enforcement Guidance Document for Whole Effluent Toxicity Control (biomonitoring), dated February 2018. Authority to require effluent biomonitoring is provided in Permit Conditions, UAC R317-8-4.2, Permit Provisions, UAC R317-8-5.3 and Water Quality Standards, UAC R317-2-5 and R317 -2-7.2.

The Utah Pollutant Discharge Elimination System Permit and Enforcement Guidance Document for Whole

Effluent Toxicity Control (biomonitoring) dated February 2018, states that WET testing is required in UPDES permits where there is a reasonable potential to discharge toxics. The permittee is a major industrial facility that will be discharging a consistent effluent to an irrigation ditch, which eventually leads to South Fork Spring Creek. Swift Beef will be required to perform Chronic WET every quarter with alternating species.

PERMIT DURATION

It is recommended that this permit be effective for a duration of five (5) years.

Drafted and Reviewed by
Lindsay Cowles, Discharge Permit Writer
Daniel Griffin, Biosolids
Jennifer Robinson, Pretreatment
Lonnie Shull, Biomonitoring
Carl Adams, Storm Water
Mike Allred, TMDL/Watershed
Suzan Tahir, Wasteload Analysis
Utah Division of Water Quality, (801) 536-4300

PUBLIC NOTICE

Began: Month Day, Year
Ended: Month Day, Year

Comments will be received at: 195 North 1950 West
PO Box 144870
Salt Lake City, UT 84114-4870

The Public Noticed of the draft permit was published on the DWQ webpage.

During the public comment period provided under R317-8-6.5, any interested person may submit written comments on the draft permit and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments will be considered in making the final decision and shall be answered as provided in R317-8-6.12.

ADDENDUM TO FSSOB

During finalization of the Permit certain dates, spelling edits and minor language corrections were completed. Due to the nature of these changes they were not considered Major and the permit is not required to be re Public Noticed.

Responsiveness Summary

(Explain any comments received and response sent. Actual letters can be referenced, but not required to be included).

ATTACHMENT 1

Effluent Monitoring Data

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Effluent Monitoring Data

Parameter		Flow (MGD)	BOD Maximum Monthly Average (mg/L)	BOD Maximum Weekly Average (mg/L)	TSS Maximum Monthly Average (mg/L)	TSS Maximum Weekly Average (mg/L)	DO (mg/L)	pH Daily Minimum (SU)	pH Daily Maximum (SU)	TRC (mg/L)	Ecoli Maximum Monthly Average (No./100 mL)	Ecoli Maximum Weekly Average (No./100 mL)	Ammonia Maximum Monthly Average (mg/L)	Ammonia Maximum Daily Average (mg/L)	Nitrogen Maximum Monthly Average (mg/L)	Nitrogen Maximum Daily Average (mg/L)	Total Phosphorus Maximum Monthly Average	Oil and Grease (mg/L)	TDS (mg/L)
Current Permit Limit		2.00	25	35	25	35	4.0	6.5	9.0	.15/.25	126	157	4.0	8.0	134	194	1.0	10	3000
Monitoring Period	Jan-19	1.18	4.08	6.7	9.79	14.5	4.53	6.6	7.5	0.11	18.56	86.7	0.354	1.17	43.36	48.99	0.68	5	2870
	Feb-19	1.23	2.5	3	6.93	12.4	5.15	6.6	7.6	0.09	3.1	5.2	0.258	0.46	39.98	41.77	0.71	5	2660
	Mar-19	1.54	3.03	4.1	5.93	8.4	5.22	6.9	8.6	0.01	1.78	5.2	0.0394	0.542	38.61	44.93	0.46	5	2790
	Apr-19	1.39	6.31	9.2	6.85	11.1	4.37	7.1	8.2	0.02	1.2	2	0.606	1.53	32.3	41.02	0.61	5	2740
	May-19	1.33	10.3	19.6	13.81	21	4.42	6.8	7.9	0.02	1	1	0.4	0.627	41.43	41.43	0.77	5	2560
	Jun-19	1.34	8.69	11.6	12.13	14.5	4.65	7	7.7	0.03	1.7	3.1	0.664	1.43	33.38	33.38	0.52	5	2460
	Jul-19	No Value	No Value	No Value	No Value	No Value	No Value	No Value	No Value	No Value	No Value	No Value	No Value	No Value			No Value	No Value	No Value
	Aug-19	No Value	No Value	No Value	No Value	No Value	No Value	No Value	No Value	No Value	No Value	No Value	No Value	No Value			No Value	No Value	No Value
	Sep-19	1.46	2.6	3	3.36	5.6	5.46	6.7	7.8	0.15	1	1	0.123	0.157	66.7	66.7	0.31	5	2400
	Oct-19	1.44	3.96	5.02	3.16	4.35	6.17	6.8	7.8	0.09	1	1	0.117	0.15	41.9	41.9	0.53	5	2270
	Nov-19	1.23	3.46	4.82	8.09	16.3	5.43	6.7	7.6	0.08	1	1	0.52	1.17	52.13	52.13	0.64	5	2270
	Dec-19	1.43	4.75	5.5	6.17	7.68	5.53	6.8	8.1	0.08	1.25	2	0.393	0.724	35.47	35.47	0.57	6	2780
	Jan-20	1.52	4.62	4.94	8.72	12.1	5.46	6.7	7.7	0.15	2.9	7.5	0.497	0.688	37	37	0.57	5	2810
	Feb-20	1.41	5.91	11.6	9.52	19.7	5.32	6.7	7.8	0.08	2.55	5.2	0.357	0.61	39	39	0.31	5	2860
	Mar-20	1.64	4.42	5.1	6.39	8.69	5.12	6.9	8	0.09	1	1	0.234	0.388	43.62	43.62	0.42	5	2500
	Apr-20	1.14	4.31	6.34	6.11	8.65	6.28	6.6	7.6	0.24	1	1	0.199	0.336	50.4	50.4	0.49	6.62	2830
	May-20	1.03	5.14	9.44	6.11	8.9	5.08	6.6	7.3	0.14	1.33	2	0.256	0.634	30.99	30.99	0.7	5.77	3030
	Jun-20	0.98	2.42	4.1	2.46	5.1	4.89	6.8	7.5	0.03	1	1	0.223	1.03	33.54	33.54	0.34	5.68	2680
	Jul-20	1.22	3.2	4	3.79	4.11	5.44	6.9	7.9	0.06	1	1	0.136	0.153	50.44	50.44	0.35	5.24	2620
	Aug-20	1.2	2.71	4.78	3.69	5.37	6.12	6.7	7.6	0.13	1	1	0.214	0.886	73.13	73.13	0.46	5.54	2700
	Sep-20	1.18	3.52	5.04	4.65	7.3	6.54	6.7	7.8	0.04	1	1	0.121	0.238	86.6	86.6	0.26	5.33	2640
	Oct-20	1.24	5.74	6.28	4.37	7.88	6.17	6.8	7.8	0.05	1	1	0.143	0.202	43.45	43.45	0.73	5.79	2570
	Nov-20	1.16	7.62	12.5	7.36	11.7	5.29	6.8	8.4	0.03	1	1	0.276	0.354	47.92	47.92	0.53	5	2520
	Dec-20	1.14	6.78	10.4	7.07	12.5	6.18	6.8	7.9	0.04	1.53	3.1	0.357	0.592	29	29	0.64	5	2390
	Jan-21	1.2	4.95	5.81	4.26	5.86	6.26	6.9	7.9	0.01	1.25	2	0.182	0.27	37.65	37.65	0.7	5	2450
	Feb-21	1.27	4.83	6.93	5.37	6.67	6.29	6.7	7.8	0.06	1	1	0.204	0.347	44.3	44.3	0.72	6.57	2590
	Mar-21	1.2	7.67	9.71	6.06	6.16	6.67	6.8	7.3	0.1	1.42	3.1	0.138	0.169	41.8	41.8	0.65	5	2660
	Apr-21	1.22	6.15	8.05	7	11.2	6.63	6.8	8.1	0.16	1	1	0.12	0.16	51.03	51.03	0.44	5.04	2360
	May-21	1.04	3.68	4.22	3.91	5.61	6.79	6.7	7.8	0.16	1	1	0.094	0.127	41.5	41.5	0.53	5.46	2080
	Jun-21	0.97	8.32	14.2	4.01	7.17	5.85	6.8	8.6	0.17	1	1	0.472	1.25	33.6	33.6	0.38	5	2730
	Jul-21	No Value	No Value	No Value	No Value	No Value	No Value	No Value	No Value	No Value	No Value	No Value	No Value	No Value			No Value	No Value	No Value
	Aug-21	1.5	4.15	6.5	1.83	2.4	6.31	6.6	8.5	0.21	26.12	73.8	0.523	1.69	103.74	103.74	0.64	5.09	2500
	Sep-21	1.09	4.42	6.37	3.97	8.3	6.11	6.6	7.5	0.19	1	1	0.054	0.083	91.52	91.52	0.48	5	2580
	Oct-21	1.13	3.32	3.88	2.6	4.23	6.63	6.6	7.9	0.14	1	1	0.076	0.127	99.05	99.05	0.68	6.14	2200
	Nov-21	1.02	4.63	5.85	2.01	4.33	7.17	6.8	8.1	0.13	1	1	0.07	0.125	66.5	66.5	0.79	5	1980
	Dec-21	1.33	4.62	6.39	3.14	3.03	6.79	6.6	7.5	0.1	1	1	0.092	0.187	39.2	39.2	0.62	5	2110
	Jan-22	1.18	4.21	5.58	5.34	10.8	7.63	6.9	7.3	0.15	1	1	0.131	0.214	32.1	32.1	0.61	5	2510
	Feb-22	1.13	5.65	6.77	9.03	10.4	6.95	6.8	8.2	0.08	1	1	0.183	0.406	43.92	43.92	0.78	7	2200
	Mar-22	1.19	11.98	26	7.42	8	7.1	6.7	8	0.06	1.5	3	0.193	0.2	40.2	40.2	0.76	6	2080
	Apr-22	1.23	5.25	10	5.5	10	6.79	6.8	8.1	0.09	1	1	0.243	0.5	41.2	41.2	0.59	6	1840
	May-22	1.15	5	5	6.33	9	6.63	7	8	0.07	1	1	0.567	2.1	32.3	32.3	0.5	5	1990
	Jun-22	1.18	5.4	7	4.5	5	6.07	6.9	7.5	0.11	1	1	0.211	0.3	30.1	30.1	0.3	6	1980
	Jul-22	1.013	5.67	7	8.2	14	6.51	6.6	8	0.23	1.25	2	0.463	0.9	44	44	0.7	6	2120
	Aug-22	1.232	6.8	8	7.6	16	4.66	6.8	7.8	0.21	1.2	2	0.27	0.7	43.8	43.8	0.3	6	2090
	Sep-22	1.143	5.25	7	5.5	8	6.64	6.7	7.4	0.13	1	1	0.45	2.2	63.1	63.1	0.6	6	2020
	Oct-22	0.96	7.25	8	6.25	10	6.86	6.7	7.8	0.02	3.48	10.9	0.853	2.44	40.3	40.3	0.4	6	1780
	Nov-22	1.215	12.25	19	12.25	16	6.03	6.7	7.6	0.1	2.03	4.1	0.319	0.51	39.7	39.7	0.7	5	1840
	Dec-22	1.202	16.67	21	20.33	25	5.35	6.9	7.8	0.03	1.7	3.1	1.427	2.6	28	28	0.7	6	2070
	Jan-23	1.48	7	7	12	14	6.28	6.8	8	0.13	1.2	2	0.891	2.82	30	30	0.8	5	2000
	Feb-23	1.25	6.25	8	12.75	14	5.68	6.8	8.4	0.1	1	1	0.456	0.87	28.2	28.2	0.6	5	2110
	Mar-23	1.454	8.5	16	14.75	22	5.92	6.5	7.8	0.03	19.11	976.35	0.79	1.43	43.2	43.2	0.6	6	2100
	Apr-23	1.535	6.25	10	13	28	5.48	6.8	8.2	0.06	52.08	25.3	0.313	0.38	29.9	29.9	0.7	5	1770
	May-23	1.473	5	5	5.2	7	6.78	6.8	8.1	0.24	1	1	1.083	2.7	42.9	42.9	0.7	5	2010
	Jun-23	1.401	5	5	5.5	6	5.54	6.8	8.7	0.13	1.78	4.1	0.359	0.66	30.5	30.5	0.2	6	1910
	Jul-23	1.318	6	7	9	18	5.96	6.9	8.1	0.23	36.44	3	0.296	0.33	37.3	37.3	0.9	5	2050
	Aug-23	1.277	8	15	6	6	5.72	7	8	0.09	29.4	2.47	0.343	0.47	38.2	38.2	0.3	5	2130
	Sep-23	1.136	6	10	6.25	12	5.67	6.8	7.9	0.23	0.75	1	0.502	1.8	40.8	40.8	0.4	6	2420
	Oct-23	1.377	5	5	4.6	6	5.72	7	8	0.09	1	1	0.299	0.67	72.3	72.3	0.8	5	2530
	Nov-23	1.355	5.5	6	4	4	5.49	6.9	8.2	0.14	1	1	0.225	0.33	33.1	33.1	0.9	5	2170

WET Results

Month	WET Test	Pass / Fail
Mar-19	48Hr Acute Ceriodaphnia	Pass
Mar-19	96Hr Acute Pimephales Promelas	Pass
Jun-19	96Hr Acute Pimephales Promelas	Pass
Sept-19	96Hr Acute Pimephales Promelas	Pass
Dec-19	48Hr Acute Ceriodaphnia	Pass
Mar-20	7Day Chronic Ceriodaphnia	Pass
Jun-20	7Day Chronic Pimephales Promelas	Pass
Sept-20	7Day Chronic Ceriodaphnia*	Pass
Dec-20	7Day Chronic Pimephales Promelas	Pass
Mar-21	7Day Chronic Ceriodaphnia*	Pass
Jun-21	7Day Chronic Pimephales Promelas	Pass
Sept-21	7Day Chronic Ceriodaphnia	Pass
Dec-21	7Day Chronic Pimephales Promelas	Pass
Mar-22	7Day Chronic Ceriodaphnia	Pass
Jun-22	7Day Chronic Pimephales Promelas	Pass
Sept-22	7Day Chronic Ceriodaphnia	Pass
Dec-22	7Day Chronic Pimephales Promelas	Pass
Mar-23	7Day Chronic Ceriodaphnia	Pass
Jun-23	7Day Chronic Pimephales Promelas	Pass
Sept-23	7Day Chronic Ceriodaphnia	Pass
Dec-23	7Day Chronic Pimephales Promelas	Pass

*Accelerated testing required

ATTACHMENT 2

Wasteload Analysis

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Utah Division of Water Quality
Statement of Basis
ADDENDUM
Wasteload Analysis and Antidegradation Level I Review

Date: **September 24, 2024**

Prepared by: **Suzan Tahir**
Standards and Technical Services

Facility: **Swift Beef Company**
UPDES No. UT000281

Receiving water: **Ditch => South Fork Spring Creek**

This addendum summarizes the wasteload analysis that was performed to determine water quality based effluent limits (WQBEL) for this discharge. Wasteload analyses are performed to determine point source effluent limitations necessary to maintain designated beneficial uses by evaluating projected effects of discharge concentrations on in-stream water quality. The wasteload analysis also takes into account downstream designated uses (UAC R317-2-8). Projected concentrations are compared to numeric water quality standards to determine acceptability. The numeric criteria in this wasteload analysis may be modified by narrative criteria and other conditions determined by staff of the Division of Water Quality.

Discharge

001 Treatment plant discharge 2.0 MGD

Receiving Water

Swift Beef Co. discharges into a complex ditch system that runs for approximately 4.5 miles before coalescing as the South Fork of Spring Creek at Highway 89. Therefore, all effluent limits provided to this facility must be met at South Fork of Spring Creek at Highway 89.

As per UAC R317-2-13.9, all irrigation canals and ditches statewide, except as otherwise designated are 2B, 3E and 4. As per R317-2-13.3(a), the designated beneficial uses of Little Bear River and tributaries, from Cutler Reservoir to headwaters are 2B, 3A, 3D, 4.

- *Class 2B - Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.*

- *Class 3A - Protected for cold water species of game fish and other cold water aquatic life, including the necessary aquatic organisms in their food chain.*

- *Class 3D - Protected for waterfowl, shore birds and other water-oriented wildlife not included in Classes 3A, 3B, or 3C, including the necessary aquatic organisms in their food chain.*

- *Class 3E - Severely habitat-limited waters. Narrative standards will be applied to protect these waters for aquatic wildlife.*

- *Class 4 - Protected for agricultural uses including irrigation of crops and stock watering.*

Data from the following stations was used to populate the model:

Table 1. Data Sources

Station #	Station Name	Data Period
4904840	DITCH AB EA MILLER SC-12	2012-2023
4905540	E. A. MILLER CO. EFFLUENT	2012-2023
4904810	SPRING CK SC-9	2012-2023
4905520	HYRUM WWTP	2012-2023

Data was segmented into two seasons; Irrigation (April-September) and Non-irrigation (October-May). Significant changes were made to Swift Beef Company's treatment plant in 2011. In order to be reflective of current conditions, only data from 2012 to present was used from those stations downstream of the facility.

Flow

Typically, the critical flow for the wasteload analysis is considered the lowest stream flow for seven consecutive days with a ten-year return frequency (7Q10). Due to a lack of flow records, the 20th percentile of available flow measurements was calculated for the period of record to approximate the critical flow condition. Calculated critical low flow conditions are as follows:

Table 2. Critical low flow conditions

Station #	Station Name	Low Flow (cfs) 20th percentile	
		Irrigation Season	Non-irrigation Season
4904840	DITCH AB EA MILLER SC-12	0.045	0.046
4904810	SPRING CK SC-9	3.924	1.441
4905520	HYRUM WWTP	0.000	1.309
4904940	S FK SPRING CK @ US 89 XING	6.7	3.8

Ambient water quality for the receiving water/discharge was characterized using data from 4904840 for the time periods as presented in Table 1.

TMDL

Spring Creek-Hyrum (UT16010203-008_00, Spring Creek and tributaries from confluence with Little Bear River to headwaters) is currently listed as impaired in Utah's 2022 Integrated Report

for E. coli, temperature, ammonia and total dissolved solids (TDS). TMDL's for Spring Creek were approved by the USEPA (U.S. Environmental Protection Agency) in 2002 which addressed impairments for dissolved oxygen, ammonia, E. coli and total phosphorus (TP). The TP target/endpoint was set at 0.05 mg/l at the watershed outlet. Since that time, major upgrades have been made to both Hyrum City's WWTP and Swift Beef Company's treatment plant, resulting in greatly improved effluent quality. A monitoring plan was developed to track the instream water quality improvements from the treatment facility upgrades. Spring Creek has not been removed from the impaired list, however water quality improvements continue to be seen and Best Management Practices continue to be applied to agricultural lands in the basin.

Protection of Downstream Uses

Per UAC R317-2-8, *all actions to control waste discharges under these rules shall be modified as necessary to protect downstream designated uses*. For this discharge, 3A numeric aquatic life use criteria apply to the immediate receiving water (S FK SPRING CK @ US 89 XING).

Mixing Zone

The maximum allowable mixing zone is 15 minutes of travel time for acute conditions, not to exceed 50% of stream width, and 2,500 feet for chronic conditions, per UAC R317-2-5. Water quality standards must be met at the end of the mixing zone.

Because the receiving water is a ditch that flows for several miles with multiple inputs, the combined flows are considered to be totally mixed. Chronic and acute limits were calculated using 100% of the seasonal critical low flow.

Parameters of Concern

The potential parameters of concern identified for the discharge/receiving water were E. coli, TDS, phosphorous and ammonia, as determined in consultation with the UPDES Permit Writer. Additional parameters of concern may become apparent as a result of reasonable potential analysis, technology-based standards, or other factors as determined by the UPDES Permit Writer.

WET Limits

The percent of effluent in the receiving water in a fully mixed condition, and acute and chronic dilution in a not fully mixed condition are calculated in the WLA in order to generate WET limits. The LC_{50} (lethal concentration, 50%) percent effluent for acute toxicity and the IC_{25} (inhibition concentration, 25%) percent effluent for chronic toxicity, as determined by the WET test, needs to be below the WET limits, as determined by the WLA. The WET limit for LC_{50} is typically 100% effluent and does not need to be determined by the WLA.

IC25 WET limits for Outfall 001:
Irrigation Season 32.0 % effluent.
Non-Irrigation Season 45.0 % effluent.

Wasteload Allocation Methods

Swift Beef Co discharges to a very complex system of irrigational canals, ditches and return flows As a result the Utah River's model and the QUAL2Kw model were both used for determining the WQBELs for parameters related to eutrophication and in-stream DO criteria, as well as ammonia toxicity. Effluent concentrations were adjusted so that water quality standards were not exceeded in the receiving water. Where WQBELs exceeded secondary standards or technology based effluent limits (TBEL), the concentration in the model was set at the secondary standard or TBEL.

Effluent limits were determined for conservative constituents using a simple mass balance mixing analysis (UDWQ 2012). The mass balance analysis is summarized in the Wasteload Addendum.

Models and supporting documentation are available for review upon request.

Antidegradation Level I Review

The objective of the Level I ADR is to ensure the protection of existing uses, defined as the beneficial uses attained in the receiving water on or after November 28, 1975. No evidence is known that the existing uses deviate from the designated beneficial uses for the receiving water. Therefore, the beneficial uses will be protected if the discharge remains below the WQBELs presented in this wasteload.

A Level II Antidegradation Review (ADR) is not required for this facility. The proposed permit is a simple renewal of an existing UPDES permit. No increase in flow or concentration of pollutants over those authorized in the the existing permit is being requested.

Documents:

WLA Document *: SwiftBeef_WLADoc_1-12-2024.docx*
Wasteload Analysis and Addendums:
S*wiftBeef_WLA_NonIrrig_1-12-24.xlsm;*
SwiftBeef_WLA_Irrig_1-12-24.xlsm
SwiftBeef_Appendix A_1-12-24.pdf
SwiftBeef_Appendix B_1-12-24.pdf

References:

Utah Division of Water Quality. 2022. *Final 2022 Integrated Report on Water Quality*

Utah Division of Water Quality. 2021. *Utah Wasteload Analysis Procedures Version 2.0.*

WASTELOAD ANALYSIS [WLA] Date: 8/21/2024

Appendix B: Mass Balance Mixing Analysis for Conservative Constituents

Discharging Facility:	Swift Beef Co.		
UPDES No:	UT-0000281		
Permit Flow [MGD]:	2.00	Maximum Monthly Flow	
	2.98	Maximum Daily Flow	
Receiving Water:	Ditch to So. Fork of Spring Creek		
Stream Classification:	2B, 3A, 3D, 3E, 4		
Stream Flows [cfs]:	0.045	Summer (July-Sept)	Critical Low Flow
	0.000	Fall (Oct-Dec)	
	0.046	Winter (Jan-Mar)	
	0.000	Spring (Apr-June)	
Fully Mixed:	YES		
Acute River Width:	100%		
Chronic River Width:	100%		

Modeling Information

A simple mixing analysis was used to determine these effluent limits.

Model Inputs

The following is upstream and discharge information that was utilized as inputs for the analysis. Dry washes are considered to have an upstream flow equal to the flow of the discharge.

Headwater/Upstream Information

	Spring Creek (SC-12)
	cfs
Summer	0.045
Fall	0.000
Winter	0.046
Spring	0.000

Discharge Information

	Flow
	MGD
Maximum Daily	2.98
Maximum Monthly	2.00

All model numerical inputs, intermediate calculations, outputs and graphs are available for discussion, inspection and copy at the Division of Water Quality.

Effluent Limitations

Current State water quality standards are required to be met under a variety of conditions including in-stream flows targeted to the 7-day, 10-year low flow (R317-2-9).

Other conditions used in the modeling effort reflect the environmental conditions expected at low stream flows.

Effluent Limitations for Protection of Recreation (Class 2B Waters)

Physical

Parameter	Maximum Concentration
pH Minimum	6.5
pH Maximum	9.0

Bacteriological

E. coli (30 Day Geometric Mean)	206	(#/100 mL)
E. coli (Maximum)	668	(#/100 mL)

Effluent Limitations for Protection of Aquatic Wildlife (Class 3D Waters)

Inorganics

Parameter	Chronic Standard (30 Day Average) Standard	Acute Standard (1 Hour Average) Standard
Phenol (mg/L)		0.010
Hydrogen Sulfide (Undissociated) [mg/L]		0.002

Total Recoverable Metals

Parameter	Chronic Standard (30 Day Average)[1] Standard	Background	Limit	Acute Standard (1 Hour Average)[1] Standard	Background[2]	Limit
Aluminum (µg/L)	N/A[3]	20.6	N/A	750	69.0	757
Arsenic (µg/L)	150	0.9	152	340	0.9	343
Cadmium (µg/L)	0.6	0.1	0.7	7.7	0.1	7.8
Chromium VI (µg/L)	11.0	1.9	11.1	16.0	1.9	16.1
Chromium III (µg/L)	231	1.9	234	1,773	1.9	1,791
Copper (µg/L)	29.3	2.0	29.7	49.6	2.0	50.1
Cyanide (µg/L)[2]	5.2	3.5	5.2	22.0	3.5	22.2
Iron (µg/L)				1,000	30.0	1,009
Lead (µg/L)	10.9	0.7	11.1	281	0.7	284
Mercury (µg/L)[2]	0.012	0.008	0.012	2.4	0.0	2.4
Nickel (µg/L)	168	4.6	170	1,513	4.6	1,528
Selenium (µg/L)	4.6	1.0	4.7	18.4	1.0	18.6
Silver (µg/L)				34.9	0.5	35.2
Tributylin (µg/L)[2]	0.072	0.048	0.072	0.46	0.048	0.46
Zinc (µg/L)	382	9.3	388	379	9.3	383

1: Based upon a Hardness of 400 mg/l as CaCO3.

2: Background concentration assumed 67% of chronic standard.

3: Where the pH is equal to or greater than 7.0 and the hardness is equal to or greater than 50 ppm as $CaC0_3$ in the receiving water after mixing, the 87 ug/L chronic criterion (expressed as total recoverable) will not apply, and aluminum will be regulated based on compliance with the 750 ug/L acute aluminum criterion (expressed as total recoverable).

Organics [Pesticides]	Chronic Standard (30 Day Average)			Acute Standard (1 Hour Average)		
Parameter	Standard	Background[1]	Limit	Standard	Background[1]	Limit
Aldrin (µg/L)				1.5	1.0	1.5
Chlordane (µg/L)	0.0043	0.0029	0.0043	1.2	0.0	1.2
DDT, DDE (µg/L)	0.001	0.001	0.001	0.55	0.00	0.56
Diazinon (µg/L)	0.17	0.11	0.17	0.17	0.11	0.17
Dieldrin (µg/L)	0.0056	0.0038	0.0056	0.24	0.00	0.24
Endosulfan, a & b (µg/L)	0.056	0.038	0.056	0.11	0.04	0.11
Endrin (µg/L)	0.036	0.024	0.036	0.086	0.024	0.087
Heptachlor & H. epoxide (µg/L)	0.0038	0.0025	0.0038	0.26	0.00	0.26
Lindane (µg/L)	0.08	0.05	0.08	1.0	0.1	1.0
Methoxychlor (µg/L)				0.03	0.02	0.03
Mirex (µg/L)				0.001	0.001	0.001
Nonylphenol (µg/L)	6.6	4.4	6.6	28.0	4.4	28.2
Parathion (µg/L)	0.0130	0.0087	0.0131	0.066	0.009	0.067
PCB's (µg/L)	0.014	0.009	0.014			
Pentachlorophenol (µg/L)	15.0	10.1	15.1	19.0	10.1	19.1
Toxephene (µg/L)	0.0002	0.0001	0.0002	0.73	0.00	0.74

1: Background concentration assumed 67% of chronic standard

Effluent Limitation for Protection of Agriculture (Class 4 Waters)

	Maximum Concentration		
Parameter	Standard	Background[1]	Limit
Total Dissolved Solids (mg/L)	1,200	804	1,206
Boron (µg/L)	75.0	99.8	74.6
Arsenic (µg/L)	100	0.9	101
Cadmium (µg/L)	10.0	6.7	10.0
Chromium (µg/L)	100	1.9	101
Copper (µg/L)	200	2.0	203
Lead (µg/L)	100	0.7	101
Selenium (µg/L)	50.0	1.0	50.7
Gross Alpha (pCi/L)[1]	15.0	10.1	15.1

1: Background concentration assumed 67% of chronic standard.

WASTELOAD ANALYSIS [WLA] Date: 8/21/2024

Appendix B: Mass Balance Mixing Analysis for Conservative Constituents

Discharging Facility:	Swift Beef Co.		
UPDES No:	UT-0000281		
Permit Flow [MGD]:	2.00	Maximum Monthly Flow	
	2.98	Maximum Daily Flow	
Receiving Water:	Ditch to So. Fork of Spring Creek		
Stream Classification:	2B, 3A, 3D, 3E, 4		
Stream Flows [cfs]:	0.045	Summer (July-Sept)	Critical Low Flow
	0.000	Fall (Oct-Dec)	
	0.046	Winter (Jan-Mar)	
	0.000	Spring (Apr-June)	
Fully Mixed:	YES		
Acute River Width:	100%		
Chronic River Width:	100%		

Modeling Information

A simple mixing analysis was used to determine these effluent limits.

Model Inputs

The following is upstream and discharge information that was utilized as inputs for the analysis. Dry washes are considered to have an upstream flow equal to the flow of the discharge.

Headwater/Upstream Information

	Spring Creek (SC-12)
	cfs
Summer	0.045
Fall	0.000
Winter	0.046
Spring	0.000

Discharge Information

	Flow
	MGD
Maximum Daily	2.98
Maximum Monthly	2.00

All model numerical inputs, intermediate calculations, outputs and graphs are available for discussion, inspection and copy at the Division of Water Quality.

Effluent Limitations

Current State water quality standards are required to be met under a variety of conditions including in-stream flows targeted to the 7-day, 10-year low flow (R317-2-9).

Other conditions used in the modeling effort reflect the environmental conditions expected at low stream flows.

Effluent Limitations for Protection of Recreation (Class 2B Waters)

Physical

Parameter	Maximum Concentration
pH Minimum	6.5
pH Maximum	9.0

Bacteriological

E. coli (30 Day Geometric Mean)	206	(#/100 mL)
E. coli (Maximum)	668	(#/100 mL)

Effluent Limitations for Protection of Aquatic Wildlife (Class 3D Waters)

Inorganics

Parameter	Chronic Standard (30 Day Average) Standard	Acute Standard (1 Hour Average) Standard
Phenol (mg/L)		0.010
Hydrogen Sulfide (Undissociated) [mg/L]		0.002

Total Recoverable Metals

Parameter	Chronic Standard (30 Day Average)[1] Standard	Background	Limit	Acute Standard (1 Hour Average)[1] Standard	Background[2]	Limit
Aluminum (µg/L)	N/A[3]	20.6	N/A	750	69.0	757
Arsenic (µg/L)	150	0.9	152	340	0.9	343
Cadmium (µg/L)	0.6	0.1	0.7	7.7	0.1	7.8
Chromium VI (µg/L)	11.0	1.9	11.1	16.0	1.9	16.1
Chromium III (µg/L)	231	1.9	234	1,773	1.9	1,791
Copper (µg/L)	29.3	2.0	29.7	49.6	2.0	50.1
Cyanide (µg/L)[2]	5.2	3.5	5.2	22.0	3.5	22.2
Iron (µg/L)				1,000	30.0	1,009
Lead (µg/L)	10.9	0.7	11.1	281	0.7	284
Mercury (µg/L)[2]	0.012	0.008	0.012	2.4	0.0	2.4
Nickel (µg/L)	168	4.6	170	1,513	4.6	1,528
Selenium (µg/L)	4.6	1.0	4.7	18.4	1.0	18.6
Silver (µg/L)				34.9	0.5	35.2
Tributylin (µg/L)[2]	0.072	0.048	0.072	0.46	0.048	0.46
Zinc (µg/L)	382	9.3	388	379	9.3	383

1: Based upon a Hardness of 400 mg/l as CaCO3.

2: Background concentration assumed 67% of chronic standard.

3: Where the pH is equal to or greater than 7.0 and the hardness is equal to or greater than 50 ppm as $CaC0_3$ in the receiving water after mixing, the 87 ug/L chronic criterion (expressed as total recoverable) will not apply, and aluminum will be regulated based on compliance with the 750 ug/L acute aluminum criterion (expressed as total recoverable).

Organics [Pesticides]	Chronic Standard (30 Day Average)			Acute Standard (1 Hour Average)		
Parameter	Standard	Background[1]	Limit	Standard	Background[1]	Limit
Aldrin (µg/L)				1.5	1.0	1.5
Chlordane (µg/L)	0.0043	0.0029	0.0043	1.2	0.0	1.2
DDT, DDE (µg/L)	0.001	0.001	0.001	0.55	0.00	0.56
Diazinon (µg/L)	0.17	0.11	0.17	0.17	0.11	0.17
Dieldrin (µg/L)	0.0056	0.0038	0.0056	0.24	0.00	0.24
Endosulfan, a & b (µg/L)	0.056	0.038	0.056	0.11	0.04	0.11
Endrin (µg/L)	0.036	0.024	0.036	0.086	0.024	0.087
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Effluent Limitation for Protection of Agriculture (Class 4 Waters)

	Maximum Concentration		
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Chromium (µg/L)	100	1.9	101
Copper (µg/L)	200	2.0	203
Lead (µg/L)	100	0.7	101
Selenium (µg/L)	50.0	1.0	50.7
Gross Alpha (pCi/L)[1]	15.0	10.1	15.1

1: Background concentration assumed 67% of chronic standard.

ATTACHMENT 3

Reasonable Potential Analysis

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REASONABLE POTENTIAL ANALYSIS

Water Quality has worked to improve our reasonable potential analysis (RP) for the inclusion of limits for parameters in the permit by using an EPA provided model. As a result of the model, more parameters may be included in the renewal permit. A Copy of the Reasonable Potential Analysis Guidance (RP Guide) is available at water Quality. There are four outcomes for the RP Analysis[1]. They are;

Outcome A:	A new effluent limitation will be placed in the permit.
Outcome B:	No new effluent limitation. Routine monitoring requirements will be placed or increased from what they are in the permit,
Outcome C:	No new effluent limitation. Routine monitoring requirements maintained as they are in the permit,
Outcome D:	No limitation or routine monitoring requirements are in the permit.

A quantitative RP was not performed on effluent metals data because there is inadequate data for use in a RP. Additional monitoring for metals will be included in this permit to support future RP.

[1] See Reasonable Potential Analysis Guidance for definitions of terms