STATE OF UTAH
DIVISION OF WATER QUALITY
DEPARTMENT OF ENVIRONMENTAL QUALITY
SALT LAKE CITY, UTAH

UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES) PERMITS

Major Municipal Permit No. **UT0020109**
Biosolids Permit No. **UTL020109**

In compliance with provisions of the Utah *Water Quality Act, Title 19, Chapter 5, Utah Code Annotated ("UCA") 1953, as amended* (the *"Act"*),

SPANISH FORK CITY

is hereby authorized to discharge from its wastewater treatment facility to receiving waters named

DRY CREEK,

to dispose biosolids,

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

This RENEWAL permit shall become effective on February 1, 2022.

This permit expires at midnight on January 31, 2027.

Signed this Nineteenth day of January, 2022.

Erica Brown Gaddis, PhD
Director

DWQ-2021-010730

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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 a 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 40°08'43" and longitude 111°35'54". The discharge is through a gravity flow concrete pipe leading from the chlorine contact basin to Dry Creek which flows to the Provo Bay area of Utah Lake.

Outfall Number	Location of Effluent Reuse Discharge Outfall and Description of Area for Use
001R	Located at latitude 40°08'43" and longitude 111°35'54". The Type I discharge location(s) will be established in the Reuse Project Plan.

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 life of this permit, there shall be no acute or chronic toxicity in Outfall 001 as defined in *Part VIII*, and determined by test procedures described in *Part I. C.4.a & b* 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:

Parameter	Effluent Limitations *a				
	Maximum Monthly Avg	Maximum Weekly Avg	Yearly Average	Daily Minimum	Daily Maximum
Total Flow, MGD	8.4	--	--	--	10.4
BOD_5, mg/L BOD_5 Min. % Removal	25 85	35 --	-- --	-- --	-- --
TSS, mg/L TSS Min. % Removal	25 85	35 --	-- --	-- --	-- --
Dissolved Oxygen, mg/L	--	--	--	5.0	--
Ammonia, mg/L Summer (Jul-Sep) Fall (Oct-Dec) Winter (Jan-Mar) Spring (Apr-Jun)	 6 *j 6 *j 6 *j 9 *j	 -- -- -- --	 -- -- -- --	 -- -- -- --	 18 18 18 18
TRC, mg/L	--	--	--	--	2.0
E-Coli, No./100mL	126	158	--	--	--
Oil & Grease, mg/L	--	--	--	--	10.0
pH, Standard Units	--	--	--	6.5	9
WET, Chronic Biomonitoring January – March April — June July – September October – December	 NA NA NA NA	 NA NA NA NA	 NA NA NA NA	 NA NA NA NA	 Pass, IC_{25} > 50% effluent Pass, IC_{25} > 56% effluent Pass, IC_{25} > 63% effluent Pass, IC_{25} > 50% effluent
Interim Total Phosphorous, mg/L (Effective Jan 1, 2020 – Dec 31, 2024)	--	--	4.0	--	--
Final Total Phosphorous, (Effective Jan 1, 2026— Dec 31, 2029)	--	--	1.0	--	--
Final Total Phosphorous **Five Year Average**, mg/L, (Effective Jan 1, 2025— Dec 31, 2029)	--	--	1.0	---	--
Cadmium (dissolved), µg/L	1.2 *l	--	--	--	--
Cyanide (free), µg/L	7.6 *l	--	--		36 *l

Self-Monitoring and Reporting Requirements *a			
Parameter	Frequency	Sample Type	Units
Total Flow *b, *c	Continuous	Recorder	MGD
BOD_5, Influent *d Effluent	2 x Weekly 2 x Weekly	Composite Composite	mg/L mg/L
TSS, Influent *d Effluent	2 x Weekly 2 x Weekly	Composite Composite	mg/L mg/L
E. Coli	2 x Weekly	Grab	No./100mL

pH	2 x Weekly	Grab	SU
Ammonia	2 x Weekly	Grab	mg/L
DO	2 x Weekly	Grab	mg/L
WET – Biomonitoring *h Ceriodaphnia – Chronic Fathead Minnows - Chronic	 Quarterly Variable Species	 Composite Composite	 Pass/Fail Pass/Fail
TRC, mg/L, *e,	Daily	Grab	mg/L
Oil & Grease *f	Monthly	Grab	mg/L
Total Ammonia, (as N) *k	2 x Weekly	Composite	mg/L
Cadmium (dissolved), µg/L	Monthly	Composite	µg/L
Cyanide (free), µg/L	Monthly	Composite	µg/L
Orthophosphate, (as P) *k Effluent	 Monthly	 Composite	 mg/L
Phosphorus, Total *k Influent Effluent	 Monthly Monthly	 Composite Composite	 mg/L mg/L
Total Kjeldahl Nitrogen, (TKN as N) *k Influent Effluent	 Monthly Monthly	 Composite Composite	 mg/L mg/L
Nitrate, NO3 *k	Monthly	Composite	mg/L
Nitrite, NO2 *k	Monthly	Composite	mg/L
Metals, Influent *i Effluent	Quarterly Quarterly	Composite Composite	mg/L mg/L
Organic Toxics *i	Yearly	Grab	mg/L

*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 In addition to monitoring the final discharge, influent samples shall be taken and analyzed for this constituent at the same frequency as required for this constituent in the discharge.

*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:

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

*f Oil & Grease sampled when sheen is present or visible. If no sheen is present or visible, report NA.

*h Spanish Fork City will monitor for Chronic WET with the following IC_{25} values: Summer >63%, Fall >50%, Winter >50% and Spring >56%, but will not have a limit associated with it in the permit. Spanish Fork City will also have the option to choose which species it wishes to test each quarter. The species is not tested in a quarter it is reported as NA.

*i See table in *Part II.H.1* (Influent and Effluent Monitoring and Reporting Requirements) of the Permit for target minimum detection limits (MDL) requirements. The Organic Toxics report is due the same day as the Pretreatment Report (Part II,C, of the permit).

*j The monthly average effluent limit for this parameter will become effective on December 31, 2023.

*k These reflect monitoring changes required with the adoption of *UCA R317-1-3.3*, Technology-based Phosphorus Effluent Limits rule.

*l Interim limits that will be evaluated for reasonable potential at yearly internals until the new facility is built.

b. Spanish Fork City **shall not** discharge from Outfall 001R until a Reuse Project Plan is submitted and approved by DWQ. The project plan shall comply with R317-3-11.3 and include a determination by the State of Utah Division of Water Rights on the amount of effluent Spanish Fork City is allowed to reuse. After the Reuse Project Plan is approved, Spanish Fork City will be allowed to discharge from Outfall 001R. Such discharges shall be limited and monitored by the permittee as specified below:

Parameter	Outfall 001R Effluent Limitations *a, *l *p, *q				
	Max Monthly Average	Max Weekly Median	Max Daily Average	Minimum	Maximum
Turbidity, NTU *p	--	--	2	--	5
TRC, mg/L *m, *q	--	--	--	1	--
BOD_5, mg/L	10	--	--	--	--
E coli, No/100mL *o *q	--	ND	--	--	9
pH, Standard Units	--	--	--	6.0	9.0

Reuse Outfall 001R Self-Monitoring and Reporting Requirements *a *l *n			
Parameter	Frequency	Sample Type	Units
Total Flow, *b, *c	Continuous	Recorder	MGD
Turbidity	Continuous	Recorder	mg/L
TRC *m, *q	Daily	Recorder	mg/L
BOD_5	Weekly	Composite	mg/L
E. coli	Daily	Grab	No./100mL
pH	Daily	Grab	SU
TBPEL Reuse Average Annual Discharge Concentration *r	Annual	Composite	mg/L

*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.

*l Spanish Fork City shall not discharge from Outfall 001R until a Reuse Project Plan is submitted and approved by DWQ. The project plan shall comply with R317-3-11.3 and include a determination by the State of Utah Division of Water Rights on the amount of effluent Spanish Fork City is allowed to reuse.

*m The facility is required to disinfect to destroy, inactivate or remove pathogenic microorganisms by chemical, physical or biological means. Disinfection may be accomplished by chlorination, ozonation, or other chemical disinfectants, UV radiation. Or other approved processes. Chlorine residual is recommended but no longer required. Sampling not required if chlorination is not being used. The total residual chlorine shall be measured continuously and shall at no time be less than 1.0 mg/L after 30 minutes contact time at peak flow. If an alternative disinfection process is used, it must be demonstrated to the satisfaction of the Director that the alternative process is comparable to that achieved by chlorination with a 1 mg/L residual after 30 minutes contact time. If the effectiveness cannot be related to chlorination, then the effectiveness of the alternative disinfection process must be demonstrated by testing for pathogen destruction as determined by the Director. A 1 mg/L total chlorine residual is recommended after disinfection and before the treated effluent goes into the distribution system.

*n Reuse monitoring results obtained during the previous month for reuse discharges shall be summarized for each month and reported on a Monthly Operational Report, post-marked no later than the 28th day of the month following the completed reporting period.

*o (For Type I only.) The weekly median *E. coli* concentration shall be non-detect

*p (For Type I reuse only.) An alternative disposal option or diversion to storage must be automatically activated if turbidity exceeds the maximum instantaneous limit for more than 5 minutes, or chlorine residual drops below the instantaneous required value for more than 5 minutes, where chlorine disinfection is used.

*q (For Type I reuse only.) The total residual chlorine shall be measured continuously and shall at no time be less than 1.0 mg/L after 30 minutes contact time at peak flow. If an alternative disinfection process is used, it must be demonstrated to the satisfaction of the Director that the alternative process is comparable to that achieved by chlorination with a 1 mg/L residual after 30 minutes contact time. If the effectiveness cannot be related to chlorination, then the effectiveness of the alternative disinfection process must be demonstrated by testing for pathogen destruction as determined by the Director. A 1 mg/L total chlorine residual is recommended after disinfection and before the treated effluent goes into the distribution system.

*r See Permit Definitions, Part VIII, Section D

b. 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) Impoundments of treated effluent, if not sealed, must be at least 500 feet from any potable well.
   (8) 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).

2. Compliance Schedule

a. Spanish Fork City Optimization and Ammonia Compliance

(1)	July 1, 2022:	Submit progress report to DWQ outlining the status of optimization and construction, including timeframes to obtain a construction permit and construction schedule. This report shall be due by July 1st of each year.
(2)	July 1, 2023:	Spanish Fork City shall complete optimization and construction of wastewater treatment upgrades necessary to comply with the Chronic Ammonia limits in *Part 1.C.2* of the permit.
(3)	December 31, 2023:	Spanish Fork City shall achieve compliance with the Chronic Ammonia limits in *Part 1.C.2* of the permit.

b. Spanish Fork City TBPEL Compliance

On May 12, 2021, DWQ approved the Spanish Fork City's variance request not to extend beyond January 1, 2025 and with an interim total phosphorus annual average limit of 4.0 mg/L (Approved Interim Limit) mg/L beginning January 1, 2020. This renewal permit is incorporating the approved variance with the interim limits and dates that were previously public noticed and which no comments were received.

(1) December 31, 2023: Spanish Fork City shall achieve compliance with the Chronic Ammonia limits in *Part 1,C,2* of the permit.

Effluent Limitations Changes		
Parameter	Current Annual Average	New Annual Average
Interim Total Phosphorus, mg/L (Effective January 1, 2020 – Dec 31, 2024)	No Limit	4.0 mg/L
Final Total Phosphorus, (Effective Jan 1, 2026—Dec 31, 2029)	No Limit	1.0 mg/L
Final Total Phosphorus **Five Year Average**, mg/L, (Effective Jan 1, 2025—Dec 31, 2029)	No Limit	1.0 mg/L

3. 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. The 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* (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 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 Summer >63%, Fall >50%, Winter >50% and Spring >56% effluent concentration (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). Monthly test results shall be reported along with the DMR submitted for that month. 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) (see Part I.C.3.e Toxicity Reduction Evaluation

(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.

B. Reporting of Monitoring Results.

1. Reporting of Wastewater Monitoring Results Monitoring results obtained 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 later than the 28th day of the month following the completed reporting period. The first report is due on March 28, 2022. If no discharge occurs during the reporting period, "no discharge" 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. Reporting of Reuse Monitoring Results. Monitoring results obtained during the previous month shall be summarized for each month and reported on a Discharge Monitoring Report in NetDMR no later than the 28th day of the month following the completed reporting period. 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

3. Annual Reporting of Wastewater Monitoring Results. Monitoring results obtained during the previous year shall be summarized and included in the Municipal Wastewater Planning Program (MWPP) submitted annually by April 1st. 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 reported. 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:

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

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

II. INDUSTRIAL PRETREATMENT PROGRAM

A. Pretreatment Program Delegation. The permittee has been delegated primary responsibility for enforcing against discharges prohibited by *40 CFR 403.5* and applying and enforcing any Pretreatment Standards established by the United States Environmental Protection Agency in accordance with Section 307 (b) and (c) of *The Clean Water Act (CWA)*, as amended by *The Water Quality Act (WQA), of 1987*.

The permittee shall implement the Industrial Pretreatment Program in accordance with the legal authorities, policies, and procedures described in the approved Pretreatment Program submitted by the permittee. Such program commits the permittee to do the following:

1. Carry out inspection, surveillance, and monitoring procedures, which will determine, independent of information supplied by the industrial user, whether the industrial user is in compliance with the pretreatment standards. At a minimum, all significant industrial users shall be inspected and sampled by the permittee at least once per year;

2. Control through permit, order, or similar means, the contribution to the POTW by each industrial user to ensure compliance with applicable pretreatment standards and requirements;

3. Require development, as necessary, of compliance schedules by each industrial user for the installation of control technologies to meet applicable pretreatment standards;

4. Maintain and update industrial user information as necessary, to ensure that all IUs are properly permitted and/or controlled at all times;

5. Enforce all applicable pretreatment standards and requirements and obtain appropriate remedies for noncompliance by any industrial user;

6. Annually publish a list of industrial users that were determined to be in significant noncompliance during the previous year. The notice must be published before March 28 of the following year;

7. Maintain an adequate revenue structure and staffing level for continued implementation of the Pretreatment Program.

8. Evaluate all significant industrial users at least once every two years to determine if they need to develop a slug prevention plan. If a slug prevention plan is required, the permittee shall insure that the plan contains at least the minimum elements required in *40 CFR 403.8(f)(2)(v);*

9. Notify all significant industrial users of their obligation to comply with applicable requirements under *Subtitles C and D* of the *Resource* Conservation and Recovery Act (RCRA); and

10. Develop, implement, and maintain an enforcement response plan as required by *40 CFR 403.8(f)(5)* which shall, at a minimum,

    a. Describe how the POTW will investigate instances of noncompliance;

    b. Describe the types of escalating enforcement responses the POTW will take in response to all anticipated type of industrial user violations; and

c. Describe the time periods within which such responses will be taken and identify the POTW staff position(s) responsible for pursuing these actions.

11. Establish and enforce specific local limits as necessary to implement the provisions of the *40 CFR Parts 403.5(a)* and *(b)*, and as required by *40 CFR Part 403.5(c)*.

B. Program Updates. The permittee is required to modify its pretreatment program, as necessary, to reflect changes in the regulations of *40 CFR 403*. Such modifications shall be completed within the time frame set forth by the applicable regulations. Modification of the approved pretreatment program must be done in accordance with the requirements of *40 CFR 403.18*. Modifications of the approved program which result in less stringent industrial user requirements shall not be effective until after approval has been granted by the Director.

C. Annual Report. The permittee shall provide the Division of Water Quality and EPA with an annual report briefly describing the pretreatment program activities over the previous calendar year. Reports shall be submitted no later than March 28 of each year. These annual reports shall, at a minimum, include:

1. An updated listing of the industrial users.

2. A descriptive summary of the compliance activities including numbers of any major enforcement actions, i.e., administrative orders, penalties, civil actions, etc.

3. An assessment of the compliance status of industrial users and the effectiveness of the Pretreatment Program in meeting its needs and objectives.

4. A summary of all sampling data taken of the influent and effluent for those pollutants listed in *Part II.H.*

5. A description of all changes made to the pretreatment program. Changes include, but are not limited to, any change in any ordinance, modification in the administrative structure or operating agreement(s), a significant reduction in monitoring, changes to the program submitted to the DWQ including forms, or a change in the method of funding the program.

6. Other information as may be determined necessary by the Director.

D. General and Specific Prohibitions. Pretreatment standards (*40 CFR 403.5*) specifically prohibit the introduction of the following pollutants into the waste treatment system from any source of non-domestic discharge:

1. 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);

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

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

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

5. 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));

6. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

7. 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;

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

9. Any pollutant that causes pass through or interference at the POTW.

10. Any specific pollutant which exceeds any local limitation established by the POTW in accordance with the requirement of *40 CFR 403.5(c)* and *40 CFR 403.5(d)*.

E. Categorical Standards. In addition to the general and specific limitations expressed in *Part D* of this section, applicable National Categorical Pretreatment Standards must be met by all industrial users of the POTW. These pretreatment standards are published in the federal regulations at *40 CFR 405* et. seq.

F. Self-Monitoring and Reporting Requirements.

1. Influent and Effluent Monitoring and Reporting Requirements. The permittee shall sample and analyze both the influent and effluent, for the parameters listed in the Monitoring for Pretreatment Program Table.

Monitoring for Pretreatment Program Table				
Parameter	Reporting Limit	Sample Type	Frequency	Units
Total Arsenic	0.16	Composite	Quarterly	mg/L
Total Cadmium	0.0006			
Total Chromium	0.011			
Total Copper	0.022			
Total Lead	0.011			
Total Molybdenum	NA			
Total Nickel	0.127			
Total Selenium	0.005			
Total Silver	0.020			
Total Zinc	0.29			
Total Cyanide	0.0054	Composite/Grab		
Total Mercury	0.000012			
TTOs	NA		Yearly	

2. A test method must be used that has a reporting limit as stated in the column. If a test method is not available the permittee must submit documentation to the Director regarding the method that will be used.

3. The influent and effluent shall be analyzed by the permittee for total toxic pollutants (TTOs) listed in 40 CFR 122 Appendix D Table II (Organic Toxic Pollutants). The pesticides fraction of Appendix D, Table II is suspended unless pesticides are expected to be present.

4. The results of the analyses of metals, cyanide and toxic organics shall be submitted along with the Discharge Monitoring Report (DMR) at the end of the earliest possible reporting period. Also, the permittee must submit a copy of the toxic organics data to the Pretreatment Coordinator for the Division of Water Quality via email.

5. For local limit parameters it is recommended that the most sensitive method be used for analysis. This will determine if the parameter is present and provide removal efficiencies based on actual data rather than literature values. If a parameter load is greater than the allowable head works load, for any pollutant listed in Part II.F.1. or a pollutant of concern listed in the local limit development document, the permittee must report the exceedances to the Pretreatment Coordinator for the Division of Water Quality. If the loading exceeds the allowable headworks load, increase sampling must occur based on the requirements given by the Pretreatment Coordinator for the Division of Water Quality. If needed sampling may need to occur to find the source(s) of the increase. This may include sampling of the collection system. Notification regarding the exceedances of the allowable headworks loading can be provided via email.

G. Revision of Local Limits.

1. In accordance with the requirements of 40 CFR Part 403.5(c), the permittee shall determine if there is a need to develop or revise its local limits in order to implement the general and specific prohibitions of 40 CFR Part 403.5 (a) and Part 403.5 (b).

2. A technical evaluation of the need to develop or revise local limits shall be submitted to the Division within 12 months of the effective date of this permit. This evaluation should be conducted in accordance with the latest revision of the EPA Local Limits Development Guidance.

3. If a technical evaluation, reveals that development or revision of local limits is necessary, the permittee shall submit the proposed local limits to the Director for approval within 12 months following the requirement by DWQ unless an extension is granted.

4. After approval of the local limits the permittee shall implement of the local limits.

H. Enforcement Notice. *UCA 19-5-104* provides that the State may issue a notice to the POTW stating that a determination has been made that appropriate enforcement action must be taken against an industrial user for noncompliance with any pretreatment requirements within 30 days. The issuance of such notice shall not be construed to limit the authority of the Director.

I. Formal Action. The Director retains the right to take legal action against any industrial user and/or POTW for those cases where a permit violation has occurred because of the failure of an industrial user to meet an applicable pretreatment standard.

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. Biosolids produced at the permittee are stabilized in the anaerobic digesters for at least 15 days at a temperature of at least 35˚ C (95˚ F). The biosolids are removed from the drying beds and formed into small windrows 3-4 feet high, and 5-6 feet wide, stored on a concrete pad and turned several times during the summer and will be tested for pathogens to meet Class A Standards.

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 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 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 land filled, 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.

Pollutant Limits, (40 CFR Part 503.13(b)) Dry Mass Basis				
Heavy Metals	Table 1	Table 2	Table 3	Table 4
	Ceiling Conc. Limits †, ‡ (mg/kg)	CPLR §, (mg/ha)	Pollutant Conc. Limits [1], [2], (mg/kg)	APLR **, (mg/ha-yr)
Total Arsenic	75	41	41	41
Total Cadmium	85	39	39	39
Total Copper	4300	1500	1500	1500
Total Lead	840	300	300	300
Total Mercury	57	17	17	17
Total Molybdenum	75	N/A	N/A	N/A
Total Nickel	420	420	420	420
Total Selenium	100	100	100	100
Total Zinc	7500	2800	2800	2800

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 Spanish Fork City does not intend to 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) Spanish Fork City intends to meet a PSRP through Anaerobic Digestion: Under 40 CFR 503.32 (b)(3) Appendix (B)(3), The PSRP may be accomplished through anaerobic digestion for a minimum retention time of 15 days at 95° F (35° C) or 60 days at 68° F (20° C).

    c. In addition, the permittee shall comply with all applicable site restrictions listed below *(40 CFR Part 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.

† The limitations represent the maximum allowable levels of heavy metals in any biosolids intended for land application
‡ These limitations represent the maximum allowable levels of heavy metals based on an average of all samples taken during a 30-day period.
§ CPLR -- Cumulative Pollutant Loading Rate
** APLR – Annual Pollutant Loading Rate

(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>
<tr><td colspan="2">Pathogen Control Class</td></tr>
<tr><td>503.32 (a)(1) - (5), (7),-(8), Class A</td><td>503.32 (b)(1) - (5), Class B</td></tr>
<tr><td>B Salmonella species –less than three (3) MPN†† per four (4) grams total solids (DWB)‡‡ or Fecal Coliforms – less than 1,000 MPN per gram total solids (DWB).</td><td rowspan="3">Fecal Coliforms – less than 2,000,000 MPN or CFU§§ per gram total solids (DWB).</td></tr>
<tr><td>503.32 (a)(6) Class A—Alternative 4</td></tr>
<tr><td>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)</td></tr>
</table>

†† MPN – Most Probable Number
‡‡ DWB – Dry Weight Basis.
§§ CFU – Colony Forming Units

3. Vector Attraction Reduction Requirements.

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

      (1) At this time Spanish Fork City intends to meet the vector attraction reduction requirements through Volatile Solids Reduction Found under 40 CFR 503.33(b)(1), the solids need to be treated through anaerobic digestion for at least 15 days at a temperature of a least 35° C (95° F) with a 38% reduction of volatile solids

   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. This change may be made without additional public comment.

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 503.16(1)(a)*.

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

   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

*** Since 2011 Spanish Fork City has produced and disposed of on average 427 DMT of biosolids, therefore they need to sample at least four (4) times a year.

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 by Net-Biosolids††† system through the EPA Central Data Exchange (CDX) system, or at the following address:

Original to: Biosolids Coordinator
Utah Division of Water Quality
P. O. Box 144870
Salt Lake City Utah, 84114-4870

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.

††† Starting January 1, 2021, the Annual Biosolids Reports should be submitted through this system.

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 and 40CFR Part 503*, utilizing sufficiently sensitive test methods unless other test procedures have been specified in this permit.

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 *UAC R317-2-10* and *40 CFR 503* or as specified in this permit, 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. Such increased frequency shall also be indicated. Only those parameters required by the permit need to be reported.

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 the Division of Water Quality, (801) 536-4300, or 24-hour answering service (801) 536-4123.

2. The following occurrences of noncompliance shall be reported by telephone (801) 536-4300 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; 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. Any person who willfully or negligently violates permit conditions or the Act is subject to a fine not exceeding $25,000 per day of violation. Any person convicted under *UCA 19-5-115(2)* a second time shall be punished by a fine not exceeding $50,000 per day. 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 *section 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 *sections VI.G.2.a (1), (2) and (3)*.

3. Notice.

   a. *Anticipated bypass*. Except as provided above in *section VI.G.2* and below in *section 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 *section 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 IV.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.

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 the alteration or addition could significantly change the nature or increase the quantity of parameters discharged or pollutant sold or given away. This notification applies to pollutants, which are not subject to effluent limitations in the permit. In addition, if there are any planned substantial changes to the permittee's existing sludge facilities or their manner of operation or to current sludge management practices of storage and disposal, 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.

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. 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.

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 *UCA 19-5-117* and *Section 510* of the *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.

Use the following paragraph if there is no WET testing is required at the facility:

This permit may be reopened and modified (following proper administrative procedures) to include WET testing, a WET limitation, a compliance schedule, a compliance date, additional or modified numerical limitations, or any other conditions related to the control of toxicants if toxicity is detected during the life of this 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. “Act,” means the *Utah Water Quality Act*.

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

5. "Annual Loading Cap" is the highest allowable phosphorus loading discharged over a calendar year, calculated as the sum of all the monthly loading discharges measured during a calendar year divided by the number of monthly discharges measured during that year.

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.

C. Pretreatment.

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 Act.

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. "Local Limit" is defined as a limit designed to prevent pass through and/or interference. And is developed in accordance with 40 CFR 403.5(c).

4. "Pass Through" means a Discharge which exits the POTW into 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).

5. "Pretreatment Standard" means any regulation containing pollutant discharge limits promulgated by the EPA in accordance with section 307 (b) and (c) of the Act, which applies to Industrial Users. This term includes prohibitive discharge limits established pursuant to §40 CFR 403.5.

6. "Publicly Owned Treatment Works or POTW" means a treatment works as defined by section 212 of the Act, which is owned by a State or municipality (as defined by section 502(4) of the Act). 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 Act, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.

7. "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 POTW's operation or for violating any pretreatment standard or requirement.

8. "User or Industrial User (IU)" means a source of Indirect Discharge

D. Reuse

1. TBPEL Reuse Average Annual Discharge Concentration

   a. "Monthly Average Mass Loading" in lbs/d means the pounds per day of a pollutant discharged on average during a calendar month, calculated as the

      average monthly discharge concentration (mg/L) times the average monthly surface water discharge flow rate to (mgd) times the 8.34 conversion factor.

   b. "Monthly Average Plant Flow" in mgd means the average of daily plant

      flows over a calendar month, calculated as the sum of all surface water and reuse outfalls daily discharges measured during a calendar month divided by the number of daily discharges measured during the month.

   c. "Annual Average Mass Loading" in lbs/d means the average of monthly mass loading per day over a calendar year, calculated as the sum of monthly average mass loadings measured during a calendar year divided by the number of monthly average plant flows measured during the year.

   d. "Annual Average Plant Flow" in mgd means the average of monthly average plant flows per day over a calendar year, calculated as the sum of monthly average plant flows measured during a calendar year divided by the number of monthly average plant flows measured during the year.

e. "TBPEL Reuse Average Annual Discharge Concentration" in mg/L means the equivalent concentration if the load discharged to the receiving water were carried by the full plant flow without the historic reuse flows, if any, over a calendar year, calculated as the annual average mass loading (lbs/d) divided by the 8.34 conversion factor divided by the annual average plant flows (mgd).

f. Equation for TBPEL Reuse Average Annual Discharge Concentration:

$$C_r = \frac{\frac{\sum_n^i \dot{m}_n}{n}}{8.34 * Q_a}$$

$C_r = TBPEL\ Reuse\ Alternative\ Average\ Annual\ Discharge\ for\ facility\ (\frac{mg}{L})$

$m_n = Monthly\ average\ mass\ loadıng\ (\frac{lbs}{day})$

$n = Number\ of\ monthly\ average\ plant\ flows\ measured\ during\ the\ year$

$Q_a = Annual\ Average\ Plant\ Flow - discharge\ rate\ of\ effluent\ to\ surface\ waters\ and\ reuse\ (mgd)$

FACT SHEET AND STATEMENT OF BASIS
SPANISH FORK WASTEWATER TREATMENT PLANT
RENEWAL PERMIT: DISCHARGE, BIOSOLIDS & STORM WATER
UPDES PERMIT NUMBER: UT0020109
UPDES BIOSOLIDS PERMIT NUMBER: UTL0020109
MAJOR MUNICIPAL

FACILITY CONTACTS

Person Name:	Cory Pierce, P.E.
Position:	Wastewater Manager
Telephone:	(801) 804-4466
Person Name:	Ben Winn
Position:	Assistant POTW Manager
Person Name:	Chris Thompson
Position:	Public Works Director
Facility Name:	Spanish Fork Wastewater Treatment Plant
Mailing Address:	40 South Main Street Spanish Fork, Utah 84660
Telephone:	(801) 798-5000
Actual Address:	2160 North 150 East

DESCRIPTION OF FACILITY

The Spanish Fork Wastewater Treatment Plant (Spanish Fork City) is located at 2160 North 150 East, Spanish Fork, Utah and serves the City of Spanish Fork with the outfall located at latitude 40º08'43" and longitude 11º35'54". The State of Utah Database Storet number is 499602. The design flow of the facility is 5.0 MGD average daily flow with a peak flow of 10 MGD.

The influent enters the plant through a rectangular channel and is monitored by a Flowdar flow meter. The headwork's building separates the influent flow into two 4' channels equipped with two step screens. Both screens have two pressure washers, compactors and an automatic bag system.

Following the headwork's building are two aerated grit chambers with a volume totaling 3200 ft^3. The detention time in the grit chambers at a flow of 5 MGD equals 3.45 minutes. Approximately 10 ft^3/day is removed from the grit chambers. Aeration is provided by two 20 HP, 200 cfm positive displacement air blowers. Following the grit chambers, the flow enters three primary clarifiers. Two of the primary clarifier dimensions are 60 ft with a 7 ft sidewall depth and the other clarifier is 75 ft with a 12 ft sidewall. At the above mentioned flow, the detention time in the primary clarifiers equals 2.6 hours. The effluent from the primary clarifiers then enters the Intermediate Pumping Station that has two 60" screw pumps each equipped with a pumping capacity of 7000 gpm.

The flow enters a wet well for the trickling filter pumps where there the flow is split between aerotors and a plastic media trickling filter. The plastic media filter is 80 ft in diameter with a total media volume of 80,000 ft^3. The aerotors are in 4 basins each approximately 266,000 gallons, combining to 1,066,000 gallons total. The effluent leaving the trickling filter and aerotors then enters the final clarifiers.

The two final clarifiers have a diameter of 90 ft with a sidewall depth of 14 ft. The detention time in the two clarifiers is 6.4 hours at the above mentioned flow rate. The flow then enters the Chlorine Contact

Basin where chlorine is injected by a Chlor-A-Vac. The chlorine introduced to the system is controlled by Capital Control Rotometers and Stranco ORP equipment with a capacity of 200 pounds per day (ppd) of chlorine. The Chlorine Contact Basin has a detention time of 60 minutes at 5 MGD and 30 minutes at peak flows of 10 MGD. The Chemical Control Building stores one ton containers of chlorine along with the control equipment. The effluent flows approximately 300 ft east and 3300 ft north to the discharge point.

Spanish Fork City has four anaerobic digesters. The two fixed lid primary digesters are 50 ft in diameter with a total volume of 102,100 ft^3 and two 40 ft diameter floating lid secondary digesters with a combined total volume of 25,130 ft^3. The detention time of the primary digester is 60 days. One of the secondary digesters is heated to help digestion and water removal. The remaining digesters primary responsibility is settling. The sludge from the two primary clarifiers is pumped to the primary digester by two positive displacement pumps at regular intervals. The pumping rate is controlled by adjusting the time that the pumps are to pump each hour. Spanish Fork contains two boilers that produce 60,000,000 BTU/hr and two heat exchangers with a sludge rate and hot water rate of 250 gpm. The total detention time is approximately 75 days for all four digesters combined.

Spanish Fork City has six drying beds with a capacity of 26 lbs dry solids/ ft^2 / year. During the winter months a two meter belt press is used to de-water the bio-solids. The bio-solids are removed from the drying beds and are either sent to a land fill or used for agriculture land application. Approximately 200 metric tons of dry bio-solids are produced each year by the facility.

The facility is planning an upgrade, but the details of that plant have not been finalized.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

The flow rate for the facility has increased from a maximum monthly average of 5 MGD to a maximum monthly average of 8 MGD. The daily maximum flow is increased from 10 MGD to 10.4 MGD. The changes reflect the final flow rates of the new facility.

Limits for Cadmium and Cyanide are being added to the permit as the reasonable potential analysis showed the facility has the reasonable potential to violate water quality standards for these pollutants.

Biomonitoring (WET Testing) limits are being added to the permit based upon the 2018 Biomonitoring policy adopted by the Division of Water Quality. Previously the facility was conducting WET testing, but the results were not enforceable limits.

There are two updated compliance schedules in the permit. These compliance schedules are related to the facility's optimization for ammonia, and compliance with the TBPEL rule. The facility has been granted variances for these issues and the timelines in the compliance schedules reflect the milestones in the variances.

Upon the completion of the new plant, the facility has requested the ability to reuse its wastewater in order to meet the phosphorous limits in the TBPEL rules.

DISCHARGE

DESCRIPTION OF DISCHARGE

The Spanish Fork City has been reporting self-monitoring results on Discharge Monitoring Reports on a monthly basis.

Outfall Number	Location of Discharge Outfall
001	Located at latitude 40°08'43" and longitude 111°35'54". The discharge is through a gravity flow concrete pipe leading from the chlorine contact basin to Dry Creek which flows to the Provo Bay area of Utah Lake.

Outfall Number	Location of Effluent Reuse Discharge Outfall and Description of Area for Use
001R	Located at latitude 40°08'43" and longitude 111°35'54". The discharge is through a gravity flow concrete pipe leading from the chlorine contact basin to Dry Creek which flows to the Provo Bay area of Utah Lake.

RECEIVING WATERS AND STREAM CLASSIFICATION

The discharge flows into Dry Creek, which then flows into Utah Lake (Provo Bay). Dry Creek is classified as 2B, 3E, 4, and Utah Lake is classified as 2B, 3B, 3D, 4 according to *Utah Administrative Code (UAC) R317-2-13*.

Dry Creek

Class 2B -Protected for secondary contact recreation such as boating, wading, or similar uses.
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.

Utah Lake (Provo Bay)

Class 2A - Protected for frequent primary contact recreation where there is a high likelihood of ingestion of water or a high degree of bodily contact with the water. Examples include, but are not limited to, swimming, rafting, kayaking, diving, and water skiing.
Class 3B - Protected for warm water species of game fish and other warm 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.

Additionally, Dry Creek is listed on the 303(d) as being impaired for *E. coli* and pH. Provo bay is listed as impaired for pH, Harmful algal blooms, Total Phosphorus as P, Total Ammonia as N, Eutrophication (tier II), PCB in Fish Tissue

BASIS FOR EFFLUENT LIMITATIONS

Limitations on total suspended solids (TSS), biochemical oxygen demand (BOD5), *E. coli*, pH and percent removal for BOD5 and TSS are based on current Utah Secondary Treatment Standards, UAC R317-1-3.2. The oil and grease is based on best professional judgment (BPJ). Attached is a Wasteload Analysis for this discharge into the receiving water. It has been determined that this discharge will not cause a violation of

water quality standards. An Antidegradation Level II review is required since the facility will be increasing their flow with the construction of the new facility. The Level II ADR can be found in the permit application. The permittee is expected to be able to comply with these limitations. The permit limitations are:

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 frame work for what routine monitoring or effluent limitations are required.

A quantitative RP analysis was performed on effluent metals to determine if there was reasonable potential for the discharge to exceed the applicable water quality standards. Based on the RP analysis, the following parameters exceeded the most stringent chronic water quality standard or were determined to have a reasonable potential to exceed the standard: Cadmium and cyanide (Outcome A). A copy of the RP analysis is included at the end of this Fact Sheet.

Upon review of the data provided to the Utah Division of Water Quality by Spanish Fork City, it was discovered that there were discrepancies between the State Water Quality Standard for cadmium and cyanide and the parameters the facility sampled for. The Utah Water Quality standard (WQS) for cyanide in UAC R-317-2 is based upon free cyanide and the WQS for cadmium is based upon dissolved cadmium. However, in their quarterly metals sampling, the results for both parameters are for total cyanide and total cadmium. Therefore, DWQ cannot accurately assess RP for these two parameters. As a result, DWQ will be placing interim limits for cyanide and cadmium in the permit until the new facility is built. Reasonable potential for these two parameters will be reevaluated yearly and if there is RP, the permit will be modified and the limits for the parameters will be added to the permit after the required public comment period. This is consistent with Outcome B.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT
The maximum monthly average flow for the facility has been increased from 5 MGD to 8.4 MGD. The maximum daily flow has increased from 10 MGD to 10.4 MGD. These number are based upon the design flow of the new facility Spanish Fork City has proposed.

The maximum monthly average for ammonia has decreased from 7 and 9 mg/L (based upon season) to 6 and 9 mg/L based upon season. Additionally, the effective dates and concentrations of the interim and final total phosphorus limits have been changed to align with the construction schedule of the new facility. The dissolved oxygen limit has increased from 4.0 mg/L to 5.0 mg/L. The IC_{25} limits for Whole Effluent Toxicity testing have changed from 82% to seasonal limits ranging between 50% and 63%. All of these changes are detailed in the self-monitoring requirements table in Part 1.C.2 of the permit and duplicated below.

Based on the results of reasonable potential analysis (RP), Interim limits for cyanide and cadmium have been added to the permit. Please see the Reasonable Potential section of this Fact Sheet for more information.
Industrial Storm water provisions have been removed from the permit. The facility will be required to obtain coverage or an appropriate exclusion under the Storm Water Multi-Sector General Permit for industrial activities. Please see the Storm Water section of this Fact Sheet for more information.

The compliance schedule of the permit has been updated to include only remaining milestones that have yet to be completed.

Finally, the facility has requested the ability to reuse their wastewater. A reuse section with specific conditions for reuse based upon UAC R-317-13 have been added to the facility.

SELF-MONITORING AND REPORTING REQUIREMENTS
The following self-monitoring requirements have changes since the previous permit. The permit will require reports to be submitted monthly and annually, as applicable, on Discharge Monitoring Report (DMR) forms due 28 days after 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.

Parameter	Effluent Limitations *a				
	Maximum Monthly Avg	Maximum Weekly Avg	Yearly Average	Daily Minimum	Daily Maximum
Total Flow, MGD	8.4	--	--	--	10.4
BOD_5, mg/L	25	35	--	--	--
BOD_5 Min. % Removal	85	--	--	--	--
TSS, mg/L	25	35	--	--	--
TSS Min. % Removal	85	--	--	--	--
Dissolved Oxygen, mg/L	--	--	--	5.0	--
Ammonia, mg/L					
Summer (Jul-Sep)	6 *j	--	--	--	18
Fall (Oct-Dec)	6 *j	--	--	--	18
Winter (Jan-Mar)	6 *j	--	--	--	18
Spring (Apr-Jun)	9 *j	--	--	--	18
TRC, mg/L	--	--	--	--	2.0
E-Coli, No./100mL	126	158	--	--	--
Oil & Grease, mg/L	--	--	--	--	10.0
pH, Standard Units	--	--	--	6.5	9
WET, Chronic Biomonitoring					
January – March	NA	NA	NA	NA	Pass, IC_{25} > 50% effluent
April — June	NA	NA	NA	NA	Pass, IC_{25} > 56% effluent
July – September	NA	NA	NA	NA	Pass, IC_{25} > 63% effluent
October – December	NA	NA	NA	NA	Pass, IC_{25} > 50% effluent
Interim Total Phosphorous,	--	--	4.0	--	--

mg/L (Effective Jan 1, 2020 – Dec 31, 2024)					
Final Total Phosphorous, (Effective Jan 1, 2026—Dec 31, 2029)	--	--	1.0	--	--
Final Total Phosphorous **Five Year Average**, mg/L, (Effective Jan 1, 2025—Dec 31, 2029)	--	--	1.0	---	--
Cadmium (dissolved), µg/L	1.2 *l	--	--	--	--
Cyanide (free), µg/L	7.6 *l	--	--		36 *l

Self-Monitoring and Reporting Requirements *a			
Parameter	Frequency	Sample Type	Units
Total Flow *b, *c	Continuous	Recorder	MGD
BOD_5, Influent *d Effluent	2 x Weekly 2 x Weekly	Composite Composite	mg/L mg/L
TSS, Influent *d Effluent	2 x Weekly 2 x Weekly	Composite Composite	mg/L mg/L
E. Coli	2 x Weekly	Grab	No./100mL
pH	2 x Weekly	Grab	SU
Ammonia	2 x Weekly	Grab	mg/L
DO	2 x Weekly	Grab	mg/L
WET – Biomonitoring *h Ceriodaphnia – Chronic Fathead Minnows - Chronic	 Quarterly Variable Species	 Composite Composite	 Pass/Fail Pass/Fail
TRC, mg/L, *e,	Daily	Grab	mg/L
Oil & Grease *f	Monthly	Grab	mg/L
Total Ammonia, (as N) *k	2 x Weekly	Composite	mg/L
Cadmium (dissolved), µg/L	Monthly	Composite	µg/L
Cyanide (free), µg/L	Monthly	Composite	µg/L
Orthophosphate, (as P) *k Effluent	 Monthly	 Composite	 mg/L
Phosphorus, Total *k Influent Effluent	 Monthly Monthly	 Composite Composite	 mg/L mg/L
Total Kjeldahl Nitrogen, (TKN as N) *k Influent Effluent	 Monthly Monthly	 Composite Composite	 mg/L mg/L

Nitrate, NO3 *k	Monthly	Composite	mg/L
Nitrite, NO2 *k	Monthly	Composite	mg/L
Metals, Influent *i Effluent	Quarterly Quarterly	Composite Composite	mg/L mg/L
Organic Toxics *i	Yearly	Grab	mg/L

*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 In addition to monitoring the final discharge, influent samples shall be taken and analyzed for this constituent at the same frequency as required for this constituent in the discharge.

*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:

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

*f Oil & Grease sampled when sheen is present or visible. If no sheen is present or visible, report NA.

*h Spanish Fork City will monitor for Chronic WET with the following IC_{25} values: Summer >63%, Fall >50%, Winter >50% and Spring >56%, but will not have a limit associated with it in the permit. Spanish Fork City will also have the option to choose which species it wishes to test each quarter. The species is not tested in a quarter it is reported as NA.

*i See table in *Part II.H.1* (Influent and Effluent Monitoring and Reporting Requirements) of the Permit for target minimum detection limits (MDL) requirements. The Organic Toxics report is due the same day as the Pretreatment Report (Part II,C, of the permit).

*j The monthly average effluent limit for this parameter will become effective on December 31, 2023.

*k These reflect monitoring changes required with the adoption of *UCA R317-1-3.3*, Technology-based Phosphorus Effluent Limits rule.

*l Interim limits that will be evaluated for reasonable potential at yearly internals until the new facility is built.

REUSE

Spanish Fork City **shall not** discharge from Outfall 001R until a Reuse Project Plan is submitted and approved by DWQ. The project plan shall comply with R317-3-11.3 and include a determination by the State of Utah Division of Water Rights on the amount of effluent Spanish Fork City is allowed to reuse. After the Reuse Project Plan is approved, Spanish Fork City will be allowed to discharge from Outfall 001R. Such discharges shall be limited and monitored by the permittee as specified below:

Parameter	Outfall 001R Effluent Limitations *a, *l *p, *q				
	Max Monthly Average	Max Weekly Median	Max Daily Average	Minimum	Maximum
Turbidity, NTU *p	--	--	2	--	5
TRC, mg/L *m, *q	--	--	--	1	--
BOD_5, mg/L	10	--	--	--	--
E coli, No/100mL *o *q	--	ND	--	--	9
pH, Standard Units	--	--	--	6.0	9.0

Reuse Outfall 001R Self-Monitoring and Reporting Requirements *a *l *n			
Parameter	Frequency	Sample Type	Units
Total Flow, *b, *c	Continuous	Recorder	MGD
Turbidity	Continuous	Recorder	mg/L
TRC *m, *q	Daily	Recorder	mg/L
BOD_5	Weekly	Composite	mg/L
E. coli	Daily	Grab	No./100mL
pH	Daily	Grab	SU
TBPEL Reuse Average Annual Discharge Concentration *r	Annual	Composite	mg/L

*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.

*l Spanish Fork City shall not discharge from Outfall 001R until a Reuse Project Plan is submitted and approved by DWQ. The project plan shall comply with R317-3-11.3 and include a determination by the State of Utah Division of Water Rights on the amount of effluent Spanish Fork City is allowed to reuse.

*m The facility is required to disinfect to destroy, inactivate or remove pathogenic microorganisms by chemical, physical or biological means. Disinfection may be accomplished by chlorination, ozonation, or other chemical disinfectants, UV radiation. Or other approved processes. Chlorine residual is recommended but no longer required. Sampling not required if chlorination is not being used. The total residual chlorine shall be measured continuously and shall at no time be less than 1.0 mg/l after 30 minutes contact time at peak flow. If an alternative disinfection process is used, it must be demonstrated to the satisfaction of the Director that the alternative process is comparable to that achieved by chlorination with a 1 mg/l residual after 30 minutes contact time. If the effectiveness cannot be related to chlorination, then the effectiveness of the alternative disinfection process must be demonstrated by testing for pathogen destruction as determined by the Director. A 1 mg/l total chlorine residual is recommended after disinfection and before the treated effluent goes into the distribution system.

*n Reuse monitoring results obtained during the previous month for reuse discharges shall be summarized for each month and reported on a Monthly Operational Report, post-marked no later than the 28th day of the month following the completed reporting period.

*o (For Type I only.) The weekly median *E. coli* concentration shall be non-detect

*p (For Type I resue only.) An alternative disposal option or diversion to storage must be automatically activated if turbidity exceeds the maximum instantaneous limit for more than 5 minutes, or chlorine residual drops below the instantaneous required value for more than 5 minutes, where chlorine disinfection is used.

*q (For Type I reuse only.) The total residual chlorine shall be measured continuously and shall at no time be less than 1.0 mg/l after 30 minutes contact time at peak flow. If an alternative disinfection process is used, it must be demonstrated to the satisfaction of the Director that the alternative process is comparable to that achieved by chlorination with a 1 mg/l residual after 30 minutes contact time. If the effectiveness cannot be related to chlorination, then the effectiveness of the alternative disinfection process must be demonstrated by testing for pathogen destruction as

determined by the Director. A 1 mg/l total chlorine residual is recommended after disinfection and before the treated effluent goes into the distribution system.

*r See Permit Definitions, Part VIII, Section D

b. 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) Impoundments of treated effluent, if not sealed, must be at least 500 feet from any potable well.
   (8) 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

In 2012, FACILITY decided to change the treatment of their biosolids from a lime stabilized product that met Class B standards, to a modern "state of the art" solar drying system that basically consist of two screw presses for de-watering, and a greenhouse for further treatment and drying. The 2012 annual biosolids report states that 282 dry metric tons of biosolids were stabilized with lime, to meet Class B standards, and land applied at a farm owned by Vic Warr, to cultivate grain for cattle feed, and 27 dry metric tons that met Class A standards, that were sold or given away to the public. There are currently 328 dry metric tons of stored biosolids.

DESCRIPTION OF TREATMENT AND DISPOSAL

Biosolids at Spanish Fork City are stabilized in three anaerobic digesters to meet Class B standards and dewatered with a belt press, up to twenty percent solids. Spanish Fork City has beneficially used all of their biosolids during the last five years for crop production, or pasture land for grazing and plans to do the same for the life of this permit. The only thing that may change is where the biosolids are land applied for crop production and grazing.

The solids are stabilized through anaerobic digesters that have a minimum retention time of 15 days at 95° F (35° C) or 60 days at 68° F (20°C). This process stabilizes the solids through a minimum 38% reduction in volatile solids. After stabilization, the solids are dewatered by belt presses to between 15% and 20% solids.

The last inspection conducted at the facility was September 30, 2015. The inspection showed that Spanish Fork City was in compliance with all aspects of the biosolids management program.

The Permittee submitted their 2020 annual biosolids report on February 17, 2021. The report states the Permittee produced 345 dry metric tons (DMT) of solids.

Biosolids were hauled to the Bayview Landfill, by District employees. No contract hauler(s) were used. Approximately 18 DMT were hauled off-site to the landfill for disposal.

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

Since 2011 Spanish Fork City has produced and disposed of on average 400 DMT of biosolids, therefore they need to sample at least four (4) times 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).*

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 1 and the monthly average pollutant concentrations in Table 3 (see Table 1 and 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

Pollutant Limits, (40 CFR Part 503.13(b)) Dry Mass Basis				
Heavy Metals	Table 1	Table 2	Table 3	Table 4
	Ceiling Conc. Limits [1], [2] (mg/kg)	CPLR [3], (mg/ha)	Pollutant Conc. Limits [1], [2], (mg/kg)	APLR [4], (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

[1] The limitations represent the maximum allowable levels of heavy metals in any biosolids intended for land application

[2] These limitations represent the maximum allowable levels of heavy metals based on an average of all samples taken during a 30-day period.

[3] CPLR -- Cumulative Pollutant Loading Rate

[4] APLR – Annual Pollutant Loading Rate

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;

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[5] per four (4) grams total solids (DWB)[6] or Fecal Coliforms – less than 1,000 MPN per gram total solids (DWB).	Fecal Coliforms – less than 2,000,000 MPN or CFU[7] 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)	

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 Spanish Fork City does not intend to distribute biosolids to the public for use on the lawn and garden and thus is not required to meet Class A Biosolids requirements.

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.

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). Spanish Fork City intends to meet a PSRP through Anaerobic Digestion:

- Under *40 CFR 503.32 (b)(3) Appendix (B)(3),* The PSRP may be accomplished through anaerobic digestion for a minimum retention time of 15 days at 95° F (35° C) or 60 days at 68° F (20° C).

[5] MPN – Most Probable Number
[6] DWB – Dry Weight Basis.
[7] CFU – Colony Forming Units

Vector Attraction Reduction (VAR)
If the biosolids are land applied Spanish Fork City will be required to meet VAR through the use of a method of listed under *40 CFR 503.33.* At this time Spanish Fork City intends to meet the vector attraction reduction requirements through one of the methods listed below.

- Under *40 CFR 503.33(b)(1),* the solids need to be treated through anaerobic digestion for at least 15 days at a temperature of a least 35° C (95° F) with a 38% reduction of volatile solids.

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
Spanish Fork City 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

METALS MONITORING DATA
The Spanish Fork City is required to sample for metals at least four times annually, which they have been doing for the past 10 plus years. All biosolids land applied in since 2010 met Table 3 of 40 CFR 503.13, therefore the Spanish Fork City biosolids qualify as EQ with regards to metals. The monitoring data is below.

Spanish Fork City Metals Monitoring Data (2011-2020)

Spanish Fork Metals Monitoring Data, (2011-2020, Land Application)			
Parameter	Table 3, mg/kg (Exceptional Quality)	Average, mg/kg	Maximum, mg/kg
Arsenic	41.0	11	21
Cadmium	39.0	1.17	2.19
Copper	1,500.0	436	652

Lead	300.0	29	219
Mercury	17.0	1.3	10.7
Molybdenum	75.0	17.8	43.6
Nickel	400.0	18.3	31.9
Selenium	36.0	13.8	42.5
Zinc	2,800.0	832	1280

PATHOGEN MONITORING DATA (Anaerobic Cake)

The Spanish Fork City facility must monitor the biosolids for pathogens to verify the PSRP is being accomplished.

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

Mapleton and Spanish Fork City discharge to the Spanish Fork Wastewater Treatment Plant. The City of Spanish Fork is the permit holder and is required to implement the approved pretreatment program. The pretreatment requirements, regarding administering an approved pretreatment program, remain the same as in the current permit. Authority to require a pretreatment program is provided for in 19-5-108 UCA, 1953 ann. and UAC R317-8-8.

Any substantial or non-substantial change to the industrial pretreatment program implement by the permittee, as defined in 40 CFR 403.18, must be submitted for approval to the Division of Water Quality. Substantial modifications to the local limits or legal authority must be approved by the Director of the Division of Water Quality prior to implementation by the permittee.

Currently the pretreatment program permits 8 significant industrial users (SIUs) of which 4 are categorical industrial users (CIUs). Two of the CIUs are permitted as zero discharging facilities. A dog food manufacture, discharges compatible pollutants to the publicly owned treatment works (POTW).

Hauled waste is currently not accepted by the POTW. The legal authority allows the permittee to control hauled waste.

Influent and effluent sampling of metals and organic toxics is required by the permittee. Sampling is required quarterly for metals and yearly for organic toxics, see Part II of the UPDES Permit. This is consistent with the guidance developed by the Division of Water Quality. Additional requirements have been added to the permit to ensure that if the allowable headworks loading is above the value calculated for the local limit development that additional monitoring and notification must occur.

The permittee will be required to perform an annual evaluation of the need to revise or develop technically based local limits to implement the general and specific prohibitions of 40 CFR, Part 403.5(a) and Part 403.5(b). This evaluation may indicate that present local limits are sufficiently protective, or that they must be revised. The initial evaluation is due twelve months after the effective date of the permit. As part of this evaluation, the permit requires influent and effluent monitoring for metals and organic toxics. The permittee should utilize the EPA Local Limits Development Guidance to justify the evaluation of the local limits.

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 permittee is a minor municipal facility that will be discharging an infrequent amount of effluent, in which toxicity is neither an existing concern, nor likely to be present. Also, the receiving irrigation ditch is regularly dry; therefore there is not any available data to conclude that the irrigation ditch is impaired. Based on these considerations, and the absence of receiving stream water quality monitoring data, there is no reasonable potential for toxicity in the permittee's discharge (per State of Utah Permitting and Enforcement Guidance Document for WET Control). As such, there will be no numerical WET limitations or WET monitoring requirements in this permit. However, the permit will contain a toxicity limitation re-opener provision that allows for modification of the permit should additional information indicate the presence of toxicity in the discharge.

PERMIT DURATION

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

Drafted by
Lonnie Shull, Discharge, Biomonitoring, Reasonable Potential Analysis
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Utah Division of Water Quality, (801) 536-4300

PUBLIC NOTICE

Began: December 9, 2021
Ended: January 10, 2022

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 Division of Water Quality's Website.

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

No Comments were received during the public comment period.

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ATTACHMENT 1

Wasteload Analysis

ATTACHMENT 2

Reasonable Potential Analysis

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Insert Printed WLA after this page. WLA included in Workflow and is document DWQ-2021-010726

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[8]. 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.

Initial screening for metals values that were submitted showed that a closer look at some of the metals is needed. The initial screening check for metals showed that the full model needed to be run on arsenic, cadmium, iron, and zinc. The RP model was run on arsenic, cadmium, chromium, copper, cyanide, lead, mercury, nickel, selenium, silver, and zinc. The results of the models are: there is acute and chronic RP at 95% confidence for Cyanide and Cadmium (Outcome A). However, due to inconsistencies in the parameters tested, the permit limits will be interim and increased monitoring for these parameters will be included in the permit. This is consistent with Outcome B. Reasonable potential for these two parameters will be conducted yearly until the new facility is built. There was no RP for all other parameters (Outcome C).

RP input/output summary

All data points are reported in mg/L.

RP Procedure Output	Outfall Number: 001 Data Units: mg/L	
Parameter	Arsenic	Cadmium
Distribution	Lognormal	Lognormal
Reporting Limit	10	10
Significant Figures	3	3
Effluent Data Points	24	24
Maximum Reported Effluent Conc.	0.059	0.002
Coefficient of Variation (CV)	0.767	0.530
Acute Criterion	0.036	0.013
Chronic Criterion	0.0076	0.0012
Confidence Interval	95	95
Projected Maximum Effluent Conc. (MEC)	0.0805	0.00251
RP Multiplier	1.36	1.26
RP for Acute?	NO	NO
RP for Chronic?	NO	YES
Outcome	C	A/B

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

RP Procedure Output	Outfall Number: 001 Data Units: mg/L	
Parameter	Cyanide	Chromium
Distribution	Lognormal	Lognormal
Reporting Limit	10	10
Significant Figures	3	3
Effluent Data Points	24	24
Maximum Reported Effluent Conc.	0.0059	0.005
Coefficient of Variation (CV)	0.767	0.418
Acute Criterion	0.036	8.488
Chronic Criterion	0.0076	0.445
Confidence Interval	95	95
Projected Maximum Effluent Conc. (MEC)	0.00599	0.00601
RP Multiplier	1.36	1.26
RP for Acute?	YES	NO
RP for Chronic?	YES	NO
Outcome	A/B	C

RP Procedure Output	Outfall Number: 001 Data Units: mg/L	
Parameter	Copper	Lead
Distribution	Lognormal	Lognormal
Reporting Limit	10	10
Significant Figures	3	3
Effluent Data Points	24	24
Maximum Reported Effluent Conc.	0.0016	0.005
Coefficient of Variation (CV)	0.423	0.607
Acute Criterion	0.075	0.668
Chronic Criterion	0.049	0.028
Confidence Interval	95	95
Projected Maximum Effluent Conc. (MEC)	0.0281	0.0109
RP Multiplier	1.76	2.18
RP for Acute?	NO	NO
RP for Chronic?	NO	NO
Outcome	C	C

RP Procedure Output	Outfall Number: 001 Data Units: ug/L & mg/L	
Parameter	Mercury ug/L	Nickel mg/L
Distribution	Lognormal	Lognormal
Reporting Limit	10	10
Significant Figures	3	3
Effluent Data Points	24	24
Maximum Reported Effluent Conc.	0.000005	0.009
Coefficient of Variation (CV)	0.607	0.557
Acute Criterion	4.2	2.281
Chronic Criterion	0.017	0..277
Confidence Interval	99	95
Projected Maximum Effluent Conc. (MEC)	0.0000109	0.0114
RP Multiplier	2.18	2.18
RP for Acute?	NO	NO
RP for Chronic?	NO	NO
Outcome	C	C

RP Procedure Output	Outfall Number: 001 Data Units: mg/L	
Parameter	Selenium	Silver
Distribution	Lognormal	Lognormal
Reporting Limit	10	10
Significant Figures	3	3
Effluent Data Points	24	24
Maximum Reported Effluent Conc.	0.0031	0.0005
Coefficient of Variation (CV)	0.302	0.142
Acute Criterion	0.075	0.053
Chronic Criterion	0.049	NA
Confidence Interval	95	95
Projected Maximum Effluent Conc. (MEC)	0.0281	0.000533
RP Multiplier	1.14	1.07
RP for Acute?	NO	NO
RP for Chronic?	NO	NO
Outcome	C	C

RP Procedure Output	Outfall Number: 001 Data Units: mg/L	
Parameter	Zinc	
Distribution	Lognormal	
Reporting Limit	10	
Significant Figures	3	
Effluent Data Points	24	
Maximum Reported Effluent Conc.	0.4	
Coefficient of Variation (CV)	0.885	
Acute Criterion	0.578	
Chronic Criterion	0.635	
Confidence Interval	95	
Projected Maximum Effluent Conc. (MEC)	0.566	
RP Multiplier	1.42	
RP for Acute?	NO	
RP for Chronic?	NO	
Outcome	C	