

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

UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES) PERMITS

Major Industrial Permit No. **UT0025755**

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

ATI TITANIUM LLC

is hereby authorized to discharge from

ATI TITANIUM ROWLEY OPERATION

to receiving waters named **The Great Salt Lake**,

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

This permit shall become effective on March 1, 2024

This permit expires at midnight on February 28, 2029.

Signed this twenty-sixth day of February, 2024.



John K. Mackey, P.E.
Director

DWQ-2023-126158

Table of Contents

<u>Outline</u>	<u>Page Number</u>
I. DISCHARGE LIMITATIONS AND REPORTING REQUIREMENTS.....	1
A. Description of Discharge Points	1
B. Narrative Standard	1
C. Specific Limitations and Self-Monitoring Requirements	1
D. Reporting of Monitoring Results	6
II. PRETREATMENT REQUIREMENTS.....	7
III. BIOSOLIDS REQUIREMENTS.....	10
IV. STORM WATER REQUIREMENTS.....	11
V. MONITORING, RECORDING & GENERAL REPORTING REQUIREMENTS.....	12
A. Representative Sampling	12
B. Monitoring Procedures.....	12
C. Penalties for Tampering.....	12
D. Compliance Schedules.....	12
E. Additional Monitoring by the Permittee	12
F. Records Contents.....	12
G. Retention of Records	12
H. Twenty-four Hour Notice of Noncompliance Reporting.....	12
I. Other Noncompliance Reporting.....	13
J. Inspection and Entry	13
VI. COMPLIANCE RESPONSIBILITIES	15
A. Duty to Comply	15
B. Penalties for Violations of Permit Conditions	15
C. Need to Halt or Reduce Activity not a Defense.....	15
D. Duty to Mitigate.....	15
E. Proper Operation and Maintenance.....	15
F. Removed Substances.....	15
G. Bypass of Treatment Facilities	15
H. Upset Conditions	17
VII. GENERAL REQUIREMENTS.....	18
A. Planned Changes.....	18
B. Anticipated Noncompliance.....	18
C. Permit Actions	18
D. Duty to Reapply.....	18
E. Duty to Provide Information	18
F. Other Information.....	18
G. Signatory Requirements.....	18
H. Penalties for Falsification of Reports.....	20
I. Availability of Reports.....	20
J. Oil and Hazardous Substance Liability.....	20
K. Property Rights	20
L. Severability	20
M. Transfers.....	20
N. State or Federal Laws	20
O. Water Quality - Reopener Provision.....	21
P. Biosolids – Reopener Provision	21
Q. Toxicity Limitation - Reopener Provision	21
VIII. DEFINITIONS.....	22
A. Wastewater	22

PART I
DISCHARGE PERMIT NO. UT0025755
WASTEWATER

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
001

Location of Discharge Outfall

Located at latitude 40°56'19" and longitude 112°42'12". The discharge is through a 12-inch HDPE pipe to an unnamed ditch to the Great Salt Lake.

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 March 1, 2024, 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 ¹				
	Maximum Monthly Avg	Maximum Weekly Avg	Annual Loading	Daily Minimum	Daily Maximum
Total Flow, MGD	-	-	-	-	1.0
Iron, mg/L	4.7	-	-	-	-
Selenium, mg/L	0.015	-	-	-	-
Selenium, lbs/year	-	-	45.6	-	-
Titanium, mg/L	12.1	-	-	-	-
Oil & Grease, mg/L	-	-	-	-	10.0
pH, Standard Units	-	-	-	6.5	9
WET, Chronic Biomonitoring ²	-	-	-	-	IC25> 100% effluent
1. See Definitions, Part VIII, for definition of terms					
2. The WET Requirements are for <i>Ceriodaphnia variegatus</i> (sheep head minnows), and are monitoring only. There is no limit associated with this testing.					

PART I
DISCHARGE PERMIT NO. UT0025755
WASTEWATER

Self-Monitoring and Reporting Requirements ^{1, 2}			
Parameter	Frequency	Sample Type	Units
Total Flow ^{3, 4}	Continuous	Recorder	MGD
TSS, Effluent	Weekly	Grab	mg/L
pH	Weekly	Grab	SU
Oil & Grease	Monthly	Grab	mg/L
WET – Chronic Biomonitoring ⁵	Quarterly	Composite	Pass/Fail
TDS	Monthly	Grab	mg/L
Metals ⁶			
Iron, Effluent	Weekly	Composite	mg/L
Selenium, Effluent	Weekly	Composite	mg/L
Titanium, Effluent	Weekly	Composite or Grab	mg/L
Aluminum, Effluent	Monthly	Composite	mg/L
Arsenic, Effluent	Quarterly	Composite	mg/L
Chromium, Effluent	Quarterly	Composite	mg/L
Arsenic, Effluent	Quarterly	Composite	mg/L
Cadmium, Effluent	Quarterly	Composite	mg/L
Copper, Effluent	Quarterly	Composite	mg/L
Lead, Effluent	Quarterly	Composite	mg/L
Nickel, Effluent	Quarterly	Composite	mg/L
Silver, Effluent	Quarterly	Composite	mg/L
Zinc, Effluent	Quarterly	Composite	mg/L
Mercury Effluent ⁷	Quarterly	Grab	mg/L
Cyanide, Effluent	Quarterly	Grab	mg/L
1. See Definitions, Part VIII, for definition of terms.			
2. While the outfall is deactivated and not discharging, the Permittee (ATI Titanium) is not required to monitor the effluent. Upon resumption of the discharge, monitoring is required.			
3. 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.			
4. If the rate of discharge is controlled, the rate and duration of discharge shall be reported.			
5. The WET Requirements are for Ceriodaphnia variegatus (sheep head minnows), and are monitoring only. There is no limit associated with this testing.			
6. Metals samples should be analyzed using a method that meets Method Detection Limits (MDL) requirements. If a test method is not available the Permittee must submit documentation to the Director regarding the method that will be used. The sample type (composite or grab) should be performed according to the methods requirements.			
7. Upon restart of the facility they will continue to use the EPA Method 1631 and make sure they are following the SOP for the method for one (1) year. After that year, if the results are all below 15 nanograms per liter (15 ng/L = 0.000015 mg/L) they may switch to a less sensitive EPA approved method.			

3. Compliance Schedule

a. There is no Compliance Schedule included in this renewal permit.

4. Acute/Chronic Whole Effluent Toxicity (WET) Testing.

a. *Whole Effluent Testing – Acute Toxicity.*

The requirement to monitor for whole effluent toxicity (WET) Acute Toxicity has not been included in this permit. This permit may be reopened and modified (following proper administrative procedures) to include, WET limitations, a compliance date, a

PART I
DISCHARGE PERMIT NO. UT0025755
WASTEWATER

compliance schedule, a change in the WET protocol, additional or modified numerical limitations, or any other conditions related to the control of toxicants in accordance with Part VII, Q of this permit.

b. *Whole Effluent Testing – Chronic Toxicity.*

Chronic WET tests are considered an indicator for Class 5 waters (Great Salt Lake) because of uncertainties regarding the representativeness of the standard test species for Great Salt Lake. If a separate acute test is not conducted, the results of the acute duration portion of a chronic test are reported as specified in Part a. Whole Effluent Testing – Acute Toxicity. As an indicator, the chronic test results can demonstrate compliance with portions of the Narrative Standards (R317-2-7.2). However, the chronic WET test results alone do not demonstrate noncompliance with the Narrative Standards. As indicators, the chronic WET test results alone are not used for determining reasonable potential for toxicity or noncompliance with the permit.

Starting on March 1, 2024, 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. 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 Marine and Estuarine Organisms, Third Edition*, October 2002 EPA-821-R-02-014 as per 40 CFR 136.3(a) TABLE IA-LIST OF APPROVED BIOLOGICAL METHODS. Test species shall consist of *Cyprinodon variegatus* (sheepshead minnow).

A multi dilution test consisting of at least five concentrations and a control is required at two dilutions below and two above the receiving water concentration (RWC), if possible. If test acceptability criteria are not met for control survival, growth, or reproduction, the test shall be considered invalid. A valid replacement test is required within the specified sampling period to remain in compliance with this permit. Chronic toxicity occurs when, during a chronic toxicity test, the 25% inhibition concentration (IC25) calculated on the basis of test organism survival and growth or survival and reproduction, is less than or equal to 100% 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.4.c. Accelerated Testing). The Director may enter acceptable variations in the test procedure here as documented in the Fact Sheet Statement of Basis and based on the test acceptability criteria as contained in Utah Pollutant Discharge Elimination System (UPDES) Permitting and Enforcement Guidance Document for Whole Effluent Toxicity Control February, 2018. 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

PART I
DISCHARGE PERMIT NO. UT0025755
WASTEWATER

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.

If the results for ten consecutive tests indicate no chronic toxicity, the Permittee may submit a request to the Director to allow a reduction in chronic toxicity testing by alternating species, or using only the most sensitive species. The permit issuing authority may approve or deny the request based on the results and other available information without public notice. If the request is approved, the test procedures are to be the same as specified above for the test species. Under no circumstances shall monitoring for WET at major facilities be reduced less than quarterly. Minor facilities may be less than quarterly at the discretion of the Director.

- c. *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.
- d. *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.

- e. *Preliminary Toxicity Investigation.*

PART I
DISCHARGE PERMIT NO. UT0025755
WASTEWATER

- (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, 4, f 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.
- f. *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.

PART I
DISCHARGE PERMIT NO. UT0025755
WASTEWATER

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

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

- (a) An alternative control program for compliance with the numerical requirements.
- (b) If necessary, as determined by the Director, provide a modified biomonitoring protocol which compensates for the pollutant(s) being controlled numerically.

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

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

D. Reporting of Monitoring Results.

1. Reporting of Wastewater Monitoring Results Monitoring results obtained during the previous month shall be summarized for each month and reported by NetDMR, entered into NetDMR no later than the 28th day of the month following the completed reporting period. The first report is due on April 28, 2024. 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

II. PRETREATMENT REQUIREMENTS

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

1. *Indirect Discharge* means the introduction of pollutants into a Publicly Owned Treatment Works (POTW) from any non-domestic source regulated under section 307 (b), (c) or (d) of the CWA.
2. *Interference* means a discharge which, alone or in conjunction with a discharge or discharges from other sources, both:
 - a. Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
 - b. Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.
3. *Pass Through means* a Discharge which exits the POTW into waters of the State or waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).
4. *Publicly Owned Treatment Works or POTW* means a treatment works, as defined by section 212 of the CWA, which is owned by a State or municipality (as defined by section 502(4) of the CWA). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality, as defined in section 502(4) of the CWA, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.
5. *Significant Industrial User (SIU)* is defined as an Industrial User discharging to a POTW that satisfies any of the following:
 - a. Has a process wastewater flow of 25,000 gallons or more per average work day;
 - b. Has a flow greater than five percent of the flow carried by the municipal system receiving the waste;
 - c. Is subject to Categorical Pretreatment Standards, or
 - d. Has a reasonable potential for adversely affecting the operation of the POTW or violating any pretreatment standard or requirement.

PART II
DISCHARGE PERMIT NO. UT0025755
PRETREATMENT

6. *User or Industrial User (IU)* means a source of Indirect Discharge.
- B. Discharge to POTW. Any wastewaters discharged to the sanitary sewer, either as a direct discharge or as a hauled waste, are subject to Federal, State and local pretreatment regulations. Pursuant to Section 307 of The Water Quality Act of 1987, the Permittee shall comply with all applicable federal General Pretreatment Regulations promulgated at 40 CFR 403, the State Pretreatment Requirements at UAC R317-8-8, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the wastewaters. At a minimum, the discharge into a POTW must meet the requirements of Part II. D. and E. of the permit.
- C. Hazardous Waste Notification. The Permittee must notify the POTW, the EPA Regional Waste Management Director, the Director and the State hazardous waste authorities in writing if they discharge any substance into a POTW that, if otherwise disposed of, would be considered a hazardous waste under 40 CFR 261. This notification must include the name of the hazardous waste, the EPA hazardous waste number, and the type of discharge (continuous or batch).
- D. General and Specific Prohibitions.
1. General Prohibitions. The Permittee may not introduce into a POTW any pollutant(s) which cause Pass Through or Interference. These general prohibitions and the specific prohibitions in paragraph 2. of this section apply to the introducing pollutants into a POTW whether or not the Permittee is subject to other National Pretreatment Standards or any national, State, or local Pretreatment Requirements.
 2. Specific Prohibitions. The following pollutants shall not be introduced into a POTW:
 - a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, wastestreams with a closed cup flashpoint of less than 140°F (60°C);
 - b. Pollutants, which will cause corrosive structural damage to the POTW, but in no case, discharges with a pH lower than 5.0;
 - c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in Interference;
 - d. Any pollutant, including oxygen demanding pollutants (BOD, etc.), released in a discharge at such volume or strength as to cause Interference in the POTW;
 - e. Heat in amounts, which will inhibit biological activity in the POTW, resulting in Interference, but in no case, heat in such quantities that the influent to the sewage treatment works exceeds 104°F (40°C));
 - f. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;
 - g. Pollutants, which result in the presence of toxic gases, vapor, or fumes within the POTW in a quantity that may cause worker health or safety problems;
 - h. Any trucked or hauled pollutants, except at discharge points designated by the POTW;
or

PART II
DISCHARGE PERMIT NO. UT0025755
PRETREATMENT

- i. Any pollutant that causes Pass Through or Interference at the POTW.
 - j. Any specific pollutant which exceeds any Local Limitation established by the POTW.
- E. Categorical Standards. In addition to the general and specific limitations expressed in *Part II. D.* of this section, applicable National Categorical Pretreatment Standards must be met by all Industrial Users discharging into a POTW. These standards are published in the federal regulations at *40 CFR 405 through 471*.

III. BIOSOLIDS REQUIREMENTS

The State of Utah has adopted the 40 CFR 503 federal regulations for the disposal of sewage sludge (biosolids) by reference. However, this facility does not receive, generate, treat or dispose of biosolids. Therefore 40 CFR 503 does not apply.

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.

V. MONITORING, RECORDING & GENERAL REPORTING REQUIREMENTS

- A. Representative Sampling. Samples taken in compliance with the monitoring requirements established under *Part I* shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge. Samples of biosolids shall be collected at a location representative of the quality of biosolids immediately prior to the use-disposal practice.
- B. Monitoring Procedures. Monitoring must be conducted according to test procedures approved under Utah Administrative Code ("UAC") *R317-2-10, UAC R317-8-4.1(10)(d), and/or 40 CFR 503* utilizing sufficiently sensitive test methods unless other test procedures have been specified in this permit. Monitoring must be conducted according to the test procedures listed above unless another method is required under 40 CFR subchapters N or O. Sufficiently sensitive test method means: (1) The method minimum level (ML) is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or (2) The method has the lowest ML of the analytical methods approved under *40 CFR part 136* or required under *40 CFR chapter I, subchapter N or O* for the measured pollutant or pollutant parameter as per *40 CFR 122.44(i)(1)(iv)(A)*.
- C. Penalties for Tampering. The *Act* provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.
- D. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.
- E. Additional Monitoring by the Permittee. If the Permittee monitors any parameter more frequently than required by this permit, using test procedures approved under Permit Part V.B., the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or the Biosolids Report Form.
- F. Records Contents. Records of monitoring information shall include:
1. The date, exact place, and time of sampling or measurements;
 2. The individual(s) who performed the sampling or measurements;
 3. The date(s) and time(s) analyses were performed;
 4. The individual(s) who performed the analyses;
 5. The analytical techniques or methods used; and,
 6. The results of such analyses.
- G. Retention of Records. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time. A copy of this UPDES permit must be maintained on site during the duration of activity at the permitted location
- H. Twenty-four Hour Notice of Noncompliance Reporting.
1. The Permittee shall (orally) report any noncompliance including transportation accidents, spills, and uncontrolled runoff from biosolids transfer or land application sites which may

PART V
DISCHARGE PERMIT NO. UT0025755

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 (DWQ) via the 24-hour answering service (801) 536-4123.

2. The following occurrences of noncompliance shall initially be reported by telephone to the DWQ via the 24-hour answering service as soon as possible but no later than 24 hours from the time the Permittee becomes aware of the circumstances:
 - a. Any noncompliance which may endanger health or the environment;
 - b. Any unanticipated bypass, which exceeds any effluent limitation in the permit (See *Part VI.G, Bypass of Treatment Facilities.*);
 - c. Any upset which exceeds any effluent limitation in the permit (See *Part VI.H, Upset Conditions.*);
 - d. Violation of a daily discharge limitation for any of the pollutants listed in the permit. For other permit violations which will not endanger health or the environment, DWQ may otherwise be notified during business hours (801) 536-4300; or,
 - e. Violation of any of the Table 3 metals limits, the pathogen limits, the vector attraction reduction limits or the management practices for biosolids that have been sold or given away.
3. A written submission shall also be provided within five days of the time that the Permittee becomes aware of the circumstances. The written submission shall contain:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times;
 - c. The estimated time noncompliance is expected to continue if it has not been corrected;
 - d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and,
 - e. Steps taken, if any, to mitigate the adverse impacts on the environment and human health during the noncompliance period.
4. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Division of Water Quality, (801) 536-4300.
5. Reports shall be submitted to the addresses in *Part I.D, Reporting of Monitoring Results.*
- I. Other Noncompliance Reporting. Instances of noncompliance not required to be reported within 24 hours shall be reported at the time that monitoring reports for *Part I.D* are submitted. The reports shall contain the information listed in *Part V.H.3*
- J. Inspection and Entry The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:
 1. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;

PART V
DISCHARGE PERMIT NO. UT0025755

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. 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:

**PART VI
DISCHARGE PERMIT NO. UT0025755**

- (1) Bypass was unavoidable to prevent loss of human life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance, and
 - (3) The Permittee submitted notices as required under *Part VI.G.3*.
- b. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed in *Parts VI.G.2.a (1), (2) and (3)*.
3. Notice.
- a. *Anticipated bypass*. Except as provided above in *Part VI.G.2* and below in *Part VI.G.3.b*, if the Permittee knows in advance of the need for a bypass, it shall submit prior notice, at least ninety days before the date of bypass. The prior notice shall include the following unless otherwise waived by the Director:
 - (1) Evaluation of alternative to bypass, including cost-benefit analysis containing an assessment of anticipated resource damages;
 - (2) A specific bypass plan describing the work to be performed including scheduled dates and times. The Permittee must notify the Director in advance of any changes to the bypass schedule;
 - (3) Description of specific measures to be taken to minimize environmental and public health impacts;
 - (4) A notification plan sufficient to alert all downstream users, the public and others reasonably expected to be impacted by the bypass;
 - (5) A water quality assessment plan to include sufficient monitoring of the receiving water before, during and following the bypass to enable evaluation of public health risks and environmental impacts; and,
 - (6) Any additional information requested by the Director.
 - b. *Emergency Bypass*. Where ninety days advance notice is not possible, the Permittee must notify the Director, and the Director of the Department of Natural Resources, as soon as it becomes aware of the need to bypass and provide to the Director the information in *Part VI.G.3.a.(1) through (6)* to the extent practicable.
 - c. *Unanticipated bypass*. The Permittee shall submit notice of an unanticipated bypass to the Director as required under *Part 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:
1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 122.29(b); or
 2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit nor to notification requirements under Subsection R317-8-4.1(15).
 3. The alteration or addition results in a significant change in the Permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. The Permittee shall give notice to the Director of any planned changes at least 30 days prior to their implementation.
- B. Anticipated Noncompliance. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity, which may result in noncompliance with permit requirements.
- C. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- D. Duty to Reapply. If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee shall apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit.
- E. Duty to Provide Information. The Permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.
- F. Other Information. When the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Director, it shall promptly submit such facts or information.
- G. Signatory Requirements. All applications, reports or information submitted to the Director shall be signed and certified.
1. All permit applications shall be signed by either a principal executive officer or ranking elected official. A person is a duly authorized representative only if:

**PART VII
DISCHARGE PERMIT NO. UT0025755**

- a. The authorization is made in writing by a person described above and submitted to the Director, and,
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. A duly authorized representative may thus be either a named individual or any individual occupying a named position.
 - (1) For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or
 - (b) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - (2) For a partnership or sole proprietorship. By a general partner or the proprietor, respectively; or
 - (3) For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
 - (a) The chief executive officer of the agency, or
 - (b) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
2. All reports required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person.
 3. Changes to authorization. If an authorization under *paragraph VII.G.2* is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of *paragraph VII.G.2* must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.
 4. Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of

**PART VII
DISCHARGE PERMIT NO. UT0025755**

the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- H. Penalties for Falsification of Reports. The *Act* provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than \$10,000.00 per violation, or by imprisonment for not more than six months per violation, or by both.
- I. Availability of Reports. Except for data determined to be confidential under *UAC R317-8-3.2*, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the office of Director. As required by the *Act*, permit applications, permits and effluent data shall not be considered confidential.
- J. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the Permittee of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject under the *Act*.
- K. Property Rights. The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.
- L. Severability. The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- M. Transfers. This permit may be automatically transferred to a new Permittee if:
1. The current Permittee notifies the Director at least 20 days in advance of the proposed transfer date;
 2. The notice includes a written agreement between the existing and new Permittee's containing a specific date for transfer of permit responsibility, coverage, and liability between them; and,
 3. The Director does not notify the existing Permittee and the proposed new Permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.
- N. State or Federal Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by *Sections 19-5-117* and *510* of the *Act* or any applicable Federal or State transportation regulations, such as but not limited to the Department of Transportation regulations.

PART VII
DISCHARGE PERMIT NO. UT0025755

- 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 or federal regulations.
- Q. Toxicity Limitation - Reopener Provision:

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* or *b* of this permit, during the duration of this permit.
2. The TRE results indicate that the toxicant(s) represent pollutant(s) or pollutant parameter(s) that may be controlled with specific numerical limits, and the Director concludes that numerical controls are appropriate.
3. Following the implementation of numerical control(s) of toxicant(s), the Director agrees that a modified biomonitoring protocol is necessary to compensate for those toxicants that are controlled numerically.
4. The TRE reveals other unique conditions or characteristics, which in the opinion of the permit issuing authority justify the incorporation of unanticipated special conditions in the permit.

VIII. DEFINITIONS

A. Wastewater.

1. The "7-day (and weekly) average", other than for *E. coli* bacteria, fecal coliform bacteria, and total coliform bacteria, is the arithmetic average of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. Geometric means shall be calculated for *E. coli* bacteria, fecal coliform bacteria, and total coliform bacteria. The 7-day and weekly averages are applicable only to those effluent characteristics for which there are 7-day average effluent limitations. The calendar week, which begins on Sunday and ends on Saturday, shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for that calendar week shall be included in the data for the month that contains Saturday.
2. The "30-day (and monthly) average," other than for *E. coli* bacteria, fecal coliform bacteria and total coliform bacteria, is the arithmetic average of all samples collected during a consecutive 30-day period or calendar month, whichever is applicable. Geometric means shall be calculated for *E. coli* bacteria, fecal coliform bacteria and total coliform bacteria. The calendar month shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms.
3. "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 "LC₅₀").
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 IC₂₅ < 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. "IC₂₅" 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;

PART VIII
DISCHARGE PERMIT NO. UT0025755

- 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.

**FACT SHEET AND STATEMENT OF BASIS
ATI TITANIUM ROWLEY OPERATION
RENEWAL PERMIT: DISCHARGE
UPDES PERMIT NUMBER: UT0025755
MAJOR INDUSTRIAL**

FACILITY CONTACTS

Person Name: Michael Riley
Position: Manager, Environmental Operations and Compliance

Person Name: Danny Aragon
Position: Operator

Facility Name: ATI Titanium
Mailing Address: PO Box 507
Grantsville, UT 84029

Telephone: (541) 926-4211
Actual Address: 12633 North Rowley Road
North Skull Valley, Utah 84029

DESCRIPTION OF FACILITY

The ATI Titanium – Rowley Operation produces titanium sponge for use in airline manufacturing and other industries. The facility uses titanium tetrachloride (TiCl₄) as a raw material. The TiCl₄ will be reacted with molten magnesium metal. The magnesium chloride produced in the reduction will be transferred to a transportable vessel or holding furnace by argon pressurization to be sent back to US Magnesium. The reduction vessel will be allowed to cool before being cut open to remove the titanium. The vessel will then be welded back together and returned to service. The titanium sponge will then be mechanically sized and sorted for offsite shipment. ATI Titanium has not been operating since December 2016.

ATI Titanium is part of a water group that supplies water to both US Magnesium and ATI Titanium. The water is obtained from wells in Skull Valley. The water is treated by reverse osmosis (RO) and distributed to the facilities. At ATI Titanium, the water is used in four major areas. The areas are; scrubber blow down, equipment wash water, non-contact cooling water, and pump seal water/miscellaneous use. Pump seal water/miscellaneous use includes any water to be used onsite for drinking water and sanitation purposes. The blow down from the RO unit will be sent to the ATI Titanium wastewater treatment system.

When the facility operates at full production ATI Titanium anticipates average effluent flows from the titanium metal sponge manufacturing plant at 750,000 gallons per day (gpd) of treated effluent. The wastewater consists of approximately 440,000 gpd of non-contact sources and 290,000 gpd of contact water.

All wastewater, except sanitary wastewater and storm water, is treated in the on-site wastewater treatment system prior to discharge. The equipment for treating ATI Titanium effluent is designed to adjust pH, remove metals, oil, and grease. The treatment facility design, performance standard, and layout were

presented in the wastewater treatment system report from Siemens Water Technologies Corp. Sanitary wastewater is treated and discharged to an onsite treatment system.

Treatment description

An oil water separator is used to remove trace oils that may be present in wastewater from equipment washing and cleaning. The effluent is transferred to a two-stage reaction tank system to adjust pH. By raising the pH, the metallic hydroxide compounds become less soluble and precipitate from solution. Polymer may be added to enhance the clarification process. Clarification is achieved by gravity settling. The metal solids are compressed in a filter press for ease of handling and offsite disposal. The effluent then undergoes a final pH adjustment prior to discharge to the Great Salt Lake.

The discharge is piped to the legal shoreline of the lake, and then released to the Great Salt Lake. Due to the nature of the lake and the great variability in the lakes physical shore line, the discharge is likely to create a freshwater wetland delta along the lake. Currently there are no metals numeric criteria for the lake. While ATI Titanium’s operations are exempt from New Source Performance Standards (NSPS) by rule, the NSPS do regulate other types of titanium production on seven pollutants or pollutant properties. These seven parameters identified by the Environmental Protection Agency (EPA) for Titanium Manufacturing Subcategory are chromium, lead, nickel, titanium, oil and grease, total suspended solids (TSS), and pH. For these parameters there is a reasonable expectation that they could be present in the discharge due to the manufacturing process, and are the basis of monitoring requirements in the industry without evidence of a reasonable expectation of the presence of additional contaminants.

In addition to the four metals (chromium, lead, nickel, and titanium), there is a reasonable expectation that arsenic could be present in the discharge. For the initial permit the Permittee performed an Ecological Risk Assessment (ERA) to assist in determining at what levels these five metals in the discharge might pose a risk to wildlife in the area. The resulting values proposed in the ERA are listed in the table below.

	Lowest Observed Adverse Effect Level, LOAEL	No Observed Adverse Effect Level, NOAEL	Acute Water Quality Standard	Chronic Water Quality Standard
Proposed	Acute Limit	Chronic Limit	R317-2-14	
	mg/l	mg/l	mg/l	mg/l
Arsenic	3.05	0.76	0.34	0.15
Iron	27.29	9.55	1	1
Chromium	3.6	0.89	0.57	0.074
Nickel	7.67	5.55	0.468	0.052
Titanium	218.03	90.86		

At that time, there was no reasonable expectation of the presence of other metals in the discharge due to the manufacturing process, and for this reason there was no discharge limit associated with them. Monitoring for those metals was done on a quarterly basis to help verify at what concentration they might be present in the discharge, and to establish discharge concentration levels for the facility in the event that there are changes to the water quality standards on the Great Salt Lake, or if it is determined that a problem does exist.

Chromium, arsenic, and nickel had effluent limits in a previous permit which were not included in this permit because the effluent data continues to demonstrate a lack of reasonable potential. The limits were removed for the 2013 renewal. This permit still includes monthly average effluent limits for iron and titanium.

Permit History

During the 2013 renewal the effluent concentrations for mercury were evaluated and it was determined that the frequency for monitoring could be reduced but a more sensitive method should be used. As a result, the mercury monitoring frequency dropped to quarterly and ATI started having the samples analyzed using the EPA Method 1631 for mercury. This requirement was conserved with this 2018 permit, and will again remain.

A numeric criterion for selenium in bird eggs is applicable to the open waters of Gibert Bay (Class 5A). Consistent with the 2013 permit renewal, the daily maximum effluent limit for selenium is 0.015 mg/l.

In the event that it is determined that there has been an adverse impact to the lake, a reopener provision (Water Quality Reopener Provision Permit *Part V. O*) in the permit will allow the reopening and modification of the permit.

Due to the constant nature of the discharge effluent, within a few years a Great Salt Lake marsh was expected to develop. After several years the dominant emergent species within the 0.5-acre discharge area was anticipated to be cattails and bulrush (tules), with pond weeds and smart weeds emerging as dominant macrophytes. Salicornia and saltgrass were expected to populate the margins of the inundated area. However, since ATI has not been operating, the vegetation has not developed absent a consistent discharge. The outfall area continues to be relatively poor bird habitat because of the lack of vegetative cover.

An evaluation of each facility that applies for a permit is done to determine whether it should be rated as a major or minor UPDES facility. The evaluation determined it qualified to be rated as a minor UPDES facility. However, due to the present and ongoing changes in the water quality standards for, and how discharges are being handled to the Great Salt Lake, the facility rating was elevated to major UPDES facility. By elevating the rating to major, the facility will receive greater oversight through inspections and monitoring by the State of Utah. This rating and all other discharge limits are reevaluated at the time of permit renewal to insure they are still appropriate for the permit at that time.

Unchanged for this permit, ATI is required to monitor the effluent for chronic whole effluent toxicity (WET). Consistent with the 2018 Utah Permit and Enforcement Guidance for Whole Effluent Toxicity, chronic WET testing is recommended because dilution is less than 20:1 in the receiving waters. When chronic WET testing is indicated for discharges to Class 5 Great Salt Lake, both acute and chronic testing are conducted. The acute test results are interpreted consistent with Utah and USEPA requirements and the chronic test results are interpreted as an indicator using the Utah-specific methods described in the guidance. However, absent acute WET testing for this permit cycle, the interpretation of the chronic WET test results must be consistent with both Utah and USEPA requirements. Therefore, the results of the (only) chronic WET testing required by this permit are interpreted consistent with both USEPA and Utah requirements. This deviation from the Great Salt Lake WET policy is appropriate because the requirements are more stringent than if both acute WET testing and chronic WET testing as an indicator were implemented.

Upon further evaluation, the existing concentrations of sodium, potassium and bicarbonate ions in the receiving waters would likely prohibit utilizing an approved marine organism, in any WET testing, as these concentrations are up to ten times higher than seawater. The Great Salt Lake is a unique inland and highly saline environment. The freshwater species used in WET monitoring in Utah are not considered appropriate for the Great Salt Lake and due to the high salinity a different species was chosen, the sheepshead minnow (*Cyprinodon variegatus*). Other USEPA approved marine species, such as *Mysidopsis*, are unlikely to be suitable because of the potential for ion imbalance (sodium, potassium and bicarbonate) in the effluent. The

potential ion imbalance is unlikely to be a threat to the biota of Great Salt Lake because these organisms are adapted to much higher ion concentrations due to the high salinity of Great Salt Lake. The effluent typically has a salinity of less than 2% and the salinity of Gilbert Bay is 10-15%.

The permit requires that samples for chronic WET testing be collected on Monday, Wednesday and Friday. The two-day progression requirement for sample collection is not included this permit. The Director previously concluded that this is not practical for ATI Titanium because of the remote location and operating nature of the facility, the test species used to represent the receiving water, and lab constraints.

Since the 2013 permit was renewed ATI Titanium had idled the titanium production process and ceased discharging from the facility in December 2016. At the same time, they requested a waiver from the NetDMR reporting requirements and to have the outfall deactivated. The waiver was granted by letter May 22, 2017 (DWQ-2017-004295) noting that the waiver would be reevaluated during each renewal. The need for a waiver was reevaluated and is being granted for as long as the facility remains idle during the term of the renewed 2024 permit, and the outfall remains deactivated. ATI Titanium is required to notify the DWQ in writing at least 90 days prior to the need to discharge resumes to allow time for the outfall to be reactivated.

Water Quality has been working to standardize the way effluent limits for discharges to the Great Salt Lake are determined. To that goal, a wasteload analysis (WLA) was generated and used for this renewal. The values from the WLA were used when performing a Reasonable Potential (RP) Analysis on the effluent monitoring performed by ATI Titanium. As a result of the RP analysis there were no new effluent limitations added to the 2018 permit, but the monitoring frequency for aluminum was increased from quarterly to monthly.

The results of the 2018 RP Analysis indicated that there could be a requirement for a chronic mercury limit, but upon review of the methods used by ATI Titanium to collect the mercury sample, they think they were not following the proper Standard Operating Procedure (SOP) for the method, and it may have resulted in some contamination of the samples. Upon restart of the facility they will continue to use the EPA Method 1631 and make sure they are following the SOP for the method for one (1) year. After that year, if the results are all below 15 nanograms per liter (15 ng/L = 0.000015 mg/L) they may switch to a less sensitive EPA approved method.

Water Quality adopted UAC R317-1-3.3, Technology-Based Phosphorus Effluent Limit (TBPEL) Rule on December 16, 2014. The TBPEL rule as it relates to "non-lagoon" wastewater treatment plants establishes new regulations for the discharge of phosphorus to surface waters and is self-implementing. The TBPEL rule includes the following requirements for non-lagoon wastewater treatment plants:

The TBPEL requires that all non-lagoon wastewater treatment works discharging wastewater to surface waters of the state shall provide treatment processes which will produce effluent less than or equal to an annual mean of 1.0 mg/L for total phosphorus. This TBPEL shall be achieved by January 1, 2020.

On July 1, 2015 ATI Titanium returned a DWQ distributed form (DWQ-2017-007637) requesting a variance from the requirements of the rule for these two reasons;

1. The annual average phosphorus concentrations of the effluent are expected to be below the 1 mg/L TBPEL requirement, therefore the facility is currently in compliance with the TBPEL rule
2. It can be demonstrated that application of the TBPEL rule at this facility is unnecessary to protect downstream water.

The variance is granted, and has been reevaluated for the 2023 permit renewal. The conditions did not change and a variance from the requirements of the rule was again granted.

Specific storm water requirements were removed and replaced with a requirement to maintain appropriate coverage under the Multi-Sector General Permit (MSGP) for Storm Water Discharges Associated with Industrial Activities or to have an active No Exposure exclusion. This change will allow ATI Titanium to switch between the two options as necessary as no exposure conditions may be present during long periods of inactivity, but might not be maintainable during operation.

Since December 2016, ATI Titanium has idled the titanium production process and ceased discharging from the facility. At the same time they requested a waiver from the NetDMR reporting requirements. The waiver was granted by letter May 22, 2017 (DWQ-2017-004295) noting that the waiver would be reevaluated during the renewal. The need for a waiver was again reevaluated for this renewal and is being granted for as long as the facility remains idle during the term of the renewed permit, and the outfall remains deactivated. ATI Titanium is required to notify the DWQ in writing at least 90 days prior to the need to discharge resumes to allow time for the outfall to be reactivated.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

Utah Secondary Treatment Standards; It was clarified in August 2020 through a rule change that the Utah Secondary Treatment Standards, UAC R317-1-3.2 for total suspended solids (TSS), biochemical oxygen demand (BOD5) only apply to Publicly Owned Treatment Works. As a result of this rule change the effluent limitations in the previous permits for these pollutants are no longer applicable and may be removed from the permit.

The ATI Titanium facility is exempt from the NSPS under 40 CFR Part 421.300, Nonferrous Metals Manufacturing Point Source Category, Subpart AB—Primary and Secondary Titanium Subcategory, which results in no TSS Effluent Limitation Guideline (ELG) to base a limit on. The facility has not been discharging since 2016, and no changes have been made since then. As a result, any RP analysis would be conducted on old data, and could not reflect the facility operations when the system is restarted.

As a result, the TSS effluent limits will be removed from the permit, but monitoring will remain. This can be reviewed at the next renewal.

Total dissolved solids (TDS) monitoring has been added to this permit.

DISCHARGE

DESCRIPTION OF DISCHARGE

ATI Titanium discharged from 2010 to 2016. There have been no discharges since the 2016.

Outfall

Description of Discharge Point

001

Located at latitude 40°56'19" and longitude 112°42'12". The discharge is through a 12-inch HDPE pipe to an unnamed ditch to the Great Salt Lake.

RECEIVING WATERS AND STREAM CLASSIFICATION

The final discharge flows into the Great Salt Lake. The receiving water the effluent discharges to has been classified as 5A and 5E (Great Salt Lake) according to *Utah Administrative Code (UAC) R317-2-13*:

- Class 5A Gilbert Bay
 Geographical Boundary -- All open waters at or below approximately 4,208-foot elevation south of the Union Pacific Causeway, excluding all of the Farmington Bay south of the Antelope Island Causeway and salt evaporation ponds.
 Beneficial Uses -- Protected for frequent primary and secondary contact recreation, waterfowl, shore birds and other water-oriented wildlife including their necessary food chain.

- Class 5E Transitional Waters along the Shoreline of the Great Salt Lake Geographical Boundary
 Geographical Boundary -- All waters below approximately 4,208-foot elevation to the current lake elevation of the open water of the Great Salt Lake receiving their source water from naturally occurring springs and streams, impounded wetlands, or facilities requiring a UPDES permit. The geographical areas of these transitional waters change corresponding to the fluctuation of open water elevation.
 Beneficial Uses -- Protected for infrequent primary and secondary contact recreation, waterfowl, shore birds and other water-oriented wildlife including their necessary food chain.

TOTAL MAXIMUM DAILY LOAD (TMDL) REQUIREMENTS

According to DWQ’s 2022 303(d) Assessment, Gilbert Bay (Gilbert Bay open water south of the Union Pacific Causeway and below 4208 feet, excluding all of Farmington Bay, transitional wetlands below 4208 feet, and State Waterfowl Management Areas, UT-L-16020310-001_00) supports all assessed uses.

BASIS FOR EFFLUENT LIMITATIONS

Limitations on pH are based on current Utah Secondary Treatment Standards, UAC R317-1-3.2. The oil and grease limitation is based on best professional judgment (BPJ). Limitations on Selenium and Titanium were developed in the previous permits and are retained for the renewal permit. The Permittee is expected to be able to comply with these limitations.

Reasonable Potential Analysis

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

There have been no discharges since December 2016, so there is no data to run an RP on.

The permit limitations are:

Parameter	Effluent Limitations ¹				
	Maximum Monthly Avg	Maximum Weekly Avg	Annual Loading	Daily Minimum	Daily Maximum
Total Flow, MGD	-	-	-	-	1.0
Iron, mg/L	4.7	-	-	-	-

Selenium, mg/L	0.015	-	-	-	-
Selenium, lbs/year	-	-	45.6	-	-
Titanium, mg/L	12.1	-	-	-	-
Oil & Grease, mg/L	-	-	-	-	10.0
pH, Standard Units	-	-	-	6.5	9
WET, Chronic Biomonitoring ²	-	-	-	-	IC25> 100% effluent
1. See Definitions, Part VIII, for definition of terms					
2. The WET Requirements are for Ceriodaphnia variegatus (sheep head minnows), and are monitoring only. There is no limit associated with this testing.					

SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements are the same as in the previous permit, with the addition of TDS monitoring. 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.

Self-Monitoring and Reporting Requirements ^{1, 2}			
Parameter	Frequency	Sample Type	Units
Total Flow ^{3, 4}	Continuous	Recorder	MGD
TSS, Effluent	Weekly	Grab	mg/L
pH	Weekly	Grab	SU
Oil & Grease	Monthly	Grab	mg/L
WET – Chronic Biomonitoring ⁵	Quarterly	Composite	Pass/Fail
TDS	Monthly	Grab	mg/L
Metals ⁶			
Iron, Effluent	Weekly	Composite	mg/L
Selenium, Effluent	Weekly	Composite	mg/L
Titanium, Effluent	Weekly	Composite or Grab	mg/L
Aluminum, Effluent	Monthly	Composite	mg/L
Arsenic, Effluent	Quarterly	Composite	mg/L
Chromium, Effluent	Quarterly	Composite	mg/L
Arsenic, Effluent	Quarterly	Composite	mg/L
Cadmium, Effluent	Quarterly	Composite	mg/L
Copper, Effluent	Quarterly	Composite	mg/L
Lead, Effluent	Quarterly	Composite	mg/L
Nickel, Effluent	Quarterly	Composite	mg/L
Silver, Effluent	Quarterly	Composite	mg/L
Zinc, Effluent	Quarterly	Composite	mg/L
Mercury Effluent ⁷	Quarterly	Grab	mg/L
Cyanide, Effluent	Quarterly	Grab	mg/L
1. See Definitions, Part VIII, for definition of terms.			
2. While the outfall is deactivated and not discharging, the Permittee (ATI Titanium) is not required to monitor the effluent. Upon resumption of the discharge, monitoring is required.			

Self-Monitoring and Reporting Requirements ^{1, 2}			
Parameter	Frequency	Sample Type	Units
3. 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.			
4. If the rate of discharge is controlled, the rate and duration of discharge shall be reported.			
5. The WET Requirements are for Ceriodaphnia variegatus (sheep head minnows), and are monitoring only. There is no limit associated with this testing.			
6. Metals samples should be analyzed using a method that meets Method Detection Limits (MDL) requirements. If a test method is not available the Permittee must submit documentation to the Director regarding the method that will be used. The sample type (composite or grab) should be performed according to the methods requirements.			
7. Upon restart of the facility they will continue to use the EPA Method 1631 and make sure they are following the SOP for the method for one (1) year. After that year, if the results are all below 15 nanograms per liter (15 ng/L = 0.000015 mg/L) they may switch to a less sensitive EPA approved method.			

BIOSOLIDS

The State of Utah has adopted the 40 CFR 503 federal regulations for the disposal of sewage sludge (biosolids) by reference. However, this facility does not receive, generate, treat or dispose of biosolids. Therefore 40 CFR 503 does not apply.

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.

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

PRETREATMENT REQUIREMENTS

The Permittee does not discharge to a Publicly Owned Treatment Works (POTW). The Permittee treats and discharges all of the facility’s process wastewater. However, any wastewater discharged to a publicly owned sanitary sewer, either as a direct discharge or as a hauled waste, is subject to Federal, State and local pretreatment regulations. Pursuant to Section 307 of *The Water Quality Act of 1987*, the Permittee shall comply with all applicable federal General Pretreatment Regulations promulgated at 40 CFR 403, the State Pretreatment Requirements at UAC R317-8-8, and any specific local discharge limitations developed by the POTW accepting the wastewater.

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

hazardous waste number, and the type of discharge (continuous or batch).

BIOMONITORING REQUIREMENTS

A nationwide effort to control toxic discharges where effluent toxicity is an existing or potential concern is regulated in accordance with the State of Utah Permitting and Enforcement Guidance Document for Whole Effluent Toxicity Control (biomonitoring). 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 appropriateness of Biomonitoring requirements were evaluated in the development of this permit. The naturally high Total Dissolved Solids (TDS) concentrations in the ground water and proposed discharge water, as well as the receiving waters of the Great Salt Lake, would likely inhibit successful completion of any type of WET testing. With TDS concentrations of the discharge expected to be between 10,000 and 20,000 mg/L and the Great Salt Lake TDS concentrations proximal to the discharge around 150,000 mg/L, there is reasonable potential for toxicity from natural TDS in the Great Salt Lake to occur with traditional species.

The existing concentrations of sodium, potassium and bicarbonate ions in the receiving waters would likely prohibit utilizing an approved marine organism, such as *Mysidopsis bahia*, in any WET testing, as these concentrations are up to ten times higher than seawater. The Great Salt Lake is a unique inland and highly saline environment. A review of the receiving water's current water quality status does not indicate impairment of the water body.

Based upon these facts, the permitting authority's BPJ, and that the anticipated discharges are of relatively small volumes of effluent when compared to the existing water body of the Great Salt Lake, WET testing limit requirements will not be required, but monitoring has been requested. Chronic quarterly biomonitoring as described in the permit has been agreed to with the use of an alternative species being approved. The monitoring will be performed using *Cyprinodon variegatus* (sheepshead minnow) with the possibility to have the TDS in the sample increased to species appropriate levels.

However, the permit will contain a toxicity limitation re-opener provision that allows for modification of the permit to include WET testing requirements and/or alternative test methods should additional information indicate the presence of toxicity in future discharges that may cause harm to the receiving waters and limited aquatic wildlife of the Great Salt Lake.

In order to complete the WET test, a Permittee must collect a sample, and then transport it to the lab. The sample must be received by the lab within the testing methods allowed holding time, or the sample is not usable. For the Static Renewal 7 Day Chronic test, subsequent samples must be collected and shipped to provide renewal sample water for the testing. These subsequent samples must also be received within the methods allowed holding time, or the sample is not usable. If this happens, the process may have to be completely restarted, and run again. Due to the specific test requirements for a discharge to the Great Salt Lake, a lab located in Colorado Springs must be used.

ATI is not a continuously run operation, they operate Monday through Friday, so they are unable to sample over the weekend. This impacts the WET testing in that it the first composite sample collection must be started on Monday with the system startup, and finished on Tuesday, then immediately transported for shipping to the lab in Colorado Springs, the second sample is started Wednesday morning and completed Thursday morning, the final sample is started Friday morning and completed Saturday morning. During

the fourth quarter of 2016 the shipping of the sample was interrupted multiple times and samples exceed their holding times.

The last attempted WET test was during the final week of titanium processing at the facility. When they were informed that the second sample for the last attempt failed to meet the holding times, there was no more time to collect a representative sample of the effluent during the week. Any sample that might be taken from then on would be unrepresentative of the effluent during the processing of titanium. For this reason there is a No Test reported for WET during the final quarter of 2016.

This was evaluated at the time and determined to not be a violation, but they were unable to complete the 10 required WET tests needed to petition for a reduction or elimination of WET Testing requirements in the permit. So WET testing will remain a requirement in the renewal permit.

PERMIT DURATION

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

Drafted and Reviewed by
Daniel Griffin, Discharge Permit Writer
Jennifer Robinson, Pretreatment
Lonnie Shull, Biomonitoring
Suzan Tahir, Wasteload Analysis
Utah Division of Water Quality, (801) 536-4300

PUBLIC NOTICE

Began: January 17, 2024
Ended: February 20, 2024

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 Public Notice Webpage.

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

ADDENDUM TO FSSOB

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

No comments were received during the Public Notice period

This Page Intentionally Left Blank

ATTACHMENT 1

Wasteload Analysis

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

Date: September 2, 2023

Prepared by: Suzan Tahir
Standards and Technical Services Section

Facility: ATI TITANIUM
UPDES No. UT0025755

Receiving water: Unnamed ditch → Gilbert Bay → Great Salt Lake

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

Discharge

Outfall 001: the outfall is deactivated and not discharging 0.00 MGD.

Receiving Water

The receiving water for Outfalls 001 is an unnamed ditch, which is an intermittent stream that discharges to Gilbert Bay and then Great Salt Lake.

Per UAC R317-2-13.11, the designated beneficial uses for Gilbert Bay are: 2B 3B 3D, 3E, 5A and 5E.

- *Class 2B - Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.*
- *Class 3B - Protected for warm water species of game fish and other warm water aquatic life, including the necessary aquatic organisms in their food chain.*

Utah Division of Water Quality
Wasteload Analysis
ATI Titanium
UPDES No. UT0025755

- *Class 3D - Protected for waterfowl, shore birds and other water-oriented wildlife not included in Classes 3A, 3B, or 3C, including the necessary aquatic organisms in their food chain.*
- *Class 3E - Severely habitat-limited waters. Narrative standards will be applied to protect these waters for aquatic wildlife.*
- *Class 5A Gilbert Bay -Geographical Boundary -- All open waters at or below approximately 4,208-foot elevation south of the Union Pacific Causeway, excluding all of the Farmington Bay south of the Antelope Island Causeway and salt evaporation ponds.*
- *Class 5E Transitional Waters along the Shoreline of the Great Salt Lake Geographical Boundary - All waters below approximately 4,208-foot elevation to the current lake elevation of the open water of the Great Salt Lake receiving their source water from naturally occurring springs and streams, impounded wetlands, or facilities requiring a UPDES permit. The geographical areas of these transitional waters change corresponding to the fluctuation of open water elevation.*

Flow

Typically, the critical flow for the wasteload analysis is considered the lowest stream flow for seven consecutive days with a ten-year return frequency (7Q10). The unnamed ditch is an intermittent stream that has no flow for large parts of the year. As a result, the annual critical low flow was determined to be zero. As a result, water quality based effluent limits revert to end-of-pipe water quality standards.

TMDL

According to DWQ's 2022 303(d) Assessment, Gilbert Bay (Gilbert Bay open water south of the Union Pacific Causeway and below 4208 feet, excluding all of Farmington Bay, transitional wetlands below 4208 feet, and State Waterfowl Management Areas, UT-L-16020310-001_00) supports all assessed uses.

Protection of Downstream Uses

Per UAC R317-2-8, *all actions to control waste discharges under these rules shall be modified as necessary to protect downstream designated uses.* For this discharge, 3B numeric aquatic life use criteria apply to the immediate receiving water (Gilbert Bay).

Mixing Zone

The maximum allowable mixing zone is 15 minutes of travel time for acute conditions, not to exceed 50% of stream width, and 2,500 feet for chronic conditions, per UAC R317-2-5. Water quality standards must be met at the end of the mixing zone. Because the critical low flow for the receiving water is zero, **no mixing zone** was considered.

Parameters of Concern

Potential parameters of concern identified for the discharge/receiving water were pH, iron, selenium and titanium based on review of the past permit. In the future, additional parameters of concern may become apparent as a result of reasonable potential analysis, technology-based standards, or other factors as determined by the UPDES Permit Writer.

WET Limits

The percentage of effluent in the receiving water in a fully mixed condition, and acute and chronic dilution in a not fully mixed condition are calculated in the WLA in order to generate WET limits. The LC₅₀ (lethal concentration, 50%) percent effluent for acute toxicity and the IC₂₅ (inhibition concentration, 25%) percent effluent for chronic toxicity, as determined by the WET test, needs to be below the WET limits, as determined by the WLA. The WET limit for LC₅₀ is typically 100% effluent and does not need to be determined by the WLA.

Because the critical low flow of the receiving water was determined to be zero, WET limits for Outfall 001 for IC₂₅ should be based on 100% effluent.

Wasteload Allocation Methods

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

The water quality standard for chronic ammonia toxicity is dependent on temperature and pH, and the water quality standard for acute ammonia toxicity is dependent on pH. The AMMTOX Model developed by University of Colorado and adapted by Utah DWQ and EPA Region VIII was used to determine ammonia effluent limits (Lewis et al. 2002).

Models and supporting documentation are available for review upon request.

Antidegradation Level I Review

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

A Level II Antidegradation Review (ADR) is not required for this facility. The proposed permit is a simple renewal, with no increase in flow or concentration over that which was approved in the existing permit.

Documents:

WLA Document : *ATI_WLADoc_2023.docx*

Utah Division of Water Quality
Wasteload Analysis
ATI Titanium
UPDES No. UT0025755

References:

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

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

This Page Intentionally Left Blank