

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

AUTHORIZATION TO DISCHARGE UNDER THE
UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES)

Major Industrial Permit No. **UT0025755**
Storm Water Permit No. **UTR025755**

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

ATI TITANIUM

is hereby authorized to discharge from its facility located in Rowley, Utah with the outfall located at latitude 40°56'19" and longitude 112°42'12", to receiving waters named

Great Salt Lake

in accordance with discharge points, effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on June 1, 2014

This permit and the authorization to discharge shall expire at midnight, February 28, 2019.

Signed this 30 day of May 2014.



Walter L. Baker, P.E.
Director

Table of Contents

<u>Items of Interest</u>	<u>Page Number</u>
I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS	3
A. Description of Discharge Point	3
B. Narrative Standard	3
C. Specific Limitations and Self-Monitoring Requirements	3
D. Reporting of Wastewater Monitoring Results	7
II. STORM WATER DISCHARGE REQUIREMENTS	8
A Coverage of This Section	8
B. Prohibition of Non-Storm Water Discharges	8
B. Storm Water Pollution Prevention Plan Requirements	8
D. Monitoring and Reporting Requirements	14
III. MONITORING, RECORDING AND REPORTING REQUIREMENTS	16
A. Representative Sampling	16
B. Monitoring Procedures	16
C. Penalties for Tampering	16
D. Reporting of Monitoring Results	16
E. Compliance Schedules	16
F. Additional Monitoring by the Permittee	16
G. Records Contents	16
H. Retention of Records	17
I. Twenty-Four Hour Notice of Noncompliance Reporting	17
J. Other Noncompliance Reporting	18
K. Inspection and Entry	18
IV. COMPLIANCE RESPONSIBILITIES	19
A. Duty to Comply	19
B. Penalties for Violations of Permit Conditions	19
C. Need to Halt or Reduce Activity Not a Defense	19
D. Duty to Mitigate	19
E. Proper Operation and Maintenance	19
F. Removed Substances	19
G. Bypass of Treatment Facilities	19
H. Upset Conditions	21
I. Toxic Pollutants	21
J. Changes in Discharge of Toxic Substances	22
K. Industrial Pretreatment	22
V. GENERAL REQUIREMENTS	24
A. Planned Changes	24
B. Anticipated Noncompliance	24
C. Permit Actions	24
D. Duty to Reapply	24
E. Duty to Provide Information	24
F. Other Information	24
G. Signatory Requirements	24
H. Penalties for Falsification	25
I. Availability of Reports	25
J. Oil and Hazardous Substance Liability	25
K. Property Rights	26
L. Severability	26
M. Transfers	26
N. State Laws	26
O. Water Quality - Reopener Provision	26
P. Toxicity Limitation - Reopener Provision	26
Q. Storm Water-Reopener Provision	27
P. Total Maximum Daily Load-Reopener Provision	27
VI. DEFINITIONS	28

I. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Description of Discharge Point.

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*.

<u>Outfall Number</u>	<u>Location of Surface Water Discharge Points</u>
001	The discharge is 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 bioassay or other tests performed in accordance with standard procedures.

C. Specific Limitations and Self-Monitoring Requirements

1. 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:

The permit limitations for Outfall 001:

Parameter	Effluent Limitations			
	Monthly Average	Weekly Maximum	Min.	Max.
Flow, MGD	NA	NA	NA	1.0
TSS, mg/L	25	35	NA	NA
pH, Standard Units	NA	NA	6.5	9.0
Iron, mg/l	4.7	NA	NA	NA
Selenium, mg/l	0.015	NA	NA	NA
Selenium, lbs/yr	NA	NA	NA	45.6
Titanium, mg/l	12.1	NA	NA	NA
Oil & Grease, mg/L	NA	NA	NA	10

NA – Not Applicable.

Self-Monitoring & Reporting Requirements *a				
Parameter	Frequency	Sample Type	Units	
Flow *b, *c	Continuous	Instantaneous	MGD	
TSS, Effluent	Weekly	Grab	mg/L	
pH, Effluent			SU	
Oil & Grease, Effluent	Monthly		mg/L	
WET, Chronic Biomonitoring <i>Cyprinodon variegatus</i> (sheepshead minnows)	Quarterly	Composite	Pass/Fail	
METALS *d				
Iron, Effluent	Weekly	Composite	mg/L	
Selenium, Effluent			mg/L	
Titanium, Effluent		Composite or Grab	mg/L	
Aluminum, Effluent	Quarterly	Composite	mg/L	
Arsenic, Effluent			mg/L	
Cadmium, Effluent			mg/L	
Chromium, Effluent			mg/L	
Copper, Effluent			mg/L	
Lead, Effluent			mg/L	
Nickel, Effluent			mg/L	
Silver, Effluent			mg/L	
Zinc, Effluent			mg/L	
Mercury Effluent *e			Composite or Grab	mg/L
Cyanide, Effluent			Grab	mg/L

*a See Definitions, *Part VI* for definition of terms.

*b Flow measurements of effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained.

*c If the rate of discharge is controlled, the rate and duration of discharge shall be reported.

- *d Metals samples should be analyzed using a method that meets Method Detection Limit (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.
- *e Sampling and analyses for mercury using USEPA Method 1631 or equivalent is required

There shall be no visible sheen or floating solids or visible foam in other than trace amounts.

There shall be no discharge of sanitary wastes.

2. Chronic Whole Effluent Toxicity (WET) Testing.

- a. *Whole Effluent Testing – Chronic Toxicity.* Starting July 1, 2014, the permittee shall quarterly conduct chronic short-term toxicity tests on a composite sample of the final effluent. The sample shall be collected at Outfall 001.

The monitoring frequency shall be quarterly. Samples shall be collected on a two-day progression starting on Monday¹. If the test result indicates chronic toxicity, the test shall be repeated in less than four weeks from the date the initial sample was taken. If the second test result does not indicate chronic toxicity, routine monitoring shall be resumed. If the second test result does indicate chronic toxicity, then the Director may determine the need for any additional samples or a Toxicity Reduction Evaluation (TRE), see part I.c.2.b.

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, 3rd Edition, (EPA 821/R-02-014), October 2002* as per 40 CFR 136.3(a) *TABLE 1A-LIST OF APPROVED BIOLOGICAL METHODS*. The test species shall consist of *Cyprinodon variegatus* (sheepshead minnow). A CO₂ atmosphere may be used (in conjunction with an unmodified test) in order to account for artificial pH drift.

Chronic toxicity is indicated when the survival or growth for the endpoint test IC₂₅ is less than or equal to an effluent concentration of 100 percent. If any of the acceptable control performance criteria are not met, the test shall be considered invalid. IC₂₅ is the inhibition concentration of toxicant (given in % effluent) that would cause a 25% reduction in overall growth for the test population.

Quarterly test results shall be reported along with the Discharge Monitoring Report (DMR) submitted for the end of the reporting calendar quarter (e.g., biomonitoring results for the calendar quarter ending March 31 shall be reported with the DMR due April 28, with the remaining biomonitoring reports submitted with DMRs due each July 28, October 28, and January 28). All test results shall be reported along with the DMR submitted for that reporting period. The format for the report shall be consistent with the latest revision of the *Region VIII Guidance for Chronic Whole*

¹ Composite sample volumes are collected and sent off to the lab on Monday, Wednesday and Friday

Effluent Reporting and shall include all the chemical and physical testing as specified.

If the results for a minimum of ten consecutive tests indicate no chronic toxicity, the permittee may request a reduction in testing frequency. The Director may approve, partially approve, or deny the request based on results and other available information. If approval is given, the modification will take place without a public notice.

The current Utah whole effluent toxicity (WET) policy is in the process of being updated and revised to assure its consistency with the Environmental Protection Agency's national and regional WET policy. When said revised WET policy has been finalized and officially adopted, this permit may be reopened and modified to incorporate satisfactory follow-up chronic toxicity language (chronic pattern of toxicity, PTI and/or TIE/TRE, etc.) without a public notice, as warranted and appropriate.

- b. *Toxicity Reduction Evaluation (TRE)*. If toxicity is detected during the life of this permit and it is determined by the Director that a TRE is necessary, the permittee shall be so notified and shall initiate a TRE immediately thereafter. The purpose of the TRE will be to establish the cause of toxicity, locate the source(s) of the toxicity, and 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 found cannot be immediately eliminated, the permittee shall submit a proposed compliance plan to the Director. The plan shall include the proposed approach to control toxicity and a proposed compliance schedule for achieving control. If the approach and schedule are acceptable to the Director, this permit may be reopened and modified.

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

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

If acceptable to the Director, 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 a modified biomonitoring protocol.

A WET test result that indicates chronic toxicity may not reflect actual toxicity and is not a violation of this permit. Failure to conduct an adequate TRE, or the failure to submit a plan or program as described above, or the failure to submit a plan or program ultimately determined to be inadequate by the Director may be considered a violation of this permit.

- D. Reporting of Wastewater Monitoring Results. Monitoring results obtained during the previous month shall be summarized for each month and reported on a Discharge Monitoring Report Form (EPA No. 3320-1) or by NetDMR, post-marked or entered into NetDMR no later than the 28th day of the month following the completed reporting period. The first report is due on July 28, 2014. 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 V.G)*, and submitted by NetDMR, or hard copy 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. STORM WATER DISCHARGE REQUIREMENTS

- A. Coverage of This Section. The permittee is authorized to discharge stormwater from the facility in accordance with the requirements listed under this section shall apply to storm water discharges. Storm water discharges from the following portions of the facility may be eligible for coverage under this permit: biosolids drying beds, haul or access roads on which transportation of biosolids may occur, grit screen cleaning areas, chemical loading, unloading and storage areas, salt or sand storage areas, vehicle or equipment storage and maintenance areas, or any other wastewater treatment device or system, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including lands dedicated to the disposal of sewage sludge that are located within the confines of the facility that may have a reasonable expectation to contribute to pollutants in a storm water discharge.
- B. Prohibition of Non-Storm Water Discharges. Except for discharges identified in *Part I*, and discharges described below in this paragraph, non-storm water discharges are prohibited. The following non-storm water discharges are authorized under this permit provided the non-storm water component of the discharge is in compliance with this section; discharges from firefighting activities; fire hydrant flushing; potable water sources including waterline flushing; drinking fountain water; irrigation drainage and lawn watering; routine external building wash down water where detergents or other compounds have not been used in the process; pavement wash waters where spills or leaks of toxic or hazardous materials (including oils and fuels) have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; uncontaminated compressor condensate; uncontaminated springs; uncontaminated ground water; and foundation or footing drains where flows are not contaminated with process materials such as solvents.
- C. Storm Water Pollution Prevention Plan Requirements. The permittee must have (on site) or develop and implement a storm water pollution prevention plan as a condition of this permit.
1. Contents of the Plan. The plan shall include, at a minimum, the following items:
 - a. *Pollution Prevention Team*. Each plan shall identify a specific individual or individuals within the facility organization as members of a storm water Pollution Prevention Team who are responsible for developing the storm water pollution prevention plan and assisting the facility or plant manager in its implementation, maintenance, and revision. The plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the facility's storm water pollution prevention plan.
 - b. *Description of Potential Pollutant Sources*. Each plan shall provide a description of potential sources which may reasonably be expected to add significant amounts of pollutants to storm water discharges or which may result in the discharge of pollutants during dry weather from separate storm sewers draining the facility. Each plan shall identify all activities and significant materials, which may be reasonably expected to have the potential as a significant pollutant source. Each plan shall include, at a minimum:

- (1) *Drainage.* A site map indicating drainage areas and storm water outfalls. For each area of the facility that generates storm water discharges associated with the waste water treatment related activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow and an identification of the types of pollutants that are likely to be present in storm water discharges associated with the activity. Factors to consider include the toxicity of the pollutant; quantity of chemicals used, produced or discharged; the likelihood of contact with storm water; and history of significant leaks or spills of toxic or hazardous pollutants. Flows with a significant potential for causing erosion shall be identified. The site map shall include but not be limited to:
 - (a) Drainage direction and discharge points from all wastewater associated activities including but not limited to grit screen cleaning, bio-solids drying beds and transport, chemical/material loading, unloading and storage areas, vehicle maintenance areas, salt or sand storage areas.
 - (b) Location of any erosion and sediment control structure or other control measures utilized for reducing pollutants in storm water runoff.
 - (c) Location of bio-solids drying beds where exposed to precipitation or where the transportation of bio-solids may be spilled onto internal roadways or tracked off site.
 - (d) Location where grit screen cleaning or other routinely performed industrial activities are located and are exposed to precipitation.
 - (e) Location of any handling, loading, unloading or storage of chemicals or potential pollutants such as caustics, hydraulic fluids, lubricants, solvents or other petroleum products, or hazardous wastes and where these may be exposed to precipitation.
 - (f) Locations where any major spills or leaks of toxic or hazardous materials have occurred.
 - (g) Location of any sand or salt piles.
 - (h) Location of fueling stations or vehicle and equipment maintenance and cleaning areas that are exposed to precipitation.
 - (i) Location of receiving streams or other surface water bodies.
 - (j) Locations of outfalls and the types of discharges contained in the drainage areas of the outfalls.
- (2) *Inventory of Exposed Materials.* An inventory of the types of materials handled at the site that potentially may be exposed to precipitation.

Such inventory shall include a narrative description of significant materials that have been handled, treated, stored or disposed in a manner to allow exposure to storm water between the time of 3 years prior to the effective date of this permit and the present; method and location of onsite storage or disposal; materials management practices employed to minimize contact of materials with storm water runoff between the time of 3 years prior to the effective date of this permit and the present; the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of any treatment the storm water receives.

- (3) *Spills and Leaks.* A list of significant spills and significant leaks of toxic or hazardous pollutants that occurred at areas that are exposed to precipitation or that otherwise drain to a storm water conveyance at the facility after the date of 3 years prior to the effective date of this permit. Such list shall be updated as appropriate during the term of the permit.
- (4) *Sampling Data.* A summary of existing discharge sampling data describing pollutants in storm water discharges from the facility, including a summary of sampling data collected during the term of this permit.
- (5) *Summary of Potential Pollutant Sources and Risk Assessment.* A narrative description of the potential pollutant sources from the following activities associated with treatment works: access roads/rail lines; loading and unloading operations; outdoor storage activities; material handling sites; outdoor vehicle storage or maintenance sites; significant dust or particulate generating processes; and onsite waste disposal practices. Specific potential pollutants shall be identified where known.
- (6) *Measures and Controls.* The permittee shall develop a description of storm water management controls appropriate for the facility, and implement such controls. The appropriateness and priorities of controls in a plan shall reflect identified potential sources of pollutants at the facility. The description of storm water management controls shall address the following minimum components, including a schedule for implementing such controls:
 - (7) *Good Housekeeping.* All areas that may contribute pollutants to storm waters discharges shall be maintained in a clean, orderly manner. These are practices that would minimize the generation of pollutants at the source or before it would be necessary to employ sediment ponds or other control measures at the discharge outlets. Where applicable, such measures or other equivalent measures would include the following: sweepers and covered storage to minimize dust generation and storm runoff; conservation of vegetation where possible to minimize erosion; sweeping of haul roads, bio-solids access points, and exits to reduce or eliminate off site tracking; sweeping of sand or salt storage areas to minimize entrainment in storm water runoff; collection, removal, and proper disposal of waste oils and other fluids resulting from vehicle and

equipment maintenance; other equivalent measures to address identified potential sources of pollution.

- (8) *Preventive Maintenance.* A preventive maintenance program shall involve timely inspection and maintenance of storm water management devices (e.g., cleaning oil/water separators, catch basins) as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters, and ensuring appropriate maintenance of such equipment and systems.
- (9) *Spill Prevention and Response Procedures.* Areas where potential spills that can contribute pollutants to storm water discharges can occur, and their accompanying drainage points, shall be identified clearly in the storm water pollution prevention plan. Where appropriate, specifying material handling procedures, storage requirements, and use of equipment such as diversion valves in the plan should be considered. Procedures and equipment for cleaning up spills shall be identified in the plan and made available to the appropriate personnel.
- (10) *Inspections.* In addition to the comprehensive site evaluation required under paragraph (*Part II.C.1.b.(16)*) of this section, qualified facility personnel shall be identified to inspect designated equipment and areas of the facility on a periodic basis. The following areas shall be included in all inspections: access roads/rail lines, equipment storage and maintenance areas (both indoor and outdoor areas); fueling; material handling areas, residual treatment, storage, and disposal areas; and wastewater treatment areas. A set of tracking or follow-up procedures shall be used to ensure that appropriate actions are taken in response to the inspections. Records of inspections shall be maintained. The use of a checklist developed by the facility is encouraged.
- (11) *Employee Training.* Employee training programs shall inform personnel responsible for implementing activities identified in the storm water pollution prevention plan or otherwise responsible for storm water management at all levels of responsibility of the components and goals of the storm water pollution prevention plan. Training should address topics such as spill response, good housekeeping and material management practices. The pollution prevention plan shall identify how often training will take place, but training should be held at least annually (once per calendar year). Employee training must, at a minimum, address the following areas when applicable to a facility: petroleum product management; process chemical management; spill prevention and control; fueling procedures; general good housekeeping practices; proper procedures for using fertilizers, herbicides and pesticides.
- (12) *Record keeping and Internal Reporting Procedures.* A description of incidents (such as spills, or other discharges), along with other

information describing the quality and quantity of storm water discharges shall be included in the plan required under this part. Inspections and maintenance activities shall be documented and records of such activities shall be incorporated into the plan.

(13) *Non-storm Water Discharges.*

(a) *Certification.* The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharges. The certification shall include the identification of potential significant sources of non-storm water at the site, a description of the results of any test and/or evaluation for the presence of non-storm water discharges, the evaluation criteria or testing method used, the date of any testing and/or evaluation, and the onsite drainage points that were directly observed during the test. Certifications shall be signed in accordance with *Part V.G* of this permit.

(b) *Exceptions.* Except for flows from fire fighting activities, sources of non-storm water listed in *Part II.B. (Prohibition of Non-storm Water Discharges)* of this permit that are combined with storm water discharges associated with industrial activity must be identified in the plan. The plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

(c) *Failure to Certify.* Any facility that is unable to provide the certification required (testing for non-storm water discharges), must notify the *Director* within 180 days after the effective date of this permit. If the failure to certify is caused by the inability to perform adequate tests or evaluations, such notification shall describe: the procedure of any test conducted for the presence of non-storm water discharges; the results of such test or other relevant observations; potential sources of non-storm water discharges to the storm sewer; and why adequate tests for such storm sewers were not feasible. Non-storm water discharges to waters of the State, which are not, authorized by a *UPDES* permit are unlawful, and must be terminated.

(14) *Sediment and Erosion Control.* The plan shall identify areas, which, due to topography, activities, or other factors, have a high potential for significant soil erosion, and identify structural, vegetative, and/or stabilization measures to be used to limit erosion.

(15) *Management of Runoff.* The plan shall contain a narrative consideration of the appropriateness of traditional storm water management practices (practices other than those which control the generation or source(s) of pollutants) used to divert, infiltrate, reuse, or otherwise manage storm water runoff in a manner that reduces pollutants in storm water discharges from the site. The plan shall provide that measures that the permittee determines to be reasonable

and appropriate shall be implemented and maintained. The potential of various sources at the facility to contribute pollutants to storm water discharges associated with industrial activity *Part II.C.1.b* (Description of Potential Pollutant Sources) of this permit] shall be considered when determining reasonable and appropriate measures. Appropriate measures or other equivalent measures may include: vegetative swales and practices, reuse of collected storm water (such as for a process or as an irrigation source), inlet controls (such as oil/water separators), snow management activities, infiltration devices, wet detention/retention devices and discharging storm water through the waste water facility for treatment.

- (16) *Comprehensive Site Compliance Evaluation.* Qualified personnel shall conduct site compliance evaluations at appropriate intervals specified in the plan, but in no case less than once a year. Such evaluations shall provide:
- (a) Areas contributing to a storm water discharge associated with industrial activity shall be visually inspected for evidence of, or the potential for, pollutants entering the drainage system. Measures to reduce pollutant loadings shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed. Structural storm water management measures, sediment and erosion control measures, and other structural pollution prevention measures identified in the plan shall be observed to ensure that they are operating correctly. A visual inspection of equipment needed to implement the plan, such as spill response equipment, shall be made.
 - (b) Based on the results of the evaluation, the description of potential pollutant sources identified in the plan in accordance with *Part II.C.1.b* (Description of Potential Pollutant Sources) of this section and pollution prevention measures and controls identified in the plan in accordance with *Part II.C.1.b.(6)* (Measures and Controls) of this section shall be revised as appropriate within 2 weeks of such evaluation and shall provide for implementation of any changes to the plan in a timely manner, but in no case more than 12 weeks after the evaluation.
 - (c) A report summarizing the scope of the evaluation, personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the storm water pollution prevention plan, and actions taken in accordance with paragraph *i.* (above) shall be made and retained as part of the storm water pollution prevention plan for at least 3 years after the date of the evaluation. The report shall identify any incidents of noncompliance. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the storm water pollution prevention

plan and this permit. The report shall be signed in accordance with *Part V.G* (Signatory Requirements) of this permit.

- (17) *Deadlines for Plan Preparation and Compliance.* The permittee shall prepare and implement a plan in compliance with the provisions of this section within 270 days of the effective date of this permit. If the permittee already has a plan, it shall be revised according to *Part II.C.1.b.(16)*, Comprehensive Site Evaluation.
- (18) *Keeping Plans Current.* The permittee shall amend the plan whenever there is a change in design, construction, operation, or maintenance, that has a significant effect on the potential for the discharge of pollutants to the waters of the state or if the storm water pollution prevention plan proves to be ineffective in eliminating or significantly minimizing pollutants from sources identified by the plan, or in otherwise achieving the general objective of controlling pollutants in storm water discharges associated with the activities at the facility.

D. Monitoring and Reporting Requirements.

- I. Quarterly Visual Examination of Storm Water Quality. Facilities shall perform and document a visual examination of a storm water discharge associated with industrial activity from each outfall, except discharges exempted below. The examination must be made at least once in each of the following designated periods during daylight hours unless there is insufficient rainfall or snow melt to produce a runoff event: January through March; April through June; July through September; and October through December.
 - a. *Sample and Data Collection.* Examinations shall be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed 1 hour) of when the runoff or snowmelt begins discharging. The examinations shall document observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. The examination must be conducted in a well lit area. No analytical tests are required to be performed on the samples. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Where practicable, the same individual should carry out the collection and examination of discharges for entire permit term.
 - b. *Visual Storm Water Discharge Examination Reports.* Visual examination reports must be maintained onsite in the pollution prevention plan. The report shall include the examination date and time, examination personnel, the nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.

- c. *Representative Discharge.* When the permittee has two or more outfalls that, based on a consideration of industrial activity, significant materials, and management practices and activities within the area drained by the outfall, the permittee reasonably believes discharge substantially identical effluents, the permittee may collect a sample of effluent of one of such outfalls and report that the observation data also applies to the substantially identical outfall(s) provided that the permittee includes in the storm water pollution prevention plan a description of the location of the outfalls and explains in detail why the outfalls are expected to discharge substantially identical effluents. In addition, for each outfall that the permittee believes is representative, an estimate of the size of the drainage area (in square feet) and an estimate of the runoff coefficient of the drainage area [e.g., low (under 40 percent), medium (40 to 65 percent), or high (above 65 percent)] shall be provided in the plan.
- d. *Adverse Conditions.* When a discharger is unable to collect samples over the course of the visual examination period as a result of adverse climatic conditions, the discharger must document the reason for not performing the visual examination and retain this documentation onsite with the results of the visual examination. Adverse weather conditions, which may prohibit the collection of samples, include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.).
- e. *Inactive and Unstaffed Site.* When a discharger is unable to conduct visual storm water examinations at an inactive and unstaffed site, the operator of the facility may exercise a waiver of the monitoring requirement as long as the facility remains inactive and unstaffed. The facility must maintain a certification with the pollution prevention plan stating that the site is inactive and unstaffed so that performing visual examinations during a qualifying event is not feasible.

III. MONITORING, RECORDING AND 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. Sludge samples shall be collected at a location representative of the quality of sludge 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*, unless other test procedures have been specified in this permit.
- C. Penalties for Tampering. The *Act* provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.
- D. Reporting of Monitoring Results. Monitoring results obtained during the previous month shall be summarized for each month and reported on a Discharge Monitoring Report Form (EPA No. 3320-1), post-marked no later than the 28th day of the month following the completed reporting period. The first report is due on July 28th, 2013. 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 V.G)*, and submitted to the Director, Division of Water Quality and to EPA at the following addresses:
- original to: Department of Environmental Quality
Division of Water Quality
PO Box 144870
Salt Lake City, Utah 84114-4870
- E. 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.
- F. Additional Monitoring by the Permittee. If the permittee monitors any parameter more frequently than required by this permit, using test procedures approved under *UAC R317-2-10* or as otherwise specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR. Such increased frequency shall also be indicated. Only those parameters required by the permit need to be reported.
- G. 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;

Part III – Monitoring, Recording & Reporting Requirements
Permit No UT0025755

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.
- H. 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 three 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.
- I. Twenty-four Hour Notice of Noncompliance Reporting.
1. The permittee shall (orally) report any noncompliance, which may seriously endanger health or environment as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of circumstances. The report shall be made to the Division of Water Quality, (801) 536-4300, or 24-hour answering service (801) 231-1769.
 2. The following occurrences of noncompliance shall be reported by telephone (801) 536-4300 as soon as possible but no later than 24 hours from the time the permittee becomes aware of the circumstances:
 - a. Any noncompliance, which may endanger health or the environment;
 - b. Any unanticipated bypass, which exceeds any effluent limitation in the permit (See *Part IV.G, Bypass of Treatment Facilities.*);
 - c. Any upset which exceeds any effluent limitation in the permit (See *Part IV.H, Upset Conditions.*); or,
 - d. Violation of a maximum daily discharge limitation for any of the pollutants listed in the permit.
 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; and,

Part III – Monitoring, Recording & Reporting Requirements
Permit No UT0025755

- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 - 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 II.D, Reporting of Monitoring Results*.
- J. 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 III.D* are submitted. The reports shall contain the information listed in *Part III.I.3*.
- K. Inspection and Entry. The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:
- 1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
 - 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - 3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and,
 - 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.

IV. 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 of the Act is subject to a fine not exceeding \$25,000 per day of violation; Any person convicted under UCA 19-5-115(2) a second time shall be punished by a fine not exceeding \$50,000 per day. Except as provided at Part IV.G, *Bypass of Treatment Facilities* and Part IV.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.
- 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, sludges, or other pollutants removed in the course of treatment shall be buried or 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 2. and 3. of this section.

2. Prohibition of Bypass.
 - a. Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:
 - (1) Bypass was unavoidable to prevent loss of human life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance, and
 - (3) The permittee submitted notices as required under section G.3.
 - b. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed in sections G.2a. (1), (2) and (3).
3. Notice.
 - a. Anticipated bypass. Except as provided above in section G.2. and below in section G. 3.b, if the permittee knows in advance of the need for a bypass, it shall submit prior notice, at least ninety days before the date of bypass. The prior notice shall include the following unless otherwise waived by the Director:
 - (1) Evaluation of alternative to bypass, including cost-benefit analysis containing an assessment of anticipated resource damages;
 - (2) A specific bypass plan describing the work to be performed including scheduled dates and times. The permittee must notify the Director in advance of any changes to the bypass schedule;
 - (3) Description of specific measures to be taken to minimize environmental and public health impacts;
 - (4) A notification plan sufficient to alert all downstream users, the public and others reasonably expected to be impacted by the bypass;
 - (5) A water quality assessment plan to include sufficient monitoring of the receiving water before, during and

following the bypass to enable evaluation of public health risks and environmental impacts; and

(6) Any additional information requested by the Director.

- b. Emergency Bypass. Where ninety days advance notice is not possible, the permittee must notify the Director, and the Director of the Department of Natural Resources, as soon as it becomes aware of the need to bypass and provide to the Director the information in section 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 II.I., 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 III.I., Twenty-four Hour Notice of Noncompliance Reporting; and,
 - d. The permittee complied with any remedial measures required under Part IV.D, Duty to Mitigate.
- 3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

I. Toxic Pollutants. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of *The Water Quality Act of 1987*

for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

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

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

- a. One hundred micrograms per liter (100 ug/L);
- b. Two hundred micrograms per liter (200 ug/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
- c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with *UAC R317-8-3.4(7)* or (10); or,
- d. The level established by the Director in accordance with *UAC R317-8-4.2(6)*.

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

- a. Five hundred micrograms per liter (500 ug/L);
- b. One milligram per liter (1 mg/L) for antimony;
- c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with *UAC R317-8-3.4(9)*; or,
- d. The level established by the Director in accordance with *UAC R317-8-4.2(6)*.

K. Industrial Pretreatment. 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.

Part IV – Compliance Responsibilities
Permit No UT0025968

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).

V. GENERAL REQUIREMENTS

- A. Planned Changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants, which are not subject to effluent limitations in the permit. In addition, if there are any planned substantial changes to the permittee's existing sludge facilities or their manner of operation or to current sludge management practices of storage and disposal, the permittee shall give notice to the Director of any planned changes at least 30 days prior to their implementation.
- B. Anticipated Noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity, which may result in noncompliance with permit requirements.
- C. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- D. Duty to Reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit.
- E. Duty to Provide Information. The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.
- F. Other Information. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Director, it shall promptly submit such facts or information.
- G. Signatory Requirements. All applications, reports or information submitted to the Director shall be signed and certified.
1. All permit applications shall be signed by either a principal executive officer or ranking elected official
 2. All reports required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- a. The authorization is made in writing by a person described above and submitted to the Director, and,
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)
3. Changes to authorization. If an authorization under paragraph V.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 V.G.2 must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.
 4. Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- H. Penalties for Falsification of Reports. The *Act* provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than \$10,000.00 per violation, or by imprisonment for not more than six months per violation, or by both.
- I. Availability of Reports. Except for data determined to be confidential under *UAC R317-8-3.2*, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the office of Director. As required by the *Act*, permit applications, permits and effluent data shall not be considered confidential
- J. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the permittee of any legal action or relieve the permittee

from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under the *Act*.

- K. Property Rights. The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.
- L. Severability. The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- M. Transfers. This permit may be automatically transferred to a new permittee if:
1. The current permittee notifies the Director at least 20 days in advance of the proposed transfer date;
 2. The notice includes a written agreement between the existing and new permittees 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 Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by *UCA 19-5-117*.
- 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. A revision to the current Water Quality Management Plan is approved and adopted which calls for different effluent limitations than contained in this permit.
- P. Toxicity Limitation-Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include whole effluent toxicity (WET) testing, a WET limitation, a compliance schedule, a compliance

date, additional or modified numerical limitations, or any other conditions related to the control of toxicants if toxicity is detected during the life of this permit.

- Q. Storm Water-Reopener Provision. At any time during the duration (life) of this permit, this permit may be reopened and modified (following proper administrative procedures) as per *UAC R317.8*, to include, any applicable storm water provisions and requirements, a storm water pollution prevention plan, a compliance schedule, a compliance date, monitoring and/or reporting requirements, or any other conditions related to the control of storm water discharges to "Waters-Of-State"
- R. Total Maximum Daily Load-Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include Total Maximum Daily Load (TMDL) monitoring, related effluent limits, a compliance schedule, a compliance date, additional or modified numerical limitations, or any other conditions related to the TMDL Process and activity in affected impaired water body.

VI. DEFINITIONS

1. The "30-day and monthly average" is the arithmetic average of all samples collected during a consecutive 30-day period or calendar month whichever is applicable. The calendar month shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms.
2. The "7-day and weekly average" is the arithmetic average of all samples collected during a consecutive 7-day period or calendar week whichever is applicable. 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, beginning on Sunday and ending 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 the Saturday.
3. "Daily Maximum" ("Daily Max.") is the maximum value allowable in any single sample or instantaneous measurement.
4. "Composite samples" shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the composite sample period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:
 - a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;
 - b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;
 - c. Constant sample volume, time interval between samples proportional to flow (i.e., sample taken every "X" gallons of flow); and,
 - d. Continuous collection of sample, with sample collection rate proportional to flow rate.
5. A "grab" sample, for monitoring requirements, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.

PART VI
DISCHARGE PERMIT NO. UT0025755
STORM WATER PERMIT NO. UTR025755

6. An "instantaneous" measurement, for monitoring requirements, is defined as a single reading, observation, or measurement.
7. "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 preventive maintenance, or careless or improper operation.
8. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
9. "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.
10. "Director" means the Director of the Utah Division of Water Quality.
11. "EPA" means the United States Environmental Protection Agency.
12. "Acute toxicity" occurs when 50 percent or more mortality is observed for either test species at any effluent concentration.
13. "Chronic toxicity" occurs when the survival, growth, or reproduction for either test species exposed to a dilution of 100 percent effluent (or lower) is significantly less (at the 95 percent confidence level) than the survival, growth or reproduction of the control specimens.
14. "Act" means the "*Utah Water Quality Act*".
15. "Best Management Practices" ("*BMP's*") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. *BMP's* also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.
16. "Coal pile runoff" means the rainfall runoff from or through any coal storage pile.
17. "*CWA*" means *The Federal Water Pollution Control Act*, as amended, by *The Clean Water Act of 1987*.
18. "Flow-weighted composite sample" means a composite sample consisting of a mixture of aliquots collected at a constant time interval,

PART VI
DISCHARGE PERMIT NO. UT0025755
STORM WATER PERMIT NO. UTR025755

where the volume of each aliquot is proportional to the flow rate of the discharge.

19. "Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a *UPDES* permit (other than the *UPDES* permit for discharges from the municipal separate storm sewer) and discharges from fire fighting activities, fire hydrant flushing, potable water sources including waterline flushing, uncontaminated ground water (including dewatering ground water infiltration), foundation or footing drains where flows are not contaminated with process materials such as solvents, springs, riparian habitats, wetlands, irrigation water, exterior building wash down where there are no chemical or abrasive additives, pavement wash water where spills or leaks of toxic or hazardous materials have not occurred and where detergents are not used, and air conditioning condensate.
20. "Landfill" means an area of land or an excavation in which wastes are placed for permanent disposal, and which is not a land application unit, surface impoundment, injection well, or waste pile.
21. "Land application unit" means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for treatment or disposal.
22. "Large and Medium municipal separate storm sewer system" means all municipal separate storm sewers that are either:
 - a. Located in an incorporated place with a population of 100,000 or more as determined by the latest *Decennial Census* by the *Bureau of Census*; or
 - b. Located in the counties with unincorporated urbanized areas with a population of 100,000 or more, according to the latest *Decennial Census* by the *Bureau of Census*, except municipal separate storm sewers that are located in the incorporated places, townships or towns within the county; or
 - c. Owned or operated by a municipality other than those described in paragraph (a) or (b) and that are designated by the *Director* as part of the large or medium municipal separate storm sewer system.
23. "Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharges. This term does not include return flows from irrigated agriculture or agriculture storm water runoff.

PART VI
DISCHARGE PERMIT NO. UT0025755
STORM WATER PERMIT NO. UTR025755

24. "Runoff coefficient" means the fraction of total rainfall that will appear at a conveyance as runoff.
25. "Section 313 water priority chemical" means a chemical or chemical categories which:
- a. Are listed at *40 CFR 372.65* pursuant to *Section 313* of *Title III* of the *Emergency Planning and Community Right-to-Know Act (EPCRA)* (also known as *Title III* of the *Superfund Amendments and Reauthorization Act (SARA)* of 1986);
 - b. Are present at or above threshold levels at a facility subject to *EPCRA, Section 313* reporting requirements, and
 - c. Meet at least one of the following criteria:
 - (1) Are listed in *Appendix D* of *40 CFR 122* on either *Table II* (organic priority pollutants), *Table III* (certain metals, cyanides, and phenols) or *Table IV* (certain toxic pollutants and hazardous substances);
 - (2) Are listed as a hazardous substance pursuant to *Section 311(b)(2)(A)* of the *CWA* at *40 CFR 116.4*; or
 - (3) Are pollutants for which EPA has published acute or chronic toxicity criteria.
26. "Significant materials" includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under *Section 101(14)* of *CERCLA*; any chemical the facility is required to report pursuant to *EPCRA Section 313*; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.
27. "Significant spills" includes, but is not limited to: releases of oil or hazardous substances in excess of reportable quantities under *Section 311* of the *Clean Water Act* (see *40 CFR 110.10* and *40 CFR 117.21*) or *Section 102* of *CERCLA* (see *40 CFR 302.4*).
28. "Storm water" means storm water runoff, snowmelt runoff, and surface runoff and drainage.
29. "Time-weighted composite" means a composite sample consisting of a mixture of equal volume aliquots collected at a constant time interval.
30. "Waste pile" means any non-containerized accumulation of solid, non-flowing waste that is used for treatment or storage.

PART VI
DISCHARGE PERMIT NO. UT0025755
STORM WATER PERMIT NO. UTR025755

31. "10-year, 24-hour precipitation event" means the maximum 24-hour precipitation event with a probable reoccurrence interval of once in 10 years. This information is available in *Weather Bureau Technical Paper No. 40*, May 1961 and *NOAA Atlas 2*, 1973 for the 11 Western States, and may be obtained from the National Climatic Center of the Environmental Data Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

DWQ-2013-003373

**STATEMENT OF BASIS AND FACT SHEET
ATI TITANIUM
PERMIT: DISCHARGE & STORM WATER
UPDES PERMIT NUMBER: UT0025755
UPDES MULTI-SECTOR STORM WATER GENERAL PERMIT NUMBER: UTR025755
MAJOR INDUSTRIAL**

FACILITY CONTACTS

Person Name: Michael Riley
Position: Manager, Environmental Operations and Compliance
Person Name: Scott Ryan
Position: Manager, Health Safety and Environmental

Facility Name: ATI Titanium
Mailing Address: 1600 NE Salem Road
PO Box 460
Albany, OR 97321-0460
Telephone: (541) 926-4211
Actual Address: 12633 North Rowley Road
North Skull Valley, Utah 84029

DESCRIPTION OF FACILITY

ATI Titanium produces titanium sponge for use in airline manufacturing and other industries. The facility uses titanium tetrachloride as a raw material. The titanium tetrachloride reacts with molten magnesium metal which produces titanium and magnesium chloride. The magnesium chloride is transferred to a transportable vessel or holding furnace by argon pressurization to be sent back to US Magnesium. The reduction vessel is allowed to cool before being cut open to remove the titanium. The vessel is then welded back together and returned to service. The titanium sponge is mechanically sized and sorted for offsite shipment.

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 and distributed to the facilities. At ATI Titanium the water is used in 4 major areas. These 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 is sent to the ATI Titanium wastewater treatment system.

When the facility operates at full production ATI Titanium is anticipating 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 are presented in the wastewater treatment system report from Siemens Water Technologies Corp submitted with the initial permit application. 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 Division of Water Quality (Division) evaluates each facility that applies for a permit to determine whether it should be rated as a major or minor UPDES facility. The evaluation process determined that ATI's operation qualifies 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 Great Salt Lake, the facility rating was elevated to a major UPDES facility. Elevating the rating to major ensures that the facility will receive greater oversight through inspections and monitoring by the State of Utah. This rating and all other discharge limits will be reevaluated at the permit renewal to ensure they are still appropriate for the permit at that time.

The discharge is piped to the legal shoreline of the lake, and then released to Class 5A Gilbert Bay, Great Salt Lake. At current lake levels, the discharge crosses the Class 5E transitional waters prior to reaching the open waters (Utah Administrative Code [UAC] R317-2-6). On April 11, 2012, Division staff conducted a site reconnaissance of the discharge channel in the transitional waters. Habitat development was limited to low vegetation. Seagulls were observed to be feeding on flies in the discharge channel.

Bases for Effluent Limits. Technology-based categorical effluent limits do not apply to ATI Titanium's operations. ATI is subject to Utah Secondary Standards UAC R317-1-3.2. The limits for total suspended solids (TSS) and pH are based on these requirements. The Oil and Grease limit is based upon the permitting authority's best professional judgment as to the appropriate level for this permit situation. The chosen limit is a permitting standard that has been applied to many Utah industrial permits.

The Level I Antidegradation review that existing uses, including the designated uses, will be protected was based on the 2008 Ecological Risk Assessment.

Monthly average technology-based effluent limits based on best professional judgment are included for the indicator pollutants of iron, selenium, and titanium. As discussed below, these pollutants do not have "reasonable potential" to cause or contribute to an exceedance of water quality standards (UAC R317-8-4.2(4)(a)). These effluent limits are, instead, based on best professional judgement and intended to ensure that the treatment system is operated as designed. The limits are also consistent with the least degrading treatment alternative under a Level II Antidegradation review, were such a review required for this permit renewal. (Antidegradation review is discussed below.) The treatment measures used to control concentrations of these indicator pollutants will also control other metal and metalloid pollutant discharges. The limits were selected after considering the observed performance under current conditions (that is, existing effluent concentrations), treatment technology, and after applying an operational buffer. The operational buffer is to address the potential variability in effluent concentrations due to changes in manufacturing process and increases in production to full permitted capacity. Monthly average limits were selected because the goal of the limits is to ensure proper long-term operation of the treatment system, which is better reflected by monthly averages than short-term daily maximums. Monthly average limits are also more consistent with the goal of protecting assimilative capacity under the antidegradation policy, were a Level II antidegradation required for this permit renewal. The Division selected monthly limits for iron, selenium, and titanium. Longer term annual limitations were also considered and an annual limit was included for selenium..

Table 1 in the 2008 Ecological Risk Assessment lists the twenty-four pollutants in the effluent that were evaluated for reasonable potential. The water quality-based effluent limits in the previous permit were based on no-effects concentrations presented in Tables 13 and 14 of the 2008 Ecological Risk Assessment. For this permit, these same pollutants were re-evaluated to determine if effluent limits were required in accordance with UAC R317-8-4.2(4)(a)6.

Since the previous permit was issued, a numeric criterion has been established for selenium for Class 5A Gilbert Bay. Numeric criteria for the other pollutants remain unavailable. The no-effects concentrations listed in Table 13 from the 2008 Ecological Risk Assessment were substituted for water quality criteria for all pollutants except selenium (further discussed below).

During the previous permit cycle, pollutant concentrations in the effluent have been monitored to meet the requirements of the permit. This data provides more refined estimates of pollutant concentrations in the effluent than were available for the previous draft of the permit. The Division is required to consider effluent variability in deriving water quality-based effluent limits [UAC R317-8-4.2(4)(a)2.]. ATI's facility is not operating at full permitted capacity and ATI continues to refine its manufacturing process which may affect pollutant concentrations in the effluent. The Division applied an uncertainty factor of 10 (multiplied by 10) to the observed effluent concentrations to account for potential variability in future effluent concentrations.

The monitoring data collected during the previous permit cycle demonstrates that, at current production levels, the effluent concentrations were considerably lower than concentrations that were determined to be protective of the aquatic life uses in the 2008 Ecological Risk Assessment for the transitional waters and Gilbert Bay. The 2008 Ecological Risk Assessment demonstrated that water quality standards will not be violated by pollutants in the effluent. For pollutants that were regularly detected in the effluent, a statistically-based reasonable potential analysis was conducted using USEPA Region 8 recommended procedures. In this process, the maximum expected effluent concentration of a pollutant is compared to the pollutant water quality criterion. If the maximum expected concentration exceeds the water quality criterion, the pollutant is concluded to have reasonable potential.

The maximum expected pollutant concentrations for the effluent were estimated from the concentrations reported in the Discharge Monitoring Reports for the time period February 2010 to December 2012. The results of the reasonable potential analyses were that no pollutants have the reasonable potential to cause or contribute to the exceedance of the no-effects concentrations and the permit is not required to include water quality-based effluent limits for either the transitional waters or Gilbert Bay. Selenium concentrations do not trigger reasonable potential either but selenium was evaluated using a different process described below.

Selenium. The source of selenium in the effluent appears to be from the source water because selenium is not known to be part of the manufacturing process. Selenium was evaluated in the 2008 Ecological Risk Assessment up to a maximum concentration of 0.0036 mg/l (freshwater chronic standard). Measured effluent concentrations during the previous permit cycle have exceeded 0.0036 mg/l but were in compliance with the previous permit's requirements of a maximum daily concentration of 0.030 mg/l.

When the previous permit was issued, no numeric criteria were available for either the Class 5E Transitional Waters or Class 5A Gilbert Bay (R317-2-6) Since then, a selenium criterion of 12.5 mg/kg in bird eggs has been developed for Gilbert Bay. However, the relationship between water and egg concentrations of selenium, which is called a translator, is poorly defined for Gilbert Bay. Section 2 of Appendix 1 of the FSSOB for the Jordan Valley Conservancy District Southwest Groundwater Treatment

Plant UPDES permit summarizes the currently available information regarding a water-to-egg translator for Gilbert Bay (<http://www.waterquality.utah.gov/PublicNotices/docs/2013/JordanValley/JordanValleyWCD-FSSOB.pdf>). Although a translator is not available, the available data supports that selenium concentrations in ATI's effluent do not have reasonable potential for Gilbert Bay.

The maximum measured concentration of selenium in ATI's effluent over the past permit period was 0.0061 mg/l. Selenium loading to Gilbert Bay from ATI's effluent is limited by this permit to 21 kg/yr (45.625 lbs/yr). This contribution is insignificant compared to the estimated 1,224 kg/yr from Kennecott Utah Copper and the proposed Southwest Groundwater Treatment Plant or the 1,540 kg/yr for all of Gilbert Bay estimated by Naftz et al. (2008). As discussed in the Southwest Groundwater Treatment Plant FSSOB, historical increases of selenium loads to Gilbert Bay have not resulted in predictable increases in selenium concentrations in Gilbert Bay. The average concentrations of selenium in Gilbert Bay remain below 0.001 mg/l. The lack of correlation between increasing loads of selenium and selenium concentrations in the water support the conclusion that assimilative capacity remains for Gilbert Bay.

Additional evidence to support this conclusion is found in the results of several selenium studies for birds at Gilbert Bay. The selenium standard is the geometric mean of at least 5 eggs and no individual bird egg from Gilbert Bay has exceeded 12.5 mg/kg since more frequent sampling began in 2006 (>100 eggs). Not all of these studies were designed to comprehensively evaluate the health of Great Salt Lake's birds. The studies include:

- Cavitt, J. F. and N. Wilson, 2012. *Concentrations of Selenium and Mercury in American Avocet Eggs at Great Salt Lake, Utah 2011 Report*. Avian Ecology Laboratory, Weber State University
- Cavitt, J.F., M. Linford, and N. Wilson. *Selenium Concentration in Shorebird Eggs at Great Salt Lake Utah 2010 Report*, Avian Ecology Laboratory, Weber State University
- DWQ, 2008. *Development of a Selenium Standard for the Open Waters of Great Salt Lake*. Prepared by CH2M Hill. May.
- U.S. Fish and Wildlife Service (USFWS). 2009. *Assessment of Contaminants in the Wetlands and Open Waters of the Great Salt Lake, Utah 1996-2000*
- Vest, J.L., M.R. Conover, C. Perschon, J. Luft, and J.O. Hall. 2009. Trace Element Concentrations in Wintering Waterfowl from Great Salt Lake. *Arch. Environ. Contam. Toxicol.* 56:302-316
- Conover, M.R. and J.L. Vest. 2008. Selenium and Mercury Concentrations in California Gulls Breeding on the Great Salt Lake, Utah, USA. *Environ. Tox. Chem.*

For the transitional waters, a numeric criterion for selenium is unavailable. However, the selenium standard of 12.5 mg/kg in bird eggs for Gilbert Bay was used as a basis for determining reasonable potential.

Concentration is a better predictor of exposures to the birds or other aquatic life in the transitional waters because the water is flowing. Selenium is concluded to not have reasonable potential for the transitional waters because bird eggs previously collected from the southeast portion of Gilbert Bay have not exceeded 12.5 mg/kg when the corresponding selenium concentrations in discharge water for the other industrial facility in that area were 0.030-0.035 mg/l. Therefore, egg concentrations will not exceed 12.5 mg/kg in the transitional waters associated with ATI's effluent because this permit limits selenium concentrations to a substantially lower daily maximum of 0.015 mg/l.

Independent of the ATI permit, the Division continues to monitor the dynamics of selenium in Gilbert Bay. The outcomes of these studies will continue to be evaluated and the results used to evaluate reasonable potential for ATI and other permittees.

Bases for Monitoring. For pollutants without water quality-based effluent limits, the monitoring frequency was kept the same or revised to quarterly. In the previous permit, arsenic, chromium, and nickel were monitored weekly to provide the bases for determining compliance with the monthly effluent limits but the new permit requires only quarterly monitoring because the permit no longer contains limits for these pollutants. The quarterly monitoring requirements remain same as in the previous permit, for aluminum, cadmium, chromium, copper, lead, silver, zinc, cyanide and mercury. The permit has also been revised to require quarterly sampling and analyses for mercury using USEPA Method 1631 or an approved method with equivalent sensitivity. The existing mercury results for the effluent are non-detect and the titanium manufacturing process is not expected to introduce mercury into the effluent. The requirement to use an analytical method with lower reporting limits will be used to confirm that the uses are being protected and additional monitoring requirements are unnecessary.

CHANGES FROM THE PREVIOUS PERMIT

This permit is different than the previous permit because of:

- facility changes,
- Level II antidegradation review
- revised effluent limits,
- revised effluent monitoring, and
- whole effluent toxicity testing.

Facility Changes. During the renewed permit cycle ATI will construct a building to house the retort lid repair activities. Previously this was not done inside a building, but outside under a covered area. The new building will improve the process and work environment and will not result in any new process water discharge.

Level II Antidegradation Review. No level II antidegradation review is required by Utah's antidegradation policy (UAC R317-2-3) for the previous permit or this permit. The Division requested that ATI conduct a level II review and the results of the review were that the least degrading reasonable treatment system was being used for the effluent. The level II Antidegradation review is provided as an attachment to the permit.

Revised Effluent Limits. Chromium, arsenic, and nickel had effluent limits in the previous permit which were not included in this permit because of the lack of reasonable potential. The limits in the previous permit were unnecessary because the pollutants did not trigger reasonable potential. This permit does include monthly average effluent limits for iron, selenium, and titanium. A numeric criterion for selenium was promulgated and this criterion was included in this permit. The daily maximum for selenium was reduced to 0.015 mg/l in this permit from 0.030 mg/l in the previous permit.

WET Testing. This permit requires that ATI attempt to complete chronic whole effluent toxicity (WET) testing. This is a monitoring requirement, as opposed to an effluent limit, because, based on the predicted effluent concentrations of the effluent, the effluent does not have reasonable potential for toxicity [UAC R317-8-4.2(4)(a)2.]. WET testing is one of the tools the Division uses to assess whether WET limits are needed to ensure compliance with the Narrative Standards (UAC R317-2-7.2). Based on the WET test results, the Division may determine that additional WET evaluations or WET limits are needed to ensure that the discharge does not have the potential to cause or contribute to a violation of the Narrative Standards.

Based upon these facts, the permitting authority's best professional judgment, and the fact that the anticipated discharges are of relatively small volumes of effluent, when compared to the existing water body of Great Salt Lake, WET testing limits were not required but the permit contains a toxicity limitation re-opener provision should additional information indicate the potential presence of toxicity.

The Division is working to develop a better understanding of the potential impact of discharges to Great Salt Lake. As part of these efforts, the Division has included Whole Effluent Toxicity monitoring. Technical challenges are anticipated with WET monitoring because of uncertainties regarding the representativeness of standard test organisms to Great Salt Lake with regards to salt tolerance. The typical standard freshwater test organisms used in WET monitoring in Utah are not appropriate for ATI's effluent due to the high salt content. A standard marine test organism that can tolerate the salt concentrations of ATI's effluent, the sheepshead minnow (*cyprinodon variegatus*) was selected for monitoring.

DISCHARGE

DESCRIPTION OF DISCHARGE

There will be no discharge of sanitary waste through the outfall.

<u>Outfall</u>	<u>Description of Discharge Point</u>
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 Great Salt Lake.

RECEIVING WATERS AND STREAM CLASSIFICATION

The final discharge flows into Great Salt Lake. The receiving water the effluent discharges to has been classified as 5E transitional waters and then to 5A (Gilbert Bay, Great Salt Lake) according to *Utah Administrative Code (UAC) R317-2-6.5.a*.

- Class 5E Transitional Waters along the Shoreline of the Great Salt Lake Geographical Boundary -- All waters below approximately 4208-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 the open water elevation. Beneficial Uses – Protected for infrequent primary and secondary contact recreation, waterfowl, shorebirds and other water-oriented wildlife including their necessary food chain.
- Class 5A Great Salt Lake – 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.

BASIS FOR EFFLUENT LIMITATIONS

Limitations on total suspended solids (TSS), and pH are based on current Utah Secondary Treatment Standards, *UAC R317-1-3.2*. Technology-based effluent imitations on Iron, Selenium and Titanium were developed using best professional judgment to ensure that the facility's wastewater treatment systems are operated properly. The oil and grease limit is based on best professional judgment (BPJ) and common practice within the Division. The permit limitations for Outfall 001 are:

Parameter	Effluent Limitations			
	Monthly Average	Weekly Maximum	Min.	Max.
Flow, MGD	NA	NA	NA	1.0
TSS, mg/L	25	35	NA	NA
pH, Standard Units	NA	NA	6.5	9.0
Iron, mg/l	4.7	NA	NA	NA
Selenium, mg/l	0.015	NA	NA	NA
Selenium, lbs/yr	NA	NA	NA	45.6
Titanium, mg/l	12.1	NA	NA	NA
Oil & Grease, mg/L	NA	NA	NA	10

NA – Not Applicable.

SELF-MONITORING AND REPORTING REQUIREMENTS

The following are the self-monitoring requirements for the permit. The permit will require reports to be submitted monthly and quarterly, as applicable, on Discharge Monitoring Report (DMR) forms due 28 days after the end of the monitoring period. Lab sheets for biomonitoring must be attached to the biomonitoring DMR.

Self-Monitoring & Reporting Requirements *a				
Parameter	Frequency	Sample Type	Units	
Flow *b, *c	Continuous	Instantaneous	MGD	
TSS, Effluent	Weekly	Grab	mg/L	
pH, Effluent			SU	
Oil & Grease, Effluent			mg/L	
WET, Chronic Biomonitoring <i>Cyprinodon variegatus</i> (sheepshead minnows)	Quarterly	Composite	Pass/Fail	
METALS *d				
Iron, Effluent	Weekly	Composite	mg/L	
Selenium, Effluent			mg/L	
Titanium, Effluent		Composite or Grab	mg/L	
Aluminum, Effluent	Quarterly	Composite	mg/L	
Arsenic, Effluent			mg/L	
Cadmium, Effluent			mg/L	
Chromium, Effluent			mg/L	
Copper, Effluent			mg/L	
Lead, Effluent			mg/L	
Nickel, Effluent			mg/L	
Silver, Effluent			mg/L	
Zinc, Effluent			mg/L	
Mercury Effluent *e			Composite or Grab	mg/L
Cyanide, Effluent			Grab	mg/L

*a See Definitions, Part VI of the permit, for definition of terms.

- *b Flow measurements of effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained.
- *c If the rate of discharge is controlled, the rate and duration of discharge shall be reported.
- *d 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.
- *e Sampling and analyses for mercury using USEPA Method 1631 or equivalent is required.

STORM WATER

STORM WATER REQUIREMENTS

The storm water requirements in the permit are based on the UPDES Multi-Sector General Permit for Storm Water Discharges for Industrial Activity, General Permit No. UTR000000 (MSGP).

The storm water section in the permit also contains requirements for SWP3 Preparation, Discharge Certification, CWA Section 313, Visual Monitoring and Spill Prevention and Response.

PRETREATMENT REQUIREMENTS

Any process wastewater that the facility may discharge to the sanitary sewer, either as direct discharge or as a hauled waste, is subject to federal, state and local pretreatment regulations. Pursuant to section 307 of the Clean Water Act, the permittee shall comply with all applicable Federal General Pretreatment Regulations promulgated, found in 40 CFR Section 403, the State Pretreatment Requirements found in *UAC R317-8-8*, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the waste. In this case, since there are no such discharges to a public sewer or a POTW, the permittee should not be subject to active pretreatment requirements.

BIOMONITORING REQUIREMENTS

A nationwide effort to control discharges where effluent toxicity is an existing or potential concern is regulated in accordance with the State of Utah's *Permitting and Enforcement Guidance Document for Whole Effluent Toxicity Control (Biomonitoring)*, February 15, 1991, which outlines guidance to be used by Utah Division of Water Quality staff and by permittees for implementation through the UPDES discharge permit program. 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 has been evaluated in the development of this permit. The naturally high salt concentrations in the ground water and proposed discharge water, as well as the receiving waters of the Great Salt Lake, may inhibit successful completion of any type of Whole Effluent Toxicity (WET) testing. With salt concentrations, measured as total dissolved solids (TDS), in the discharge expected to be between 10,000 and 20,000 mg/L and Great Salt Lake TDS concentrations proximal to the discharge around 150,000 mg/L, there is the potential for the salt to cause toxicity if

standard freshwater organisms were tested.

Based upon the concentrations of toxic pollutants and that the anticipated discharges are of relatively small volumes of effluent when compared to the existing water body of the Great Salt Lake, the effluent was determined to not have reasonable potential for toxicity and therefore, WET limits are not required. WET monitoring is included for this permit. Chronic quarterly biomonitoring as described in the permit has been agreed to with the use of a salt-tolerant standard test species. Reasonable potential for toxicity will be reevaluated based on the results of the WET testing during the next permit cycle. The WET 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 potential presence of toxicity.

PERMIT DURATION

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

Drafted by
Daniel Griffin, Discharge
Chris Bittner, Wasteload
Mike George, Storm Water
Utah Division of Water Quality

ADDENDUM TO STATEMENT OF BASIS AND FACT SHEET

A public notice for the draft permit was published in The Deseret News and Tribune on March 7, 2014. The comment period ended April 7, 2014. Any submitted comments received by that time will be considered and summarized below. During finalization of the Permit certain dates, spelling edits and minor language corrections may be made. Due to the nature of these changes they are not typically considered Major and the permit is not required to be rePublic Noticed. If any changes are Major, the permit will be Public Noticed again.

Responsiveness Summary

The comments received during the public notice period and the Water Quality responses to them are summarized in the attached documents. The changes were considered to be minor and the draft permit did not require being Re-Public Noticed.

These documents are: ATI Response to WRA Comments.docx (DWQ-2014-005097)
ATI Response to ATI Comments.docx (DWQ-2014-005739)

ATI also submitted a response top WRA comments. These were similar to Water Quality response but were not directly incorporated into the Water Quality response. They have been noted and will be incorporated into the record.

Utah Division of Water Quality (DWQ) Response to Comments from ATI
ATI Titanium UPDES Permit UT0025755
May 23, 2014

1. *WET testing test result clarification: Permit- page 7. As stated in the FSSOB, ATI's effluent does not have a reasonable potential for toxicity, and therefore whole effluent toxicity (WET) limits are not required or included in the draft permit. Moreover, the FSSOB explains that the high salinity of the Great Salt Lake and ATI's discharge "may inhibit successful completion of any type of Whole Effluent Toxicity (WET) testing." Nonetheless, DWQ has included WET monitoring requirements in the permit to provide information that DWQ will use, together with other information, to evaluate the need for WET requirements when the permit is renewed again in 2019. Because the WET testing is potentially unreliable and is intended to be used only as a screening tool for potential chronic toxicity, a WET test result that indicated potential chronic toxicity would not be, and is not intended by DWQ to be, a violation of the permit. ATI is concerned, however, that the permit is potentially ambiguous on this point, and is particularly concerned that a WET test result that indicates potential chronic toxicity could be construed as a violation of the "narrative standard" on page 3 of the draft permit. To eliminate this potential ambiguity, ATI requests that DWQ include the following specific statement on page 7 of the permit at the beginning of the final paragraph of section I.C.2.b.: "A WET test result that indicates chronic toxicity may not reflect actual toxicity and is not a violation of this permit."*

DWQ Response: The inclusion of the sentence is consistent with the current changes being initiated in the Whole Effluent Toxicity testing program for the Great Salt Lake by the Division. The sentence was included in the paragraph.

2. *Permit- page 5, section I.C.2.a., second paragraph. This paragraph states that, if a test result indicates chronic toxicity, the test should be repeated within less than four weeks. It also states that, if the second test result does not indicate chronic toxicity, then routine WET testing shall be resumed. It does not expressly state, however, what consequence would follow if the second test result indicates chronic toxicity. ATI believes that the paragraph should expressly state that the Director's determination of the need for additional testing or a TRE is triggered only if the second test result indicates chronic toxicity. Specifically, ATI suggests that the final two sentences of the paragraph be revised to read as follows: "If the second test result does not indicate chronic toxicity, routine monitoring shall be resumed. If the second test result does indicate chronic toxicity, then the Director may determine the need for any additional samples or a Toxicity Reduction Evaluation (TRE), see Part I.C.2.b."*

DWQ Response: We agreed with this comment; suggested language has been included in the final permit.

3. *WET testing discontinuance: FSSOB- page 9, first paragraph, fourth line, changed "required" to "included" to clarify that, although DWQ has included WET monitoring in the permit, there is no legal requirement to include WET monitoring.*

DWQ Response: DWQ agrees with the suggested word change; it has been included in the final permit.

4. *Minor vs. Major facility status: Permit - Changed headers on page 1 & 2 and main heading on page 1 to "Minor"; FSSOB- Changed title on page 1 to "Minor Industrial". Deleted paragraph 3 on page 2. ATI agrees with DWQ's assessment that the facility meets the criteria for a minor facility. DWQ should adhere to those criteria and treat the facility as a minor facility. The facility does not pose any threat to the Great Salt Lake that would warrant upgrading its status to that of a major facility.*

DWQ Response: The Division of Water Quality (Division) evaluates each facility that applies for a permit to determine whether it should be rated as a major or minor UPDES facility. The evaluation process for the initial permit determined that ATI's operation qualifies to be rated as a minor UPDES. However, using allowed regulatory discretion in evaluating the permit status, ATI was rated as a major facility due to the discharge being into the Great Salt Lake where there are ongoing studies connected with establishing protective numerical water quality standards for the lake.

During the renewal process the major status was reinvestigated. In reviewing the inspection and enforcement activity over the previous permit cycle, it appears the status as a major has not resulted in any increased level of oversight for ATI. The rationale supporting ATI's operation being classified as a major has not changed from the previous permit cycle. The comment is acknowledged, but no changes were made in response to this comment.

5. *WET sampling: ATI appreciates DWQ's efforts to accommodate the WET sampling requirements to ATI's remote location. ATI understands that the permit will require it to collect grab samples of effluent on Monday, Wednesday, and Friday. This is reflected in the Self-Monitoring & Reporting Requirements table on page 4 of the draft permit, which states that the WET sample type is "grab." The first paragraph of draft permit section I.C.2.a. and the accompanying footnote, however, refer to the collection of a "composite sample" for WET testing. To ensure consistency with the monitoring table and the feasibility of sample collection for WET testing, please revise these provisions to refer to "grab samples".*

DWQ Response: To guarantee that the samples are representative of the variability of the discharge during a processing day, the samples will be collected as composites. Language corrections have been made accordingly.

6. Miscellaneous comments:

- a. *Permit: Page 1, Include date of the final permit when it is issued.*
- b. *Permit: Page 5, Adjust starting date for WET testing to reflect the calendar quarter following the quarter in which the final permit is issued.*
- c. *Permit: Page 7, second paragraph. In addition to the sentence requested in Comment 1, above, ATI requests minor changes to the existing sentence in the paragraph so that it reads, "Failure to conduct an adequate TRE, or the failure to submit a plan or program as described above, or the failure to submit a plan or program ultimately determined to be inadequate by the Director or on administrative or judicial review, shall be considered a violation of this permit."*
- d. *Permit: Page 7, Paragraph 'D.' and Page 16, Paragraph D.: Adjust the first DMR due date to reflect the 28th day of the month following the month in which the final permit is issued.*

DWQ Response: All dates within the permit were adjusted to reflect the effective date of the permit. This is done on all permits before issuance. Other suggestion was agreed with and language changed accordingly.

Utah Division of Water Quality (DWQ) Response to Western Resource Advocate's Comments
ATI Titanium UPDES Permit UT0025755
May 23, 2014

1. *Initially, we are aware that testing and monitoring will be undertaken in and around the ATI outfall/channel as part of CERCLA cleanup of U.S. Magnesium. At this point, we believe that this testing and monitoring will be sufficient to determine whether the ATI discharge and discharge site represent a potential hazard to the aquatic life using the area. However, should this testing and monitoring not occur or should the testing and monitoring prove inadequate to determine whether the ATI discharge and discharge site are potential hazards, we will renew our request that adequate monitoring and testing be undertaken.*

DWQ Response: Comment acknowledged. No changes were made in response to this comment

2. *At issue is whether the essentially fresh water in a channel created by the ATI discharge as it flows for approximately one mile to the open waters of Great Salt Lake contains concentrations of heavy metals and other pollutants that may present a risk to the aquatic life known to be using the area in and around the channel. Arguably, fresh water numeric standards should have been applied to the relatively fresh water in this channel.*

DWQ Response: As presented on p. 3, paragraph 3 of the Fact Sheet/Statement of Basis (FSSOB), the only numeric criterion available for Gilbert Bay is selenium. Numeric criteria for other pollutants remain unavailable. DWQ does not agree that freshwater numeric standards (criteria) should be applied to these waters because the Standards of Quality for Waters of the State, UAC R317-2, apply the freshwater numeric criteria for Classes 3A through 3D. To apply freshwater criteria to ATI's Class 5A and Class 5E waters would require a rule change. As noted by the comment, the water is "essentially" or "relatively" fresh (presumably compared to the waters of Great Salt Lake). ATI's discharge contains dissolved solids at an average concentration of about 4280 mg/l and is anticipated to increase in salinity with contact with the saline sediments of the Class 5E waters. These waters are also periodically inundated with saline waters from Gilbert Bay and numeric criteria based on the protection of freshwater organisms does not apply. DWQ also disagrees that this discharge presents a risk to the aquatic life of the receiving waters for the reasons documented in the FSSOB. No changes were made in response to this comment.

3. *We appreciate your decision to require that USEPA Method 1661 (or its equivalent) be used to analyze mercury concentrations from the discharge. However, footnote "d" specifies that metals "should" be analyzed using a method that meets MDL (method detection limit)*

requirements. We request that the permit require that metals be analyzed using a method with a reporting limit lower than the aquatic wildlife standards. The use of the term “should” is insufficiently clear. Moreover, the term “MDL” appears not to be defined and is not sufficient to allow the public to determine whether such a method is adequate to secure enforcement of the permit terms and conditions and to ensure compliance with water quality based standards.

DWQ Response: The permit was revised to spell out the acronym of MDL to Method Detection Limit. Method detection limits have been defined by the USEPA in 40 CFR 136, Appendix B. Actual method detection limits are method, laboratory, and matrix specific which precludes requiring a specific limit that may be technically infeasible using approved analytical methods. Regulatory limits for permits are usually specified as a reporting limit (also called sample quantitation limit, or practical quantitation limit). The method detection limit is the concentration at which an analyte can be detected with a specified level of confidence. The reporting limit has the same level of confidence for detecting the analyte as the method detection limit but the concentration can also be measured with a specified level of confidence. Reporting limits are always higher than method detection limits and also vary depending on method, laboratory, and sample matrix. Detections in between the method detection limit and the reporting limit are considered estimated.

Analyzing for mercury is a monitoring requirement only. Mercury does not have a water quality-based effluent limit which precludes the need to specify a specific reporting limit, nor did the commenter suggest one. The purpose of the permit requiring a mercury method with lower detection and reporting limits is to quantify mercury concentrations in the effluent. DWQ’s expectation based on experience with Great Salt Lake waters and effluent is that the specified method will be adequately sensitive to measure the concentrations of mercury in the effluent. Method detection limit was spelled out in the draft permit; no changes were made in response to this comment.

4. *We appreciate your decision to require whole effluent toxicity testing on composite samples of the final effluent.*

DWQ Response: Comment acknowledged, no changes were made in response to this comment.

5. *The Statement of Basis indicates with regard to selenium that “[m]easured effluent concentrations have exceeded 0.0036 mg/l but were in compliance with the permitted*

maximum daily concentration of 0.030 mg/l.” SOB at 3. However, the proposed permit includes no maximum daily effluent limit on selenium.

DWQ Response: Agreed. The text was revised as follows (additions underlined):
Measured effluent concentrations during the previous permit cycle have exceeded 0.0036 mg/l but were in compliance with the previous permit’s requirement of a maximum daily concentration of 0.030 mg/l.

6. *The Statement of Basis asserts that “[t]here was no numeric criterion for selenium for Gilbert Bay when the last permit was issued. Since then, a selenium criterion of 12.5 mg/kg in bird eggs has been developed for Gilbert Bay.” SOB at 4. It is critical to acknowledge that this standard was developed specifically for the open waters of Gilbert Bay and that there is no analogous standard for the Great Salt Lake transitional wetlands through which the ATI effluent flows for a mile until it reaches the open waters of the Lake.*

DWQ Response: The FSSOB on p. 3 was revised for clarity by adding the following sentence: When the previous permit was issued, no numeric criteria were available for either the Class 5E Transitional Waters or Class 5A Gilbert Bay (UAC R317-2-6).

7. *At the same time, the risk assessment for the ATI discharge evaluated selenium concentrations up to “a maximum concentration of 0.0036 mg/l (fresh water chronic standard).” SOB at 3. The record does not support the decision not to derive and apply a limit on acute concentrations of selenium in the ATI discharge. Of particular concern is that selenium concentrations in the ATI discharge have reached as high as 0.0061 mg/l – well beyond the concentration examined in the ecological risk assessment. See SOB at 4.*

DWQ Response: The 2008 Ecological Risk Assessment conclusions were based on the prediction that selenium concentrations in the effluent would be less than 0.0036 mg/l. As noted in the FSSOB, the maximum measured concentration of selenium was 0.0061 mg/l. As described in the FSSOB, these higher selenium concentrations were specifically evaluated for this permit renewal and concluded to not have “reasonable potential” to cause or contribute to the exceedance of a water quality standard and therefore, water quality-based effluent limits are not required (UAC R317-7-4.2). Given the low variability in ATI’s effluent selenium concentrations and the lack of reasonable potential for chronic effects, DWQ concluded no reasonable potential for acute effects. Although applicable numeric criteria are unavailable for the Class 5E Transitional Waters, a comparison of acute criteria to chronic criteria in Table 2.14.2 of R317-2 shows that acute criteria are much higher than chronic. Unless effluent concentrations are highly variable (which ATI’s are not based on the discharge monitoring reports),

daily maximum (acute) limits are not needed to control selenium concentrations in addition to the annual loading limit. The permit requires weekly monitoring for selenium which provides a basis for evaluating the homogeneity of selenium concentrations in the effluent during the upcoming permit cycle. No changes were made in response to this comment.

8. *The proposed permit includes a limit on selenium of 0.015 mg/l (monthly average). Draft Permit at 4. Because the ecological risk assessment examined only selenium concentrations up to "a maximum concentration of 0.0036 mg/l," there is no basis in the record to support the assumption that the 0.015 mg/l limit would protect water quality based standards and beneficial uses of the transitional wetlands.*

DWQ Response: The FSSOB references specific data presented in the Jordan Valley Southwest Groundwater Treatment Plant FSSOB as providing the basis for concluding that selenium concentrations of 0.015 mg/l will not impair the uses of the Class 5E Transitional Waters. Specifically, eggs collected from ongoing monitoring of the South shore of Gilbert Bay where selenium concentrations in the water are approximately 0.030 mg/l have not resulted in an exceedance of the Gilbert Bay selenium criterion.

9. *Moreover, the 12.5 mg/kg standard cannot be applied to the transitional wetlands of Great Salt Lake, as doing so would be applying such a standard as though it were a rule, in violation of Utah Administrative Rulemaking Act, Section 202(2). Utah Code Ann. § 63G-3-202(2) ("An agency's written statement that is made as a rule in accordance with the requirements of this chapter is enforceable and has the effect of law." This standard was not intended to apply to the Lake's transitional wetlands and may not be so applied without formal rulemaking.*

DWQ Response: DWQ did not apply the Class 5A selenium standard to the Class 5E Transitional Waters. DWQ did use the Class 5A selenium standard as a basis for determining the need for water quality-based effluent limits as allowed by UAC R317-7-4.2(4)(a)2. See comment 2, as stated, freshwater standards cannot be applied to the Class 5E Transitional Waters without rulemaking. No changes were made in response to this comment.

10. *Finally, the following statement may not be used to justify the 0.015 mg/l limit:*

Selenium loading to Gilbert Bay from ATI's effluent is limited by this permit to 21 kg/yr (45.625 lbs/yr). This contribution is insignificant compared to the estimated 1,224 kg/yr from Kennecott Utah Copper and the proposed Southwest Groundwater Treatment Plant or the 1,540 kg/yr for all of Gilbert Bay estimated by Naftz et al. (2008).

SOB at 4. After all, at issue is concentration and not loading.

As a result, the record does not support the 0.015 mg/l limit. The ATI discharge impacts Great Salt Lake transitional wetlands. The 2008 Risk Assessment did not evaluate selenium concentrations beyond 0.0036 mg/l. Finally, references to loading and the 12.5 mg/kg standard are not appropriate to assess whether the proposed permit limits on concentration are adequate to protect the water quality and beneficial uses of the transitional wetlands.

DWQ Response: As indicated by the reference to Gilbert Bay, the loading evaluation pertains to Gilbert Bay. The ATI Class 5E Transitional Waters were evaluated as described in Comment response 8. No changes were made in response to this comment.

