Official Draft Public Notice Version **March 2, 2026**
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STATE OF UTAH
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY
PO BOX 144870
SALT LAKE CITY, UTAH 84114-4870

Ground Water Discharge Permit
Permit No. UGW350005

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

Salt Lake City Department of Airports
PO Box 14550
Salt Lake City, Utah 84114-5550

hereafter, referred to as the Permittee, is granted a Ground Water Discharge Permit for the Salt Lake City International Airport Deicing Fluid Reclamation Facility located at latitude 40°48'50" N and longitude 111°59'36" W.

This permit is based on representations made by the Permittee and other information contained in the administrative record. It is the responsibility of the Permittee to read and understand all provisions of this permit.

The facility shall be constructed and operated in accordance with conditions set forth in the permit and the Utah Administration Rule for Ground Water Quality Protection (Utah Admin. Code R317-6).

This Ground Water Quality Discharge Permit amends and supersedes all other Ground Water Discharge permits previously issued for this facility. This permit was last renewed on May 15, 2021.

This permit shall become effective at midnight, DATE, 2026.

This permit and authorization to operate shall expire at midnight, DATE, 2031.

Signed this XXth day of Month, 2026.

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Candice A. Hasenyager, P.E.
Director

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PART I SPECIFIC CONDITIONS

A. GROUND WATER CLASSIFICATION

Based on ground water quality data submitted by the Permittee, ground water in the shallow aquifer below the site is Class IV Saline Ground Water.

B. BACKGROUND GROUND WATER QUALITY

Based on the ground water quality data at the storage lagoon site, background ground water quality is defined as less than the ground water quality standards for metals and less than the detection limits for each of the volatile organic chemicals listed under Utah Admin. Code R317-6-2.

C. GROUND WATER PROTECTION LEVELS

In accordance with Utah Admin. Code R317-6-4.7, protection levels for Class IV Saline Ground Water are established to protect human health and the environment. Appropriate protection levels for metals and volatile organic chemicals are the ground water quality standards listed in Utah Admin. Code R317-6-2.1. Because the U.S. EPA has not established a drinking water standard for propylene glycol, the protection level will be the detection limit. No protection level is established for total dissolved solids (TDS) because ground water underlying the facility is designated as Class IV Saline.

D. BEST AVAILABLE TECHNOLOGY (BAT) STANDARD

1. Storm Water Storage Lagoon Facility

The purpose of the storm water storage lagoon facility is to temporarily store storm water and snowmelt containing deicing chemicals from airport operations. The use of the composite clay XR-5 – 30 mil reinforced geomembrane bottom liner is intended to prevent excessive seepage while the runoff is being detained. Monitoring wells will be used to assess whether ground water migrating away from the site contains deicing and other chemicals in excess of protection levels. This system both protects and monitors ground water at the facility and is an application of best available treatment technology.

i. Authorized Construction – The storage lagoon facility is limited to three lagoons for the storage of storm water runoff containing deicing chemicals and process wastewater. The total containment volume for the three lagoons is 10 million gallons, divided equally. Construction of the facility was completed in the spring of 1998. Future additions to the facility will require modification of this permit.

ii. Operation and Maintenance – The storage lagoons shall be operated and maintained in accordance with the design and methods approved in the 1998 Construction Permit.

a. Composite Bottom Liner – The composite bottom liner consists of one foot of compacted native clay with a permeability less than 1×10^{-6} cm/sec, and a 30-mil high performance XR-5 reinforced geomembrane liner with a permeability less than 1×10^{-12} cm/sec. The cells also have a 36-mil XR-5 flexible membrane cover.

b. Monitoring Wells – Monitoring well construction shall conform to A *Guide to the Selection of Materials for Monitoring Well Construction*

(EPA, 1983) and *RCRA Groundwater Monitoring Technical Enforcement Guidance Document* (EPA, 1986).

iii. Storage Lagoons Use Limitation – The storage lagoon facility shall only be used to contain ion exchange wastewater and pretreat snow melt and storm water runoff containing deicing chemicals from airport operations. All other uses of the facility are prohibited without the Director's approval. If spills of unauthorized chemicals, fuels, or other materials are allowed to enter the system, the Permittee shall notify the Director within 24 hours and provide written notice within 5 days, in accordance with the provisions of Part II.I.

2. Land Application Site

Land application is used to dispose of storm water run-off and process wastewater containing low concentrations of propylene glycol. A test pilot project utilizing land application was performed during the 2001-2002 season. Subsequent reporting, submitted to the Division of Water Quality ("DWQ") on April 4, 2003, showed that glycol was degraded to non-detectable amounts in the soil at a depth of three feet after the one-week treatment period in all samples collected.

The disposal system uses four center pivots equipped with spray nozzles. The dedicated disposal area is approximately 46 acres. The site is located approximately 1,500 feet north of the north perimeter road encircling the west runway. The wastewater shall be pumped directly from each of the lagoons by a pump to the irrigation system via a 6-inch pressurized pipe at a maximum rate of 400 gallons per minute.

The spray system shall consist of four 400-foot-radius pivot spray towers with an agricultural irrigation spray nozzle. The towers are designed to provide even application over a 400-foot radius while minimizing fugitive spray and odor problems. The towers are spaced approximately 500 feet apart to prevent an overlapping application from adjacent towers. The total annual volume for land application is 7-9 million gallons.

i. Operation and Maintenance:

a. Monitoring Wells – Monitoring well construction shall conform to *A Guide to the Selection of Materials for Monitoring Well Construction* (1983) and *RCRA Groundwater Monitoring Technical Enforcement Guidance Document* (1986).

b. Application Rate and Concentration – The wastewater will remain below a 1% glycol concentration, and the application rate will not exceed 600,000 gallons per event. No surface runoff or surface ponding from the site will be permitted.

c. No Nuisance Conditions – The application program will cease if it is determined to produce an unacceptable nuisance condition.

d. No High Groundwater – If the ground water underlying the site rises to within 2-1/2 feet of the prevailing ground surface elevation, the application program will cease.

e. Surface Tilling Required – The site will be tilled to a depth of six inches as often as required to ensure an even absorption of fluids. The tilling will be performed with a standard agricultural disc tiller.

f. The application of water to frozen, ice-covered, or snow-covered land is prohibited.

E. COMPLIANCE MONITORING REQUIREMENTS

1. Storage Lagoon Site

i. Ground Water Monitoring: The Permittee installed four monitoring wells (MW-1 through MW-4) at the locations listed in Table 1 for compliance monitoring of the storage lagoon site:

Table 1: Compliance Monitoring Well Locations at the Storage Lagoon

Monitoring Well	Latitude	Longitude
MW-1	40°48'55" N	111°59'32" W
MW-2	40°48'46" N	111°59'32" W
MW-3	40°48'46" N	111°59'39" W
MW-4	40°48'55" N	111°59'39" W

2. Land Application Site

i. Ground Water Monitoring: The Permittee installed three ground water monitoring wells at the locations listed in Table 2 to monitor ground water quality at the Land Application Site.

Table 2: Compliance Monitoring Well Locations at the Land Application Site

Monitoring Well	Latitude	Longitude
PZ-3	40°49'28.54294" N	112°00'00.13743" W
PZ-4	40°49'19.39635" N	111°59'47.43413" W
PZ-5	40°49'11.38217" N	112°00'06.71130" W

ii. Soil Monitoring: The Permittee will collect soil samples at the four land application areas (Pivots #1, #2, #3, and #4) to evaluate the impact of the land application operation on subsurface soils. In addition, at least four random sites within the land application areas will be sampled after each disposal period. These samples will be taken at 1-1.5- and 2-2.5-foot depths to demonstrate that degradation is complete prior to the next round of land application of fluids.

3. Further Modification of the Monitoring Well Network

i. If at any time the Director determines the monitoring well network to be inadequate for any reason, the Permittee shall, within 60 days of receipt of notification, submit a plan and compliance schedule to remedy the inadequacy.

4. Protection of Monitoring Wells

   i. All compliance monitoring wells must be protected from damage caused by surface vehicular traffic or contamination from surface spills, and shall be maintained in full operational condition for the life of this permit. Any compliance monitoring well that becomes damaged beyond repair or is rendered unusable for any reason will be replaced by the Permittee within 90 days, or as directed by the Director.

5. Ground Water Protection Levels

   i. Ground Water Monitoring Requirements

      a. Water Level Measurements - Water level measurements shall be made to the nearest 0.01 foot in all wells prior to the collection of ground water samples. The measurements will be made with respect to a permanent reference point clearly demarcated on the top of the well or surface casing.

      b. Ground Water Quality Sampling - Grab samples of ground water shall be collected for chemical analysis in conformance with the Ground Water Sampling Plan that has been approved by the Director.

      c. Analysis by Certified Laboratories - Analysis of ground water samples shall be performed by laboratories certified by the State Health Laboratory.

         1) Certified Laboratory – All water analyses shall be performed by a laboratory certified by the State of Utah Department of Health in accordance with Utah Admin. Code R317-6-6.3.L.

      d. Ground Water Analytical Methods - Methods used to analyze ground water samples must comply with the following:

         1) Methods cited in Utah Admin. Code R317-6-6.3L, and

         2) Have detection limits which meet or are lower than the ground water protection levels found in Part I.C above.

      e. Analysis Parameters - The following analyses shall be conducted on all ground water samples collected:

         1) Field Parameters - pH, temperature, and specific conductance.

         2) Propylene glycol, total petroleum hydrocarbons (TPH), and TDS.

      f. Additional Analysis Parameters -

         1) If TPH exceeds 10 mg/l, the Permittee will resample and submit analysis results for benzene, toluene, ethylbenzene, xylenes, and naphthalene (BTEXN).

2) During the final monitoring period of this permit, the following analyses shall be conducted on all ground water samples collected:

i. Volatile Organic Chemicals - those listed in Utah Admin. Code R317-6-2.

ii. Metals - those listed in Utah Admin. Code R317-6-2.

3) If spills of unauthorized chemicals, fuels, or other materials enter the detention pond or if the protection level parameters are exceeded at compliance monitoring points, monitoring and analyses for additional parameters beyond those listed in the paragraphs above may be required at the request of the Director.

g. Monitoring Frequency - Measurements and analyses done for monitoring will be conducted on a semiannual basis and reported to the Director in accordance with the requirements of Part I.G below, except for soil samples taken for the Land Application Site. The frequency of soil sampling will be determined by the rate of application and the effectiveness of biodegradation. Sampling will occur prior to the next round of land application of fluids as per Part I.E.2.b above. Under no circumstances will fluids be applied to the Land Application Site without confirmation of degradation.

h. Compliance Monitoring Period - Monitoring shall commence upon the effective date of this permit and shall continue through the life of this permit.

i. Soil Sample Analysis Parameters – soil samples for the land application areas will be analyzed for propylene glycol.

F. NON-COMPLIANCE STATUS

1. Probable Out-of-Compliance Status - The Permittee shall evaluate the results of each round of ground water sampling and analysis to determine any exceedance of the ground water protection levels found in Part I.C, above. Upon determination by the Permittee that a ground water protection level has been exceeded at any compliance monitoring well, the Permittee shall:

i. Immediately resample all monitoring wells, submit the initial analytical results thereof, and notify the Director of the probable out-of-compliance status within 30 days of the initial detection.

ii. Immediately implement an accelerated schedule of quarterly ground water sampling and analysis, consistent with the requirements of this permit. This quarterly sampling will continue for at least two quarters or until the compliance status can be determined by the Director. Reports on the results of this sampling will be submitted to the Director as soon as they are available, but not later than 30 days from each date of sampling.

2. Out-of-Compliance Status

i. Notification and Accelerated Monitoring - upon determination by the Permittee, in accordance with Utah Admin. Code R317-6-6.17, that an out-of-compliance status exists, the Permittee shall:

a. Verbally notify the Director of the out-of-compliance status within 24 hours, and provide written notice within 5 days of the detection, and

b. Immediately implement an accelerated schedule of quarterly ground water monitoring, which shall continue for at least two quarters or until the facility is brought into compliance.

c. Source and Contamination Assessment Study Plan - within 30 days of the verbal notice to the Director required in Part I.F.2.a above, the Permittee shall submit an assessment study plan and compliance schedule for:

1) Assessment of the source or cause of the contamination and determination of the steps necessary to correct the source.

2) Assessment of the extent of the ground water contamination and any potential dispersion.

3) Evaluation of potential remedial actions to restore and maintain ground water quality and ensure that the ground water standards will not be exceeded at the compliance monitoring wells.

G. REPORTING REQUIREMENTS

1. Semiannual Monitoring - For the semiannual monitoring required in Part I.E above, the sampling shall occur during the stated period, and the analyses shall be reported to the Director according to the schedule outlined in Table 3.

Table 3: Sampling and Reporting Schedule

Sampling Period	Report Due Date
September through February	March 30
March through August	September 30

2. Water Level Measurements - Water level measurements from ground water monitoring wells shall be reported as measured depth to ground water from the surveyed casing measuring point, and ground water elevations as converted by casing measuring point elevations.

3. Ground Water Quality and Soil Sampling - reporting will include:

i. Field Data Sheets - or copies thereof, including the field measurements required in Part I.E.4.e above, and other pertinent field data, such as well name/number, date and time, names of sampling crew, type of sampling pump or bail, measured casing volume, and volume of water purged before sampling.

ii. Laboratory Analytical Results – including date sampled, date received, and the results of analysis for each parameter, including value or concentration, units of measurement, reporting limit (minimum detection limit for the examination), analytical method, and the date of the analysis.

H. OPERATIONAL REQUIREMENTS

1. Maintenance of Ground Water Monitoring Network - The Permittee shall maintain in complete operable condition all monitoring wells required in this permit and any additional wells installed at the request of the Director. Wells that become permanently damaged or rendered unusable by subsurface conditions shall be replaced in a manner and location approved by the Director.

PART II MONITORING, RECORDING AND REPORTING REQUIREMENTS

A. REPRESENTATIVE SAMPLING

Samples taken in compliance with the monitoring requirements established under Part I shall be representative of the monitored activity.

B. ANALYTICAL PROCEDURES

Water sample analysis must be conducted according to test procedures specified under Utah Admin. Code R317-6-6.3.L, 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 each reporting period specified in the permit, shall be submitted to the Director, Utah Division of Water Quality at the following address no later than the 15th day of the month following the completed reporting period:

State of Utah
Division of Water Quality
P.O. Box 144870
Salt Lake City, Utah 84114-4870
Attention: Ground Water Protection Section

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 pollutant more frequently than required by this permit, using approved test procedures as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted. Such increased frequency shall also be indicated.

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;
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 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 at the request of the Director at any time.

I. TWENTY-FOUR HOUR NOTICE OF NONCOMPLIANCE REPORTING

1. The Permittee shall verbally report any noncompliance which may endanger public health or the environment as soon as possible, but no later than 24 hours from the time the Permittee first became aware of the circumstances. The report shall be made to the Utah Department of Environmental Quality 24-hour number, (801) 536-4123.

2. A written submission shall also be provided to the Director 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,

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

3. 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 II.D are submitted.

K. INSPECTION AND ENTRY

The Permittee shall allow the Director, or an authorized representative, 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.

PART III 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 is subject to a fine not exceeding $25,000 per day of violation. Any person convicted under Section 19-5-115(2) of the Act a second time shall be punished by a fine not exceeding $50,000 per day. 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 the Permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

PART IV 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 when the alteration or addition could significantly change the nature of the facility or increase the quantity of pollutants discharged.

B. ANTICIPATED NONCOMPLIANCE

The Permittee shall give advance notice 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 must apply for and obtain a permit renewal or extension. The application should 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 as follows:

   a. For a corporation: by a responsible corporate officer;

   b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.

   c. For a municipality, State, Federal, or other public agency: 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 specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (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 Part IV.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 Part IV.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 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 by the Permittee, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Director. As required by the Act, permit applications, permits, effluent data, and ground water quality data shall not be considered confidential.

J. 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.

K. SEVERABILITY

The provisions of this permit are severable, and if any provision 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.

L. TRANSFERS

This permit may be automatically transferred to a new Permittee if:

1. The current Permittee notifies the Director at least 30 days in advance of the proposed transfer date;

2. The notice includes a written agreement between the existing and new Permittee 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.

M. 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, penalties established pursuant to any applicable state law or regulation under authority preserved by Section 19-5-117 of the Act.

N. REOPENER PROVISION

This permit may be reopened and modified (following proper administrative procedures) to include the appropriate limitations and compliance schedule, if necessary, if one or more of the following events occur:

1. If new ground water standards are adopted by the Board, the permit may be reopened and modified to extend the terms of the permit or to include pollutants covered by new standards. The Permittee may apply for a variance under the conditions outlined in R317-6-6.4.D.

2. If alternative compliance mechanisms are required.