

STATE OF UTAH
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY
SALT LAKE CITY, UTAH 84114-4870

**Ground Water Discharge Permit
Permit No. UGW570002**

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

**Westinghouse Electric Company LLC
10,000 West 900 South
Ogden, Utah 84404-9760**

is granted a Ground Water Quality Discharge Permit for the operation of a facility consisting of wastewater evaporation ponds and a subsurface barrier wall in Weber County, Utah.

The facility is located in the NE ¼ of Section 18, T. 6 N., R. 3 W., Salt Lake Base and Meridian.

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 the conditions set forth in the ground water discharge permit and the construction permit of May 18, 2012, and the Utah Ground Water Quality Protection Rules (R317-6).

This permit shall become effective on _____, 2018.

The permit and authorization to operate shall expire on _____, 2023.

Erica Gaddis
Director

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I. SPECIFIC PERMIT CONDITIONS

A. Ground Water Classification

Based on data from sentry monitoring wells located in uncontaminated ground water around the site, ground water varies naturally from Class II Drinking Water Quality Ground Water to Class IV Saline Ground Water across the Western Zirconium site.

B. Background Ground Water Quality

Based on data gathered before first permit issuance in 2013, background ground water quality in existing sentry monitoring wells (located immediately outside the plume of contaminated ground water) is provided in Table 1. Background levels of additional parameters to be used for compliance monitoring, starting with this permit term (fluoride and thiocyanate as SCN), will be defined after eight samples for these parameters have been taken over the next year. Ground water quality as revealed by the third quarter, 2012 (before the start of barrier wall construction) and third quarter, 2017 monitoring events in monitoring wells located within the contaminated plume is provided in Table 2. Parameters in these tables include contaminants of environmental concern identified in the 2008 Environmental Risk Assessment.

C. Ground Water Protection Levels

Ground water protection levels for uncontaminated sentry monitoring wells are provided in Table 3. Protection levels are defined as the greater of the mean plus two standard deviations from the background monitoring data or potentially harmful contaminant concentrations identified by the 2008 Ecological Risk Assessment. Protection levels for nitrate + nitrite and radium 226 + 228 are the greater of the mean plus 2 times the standard deviation of the background data, or the ground water quality standard from UAC R317-6-2. Because of the variable saline nature of shallow ground water at this site, ground water protection levels will not be established for total dissolved solids.

The intent of compliance monitoring in these wells is to track any expansion of the plume of contaminated ground water in areal extent. If protection levels are exceeded in any sentry well for four consecutive quarterly monitoring events, Western Zirconium shall install a new sentry well in uncontaminated ground water immediately outside of the new plume boundary, if required by the Director after a review of existing data indicates that the contaminant plume has reached the sentry well. The existing contaminated sentry well will continue to be monitored as a plume monitoring well.

Table 1
Background Ground Water Quality in Existing Sentry Monitoring Wells

Well	S4	S5	S6	S7	S9	S10	S11	S12
Parameter								
Ammonia (mg/l)	7.3	5.3	5.9	3.2	3.3	4.9	9.6	3.3
Total Cyanide (mg/l)	0.0031	0.0029	0.0033	0.0043	0.0039	0.0028	0.0024	0.0044
Total Barium (mg/l)	0.15	0.19	0.10	0.24	0.19	0.49	0.16	0.20
Dissolved* Cadmium (mg/l)	0.00006	0.00008	0.00006	0.00006	0.00009	0.00004	0.00023	0.00012
Dissolved* Selenium (mg/l)	0.015	0.010	0.019	0.003	0.002	0.001	0.004	0.001
Dissolved Uranium (mg/l)	0.00048	0.00026	0.00096	0.00387	0.00008	0.00063	0.00062	0.00072
Total Zirconium (mg/l)	0.0048	0.0029	0.0075	0.0035	0.0030	0.0034	0.0153	0.0028
Nitrate +Nitrite (mg/l)	0.07	0.08	0.08	0.04	0.08	0.12	0.06	0.03
Radium 226 + 228 (pCi/l)	2.0	2.3	2.8	0.9	0.9	2.6	3.6	0.9
TDS (mg/l)	8,767	7,333	29,000	1,467	737	3,267	33,833	
pH (units)	8.0	8.1	8.1	8.3	8.1	8.1	7.8	

* Preliminary values based on available data

Table 2
Water Quality in Plume Monitoring Wells in the Third Quarter, 2012 and 2017 Sampling Events

Well Parameter	N1		N2		R1		S2		S3		S8	
	2012	2017	2012	2017	2012	2017	2012	2017	2012	2017	2012	2017
Ammonia	4.4 ¹	0.98 ¹	6.8 ¹	5.3 ¹	4.3 ¹	3.3 ¹	7.5 ¹	5 ¹	9.4 ¹	7.5 ¹	<0.1	2.6 ¹
Total Cyanide	0.026 ¹	0.02	<0.01	<0.0031	0.0046 ¹	0.0032 ¹	0.0056 ¹	0.0053 ¹	<0.01	0.0076 ¹	⁽²⁾	<0.0031
Total Barium	0.29	0.22	0.078	0.088	0.073	0.068	0.11	0.099	0.37	0.59	0.11	0.14
Dissolved Cadmium	0.00024 ¹	<0.00027	<0.001	<0.00027	<0.001	<0.00027	0.00079 ¹	0.0018	<0.00036 ¹	<0.00027	0.0002 ¹	<0.00027
Dissolved Selenium	0.009 ¹	<0.0007	0.019 ¹	<0.0007	<0.0002	<0.002	0.058 ¹	<0.02	0.013	<0.0007	<0.01	<0.0007
Dissolved Uranium	<0.001	0.00024	0.0011	0.0012	0.0003 ¹	0.0002	0.029	0.037	0.00042 ¹	0.00016	0.054	0.02
Total Zirconium	<0.015	<0.0024	<0.015	<0.0024	<0.015	<0.0024	<0.015	<0.0024	<0.015	<0.0024	<0.015	<0.0024
Nitrate & Nitrite	0.03 ¹	0.019 ¹	0.092 ¹	0.038 ¹	<0.1	<0.019	33	53 ¹	0.1	<0.019	22	1.4 ¹
Radium 226 & 228	1.83 ±0.14	0.91	2.03 ±0.15	2.40	2.02 ±0.15	1.80	3.85 ±0.30	4.53	1.91 ±0.16	2.58	2.19 ¹ ±0.18	2.22
TDS	6600	4500	18000	21000	28000	2300	4900	40000	4900	4400	9900	13000
PH	7.76 ¹	7.7 ¹	8.09 ¹	8.1 ¹	7.62 ¹	8 ¹	8.2 ¹	7.5 ¹	8.2 ¹	8.3 ¹	7.47 ¹	7.8 ¹

(a) Estimated quantity

(b) Current data unusable; the analyte may or may not be present.

Table 3
Protection Levels for Existing Sentry Wells
(units in mg/l unless noted otherwise)

Well \ Parameter	S4	S5	S6	S7	S9	S10	S11	S12
Ammonia	9.5	6.9	8.0	4.5	4.2	7.0	11.7	3.7
Nitrate+ Nitrite	10 ²							
Radium 226+228 (pCi/l)	5.0 ²	5.6	6.6	5.0 ²				
Total Cyanide	0.0087	0.0082	0.0079	0.0078	0.0103	0.0094	0.0051 ¹	0.01
Thiocyanate as SCN	1.15 ³	0.62 ³	1.62 ³	0.89 ³	0.19 ³	1.26 ³	2.47 ³	TBD ³
Fluoride	0.96 ³	1.36 ³	1.34 ³	1.37 ³	1.08 ³	1.22 ³	2.44 ³	TBD ³
PH (units)	6.5-8.5 ²							

1. Ecological Risk Assessment risk-based protection level
2. Utah Ground Water Quality Standard
3. Preliminary value based on existing data

D. Waste Containment and Discharge Minimization Technology

1. Authorized Discharge

Only wastewater from Western Zirconium's manufacturing process, as described in the permit Statement of Basis, may be discharged into the wastewater evaporation ponds.

2. Waste Containment

Western Zirconium constructed a subsurface barrier wall around the existing wastewater evaporation ponds in accordance with a Division of Water Quality Construction Permit issued May 18, 2012. The subsurface barrier wall has a hydraulic conductivity of 1×10^{-7} cm/sec or less, and will inhibit lateral flow of wastewater that has infiltrated into the subsurface from the existing wastewater evaporation ponds. The barrier wall is keyed into a layer of low-permeability clay identified in previous geotechnical investigations. The low-permeability clay, in combination with the upward hydraulic gradient caused by ground water rising from deeper aquifers, will inhibit vertical flow of wastewater from the ponds.

3. Discharge Minimization Technology

Performance of the wastewater containment system provided by the new subsurface barrier wall, in combination with the underlying clay layer and the upward vertical hydraulic gradient, will be monitored under the provisions of this permit. If a comprehensive review of permit monitoring data indicates that the system is not performing as anticipated, Western Zirconium will be required to develop alternative plans to minimize discharge of wastewater to waters of the state.

This discharge minimization technology is part of Western Zirconium's response to a Notice of Violation and Order issued by the Division of Water Quality in 1999. Ground water at this site has very limited beneficial uses due to its high salinity and low yield to wells; however, the main threat to waters of the state is contamination of surface water at the site by upwelling ground water. The long-term goal of this remedial action is to decrease concentrations of contaminants of concern in surface water to levels identified as harmless to wildlife in Western Zirconium's 2008 Ecological Risk Assessment. These cleanup goals, based on ecological risk and Utah ground water standards, are listed in Table 4. Due to natural background, previous uses of the land, and other factors beyond Western Zirconium's control, some cleanup goals may not be attainable at this site.

Table 4
Cleanup Goals for Surface Water

Parameter	Cleanup Goal	Source
Ammonia, mg/l	0.34	1
Total Cyanide, mg/l	0.0052	2
Total Barium, mg/l	0.004	1
Dissolved Cadmium, mg/l	0.00064	1
Dissolved Selenium, mg/l	0.0046	1
Dissolved Uranium, mg/l	0.0026	1
Total Zirconium, mg/l	0.017	1
Nitrate + Nitrite, mg/l	10	3
Radium 226 + 228, pCi/l	5	3
pH (units)	6.5-8.5	3

Sources for Cleanup Goals:

- 1 Ecological Risk Assessment Mud Flat Area Cleanup Goals (2008)
- 2 Ecological Risk Assessment Cleanup Goal for Free Cyanide
- 3 Utah Ground Water Standards

E. Compliance Monitoring Requirements

1. Purpose and Nature of Compliance Monitoring

The purpose of compliance monitoring for this permit is to monitor the natural attenuation of an existing plume of contaminated ground water, and to monitor the performance of the discharge minimization technology authorized under this permit.

Most ground water discharge permits issued under UAC R317 are for new facilities located over uncontaminated ground water, and compliance monitoring is based on detection of ground water contamination above the permit protection levels. This type of compliance monitoring has limited usefulness in this case. Instead, compliance with the terms of this permit will be based on evaluation of several types of evidence to demonstrate that the site's permitted discharge minimization technology is functioning as anticipated.

Compliance monitoring for the permit will be done under Western Zirconium's "Evaporation Pond Area Ongoing Monitoring Plan" dated August, 2018 and incorporated as Appendix A of this permit. The Plan lists procedures for taking ground and surface water samples, the analytical methods to be used, and their detection limits. Analytical methods listed in the Plan may only be changed with approval by the Director. Analysis of all ground water and surface water samples shall be performed by laboratories certified by the State Health Laboratory. Analytical method detection limits must be equal to or lower than permit protection levels.

2. Compliance Monitoring Points

Several different types of monitoring points will be used to collect data needed to demonstrate that Western Zirconium's discharge minimization technology is performing as anticipated:

- a) Eight sentry monitoring wells (S4, S5, S6, S7, S9, S10, S11 and S12) will be sampled quarterly to monitor any expansion in the area of the plume of contaminated ground water. Analytical results from this sampling will be compared to permit protection levels. Ground water elevations will also be measured in sentry wells. Analytical parameters for all ground water monitoring are listed in Table 1 of Appendix A. Parameters used to define permit compliance will be ammonia, fluoride, nitrate + nitrite, total cyanide, thiocyanate, radium 226 + 228, and field pH. Other parameters listed in Table 6 of Appendix A were identified as parameters of environmental concern in Western Zirconium's 2008 Environmental Risk Assessment, which are unsuitable as wastewater tracers, and are monitored for informational purposes
- b) Plume monitoring wells N1, N2, R1, S2, S3, S8 (existing in 2012) and PW1, PW2, PW3, PW4, PW5, PW6, PW7 and PW8 (constructed with the barrier wall) will be sampled annually in the third quarter for the parameters listed in Table 1 of Appendix A, to monitor trends in contaminant concentrations within the plume of contaminated ground water, for informational purposes. Analytical results from wells existing in 2012 will be compared to the results of the third quarter 2012 monitoring event as listed in Table 2 (conditions before start of barrier wall construction); results from new plume wells will be compared to the first monitoring event from each well. Ground water elevations will also be measured in plume monitoring wells.
- c) Six surface water bodies (SWB-3, SWB-7, SWB-8, SWB-9, SWB-10 and SWB-11) will be sampled quarterly (when water is present) for informational purposes. Parameters for surface water monitoring are the same as the parameters for ground water monitoring listed in Table 6 of Appendix A. The land surface slopes very gently from south to north, so SWBs 3, 9, 10 and 11 are downstream from Western Zirconium's ponds.
- d) Ground water elevations will be measured quarterly at piezometers outside the subsurface barrier (P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P12, P14, P15, TP2, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12 and TP34); at existing nested piezometers (NP1R, NP2R, NP3, NP4, and NP5); and at twelve sets of paired piezometers installed on either side of the subsurface barrier wall around its perimeter (PP 1 through 12, A and B). Ground water elevations from piezometers and monitoring wells will be used to construct a potentiometric surface contour map. Ground water elevations from nested piezometers will be used to evaluate the vertical hydraulic gradient. Ground water elevations from the paired piezometers will be used to evaluate the effectiveness of the subsurface barrier wall in blocking ground water flow.

Locations of these monitoring points are shown in Figure 2 of Appendix A.

3. Protection of Monitoring Points

All monitoring wells and surface water monitoring sites must be protected from damage or from contamination due to surface spills. They shall be maintained in full operational condition for the life of this permit. Any monitoring point that becomes damaged beyond repair or is rendered unusable by any cause shall be replaced by the permittee within 90 days or as required by the Director.

4. Monitoring Requirements

Sampling of ground and surface water, measurement of ground water elevations, monitoring parameters, frequency and all other monitoring and analytical procedures will conform to the provisions of the August 2018 Evaporation Pond Area Ongoing Monitoring Plan contained in Appendix A, or the most recently-approved version of the monitoring plan.

5. Accelerated Background Monitoring

The permittee shall collect at least eight independent samples over a one-year period from all new sentry monitoring wells and eight quarterly independent samples from all new plume monitoring wells, and analyze them for the parameters listed in the monitoring plan contained in Appendix A. The permittee shall collect samples quarterly in sentry wells for the new monitoring parameters thiocyanate as SCN and fluoride until there are a total of eight samples to define background variability.

F. Reporting Requirements

1. Routine Reporting

The permittee shall submit to the Director quarterly reports of compliance monitoring. The reports shall include the following information:

- a) Field data sheets or copies thereof, including records of measurement of field parameters, and other pertinent data, such as monitoring point name, date and time, names of sampling crew, depth to ground water, type of sampling pump or bailer, calculated casing volume and volume of water purged before sampling.
- b) Copies of lab reports showing the results of analyses of surface and ground water samples required under the monitoring plan in Appendix A, including date sampled, date received and results of analysis for each parameter including: value or concentration, units of measurement, method detection limit for the examination, analytical method and date of analysis. The analytical methods and method detection limits for every parameter must

conform to those in the Evaporation Pond Area Ongoing Monitoring Plan in Appendix A, or the most currently-approved monitoring plan. The report must include error terms and Lower Limit of Detection (LLD) for Radium 226 + 228 analyses and other radiologic analyses, as applicable.

- c) Reports of ground water elevations measured in monitoring wells and piezometers and at the Western Zirconium site, a potentiometric contour map of the water table aquifer generated from these data, and the value of the vertical hydraulic gradient as measured at all nested piezometers required by this permit.
- d) Analytical results of sampling the sentry wells for the parameters required under this permit plotted on a map of the site showing sentry well locations.
- e) Current and all past analytical values for all required monitoring parameters and field measurements for all points required to be monitored that quarter compiled on Excel spreadsheets, one spreadsheet for each monitoring point.
- f) Routine quarterly monitoring shall be reported according to the schedule below, unless modified by the Director.

<u>Monitoring Period</u>	<u>Report Due Date</u>
Jan., Feb., March	May 1
Apr., May, June	August 1
July, Aug., Sept.	November 1
Oct., Nov., Dec.	February 1

2. Other Reporting

- a) When background monitoring has been completed for any new sentry well, the permittee shall submit an Excel spreadsheet listing all the background monitoring data for that particular well. The report may be submitted as part of a regular quarterly monitoring report.
- b) Any new construction or modification to facilities covered under this permit or used for monitoring under this permit shall be reported in the next regular quarterly monitoring report.
- c) Any exceedance of permit protection levels in a sentry monitoring well shall be reported in the next regular quarterly monitoring report.

3. Electronic Filing Requirements

Quarterly monitoring reports will be submitted electronically to the Division of Water Quality electronic submissions portal at:

<https://deq.utah.gov/water-quality/water-quality-electronic-submissions>

G. Expansion of Plume Area and Noncompliance Status

1. Expansion of Plume Area Revealed by Protection Level Exceedance

If permit protection levels are exceeded in any sentry monitoring well for four consecutive quarters, the permittee shall locate and construct a new sentry well immediately outside the new boundary of the plume of contaminated ground water if required by the Director after a review of existing data indicates that the contaminant plume has reached the sentry well, and upon completion of well development, begin accelerated monitoring procedures according to Part I.E.5, above. The replaced existing sentry well shall be monitored as a plume well according to Part I.E.2.b) above. Before formal protection levels are designated for thiocyanate as SCN and fluoride, this standard shall not apply to those parameters.

2. Noncompliance Status

If, after a review of quarterly monitoring data, including but not limited to ground water elevations, contaminant concentration trends in plume and sentry monitoring wells, and contaminant concentrations in surface water, the Director concludes that Western Zirconium's discharge minimization technology is not functioning as designed, the Division of Water Quality shall notify Western Zirconium of the noncompliance status based on the monitoring results for that quarter.

After four consecutive quarters of notified noncompliance status, the Director shall require Western Zirconium to submit a plan within 180 days to determine the source of the noncompliance and bring the facility back into compliance. The goal for this plan shall be to minimize discharge of contaminants to the subsurface and the eventual reduction of surface water contamination to contaminant levels equal to or below the cleanup goals identified in the 2008 Ecological Risk Assessment.

H. Compliance Schedule

1. Monitoring Well As-Built Report

If new monitoring well construction is required, the permittee shall submit a report on the well construction, including surveyed location, elevation of water level measuring point, well construction and screening detail and a log of the geologic materials encountered during drilling. The report is due within 30 days of well completion.

2. Existing North Surface Water Barriers Evaluation

Within one year of permit renewal, Western Zirconium shall report to DWQ on the existing surface barriers on the north side of its property, which are intended to limit surface water flow from the property. The report shall evaluate the water quality in surface water north of the barriers, and also on the efficacy of the barriers

in limiting surface water flow and ground water flow paths. The report shall propose methods to improve the effectiveness of these barriers if necessary. Construction activities on these improvements will begin after DWQ approval and obtaining a Construction Permit from DWQ and any other necessary permits.

II. REPORTING REQUIREMENTS

A. REPRESENTATIVE SAMPLING

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

B. ANALYTICAL PROCEDURES

Water sample analysis must be conducted according to test procedures specified under UAC R317-6-6.3L, 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 quarterly reporting period specified in the permit, shall be submitted to the Director of the Utah Division of Water Quality at the following address according to the schedule in Part I.F.1(e):

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

The due dates for reporting are defined in Part II.G of this permit.

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 at a compliance monitoring point 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.

1. Records of monitoring information shall include:
 - a) The date, exact place, and time of sampling or measurements:
 - b) The individual(s) who performed the sampling or measurements;

- c) The date(s) and time(s) analyses were performed;
- d) The name of the certified laboratory which performed the analyses;
- e) The analytical techniques or methods used; and,
- f) 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 five years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

I. 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, or to the Division of Water Quality, Ground Water Protection Section at (801) 536-4300, during normal business hours (Monday thru Friday 8:00 am - 5:00 pm Mountain Time).
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 reoccurrence 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 5 days, 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, 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.

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 a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

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 which 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 is anticipated 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 new permit. 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 PROVISIONS

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 occurs:

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 R317-6.4(D)

2. Changes have been determined in background ground water quality.