

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

UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES) PERMITS

Minor Industrial Permit No. **UT0025283**

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

THE ENSIGN-BICKFORD COMPANY

is hereby authorized to discharge from its wastewater treatment facility to receiving waters named Hobble Creek and the Spanish Fork River,

<u>Outfall</u>	<u>Latitude</u>	<u>Longitude</u>	<u>To receiving waters named</u>
001 (Mapleton GAC + Orton GAC)	40° 08' 53'	111° 34' 45"	Hobble Creek
002a (Spanish Fork GAC)	40° 05' 06'	111° 35' 21"	Spanish Fork River
002b (Spanish Fork GAC)	40° 05' 16'	111° 35' 57"	Spanish Fork River

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

This MODIFIED permit shall become effective on March 1, 2023.

This permit expires at midnight on September 30, 2024.

Signed this seventeenth day of February, 2023.



John K. Mackey, PE
Director

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I. DISCHARGE LIMITATIONS AND REPORTING REQUIREMENTS

A. Description of Discharge Points. The authorization to discharge wastewater provided under this part is limited to those outfalls specifically designated below as discharge locations. Discharges at any location not authorized under a UPDES permit are violations of the *Act* and may be subject to penalties under the *Act*. Knowingly discharging from an unauthorized location or failing to report an unauthorized discharge may be subject to criminal penalties as provided under the *Act*.

<u>Outfall Number</u>	<u>Location of Discharge Outfall</u>
001	Discharge to Hobble Creek. The final discharge is located at a latitude of 40° 08' 53" and a longitude of 111° 34' 45". Compliance samples to be taken in the Mapleton GAC (40° 06' 50", longitude of 111° 34' 20") and Orton GAC buildings before discharge to Hobble Creek or Mapleton City pressurized irrigation system.
002a	Discharge to the Spanish Fork River. This discharge is located at a latitude of 40° 05' 52" and a longitude 111° 39' 48" of Compliance samples to be taken in the GAC building (latitude 40° 05' 6", longitude 111° 35' 30") before discharge to the Spanish Fork River or Spanish Fork pressurized irrigation system.
002b	Discharge to the Spanish Fork River. This discharge is located at a latitude of 40° 05' 16" and a longitude 111° 35' 57" of Compliance samples to be taken in the GAC building (latitude 40° 05' 6", longitude 111° 35' 30") before discharge to the Spanish Fork River or Spanish Fork pressurized irrigation system.

B. Narrative Standard. It shall be unlawful, and a violation of this permit, for the permittee to discharge or place any waste or other substance in such a way as will be or may become offensive such as unnatural deposits, floating debris, oil, scum, or other nuisances such as color, odor or taste, or cause conditions which produce undesirable aquatic life or which produce objectionable tastes in edible aquatic organisms; or result in concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life, or undesirable human health effects, as determined by a bioassay or other tests performed in accordance with standard procedures.

C. Specific Limitations and Self-Monitoring Requirements.

Effective immediately and lasting the duration of this permit, the permittee is authorized to discharge from Outfall 001 and Outfall 002. Such discharges shall be limited and monitored by the permittee as specified below:

Table 1: Effluent Limitations Outfall 001				
Parameter, Units	30-Day Average	7-Day Average	Daily Minimum	Daily Maximum
pH, S.U.	NA	NA	6.5	9.0
Nitrate-Nitrogen, mg/L	NA	NA	NA	a/
RDX, ug/L b/	NA	NA	NA	a/
Flow, cfs	NA	NA	NA	6.13
DO, mg/L d/	NA	NA	4.5	NA

a/ Nitrate nitrogen and RDX limitations are based upon effluent flow ranges as indicated in the tables below. The permittee is required to meet the RDX and nitrate-nitrogen concentrations of the flow range associated with the highest flow rate of the month. The permittee is not allowed to discharge more than 6.13 cfs at any time.

- b/ Analyses of RDX shall be made by the method appended to the fact sheet and statement of basis in Appendix A, or by any other method approved in writing by the Director.
- c/ If the facility can show after 10 samples that there is no reasonable potential to exceed water quality standards for these pollutants, they may petition the Director for a reduction in sampling frequency or removal from the permit for the remainder of the permit cycle.
- d/ DO limits are only applicable if the discharge is going to surface waters.

Table 2: Effluent Limitations Outfall 002a and Outfall 002b				
Parameter, Units	30-Day Average	7-Day Average	Daily Minimum	Daily Maximum
pH, S.U.	NA	NA	6.5	9.0
Nitrate-Nitrogen, mg/L	NA	NA	NA	a/
RDX, ug/L b/	NA	NA	NA	a/
Flow, cfs	NA	NA	NA	3.34
DO, mg/L c/	NA	NA	4.5	NA

a/ Nitrate nitrogen and RDX limitations are based upon effluent flow ranges as indicated in the tables below. The permittee is required to meet the RDX and nitrate-nitrogen concentrations of the flow range associated with the highest flow rate of the month. The permittee is not allowed to discharge more than 3.34 cfs at any time.

- b/ Analyses of RDX shall be made by the method appended to the fact sheet and statement of basis in Appendix A, or by any other method approved in writing by the Director.
- c/ DO limits are only applicable if the discharge is going to surface waters.

Table 3: RDX And Nitrate-Nitrogen Limits Based for Outfall 001		
Effluent Flow Range (cfs)	Daily Maximum RDX Concentration (mg/L)	Daily Maximum Nitrate-Nitrogen Concentration (mg/L)*
0.00 - 0.56	0.0274	124.1
0.57 - 1.11	0.0148	67.6
1.12 - 1.67	0.0105	48.3
1.68 - 2.79	0.0071	32.9
2.80 - 4.46	0.0052	24.3
4.47 - 6.13	0.0043	20.4

*Assumes an upstream (background) nitrate-nitrogen concentration of 1 mg/L.

Table 4: RDX And Nitrate-Nitrogen Limits Based for Outfall 002a		
Effluent Flow Range (cfs)	Daily Maximum RDX Concentration (mg/L)	Daily Maximum Nitrate-Nitrogen Concentration (mg/L)*
0.00 - 0.56	0.0449	124.1
0.57 - 1.11	0.0236	67.6
1.12 - 1.67	0.0164	48.3
1.68 - 2.23	0.0128	38.7
2.34 - 2.79	0.0106	32.9
2.80 - 3.34	0.0092	29.1

*Assumes an upstream (background) nitrate-nitrogen concentration of 1 mg/L.

Table 5: RDX And Nitrate-Nitrogen Limits Based for Outfall 002b		
Effluent Flow Range (cfs)	Daily Maximum RDX Concentration (mg/L)	Daily Maximum Nitrate-Nitrogen Concentration (mg/L)*
0 - 3.34	0.002	10

*Assumes an upstream (background) nitrate-nitrogen concentration of 1 mg/L.

Table 6: Self-Monitoring and Reporting Requirements a/			
Parameter	Sampling Frequency	Sample Type	Units
pH	Monthly	Immediate	S.U.
Nitrate Nitrogen	Monthly	Grab	mg/L
RDX	Monthly	Grab	mg/L
Flow b/	Continuous	Recorded	cfs
DO	Monthly	Immediate	mg/L

a/ See Definitions, *Part VIII*, for definition of terms.

b/ If the rate of discharge is controlled, the rate and duration of discharge shall be reported.

D. Reporting of Monitoring Results.

1. Reporting of Wastewater Monitoring Results Monitoring results obtained during the previous month shall be summarized for each month and reported on a Discharge Monitoring Report Form (EPA No. 3320-1)* or by NetDMR, post-marked or entered into

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

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NetDMR no later than the 28th day of the month following the completed reporting period. If no discharge occurs during the reporting period, “no discharge” shall be reported. Legible copies of these, and all other reports including whole effluent toxicity (WET) test reports required herein, shall be signed and certified in accordance with the requirements of *Signatory Requirements (see Part VII.G)*, and submitted by NetDMR, or to the Division of Water Quality at the following address:

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

PART II
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PRETREATMENT

II. INDUSTRIAL PRETREATMENT PROGRAM

A. Definitions.

1. POTW or publicly owned treatment works means a treatment works as defined by section 212 of the Act, which is owned by a State or municipality (as defined by section 502(4) of the Act). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in section 502(4) of the Act, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.
- B. Discharges to a POTW. 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 Part 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.
- C. Hazardous Waste Requirements. In accordance with *40 CFR Part 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 Part 261*. This notification must include the name of the hazardous waste, the EPA hazardous waste number, and the type of discharge (continuous or batch).
- D. Hauled Hazardous Waste. Hauled hazardous waste shall not be discharged to a POTW without notification to the Division of Water Quality.

III. BIOSOLIDS REQUIREMENTS

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

PART IV
STORM WATER PERMIT NO. UT000000

IV. STORM WATER REQUIREMENTS.

A. Coverage of This Section. The *Utah Administrative Code (UAC) R-317-8-3.9* requires storm water permit provisions to include the development of a storm water pollution prevention plan for wastewater treatment facilities if the facility meets one or both of the following criteria.

1. wastewater treatment facilities with a design flow of 1.0 MGD or greater, and/or,
2. wastewater treatment facilities with an approved pretreatment program as described in *40CFR Part 403*,

Ensign Bickford does not meet either of the above criteria; therefore this permit does not include storm water provisions. The permit does however include a storm water re-opener provision.

V. MONITORING, RECORDING & GENERAL REPORTING REQUIREMENTS

- A. Representative Sampling. Samples taken in compliance with the monitoring requirements established under *Part I* shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge. Samples of biosolids shall be collected at a location representative of the quality of biosolids immediately prior to the use-disposal practice.
- B. Monitoring Procedures. Monitoring must be conducted according to test procedures approved under *Utah Administrative Code ("UAC") R317-2-10 and 40CFR Part 503*, unless other test procedures have been specified in this permit.
- C. Penalties for Tampering. The *Act* provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.
- D. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any Compliance Schedule of this permit shall be submitted no later than 14 days following each schedule date.
- E. Additional Monitoring by the Permittee. If the permittee monitors any parameter more frequently than required by this permit, using test procedures approved under *UAC R317-2-10 and 40 CFR 503* or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or the Biosolids Report Form. Such increased frequency shall also be indicated. Only those parameters required by the permit need to be reported.
- F. Records Contents. Records of monitoring information shall include:
1. The date, exact place, and time of sampling or measurements;
 2. The individual(s) who performed the sampling or measurements;
 3. The date(s) and time(s) analyses were performed;
 4. The individual(s) who performed the analyses;
 5. The analytical techniques or methods used; and,
 6. The results of such analyses.
- G. Retention of Records. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time. A copy of this UPDES permit must be maintained on site during the duration of activity at the permitted location
- H. Twenty-four Hour Notice of Noncompliance Reporting.
1. The permittee shall (orally) report any noncompliance including transportation accidents, spills, and uncontrolled runoff from biosolids transfer or land application sites which may seriously endanger health or environment, as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of circumstances. The report shall be made to the Division of Water Quality, (801) 536-4300, or 24-hour answering service (801) 536-4123.

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

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4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the *Act*, any substances or parameters at any location, including, but not limited to, digested biosolids before dewatering, dewatered biosolids, biosolids transfer or staging areas, any ground or surface waters at the land application sites or biosolids, soils, or vegetation on the land application sites; and,
5. The permittee shall make the necessary arrangements with the landowner or leaseholder to obtain permission or clearance, the Director, or authorized representative, upon the presentation of credentials and other documents as may be required by law will be permitted to enter without delay for the purposes of performing their responsibilities.

VI. COMPLIANCE RESPONSIBILITIES

- A. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity, which may result in noncompliance with permit requirements.
- B. Penalties for Violations of Permit Conditions. The *Act* provides that any person who violates a permit condition implementing provisions of the *Act* is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates permit conditions or the Act is subject to a fine not exceeding \$25,000 per day of violation. Any person convicted under *UCA 19-5-115(2)* a second time shall be punished by a fine not exceeding \$50,000 per day. Except as provided at *Part VI.G, Bypass of Treatment Facilities* and *Part VI.H, Upset Conditions*, nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.
- C. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- D. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit, which has a reasonable likelihood of adversely affecting human health or the environment. The permittee shall also take all reasonable steps to minimize or prevent any land application in violation of this permit.
- E. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
- F. Removed Substances. Collected screening, grit, solids, sludge, or other pollutants removed in the course of treatment shall be disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard. Sludge/digester supernatant and filter backwash shall not directly enter either the final effluent or waters of the state by any other direct route.
- G. Bypass of Treatment Facilities.
 - 1. Bypass Not Exceeding Limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to paragraph 2 and 3 of this section.
 - 2. Prohibition of Bypass.
 - a. Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

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- (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 III.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 III.G.2.a (1), (2) and (3)*.
3. Notice.
- a. *Anticipated bypass*. Except as provided above in *section III.G.2* and below in *section III.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 III.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 VI.H*, Twenty Four Hour Reporting. The permittee shall also immediately notify the Director of the Department of Natural Resources, the public and downstream users and shall implement measures to minimize impacts to public health and environment to the extent practicable.

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H. Upset Conditions.

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of paragraph 2 of this section are met. Director's administrative determination regarding a claim of upset cannot be judiciously challenged by the permittee until such time as an action is initiated for noncompliance.
2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated;
 - c. The permittee submitted notice of the upset as required under *Part V.H, Twenty-four Hour Notice of Noncompliance Reporting*; and,
 - d. The permittee complied with any remedial measures required under *Part VI.D, Duty to Mitigate*.
3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

VII. GENERAL REQUIREMENTS

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

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3. Changes to authorization. If an authorization under *paragraph 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 *paragraph 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 \$10,000.00 per violation, or by imprisonment for not more than six months per violation, or by both.
- I. Availability of Reports. Except for data determined to be confidential under *UAC R317-8-3.2*, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the office of Director. As required by the *Act*, permit applications, permits and effluent data shall not be considered confidential.
- J. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the permittee of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under the *Act*.
- K. Property Rights. The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.
- L. Severability. The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
- M. Transfers. This permit may be automatically transferred to a new permittee if:
 1. The current permittee notifies the Director at least 20 days in advance of the proposed transfer date;
 2. The notice includes a written agreement between the existing and new permittee's containing a specific date for transfer of permit responsibility, coverage, and liability between them; and,

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3. The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 2 above.
- N. State or Federal Laws. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by *UCA 19-5-117* and *Section 510* of the *Act* or any applicable Federal or State transportation regulations, such as but not limited to the Department of Transportation regulations.
- O. Water Quality - Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations and compliance schedule, if necessary, if one or more of the following events occurs:
1. Water Quality Standards for the receiving water(s) to which the permittee discharges are modified in such a manner as to require different effluent limits than contained in this permit.
 2. A final wasteload allocation is developed and approved by the State and/or EPA for incorporation in this permit.
 3. Revisions to the current CWA § 208 area wide treatment management plans or promulgations/revisions to TMDLs (40 CFR 130.7) approved by the EPA and adopted by DWQ which calls for different effluent limitations than contained in this permit.
- P. Biosolids – Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include the appropriate biosolids limitations (and compliance schedule, if necessary), management practices, other appropriate requirements to protect public health and the environment, or if there have been substantial changes (or such changes are planned) in biosolids use or disposal practices; applicable management practices or numerical limitations for pollutants in biosolids have been promulgated which are more stringent than the requirements in this permit; and/or it has been determined that the permittees biosolids use or land application practices do not comply with existing applicable state of federal regulations.
- Q. Toxicity Limitation - Reopener Provision. This permit may be reopened and modified (following proper administrative procedures) to include WET testing, a WET limitation, a compliance schedule, a compliance date, additional or modified numerical limitations, or any other conditions related to the control of toxicants if toxicity is detected during the life of this permit.
- R. 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".

VIII. DEFINITIONS

A. Wastewater.

1. The "7-day (and weekly) average", other than for *E. coli* bacteria, fecal coliform bacteria, and total coliform bacteria, is the arithmetic average of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. Geometric means shall be calculated for *E. coli* bacteria, fecal coliform bacteria, and total coliform bacteria. The 7-day and weekly averages are applicable only to those effluent characteristics for which there are 7-day average effluent limitations. The calendar week, which begins on Sunday and ends on Saturday, shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for that calendar week shall be included in the data for the month that contains Saturday.
2. The "30-day (and monthly) average," other than for *E. coli* bacteria, fecal coliform bacteria and total coliform bacteria, is the arithmetic average of all samples collected during a consecutive 30-day period or calendar month, whichever is applicable. Geometric means shall be calculated for *E. coli* bacteria, fecal coliform bacteria and total coliform bacteria. The calendar month shall be used for purposes of reporting self-monitoring data on discharge monitoring report forms.
3. "Act," means the *Utah Water Quality Act*.
4. "Acute toxicity" occurs when 50 percent or more mortality is observed for either test species at any effluent concentration (lethal concentration or "LC₅₀").
5. "Annual Loading Cap" is the highest allowable phosphorus loading discharged over a calendar year, calculated as the sum of all the monthly loading discharges measured during a calendar year divided by the number of monthly discharges measured during that year.
6. "Bypass," means the diversion of waste streams from any portion of a treatment facility.
7. "Chronic toxicity" occurs when the IC₂₅ < XX% effluent. The XX% effluent is the concentration of the effluent in the receiving water, at the end of the mixing zone expressed as per cent effluent.
8. "IC₂₅" is the concentration of toxicant (given in % effluent) that would cause a 25% reduction in mean young per female, or a 25% reduction in overall growth for the test population.
9. "Composite Samples" shall be flow proportioned. The composite sample shall, as a minimum, contain at least four (4) samples collected over the compositing period. Unless otherwise specified, the time between the collection of the first sample and the last sample shall not be less than six (6) hours nor more than 24 hours. Acceptable methods for preparation of composite samples are as follows:
 - a. Constant time interval between samples, sample volume proportional to flow rate at time of sampling;

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- b. Constant time interval between samples, sample volume proportional to total flow (volume) since last sample. For the first sample, the flow rate at the time the sample was collected may be used;
 - c. Constant sample volume, time interval between samples proportional to flow (i.e., sample taken every “X” gallons of flow); and,
 - d. Continuous sample volume, with sample collection rate proportional to flow rate.
10. “CWA,” means *The Federal Water Pollution Control Act*, as amended, by *The Clean Water Act of 1987*.
11. “Daily Maximum” (Daily Max.) is the maximum value allowable in any single sample or instantaneous measurement.
12. “EPA,” means the United States Environmental Protection Agency.
13. “Director,” means Director of the Division of Water Quality.
14. A “grab” sample, for monitoring requirements, is defined as a single “dip and take” sample collected at a representative point in the discharge stream.
15. An “instantaneous” measurement, for monitoring requirements, is defined as a single reading, observation, or measurement.
16. “Severe Property Damage,” means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
17. “Upset,” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

**FACT SHEET AND STATEMENT OF BASIS
ENSIGN-BICKFORD COMPANY
UPDES PERMIT # UT0025283
RENEWAL PERMIT FOR MINOR INDUSTRIAL FACILITY**

FACILITY CONTACT: Mr. Haldon R. Jaussi
Director of Environmental Remediation
The Ensign-Bickford Company
8305 South Highway 6 & 89
Spanish Fork, Utah 84660
Phone: (801) 794-4538

DESCRIPTION OF FACILITY: An explosives manufacturing plant has been operated at the present Ensign-Bickford Company (EBCo) site since prior to World War II. Around June of 1986 a large quantity of dilute nitric acid was released at this facility as the result of liner failure in a storage pond. Prior to 1988 the wastewater disposal practices at the EBCo site may have included disposal of industrial waste from explosives production into unlined ditches, pits, and ponds. Elevated concentrations of nitrates, and low concentrations of constituents of energetic materials (CEM's) have been detected in a municipal water supply well owned and operated by Mapleton City. This prompted Mapleton City to remove this well from service in November of 1994. EBCo, in cooperation with Mapleton City and the Utah Department of Environmental Quality (DEQ) has developed a plan to reactivate the well for use in either the municipal water system or in a municipal pressurized irrigation system. The following compounds have been detected in the Mapleton No. 1 well:

Nitrate	
RDX	Cyclotrimethylenetrinitramine
EGDN	Ethylene Glycol Dinitrate; Nitroglycol; Glycol Dinitrate
DEGDN	Diethylene Glycol Dinitrate; Dinitrodiglycol

In addition to the compounds identified above, the following compounds have been detected in ground water between the EBCo site and the Mapleton No. 1 well:

HMX	Cyclotetramethylenetetranitramine
PETN	Pentaerythritol Tetranitrate
TEGDN	Triethylene Glycol Dinitrate
TMETN	Metriol Trinitrate; 1,3-Propanediol; 2-Methylnitrate
BTTN	Butanetriol Trinitrate
TNT	Trinitrotoluene

DEQ has required that the Mapleton No. 1 well be pumped to serve as a hydraulic barrier to impede further northward migration of nitrate and other CEM's. To comply with this condition, the Mapleton No. 1 well reactivation alternative has been designed to include surface water discharge that enables pumping of the well when municipal demand requirements do not warrant the well's use.

The reactivation plan includes the utilization of a granular activated carbon (GAC) treatment system that will remove CEM's from the ground water prior to use in the culinary and/or pressurized irrigation systems. No reduction of nitrate concentration is contemplated for water discharged to surface water, nor will any be required to meet the permit effluent limitations contained in this permit.

The Hobble Creek portion of the Facility consists of flow from the Mapleton GAC facility and the Orton GAC facility with a discharge to either the Mapleton pressurized Irrigation System or directly to Hobble Creek. The flow from the Mapleton GAC makes up roughly 2/3's of the flow and the Orton GAC makes up roughly 1/3 of the flow to the system.

The Spanish Fork treatment facility is located at 3710 East Hwy. 6 in Spanish Fork. This discharge is mostly, if not completely, discharged to the City of Spanish Fork's pressurized irrigation system and only makes the Spanish Fork River when irrigation activities do not warrant its' use (approximately November through March). Effluent is piped via a conveyance pipeline (approximately 4.5 miles of 12-inch diameter PVC) from the treatment facility to a vault (located approximately 500 feet from the river), where it blends with other waters not associated with this groundwater recovery process before reaching the river.

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

During the last permit cycle, Total Dissolved Solids, Phosphorus, and Ammonia were added to the permit because Utah Lake is listed as being impaired for these pollutants. Since the issuance of that permit, the facility has monitored these pollutants with a limit set at the water quality standard. The facility requested that this data be reviewed and a reasonable potential calculation was conducted to see if the facility had the reasonable potential to exceed water quality standards for these pollutants. Based on the data collected by the facility, it was shown that there was no reasonable potential to water quality standards for these pollutants. As a result, these pollutants are being removed from the permit.

In in 2014, the Utah Division of Water Quality adopted *UAC R317-1-3.3*, Technology-Based Phosphorus Effluent Limit (TBPEL) Rule. The TBPEL rule as it relates to "non-lagoon" wastewater treatment plants establishes new regulations for the discharge of phosphorus to surface waters and is self-implementing. The TBPEL rule requires that all non-lagoon wastewater treatment works discharging wastewater to surface waters of the state shall provide treatment processes which will produce effluent less than or equal to an annual mean of 1.0 mg/L for total phosphorus. This TBPEL shall be achieved by January 1, 2020. However, since phosphorus is not a constituent of concern and not expected to be in the effluent, phosphorus limits were not included in this permit. However, the facility sampled phosphorus without a limit to determine the amount of the pollutant in the effluent. For outfall 001 five (5) phosphorus samples were collected. Phosphorous was not detected in in 3 of the five samples and found at 0.02 mg/L in the other two samples. This is well below the 1.0 mg/L Phosphorus limit in the TBPEL. For Outfall 002, Twenty-seven (27) samples were collected. Nineteen (19) of those sample were non-detect for phosphorus and eight (8) of those detected the presence of phosphorus. Of those samples where phosphorus was detected, the values ranged between 0.01 mg/L – 0.306 mg/L with an average of 0.08 mg/L. Again, these values are well below the annual mean of 1.0 mg/L phosphorus.

As a result, limits for Ammonia, Total Dissolved Solids are being removed from the permit. Additionally, monthly sampling from phosphorus is also being removed from the permit.

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

A reasonable potential analysis was performed on the TDS and Ammonia to determine if there was enough data to perform a reasonable potential analysis on the outfall. It was shown there was no reasonable potential for the facility to violate water quality standards based on their previous sampling. Those results are included at the Appendix of this FSSOB.

The new permit limitations are

Table 1: Effluent Limitations Outfall 001				
Parameter, Units	30-Day Average	7-Day Average	Daily Minimum	Daily Maximum
pH, S.U.	NA	NA	6.5	9.0
Nitrate-Nitrogen, mg/L	NA	NA	NA	a/
RDX, ug/L b/	NA	NA	NA	a/
Flow, cfs	NA	NA	NA	6.13
DO, mg/L d/	NA	NA	4.5	NA

a/ Nitrate nitrogen and RDX limitations are based upon effluent flow ranges as indicated in the tables below. The permittee is required to meet the RDX and nitrate-nitrogen concentrations of the flow range associated with the highest flow rate of the month. The permittee is not allowed to discharge more than 6.13 cfs at any time.

b/ Analyses of RDX shall be made by the method appended to the fact sheet and statement of basis in Appendix A, or by any other method approved in writing by the Director.

d/ DO limits are only applicable if the discharge is going to surface waters.

Table 2: Effluent Limitations Outfall 002a and Outfall 002b				
Parameter, Units	30-Day Average	7-Day Average	Daily Minimum	Daily Maximum
pH, S.U.	NA	NA	6.5	9.0
Nitrate-Nitrogen, mg/L	NA	NA	NA	a/
RDX, ug/L b/	NA	NA	NA	a/
Flow, cfs	NA	NA	NA	3.34
DO, mg/L c/	NA	NA	4.5	NA

a/ Nitrate nitrogen and RDX limitations are based upon effluent flow ranges as indicated in the tables below. The permittee is required to meet the RDX and nitrate-nitrogen concentrations of the flow range associated with the highest flow rate of the month. The permittee is not allowed to discharge more than 3.34 cfs at any time.

b/ Analyses of RDX shall be made by the method appended to the fact sheet and statement of basis in Appendix A, or by any other method approved in writing by the Director.

c/ DO limits are only applicable if the discharge is going to surface waters.

Table 3: RDX And Nitrate-Nitrogen Limits Based for Outfall 001		
Effluent Flow Range (cfs)	Daily Maximum RDX Concentration (mg/L)	Daily Maximum Nitrate-Nitrogen Concentration (mg/L)*
0.00 - 0.56	0.0274	124.1
0.57 - 1.11	0.0148	67.6
1.12 - 1.67	0.0105	48.3
1.68 - 2.79	0.0071	32.9
2.80 - 4.46	0.0052	24.3
4.47 - 6.13	0.0043	20.4

*Assumes an upstream (background) nitrate-nitrogen concentration of 1 mg/L.

Table 4: RDX And Nitrate-Nitrogen Limits Based for Outfall 002a		
Effluent Flow Range (cfs)	Daily Maximum RDX Concentration (mg/L)	Daily Maximum Nitrate-Nitrogen Concentration (mg/L)*
0.00 - 0.56	0.0449	124.1
0.57 - 1.11	0.0236	67.6
1.12 - 1.67	0.0164	48.3
1.68 - 2.23	0.0128	38.7
2.34 - 2.79	0.0106	32.9
2.80 - 3.34	0.0092	29.1

*Assumes an upstream (background) nitrate-nitrogen concentration of 1 mg/L.

Table 5: RDX And Nitrate-Nitrogen Limits Based for Outfall 002b		
Effluent Flow Range (cfs)	Daily Maximum RDX Concentration (mg/L)	Daily Maximum Nitrate-Nitrogen Concentration (mg/L)*

0 - 3.34	0.002	10
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*Assumes an upstream (background) nitrate-nitrogen concentration of 1 mg/L.

SELF-MONITORING AND REPORTING REQUIREMENTS

The following self-monitoring requirements will be implemented in the modified permit.

Table 6: Self-Monitoring and Reporting Requirements a/			
Parameter	Sampling Frequency	Sample Type	Units
pH	Monthly	Immediate	S.U.
Nitrate Nitrogen	Monthly	Grab	mg/L
RDX	Monthly	Grab	mg/L
Flow b/	Continuous	Recorded	cfs
DO	Monthly	Immediate	mg/L

a/ See Definitions, *Part VIII*, for definition of terms.

b/ If the rate of discharge is controlled, the rate and duration of discharge shall be reported.

TMDL REQUIREMENTS: This facility ultimately discharges to Utah Lake which is listed on Utah’s 303(d) list of impaired waterbodies as defined in the Clean Water Act. As required under federal regulations, a total maximum daily load (TMDL) will be developed for all 303(d) listed waters. Specifically, Utah Lake has been identified as impaired for total phosphorous (TP) and Total Dissolved Solids (TDS). Currently, a TMDL evaluation is underway for the lake. The TMDL process may result in pollutant load reductions and wasteload allocations for either of these constituents in the future. Wasteload allocations would then be translated to effluent limits in UPDES permits.

PERMIT DURATION

It is recommended that this permit be effective until the original permit expiration date of September 30, 2024.

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

PUBLIC NOTICE

Began: January 4, 2023

Ended: February 5, 2023

Comments will be received at: 195 North 1950 West
PO Box 144870
Salt Lake City, UT 84114-4870

The Public Notice of the draft permit was published on the DWQ's website:
<https://deq.utah.gov/public-notices-archive/water-quality-public-notices>

No comments were received during the public comment period.

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

ADDENDUM TO FSSOB

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

Responsiveness Summary

(Explain any comments received and response sent. Actual letters can be referenced, but not required to be included).

ATTACHMENT 1

Reasonable Potential Analysis

RP Procedure Output

Facility Name: Ensign Bickford Outfall 001
Permit Number: UT0025283
Outfall Number: 1
Parameter Ammonia-N
Distribution Lognormal
Data Units mg/L
Reporting Limit 10
Significant Figures 3
Confidence Interval 95

Maximum Reported Effluent Conc. 0.2 mg/L
Coefficient of Variation (CV) 0.573
RP Multiplier 1.48
Projected Maximum Effluent Conc. (MEC) 0.296 mg/L

Acute Criterion 3.29 0
Chronic Criterion 3.29 0
Human Health Criterion 0 0

RP for Acute? NO
RP for Chronic? NO
RP for Human Health? N/A

Effluent Data

#	
1	0.0826
2	0.05
3	0.05
4	0.05
5	0.05
6	0.149
7	0.05
8	0.05
9	0.05
10	0.05
11	0.0858
12	0.05
13	0.05
14	0.2
15	0.2

RP Procedure Output

Facility Name: Ensign Bickford Outfall 001
Permit Number: UT0025283
Outfall Number: 1
Parameter: TDS
Distribution: Lognormal
Data Units: mg/L
Reporting Limit: 10
Significant Figures: 3
Confidence Interval: 95

Maximum Reported Effluent Conc. 568 mg/L
Coefficient of Variation (CV) 0.193
RP Multiplier 1.17
Projected Maximum Effluent Conc. (MEC) 665 mg/L

Acute Criterion 1200 0
Chronic Criterion 1200 0
Human Health Criterion 0 0

RP for Acute? NO
RP for Chronic? NO
RP for Human Health? N/A

Effluent Data

#	
1	344
2	300
3	384
4	364
5	400
6	284
7	568
8	408
9	448
10	472
11	344
12	452
13	352