



**Nebraska Department
of Environmental Quality**

United States Nuclear Regulatory Commission Official Hearing Exhibit	
In the Matter of:	CROW BUTTE RESOURCES, INC. (License Renewal for the In Situ Leach Facility, Crawford, Nebraska)
	ASLBP #: 08-867-02-OLA-BD01
	Docket #: 04008943
	Exhibit #: CBR-043-00-BD01
	Admitted: 8/18/2015
	Rejected:
Other:	Identified: 8/18/2015 Withdrawn: Stricken:

Wastewater Section
Suite 400, The Atrium, 1200 'N' Street
PO Box 98922
Lincoln, NE 68509-8922
Tel. 402/471-4220

**Authorization to Discharge Under the
National Pollutant Discharge Elimination System
(NPDES)**

This NPDES permit is issued in compliance with the provisions of the Federal Water Pollution Control Act (33 U.S.C. Secs. 1251 *et seq.* as amended to date), the Nebraska Environmental Protection Act (Neb. Rev. Stat. Secs. 81-1501 *et seq.* as amended to date), and the Rules and Regulations promulgated pursuant to these Acts. The facility and outfall(s) identified in this permit are authorized to discharge wastewater and are subject to the limitations, requirements, prohibitions and conditions set forth herein. This permit regulates and controls the release of pollutants in the discharge(s) authorized herein. This permit does not relieve permittees of other duties and responsibilities under the Nebraska Environmental Protection Act, as amended, or established by regulations promulgated pursuant thereto.

NPDES Permit No.: **NE0130613**
IIS File Number **PCS 63416-P**
Permittee **Cameco Resources**
Facility **Crow Butte Resources, Inc.**
Facility Location: **86 Crow Butte Road, Crawford, Nebraska**
Legal Description (Site 1) **SE ¼, Section 19, Township 31 N, Range 51 W, Dawes County, Nebraska**
Legal Description (Site 2) **NE ¼, Section 13, Township 31 N, Range 52 W, Dawes County, Nebraska**
Latitude/Longitude **42.64477 North / 103.35182 West**
Application Site **Land Application in the White River Basin**
Effective Date: **October 1, 2011**
Expiration Date: **September 30, 2016**

Pursuant to a Delegation Memorandum dated January 12, 1999 and signed by the Director, the undersigned hereby executes this document on behalf of the Director.

Signed this 27TH day of September, 2011

Patrick W. Rice
Patrick W. Rice
Assistant Director



TABLE OF CONTENTS

PART I. LAND APPLICATION REQUIREMENTS FOR TREATED PROCESS WASTEWATER FROM OUTFALL 0013

- A. Applicability..... 3
- B. Land Application Site Requirements..... 3
- C. Written Records..... 4
- D. Best Management Practices Plan..... 4
- E. Conditions for Withdrawal of Land Application Approval..... 4
- F. Outfall 001 - Monitoring and Limitations for Treated Process Wastewater that is Land Applied..... 5

PART II. STORMWATER REQUIREMENTS..... 6

- A. Stormwater Management 6
- B. Stormwater Pollution Prevention Plan Requirements (SWPPP)..... 6
- C. Stormwater Pollution Prevention Plan Updates and Record Keeping..... 6

PART III. OTHER REQUIREMENTS AND CONDITIONS 7

- A. Prohibited Wastewater Discharge 7
- B. Additional Monitoring..... 7
- C. Method Detection Limit Reporting Requirements 7
- D. Notification of Operation Changes..... 7

TABLE OF CONTENTS FOR APPENDIX A 8

Attachment 1 – Map of Land Application Sites

Part I. Land Application Requirements for Treated Process Wastewater from Outfall 001

The land application of treated process wastewater generated from uranium mining activities at Crow Butte Resources is authorized at sites approved by the Department and shall be restricted and monitored as set forth below. Outfall 001 is defined as treated process wastewater that is sampled after all treatment procedures and prior to land application.

A. Applicability

1. Land application of treated process wastewater shall only be permitted during and immediately after wet weather events.
2. Only the volume of treated process wastewater equivalent to the difference between annual precipitation falling on the treatment facility and the drainage area contributing surface runoff to the treatment facility and annual evaporation may be land applied subject to the limitations set forth in Table 1 below.
3. Land application of treated process wastewater shall only be authorized when the permittee takes all reasonable steps during and after each wet weather event to contain the wastewater and to limit the amount of treated process wastewater that is land applied.

B. Land Application Site Requirements

1. Land application is authorized only at the following sites approved by the Department. These are Site 1 (SE ¼, Section 19, Township 31 N, Range 51 W, Dawes County, Nebraska) and Site 2 (NE ¼, Section 13, Township 31 N, Range 52 W, Dawes County, Nebraska) that are delineated on Attachment 1 of this permit.
2. Application of treated process wastewater beyond the approved land application site boundary is prohibited.
3. The land application site shall have a slope of 12% or less.
4. Land application of treated process wastewater shall not be conducted when the ground is frozen or saturated.
5. Runoff of treated process wastewater from the approved land application site is prohibited.
6. The application site shall be free of perennial or intermittent streams, ponds, lakes or wetlands.
7. The total hydraulic application rate of treated process wastewater shall not exceed 2 inches per acre (54,304 gallons) per week.
8. Public access to the land application sites shall be prohibited.
9. Treated process wastewater shall not be applied to crops that are intended for human consumption.
10. A 30 foot vegetative buffer strip shall be maintained between the application site and any public right-of-way.
11. A 300 foot separation shall be maintained between the application site and any inhabited dwelling.
12. A 300 foot separation shall be maintained between the application site and any potable water supply well.
13. A 1000 foot separation shall be maintained between the application site and any community public water supply.
14. A 200 foot separation shall be maintained between the application site and Waters of the State that includes, but is not limited to, streams and wetlands.

C. Written Records

The permittee shall maintain written records to be made available for review upon request by the NDEQ that contains the following information.

1. A dated record of the volume of treated process wastewater that was land applied.
2. A dated record of the legal description of the site(s) where process wastewater was land applied.
3. The number of acres at each site that treated process wastewater was applied plus the application rate in gallons per acre at each application site.
4. A narrative report of the land application process to include any concerns or problems encountered during the land application of treated process wastewater.

D. Best Management Practices Plan

Crow Butte Resources shall prepare a best management practices (BMP) plan for the application of treated process wastewater according to the requirements set forth below.

1. Protocol for land application of treated process wastewater that includes detailed procedures for the land application process.
2. Surface data that includes a topographic map or aerial photograph showing the application site boundaries all drinking water wells, residences, highways, and surface waters within a one mile radius of the application site.
3. Narrative explanation of the type of controls to be maintained to prevent surface and groundwater contamination.

E. Conditions for Withdrawal of Land Application Approval

The Nebraska Department of Environmental Quality may withdraw approval for Crow Butte Resources to land apply wastewater for any of the following conditions.

1. Failure to comply with the requirements in this permit.
2. Potential risks to surface or groundwater quality
3. Potential risks to the environment.
4. Potential risks to public health or welfare.
5. Other site specific or facility specific considerations.

F. Outfall 001 - Monitoring and Limitations for Treated Process Wastewater that is Land Applied

Land application of treated process wastewater at Crow Butte Resources through Outfall 001 is authorized and shall be monitored and limited as specified in the Table 1 below. Outfall 001 is defined as treated process wastewater that is sampled after all treatment procedures and prior to land application.

Table 1: Discharge Limits and Monitoring Requirements for Outfall 001						
Parameters	Storet#	Units	Discharge Limits		Monitoring Frequency (a)	Sample Type
			Monthly Average	Daily Maximum		
Application	01287	Inches/week	***	Report (b)	Daily during discharge	Grab
Chemical Oxygen Demand	81017	mg/L	100	200	Once per discharge	Grab
Total Suspended Solids	00530	mg/L	20.0	30.0	Once per discharge	Grab
Zinc, Total	01092	mg/L	0.5	1.0	Once per discharge	Grab
Radium-226, Dissolved	09503	pCi/L	3.0	10	Once per discharge	Grab
Radium-226, Total	09501	pCi/L	10	30	Once per discharge	Grab
Uranium, Total	22708	mg/L	2.0	4.0	Once per discharge	Grab
Chloride	00940	mg/L	Report	Report	Once per discharge	Grab
Parameters	Storet#	Units	Discharge Limits		Monitoring Frequency	Sample Type
			Minimum	Maximum		
pH	00400	SU	6.0	9.0	Once per discharge	Grab

Footnotes:
 (a) Monitoring is required only when there is discharge to the land application sites.
 (b) The inches of treated process wastewater applied per week per acre shall be recorded

Part II. Stormwater Requirements

A. Stormwater Management

Stormwater runoff shall not be allowed to discharge to Waters of the State if it has come into contact with any overburden, raw material, intermediate products, finished product, byproduct, or waste products located on the Crow Butte Resources site as set forth below.

1. Precipitation falling on active mining areas, including buildings associated with operations of these areas, shall be treated as contaminated and must meet permit conditions that is no discharge to Waters of the State.
2. Precipitation draining from non-active mining areas onto active mining areas shall be treated as contaminated and must meet permit conditions that is no discharge to Waters of the State.
3. Precipitation falling on non-active mining areas but not coming into contact with active mining areas shall be exempt from permit conditions.
4. Construction of new wells shall not require coverage under a separate NPDES permit for stormwater runoff for construction activities since development of new wells is considered in the definitions of the permit as part of the active mining area. Precipitation runoff shall be treated as contaminated and must meet permit conditions which is no discharge to Waters of the State.

B. Stormwater Pollution Prevention Plan Requirements (SWPPP).

Crow Butte Resources shall develop and implement a Stormwater Pollution Prevention Plan (SWPPP) as set forth below that will prevent the release of polluted stormwater runoff into Waters of the State.

1. The SWPPP shall describe the prevention of discharge of pollutants in stormwater runoff from mining areas, the commercial plant, treatment ponds, and the deep well injection wellhead.
2. The SWPPP shall include a facility map that identifies all structures, pollutant sources, outfalls, monitoring locations, runoff drainage areas, and ground cover characteristic on site maps or drawings.
3. The SWPPP shall include a pollutant control strategy for preventing the discharge of pollutants through the use of stormwater diversion, containment structures, roof coverings, preventive maintenance, good housekeeping, pollutant source minimization, and spill prevention practices.
4. The SWPPP shall include a spill response plan that identifies personnel responsible for implementing the SWPPP and an employee education program that ensures the SWPPP will be effectively implemented.

C. Stormwater Pollution Prevention Plan Updates and Record Keeping.

1. The SWPPP shall be updated within 30 days if a SWPPP review or facility inspection indicates changes are needed, significant changes in operation or facility structures occur, or the NDEQ requests specific updates.
2. Crow Butte Resources shall maintain records of who conducted SWPPP review, site inspection, and education as well as findings of reviews and any changes made to the SWPPP for a minimum of the previous three years.

Part III. Other Requirements and Conditions

A. Prohibited Wastewater Discharge

Discharge of any wastewater, treated or untreated, from Crow Butte Resources at Crawford, Nebraska to Waters of the State is prohibited.

B. Additional Monitoring

The Department may require increases in the monitoring frequencies set forth in this permit to address new information concerning a discharge, evidence of potential non-compliance, suspect water quality in a discharge, evidence of water quality impacts in the receiving stream or waterway, or other similar concerns.

C. Method Detection Limit Reporting Requirements

The minimum detection limit (MDL) is defined as the level at which the analytical system gives acceptable calibration points. If the analytical results are below the MDL then the reported value on the DMR shall be a numerical value less than the MDL (e.g. <0.005).

D. Notification of Operation Changes

Crow Butte Resources shall notify the NDEQ in writing of significant operation changes at the Crow Butte Resources facility that could result in modification to permit requirements and conditions.

Table of Contents for Appendix A
Standard Conditions that Apply to NPDES and NPP Permits

Section	Page
A. General Conditions	A1
B. Signatory Requirements	A4
C. Monitoring and Records	A5
D. Reporting Requirements	A7
E. Bypass	A9
F. Upset	A10
G. Operations and Maintenance	A10
H. Definitions	A12
I. Abbreviations	A13

Appendix A – Standard Conditions that Apply to NPDES and NPP Permits

These general conditions are applicable to all NPDES and NPP permits. These conditions shall not preempt any more stringent requirements found elsewhere in this permit.

A. General Conditions

1. Information Available

All permit applications, fact sheets, permits, discharge data, monitoring reports, and any public comments concerning such shall be available to the public for inspection and copying, unless such information about methods or processes is entitled to protection as trade secrets of the owner or operator under Neb. Rev. Stat. §81-1527, (Reissue 1999) and NDEQ Title 115, Chapter 4.

2. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Federal Clean Water Act and the State Act and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal even if the permit has not yet been modified to incorporate the requirement.

3. Duty to Reapply

The permittee shall apply for a re-issuance of this permit, if an activity regulated by this permit is to be continued after the expiration date of this permit. The application shall be submitted at least 180 days before the expiration of this permit on an application form supplied by the Department, as set forth in NDEQ Titles 119, Chapter 5 002.

4. Need to Halt or Reduce Activity is 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.

5. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

6. 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 appropriate 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.

7. 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.

8. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

9. 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.

10. Inspection and Entry

The permittee shall allow the Director or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:

- a. 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 this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

11. Land Application of Wastewater Effluent

The permittee shall be permitted to discharge treated domestic wastewater effluent by means of land application in accordance with the regulations and standards set forth in NDEQ Title 119, Chapter 12 002. The Wastewater Section of the Department must be notified in writing if the permittee chooses to land apply effluent.

12. Toxic Pollutants

The permittee shall not discharge pollutants to waters of the state that cause a violation of the standards established in NDEQ Titles 117, 118 or 119. All discharges to surface waters of the state shall be free of toxic (acute or chronic) substances which alone or in combination with other substances, create conditions unsuitable for aquatic life outside the appropriate mixing zone.

13. Oil and Hazardous Substances/Spill Notification

Nothing in this permit shall preclude the initiation of any legal action or relieve the permittee from any responsibilities, liabilities or penalties under section 311 of the Clean Water Act. The permittee shall conform to the provisions set forth in NDEQ Title 126, *Rules and Regulations Pertaining to the Management of Wastes*. If the permittee knows, or has reason to believe, that oil or hazardous substances were released at the facility and could enter waters of the state or any of the outfall discharges authorized in this permit, the permittee shall immediately notify the Department of a release of oil or hazardous substances. During Department office hours (i.e., 8:00 a.m. to 5:00 p.m., Monday through Friday, except holidays), notification shall be made to the Nebraska Department of Environmental Quality at telephone numbers (402) 471-2186 or (877) 253-2603 (toll free). When NDEQ cannot be contacted, the permittee shall report to the Nebraska State Patrol for referral to the NDEQ Immediate Response Team at telephone number (402) 471-4545. It shall be the permittee's responsibility to maintain current telephone numbers necessary to carry out the notification requirements set forth in this paragraph.

14. Unlawful Acts; Civil Penalty

- a. It shall be unlawful for any person:
 - i) To refuse the right of entry and inspection to any authorized representative of the department when the representative is acting under the provisions of a permit issued by the department;
 - ii) To violate any air, water, or land quality standards, any emission or effluent standards or limitations, any permit or license condition or limitation, any order of the director, or any monitoring, reporting, or record-keeping requirements contained in or issued or entered into pursuant to the Environmental Protection Act, the Integrated Solid Waste Management Act, or the Livestock Waste Management Act or the rules or regulations adopted and promulgated pursuant to such acts;
 - iii) To make any false statement, representation, or certification in any application, label, record, report, plan, or other document required to be filed or maintained by such acts, rules, or regulations;
 - iv) To falsify, tamper with, or render inaccurate any monitoring device or method used or required for compliance with a permit or license or such acts, rules, or regulations; or
 - v) To violate any other provision of or fail to perform any other duty imposed by such acts, rules, or regulations.
- b. Each violation of this section or of Neb. Rev. Stat § 81-1506 shall subject a person to a civil penalty of no more than \$10,000 per day. In case of a continuing violation, each day shall constitute a separate offense. In assessing the amount of the fine, the court shall consider the degree and extent of the violation, the size of the operation, and any economic benefit derived from noncompliance to violate any air, water, or land quality standards, any emission or effluent standards or limitations, any permit or license condition or limitation, any order of the Director, or any monitoring, reporting, or record-keeping requirements contained in or issued or entered into pursuant to the Environmental Protection Act, the Integrated Solid Waste Management Act, or the Livestock Waste Management Act or the rules or regulations adopted and promulgated pursuant to such acts. Violations may also result in federal prosecution.

15. Severability

If any provision of this permit is held invalid, the remainder of this permit shall not be affected.

16. Other Rules and Regulations Liability

The issuance of this permit in no way relieves the obligation of the permittee to comply with other rules and regulations of the Department.

B. Signatory Requirements

1. Applications

- a. Applications, reports, or information submitted to the Director shall be signed and certified.
- b. All permit applications shall be signed as follows:

- i) For a corporation

By a responsible corporate officer: For the purpose of this section, a responsible corporate officer means:

- (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or
- (b) The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

- ii) For a partnership or sole proprietorship

By a general partner or the proprietor.

- iii) For a municipality, State, Federal, or other public agency

By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

- (a) The chief executive officer of the agency, or
- (b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

- c. All reports required by permits, and other information requested by the Director shall be signed by a person described in this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- i) The authorization is made in writing by a person described in paragraphs B.1.b(i), b(ii), or b(iii);
- ii) The authorization specifies 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) and;

- iii) The written authorization is submitted to the Director.

2. Changes to Authorization

If an authorization of paragraphs B.1.b(i), b(ii), or b(iii) 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 this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

3. Certification

All applications, reports and information submitted as a requirement of this permit shall contain the following certification statement:

"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 gathered and evaluated 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."

C. Monitoring and Records

1. Samples

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

2. Records

Records of monitoring information shall include:

- a. The date(s), exact place, and time and methods of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

3. Test Methods

Monitoring must be conducted according to test procedures approved in NDEQ Title 119, Chapter 27 002 unless another method is required under 40 CFR subchapter N – Effluent Guidelines and Standards Parts 425 to 471 and subchapter O – Sewer Sludge Parts 501 and 503.

4. Record Retention

Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR part 503), 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 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

5. Representative Sampling

Samples and measurements taken as required within this permit shall be representative of the discharge. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water or substance. Monitoring points shall not be changed without notification to the Department and with the written approval of the Director.

- a. Composite sampling shall be conducted in one of the following manners
 - i) Continuous discharge - a minimum of one discrete aliquot collected every three hours,
 - ii) Less than 24 hours - a minimum of hourly discrete aliquots or a continuously drawn sample shall be collected during the discharge, or
 - iii) Batch discharge - a minimum of three discrete aliquots shall be collected during each discharge.
- b. Composite samples shall be collected in one of the following manners:
 - i) The volume of each aliquot must be proportional to either the waste stream flow at the time of sampling or the total waste stream flow since collection of the previous aliquot,
 - ii) A number of equal volume aliquots taken at varying time intervals in proportion to flow,
 - iii) A sample continuously collected in proportion to flow, and
 - iv) Where flow proportional sampling is infeasible or nonrepresentative of the pollutant loadings, the Department may approve the use of time composite samples.
- c. Grab samples shall consist of a single aliquot collected over a time period not exceeding 15 minutes.
- d. All sample preservation techniques shall conform to the methods adopted in NDEQ Title 119, Chapter 21 006 unless:
 - i) In the case of sludge samples, alternative techniques are specified in the 40 CFR, Part 503, or
 - ii) Other procedures are specified in this permit.

e. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be used to insure the accuracy and reliability of measurements. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements. The accepted capability shall be consistent with that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of +/- 10%. The amount of deviation shall be from the true discharge rates throughout the range of expected discharge volumes. Guidance can be obtained from the following references for the selection, installation, calibration and operation of acceptable flow measurement devices:

- i) *Water Management Manual*, U. S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 2001, 327 pp. Available on the Department of Interior, Bureau of Reclamation (website <http://www.usbr.gov/pmts/hydraulicslab/pubs/wmm/>).
- ii) *NPDES Compliance Inspection Manual*, U. S. Environmental Protection Agency, Office of Enforcement and Compliance Assurance, Publication EPA 305-X-04-001 July 2004. This document is available on EPA website:
<http://www.epa.gov/compliance/resources/publications/monitoring/cwa/inspections/npdesinspect/npdesmanual.html>

D. Reporting Requirements

1. 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:

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in NDEQ Title 119, Chapter 4;
- b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements in NDEQ Title 119, Chapter 4; or
- c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices; and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

2. 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.

3. Transfers

This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary in NDEQ Title 119, Chapter 24; in some cases, modification or revocation and reissuance is mandatory.

4. Monitoring Reports

Monitoring results shall be reported at the intervals specified elsewhere in this permit.

- a. Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director.
- b. If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under in NDEQ Title 119, Chapter 27 002, or another method required for an industry-specific waste stream under 40 CFR subchapter N – Effluent Guidelines and Standards Parts 425 to 471 and subchapter O – Sewer Sludge Parts 501 and 503, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.
- c. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

5. Quarterly Discharge Monitoring Reports (DMRs)

The permittee shall report the monitoring results required by this permit on a DMR form supplied or approved by the Department. Monitoring results shall be submitted on a quarterly basis using the reporting schedule set forth below, unless otherwise specified in this permit or by the Department.

Monitoring Quarters	DMR Reporting Deadlines
January - March	April 28
April - June	July 28
July - September	October 28
October - December	January 28

If the permittee monitors any pollutant more frequently than required by this permit, using procedures specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted on the DMR. The frequency of the analysis shall also be reported on the DMR.

6. 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.

7. Immediate Notification

- a. NPP permittees shall report immediately to the publicly owned treatment works (POTW), any discharge to the POTW that may result in a violation of NDEQ Title 119, Chapter 26.
- b. All permittees shall report immediately to the NDEQ:
 - i) Discharges of oil or hazardous substances which threaten waters of the state or public health and welfare, and
 - ii) Discharges causing in-stream toxicity (i.e., a fish kill) or an immediate threat to human health.

Initial notification may be verbal. A written noncompliance notification shall be submitted as set forth in Section D. 9. of this Appendix.

8. Twenty-four Hour Reporting

- a. The permittee shall report any noncompliance which may endanger human health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
- b. The following shall be included as information which must be reported within 24 hours under this paragraph.
 - i) Any unanticipated bypass which exceeds any effluent limitation in the permit.
 - ii) Any upset which exceeds any effluent limitation in the permit.
 - iii) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours.
- c. The Director may waive the written report on a case-by-case basis for reports under Section D if the oral report has been received within 24 hours.

9. Written Noncompliance Notification

The permittee shall submit a written noncompliance report to the NDEQ:

- a. Within five days of becoming aware of any noncompliance with the:
 - i) NPP effluent limitations or requirements set forth in this permit, or
 - ii) NPDES toxic pollutant effluent limitations or requirements set forth in this permit.
- b. Within seven days of becoming aware of any other noncompliance with the NPDES requirements and/or effluent limitations set forth in this permit. The written notification shall be submitted on a noncompliance form supplied by the Department and shall include:
 - i) A description of the discharge and cause of noncompliance,
 - ii) The period of noncompliance, including exact dates and times, or if not corrected, the anticipated time the noncompliance is expected to continue, and
 - iii) The steps taken to reduce, eliminate, and prevent the reoccurrence of the noncompliance.
- c. The submittal of a written noncompliance report does not relieve the permittee of any liability from enforcement proceedings that may result from the violation of permit or regulatory requirements.

10. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under paragraph D.7. at the time discharge monitoring reports are submitted.

11. Other Information

Where 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 in any report to the Director, it shall promptly submit such facts or information.

E. Bypass**1. Definitions**

- a. **Bypass** means the intentional diversion of waste streams from any portion of a treatment facility.
- b. **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.

2. 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 the provisions of paragraphs E.3. and E.4. of this section.

3. Notice

- a. **Anticipated bypass:** If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
- b. **Unanticipated bypass:** The permittee shall submit notice of an unanticipated bypass as required in the 24-hour notice (paragraph D. 7.).

4. Prohibition of Bypass

Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

- a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- b. There were no feasible alternatives to the 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 back-up 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
- c. The permittee submitted notices as required under paragraph E.3. of this section.

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 paragraph E.4.a., b., and c. of this section.

F. Upset**1. Definition**

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

2. Effect of an Upset

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph F. 3 of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

3. 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 in paragraph D.7.b. (24-hour notice); and
- d. Permittee complied with any remedial measures required under paragraph 4 of this section.

4. Burden of Proof

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

G. Operation and Maintenance**1. Proper Operation and Maintenance**

The permittee shall, at all times, maintain in good working order and operate as efficiently as possible, any facilities or systems of control installed by the permittee in order to achieve compliance with the terms and conditions of this permit. This would include, but not be limited to, effective performance based on designed facility removals, effective management, adequate operator staffing and training, adequate laboratory and process controls, and adequate funding that reflects proper user fee schedules.

2. Removed Substances

Solids, sludge, filter backwash or other pollutants removed in the course of treatment or control of wastewater shall be disposed of at a site and in a manner approved by the Nebraska Department of Environmental Quality. The disposal of nonhazardous industrial sludges shall conform to the standards established in or to the regulations established pursuant to 40 CFR, Part 257. The disposal of sludge shall conform to the standards established in or to the regulations established pursuant to 40 CFR, Part 503. If solids are disposed of in a licensed sanitary landfill, the disposal of solids shall conform to the standards established in NDEQ Title 132. Publicly owned treatment works shall dispose of sewage sludge in a manner that protects public health and the environment from any adverse effects which may occur from toxic pollutants as defined in Section 307 of the Clean Water Act. This permit may be modified or revoked and reissued to incorporate regulatory limitations established pursuant to 40 CFR, Part 503.

3. Changes in Discharge

Any facility expansion, production increases or process modifications which will result in new or substantially increased discharges of pollutants or a change in the nature of the discharge of pollutants must be reported by the permittee 180 days prior to the expansion, increases or modifications, either by amending the original application or by submitting a new application. This permit may be modified or revoked and reissued as a result of this notification to maintain compliance with applicable state or federal regulations.

4. Changes in Toxic Discharges from Manufacturing, Commercial, Mining and Silvicultural Facilities

Permittees discharging from manufacturing, commercial, mining and silvicultural facilities shall report to the Department:

- a. If any toxic pollutant not limited in this permit is discharged from any NPDES outfall as a result of any activity that will or has occurred and results in its routine or frequent discharge. The Department shall be informed if that discharge exceeds the following notification levels:
 - i) 100 micrograms per liter (0.1 mg/L) for any toxic pollutant,
 - ii) 200 micrograms per liter for acrolein and acrylonitrile (0.2 mg/L),
 - iii) 500 micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol (0.5 mg/L),
 - iv) 1000 micrograms per liter for antimony (1 mg/L),
 - v) Five times the maximum concentration value reported for that pollutant in the permit application or
 - vi) An alternative level established by the Director, and
- b. If any toxic pollutant not limited in this permit is discharged from an NPDES outfall as a result of any activity that will or has occurred and results in its nonroutine discharge. The Department shall be informed if that discharge exceeds the following notification levels:
 - i) 500 micrograms per liter (0.5 mg/L) for any toxic pollutant,
 - ii) 1000 micrograms for antimony (1 mg/L),
 - iii) Ten times the maximum concentration value reported for that pollutant in the permit application, or
 - iv) An alternative level established by the Director.

5. Changes in Sludge Quality

The permittee shall provide written notice to the Department of any alteration or addition that results in a significant change in the permittee's sludge use or disposal practices. This permit may be modified or revoked and reissued as a result of this notification to maintain compliance with applicable state or federal regulations.

6. Changes of Loadings to Publicly Owned Treatment Work (POTW)

All POTWs must provide adequate notice to the Director of the following:

- a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to NDEQ Title 119, Chapter 26, if it were directly discharging those pollutants; and
- b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

For purposes of this paragraph, adequate notice shall include information on the quality and quantity of effluent introduced into the POTW, and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

H. Definitions

Administrator: The Administrator of the USEPA.

Aliquot: An individual sample having a minimum volume of 100 milliliters that is collected either manually or in an automatic sampling device.

Annually: Once every calendar year.

Bimonthly: Once every other month.

Biosolids: Sewage sludge that is used or disposed through land application, surface disposal, incineration, or disposal in a municipal solid waste landfill.

Biweekly: Once every other week.

Bypass: The intentional diversion of wastes from any portion of a treatment facility.

Daily Average: An effluent limitation that cannot be exceeded and is calculated by averaging the monitoring results for any given pollutant parameter obtained during a 24-hour day.

Department: Nebraska Department of Environmental Quality.

Director: The Director of the Nebraska Department of Environmental Quality.

Industrial Discharge: Wastewater that originates from an industrial process and / or is noncontact cooling water and / or is boiler blowdown.

Industrial User: A source of indirect discharge (a pretreatment facility).

Monthly Average: Is an effluent limitation that cannot be exceeded. It is calculated by averaging any given pollutant parameter monitoring results obtained during a calendar month.

Passive Discharge: A discharge from a POTW that occurs in the absence of an affirmative action and is not authorized by the NPDES permit (e.g. discharges due to a leaking valve, discharges from an overflow structure) and / or is a discharge from an overflow structure not designed as part of the POTW (e.g. discharges resulting from lagoon berm / dike breaches).

Publicly Owned Treatment Works (POTW): A treatment works as defined by Section 212 of the Clean Water Act (Public Law 100-4) which is owned by the state or municipality, excluding any sewers or other conveyances not leading to a facility providing treatment.

Semiannually: Twice every year

Significant Industrial User (SIU): All industrial users subject to Categorical Pretreatment Standards or any industrial user that, unless exempted under Chapter 1, Section 105 of NDEQ Title 119, discharges an average of 25,000 gallons per day or more of process water, or contributes a process waste stream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW; or is designated as such by the Director on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any National Pretreatment Standard or requirement.

Sludge: Any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such waste having similar characteristics and effect.

30-Day Average: Is an effluent limitation that cannot be exceeded. It is calculated by averaging any given pollutant parameter monitoring results obtained during a calendar month.

Total Toxic Organics (TTO): The summation of all quantifiable values greater than 0.01 milligrams per liter (mg/l) for toxic organic compounds that may be identified elsewhere in this permit. (If this term has application in this permit, the list of toxic organic compounds will be identified, typically in the Limitations and Monitoring Section(s) and/or in an additional Appendix to this permit.)

Toxic Pollutant: Those pollutants or combination of pollutants, including disease causing agents, after discharge and upon exposure, ingestion, inhalation or assimilation into an organism, either directly from the environment or indirectly by ingestion through food chains will, on the basis of information available to the administrator, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunction (including malfunctions in reproduction) or physical deformations in such organisms or their offspring.

Upset: 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, excluding such factors as operational error, improperly designed or inadequate treatment facilities or improper operation and maintenance or lack thereof.

Volatile Organic Compounds (VOC): The summation of all quantifiable values greater than 0.01 milligrams per liter (mg/l) for volatile, toxic organic compounds that may be identified elsewhere in this permit. (See the definition for Total Toxic Organics above. In many instances, VOCs are defined as the volatile fraction of the TTO parameter. If the term "VOC" has application in this permit, the list of toxic organic compounds will be identified, typically in the Limitations and Monitoring Section(s) and/or in an additional Appendix to this permit.)

Weekly Average: Is an effluent limitation that cannot be exceeded. It is calculated by averaging any given pollutant parameter monitoring results obtained during a fixed calendar week. The permittee may start their week on any weekday but the weekday must remain fixed. The Department approval is required for any change of the starting day.

"X" Day Average: An effluent limitation defined as the maximum allowable "X" day average of consecutive monitoring results during any monitoring period where "X" is a number in the range of one to seven days.

I. Abbreviations

CFR: Code of Federal Regulations

kg/Day: Kilograms per Day

MGD: Million Gallons per Day

mg/L: Milligrams per Liter

NOI: Notice of Intent

NDEQ: Nebraska Department of Environmental Quality

NDEQ Title 115: *Rules of Practice and Procedure*

NDEQ Title 117: *Nebraska Surface Water Quality Standards*

NDEQ Title 118: *Ground Water Quality Standards and Use Classification*

NDEQ Title 119: *Rules and Regulations Pertaining to the Issuance of Permits under the National Pollutant Discharge Elimination System*

NDEQ Title 126: *Rules and Regulations Pertaining to the Management of Wastes*

NDEQ Title 132: *Integrated Solid Waste Management Regulations*

NPDES: National Pollutant Discharge Elimination System

NPP: Nebraska Pretreatment Program

POTW: Publicly Owned Treatment Works

µg/L: Micrograms per Liter

WWTF: Wastewater Treatment Facility

