

DRAFT – June 15, 2023

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY - REGION VII
11201 Renner Boulevard
Lenexa, KS 66219**

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)**

Permitted Facility: St. Louis Composting - Pacific Facility

NPDES Permit No.: MO-0138908

Mailing Address: 39 Elam Ave., Valley Park, MO 63088

Facility Address: 18900 Franklin Road, Pacific, MO 63069

Facility Location: Latitude: 38° 29' 07.20" N, Longitude: 90° 42' 32.35" W

Cognizant Officials: Patrick Geraty, President, St. Louis Composting

Facility Contact: Patrick Geraty, President, 636-861-3344

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. §1251 et. seq), authorization is given to treat domestic sewage sludge to create a Class A biosolids product, when in compliance with the terms and conditions of this permit.

This permit shall become effective on _____.

This permit shall expire at midnight on _____.

Signed this _____ day of _____, 2023.

Jeffery Robichaud, Director
Water Division

Facility Description

St. Louis Composting - Pacific Facility (SLC) is an open-air composting operation receiving organic materials from the surrounding area and using windrow composting methods to create compost products for sale.

Permit Coverage

Compost created on the SLC site without a sludge/biosolids component is not regulated under federal law and is not covered by this permit. This permit will only cover the production of compost products that contain biosolids.

When the compost process is completed and the product meets Class A standards, the finished product is no longer regulated under the requirements of 40 CFR Part 503.

Metals Limits

Finished compost cannot be land applied if any metals exceed the values in Table 1 below:

Table 1 of § 503.13 - Ceiling Concentrations

Pollutant	Ceiling concentration (milligrams per kilogram)¹
Arsenic	75
Cadmium	85
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
Selenium	100
Zinc	7500

¹ Dry weight basis.

If any metal is found to exceed the values in Table 3 below, the receiver of the biosolids product must be provided with the product (information sheet or labeling on the bag) to assure that annual loading rates do not exceed the limits in Table 4 below. See 40 CFR § 503.14 for details on the labeling requirement.

Table 3 of § 503.13 - Pollutant Concentrations

Pollutant	Monthly average concentration (milligrams per kilogram)¹
Arsenic	41
Cadmium	39
Copper	1500
Lead	300
Mercury	17
Nickel	420
Selenium	100
Zinc	2800

¹ Dry weight basis.

Table 4 of § 503.13 - Annual Pollutant Loading Rates

Pollutant	Annual pollutant loading rate (kilograms per hectare per 365 day period)
Arsenic	2.0
Cadmium	1.9
Copper	75
Lead	15
Mercury	0.85
Nickel	21
Selenium	5.0
Zinc	140

Labeling and Information to be Provided to the Consumer

If the concentration of any metal exceeds the Table 3 values, then the consumer must be provided information to assure that annual pollutant loading rates are not exceeded. Content of the labeling/information sheets and instructions on how to calculate annual pollutant loading limits are in Appendix 1 to 40 CFR Part 503.

As required by § 503.14(e): Either a label shall be affixed to the bag or other container in which sewage sludge that is sold or given away for application to the land, or an information sheet shall be provided to the person who receives sewage sludge sold or given away in another container for application to the land. The label or information sheet shall contain the following information:

- (1) The name and address of the person who prepared the sewage sludge that is sold or given away in a bag or other container for application to the land.
- (2) A statement that application of the finished compost to the land is prohibited except in accordance with the instructions on the label or information sheet.
- (3) The annual whole sludge application rate for the sewage sludge that does not cause any of the annual pollutant loading rates in Table 4 of § 503.13 to be exceeded.

Pathogen Limits

Pathogen Limits are based on § 503.32(a)(8) *Class A-Alternative 6*. Alternative 6 has two requirements: a numeric limit on one of two pathogen indicators and a specific process approved by the permitting authority.

The density of fecal coliform in the finished compost shall be less than 1000 Most Probable Number per gram of total solids (dry weight basis), or the density of *Salmonella*, sp. bacteria in the sewage sludge shall be less than three Most Probable Number per four grams of total solids (dry weight basis).

The permittee must monitor for both fecal coliform and *Salmonella*, but compliance assessment will be based on meeting one of the limits.

The equivalent Process to Further Reduce Pathogens (PFRP) is described in the Special Conditions portion of this permit.

Vector Attraction Reduction

The Harvest Quest (HQ) process must meet the requirements of § 503.33(b)(5): Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40 degrees Celsius and the average temperature of the sewage sludge shall be

higher than 45 degrees Celsius. (40° C = 104° F, 45° C = 113° F). Temperature monitoring associated with the HQ process will generate the data needed to show compliance with this requirement.

Monitoring Locations and Frequency

Parameter	Location	Sample Type	Frequency
Metals	Finished Compost	Composite	Bi-Monthly**
Fecal Coliform	Finished Compost	Composite	Monthly
<i>Salmonella</i>	Finished Compost	Composite	Monthly
Vectors	Windrows	Logged Temperature	Daily *
Time/Temperature	Windrows	Logged Temperature	Daily *

*Temperatures will be logged daily until time and temperature requirements are met for the individual windrow.

**After two years of monitoring the permittee can request reduced monitoring frequency. If EPA allows this, the monitoring frequency can be reduced to annual monitoring. The request and EPA response will be made in writing and will not require a new public notice of the permit.

Alternative Treatment Options

If Class A permit requirements cannot be met in any batch, then the biosolids must be re-processed to meet Class A requirements, be land applied under the Class B requirements set in 40 CFR Part 503, or disposed of at a landfill.

Record Keeping

The facility must maintain records of the following information for five years: dry tonnage of sludge received and compost produced, metals monitoring results, operational data for time, temperature, and turning events, and pathogen monitoring results.

The detailed listing of records that must be kept are set in § 503.17. The details of recordkeeping and certification can vary based on metals levels, Class A vs Class B, and whether Class A material is distributed in bulk or in bags.

If a Class B product is created, the facility must also maintain records that detail where the product is land applied and records showing agronomic loading rates for nitrogen have been met.

Reporting

The SLC facility is required to electronically submit an annual report by February 19th each year for the previous calendar year.

More detailed instructions can be found at the following URL.

<https://www.epa.gov/compliance/npdes-ereporting>

Special Conditions

After review, EPA Region 7 finds that the HQ process, as detailed in the site-specific SOP, is expected to meet the regulatory requirements of 40 CFR Part 503 and is considered a "Process to Further Reduce Pathogens" (PFRP) compost method when used at the St. Louis County facility. This designation as a PFRP Class A composting method is conferred with the following conditions:

1. SLC must follow the Standard Operation Procedure (SOP) submitted to EPA, Missouri Department of Natural Resources, and St. Louis County Health Department. If SLC modifies the SOP based on operational improvements, it shall be submitted to EPA for review and approval. The SOP is included as Attachment A to this permit.

2. SLC must monitor temperatures daily at depths of 10", 20", 30", and 40" at every 100 feet along windrows until monitored temperatures are greater than 131° F at all locations in the windrows for a minimum of 15 days.
3. If, for any reason, full operating times and temperatures are not maintained in a windrow, SLC will consider the product as Class B biosolids, or reprocess the product. The Corrective Action procedures in the SOP can be used to assure compliance with time and temperature requirements but are not a substitute for the time and temperature requirement.
4. Each batch of windrows (a set of windrows constructed at the same time) will be monitored to demonstrate pathogen reduction. The following records will be maintained to demonstrate pathogen reduction:
 - a. Records of temperatures shall be recorded starting on the day the windrow is made, and until the windrow maintains an excess of 131° F at all locations within the windrow for a minimum of 15 days.
 - b. Dates of first and second turns.
 - c. Dates and times of pathogen sample collection, chain of custody for fecal coliform and salmonella samples, and laboratory reports of results for those samples. The reports should include the times the analyses begun, results reported on an "as-is" (wet weight) basis, and results reported on a 100% dry weight basis. Sampling shall be done on the finished product.

Standard Conditions - 40 CFR § 122.41

The following conditions apply to all NPDES permits. Additional conditions applicable to NPDES permits are in § 122.42. All conditions applicable to NPDES permits shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these regulations (or the corresponding approved State regulations) must be given in the permit.

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

(1) 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 CWA 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.

(2) The Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The Clean Water Act provides that any person who *negligently* violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than 2 years, or both. Any person who *knowingly* violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than 6

years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.

(3) Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.

- (b) **Duty to reapply.** If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
- (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 or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- (e) **Proper operation and maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate 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) **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.
- (g) **Property rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.
- (h) **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.
- (i) **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:
- (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 this permit;

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

(j) ***Monitoring and records.***

- (1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- (2) 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.
- (3) Records of monitoring information shall include:
 - (i) The date, exact place, and time of sampling or measurements;
 - (ii) The individual(s) who performed the sampling or measurements;
 - (iii) The date(s) analyses were performed;
 - (iv) The individual(s) who performed the analyses;
 - (v) The analytical techniques or methods used; and
 - (vi) The results of such analyses.
- (4) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 unless another method is required under 40 CFR subchapters N or O.
- (5) The Clean Water 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, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

(k) ***Signatory requirement.***

- (1) All applications, reports, or information submitted to the Director shall be signed and certified. (See § 122.22)
- (2) The CWA 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 non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(1) **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:

(i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in § 122.29(b); or

(ii) 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 under § 122.42(a)(1).

(iii) 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 under the Clean Water Act. (See § 122.61; 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.

(i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices. As of December 21, 2016 all reports and forms submitted in compliance with this section must be submitted electronically by the permittee to the Director or initial recipient, as defined in 40 CFR 127.2(b), in compliance with this section and 40 CFR part 3 (including, in all cases, subpart D to part 3), § 122.22, and 40 CFR part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, permittees may be required to report electronically if specified by a particular permit or if required to do so by state law.

(ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, 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.

(iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

(5) **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.

(6) **Twenty-four hour reporting.**

(i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A report shall also be provided within 5 days of the time the permittee becomes

aware of the circumstances. The report 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. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (combined sewer overflows, sanitary sewer overflows, or bypass events), type of sewer overflow structure (*e.g.*, manhole, combine sewer overflow outfall), discharge volumes untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the sewer overflow event, and whether the noncompliance was related to wet weather. As of December 21, 2025 or an EPA-approved alternative date (see 40 CFR 127.24(e) or (f)), all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events submitted in compliance with this section must be submitted electronically by the permittee to the Director or initial recipient, as defined in 40 CFR 127.2(b), in compliance with this section and 40 CFR part 3 (including, in all cases, subpart D to part 3), § 122.22, and 40 CFR part 127. 40 CFR part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of 40 CFR part 127, permittees may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section by a particular permit or if required to do so by state law. The Director may also require permittees to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section.

(ii) The following shall be included as information which must be reported within 24 hours under this paragraph.

(A) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See § 122.41(g).

(B) Any upset which exceeds any effluent limitation in the permit.

(C) 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. (See § 122.44(g).)

(iii) The Director may waive the written report on a case-by-case basis for reports under paragraph (1)(6)(ii) of this section if the oral report has been received within 24 hours.

(7) **Other noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs (1)(4), (5), and (6) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (1)(6). For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in paragraph (1)(6) and the applicable required data in appendix A to 40 CFR part 127. As of December 21, 2025 or an EPA-approved alternative date (see 40 CFR 127.24(e) or (f)), all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events submitted in compliance with this section must be submitted electronically by the permittee to the Director or initial recipient, as defined in 40 CFR § 127.2(b), in compliance with this section and 40 CFR part 3 (including, in all cases, subpart D to part 3), § 122.22, and 40 CFR part 127. 40 CFR part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of 40 CFR part 127, permittees may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section by a particular permit or if required to do so by state law. The Director may also require permittees to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section.

(8) **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.

(9) **Identification of the initial recipient for NPDES electronic reporting data.** The owner, operator, or the duly authorized representative of an NPDES-regulated entity is required to electronically submit the required NPDES information (as specified in appendix A to 40 CFR part 127) to the appropriate initial recipient, as determined by EPA, and as defined in § 127.2(b) of this chapter. EPA will identify and publish the list of initial recipients on its Web site and in the FEDERAL REGISTER, by state and by NPDES data group [see § 127.2(c) of this chapter]. EPA will update and maintain this listing.

(m) **Bypass -**

(1) **Definitions.**

(i) **Bypass** means the intentional diversion of waste streams from any portion of a treatment facility.

(ii) **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 (m)(3) and (m)(4) of this section.

(3) **Notice -**

(i) **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. As of December 21, 2025 or an alternative date (see 40 CFR 127.24(e) or (f)), all notices submitted in compliance with this section must be submitted electronically by the permittee to the Director or initial recipient, as defined in 40 CFR 127.2(b), in compliance with this section and 40 CFR part 3 (including, in all cases, subpart D to part 3), § 122.22, and 40 CFR part 127. 40 CFR part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of 40 CFR part 127, permittees may be required to report electronically if specified by a particular permit or if required to do so by state law.

(ii) **Unanticipated bypass.** The permittee shall submit notice of an unanticipated bypass as required in paragraph (l)(6) of this section (24-hour notice). As of December 21, 2025 or an EPA-approved alternative date (see 40 CFR 127.24(e) or (f)), all notices submitted in compliance with this section must be submitted electronically by the permittee to the Director or initial recipient, as defined in 40 CFR 127.2(b), in compliance with this section and 40 CFR part 3 (including, in all cases, subpart D to part 3), § 122.22, and 40 CFR part 127. 40 CFR part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of 40 CFR part 127, permittees may be required to report electronically if specified by a particular permit or if required to do so by state law.

(4) **Prohibition of bypass.**

(i) 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 (m)(3) of this section.

(ii) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (m)(4)(i) of this section.

(n) **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 (n)(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:

(i) An upset occurred and that the permittee can identify the cause(s) of the upset;

(ii) The permitted facility was at the time being properly operated; and

(iii) The permittee submitted notice of the upset as required in paragraph (l)(6)(ii)(B) of this section (24 hour notice).

(iv) The permittee complied with any remedial measures required under paragraph (d) 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.