

South Carolina Department of Health and Environmental Control

National Pollutant Discharge Elimination System Permit

for Discharge to Surface Waters

This Permit Certifies That

USDOE/Savannah River Site

has been granted permission to discharge from a facility located at

Located South Of Aiken, S.C. Aiken, Allendale, and Barnwell Counties

to receiving waters named

Upper Three Runs Creek, Tims Branch, Beaver Dam Creek, Fourmile Branch, Crouch Branch, McQueen Branch, Indian Grave Branch, L Lake, PAR Pond and the Savannah River

in accordance with limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Pollution Control Act of South Carolina (S.C. Code Sections 48-1-20 et seq., 1976), Regulation 61-9 and with the provisions of the Federal Clean Water Act (PL 92-500), as amended, 33 U.S.C. 1251 et seq., the "Act."

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PART I. Definitions

Any term not defined in this Part has the definition stated in the Pollution Control Act or in "Water Pollution Control Permits", R.61-9 or its normal meaning.

- A. The "Act", or CWA, shall refer to the Clean Water Act (Formerly referred to as the Federal Water Pollution Control Act) Public Law 92-500, as amended.
- B. The "arithmetic mean" of any set of values is the summation of the individual values divided by the number of individual values.
- C. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
- D. A "composite sample" shall be defined as one of the following types:
 - 1. An influent or effluent portion collected continuously over a specified period of time at a rate proportional to the flow.
 - 2. A combination of not less than 8 influent or effluent grab samples collected at regular (equal) intervals over a specified period of time and composited by increasing the volume of each aliquot in proportion to flow. If continuous flow measurement is not used to composite in proportion to flow, the following method will be used: An instantaneous flow measurement should be taken each time a grab sample is collected. At the end of the sampling period, the instantaneous flow measurements should be summed to obtain a total flow. The instantaneous flow measurement can then be divided by the total flow to determine the percentage of each grab sample to be combined. These combined samples form the composite sample.
 - 3. A combination of not less than 8 influent or effluent grab samples of equal volume but at variable time intervals that are inversely proportional to the volume of the flow. In other words, the time interval between aliquots is reduced as the volume of flow increases.
 - 4. If the effluent flow varies by less than 15 percent, a combination of not less than 8 influent or effluent grab samples of constant (equal) volume collected at regular (equal) time intervals over a specified period of time.

All samples shall be properly preserved in accordance with Part II.J.4. Continuous flow or the sum of instantaneous flows measured and averaged for the specified compositing time period shall be used with composite results to calculate mass.

- E. "Daily maximum" is the highest average value recorded of samples collected on any single day during the calendar month.
- F. "Daily minimum" is the lowest average value recorded of samples collected on any single day during the calendar month.
- G. The "Department" shall refer to the South Carolina Department of Health and Environmental Control.

- H. The "geometric mean" of any set of values is the Nth root of the product of the individual values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered to be one (1).
- I. A "grab sample" is an individual, discrete or single influent or effluent portion of at least 100 milliliters collected at a time representative of the discharge and over a period not exceeding 15 minutes and retained separately for analysis. Instantaneous flow measured at the time of grab sample collection shall be used to calculate quantity, unless a totalizer is used.
- J. The "instantaneous maximum or minimum" is the highest or lowest value recorded of all samples collected during the calendar month.
- K. The "monthly average", other than for fecal coliform, is the arithmetic mean of all samples collected in a calendar month period. The monthly average for fecal coliform bacteria is the geometric mean of all samples collected in a calendar month period. The monthly average loading is the arithmetic average of all individual loading determinations made during the month.
- L. The "practical quantitation limit (PQL)" is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. It is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specific sample weights, volumes, and processing steps have been followed.
- M. "Quarter" is defined as the first three months of the calendar year (e.g., 1st quarter is Jan. Mar., etc.) and so forth.
- N. "Quarterly average" is the arithmetic mean of all samples collected in a quarter.
- O. "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.
- P. "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.
- Q. "Weekly average", other than for fecal coliform, is the arithmetic mean of all the samples collected during a one-week period. The weekly average for fecal coliform is the geometric mean of all samples collected during a one-week period. For self-monitoring purposes, weekly periods in a calendar month are defined as three (3) consecutive seven-day intervals starting with the first day of the calendar month and a fourth interval containing seven (7) days plus those days beyond the 28th day in a calendar month. The value to be reported is the single highest of the four (4) weekly averages computed during a calendar month. The weekly average loading is the arithmetic average of all individual loading determinations made during the week.

PART II. Standard Conditions

A. Duty to comply

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

- a. 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.
 - b. It is the responsibility of the permittee to have a treatment facility that will meet the final effluent limitations of this permit. The approval of plans and specifications by the Department does not relieve the permittee of responsibility for compliance.
- 2. Failure to comply with permit conditions or the provisions of this permit may subject the permittee to civil penalties under S.C. Code Section 48-1-330 or criminal sanctions under S.C. Code Section 48-1-320. Sanctions for violations of the Federal Clean Water Act may be imposed in accordance with the provisions of 40 CFR Part 122.41(a)(2) and (3).
- 3. A person who violates any provision of this permit, a term, condition or schedule of compliance contained within this NPDES permit, or the State law is subject to the actions defined in the State law.

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. A permittee with a currently effective permit shall submit a new application 180 days before the existing permit expires, unless permission for a later date has been granted by the Department. The Department may not grant permission for applications to be submitted later than the expiration date of the existing 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

- 1. The permittee shall at all times properly operate and maintain in good working order and operate as efficiently as possible all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance 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.
- 2. Power Failures. In order to maintain compliance with effluent limitations and prohibitions of this permit, the permittee shall either:
 - a. provide an alternative power source sufficient to operate the wastewater control facilities;
 - b. or have a plan of operation which will halt, reduce, or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.
- 3. The permittee shall maintain at the permitted facility a complete Operations and Maintenance Manual for each waste treatment plant at the Savannah River Site. The manual shall be made available for onsite review during normal working hours. The manual shall contain operation and maintenance instructions for all equipment and appurtenances associated with the waste treatment plant and land application system. The manual shall contain a general description of the treatment process(es), operating characteristics that will produce maximum treatment efficiency and corrective action to be taken should operating difficulties be encountered.
- 4. The permittee shall provide for the performance of routine treatment plant inspections by a certified operator of the appropriate grade as specified in Part V. The inspection shall include, but is not limited to, areas which require a visual observation to determine efficient operations and for which immediate corrective measures can be taken using the O & M manual as a guide. All inspections shall be recorded and shall include the date, time and name of the person making the inspection, corrective measures taken, and routine equipment maintenance, repair, or replacement performed. The permittee shall maintain all records of inspections at the permitted facility as required by this permit. Records shall be made available for on-site review during normal working hours.
- 5. The name and grade of the operator of record shall be submitted to DHEC/Bureau of Water/Water Enforcement Division prior to placing the facility into operation. Any changes in the operator(s) of record shall be submitted to the Department as they occur.

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 nor does it authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

H. Duty to provide information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department 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 Department upon request, copies of records required to be kept by this permit.

I. Inspection and entry

The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), 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 and Pollution Control Act, any substances or parameters at any location.

J. Monitoring and records

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

b. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be present and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to ensure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than $\pm 10\%$ from the true discharge rates throughout the range of expected discharge volumes. The primary flow device must be accessible to the use of a continuous flow recorder.

- c. The permittee shall maintain at the permitted facility a record of the method(s) used in measuring the discharge flow for the outfall(s) designated on limits pages to monitor flow. Records of any necessary calibrations must also be kept. This information shall be made available for on-site review by Department personnel during normal working hours.
- 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

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as required by R.61-9.503 or R.61-9.504), 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 Department at any time.

- 3. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) 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.
- 4. a. Monitoring results for wastewater must be conducted according to test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in R.61-9.503 or R.61-9.504, unless other test procedures have been specified in the permit.
 - b. Unless addressed elsewhere in this permit, the permittee shall use a sufficiently sensitive analytical method that achieves a value below the derived permit limit stated in Part III. If more than one method of analysis is approved for use, the Department recommends for reasonable potential determinations that the permittee use the method having the lowest practical quantitation limit (PQL) unless otherwise specified in Part V of the permit. For the purposes of reporting analytical data on the Discharge Monitoring Report (DMR):
 - (1) Analytical results below the PQL from methods available in 40 CFR 136 or otherwise specified in the permit shall be reported as zero (0). Zero (0) shall also be used to average results which are below the PQL. The Permittee shall submit with the first DMR the analytical method and the PQL to be used for every parameter in the permit. Any changes in PQLs or methods shall be submitted to the Department thirty (30) days prior to their use. The permittee shall maintain records on site of the method used, the detection limit achieved, and the number of times non-detectable results were reported as or averaged with zero (0).

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- (2) Analytical results above the PQL from methods available in 40 CFR 136 or otherwise specified in the permit shall be reported as the value achieved. When averaging results using a value containing a "less than," the average shall be calculated using the value and reported as "less than" the average of all results collected.
- (3) Mass values shall be calculated using the flow taken at the time of the sample and either the concentration value actually achieved or the value as determined from the procedures in (1) or (2) above, as appropriate.
- 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 Department shall be signed and certified.
 - a. Applications. All permit applications shall be signed as follows:
 - (1) 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 employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - (3) For a municipality, State, Federal, or other public agency or public facility: By either a principal executive officer, mayor, or other duly authorized employee 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 Administrator, Region IV, EPA).
 - b. All reports required by permits, and other information requested by the Department, shall be signed by a person described in Part II.K.1.a of this section, or by a duly authorized representative of that person. A person is a duly authorized representative if:

- (1) The authorization is made in writing by a person described in Part II.K.1.a of this section;
- (2) 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,
- (3) The written authorization is submitted to the Department.
- c. Changes to authorization. If an authorization under Part II.K.1.b of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II.K.1.b of this section must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.
- d. Certification. Any person signing a document under Part II.K.1.a or b of 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."
- 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.

L. Reporting requirements

- 1. Planned changes. The permittee shall give written notice to DHEC/Bureau of Water/Industrial, Agricultural and Storm Water Permitting Division 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 R 61-9.122.29(b); or
 - 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 under Part II.L.8 of this section.
 - c. The alteration or addition results in a significant change in the permittee's sewage sludge or industrial 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 (included in the NPDES permit directly or by reference);

- 2. Anticipated noncompliance. The permittee shall give advance notice to the DHEC/Bureau of Water/Water Enforcement Division 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 written notice to the DHEC/Bureau of Water/NPDES Administration. The Department may require modification or revocation and reissuance of the permit to change the name of permittee and incorporate such other requirements as may be necessary under the Pollution Control Act and the Clean Water Act.
 - a. Transfers by modification. Except as provided in paragraph b of this section, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under R.61-9.122.62(e)(2)), or a minor modification made (under R.61-9.122.63(d)), to identify the new permittee and incorporate such other requirements as may be necessary under CWA.
 - b. Other transfers. As an alternative to transfers under paragraph a of this section, any NPDES permit may be transferred to a new permittee if:
 - (1) The current permittee notifies the Department at least 30 days in advance of the proposed transfer date in Part II.L.3.b(2) of this section;
 - (2) The notice includes U.S. EPA NPDES Application Form 1 and a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
 - (3) Permits are non-transferable except with prior consent of the Department. A modification under this section is a minor modification which does not require public notice.
- 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 Department for reporting results of monitoring of sludge use or disposal practices including the following:
 - (1) Effluent Monitoring: Effluent monitoring results obtained at the required frequency shall be reported on a Discharge Monitoring Report Form (EPA Form 3320-1). The DMR is due postmarked no later than the 28th day of the month following the end of the monitoring period. One original and one copy of the Discharge Monitoring Reports (DMRs) shall be submitted to:

S.C. Department of Health and Environmental Control Bureau of Water/Compliance Assurance Division Permit and Data Administration Section 2600 Bull Street Columbia, South Carolina 29201 (2) Groundwater Monitoring: Groundwater monitoring results obtained at the required frequency shall be reported on a Groundwater Monitoring Report Form (DHEC 2110) postmarked no later than the 28th day of the month following the end of the monitoring period. One original and one copy of the Groundwater Monitoring Report Form (DHEC 2110) shall be submitted to:

S.C. Department of Health and Environmental Control
Bureau of Water/Water Monitoring, Assessment and Protection Division
Groundwater Quality Section
2600 Bull Street
Columbia, South Carolina 29201

(3) All other reports required by this permit shall be submitted at the frequency specified elsewhere in the permit to:

S.C. Department of Health and Environmental Control Bureau of Water/Water Enforcement Division Water Pollution Enforcement Section 2600 Bull Street Columbia, South Carolina 29201

- b. If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in R.61-9.503 or R.61-9.504, or as specified in the permit, all valid results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Department. In addition, results from all invalid results must be appended to DMRs. The permittee has sole responsibility for scheduling analyses, other than for the sample data specified in Part V, so as to ensure there is sufficient opportunity to complete and report the required number of valid results for each monitoring period.
- c. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Department in the permit.

5. Twenty-four hour reporting

a. The permittee shall report any non-compliance, which may endanger health or the environment. Any information shall be provided orally to local DHEC office within 24 hours from the time the permittee becomes aware of the circumstances. During normal working hours call:

County	EQC District	Phone No.
Anderson Oconee	Appalachia I	864-260-5569
Greenville Pickens	Appalachia II	864-241-1090
Cherokee, Spartanburg Union	Appalachia III	864-596-3800

Chester, Lancaster York	Catawba	803-285-7461
Fairfield, Lexington Newberry, Richland	Central Midlands	803-896-0620
Beaufort, Colleton Hampton, Jasper	Low Country	843-522-9097
Aiken, Allendale, Bamberg, Barnwell, Calhoun, Orangeburg	Lower Savannah	803-641-7670
Chesterfield, Darlington, Dillon, Florence, Marion, Marlboro	Pee Dee	843-661-4825
Berkeley, Charleston Dorchester	Trident	843-740-1590
Abbeville, Edgefield, Greenwood Laurens, McCormick, Saluda	Upper Savannah	864-223-0333
Georgetown, Horry Williamsburg	Waccamaw	843-448-1902
Clarendon, Kershaw Lee, Sumter	Wateree	803-778-1531

After-hour reporting should be made to the 24-Hour Emergency Response telephone number 803-253-6488 or 1-888-481-0125 outside of the Columbia area. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances to the address in Part II.L.4.a(4). 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.
 - (1) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See R.61-9.122.44(g)).
 - (2) Any upset which exceeds any effluent limitation in the permit.
 - (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours (See R 61-9.122.44(g)). If the permit contains maximum limitations for any of the pollutants listed below, a violation of the maximum limitations shall be reported orally to the DHEC/Bureau of Water/Water Enforcement Division within 24 hours.
 - (a) Whole Effluent Toxicity (WET),
 - (b) tributyl tin (TBT), and
 - (c) any of the following bioaccumulative pollutants:

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 $\begin{array}{lll} \alpha \ BHC & Lindane \\ \beta \ BHC & Mercury \\ \delta \ BHC & Mirex \\ BHC & Octachlorostyrene \end{array}$

Chlordane PCBs

DDD Pentachlorobenzene
DDE Photomirex

DDT 1,2,3,4-Tetrachlorobenzene
Dieldrin 1,2,4,5-Tetrachlorobenzene

Hexachlorobenzene 2,3,7,8-TCDD Hexachlorobutadiene Toxaphene

c. The Department may waive the written report on a case-by-case basis for reports under Part II.L.5.b of this section if the oral report has been received within 24 hours.

6. Other noncompliance.

The permittee shall report all instances of noncompliance not reported under Part II.L.4 and 5 of this section and Part IV at the time monitoring reports are submitted. The reports shall contain the information listed in Part II.L.5 of this section.

7. 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 Department, it shall promptly submit such facts or information to the Industrial, Agricultural and Storm Water Permitting Division. This information may result in permit modification, revocation and reissuance, or termination in accordance with Regulation 61-9.

8. Existing manufacturing, commercial, mining, and silvicultural dischargers.

In addition to the reporting requirements under Part II.L.1 of this section, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the DHEC/Bureau of Water/Water Enforcement Division of the Department as soon as they know or have reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) One hundred micrograms per liter (100 μg/l);
 - (2) Two hundred micrograms per liter (200 μg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 μg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application; or

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- (4) The level established by the Department in accordance with section R.61-9.122.44(f).
- b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed in the highest of the following "notification levels":
 - (1) Five hundred micrograms per liter (500 μg/l);
 - (2) One milligram per liter (1 mg/l) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with R.61-9.122.21(g)(7).
 - (4) The level established by the Department in accordance with section R.61-9.122.44(f).

M. Bypass

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 the provisions of Part II.M.2 and 3 of this section.

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 to the DHEC/Bureau of Water/ Industrial, Agricultural and Storm Water Permitting Division.
- b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II.L.5 of this section.

3. Prohibition of bypass

- a. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
 - (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) 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
 - (3) The permittee submitted notices as required under Part II.M.2 of this section.
- b. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in Part II.M.3.a of this section.

N. Upset

- 1. 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 Part II.N.2 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.
- 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; and
 - c. The permittee submitted notice of the upset as required in Part II.L.5.b(2) of this section.
 - d. The permittee complied with any remedial measures required under Part II.D of this section.
- 3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

O. Misrepresentation of Information

- 1. Any person making application for a NPDES discharge permit or filing any record, report, or other document pursuant to a regulation of the Department, shall certify that all information contained in such document is true. All application facts certified to by the applicant shall be considered valid conditions of the permit issued pursuant to the application.
- 2. Any person who knowingly makes any false statement, representation, or certification in any application, record, report, or other documents filed with the Department pursuant to the State law, and the rules and regulations pursuant to that law, shall be deemed to have violated a permit condition and shall be subject to the penalties provided for pursuant to 48-1-320 or 48-1-330.

Part III. Limitations and Monitoring Requirements

A. Effluent Limitations and Monitoring Requirements

During the period beginning on the effective date of this permit and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number A-01: Noncontact cooling water, steam and air-conditioning condensates, laboratory drain wastes, cooling tower discharge, well flush water, steam cleaning rack wastewater, groundwater airstripper effluent from outfall A1A, and stormwater.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS DISCHARGE LIMITAT		DIE	DISCHARGE LIMITATIONS		MONI	MONITORING REQUIREMENTS
	Ms	Mass	Concentration	tration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR¹, MGD	MR MGD	ı	•	1/Month	Estimate ²
Biochemical Oxygen Demand (BOD ₅)	•	•	10 mg/l	20 mg/l	1/Month	24-hr. composite³
Total Suspended Solids (TSS)	1	•	20 mg/l	40 mg/l	1/Month	24-hr. composite³
Hd	•	-	Min 5.0 su, Max 8.5 su²	Max 8.5 su ⁵	1/Month	Grab
Oil and Grease	•		10 mg/l	15 mg/l	1/Month	Grab
Iron, total	·	1	MR	MR	1/Month	24-hr. composite ³

Based on a long term average flow of 0.572 MGD.

MR: Monitor and Report

See Part II.J.1(c).

Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4).

⁴ See Part V.A.5 and Part II.J.4.
⁵ pH limitations are instantaneous and cannot be averaged.
⁶ See Part V.A.3.

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

Tims Branch

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2. During the period beginning on effective date of this permit, and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number A-1A: Treated groundwater.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		Dis	DISCHARGE LIMITATIONS		MONI REQUIR	MONITORING REQUIREMENTS
	M	Mass	Concentration	ation		:
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR ¹ , MGD	MR MGD	•	-	1/Month	Instantaneous ²
Tetrachloroethylene (PCE)	1	-	S ug/l	10 ug/1	1/Month	Grab
Trichloroethylene (TCE)	ı	•	5 ug/l	10 ug/l	1/Month	Grab

Based on a long term average flow of 0.460 MGD.

¹MR: Monitor and Report

² See Part II.J.1(c).

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

Modified August 1, 2005

INTERIM LIMITS

from outfall serial number A-11: Cooling water, steam condensate, water tank overflow, groundwater air stripper effluent from Outfall M-05, fire During the period beginning on effective date of this permit, and lasting through November 30, 2007, the permittee is authorized to discharge station building drains, and stormwater. 3. a.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		DI	DISCHARGE LIMITATIONS	8	MONIT	MONITORING REQUIREMENTS
	X	Mass	Concer	Concentration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR^{1} , MGD	MR MGD			1/Month	Estimate ²
Biochemical Oxygen Demand (BOD ₅)	•	•	10 mg/l	20 mg/l	1/Month	24-hr.
Total Suspended Solids (TSS)	* 1	•	20 mg/l	40 mg/1	1/Month	24-hr. composite ³
Hd		1	Min 5.5 su,	Min 5.5 su, Max 8.5 su ⁵	1/Month	Grab
Mercury, total ^{4,6}	-	ı	MR	MR	1/Month	Grab

Based on a long term average flow of 0.851 MGD. MR: Monitor and Report

See Part II.J.1(c).

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

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³Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4).

⁴See Part V.A.5 and Part II.J.4.

⁵pH limitations are instantaneous and cannot be averaged.

See Part V.A.3.

Modified August 1, 2005

FINAL LIMITS

3. b. During the period beginning on December 1, 2007 and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number A-11: Cooling water, steam condensate, water tank overflow, groundwater air stripper effluent from Outfall M-05, fire station building drains, and stormwater.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		Dis	DISCHARGE LIMITATIONS		MONII REQUIR	MONITORING REQUIREMENTS
	Mass	SSI	Concentration	ration		•
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR¹, MGD	MR MGD	r	ı	1/Month	Estimate ²
Biochemical Oxygen Demand (BOD)		1	10 mg/l	20 mg/l	1/Month	24-hr. composite ³
Total Suspended Solids (TSS)	ı	. 1	20 mg/l	40 mg/l	1/Month	24-hr. composite ³
Hd		ı	Min 5.5 su, Max 8.5 su	Max 8.5 su ⁵	1/Month	Grab
Mercury, total ^{4,6}	1	1	0.051 µg/l	0.14 µg/l	1/Month	Grab

Based on a long term average flow of 0.851 MGD.

MR: Monitor and Report

See Part II.J.1(c).

Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4).

See Part V.A.5 and Part II.J.4.

pH limitations are instantaneous and cannot be averaged.

pH limitations are insta See Part V.A.3.

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

Tims Branch

Part III Page 20 of 69 Permit No. SC0000175 4. During the period beginning on effective date of this permit, and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number D-1A: Sanitary Wastewater.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		DIS	DISCHARGE LIMITATIONS	VTIONS		Moni Requi	MONITORING REQUIREMENTS
	W	Mass		Concentration			
	Monthly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR¹, MGD	0.023 MGD	1	1		Daily	Continuous ²
Biochemical Oxygen Demand (BOD ₅)		ı	30 mg/l	45 mg/l		1/Month	24-hr. composite ³
Total Suspended Solids (TSS)		-	30 mg/l	45 mg/l		1/Month	24-hr. composite ³
Hd	1	1	Min.	Min. 6.0 su, Max. 9.0 su ⁵	'n	1/Month	Grab
Dissolved Oxygen	-	ı	Minimum	Minimum of 1.0 mg/l at all times.	times.	1/Month	Grab
Fecal Coliform	•	1	200/100 ml	,	400/100 ml	1/Month	Grab

MR: Monitor and Report

²See Part II J.1(c).

³ Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4).

⁴ PH limitations are instantaneous and cannot be averaged.

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

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During the period beginning on effective date of this permit, and lasting through the expiration date, the permittee is authorized to discharge This outfall will not be put into service and a minor modification dated May 27, 2004 was made to this permit to delete this outfall. Therefore, this from outfall serial number D-14: This outfall is being deleted from this permit. page will be intentionally left blank.

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INTERIM LIMITS

6. a. During the period beginning on the effective date of this permit and lasting through November 30, 2006, the permittee is authorized to discharge from outfall serial number F-01: non-process cooling water from building 772-F (4 of 6 air handling units-condensate overflow), steam condensate and stormwater runoff.

Such discharge shall be limited and monitored by the permittee as specified below:

	\neg	_	T		$\overline{}$	T	
MONITORING REQUIREMENTS		Sample Type	Estimate ²	24-hr. composite ³	Grab	24-hr. composite ³	24-hr. composite ³
Monitoring		Sampling	1/Month	1/Month	1/Month	1/Month	1/Month
	tration	Daily Maximum		40 mg/l	Max. 8.5 su ⁵	MR	MR
DISCHARGE LIMITATIONS	Concentration	Monthly Average	,	20 mg/l	Min. 4.8 su, Max. 8.5 su ⁵	MR	•
Disc	Mass	Daily Maximum	MR ¹ , MGD				-
	W	Monthly Average	MR ¹ , MGD			•	•
EFFLUENT	CHANACIERISTICS		Flow	Total Suspended Solids (TSS)	Hd	Copper, total ⁴	Zinc, total

Based on a long term average flow of 0.036 MGD. IMR: Monitor and Report

³Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4). ⁴See Part V.A.5 and Part II.J.4. ⁵PH limitations are instantaneous and cannot be averaged.

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

Upper Three Runs Creek

Modification Date: February 1, 2004

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FINAL LIMITS

6.b.

During the period beginning on December 1, 2006 and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number F-01: non-process cooling water from building 772-F (4 of 6 air handling units-condensate overflow), steam condensate and stormwater runoff.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT		DISC	DISCHARGE LIMITATIONS		MONITORING F	MONITORING REQUIREMENTS
CHAKACIEKISIICS	M	Mass	Concer	Concentration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR ¹ , MGD	MR ¹ , MGD	,	•	1/Month	Estimate ²
Total Suspended Solids (TSS)		1	20 mg/l	40 mg/l	1/Month	24-hr. composite ³
Hd	•	1	Min. 4.8 su,	Min. 4.8 su, Max. 8.5 su ⁵	1/Month	Grab
Copper, total ⁴	•	,	0.006 mg/l	0.007 mg/l	1/Month	24-hr. composite ³
Zinc, total	ı		•	0.08 mg/l	1/Month	24-hr. composite ³

Based on a long term average flow of 0.036 MGD. MR: Monitor and Report

See Part II.J.1(c).

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

Upper Three Runs Creek

Modification Date: February 1, 2004

³Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4). ⁴See Part V.A.5 and Part II.J.4. ⁵PH limitations are instantaneous and cannot be averaged.

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Modification Date: February 1, 2004

INTERIM LIMITS

During the period beginning on the effective date of this permit and lasting through November 30, 2006, the permittee is authorized to Canyon auxiliary steam condensate, Central Lab process water system, Canyon Fan House cooling water, and Central lab non-process cooling discharge from outfall serial number F-02: stormwater runoff from F-Area, NSR/PSF non-process cooling water and cooling tower blowdown, 707-1F offices non-process cooling water, FBL Breathing Air compressor non-process cooling water, Canyon non-process cooling water, water building 772-F (2 of 6 air handling units overflow only). 7. a.

Such discharge shall be limited and monitored by the permittee as specified below:

		•				
EFFLUENT		DIS	DISCHARGE LIMITATIONS		MONITORING F	MONITORING REQUIREMENTS
CHAKACIEKISTICS	M	Mass	Concer	Concentration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR¹, MGD	MR ¹ , MGD	•	-	1/Month	Estimate ²
Hd	,	•	Min. 4.8 su,	Min. 4.8 su, Max. 8.5 su ⁵	1/Month	Grab
Copper, total ⁴	,	•	•	MR	1/Month	24-hr. composite ³
Zinc, total	-	•	ı	MR	1/Month	24-hr. composite ³

Sased on a long term average flow of 0.140 MGD

MR: Monitor and Report

Upper Three Runs Creek

Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4).

See Part V.A.5 and Part II.J.4.

PH limitations are instantaneous and cannot be averaged.

⁽¹⁾ Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

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FINAL LIMITS

During the period beginning on December 1, 2006 and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number F-02: stormwater runoff from F-Area, NSR/PSF non-process cooling water and cooling tower blowdown, 707-1F offices non-process cooling water, FBL Breathing Air compressor non-process cooling water, Canyon non-process cooling water, Canyon auxiliary steam condensate, Central Lab process water system, Canyon Fan House cooling water, and Central lab non-process cooling water building 772-F (2 of 6 air handling units overflow only). 7. b.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT		DISC	DISCHARGE LIMITATIONS		MONITORING	MONITORING REQUIREMENTS
CHARACTERISTICS	W	Mass	Concer	Concentration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR¹, MGD	MR ¹ , MGD		1	1/Month	Estimate ²
Hd	•	•	Min. 4.8 su,	Min. 4.8 su, Max. 8.5 su ⁵	1/Month	Grab
Copper, total4	ı	•	•	1/gm 700.0	1/Month	24-hr. composite ³
Zinc, total		•	•	1/gm 70.0	1/Month	24-hr. composite ³

Sased on a long term average flow of 0.140 MGD.

MR: Monitor and Report

See Part II.J.1(c).

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

Upper Three Runs Creek

Modification Date: February 1, 2004

Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4).

^{&#}x27;See Part V.A.5 and Part II.J.4,

pH limitations are instantaneous and cannot be averaged.

MODIFICATION:

8.a.

February 1, 2006

INTERIM LIMITS

During the period beginning on the effective date of this permit and lasting through October 31, 2008, the permittee is authorized to discharge from outfall serial number F-05: stormwater runoff, non-process cooling water from Plutonium Fabrication facility 235-F, fire water tank flushing, well water flushing (905-101F), and sandfilter rainwater (294-F/294i1F).

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT		Dise	DISCHARGE LIMITATIONS		MONITORING	MONITORING REQUIREMENTS
CHAKACIEKISTICS	W	Mass	Conce	Concentration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR¹, MGD	MR¹, MGD	ı	•	1/Month	Estimate ²
Total Suspended Solids (TSS)	-	,	20 mg/l	40 mg/l	1/Month	24-hr. composite ³
Hd	•		Min. 4.8 su	Min. 4.8 su, Max. 8.5 su ⁵	1/Month	Grab
Copper, total ⁴	•	,	MR	MR	1/Month	24-hr. composite ³
Lead, total ⁴	•	•	MR	MR	1/Month	24-hr. composite ³
Mercury, total ^{4,6}	•	•	MR	MR	1/Month	Grab
Zinc, total		•		MR	1/Month	24-hr. composite ³

Based on a long term average flow of 0.060 MGD.

MR: Monitor and Report

Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4). See Part V.A.5 and Part II.J.4.

pH limitations are instantaneous and cannot be averaged.

'see Part V.A.3.
(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

Upper Three Runs Creek

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February 1, 2006 MODIFICATION:

FINAL LIMITS

During the period beginning on November 1, 2008 and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number F-05: stormwater runoff from in and around 235-F, non-process cooling water from Plutonium Fabrication facility 235-F, fire water tank flushing, well water flushing (905-101F), and sandfilter rainwater (294-F/294-1F). 8. b.

Such discharge shall be limited and monitored by the permittee as specified below:

		DIS	DISCHARGE LIMITATIONS		MONITORING I	MONITORING REQUIREMENTS
CHAKACIEKISTICS	M	Mass	Concen	Concentration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR^1 , MGD	MR ¹ , MGD	•	Hone's	1/Month	Estimate ²
Total Suspended Solids (TSS)	•	•	20 mg/l	40 mg/l	1/Month	24-hr. composite ³
Hd	1		Min. 4.8 su, Max. 8.5 su ⁵	Max. 8.5 su ⁵	1/Month	Grab
Copper, total ⁴	-	,	0.007 mg/l	0.008 mg/l	1/Month	24-hr. composite ³
Lead, total ⁴	-	ī	0.00083 mg/l	0.02 mg/l	1/Month	24-hr. composite ³
Mercury, total ^{4,6}	•	-	0.051 µg/1	0.07 µg/l	1/Month	Grab
Zinc, total		•	•	1/gm 60.0	1/Month	24-hr. composite ³

Based on a long term average flow of 0.060 MGD.
MR: Monitor and Report

See Part II.J.1(c).

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Permit No. SC0000175

Upper Three Runs Creek

Modification Date: October 1, 2004

Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4).

See Part V.A.5 and Part II.J.4.

pH limitations are instantaneous and cannot be averaged. See Part V.A.3.

⁽¹⁾ Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

MODIFIED AUGUST 1, 2005

INTERIM LIMITS

During the period beginning on the effective date of this permit and lasting through October 31, 2008, the permittee is authorized to discharge from outfall serial number F-08: Stormwater runoff, neutralization system 281-F, non-process cooling water 701-1F, well water flushing (905-100F, 905-102F,905-103F), non-process cooling water BA compressors (717-F & 240-F), FTF cooling towers (3) 241-20F, F-Area cooling towers blowdown 285-4F, cooling tower overflow and drain 285-F/285-5F, F-canyon seg. cooling basin 281-5F, ETF radiological control basins (241-8F & 241-97F). 9. a.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT		DIS	DISCHARGE LIMITATIONS		MONITORING F	MONITORING REQUIREMENTS
CHARACTERISTICS	W	Mass	Conce	Concentration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR ¹ , MGD	MR ¹ , MGD	1	•	1/Month	Instantaneous ²
Hd	•		Min. 4.6 su,	Min. 4.6 su, Max. 8.5 su ⁵	1/Month	Grab
Lead, total ⁴	•	-	0.009 mg/l	0.16 mg/l	1/Month	24-hr. composite ³

Based on a long term average flow of 1.530 MGD.

MR: Monitor and Report

Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4).

See Part V.A.5 and Part II.J.4.

pH limitations are instantaneous and cannot be averaged. See Part V.A.3.

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

Fourmile Branch

MODIFICATION DATE: NOVEMBER 30, 2008

FINAL LIMITS

During the period beginning on November 30, 2008 and lasting through the expiration date of this permit, the permittee is authorized to discharge from outfall serial number F-08: Stormwater runoff, well water flushing (905-100F, 905-102F, 905-103F), FTF cooling towers (3) 241-20F, F-Area cooling towers blowdown 285-4F, cooling tower overflow and drain 285-F/285-5F, ETF radiological control basins (241-8F & 241-9. b.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT		DIS	DISCHARGE LIMITATIONS		MONITORING F	MONITORING REQUIREMENTS
CHARACTERISTICS	W	Mass	Conc	Concentration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR¹, MGD	MR ¹ , MGD	•	1	1/Month	Instantaneous ²
Hd		,	Min. 4.6 st	Min. 4.6 su, Max. 8.5 su ⁵	1/Month	Grab
Zinc, total	•	ı	0.573 mg/l	0.573 mg/l	1/Month	24-hr. composite ³
Lead, total ⁴	1	•	0.005 mg/l	0.129 mg/l	1/Month	24-hr. composite ³

Based on a long term average flow of 1.530 MGD.

MR: Monitor and Report See Part II.J.1(c).

Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4). See Part V.A.5 and Part II.J.4. Ph limitations are instantaneous and cannot be averaged.

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

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Permit No. SC0000175

Fourmile Branch

Modified August 1, 2005

During the period beginning on the effective date of the permit and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number G-10: Sanitary wastewater. 10.

Such discharge shall be limited and monitored by the permittee as specified below:

0					MONITORING REQUIREMENTS	FOUREMENTS
EFFLUENT		DIS	DISCHARGE LIMITATIONS			
CHARACTERISTICS	Mass	ISS	Concen	Concentration		
	Monthly	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow ⁵	MR ¹ , MGD	1.05 MGD		•	Daily	Continuous ²
Biochemical Oxygen			30 mg/l	45 mg/l	2/Month	24-hr. composite ³
Demand (BOD ₅) Total Suspended Solids	. 1		30 mg/l	45 mg/l	2/Month	24-hr. composite ³
(TSS)		1	Min. 6.0 su,	Min. 6.0 su, Max. 8.5 su ⁵	2/Month	Grab
line in the second seco			Minimum of 5.0	Minimum of 5.0 mg/l at all times.	2/Month	Grab
Dissolved oxygen			200/100 ml	400/100 ml	2/Month	Grab
Ammonia (as N) Summer	' '	,	3.6 mg/l	7.2 mg/l	2/Month	24-hr. composite ³
(Mar. – Oct.) Ammonia (as N)		,	6.8 mg/l	13.6 mg/l	2/Month	24-hr. composite ³
Winter (Nov Feb.)						

MR: Monitor and Report See Part II.J.1(c).

Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4).

See Part V.A.5 and Part II.J.4.

See Part V.D.3.

PH limitations are instantaneous and cannot be averaged.

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

Part III Page 31 of 69 Permit No. SC0000175

Fourmile Branch

INTERIM LIMITS

During the period beginning on the effective date and lasting through October 31, 2008, the permittee is authorized to discharge from outfall serial number H-02: nonprocess cooling water, steam condensate, and stormwater. 11. a.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT		DIS	DISCHARGE LIMITATIONS		MONITORING	MONITORING REQUIREMENTS
CHARACIERISIICS	M	Mass	Concer	Concentration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR ¹ , MGD	MR ¹ , MGD	. 1		1/Month	Estimate ²
Hd		•	Min. 4.8 su,	Min. 4.8 su, Max. 8.5 su ⁵	1/Month	Grab
Copper, total ⁴	•	•	MR	MR	1/Month	24-hr. composite ³
Lead, total ⁴	•	-	MR	MR	1/Month	24-hr. composite ³
Zinc, total	-	,	•	MR	1/Month	24-hr. composite ³

Based on a long term average flow of 0.120 MGD.

MR: Monitor and Report

See Part II.J.1(c).

³Composite samples shall be collected in accordance with Part LD. (1), (2), (3) or (4). ⁴See Part V.A.5 and Part II.J.4. ⁵pH limitations are instantaneous and cannot be averaged.

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

Modification Date: February 1, 2004

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Crouch Branch

Modification Date: November 30, 2008

FINAL LIMITS

11. b. During the period beginning on November 30, 2008 and lasting through the expiration date of this permit, the permittee is authorized to discharge from outfall serial number H-02: nonprocess cooling water, steam condensate, and stormwater.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT		DIS	SCHARGE LIMITATIONS		MONITORING F	MONITORING REQUIREMENTS
CHAKACTERISTICS	M	Mass	Concer	Concentration		
,	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR ¹ , MGD	MR¹, MGD	,	-	1/Month	Estimate ²
Hd	•	•	Min. 6.0 su,	Min. 6.0 su, Max. 8.5 su ⁵	1/Month	Grab
Copper, total ⁴	•		0.032 mg/l	0.042 mg/l	1/Month	24-hr. composite ³
Lead, total ⁴	-	•	MR, mg/l	MR, mg/l	1/Month	24-hr. composite ³
Zinc, total		•	0.11	0.11 mg/l	1/Month	24-hr. composite ³

Based on a long term average flow of 0.120 MGD. 'MR: Monitor and Report

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

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³Composite samples shall be collected in accordance with Part LD. (1), (2), (3) or (4). ⁴See Part V.A.5 and Part II.J.4. ⁵PH limitations are instantaneous and cannot be averaged.

Modification Date: December 1, 2006

Outfall H-04 has been deleted. This page has been intentionally left blank.

Modification Date: December 1, 2006

Outfall H-04 has been deleted. This page has been intentionally left blank.

Rationale for December 2006 modification to NPDES Permit No. SC0000175

Per letter dated November 30, 2006, WSRC indicated that they have removed all sources from the outfall. The letter also requested that this permit be modified to reflect the removal of Outfall H-04. This will be a minor modification to the referenced permit.

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During the period beginning on the effective date of the permit and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number H-07: cooling water from plant air compressors, cooling tower blowdown, and stormwater runoff. 13.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT		Dis	DISCHARGE LIMITATIONS		Monitoring	Monitoring Requirements
CHARACTERISTICS	W	Mass	Conce	Concentration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR^1 , MGD	MR ¹ , MGD	1	1	1/Quarter	Estimate ²
Hd	•	,	Min. 4.8 su,	Min. 4.8 su, Max. 8.5 su ⁵	1/Quarter	Grab
Total Suspended Solids (TSS)	•	•		40 mg/l	1/Quarter	24-hr. composite ³

Based on a long term average flow of 0.026 MGD.

MR: Monitor and Report

² See Part II.J.I(c).
³ Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4).
⁴ See Part V.A.5 and Part II.J.4.
⁵ pH limitations are instantaneous and cannot be averaged.
⁶ See Part V.A.3.

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

Modification Date: December 1, 2007

INTERIM LIMITS

Outfall H-08 has been deleted effective December 1, 2007. See letter dated November 20, 2007 from Bill Payne to Barry Mullinax. This letter requested that this NPDES permit be modified to remove Outfall H-08. This page is being intentionally left blank so the permit pages will not have to be renumbered.

14. a.

Fourmile Branch

Modification Date: December 1, 2007

FINAL LIMITS

Outfall H-08 has been deleted effective December 1, 2007. See letter dated November 20, 2007 from Bill Payne to Barry Mullinax. This letter requested that this NPDES permit be modified to remove Outfall H-08. This page is being intentionally left blank so the permit pages will not have to be renumbered.

INTERIM LIMITS

Modification Date: April 1, 2008

serial number H-12: nonprocess cooling water, cooling tower and air compressor blowdown, steam condensate, radiological control basins, well During the period beginning on the effective date and lasting through June 30, 2009, the permittee is authorized to discharge from outfall water flushes and stormwater. 15. a.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT		DISA	DISCHARGE LIMITATIONS		MONITORING F	MONITORING REQUIREMENTS
CHAKACTERISTICS	W	Mass	Concentration	tration		
	Monthly Average	· Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR ¹ , MGD	MR¹, MGD	•	•	1/Month	Estimate ²
Hd			Min. 4.8 su, Max. 8.5 su ⁵	Max. 8.5 su ⁵	1/Month	Grab
Copper, total ⁴	•	1	$0.025~\mathrm{mg/l}$	0.035 mg/l	1/Month	24-hr. composite ³
Zinc, total	•		-	MR	1/Month	24-hr. composite ³

Based on a long term average flow of 0.490 MGD.

'MR: Monitor and Report

³Corraposite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4). See Part V.A.5 and Part II.3.4.

⁵PH limitations are instantaneous and cannot be averaged.

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

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FINAL LIMITS

Modification Date: April 1, 2008

15. b. During the period beginning on July 1, 2009, the permittee is authorized to discharge from outfall serial number H-12: nonprocess cooling water, cooling tower and air compressor blowdown, steam condensate, radiological control basins, well water flushes amd stormwater.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT		Disc	DISCHARGE LIMITATIONS		MONITORING I	MONITORING REQUIREMENTS
CHARACTERISTICS	W	Mass	Concentration	tration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR¹, MGD	MR ¹ , MGD	4	•	1/Month	Estimate ²
Hd	•	,	Min. 4.8 su, Max. 8.5 su ⁵	Max. 8.5 su ⁵	1/Month	Grab
Copper, total ⁴	ı	,	0.006 mg/l	0.008 mg/l	. 1/Month	24-hr. composite ³
Zinc, total	,	-	_	0.10 mg/l	1/Month	24-hr. composite ³

Based on a long term average flow of 0.490 MGD.

'MR: Monitor and Report

See Part II.J.1(c).

³ Composite samples shall be collected in accordance with Part LD. (1), (2), (3) or (4).

⁴ See Part V.A.5 and Part II.J.4.

⁵ PH limitations are instantaneous and cannot be averaged.

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

after treatment but prior to mixing with the receiving stream.

Fourmile Branch

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Tier I Range: 0 gpd to 211,499 gpd

During the period beginning on the effective date and lasting through the expiration date or the initiation of an alternate tier of production (see Part V.E.5.b), the permittee is authorized to discharge from outfall serial number H-16, designated as T-H1: F/H Area Effluent Treatment Facility (ETF) process wastewater. Such discharge shall be limited and monitored by the permittee as specified below: 16.a.

EFFLUENT		DISC	DISCHARGE LIMITATIONS		MONITORING	MONITORING REQUIREMENTS
CHARACTERISTICS	M	Mass	Concentration	tration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR ¹ , MGD	MR¹, MGD	•	•	1/Week ⁵	Continuous ²
Hd	1		Min. 6.0 su,	Min. 6.0 su, Max. 8.5 su ⁶	1/Week ⁵	Grab
Biochemical Oxygen Demand (BOD ₅)	17.6 lbs/day	35.3 lbs/day	20 mg/l	40 mg/l	1/Week ⁵	24-hr. composite ³
Total Suspended Solids (TSS)	26.5 lbs/day	53.0 lbs/day	30 mg/l	60 mg/l	1/Week ⁵	24-hr. composite ³
Cadmium, total	0.23 lbs/day	0.61 lbs/day	0.26 mg/l	1/gm 69:0	1/Week ⁵	24-hr. composite ³
Chromium, total	1.51 lbs/day	2.44 lbs/day	1.71 mg/l	2.77 mg/l	1/Week ⁵	24-hr. composite ³
Copper, total4	1.29 lbs/day	1.83 lbs/day	1.46 mg/l	2.07 mg/l	1/Week ⁵	24-hr. composite ³
Lead, total ⁴	0.26 lbs/day	0.51 lbs/day	0.29 mg/l	0.58 mg/l	1/Week ⁵	24-hr. composite ³
Mercury ⁴	0.002 lbs/day	0.11 lbs/day	0.0023 mg/l	0.121 mg/l	1/Week ⁵	24-hr. composite ³
Nickel, total	2.10 lbs/day	3.51 lbs/day	2.38 mg/l	3.98 mg/l	1/Week ⁵	24-hr. composite ³
Silver, total	0.21 lbs/day	0.38 lbs/day	0.24 mg/l	0.43 mg/l	1/Week ⁵	24-hr. composite ³
Zinc, total	1.31 lbs/day	2.30 lbs/day	1.48 mg/l	2.61 mg/l	1/Week ⁵	24-hr. composite ³
'MR: Monitor and Report						

Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4).

^{*}See Part V.A.5 and Part II.14.
*Samples shall be taken when a discharge occurs, but need not be more than once per week.
*PH limitations are instantaneous and cannot be averaged.

⁽¹⁾ Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

Tier II Range: 211,500 gpd to 423,000 gpd

During the period beginning on the effective date and lasting through the expiration date or the initiation of an alternate tier of production (see Part V.E.5.b), the permittee is authorized to discharge from outfall serial number H-16 designated as T-H2: F/H Area Effluent Treatment Facility (ETF) process wastewater. Such discharge shall be limited and monitored by the permittee as specified below: 16.b.

EFFLUENT		DIS	DISCHARGE LIMITATIONS		MONITORING I	MONITORING REQUIREMENTS
CHARACTERISTICS	W	Mass	Concentration	tration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR ¹ , MGD	MR ¹ , MGD	1	•	1/Week ⁵	Continuous ²
Hď	•	1	Min. 6.0 su, Max. 8.5 su ⁶	Max. 8.5 su ⁶	1/Week ⁵	Grab
Biochemical Oxygen Demand (BOD ₅)	52.9 lbs/day	105.8 lbs/day	20 mg/l	40 mg/l	1/Week ⁵	24-hr. composite ³
Total Suspended Solids (TSS)	79.4 lbs/day	158.8 lbs/day	30 mg/l	60 mg/l	1/Week ⁵	24-hr. composite ³
Cadmium, total	0.69 lbs/day	1.83 lbs/day	0.26 mg/l	1/gm 69:0	1/Week ⁵	24-hr. composite ³
Chromium, total	4.52 lbs/day	7.33 lbs/day	1.71 mg/l	2.77 mg/l	1/Week ⁵	24-hr. composite ³
Copper, total ⁴	3.86 lbs/day	5.48 lbs/day	1.46 mg/l	2.07 mg/l	1/Week ⁵	24-hr. composite ³
Lead, total ⁴	0.77 lbs/day	1.53 lbs/day	0.29 mg/l	0.58 mg/l	1/Week ⁵	24-hr. composite ³
Mercury ⁴	0.006 lbs/day	0.56 lbs/day	0.0023 mg/l	0.121 mg/l	1/Week ⁵	24-hr. composite ³
Nickel, total	6.30 lbs/day	10.5 lbs/day	2.38 mg/l	3.98 mg/l	1/Week ⁵	24-hr. composite ³
Silver, total	0.64 lbs/day	1.14 lbs/day	0.24 mg/l	0.43 mg/l	1/Week ⁵	24-hr. composite ³
Zinc, total	3.92 lbs/day	6.91 lbs/day	1.48 mg/l	2.61 mg/l	1/Week ⁵	24-hr. composite ³
MR. Monitor and Penort						

¹MR: Monitor and Report
²See Part II.J.1(c).
³Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4).
⁴See Part V.A.5 and Part II.J.4.
⁵Samples shall be taken when a discharge occurs, but need not be more than once per week.
⁶PH limitations are instantaneous and cannot be averaged.

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

after treatment but prior tomixing with the receiving stream

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Upper Three Runs Creek

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INTERIM LIMITS

During the period beginning on the effective date and lasting through November 30, 2006, the permittee is authorized to discharge from outfall serial number K-06: powerhouse wastewater, package boiler blowdown and stormwater. 17. a.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT		DIS	DISCHARGE LIMITATIONS		MONITORING	MONITORING REQUIREMENTS
CHARACIERISTICS	W	Mass	Concentration	ration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR ¹ , MGD	MR ¹ , MGD	1	•	1/Month	Estimate ²
Hd	-	•	Min. 6.0 su, Max. 8.5 su ⁵	fax. 8.5 su ⁵	1/Month	Grab
Copper, total ⁴	•	•	MR	MR	1/Month	24-hr. composite ³
Lead, total ⁴	t	•	MR	MR	1/Month	24-hr. composite ³
Mercury, total ^{4,6}	•	•	MR	MR	1/Month	Grab
Zinc, total ⁴	-	•	1	MR	1/Month	24-hr. composite ³

Based on a long term average flow of 0.011 MGD.

MR: Monitor and Report

²See Part II.J.1(c).

³Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4).

⁴See Part V.A.5 and Part II.J.4.

⁵pH limitations are instantaneous and cannot be averaged.

⁽¹⁾ Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

FINAL LIMITS

17. b. During the period beginning on December 1, 2006 and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number K-06: powerhouse wastewater, package boiler blowdown and stormwater.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT		Dis	DISCHARGE LIMITATIONS		MONITORING	MONITORING REQUIREMENTS
CHARACTERISTICS	M	Mass	Concentration	tration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR ¹ , MGD	MR ¹ , MGD	-	ı	1/Month	Estimate ²
Hd	•	•	Min. 6.0 su, Max. 8.5 su ⁵	Max. 8.5 su ⁵	1/Month	Grab
Copper, total4	-	-	0.006 mg/l	0.008 mg/l	1/Month	24-hr. composite ³
Lead, total ⁴	1	-	0.00083 mg/l	0.02 mg/l	1/Month	24-hr. composite ³
Mercury, total ^{4,6}	1	ı	MR	MR	1/Month	Grab
Zinc, total ⁴	1		1	0.092 mg/l	1/Month	24-hr. composite ³

Based on a long term average flow of 0.011 MGD.

'MR: Monitor and Report

²See Part II.J.1(c).

³Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4).

⁴See Part V.A.S and Part II.J.4.

⁵pH limitations are instantaneous and cannot be averaged.

⁶See Part V.A.3.

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

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Indian Grave Branch

Modification Date: October 1, 2004

During the period beginning on effective date of this permit, and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number K-12: Sanitary Wastewater.

Such discharge shall be limited and monitored by the permittee as specified below:

18.

EFFLUENT CHARACTERISTICS		D	ACTERISTICS DISCHARGE LIMITATIONS	ITATIONS		MONT	MONITORING REQUIREMENTS
	Mass	SSI	,	Concentration			
	Monthly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR¹, MGD	0.024 MGD				Daily	Continuous ²
Hd	1		M	Min. 6.0 su, Max. 9.0 su ⁴	su ⁴	1/Month	Grab
Biochemical Oxygen Demand (BOD ₅)	-		30 mg/l	45 mg/l	•	1/Month	24-hr.
Total Suspended Solids (TSS)	-	ŧ	30 mg/l	45 mg/l		1/Month	24-hr.
Fecal Coliform	-	-	200/100 ml	•	400/100 ml	1/Month	Grab
Dissolved Oxygen	1	-	Minim	Minimum of 1.0 mg/l at all times.	all times.	1/Month	Grab

¹MR: Monitor and Report ² See Part II.J.1(c). ³ Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4). ⁴ pH limitations are instantaneous and cannot be averaged.

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

Indian Grave Branch

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Modification Date: February 1, 2004

During the period beginning on the effective date of this permit and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number K-18: river water from K-area cooling water basin, discharge from the water treatment plant, reactor building processes, sanitary treatment plant wastewater (from internal Outfall K-12), and stormwater. 19.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT	*	DISC	SCHARGE LIMITATIONS		MONITORING F	MONIFORING REQUIREMENTS
CHARACTERISTICS	W	Mass	Concentration	tration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR ¹ , MGD	MR ¹ , MGD	ı	1	1/Quarter	Estimate ²
pH	-	. •	Min. 6.0 su, Max. 8.5 su ⁶	Max. 8.5 su ⁶	1/Quarter	Grab
Total Suspended Solids (TSS)	-	•	•	60 mg/l	1/Quarter	24-hr. composite ³

Based on a long term average flow of 0.420 MGD.

MR: Monitor and Report

See Part II.J.1(c).

³ Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4).

⁴ See Part V.A.5 and Part II.J.4.

⁵ PH limitations are instantaneous and cannot be averaged.

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

Indian Grave Branch

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Modification Date: February 1, 2004

discharge from outfall serial number L-07: Wastewaters from the sanitary package plant (Outfall L-7A), river water pumped from the cooling During the period beginning on effective date of this permit, and lasting through the expiration date, the permittee is authorized to water basin, reactor building processes effluent, discharge from the service water plant and stormwater. 20.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		D	DISCHARGE LIMITATIONS		MONT	MONITORING REOUREMENTS
	Mass	SSI	Concentration	ration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR¹, MGD MR MGD	MR MGD	-		1/Quarter	Estimate ²
Hď	-	-	Min. 6.0 su, Max. 8.5 su ⁴	Max. 8.5 su ⁴	1/Quarter	Grab
Total Suspended Solids (TSS)	•	-	20 mg/l	40 mg/l	1/Quarter	24-hr.

Based on a long term average flow of 8.530 MGD.

MR: Monitor and Report

See Part II.J.1(c).

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4). PH limitations are instantaneous and cannot be averaged.

During the period beginning on effective date of this permit, and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number L-7A: Sanitary Wastewater.

Such discharge shall be limited and monitored by the permittee as specified below:

21.

EFFLUENT CHARACTERISTICS		Di	DISCHARGE LIMITATIONS	VIIONS		MONE REQUIR	MONITORING REQUIREMENTS
	Mass	881		Concentration			
	Monthly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR¹, MGD	0.035 MGD	1	1	ı	Daily	Continuous ²
Hd	•	•	Min.	Min. 6.0 su, Max. 9.0 su ⁴		1/Month	Grab
Biochemical Oxygen Demand (BOD ₅)	,	•	30 mg/l	45 mg/l	•	1/Month	24-hr. composite ³
Total Suspended Solids (TSS)	•	•	30 mg/l	45 mg/l	•	1/Month	24-hr. composite ³
Fecal Coliform	1	•	200/100 ml	•	400/100 ml	1/Month	Grab
Dissolved Oxygen	1	-	Minimum	Minimum of 1.0 mg/l at all times.	imes.	1/Month	Grab

MR: Monitor and Report

See Part II.J.1(c).
 Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4).
 PH limitations are instantaneous and cannot be averaged.

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream. Part III

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During the period beginning on effective date of this permit, and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number M-05: Treated groundwater. 25.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		Dis	DISCHARGE LIMITATIONS		MONI REQUIR	MONITORING REQUIREMENTS
	Ms	Mass	Concentration	ration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR ¹ , MGD MR MGD	MR MGD	•	•	1/Month	Instantaneous ²
Tetrachloroethylene (PCE)	-	1	5 ug/l	10 ug/1	1/Month	Grab
Trichloroethylene (TCE)	-	-	5 ug/l	10 ug/l	1/Month	Grab

Based on a long term average flow of 0.640 MGD. IMR: Monitor and Report 2 See Part II.J.1(c).

(1)Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

INTERIM LIMITS

During the period beginning on effective date of this permit, and lasting through November 30, 2006, the permittee is authorized to discharge from outfall serial number PP-1: Cleaning water from a permanganate greensand filter system. 23. a.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		Di	DISCHARGE LIMITATIONS		MONT REQUIR	MONITORING REQUIREMENTS
	Mass	155	Concentration	iration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR¹, MGD	MR MGD	ı	•	1/Quarter	Estimate ²
Hd	-	•	Min. 5.0 su, Max. 8.5 su ⁵	Лах. 8.5 su ⁵	1/Quarter	Grab
Total Suspended Solids (TSS)	-	-	30 mg/l	45 mg/l	1/Quarter	24-hr. composite ³
Manganese, Total	ŧ	-	MR	MR	1/Quarter	24-hr. composite³
Mercury, Total ^{4,6}	-	-	MR	MR	1/Quarter	Grab

Based on a long term average flow of 0.001 MGD.
MR: Monitor and Report

See Part II.J.1(c).

²Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4). ⁴See Part V.A.5 and Part II.J.4. ⁵ pH limitations are instantaneous and cannot be averaged. ⁶See Part V.A.3.

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

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FINAL LIMITS

23. b. During the period beginning on December 1, 2006, and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number <u>PP-1:</u> This outfall has been deleted from this permit.

Effluent is no longer discharged at this outfall and a minor modification dated May 27, 2004 was made to delete this outfall. Therefore, this page will be intentionally left blank.

INTERIM LIMITS

During the period beginning on effective date of this permit, and lasting through October 31, 2008, the permittee is authorized to discharge from outfall serial number S-04: Defense Waste Processing Facility (DWPF) wastewaters which include, chemical wastewater, industrial wastewater, steam condensate, cooling tower blowdown, and miscellaneous flushing and rinsing activities. 24. a.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLIENT CHARACTERISTICS		DI	DISCHARGE LIMITATIONS		MONI	MONITORING REQUIREMENTS
	Mass	SS	Concentration	ration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR¹, MGD	MR MGD	•	•	1/Month	Estimate ²
Hd		,	Min. 6.0 su, Max. 8.5 su ⁵	Max. 8.5 su ⁵	1/Month	Grab
Copper, total ⁴		; t	MR	MR	1/Month	24-hr. composite ³
Lead, total ⁴	1	,	MR	MR	1/Month	24-hr. composite³
Manganese, total	,	ı	MR	MR	1/Month	24-hr. composite ³
Nickel, total		ı	MR	MR	1/Month	24-hr. composite ³
Zinc, total	ı	•	1	MR	1/Month	24-hr. composite ³

Based on a long term average flow of 0.036 MGD.

'MR: Monitor and Report

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²Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4).

⁴See Part V.A.5 and Part II.J.4.

⁵ pH limitations are instantaneous and cannot be averaged.

⁽¹⁾ Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

FINAL LIMITS

During the period beginning on November 1, 2008 and last through the expiration date, the permittee is authorized to discharge from outfall serial number S-04: Defense Waste Processing Facility (DWPF) wastewaters which include, chemical wastewater, industrial wastewater, steam condensate, cooling tower blowdown, and miscellaneous flushing and rinsing activities. 24. b.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		DI	DISCHARGE LIMITATIONS	S	Monr	MONITORING
	M	Mass	Concer	Concentration	TO NEW TO A STATE OF THE STATE	STATEMENTS
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR ¹ , MGD	MR MGD	1		1/Month	Estimate ²
Hd	•	1	Min. 6.0 su,	Min. 6.0 su, Max. 8.5 su ⁵	1/Month	Grab
Copper, total ⁴	1	ı	0.006 mg/l	0.008 mg/l	1/Month	24-hr.
Lead, total ⁴		•	0.00083 mg/l	0.02 mg/l	1/Month	24-hr.
Manganese, total	•	ı	0.10 mg/l	0.15 mg/l	1/Month	24-hr. composite ³
Nickel, total	ı	, 1	0.03 mg/l	0.2 mg/l	1/Month	24-hr. composite ³
Zinc, total	ı	1		0.10 mg/l	1/Month	24-hr.

Based on a long term average flow of 0.036 MGD MR: Monitor and Report

See Part II.J.1(c).

³Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4). ⁴See Part V.A.5 and Part II.J.4. ⁵ PH limitations are instantaneous and cannot be averaged.

(1) Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream.

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Modification Date: October 1, 2004

McQueen's Branch

During the period beginning on effective date of this permit, and lasting through the expiration date, the permittee is authorized to

discharge from outfall serial number X-08C: Treated groundwater.

25.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		Di	DISCHARGE LIMITATIONS		MONT REQUIR	MONITORING REQUIREMENTS
	Mass	SS	Concentration	tration		
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Sampling Frequency	Sample Type
Flow	MR¹, MGD MR MGD	MR MGD	•		1/Month	Instantaneous ²
Manganese, total	•	1	MR	MR	1/Month	Grab
Tetrachloroethylene	-	•	1/8tl S	10 µg/l	1/Month	Grab
Trichloroethylene	1	•	l/gu2	10 µg/l	1/Month	Grab

(1)Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after treatment but prior to mixing with the receiving stream. Part III

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Based on a long term average flow of 0.097 MGD.

¹MR: Monitor and Report

² See Part II.J.1(c).

³ Composite samples shall be collected in accordance with Part I.D. (1), (2), (3) or (4).

B. Effluent Toxicity Limitations and Other Monitoring Requirements

1. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge from outfall A-01:

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCH LIMITA		W-W-11-11-11-11-0-0-0-0-0	TORING REMENTS
	Quarterly ¹ Average	Maximum	Measurement Frequency	Sample Type
Daphnia ambigua Chronic Whole Effluent Toxicity @ CTC= 100%	MR %²	MR %²	1/5 years ³	24 hour composite
Daphnia ambigua Chronic Whole Effluent Toxicity-Reproduction @ CTC=100%	MR % ²	MR %²	1/5 years ³	24 hour composite
Daphnia ambigua Chronic Whole Effluent Toxicity- 7-day Survival @ CTC=100%	MR %²	MR %²	1/5 years ³	24 hour composite

Quarterly average is defined as the mean of percent effects for all valid tests performed during the monitoring period following the procedures given in Part V.B.2.d. Maximum is defined as the highest percent effect of all valid tests performed during the monitoring period following the procedures in Part V.B.2.d.

See Part V.B.2 for additional toxicity reporting requirements. MR = Monitor and Report.

- Samples used to demonstrate compliance with the discharge limitations and monitoring requirements specified above shall be taken at or near the final point-of-discharge but, prior to mixing with the receiving waters or other waste streams.
- b. If only one valid test is conducted during a quarter, results from that test must be used to assess compliance with the quarterly average limit as well as the maximum limit. If more than one valid test is completed during the quarter, the mean percent inhibition of all valid tests must be used to demonstrate compliance with the quarterly average limit.
- c. Valid test results from split samples shall be reported on the DMR. For reporting an average on the DMR, individual valid results for each test from a split sample are averaged first to determine a sample value. That value is averaged with other sample results obtained in the reporting period and the average of all sample results reported. For reporting the maximum on the DMR, individual valid results for each test from a split sample are averaged first to determine a sample value. That value is compared to other sample results obtained in the reporting period and the maximum of all sample results reported. For the purposes of reporting, split samples are reported as a single sample regardless of the number of times it is split. All laboratories used shall be identified on the DMR attachment.

³ Valid tests must be separated by at least 13 days (from the time the first sample is taken to start one test until the time the first sample is taken to start a different test). There is no restriction on when a new test may begin following a failed or invalid test.

2. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge from outfall A-11:

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCH LIMITA		5 Per 62 Per	ITORING REMENTS
	Quarterly ¹ Average	Maximum	Measurement Frequency	Sample Type
Daphnia ambigua Chronic Whole Effluent Toxicity @ CTC= 100%	MR %²	MR %²	1/5 years ³	24 hour composite
Daphnia ambigua Chronic Whole Effluent Toxicity-Reproduction @ CTC=100%	MR %²	MR %²	1/5 years ³	24 hour composite
Daphnia ambigua Chronic Whole Effluent Toxicity- 7-day Survival @ CTC=100%	MR %²	MR % ²	1/5 years ³	24 hour composite

¹Quarterly average is defined as the mean of percent effects for all valid tests performed during the monitoring period following the procedures given in Part V.B.2.d. Maximum is defined as the highest percent effect of all valid tests performed during the monitoring period following the procedures in Part V.B.2.d.

² See Part V.B.2 for additional toxicity reporting requirements. MR = Monitor and Report.

- a. Samples used to demonstrate compliance with the discharge limitations and monitoring requirements specified above shall be taken at or near the final point-of-discharge but, prior to mixing with the receiving waters or other waste streams.
- b. If only one valid test is conducted during a quarter, results from that test must be used to assess compliance with the quarterly average limit as well as the maximum limit. If more than one valid test is completed during the quarter, the mean percent inhibition of all valid tests must be used to demonstrate compliance with the quarterly average limit.
- c. Valid test results from split samples shall be reported on the DMR. For reporting an average on the DMR, individual valid results for each test from a split sample are averaged first to determine a sample value. That value is averaged with other sample results obtained in the reporting period and the average of all sample results reported. For reporting the maximum on the DMR, individual valid results for each test from a split sample are averaged first to determine a sample value. That value is compared to other sample results obtained in the reporting period and the maximum of all sample results reported. For the purposes of reporting, split samples are reported as a single sample regardless of the number of times it is split. All laboratories used shall be identified on the DMR attachment.

³ Valid tests must be separated by at least 13 days (from the time the first sample is taken to start one test until the time the first sample is taken to start a different test). There is no restriction on when a new test may begin following a failed or invalid test.

3. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge from outfall G-10:

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCH LIMITA			TORING REMENTS
	Quarterly ¹ Average	Maximum	Measurement Frequency	Sample Type
Daphnia ambigua Chronic Whole Effluent Toxicity @ CTC= 100%	MR %²	MR %²	1/5 years ³	24 hour composite
Daphnia ambigua Chronic Whole Effluent Toxicity-Reproduction @ CTC=100%	MR %²	MR %²	1/5 years ³	24 hour composite
Daphnia ambigua Chronic Whole Effluent Toxicity- 7-day Survival @ CTC=100%	MR %²	MR %²	1/5 years ³	24 hour composite

¹Quarterly average is defined as the mean of percent effects for all valid tests performed during the monitoring period following the procedures given in Part V.B.2.d. Maximum is defined as the highest percent effect of all valid tests performed during the monitoring period following the procedures in Part V.B.2.d.

² See Part V.B.2 for additional toxicity reporting requirements. MR = Monitor and Report.

- a. Samples used to demonstrate compliance with the discharge limitations and monitoring requirements specified above shall be taken at or near the final point-of-discharge but, prior to mixing with the receiving waters or other waste streams.
- b. If only one valid test is conducted during a quarter, results from that test must be used to assess compliance with the quarterly average limit as well as the maximum limit. If more than one valid test is completed during the quarter, the mean percent inhibition of all valid tests must be used to demonstrate compliance with the quarterly average limit.
- c. Valid test results from split samples shall be reported on the DMR. For reporting an average on the DMR, individual valid results for each test from a split sample are averaged first to determine a sample value. That value is averaged with other sample results obtained in the reporting period and the average of all sample results reported. For reporting the maximum on the DMR, individual valid results for each test from a split sample are averaged first to determine a sample value. That value is compared to other sample results obtained in the reporting period and the maximum of all sample results reported. For the purposes of reporting, split samples are reported as a single sample regardless of the number of times it is split. All laboratories used shall be identified on the DMR attachment.

³ Valid tests must be separated by at least 13 days (from the time the first sample is taken to start one test until the time the first sample is taken to start a different test). There is no restriction on when a new test may begin following a failed or invalid test.

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C. Groundwater Monitoring Requirements

NA

D. Sludge Monitoring Requirements

NA

E. Soil Monitoring Requirements

NA

Part IV. Schedule of Compliance

Modification Date: November 30, 2008

A. Schedule(s)

1. Outfall A-11

On or before **December 1, 2007** the Permittee shall comply with the final limitations for copper, lead and mercury on page 20 for Outfall A-11. Interim reports of progress shall be submitted to the Department every nine months beginning **September 1, 2004** until the final compliance date.

2. Outfall F-01

On or before **December 1, 2006** the Permittee shall comply with the final limitations for copper, mercury and zinc on page 24 for Outfall F-01. Interim reports of progress shall be submitted to the Department every nine months beginning **September 1, 2004** until the final compliance date.

3. Outfall F-02

On or before **December 1, 2006** the Permittee shall comply with the final limitations for copper, mercury and zinc on page 26 for Outfall F-02. Interim reports of progress shall be submitted to the Department every nine months beginning **September 1, 2004** until the final compliance date.

4. Outfall F-05

On or before November 1, 2008 the Permittee shall comply with the final limitations for lead and zinc on page 30 for Outfall F-05. Interim reports of progress shall be submitted to the Department every nine months beginning September 1, 2004 until the final compliance date.

5. Outfall H-04

On or before **December 1, 2006** the Permittee shall comply with the final limitations for lead, mercury and zinc on page 35 for Outfall H-04. Interim reports of progress shall be submitted to the Department every nine months beginning **September 1, 2004** until the final compliance date.

6. Outfall H-08

On or before **December 1, 2007** the Permittee shall comply with the final limitations for copper, lead, mercury and zinc on page 38 for Outfall H-08. Interim reports of progress shall be submitted to the Department every nine months beginning **September 1, 2004** until the final compliance date.

Outfall H-12

On or before **July 1, 2009** the Permittee shall comply with the final limitations for copper and zinc on page 40 for Outfall H-12. Interim reports of progress shall be submitted to the Department every nine months beginning **September 1, 2004** until the final compliance date.

8. Outfall K-06

On or before **December 1, 2006** the Permittee shall comply with the final limitations for copper, lead and zinc on page 44 for Outfall K-06. Interim reports of progress shall be submitted to the Department every nine months beginning **September 1, 2004** until the final compliance date.

9. Outfall PP-1

On or before **December 1, 2006** the Permittee shall comply with the final limitations for manganese and mercury on page 51 for Outfall PP-1. Interim reports of progress shall be submitted to the Department every nine months beginning **September 1, 2004** until the final compliance date.

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10. Outfall S-04

On or before November 1, 2008 the Permittee shall comply with the final limitations for copper, lead, manganese, nickel and zinc on page 53 for Outfall S-04. Interim reports of progress shall be submitted to the Department every nine months beginning September 1, 2004 until the final compliance date.

B. 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 10 days following each scheduled date.

Part V. Other Requirements

A. Effluent Requirements

- 1. The receiving waters shall be free from floating debris, oil, grease, scum and other floating material attributable to the discharge in amounts sufficient to be unsightly to such a degree as to create a nuisance or interfere with the receiving water uses.
- 2. Unless authorized elsewhere in this Permit, the permittee must meet the following requirements concerning maintenance chemicals for the following waste streams: once-through noncontact cooling water, recirculated cooling water, boiler blowdown water, and air washer water. Maintenance chemicals shall be defined as any man-induced additives to the above-referenced waste streams.
 - a. Detectable amounts of any of the one hundred and twenty-six priority pollutants is prohibited in the discharge, if the pollutants are present due to the use of maintenance chemicals.
 - b. Slimicides, algicides and biocides are to be used in accordance with registration requirements of the Federal Insecticides, Fungicide and Rodenticide Act.
 - c. The use of maintenance chemicals containing bis(tributyltin) oxide is prohibited.
 - d. Any maintenance chemicals added to the above-referenced waste streams must degrade rapidly, due to either hydrolytic decomposition or biodegradation.
 - e. Discharges of maintenance chemicals added to waste streams must be limited to concentrations, which protect indigenous aquatic populations in the receiving stream.
 - f. The occurrence of instream problems may necessitate the submittal of chemical additive data and permit modification to include additional monitoring and limitations.
 - g. The permittee must keep sufficient documentation on-site that would show that the above requirements are being met and documenting the use of maintenance chemicals in the cooling water systems. The information shall be made available for on-site review by Department personnel during normal working hours. Such documentation shall include:
 - (1) Name and general composition of the maintenance chemical
 - (2) Quantities to be used
 - (3) Frequency of use
 - (4) Proposed discharge concentration
 - (5) EPA registration number, if applicable
 - (6) Aquatic toxicity information, if available
 - (7) Calculations to indicate compliance with water quality standards and/or aquatic toxicity information
- 3. The practical quantitation limit (PQL) using the analytical methods stated below shall be used for sampling and reporting results for mercury.

Analytical Method

<u>PQL</u>

EPA 1631

 $0.0005 \, \mu g/l$

The permittee must either become certified to perform mercury sampling in accordance with Method 1669 or utilize a laboratory or other entity that is certified to sample for mercury using Method 1669.

This permit may be reopened to eliminate monitoring requirements if the discharge is determined not to cause, contribute or have the reasonable potential to cause an instream water quality violation or to include limitations if the discharge causes, has the reasonable potential to cause or contributes to a water quality violation for mercury. The permittee shall use the results obtained from mercury sampling to make this determination. An evaluation may be performed after each sample using the guidelines established in the permit rationale. At any time the discharge is determined not to cause, contribute or have the reasonable potential to cause an instream excursion from the cumulative data set, the permittee may submit a written request to the following address requesting mercury monitoring be discontinued.

S.C. Department of Health and Environmental Control
Bureau of Water/Industrial, Agricultural and Storm Water Permitting Division
2600 Bull Street
Columbia, South Carolina 29201

Upon Departmental concurrence, a new DMR will be sent to the permittee with no mercury monitoring included. If the discharge causes, has the reasonable potential to cause or contributes to an instream water quality violation for mercury based on one year of data, the permit may be reopened to include additional requirements and/or limitations on mercury.

4. Special condition for reassessment of Water Effect Ratio studies at outfalls A-01 and G-10:

Six months prior to the expiration date of this NPDES permit, the permittee shall submit a Water Effect Ratio (WER) study for copper at outfall A-01 and for copper and lead at outfall G-10. If there has been no change in the matrix of the effluent at outfalls A-01 and G-10, then a single WER test should be conducted for the affected parameters in accordance with the WER guidance. If the matrix of the effluent has changed at the outfalls, then a full WER should be conducted in accordance with the full WER guidance.

5. The Water Quality-Based Effluent Limitations (WQBEL) for the parameters listed are not quantifiable using EPA-approved analytical methods. Therefore, the practical quantitation limit (PQL) using the analytical method stated below shall be considered as being in compliance with the limit provided appropriate biological monitoring requirements are incorporated into the permit.

Parameter	Analytical Method	PQL
Total Residual Chlorine (TRC)	330.5	0.05 mg/l
Copper, total	200.7	0.005 mg/l
Lead, total	200.8	0.002 mg/l
Mercury, total	1631	$0.0005 \mu g/l$

- 6. If the Permittee elects to determine site-specific limits for metals, the procedure must be one of the following:
 - (1) The Recalculation Procedure as specified in Appendix B, "The Recalculation Procedure," which is contained in the "Interim Guidance on Determination and Use of Water-Effect

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Ratios for Metals," February 1994 (EPA Manual EPA-823-B-94-001). Section IV and V of the "Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses," 1985 (National Technical Information Service Number PB-85-227049) will be used in conjunction with the "Interim Guidelines" in the recalculation procedure.

- (2) The Water-Effect Ratio Procedure as specified in the "Interim Guidance on Determination and Use of Water-Effect Ratios for Metals," February 1994 (EPA Manual EPA-823-B-94-001). If copper is the parameter of interest, the document entitled "Streamlined Water-Effect Ratio Procedure for Discharges of Copper," March 2001 (EPA-822-R-01-005) can also be used.
- (3) The Resident Species Procedure as specified in "Guidelines for Deriving Numerical Aquatic Site Specific Water Quality Criteria by Modifying National Criteria," October 1984 (EPA Manual EPA-600/3-84-099).
- (4) An EPA-Approved, Scientifically-Defensible Procedure that is also accepted by the Department.
- 7. The Permittee shall monitor all parameters consistent with conditions established by this permit following the random unbiased sampling procedure currently employed to comply with required sample frequencies, unless otherwise approved by this Department. When possible, samples will not be collected during the 48 hours after a rain event in order to ensure they are representative of operational effluents. For outfalls with infrequent discharges, random sampling may occasionally result in no sample collection during some reporting periods. Near term sampling schedules established for monitoring purposes shall be made available, as requested, to authorized SCDHEC representatives.
- 8. This permit may be reopened to eliminate monitoring requirements if reasonable potential is determined not to exist or to include limitations if the discharge causes, has the reasonable potential to cause or contributes to an instream water quality violation for all metals, except mercury. This evaluation will be based on one year of data collected at the sampling frequency designated for each parameter at the respective outfall and as stated in Part III.
 - Additional monitoring and/or limitations may be added to the permit by modification if the discharge causes, has the reasonable potential to cause or contributes to an instream water quality violation.
- This permit may be reopened to modify the PQL levels for parameters in this permit based on changes made by EPA. There must be cause for the modification based on South Carolina Regulation 61-9.122.62.d.
- 10. The permittee may demonstrate to the Department that the iron and/or manganese in the receiving streams at SRS are from background sources. The Department will consider such data in a determination of whether the discharge causes, has the reasonable potential to cause or contribute to an instream water quality violation. In order for the Department to consider the background information, the permittee must supply surface water samples from a comparable upstream site, which are comparable in iron and/or manganese levels and other surface water constituents. The upstream site location must be unaffected by activities at the site which might contribute pollutants other than from natural sources.

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- 11. For outfall G-10 Within one-hundred eighty (180) days of the effective date of the permit, SRS shall conduct a single whole effluent toxicity test to include both copper and lead up to the concentrations determined in the water effects ratio (WER) for each parameter. The concentration to be used for copper is 0.089 mg/l (derived CCC from the WER) and the concentration to be used for lead is 0.107 mg/l (derived CCC from the WER). If the spiked effluent passes the test, then WET testing is required once every five years, to coincide with submittal of the NPDES application for permit renewal (See Part III.B.). If there is a failure, then SRS must determine the concentrations of copper and lead that would not produce a failure at the outfall. The Department will reevaluate the reasonable potential for copper or lead to exceed a water quality standard after the completion of tests, if there is a failure of the WET test. Ceriodaphnia dubia will be the test species for the WET test as described above.
- 12. **For Outfall H-02**: Additional testing/reevaluation related to the Water Effects Ration (WER) study for lead may be required depending on the concentration of lead in the effluent discharged at this outfall. The following requirements address this issue:
 - a. For the effluent lead concentrations less than or equal to 2.305 ug/l (monthly average) and 59.77 ug/l (daily maximum), no additional testing or reevaluation is required.
 - b. For the effluent lead concentrations greater than 2.305 ug/l but less than or equal to 5.437 ug/l for the monthly average or effluent lead concentrations greater than 59.77 ug/l but less than or equal to 141 ug/l for the daily maximum that are reported for two consecutive months, additional requirements must be met as follows:
 - 1. Submit to DHEC within 60 days of reporting such a result on the DMRs, an evaluation of the treatment system shall be performed to determine if any changes have occurred, including any new or changed indirect dischargers that may be contributing lead to the system.
 - c. For effluent lead concentrations greater than 5.437 ug/l (monthly average) or greater than 141 ug/l (daily maximum), the following is required:
 - 1. Submit to DHEC, within 90 days of reporting such a result on its DMR, a lead study plan. The study plan shall propose a schedule for addressing: (1) any new or changed industrial/commercial lead contributions to the collection system or any dissolved/total lead ratio changes; and (2) a series of two WER verification WET tests to verify continued correctness of the current WER under the changed conditions. Within 60 days of the Department's approval of the study plan and schedule, the permittee will initiate the study and submit the results to DHEC in accordance with the approved schedule.
 - 2. If in the Departments' opinion, the study results bring into question the continued protectiveness for the previously approved WER, the Department may (1) immediately require twice monthly lead sampling and (2) reopen the permit (pursuant to Regulation 61-9) to modify the lead limit.
- B. Whole Effluent Toxicity and Other Biological Monitoring Requirements
 - 1.Instream Macroinvertebrate Assessment
 - a. The permittee shall conduct an instream macroinvertebrate survey of **Crouch Branch** at outfall **H-02** once every two (2) years.
 - (1) Instream macroinvertebrate assessments are used to detect biological impacts due to point source discharges or to determine ambient instream conditions, including non-point source impacts. The permittee shall use the following documents as guidance for writing proposed biological studies:

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- (a) EPA publication entitled, "Revision to Rapid Bioassessment Protocols for Use in Streams and Rivers: Periphyton, Benthic Macroinvertebrates, and Fish," by Barbour M.T., J. Gerritsen, B.D. Snyder, and J.B. Stribling (EPA 841-B-99-002) and
- (b) "South Carolina Department of Health and Environmental/Control Standard Operating and Quality Control Procedures for Macroinvertebrate Sampling," Water Monitoring, Assessment, and Protection Division, Aquatic Biology Section, Columbia, SC, SCDHEC Document #004-98.
- (2) The assessment should be conducted twice during the life of the permit. One assessment should be conducted during the fall (October, November) of the 2004 calendar year; a second assessment should be conducted during the fall (October, November) of the 2006 calendar year.
- b. An assessment/study plan shall be prepared and submitted to the Department for review within 120 days of the effective date of the permit for both assessments to be conducted during the permit cycle. The Department must issue approval of the plan prior to commencement of actual sampling efforts.
- c. The results of the instream assessments must be submitted to the Department within 90 days after completion of the sampling.
- 2. For the requirements identified in Part III.B.1, 2, 3 (Outfalls A-01, A-11 and G-10):
 - a. A Daphnia ambigua three brood chronic toxicity test shall be conducted at the frequency stated in Part III.B, "Effluent Toxicity Limitations and Monitoring Requirements," using the chronic test concentration (CTC) of 100 % and the following test concentrations: 0% (control), 6.25%, 12.5%, 25% and 50% effluent. The permittee may add additional test concentrations without prior authorization from the Department provided that the test begins with at least 10 replicates in each concentration and all data is used to determine permit compliance.

The simulated fire pond dilution water must be formulated as described in "Results of Toxicity Studies Conducted on Ceriodaphnia dubia and Daphnia ambigua in Support of an Alternative Species Demonstration, January – June, 2000." The number of organisms used in each of the test and control concentrations must be twenty as submitted in the application for alternative test species to the USEPA Region 4.

- b. The test shall be conducted using EPA Method 1002.0 in accordance with "Short-Term Methods for Estimating Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms," EPA/821/R-02/013 (October 2002) using *Daphnia ambigua* as the test species.
- c. The permittee shall use the 3-parameter logistic regression (3PLR) model assuming a binomial distribution for survival and a Poisson distribution for reproduction as recommended in the DHEC Bureau of Water document entitled "Options for Data Analysis of Whole Effluent Toxicity Testing Required by NPDES Permits," September 2001 for calculating biological effect (percent inhibition) at the applicable CTC.
- d. Percent effect is the difference between control and test group performance expressed as a percentage of control group performance, or % effect = $(1 \frac{test\ group\ performance}{control\ group\ performance})*100$, where performance is survival or reproduction. The permittee shall report the percent effect on both $Daphnia\ ambigua$ survival and reproduction at the CTC. Overall, percent effect is the greater of the percent effect on survival and reproduction.
- e. All valid toxicity test results shall be submitted on the DHEC Form 3710 entitled "DMR Attachment for Toxicity Test Results" in accordance with Part II.L.4. In addition, results from all invalid tests must be

appended to DMRs, including lab control data. The permittee has sole responsibility for scheduling toxicity tests to ensure there is sufficient opportunity to complete and report the required number of valid test results for each monitoring period.

- f. This permit may be modified based on new information that supports a modification in accordance with Regulation 61-9.122.62 and Regulation 61-68.D.
- g. WET testing shall be conducted once every five years, as stated in Part II.B.1,2,3, to coincide with submittal of the application for renewal of the permit.

C. Groundwater Requirements

NA

D. Sludge and Other Land Application Requirements

- 1. Sludge from the Centralized Sanitary Wastewater Treatment Facility (CSWTF) shall be disposed of by land application in accordance with Land Application Permit ND0072125, effective June 1, 2000. Written approval from the Industrial, Agricultural and Storm Water Permitting Division of the Bureau of Water must be obtained prior to disposal at any other site(s).
- 2. The Permittee may transfer sewage and/or activated sludge between sanitary wastewater treatment plants, as necessary, to provide a source of food to under-loaded biological systems. In addition, dog food, corn syrup, and other commercially available foodstuffs may be added as food supplements.
- 3. Sludges from D, K, and L Area package sanitary plants shall be disposed of in accordance with the requirements of the site's Land Application Permit ND0072125 and/or applicable construction permits. Written approval from Industrial, Agricultural and Storm Water Permitting Division of the Bureau of Water must be obtained prior to use of an alternate disposal method.

E. Other Conditions

- 1. "Scavenger" wastewater is defined as a non-routine wastewater requiring treatment that is not already permitted for disposal under an existing SRS Construction Permit. Scavenger wastewaters are normally generated on a one-time basis, but may also include new continuous sources to existing wastewater treatment plants. The Permittee shall provide treatment for scavenger wastewaters in existing on-site wastewater treatment facilities in compliance with the following conditions:
 - a. Treatment must be provided and the wastewater may not simply be diluted to meet an instream standard or other limits established by this NPDES permit;
 - b. Disposal must not cause any exceedance of the limitations set forth in this NPDES permit;
 - c. Records of all scavenger wastewater disposal activities must be maintained for three years and made available for review by Department personnel upon request.
- 2. Requirements for the Centralized Sanitary Wastewater Treatment Facility (CSWTF)
 - a. Prohibited Discharges
 - The Permittee shall not allow the discharge of pollutant(s) into its treatment works by any non-domestic source(s), if such pollutant(s) may inhibit or interfere with the operation or performance of the works. Further, the Permittee shall not allow the introduction of the following into its treatment works:

- (1) Pollutant(s) which create a fire or explosion hazard in the CSWTF, including, but not limited to, waste streams with a closed cup flashpoint of less than 140EF or 60EC using the test methods specified in 40 CFR 261.21.
- (2) Pollutant(s) which will cause corrosive structural damage to the CSWTF unless the facility is specifically designed to accommodate such discharges.
- (3) Solid or viscous pollutant(s) in amounts which will cause obstruction to the flow in the CSWTF resulting in interference.
- (4) Any pollutant, including oxygen demanding pollutants, (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the CSWTF.
- (5) Heat in amounts which will inhibit biological activity in the CSWTF resulting in interference, but in no case heat in such quantities that the temperature at the CSWTF exceeds 40EC (104EF) unless the Department, upon request of the Permittee, approves alternate temperature limits.
- (6) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through.
- (7) Any pollutant(s), which interfere with the use or disposal of sludge, generated at the facility.
- 3. All wastewater treatment plants shall be assigned the appropriate classification in the Permit to Construct, which is issued to the facility by the Department. This classification specified in the Permit to Construct coincides with the operator requirement as designated in the Rules and Regulations of the Environmental Certification Board. Where a level of classification is not specified in the regulations, the Department will determine, based on the complexity of the treatment system, the classification that will provide an appropriate grade of operator. If a particular type of treatment clearly has no wastewater treatment equivalent, a wastewater treatment classification may not be required. However, in such cases, appropriate information related to daily operation requirements of the treatment system shall be submitted with the construction permit application for Department review and approval.
- 4. The permittee shall provide for the performance of routine daily treatment plant inspections by a certified operator of the appropriate grade as defined in Part II.E.4. Inspections of coal pile runoff basins and ash basins shall be performed when a basin is discharging or at least as often as once per month. Inspections of the air strippers operating in A-Area, M-Area, and the TNX Area shall be performed four times per week. During weekends, holidays, and emergency situations, inspections may be performed by an operator with a minimum certification of one grade lower than the certified operator required by the Rules and Regulations of the Environmental Certification Board based on the treatment plant classification designated in the Permit to Construct issued by the Department.

The inspection shall include, but is not limited to, areas that require a visual observation to determine efficient operations and for which immediate corrective measures taken, and routine equipment maintenance, repair, or replacement performed. The certified operator shall review and validate all inspection sheets generated by the weekend and holiday operator. Any unusual or significant problems encountered by the weekend and holiday operator shall be immediately reported to the certified operator who shall initiate corrective action. The permittee shall maintain all records of inspections as required by Part II.J.2. The records shall be made available for on-site review during normal working hours.

5. For outfall H-16, and in accordance with Regulation 61-9.122.45(b)(2)(ii)(B):

- a. The permittee must notify the Department at least two business days prior to a month in which the permittee expects to operate at a level higher than the lowest production flow identified in the permit. Note that the production levels (flows) are indicated by the average process flow. The written notice shall specify the anticipated level and the period during which the permittee expects to operate at the alternate level. If the notice covers more than one month, the notice shall specify the reasons for the anticipated production level increase. New notice of discharge at alternate levels is required to cover a period or production level not covered by prior notice or, if during two consecutive months otherwise covered by a notice, the production level at the permitted facility does not in fact meet the higher level designated in the notice. The notice shall be submitted to the address stated in Part II.L.4.A(4).
- b. The permittee shall comply with the limitations, standards, or prohibitions that correspond to the lowest level of production specified in the permit, unless the permittee has notified the Department under **Part V.E.5.a** of this section, in which case the permittee shall comply with the lower of the actual level of production during each month or the level specified in the notice.
- c. The permittee shall submit with the DMR the level of production that actually occurred during each month and the limitations, standards, or prohibitions applicable to the average process flow.
- d. The discharge limitations proposed for outfall H-16 designated as T-H1 (tier I) and T-H2 (tier II) of this permit shall be effective upon issuance of this Permit. The applicable limits pages are listed below with the process flows that correspond to these limits. Note that the other limitations pages go into effect based on the conditions in subsections a, b, and c.

Production Leve	Process Flow Midpoint	Process Flow Range	Permit Page #
Tier I	0.105750 MGD	0.0 - 0.211499 MGD	41
Tier II	0.317250 MGD	0.2115 - 0.423 MGD	42

- 6. The permittee shall implement the Best Management Practices (BMP) plan developed to identify and control the discharge of hazardous and toxic substances listed in 40 CFR Part 122. The BMP plan shall be maintained at the plant site and shall be available for inspection by EPA and SCDHEC personnel.
- 7. The permittee may utilize outfalls P-13 and P-19 as necessary to provide river water to Par Pond and/or L-Lake. These outfalls were once permitted in the SRS NPDES permit, but were removed because they no longer carry wastewater. Pumping water through these outfalls enables SRS to maintain lake levels at the appropriate depths.
- 8. The permittee shall notify the Department in writing of a reduction below 1,800 gallons per minute (gpm) of flow related to the River Water System discharging through the 186 basins to Outfall L-07 and/or reduction or elimination of flows related to flows discharging through the 186 basins to Outfall K-18. Within four months of such notification, the permittee shall submit a completed Form 2C or 2E application, as appropriate, to the Department for Outfall K-12, K-18, L-07 and L-07A. The permittee shall at a minimum, analyze for all parameters in Item V. Part A, Part B.a-i, k-x, Part C.1M-15M, and any other parameters that are suspected of being present. Additional monitoring and/or limitations may be placed on the permit based on these results.
- 9. The permittee shall maintain an all weather access road to each wastewater treatment plant, land application areas, and appurtenances at all times.
- All waste oil and solid and hazardous waste shall be disposed of in accordance with the rules and regulations of SCDHEC's Bureau of Land and Waste Management.