STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
KNOXVILLE FIELD OFFICE
3711 MIDDLEBROOK PIKE
KNOXVILLE, TENNESSEE 37921
PHONE (865) 594-6035 FAX (865) 594-6105/5253

December 13, 2013

Mr. Todd T. Claiborne, Manager
American Sand Company, LLC
9130 Monterey Highway
Monterey, TN 38574

RE: Transmittal of NPDES Permit Renewal and Plans Approval
American Sand Company, LLC
50 Acre Tract
NPDES Permit TN0066231
Putnam County

Dear Mr. Claiborne:

In accordance with the provisions of *The Tennessee Water Quality Control Act (Tennessee Code Annotated, Sections 69-3-101 et seq.*) and regulations of the Tennessee Division of Water Resources the enclosed permit is hereby issued. The continuance and/or reissuance of this permit are contingent upon your meeting the conditions and requirements as stated therein.

Please be advised that a petition for permit appeal may be filed, pursuant to *T.C.A. Section 69-3-105, subsection (i)*, by the permit applicant or by any aggrieved person who participated in the public comment period or gave testimony at a formal public hearing whose appeal is based upon any of the issues that were provided to the commissioner in writing during the public comment period or in testimony at a formal public hearing on the permit application.

Additionally, for those permits for which the Department gives public notice of a draft permit, any permit applicant or aggrieved person may base a permit appeal on any material change to conditions in the final permit from those in the draft, unless the material change has been subject to additional opportunity for public comment.

Any petition for permit appeal under this subsection (i) shall be filed with the technical secretary of the Water Resources Board, Oil and Gas within thirty (30) days after public notice of the commissioner's decision to issue or deny the permit. A copy of the filing should also be sent to TDEC's Office of General Counsel. The mailing addresses follow:

Sandra K. Dudley, Ph.D., P.E.
Acting Technical Secretary
Water Resources Board, Oil and Gas
William R. Snodgrass TN Tower
312 Rosa L. Parks Avenue, 12th Fl
Nashville, TN 37243-1102

Mr. E. Joseph Sanders-Chief Counsel
Office of General Counsel
William R. Snodgrass TN Tower
312 Rosa L. Parks Avenue, 2nd Fl
Nashville, TN 37243-1102

Enclosed is one copy of the supporting plans stamped "APPROVED." This copy of the approved plans must be kept on site during the hours of operation. If changes in the mining plan or procedure which affect wastewater treatment or runoff control are necessary, they must be approved in writing by this Division prior to the initiation of those changes. Failure of your company's strict adherence to these plans could jeopardize the continuation of your permit.

If you have any questions concerning this correspondence, contact Gary Mullins at (865) 594-5536.

Sincerely,

Jonathan E. Burr for

Sandra K. Dudley, Ph.D., P.E.
Director
Division of Water Resources

SKD:JEB:GWM:BWE

NPDES TN0066231

Enclosures

cc: Sharon Kington, Environmental Specialist, Cookeville-EFO
Darrell Hall, TARE, INC. (E-mail)
NPDES Permit File

STATE OF TENNESSEE

NPDES PERMIT

NPDES Permit TN0066231
Renewal

Authorization to discharge under the
National Pollutant Discharge Elimination System

Issued By

Tennessee Department of Environment and Conservation
Division of Water Resources
3711 Middlebrook Pike
Knoxville, Tennessee 37921-6538

Under authority of the *Tennessee Water Quality Control Act of 1977* (*T.C.A. 69-3-101* et seq.) and the delegation of authority from the United States Environmental Protection Agency under the *Federal Water Pollution Control Act*, as amended by the *Clean Water Act of 1977* (*33 U.S.C. 1251*, et seq.)

Discharger: **American Sand Company, LLC**
50 Acre Tract

is authorized to discharge treated wastewater and storm water:

from a facility located in **Putnam County** at latitude **36°07′57″**, longitude **-85°20′48″**

consisting of **38 acres**

to receiving waters named: **Unnamed tributary to Dry Valley - 001, 002 & 005**

Unnamed tributary to Falling Water River - 003, 004

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on: **February 23, 2014**

This permit shall expire on: **February 22, 2019**

Transmittal date: **December 13, 2013**

Sandra K. Dudley, Ph.D., P.E.
Director
Division of Water Resources

CN-0759

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PART I

A. WASTEWATER LIMITATIONS AND MONITORING REQUIREMENTS (Construction Sand and Gravel Mining)

1. During the period beginning with the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge treated wastewater from all point sources associated with the mining and related facilities indicated on the approved area maps.

   Such wastewater shall be limited and monitored by the permittee as specified below until the site has been closed and stabilized according to plans approved by the Division. Additionally, conditions stipulated in Part III B., *Termination of Monitoring*, shall be met.

WASTEWATER LIMITATIONS[1]
(001, 002, 003, 004 & 005)

Wastewater Characteristics	Discharge Limitations Maximum for any 1 Day	Monitoring Requirements Measurement Frequency	Sample Type
Total Suspended Solids	40.0 mg/L	Two per Month	Grab
Flow (GPM)	Report	Two per Month	Estimate
pH[2]	6.0 to 9.0 Standard Units	Two per Month	Grab

[1] Any overflow from facilities (i.e. wastewater treatment structures) governed by *40 CFR Part 436.30* shall not be subject to the above limitations if the facilities are designed, constructed, and maintained to contain or treat the volume of wastewater which would result from a 10-year/24-hour precipitation event.

[2] The pH value shall lie within the range of 6.0 to 9.0 and shall not fluctuate more than 1.0 unit in this range over a period of twenty-four (24) hours.

***Notes: (1) The quarterly monitoring requirement for metals in the previous permit is being removed. See Rationale, Page R-2 for further details. (2) Outfalls 002 and 005 have not been constructed.**

2. There shall be no distinctly visible floating scum, oil, or other matter contained in the wastewater discharge. The wastewater discharge must not cause an objectionable color contrast in the receiving stream.

3. The wastewater discharge shall result in no other materials in concentrations sufficient to be hazardous or otherwise detrimental to humans, livestock, wildlife, plant life, or fish and aquatic life in the receiving stream.

4. Sludge or any other material removed by any treatment works shall be disposed of in a manner which prevents its entrance into or pollution of any surface or subsurface waters. Additionally, the disposal of such sludge or other material shall be in compliance with the *Tennessee Solid Waste Disposal Act, TCA 68-211-101, et seq.* and the *Tennessee Hazardous Waste Management Act, TCA 68-212-101, et seq.*

5. Representative samples shall be taken according to the following established sampling frequencies unless otherwise approved by the Division subsequent to a specific written request by the permittee: (see Part I, E. 1. for a definition of representative sampling)

   a. Gravity Discharges from Sediment Control Structures and/or Treatment Facilities

      A minimum of two samples shall be collected per month. These samples shall be taken as follows:

      1) One sample of the first discharge during the first half of the month and
      2) One sample of the first discharge during the second half of the month.

   b. Batch, Siphon, or Pump Discharges

      Batch, siphon, or pump discharge(s) of any treated mine wastewater from approved treatment structures shall comply with effluent standards set forth herein and shall be directed to a splashpad or the pond's spillway constructed of non-erosive material. Pumpage or batch discharge of wastewater is a prohibited bypass if the sampling procedures as stated herein are not followed.

      A minimum of two samples shall be collected per month. These samples shall be taken as follows:

      1) One sample of the first discharge during the first half of the month and
      2) One sample of the first discharge during the second half of the month.

   c. Duration of the discharge shall be noted on the Discharge Monitoring Report.

   d. The permittee must take proper measures to ensure that the pump intake does not stir up solids or take in sediment materials from the bottom of the treatment structure during the discharge period.

6. Any change or modification in sampling frequency will be based on the nature and effect of the discharge and its impact on the receiving waters. Impacts on the receiving waters will include any impairment of the stream use classification. These classifications are specified under *Rules of the Tennessee Department of Environment and Conservation, Chapter 1200-4-3-.03. Criteria for Water Uses, (3) Fish and Aquatic Life*. This provision applies to applicable discharges of treated wastewater and storm water covered in Part I, A and B.

B. Storm Water Reporting Levels and Monitoring Requirements

Storm water discharges associated with access and haul roads and other discharges composed entirely of storm water shall be monitored by the permittee as specified below until the site has been closed and stabilized according to plans approved by the Division. Additionally, conditions stipulated in Part III B., Termination of Monitoring, shall be met.

NOTE: Part I B. entitled, "Storm Water Reporting Levels and Monitoring Requirements," is not applicable if all storm water discharges associated with access and haul roads and/or other areas of the permit requiring storm water coverage are routed to and adequately treated by approved wastewater treatment structures. Sufficient documentation (i.e. narrative, drainage maps, etc.) of such treatment shall be provided to the Division before this exemption is valid.

STORM WATER DISCHARGES*

Parameters	Reporting Levels	Monitoring Requirements	
Measurement		Frequency	Sample Type
pH	5.0 to 9.0 Standard Units at all times	Annually	Grab
Total Suspended Solids	150 mg/L	Annually	Grab
Oil and Grease	15 mg/L	Annually	Grab

*Note: If the storm water discharge is from an area not associated with an access road or haul road or is not a source for vehicular traffic, monitoring for Oil and Grease is not required.

1. Samples shall be collected from discharges resulting from a storm event that is greater than 0.1 inch in magnitude and that occurs at least seventy-two (72) hours after any previous storm event of 0.1 inch or greater.

2. Grab samples shall be collected as soon as practicable during a storm event discharge.

3. In addition to the information contained in Part I, Section E (3), the monitoring report form shall include:

   a. The exact location from which the sample was taken, i.e., culvert, sump, etc.

   b. The duration (in hours), starting and ending times, and magnitude (in inches) of the storm event sampled.

C. Sediment Control Structures and/or Treatment Facilities Construction Schedule

1. Full compliance and operational levels shall be attained from the effective date of this permit.

2. All pollution control equipment required to meet the conditions of this permit shall be installed, be in operational condition, and shall be "started-up" prior to discharge.

3. Prior to receiving drainage from disturbance of the permitted mine area, wastewater treatment structures and/or treatment facilities shall be constructed according to approved plans and certified after construction by a Tennessee Registered Professional Engineer or an authorized responsible representative of the company. Such certifications shall be submitted to and approved by the Division.

D. Reporting

1. Monitoring Results

   a. Wastewater Discharges

      1) Monitoring results for wastewater discharges shall be reported on Discharge Monitoring Report (DMR) forms. DMRs shall be recorded monthly and submitted quarterly.

         The first DMR is due on: **April 15, 2014**

      2) Each subsequent DMR shall be due no later than fifteen (15) days after completion of each quarterly reporting period.

      3) DMRs shall be submitted for each outfall number listed on the permit. If a wastewater treatment structure(s) listed on the permit has not been constructed, this shall be noted on the DMR as "not constructed."

   b. Storm Water Discharges

      Monitoring results for storm water discharges shall be reported on Discharge Monitoring Report (DMR) forms. DMRs shall be recorded and submitted annually. The DMR is due no later than fifteen (15) days after completion of the quarterly reporting period in which the sample was taken.

2. Definition of "Quarter" for Reporting Purposes

   For the purpose of this permit, a "quarter" is defined as any of the following three month periods: January 1 through March 31; April 1 through June 30; July 1 through September 30; and October 1 through December 31.

3. Submittal of Discharge Monitoring Report (DMR) Forms

   The DMR with the original signature shall be submitted to the Division of Water Resources, Mining Section. A copy shall be submitted to the respective Environmental Field Office (EFO) and the permittee shall retain a copy for his file.

4. Signature Requirements for DMR Forms

   Discharge Monitoring Reports (DMRs) shall be signed and certified by a principal corporate officer of at least the level of vice-president, a general partner or proprietor, or his duly authorized representative. Such authorization shall be submitted in writing, signed by the permittee, and shall explain the duties and responsibilities of the authorized representative.

5. Address for Submittal of DMR Forms

   Discharge Monitoring Reports (DMRs) and any communication regarding compliance with the conditions of this permit shall be sent to:

   Tennessee Department of Environment and Conservation
   Division of Water Resources
   3711 Middlebrook Pike
   Knoxville, TN 37921-6538
   ATTENTION: Mining Compliance

   Telephone (865) 594-6035 **Fax (865) 594-6105**

6. Additional Monitoring by Permittee

   If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified herein, the results of such monitoring shall be included in the calculation and reporting of the values required on the Discharge Monitoring Report (DMR). Such increased frequency shall also be indicated.

7. Falsifying Reports

   Knowingly making any false statement on any report required by this permit may result in the imposition of criminal penalties as provided for in *Section 309* of *The Federal Clean Water Act of 1977*, as amended, and in *Section 69-3-115(c)* of *The Tennessee Water Quality Control Act of 1977*, as amended.

E. Monitoring Procedures

1. Representative Sampling

   Samples and measurements taken in compliance with the monitoring requirements specified above shall be representative of the volume and nature of the monitored discharge and shall be taken at the following location(s): nearest accessible point after final treatment but prior to actual discharge(s) to or mixing with the receiving waters.

2. Test Procedures

   a. Test procedures for the analysis of pollutants shall conform to regulations published pursuant to *Section 304(h)* of *The Federal Clean Water Act of 1977*, as amended, under which such procedures may be required.

   b. Unless otherwise noted in the permit, all pollutant parameters shall be determined according to methods prescribed in *Title 40, CFR, Part 136,* as amended, promulgated pursuant to *Section 304 (h)* of *The Federal Clean Water Act of 1977*, as amended.

3. Recording of Results

   For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

   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. Records Retention

   All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed and calibration and maintenance of instrumentation, shall be retained for a minimum of three (3) years, or longer, if requested by the Division of Water Resources, and be readily available to the Division's representative for review.

PART II

A. General Provisions

1. Duty to Reapply

   Permittee is not authorized to discharge after the expiration date of this permit. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information and forms as are required to the Director no later than 180 days prior to the expiration date.

2. Right of Entry

   The permittee shall allow the Director, the Regional Administrator of the U.S. Environmental Protection Agency, or their authorized representatives, upon the presentation of credentials to:

   a. Enter upon the permittee's premises where an effluent source is located or where records are required to be kept under the terms and conditions of this permit, and copy these records;

   b. Inspect any monitoring equipment or method or any collection, treatment, pollution management, or discharge facilities required under this permit and;

   c. Sample any discharge of pollutants.

3. Availability of Reports

   Except for data determined to be confidential under *Section 308* of *The Federal Clean Water Act of 1977*, as amended, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the Division of Water Resources. As required by the Federal Act, effluent data shall not be considered confidential.

4. Proper Operation and Maintenance

   a. Proper operation and maintenance shall be implemented at this site to control and minimize pollutants from entering the wastewater treatment structure(s). The permittee shall visually inspect the wastewater treatment structure(s) daily to ensure that no floating scum, oil, or other matter is contained in the wastewater discharge. The daily visual inspection requirement extends to BMPs or other treatment devices established to control storm water discharges associated with access roads and haul roads.

   b. The permittee shall at all times properly operate and maintain all facilities and systems (and related appurtenances) for collection and treatment installed or used by the permittee to achieve compliance with the terms and conditions of this

permit. Proper operation and maintenance also includes adequate laboratory and process controls and appropriate quality assurance procedures. This provision requires the operation of backup 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.

c. Dilution water shall not be added to comply with effluent requirements.

5. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal right, nor any infringement of federal, state, or local laws or regulations.

6. Severability

The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, then the application of such provision to other circumstances and to the remainder of this permit shall not be affected thereby.

7. Other Information

If the permittee becomes aware that he failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in a report to the Director, then he shall promptly submit such facts or information.

8. Best Management Practices (BMPs)

The permittee shall utilize Best Management Practices (BMPs) to prevent or minimize erosion and the contribution of suspended solids and sediment to surface waters and/or adjacent properties. Such practice(s) shall be implemented to reduce the impacts caused by disturbances created by the installation of culverts, the construction of haulroads, access roads, spoil storage, and stockpile areas, and other related activities.

BMPs include, but are not limited to, rapid grading, mulching, and revegetation of disturbed areas, sediment traps and swells, vegetative buffer zones, erosion control structures, and rock check dams. BMPs are to be utilized as supplemental or auxiliary erosion control measures, not as substitutes for monitoring requirements of point source discharges.

Additional information regarding acceptable practices may be found in the *Tennessee Erosion and Sediment Control Handbook, 4th Edition, August 2012,* which is available from the Division.

B. Changes Affecting the Permit

1. Planned Changes

   The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

   a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in *40 CFR 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 requirements under *40 CFR 122.42 (a) (1)*.

2. Permit Modification, Revocation, or Termination

   a. This permit may be modified, revoked and reissued, or terminated for cause as described in *40 CFR 122.62* and *122.64*.

   b. The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

   c. If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established for any toxic pollutant under *Section 307(a)* of *The Federal Clean Water Act of 1977*, as amended, the Director shall modify or revoke and reissue the permit to conform to the prohibition or to the effluent standard, providing that the effluent standard is more stringent than the limitation in the permit on the toxic pollutant. The permittee shall comply with these effluent standards or prohibitions within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified or revoked and reissued to incorporate the requirement.

3. Transfer of Ownership

   Individual permits are not transferable to any person except after notice to the commissioner, as specified below.

   a. The permittee notifies the Commissioner of the proposed transfer at least thirty (30) days in advance of the proposed transfer date;

b. The notice includes a written agreement between the existing and new permittee containing a specified date for transfer of the permit responsibility, coverage, and liability between them;

c. The permittee must provide the following information to the commissioner in their formal notice of intent to transfer ownership:

(1) The permit number of the subject permit;
(2) The effective date of the proposed transfer;
(3) The name and address of the transferor;
(4) The name and address of the transferee;
(5) The names of the responsible parties for both the transferor and transferee;
(6) A statement that the transferee assumes responsibility for the subject permit;
(7) A statement that the transferor relinquishes responsibility for the subject permit;
(8) The signatures of the responsible parties for both the transferor and transferee pursuant to the signatory requirements of this part; and
(9) A statement regarding any proposed modifications to the facility, its operations, or any other changes, which might affect the permit, limits and conditions contained in the permit.

d. The Commissioner, within thirty (30) days, does not notify the existing permittee and the proposed new permittee of his intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

NOTE: To expedite and facilitate the permit transfer process and provide the required information, the Division has prepared two documents, "Notice of Transfer: National Pollutant Discharge Elimination System Permit" and "NPDES Permit Application Addresses Transfer of Ownership." These documents may be obtained by contacting the Division at telephone number **(865) 594-5460**.

4. Change of Mailing Address

The permittee shall promptly provide to the Director written notice of any change of mailing address. In the absence of such notice, the original address of the permittee will be assumed to be correct.

C. Non-Compliance

1. Effect of Non-Compliance

All discharges shall be consistent with the terms and conditions of this permit. Any permit non-compliance constitutes a violation of applicable state and federal laws and is grounds for enforcement action, permit termination, permit modification, or denial of permit reissuance.

2. Reporting of Non-Compliance

   a. 24-Hour Reporting

   In the case of any non-compliance which could cause a threat to the public drinking water supplies, or any other discharge which could constitute a threat to human health or the environment, a required notice of non-compliance shall be provided to the Division of Water Resources within twenty-four (24) hours from the time the permittee becomes aware of the circumstances.

   Telephone No. (865) 594-6035 **Fax No. (865) 594-6105**

   Additionally, written submission shall be provided within five (5) days of the time the permittee becomes aware of the circumstances unless the Director on a case-by-case basis waives this requirement. The permittee shall provide the Director with the following information:

   (1) A description of the discharge and cause of non-compliance;

   (2) The period of non-compliance, including exact dates and times, or, if not corrected, the anticipated time non-compliance is expected to continue; and

   (3) The steps being taken to monitor, reduce, eliminate, and prevent recurrence of the non-complying discharge.

   This written notice shall not be considered as excusing or justifying the failure to comply with the effluent limitations. This non-compliance shall also be reported on the Discharge Monitoring Report (DMR). The details may be incorporated by reference to the written five (5) day notification.

   b. Scheduled Reporting

   For instances of non-compliance which are not reported under subparagraph 2(a) above, the permittee shall report the non-compliance on the Discharge Monitoring Report (DMR). The report shall contain all information concerning the steps taken, or planned, to monitor, reduce, eliminate, and prevent recurrence of the violation and the anticipated time the violation is expected to continue.

3. Bypassing

   a. "Bypass" means the intentional diversion of wastes from any portion of a treatment facility. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which could cause 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.

b. Bypass is prohibited and the Director may take enforcement action against a permittee for bypass, unless the following three (3) conditions are met:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There are no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submits notice of an unanticipated bypass to the Division of Water Resources within twenty-four (24) hours of becoming aware of the bypass (if this information is provided orally, a written submission shall be provided within five (5) days). When the need for the bypass is foreseeable, prior notification shall be submitted for approval to the Director, if possible, at least ten (10) days before the date of the bypass.

c. The Director may prohibit bypass in consideration of the adverse effect of the proposed bypass or if the proposed bypass does not meet the conditions set forth in subparagraphs 3(b)(1) and (2).

d. 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 subparagraph b. above.

4. Upset

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

b. Conditions necessary for the demonstration of an upset. An upset shall constitute an affirmative defense to an action brought for non-compliance with such technology-based permit effluent limitations if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

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

(2) At the time the permitted facility was being operated in a prudent and workmanlike manner and in compliance with proper operation and maintenance procedures;

(3) The permittee submitted information required under "Reporting of Non-Compliance" within twenty-four (24) hours of becoming aware of the upset (if this information is provided orally, a written submission shall be provided within five (5) days); and

(4) The permittee complied with any remedial measures required under "Adverse Impact."

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

5. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from non-compliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge. In an enforcement action it shall not be a defense for the permittee 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. Liabilities

1. Civil and Criminal Liability

Except as provided in permit conditions for "Bypassing," nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for non-compliance. Notwithstanding this permit, the permittee shall remain liable for any damages sustained by the state of Tennessee including, but not limited to, fish kills and losses of aquatic life and/or wildlife, as a result of the discharge of wastewater to any surface or subsurface waters. Additionally, notwithstanding this permit, it shall be the responsibility of the permittee to conduct its wastewater treatment and/or discharge activities in a manner such that public or private nuisances or health hazards will not be created.

2. Liability under State Law

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or *The Federal Clean Water Act of 1977*, as amended.

3. Liability to Obtain Required Permits

It is a violation of this permit to fail to obtain a permit or permit coverage for any activity that requires a permit under *The Tennessee Water Quality Control Act of 1977.*

PART III

A. General Requirements

1. Prior to the creation of any disturbed area or point source discharge within the projected area of operation, and prior to changes, corrections, modifications, or adjustments in the location of any point source discharge, an Engineering Plan shall be submitted to and approved by the Division of Water Resources.

2. No mining activity shall be conducted within the projected area of operation unless the detailed Engineering Plan for the specific area of operation or disturbance has been approved in advance. The Engineering Plan shall include those documents, maps, drawings, and other materials as required by the Division.

B. Termination of Monitoring

Monitoring of a discharge may be terminated when all of the following have been satisfactorily completed:

1. Sufficient data has been accumulated to show to the satisfaction of the Director of the Division of Water Resources that the untreated discharge from an area where mining is completed shall meet limitations established by the Division as stated herein [Part I, A(1), Page 1] and water quality standards. Other factors such as watershed or background characteristics may be taken into consideration if sufficient data and documentation are provided to the Division by the permittee.

2. The permittee or his duly authorized representative submits proof of final bond release, where applicable or equivalent documentation and a letter to the Division of Water Resources requesting permit termination.

3. The site has been closed and stabilized to the satisfaction of the Division.

4. After a thirty-day (30) public notice, there is no adverse public comment to uphold termination.

C. Examples of Discharges Covered by This Permit

Examples of discharges which are covered by *The Federal Clean Water Act of 1977*, as amended, and this permit include, but are not limited to, the following:

1. Pumped or gravity drainage from the permitted area including, but not limited to, the mine, overburden storage and stockpile areas; and other adjacent areas which are associated with or incidental to the extraction of a natural resource or related activities.

2. Discharges from sediment control structures and/or treatment facilities.

D. Duration and Reissuance of Permits *(Rule 1200-4-5-.11 [3])*

The Commissioner shall review the permit and other available information to insure:

1. That the permittee is in compliance with or has substantially complied with all terms, conditions, requirements, and schedules of compliance of the expired permit;

2. That the Commissioner has up-to-date information on the permittee's production levels, permittee's waste treatment practices, nature, contents, and frequency of permittee's discharge, either pursuant to monitoring records and reports submitted to the Commissioner by the permittee; and,

3. That the discharge is consistent with applicable effluent standards and limitations, water quality standards, and other legally applicable requirements including any additions to, or revisions or modifications of such effluent standards and limitations, water quality standards, or other legally applicable requirements during the term of the permit.

E. Reopener Clause for Permits Issued to Sources in Primary Industries

If an applicable standard or limitation is promulgated under the *Clean Water Act*, as amended, *Sections 301 (b)(2) (C) and (D), 304 (B)(2), and 307(a)(2)* and that effluent standard or limitation is different from an effluent limitation in the permit or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked and reissued to conform to that effluent standard or limitation(s).

F. Toxic Pollutants

The permittee shall notify the Division of Water Resources as soon as it knows or has reason to believe:

1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant (listed in *40 CFR, Part 122, Appendix D, Table II and III*) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

   a. One hundred micrograms per liter (100 μg/L);

   b. 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;

   c. Five (5) times the maximum concentration value reported for that pollutant in the permit application; in accordance with *122.21(g)(7)*; or

   d. The level established by the Director in accordance with *122.44(f)*.

2. 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 the highest of the following "notification levels":

   a. Five hundred micrograms per liter (500 μg/L);

   b. One milligram per liter (1 mg/L) for antimony;

   c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with *122.21(g)(7)*; or

   d. The level established by the Director in accordance with *122.44(f)*.

3. They have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application under *122.21(g)(9)*.

G. Antidegradation Statement

Pursuant to the *Rules of the Tennessee Department of Environment and Conservation, Chapter 1200-4-3-.06*, titled "Tennessee Antidegradation Statement," and in consideration of the Department's directive in attaining the greatest degree of effluent reduction achievable in municipal, industrial, and other wastes, the permittee shall further be required, pursuant to the terms and conditions of this permit, to comply with the effluent limitations and schedules of compliance required to implement applicable water quality standards, to comply with a State Water Quality Plan or other state or federal laws or regulations, or where practicable, to comply with a standard permitting no discharge of pollutants.

H. Definitions

1. *"Access Road/Haul Road"* is any road constructed, maintained, or used by the operator of a mining facility primarily for the purpose of transporting raw materials, equipment, manufactured products, waste material, or by-products, and is located within the affected area.

2. *"Batch Discharge"* for the purpose of this permit means the controlled release through a pipe (valve) of a known quantity and quality of treated wastewater that has been pumped to a treatment structure after such water has undergone physical and/or chemical treatment to meet permit limits.

3. *"Best Management Practices (BMPs)"* means a practice or a combination or series of practices designed to prevent or minimize the amount of pollution generated by non-point sources, such as haulroads, access roads, spoil storage and stockpile areas, site preparation, installation of culverts, and other related activities.

4. *"Bypass"* means the intentional diversion of wastes from any portion of a treatment facility.

5. *"Calendar Day"* is defined as any 24-hour period.

6. *"Clean Water Act" or "Act"* means *The Federal Clean Water Act* (formerly referred to as *The Federal Water Pollution Control Act* or *The Federal Water Pollution Control Act Amendments of 1972*), as amended.

7. *"Commissioner"* means the Commissioner of the Tennessee Department of Environment and Conservation.

8. *"Director"* means the Regional Administrator or the State Director, as the context requires or an authorized representative.

9. *"Discharge Limitation"* means any restriction, established by Federal or State law and regulation, or developed as the result of the Best Professional Judgment of the Division, on the constituents which are discharged into waters of the state or adjacent to waters of the state.

10. *"Discharge of a Pollutant"* means: "(a) Any addition of any 'pollutant' or combination of pollutants to 'waters of the United States' from any 'point source,'... This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man ..."(see *40 CFR 122.2*)

11. *"Division"* means the Division of Water Resources.

12. *"Grab Sample"* means an individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding fifteen (15) minutes.

13. *"Industrial Waste"* means any liquid, solid, gaseous substance, or combination thereof, or form of energy including heat, resulting from any process of industry, manufacture, trade, or business or from the development of any natural resource.

14. *"Maximum for any 1 day"* means a limitation of the total concentration by weight in milligrams per liter (mg/L) of any pollutant in the discharge during any time of a calendar day or (for clay only) during any time of the discharge cycle.

15. *"Mine"* shall mean an area of land, surface or underground, which is used for the development of a natural resource. Such areas include any adjacent land, the uses of which are incidental to any such mining activities including excavations, workings, impoundments, dams, dumps, stockpiles, overburden piles, holes or depressions, repair areas, storage areas, and other areas upon which are sited structures, or other property or materials on the surface, resulting from or incidental to such activities. The term "mine" also includes all lands affected by the construction of new roads or the improvement or use of existing roads, except maintained public roads, to gain access to the site of such activities and for haulage.

16. *"Mine Dewatering"* is any water that is impounded or that collects in the mine or quarry that is pumped, drained, or otherwise removed from the mine through the

efforts of the mine operator. The term also includes wet pit overflows caused solely by direct rainfall, groundwater seepage, or surface runoff entering the mine area.

17. *"Monthly Average Concentration"* is a limitation on the discharge concentration in milligrams per liter, as the arithmetic mean of all daily concentrations determined in a one-month period.

18. *"National Pollutant Discharge Elimination System (NPDES)"* means the Federal Environmental Protection Agency's (EPA) national program for issuing, modifying, revoking and reissuing, terminating, monitoring, and enforcing water quality permits. The term includes an "approved state program."

19. *"Other Storm Water Discharge"* means a discharge composed entirely of storm water that is not treated or monitored in the approved mine wastewater treatment system.

20. *"Per Discharge"* as used in this permit refers to the duration of treated mine wastewater discharge. Any single continuous discharge lasting more than seventy-two hours (72) represents a new discharge cycle and must be sampled each additional day beyond the seventy-two (72) hours.

21. *"Pollutant"* for the purpose of this permit means industrial waste.

22. *"Processing Facility"* is all or any part of the process involved in treating a mineral or raw material to improve properties and/or remove impurities. Processing may include any or all of the following activities: sizing, screening, crushing, separating, and washing.

23. *"Process Generated Wastewater"* is any wastewater used in the slurry transport of mined material, air emissions control, or processing exclusive of mining. The term also includes any other water which becomes commingled with such wastewater in a pit, pond, lagoon, mine, or other facility used for treatment of such wastewater.

24. *"Regional Administrator"* means the Administrator for the Environmental Protection Agency or his authorized representative.

25. *"Sediment Control Structure"* means a designed device, constructed or manufactured, used in controlling the subsidence and deposition process of suspended matter, carried by water, wastewater, or other liquids. The structure reduces the velocity of the liquid below the point at which it can transport the suspended materials (sand, silt, gravel, clay, etc.) to allow settling. These structures may be called settling lagoons, silt ponds, detention basins, holding ponds, or settling ponds/basins.

26. *"Storm Water Application Rule"* is the EPA Regulation promulgated on November 16, 1990, and amended March 21, 1991, November 5, 1991, and April 2, 1992, requiring that application be made for an NPDES permit for storm water discharges associated with industrial activity.

27. *"Storm Water Discharges Associated with Industrial Activity"* means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing, or raw materials storage areas at industrial plants. The term includes storm water discharges from immediate access roads and haulroads.

28. *"Storm Water"* means storm water runoff, snow melt runoff, and surface runoff and drainage.

29. *"Tennessee Water Quality Control Act of 1977,"* as amended, *TCA 69-3-101* et seq., is the act that sets forth the guidelines and procedures for the abatement and prevention of pollution to the waters of the state. The act enables the state of Tennessee to qualify for full participation in the NPDES permit program.

30. The term *"10 year, 24 hour precipitation event"* means the maximum 24-hour precipitation event with a probable recurrence interval of once in ten (10) years as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, and subsequent amendments or equivalent regional or rainfall probability information developed therefrom.

31. The term *"closed and stabilized"* means the approved measures, procedures, and activities implemented to assure that any and all discharges from a facility that has completed mining and processing operations meet state water quality standards before NPDES permit termination. These activities include, but are not limited to, revegetation, removal of wastewater treatment structures, regrading, dismantling and removal of processing facilities and structures, equipment, machinery, and transport vehicles.

32. The term with *"asphalt plant"* means a mining facility whose treatment system receives surface runoff and/or drainage from an asphalt concrete plant located within the boundaries of the NPDES permit.

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

34. *"Waters"* means any and all water, public or private, on or beneath the surface of the ground, that are contained within, flow through, or border upon Tennessee or any portion thereof, except those bodies of water confined to and retained within the limits of private property in single ownership that do not combine or effect a junction with natural surface or underground waters.

RATIONALE

Construction Sand and Gravel Mining

AMERICAN SAND COMPANY, LLC
50 ACRE TRACT
NPDES PERMIT TN0066231
MONTEREY, PUTNAM COUNTY, TENNESSEE

October 25, 2013

Permit Writer: Bryan Epperson

I. DISCHARGER

American Sand Company, LLC
9130 Monterey Highway
Monterey, TN 38574

Contact: Mr. Todd T. Claiborne, Manager

Facility Location: U. S. Highway 70 at Sand Springs
Monterey, TN 38574

Nature of Business: Construction Sand and Gravel Mining

SIC Code: 1442

Industrial Classification: Secondary, Construction Sand and Gravel

Discharger Rating: Minor

II. PERMIT STATUS

NPDES Permit TN0066231 issued February 23, 2014

NPDES Permit TN0066231 expires February 22, 2019

Application for Renewal to be received by August 22, 2018

III. FACILITY DISCHARGES AND RECEIVING WATERS

This facility discharges treated wastewater and storm water from Outfalls 001, 002 and 005 into an unnamed tributary to Dry Valley, and from Outfalls 003 and 004 into an unnamed tributary to Falling Water River, in Putnam County, Tennessee. The classified uses for these streams are Fish and Aquatic Life, Irrigation, Livestock Watering and Wildlife, and Recreation. See *Rules of the Tennessee Department of Environment and Conservation, Chapter 1200-4-4.*

IV. APPLICATION TYPE AND BACKGROUND INFORMATION

This application for renewal was originally received on July 29, 2013. An inspection on August 26, 2013, by Sharon Kington, Environmental Specialist from the Cookeville Environmental Field Office (EFO), as well as a thorough file review from the Knoxville EFO, revealed certain deficiencies and deviations from the current Site Plan. A Site Inspection Results Letter was mailed to the applicant on September 23, 2013. It detailed deficiencies for the lack of completion of Basins 001 and 004, cleanout of Basin 003, removal of slag material from the spillway of Basin 003, Best Management Practices (BMP's) and reporting deficiencies.

On October 15, 2013, a response letter was received to address the issues, including the completion of Basin 001, the construction of Basin 004, berm maintenance, minor sediment loss from the area of Basin 003 and the removal of the quarterly metals monitoring requirement in the permit.

The previous permit contained effluent limits not typically associated with a discharge from a sand mining facility. A quarterly monitoring requirement for metals was placed in the previous permit due to the proposed use of steel slag material for roadway stabilization at the site. The parameters were included in the permit because of the slag material's potential to produce leachate. However, according to the facility's consultant, TARE, Inc., the slag material proposed for road stabilization was not used for this purpose. This was due to the cost of the material and the cost associated with a metals sampling requirement. Some of the slag material was used in the spillway for Basin 003, as noted in the July 29, 2013 inspection. This material has been removed.

The applicant conducted sampling for metals on the runoff from the roadway in question on September 21, 2013. The results of the samples for the metals were all below the cut-off concentration or below detection limit (BDL) for the parameters contained in the previous permit.

The total permitted acreage is 38 acres. Treatment is accomplished by sedimentation basins prior to discharge through the appropriate outfall. The Division received photo documentation on November 19, 2013, that the previously unconstructed Basins 001 and 004 were completed. Basin 003 was the old pit and had been allowed to fill with sand. The sediment has been removed, and the basin is now in proper working condition.

V. APPLICABLE EFFLUENT LIMITATIONS GUIDELINES

Background

The United States Environmental Protection Agency (EPA) has adopted effluent limitations guidelines for point source discharges at facilities engaged in mineral mining and processing. These guidelines were adopted in pursuance of the *Federal Water Pollution Control Act Amendments of 1972, Public Law 92-500.* Permits for discharges will contain limitations and standards in accordance with these guidelines, when such are in effect.

EPA promulgated effluent limitations guidelines for the construction sand and gravel industry in 1977. The regulations established effluent limitations for Total Suspended Solids (TSS) and pH. The rule also included a precipitation event exemption. However, in 1979 the effluent limitations for TSS were invalidated and remanded to EPA as a result of federal court action. Subsequently, EPA amended the final rule and invalidated the remanded limitations for TSS. The promulgated limits for pH and precipitation event exemption were not invalidated or remanded.

A. Total Suspended Solids (TSS)

Effluent limitations guidelines for this parameter are based upon Best Professional Judgment (BPJ) of the Division. BPJ based effluent limitations are established where promulgated guidelines are not available or where a particular pollutant is not regulated. The regulations authorizing the use of BPJ in developing effluent guidelines include *Section 402(a)(1)* of the *Federal Clean Water Act (CWA),* the NPDES regulations in *40 CFR 125.3* and applicable state regulations contained in *Rule 1200-4-5-.09(1)(b)(2)* of the *Tennessee Department of Environment and Conservation.*

BPJ effluent guidelines are developed and established by permit writers using reasonably available and relevant data and information. In establishing BPJ limits for TSS, the Division used data and information from the following sources:

- Effluent data and information from construction sand and gravel mining and processing facilities with sedimentation ponds or equivalent technology,
- EPA documents, including the "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Mineral Mining and Processing Point Source Category, July, 1979",
- State rules and regulations, including *Chapter 1200-4-5, Permit Effluent Limitations and Standards; Chapter 1200-4-3, General Water Quality Criteria; and Chapter 1200-4-4, Use Classifications for Surface Waters,*

- Stream survey data and information obtained from field studies conducted in accordance with the *Tennessee Antidegradation Statement* found in *Chapter 1200-4-3-.06,*

- Review and analysis of monitoring data and information submitted with NPDES Permit applications,

- Data obtained in field investigations, inspection reports, and historical monitoring,

- Technical journals, books, and other relevant literature.

In the exercise of BPJ, the Division has determined that the following effluent limitations for TSS provide the Best Conventional Technology (BCT) treatment for this industry:

Monthly Average Concentration	N/A
Maximum for Any 1 Day Concentration	40.0 mg/L

The historical record of NPDES permitting for this industry indicates that the 40 mg/L limitation is achievable by the industry and protective of water quality.

B. pH

Federally promulgated effluent limitations guidelines for pH are in effect for the construction sand and gravel industry (See *40 CFR 436 Subpart C*). The Division has determined that the Federal guidelines for pH adequately protect the classified uses of the receiving stream. The following effluent limitations guidelines are established for pH:

pH 6.0 - 9.0 Standard Units*

NOTE: *Rules of Tennessee Department of Environment and Conservation,* Chapter *1200-4-3-.03, General Water Quality Criteria* establishes criteria for uses of state waters. To protect and maintain the classified use of the receiving stream for fish and aquatic life, the pH value shall not fluctuate more than 1.0 unit over a period of 24 hours and shall not be outside the following ranges: 6.0 – 9.0 in wadeable streams and 6.5 – 9.0 in larger rivers, lakes, reservoirs, and wetlands.

C. General Water Quality Criteria

This NPDES permit includes the following provisions:

1) There shall be no visible floating scum, oil, or other materials contained in the wastewater discharge. The wastewater discharge must not cause an objectionable color contrast.

2) The wastewater discharge shall result in no other materials in concentrations sufficient to be hazardous or otherwise detrimental to humans, livestock, wildlife, plant life, or fish and aquatic life in the receiving stream.

These provisions are based on Tennessee water quality standards contained in *Rules of the Tennessee Department of Environment and Conservation, Chapter 1200-4-3-.03, General Water Quality Criteria.*

VI. PREVIOUS PERMIT LIMITS AND MONITORING REQUIREMENTS

Monitoring Points (001-005)

Wastewater Characteristics	Discharge Limitations	Monitoring Requirements	
	Maximum for any 1 Day	Measurement Frequency	Sample Type
Total Suspended Solids	40.0 mg/L	Two per Month	Grab
Flow (GPM)	Report	Two per Month	Estimate
pH	6.0 to 9.0 Standard Units	Two per Month	Grab
Cadmium, Total	0.37 ug/L	Once per Quarter	Grab
Chromium, Total	100 ug/L	Once per Quarter	Grab
Copper, Total	8 ug/L	Once per Quarter	Grab
Iron, Total	5.0 mg/LL	Once per Quarter	Grab
Lead, Total	3 ug/L	Once per Quarter	Grab
Mercury, Total	0.05 ug/L	Once per Quarter	Grab
Nickel, Total	37 ug/L	Once per Quarter	Grab
Selenium, Total	5 ug/L	Once per Quarter	Grab
Silver, Total	0.30 ug/L	Once per Quarter	Grab
Zinc, Total	126 ug/L	Once per Quarter	Grab

VII. NEW PERMIT LIMITS

Monitoring Points (001-005)

Wastewater Characteristics	Discharge Limitations	Monitoring Requirements	
	Maximum for any 1 Day	Measurement Frequency	Sample Type
Total Suspended Solids	40.0 mg/L	Two per Month	Grab
Flow (GPM)	Report	Two per Month	Estimate
pH	6.0 to 9.0 Standard Units	Two per Month	Grab

VIII. PRECIPITATION EVENTS

Any overflow from facilities (i.e. wastewater treatment structures) governed by *40 CFR 436.31* shall not be subject to the effluent limitations guidelines covered by this regulation if the facilities are designed, constructed, and maintained to contain or treat the volume of wastewater which would result from a 10-year/24-hour precipitation event.

The federal effluent limitations guidelines promulgated for this industry are applicable to pH only. In the exercise of Best Professional Judgment (BPJ), the Division is also applying the precipitation event provision of this permit to the effluent limitations for Total Suspended Solids. This determination is supported by an analysis and review of available legal documents and technical information.

IX. MONITORING REQUIREMENTS FOR WASTEWATER DISCHARGES

EPA regulations require that monitoring and sampling frequencies be sufficient to yield data that are representative of the monitored activity including, if appropriate, continuous monitoring. See *40 CFR 122.48*. A measurement schedule of twice per month for Total Suspended Solids, Flow, and pH will be established for discharges at this facility. We believe these monitoring frequency levels are protective of water quality and will provide sufficiently representative data of the monitored activity.

The nature and effect of the discharge and its impact on the receiving waters will be the basis for any change or modification in monitoring frequency. Impacts on the receiving waters will include the impairment of the stream use classifications. These classifications are specified under *Rules of the Tennessee Department of Environment and Conservation Chapter 1200-4-3, Criteria for Water Uses (3) Fish and Aquatic Life.*

X. STORM WATER DISCHARGES

Access Roads and Haul Roads and Other Areas or Sources for Storm Water

<u>Limitations on Coverage</u>

Most storm water runoff at mining facilities enters the mine treatment system (i.e., sediment control ponds). The combined runoff is considered mine wastewater/process wastewater and must meet the applicable effluent limitations for the discharge of treated mine wastewater. Applicable effluent limitations guidelines also cover runoff associated with access roads and haul roads that are constructed of mine waste materials and/or where mine wastewater is used for dust suppression.

The storm water provision applies only to discharges composed entirely of storm water runoff that is not directed to and/or controlled by existing or proposed treatment structures/systems for mine wastewater. Sufficient documentation (i.e., application plans,

maps, addendums, etc.) of such treatment must be provided to the Division before the exemption is valid. Storm water is defined as storm water runoff, snow melt runoff, and surface runoff and drainage. *40 CFR 122.26.*

Background

In the *Water Quality Control Act of 1987*, Congress established controls on storm water discharges and authorized EPA to promulgate NPDES permit application rules for storm water discharges associated with industrial activities. These rules cover active and inactive mining operations within the meaning of storm water discharges associated with industrial activities. *40 CFR 122.26.*

The definition of storm water discharges associated with industrial activities also covers access roads and haul roads. These areas are likely sources for pollutants associated with raw materials, intermediate products, and finished products that are transported to and from the facility. These roads will also be sources for pollutants such as oil and grease from vehicles and machinery using these roads. *55 FR 48065, November 16, 1990.* These provisions also cover other areas or sources on the NPDES permit boundary that include discharges composed entirely of storm water. *40 CFR 122.26.*

In accordance with EPA and state regulations, the Division has added these provisions to the NPDES to cover monitoring and reporting requirements for storm water discharges associated with access roads and haul roads and other areas or sources on the permit that include discharges composed entirely of storm water. These requirements are as follows:

Parameter	Reporting Level	Monitoring Requirements	
		Measurement Frequency	Sample Type
Total Suspended Solids	150 mg/L*	Annually	Grab
Oil & Grease	15 mg/L	Annually	Grab
pH	5.0 to 9.0 Standard Units	Annually	Grab

** If the storm water discharge is from an area not associated with an access road and haul road or is not a source for vehicular traffic monitoring for Oil and Grease is not required.*

The permittee shall monitor at least once a year the designated storm water outfalls (or demonstrated representative outfalls) associated with access roads and haul roads and/or any other area requiring storm water coverage. The sample shall be collected during any period (quarter) of the calendar year, as long as the samples are representative of the quantity and quality of the storm water runoff being discharged from the facility. The once per year monitoring requirement is based on *40 CFR 122.44, TNR050000, Sector AD, 5.1.1* and Best Professional Judgment (BPJ) of the Division.

Sources for the parameter reporting levels for storm water discharges include *Sector AD of the Tennessee Storm Water Multi-Sector General Permit (TMSP), TNR050000* and Best Professional Judgment (BPJ) of the Division. The *TMSP* was reissued on May 15, 2009, and became effective on June 1, 2009. Sector AD includes reporting levels for pH, Oil and Grease, and Total Suspended Solids, the pollutants of primary concern relating to mine access roads and mine haul roads.

Total Suspended Solids (TSS) reporting level is based on Best Professional Judgment (BPJ) after evaluating available monitoring data. The importance of the TSS reporting parameter is expressed as follows: "TSS is a reasonable screen or indicator of storm-water discharge quality since many storm water pollutants are themselves suspended solids, or enter receiving waters attached to solids." *TMSP TNR050000, Rationale, page R-15*

XI. MONITORING, INSPECTION, AND COMPLIANCE INFORMATION

During the previous permit term, Discharge Monitoring Reports (DMR's) were not submitted as required by the NPDES permit. A modification to add Outfalls 002-005 was completed in October of 2009. DMR's for these outfalls were not submitted from October of 2009 to October of 2010. DMR's for Outfall 005 were not submitted for the last quarter of 2011 or the first and second quarters of 2013. DMR's were not received for any outfalls for the first quarter of 2012. It was also found that the DMR's incorrectly list the receiving stream for all outfalls as Falling Water River. The correct receiving stream for Outfalls 001, 002 and 005 is unnamed tributary to Dry Valley. The correct receiving stream for Outfalls 003 and 004 is unnamed tributary to Falling Water River.

Part I, D. of the NPDES permit includes the requirements for monitoring and reporting of results. This facility has outfalls that have not yet been constructed; however, DMR's must be submitted for these outfalls, regardless of whether or not they have been constructed. If the outfall is not constructed, it should be noted on the DMR as "NOT CONSTRUCTED." The DMR's should be recorded monthly and submitted quarterly to the Knoxville Environmental Field Office (EFO) - Mining Section. A copy should also be sent to the Cookeville EFO. The permittee is to keep a copy on site at the facility.

A Notice of Violation was issued on February 15, 2011, for failure to submit DMR's. Proper reporting and monitoring is vital to the success of the NPDES program. Continued improper DMR submittal may subject the permittee to future violation notices and possible enforcement action. The permittee should be cognizant of the permit requirements for DMR submittal.

This facility has been inspected three times since the previous permit renewal and modification in 2009. The most recent inspection occurred on August 26, 2013, as a result of the permit renewal application.

There have been three Notices of Violation (NOV) issued to this facility during the previous permit term. An NOV was issued for lack of DMR submittal in 2011 and for a disturbance caused by logging activity in an identified wetland in 2012. The most recent NOV was issued as a result of the August 26, 2013 inspection. It addressed Site Plan discrepancies, deficient BMP's, and improper operations and maintenance. A response letter was submitted by TARE, Inc. on October 15, 2013, with the corrective action already taken.

XII. STATE OF TENNESSEE ANTIDEGRADATION POLICY

Tennessee's Antidegradation Statement is found in *Chapter 1200-4-3-.06* of the *Rules of the Department of Environment and Conservation.* The primary purpose of the antidegradation policy is to establish a greater level of protection for those waters that are identified to be of high quality.

Generally, there are two types of high quality waters. Outstanding National Resource Waters (ONRW's) are specifically designated by the Water Resources Board and are afforded the greatest level of protection. No new discharges or expansion of existing discharges are allowed that will result in measurable degradation of the existing water quality. See *1200-4-3-.06 (5)*. Other high quality waters are identified by the Department as Exceptional Tennessee Waters and are also protected against degradation. Some degradation may be allowed only if the Water Resources Board deems it economically and socially necessary. See *1200-4-3-.06 (4)*.

"Available conditions" occur where water quality is better than the applicable criterion for a specific parameter. In available conditions, new or additional degradation for that parameter will only be allowed if the applicant has demonstrated to the department that reasonable alternatives to degradation are not feasible. See *1200-4-3-.06 (3)*.

"Unavailable conditions" exist where water quality is at, or fails to meet, the criterion for one or more parameters. In unavailable conditions, new or increased discharges of a substance that would cause or contribute to impairment will not be allowed. See *1200-4-3-.06 (2)*.

Outfalls 001, 002 and 005 discharge to an unnamed tributary to Dry Valley in Putnam County, Tennessee. Outfalls 003 and 004 discharge to an unnamed tributary to Falling Water River in Putnam County, Tennessee. These streams are not identified or designated as Exceptional Tennessee Water or Outstanding National Resource Waters (ONRW). Dry Valley or Falling Water River is not listed as impaired in the "EPA Approved Final Version Year 2010 303(d) List".

Even though Dry Valley and Falling Water River are not listed as being impaired for siltation and sedimentation on the current "EPA Approved Final Version Year 2010 303(d) List", it is included in the Caney Fork River Watershed Total Maximum Daily

Load (TMDL) for Siltation and Habitat Alteration prepared by the Division and approved by EPA on August 1, 2005. For more details on the TMDL, see Section XIII.

This application is for renewal of the existing NPDES permit. The quarterly metals monitoring requirement is being removed from the permit.

The previous permit renewal and modification contained a quarterly metals monitoring requirement due to the proposed use of steel slag material for road stabilization; however, the slag material was never used in the road stabilization. This was verified by TARE, INC., the applicant's consultant. A metals sample from the road runoff was collected, and the results indicated that the levels for the parameters in the previous permit were below the cut-off concentration or below detection level.

Since the slag material was not used in the road stabilization, and the potential does not exist for leachate from metals to occur in the runoff from this facility, the Department has determined that no measurable degradation will occur as a result of the removal of the metals monitoring requirement from the permit. The renewal of this existing NPDES permit should not contribute to additional loading or impacts to the receiving stream. The applicant has completed the required alternatives analysis.

XIII. TOTAL MAXIMUM DAILY LOAD /PROCESS AND IMPLEMENTATION

Section *303 (d)* of the federal *Clean Water Act* (CWA) requires each state to develop Total Maximum Daily Loads (TMDLs) for those waterbodies within its boundaries that are not attaining water quality standards. The TMDL process quantifies the amount of a pollutant, identifies the sources of the pollutant and establishes the maximum allowable loadings of a pollutant for a waterbody that will allow the waterbody to maintain water quality standards. TMDLs are developed on a watershed basis and are prioritized based on the severity of pollution. In accordance with *40 CFR 130.7* proposed TMDLs are placed on public comment and review. The final TMDL is approved by EPA.

A TMDL has been developed for siltation and habitat alteration in the Caney Fork River Watershed. The receiving streams for this discharge, Dry Valley and Falling Water River, are located in this watershed.

The Waste Load Allocation (WLA) for existing and future mining sites discharging to the impaired Caney Fork River Watershed is implemented through the NPDES permit requirements for this site. The guidelines for Total Suspended Solids (TSS) are considered to be within the Waste Load Allocation (WLA) for the developed TMDL for siltation and sedimentation in the Caney Fork River Watershed.

The historical sediment loading from mining sites located in impaired sub-watersheds is small compared to total loading for sub-watersheds. Thus, the NPDES permit limit of 40.0 mg/L for TSS is considered to be protective of water quality and is within the margin

of safety for the WLA established in the developed TMDL. Any discharge from the permitted outfalls must meet the current Total Maximum Daily Load (TMDL) of 40.0 mg/L TSS established for the Caney Fork River Watershed.

XIV. PUBLIC PARTICIPATION OPPORTUNITIES

Applicant and Permittee Responsibilities

Applicants for new NPDES permits to discharge and existing permittees who wish to modify permits by expanding discharges shall notify the public of the application by posting a sign near the point of entrance to the facility and within view of a public road. Expanded discharges include new treatment and monitoring points, additional acreage and major changes to the treatment system affecting the volume and quantity of the discharge.

The sign shall be of such size that is legible from the public road. The sign must be maintained for a least thirty (30) days following submittal of the application to the Division. The sign posting for new and expanded discharges is a requirement of *Chapter 1200-4-5-.06 (12) of the Department of Environment and Conservation.*

How to Comment

Comments may be submitted until the expiration date listed on the Division's public notice announcing the proposed permit activity.

State of Tennessee
Department of Environment and Conservation
Division of Water Resources
Mining Section
3711 Middlebrook Pike
Knoxville, Tennessee 37921-6538
Telephone (865) 594-6035 Fax (865) 594-6105
Attn: Public Notice Coordinator
E-Mail Gary.Mullins@tn.gov

How to Request a Public Hearing

Interested persons may request in writing that the Director of the Division of Water Resources hold a public hearing on this application. The request must be filed within the comment period and must indicate the interest of the party filing it and the reasons for a hearing. When there is significant public interest for a hearing, a hearing will be conducted according to *Chapter 1200-4-5-.06 (12) of the Department of Environment and Conservation.*

How the Department will Proceed

The Director of the Division of Water Resources will determine the final permit action after considering comments submitted during the comment period, the hearing record, if any, and the requirements of the Federal and State acts and regulations.

To obtain Application Details and Additional Information

Copies of this application, draft permit, and supporting documentation are in the permit files maintained at the Mining Section's office at the above address. This file is available for public inspection during normal visiting hours by contacting Kara.Blevins@tn.gov or calling (865) 594-5460.

XV. PERMIT DURATION

The proposed limitations meet the requirements of *Section 301(b)(2)(A), (C), (D), (E), and (F)* of *The Federal Clean Water Act of 1987.* This permit will be issued for a five (5) year term.

Consandrat05. 09/06/12

303(d) Permitting Checklist

FILE COPY

1. Indicate the status of this discharge. ☒ Existing ☐ New ☐ Recommencing

2. Indicate the NPDES permit number, if assigned. TN0066231

3. List the receiving stream and discharge point(s) in stream miles. Unnamed tributary to Dry Valley - 001, 002 & 005 and Unnamed tributary to Falling Water River - 003, 004

4. List the HUC and watershed name. TN05130108, Caney Fork River Watershed

5. Is the receiving stream on the State of Tennessee's 303(d) list? ☐ Yes ☒ No

If the answer to 5 above is "no", then stop. Sign and date the bottom of the form. Route to the NPDES permit file and/or the Planning limits file.

6. List the known causes of impairment. _____

7. Does this discharge represent an increase in pollutants that have caused the stream to be included in the 303(d) list? ☐ Yes ☐ No

If the answer to 7 above is "no", complete 8 and 9 below. Sign and date the form. Route to the NPDES permit file. If the answer to 7 above is "yes", go on to number 10 below.

8. Explain why the proposed discharge is not expected to cause an increase in the pollutants listed in the 303(d) report or known causes of impairment listed in (6).

_____

9. Identify the source of the information in 8 above (i.e. permit file, application, literature).

_____

10. If oxygen-demanding substances are involved, does D.O. modeling indicate further degradation?
☐ Yes ☐ No ☐ N/A Attach modeling results, if applicable.

FILE COPY

11. If nutrients are involved, is effluent data available? ☐ Yes ☐ No ☐ N/A Attach data, if applicable.

If effluent nutrient data is not available, indicate the expected effluent concentrations and the source of that information (i.e. data from similar facilities, literature).

12. If metals or toxics are involved, does the WLA calculation indicate a measurable instream increase? (Use the RDLs from the Water Quality Standards to determine)
☐ Yes ☐ No ☐ N/A Attach the WLA calculation,if applicable.

13. For each parameter identified in 10 and/or 13, indicate and justify the permit condition(limit, compliance schedule, monitoring, TMDL, etc.) selected. Use additional sheets as necessary

PARAMETER	PERMIT CONDITION	RATIONALE

Signature of person completing this form: Bryan Sisson Date: 8/21/13

Signature of reviewer: [illegible] Date: 10/25/13