

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 et seq.; the "CWA", and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

**P.J. Keating Company
998 Reservoir Road
Lunenburg, MA 01462**

is authorized to discharge from a facility located at

**P.J. Keating – Acushnet Facility
72 South Main Street
Acushnet, MA 02743**

to receiving water named

un-named tributary to the Acushnet River

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

This permit shall become effective on the first day of the calendar month following 60 days after signature.

This permit and the authorization to discharge expire at midnight, five (5) years from the last day of the month preceding the effective date.

This permit supersedes the permit issued on May 11, 2004.

This permit consists of 12 pages in Part I including effluent limitations, monitoring requirements, and Attachment 1 – Freshwater Chronic Test Procedure and Protocol, and 25 pages in Part II including General Conditions and Definitions.

Signed this **12th** day of **September, 2007**

/S/ SIGNATURE ON FILE

Stephen S. Perkins, Director
Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA

Glenn Haas, Director
Division of Watershed Management
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge water from stone processing/washing operations, quarry dewatering, vehicle and equipment rinsing/washing, various dust control measures, concrete production, Asphalt Plant Wash/Soap Rack runoff, dewatering from the Silt Material Storage Area and Stone Processing Plant, and storm water runoff over the entire site, including the Vehicle Fueling Area, through **Outfall Serial Number 001** to the Acushnet River, via a fresh water tributary, a Class B water. Such discharge shall: 1) be limited and monitored by the permittee as specified below; and 2) not cause a violation of the State Surface Water Quality Standards of the receiving water.

Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirements ⁽¹⁾⁽¹²⁾	
		Average Monthly	Maximum Daily	Measurement Frequency ⁽²⁾	Sample Type
Flow	GPD	Report	Report	1/Week ⁽⁶⁾	Estimate
Total Suspended Solids (TSS)	mg/L	15.0	23.0	2/Month ⁽⁵⁾⁽⁶⁾	Composite ⁽⁴⁾
pH ⁽¹³⁾	S.U.	----	6.5 to 8.3	2/Month ⁽⁵⁾⁽⁶⁾	Grab ⁽³⁾
Oil and Grease (O&G) ⁽⁷⁾	mg/L	10.0	15.0	2/Month ⁽⁵⁾⁽⁶⁾	Grab ⁽³⁾
Turbidity	NTU	----	25	2/Month ⁽⁵⁾⁽⁶⁾	Grab ⁽³⁾
Ammonia as Nitrogen ⁽¹¹⁾	mg/L	----	Report	2/Month ⁽⁵⁾⁽⁶⁾	Composite ⁽⁴⁾
Nitrate Nitrogen ⁽¹¹⁾	mg/L	----	Report	2/Month ⁽⁵⁾⁽⁶⁾	Composite ⁽⁴⁾
Nitrite Nitrogen ⁽¹¹⁾	mg/L	----	Report	2/Month ⁽⁵⁾⁽⁶⁾	Composite ⁽⁴⁾
Total Kjeldahl Nitrogen (TKN) ⁽¹¹⁾	mg/L	----	Report	2/Month ⁽⁵⁾⁽⁶⁾	Composite ⁽⁴⁾
Total Nitrogen (TN) ⁽¹¹⁾	mg/L	----	Report	2/Month ⁽⁵⁾⁽⁶⁾	Composite ⁽⁴⁾

Part I.A.1, Continued

Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirements ⁽¹⁾⁽¹²⁾	
		Average Monthly	Maximum Daily	Measurement Frequency ⁽²⁾	Sample Type
Whole Effluent Toxicity (WET) ⁽⁷⁾⁽¹⁰⁾ Acute LC ₅₀ ⁽⁸⁾ Chronic NOEC ⁽⁹⁾	% %	≥100 100		2 nd and 4 th year 2 nd and 4 th year	Composite ⁽⁴⁾ Composite ⁽⁴⁾
Naphthalene ⁽¹⁴⁾	µg/L	Report	Report	2/Month ⁽⁵⁾⁽⁶⁾	Grab ⁽³⁾
Total BTEX	µg/L	----	Report	2/Month ⁽⁵⁾⁽⁶⁾	Grab ⁽³⁾
Benzene	µg/L	Report	Report	2/Month ⁽⁵⁾⁽⁶⁾	Grab ⁽³⁾
Toluene	µg/L	Report	Report	2/Month ⁽⁵⁾⁽⁶⁾	Grab ⁽³⁾
Ethylbenzene	µg/L	Report	Report	2/Month ⁽⁵⁾⁽⁶⁾	Grab ⁽³⁾
Xylenes	µg/L	Report	Report	2/Month ⁽⁵⁾⁽⁶⁾	Grab ⁽³⁾

See pages 4-6 for explanation of footnotes.

Footnotes:

1. Unless otherwise noted, samples shall be taken after all water from the site commingles, from the discharge point at Pond 1C, to the un-named tributary which flows to the Acushnet River.
2. Sampling frequency of 1/week is defined as the sampling of one (1) discharge event in each calendar week, when discharge occurs. Sampling frequency of 2/month is defined respectively as the sampling of two (2) discharge events in each calendar month, when discharge occurs. Sampling frequency of once during the 2nd and 4th year of permit issuance is defined as the sampling of one (1) discharge event in each of these years, when discharge occurs. If no discharge occurs, the WET Testing shall occur during the following year. A year is defined as the interval of time between the months of: January through December, inclusive. The permittee shall submit the results to EPA of any additional testing done to that required herein, if it is conducted in accordance with EPA approved methods consistent with the provisions of 40 CFR §122.41(l)(4)(ii).
3. All grab samples are to be taken within thirty (30) minutes of the initiation of the discharge from Outfall 001 where practicable, but in no case later than within the first hour of discharge from Outfall 001.
4. A composite sample shall consist of 4 aliquots collected at 3-hour time intervals over the course of a 12-hour work day.
5. Samples shall be taken: twice per month during dry weather, normal operating conditions, and once per calendar quarter during wet weather conditions. Wet weather conditions are defined as a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (i.e., greater than 0.1 inch rainfall) storm event. Dry weather conditions are defined as a period of no less than 72 hours in which no measurable precipitation occurs.
6. One sampling event each calendar quarter shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inches rainfall) storm event. The grab sample(s) shall be taken during the first thirty minutes of the discharge. If collection of the grab sample(s) during the first thirty minutes is impracticable, grab sample(s) can be taken as soon after that as possible, and the permittee shall submit with the monitoring report a description of why the collection of the grab sample(s) during the first thirty minutes was impracticable. When a permittee is unable to collect grab sample(s) due to adverse climatic conditions, the permittee must submit in lieu of sampling data a description of why the grab sample(s) could not be collected, including

available documentation of the event. Adverse weather conditions which may prohibit the collection of sample(s) include weather conditions that pose a danger to personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.) or otherwise make the collection of sample(s) impracticable (drought, extended frozen conditions, specified storm event did not occur during sampling period, etc.) A “no discharge” report shall be submitted for those quarters in which there is no discharge.

7. The permittee shall conduct two chronic (and modified acute) toxicity tests, one each during both the 2nd and 4th year of permit issuance. The chronic test may be used to calculate the acute LC₅₀ at the 48 hour exposure interval. The permittee shall test the daphnid, Ceriodaphnia dubia, and fathead minnow, Pimephales promelas. Toxicity test samples **shall be collected during the second week of July**. The test results shall be submitted by the last day of the month following the completion of the test (August 31st). The tests must be performed in accordance with test procedures and protocols specified in Attachment 1 of this permit.
8. The LC₅₀ is the concentration of effluent which causes mortality to 50% of the test organisms. Therefore, a “100% or greater” limit means that a sample of 100% effluent shall cause no more than a 50% mortality rate.
9. C-NOEC (chronic – no observed effect concentration) is defined as the highest concentration of toxicant or effluent to which organisms are exposed in a life cycle or partial life cycle test which causes no adverse effect on growth, survival, or reproduction at a specific time of observation as determined from hypothesis testing where the test results exhibit a linear dose-response relationship. However, where the test results do not exhibit a linear dose-response relationship, the permittee must report the lowest concentration where there is no observable effect. The 100% limit is defined as a sample which is composed of 100% effluent. This is a maximum daily limit derived as a percentage of the inverse of the dilution factor of 1.
10. If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, the permittee shall follow procedures outlines in Section IV (Dilution Water) of Attachment 1 in order to obtain permission to use an alternate dilution water. In lieu of individual approvals for alternate dilution water required in Attachment 1, EPA-New England has developed a Self-Implementing Alternative Dilution Water Guidance document (called “Guidance Document”) which may be used to obtain automatic approval of an alternate dilution water, including the appropriate species for use with that water. If this Guidance Document is revoked, the permittee shall revert to obtaining approval as outlined in Attachment 1. The “Guidance Document” has been sent to all permittees with their annual set of DMRs and Revised Updated Instructions for Completing

EPA's Pre-Printed NPDES Discharge Monitoring Report (DMR) Form 3320-1 and is not intended as a direct attachment to this permit. Any modification or revocation to this "Guidance Document" will be transmitted to the permittees as part of the annual DMR instruction package. However, at any time, the permittee may choose to contact EPA-New England directly using the approach outlined in Attachment 1.

11. EPA anticipates that the permittee may request a reduction in the monitoring frequency for the series of nitrogen compounds. After submitting a representative set of data, the permittee may request a permit modification. The permittee is required to continue testing at the frequency specified in the permit until notice is received by certified mail from the EPA that the requested testing requirement has been changed.
12. Any change in sampling location must be reviewed and approved in writing by EPA and MassDEP. All samples shall be tested using the analytical methods found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136. All samples shall be 24-hour composites unless specified as a grab sample in 40 CFR §136.
13. See Part I.A.4., Page 7, for the pH limitations.
14. See Part I.A.3., Page 7, for the Minimum Level of reporting for Naphthalene.

Part I.A. (Continued)

2. The discharges either individually or in combination shall not cause a violation of State Water Quality Standards of the receiving waters.
3. The reporting of Naphthalene (a Polynuclear Aromatic Hydrocarbon (PAH)) as described in the effluent limits for Outfall 001 will be based on the Minimum Level (ML) of reporting. The ML is defined as the level at which the entire analytical system gives recognizable mass spectra and acceptable calibration points. This level corresponds to the lower points at which the calibration curve is determined based on the analysis of the pollutant of concern in reagent water. The ML for Naphthalene is 0.2 µg/L.
4. The pH of the effluent shall not be less than 6.5 or greater than 8.3 at any time unless these values are exceeded as a result of natural causes.
5. The discharge shall not cause objectionable discoloration of the receiving waters.
6. The discharge shall not contain a visible oil sheen, foam, or floating solids at any time.
7. The discharge shall not contain materials in concentrations or combinations which are hazardous or toxic to human health, aquatic life of the receiving surface waters or which would impair the uses designated by its classification.
8. The discharge shall not impart color, taste, turbidity, toxicity, radioactivity or other properties which cause those waters to be unsuitable for the designated uses and characteristics ascribed to their use.
9. Notwithstanding specific conditions of this permit, the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.
10. Chemicals (i.e. disinfecting agents, detergents, emulsifiers, etc.) or bioremedial agents, including microbes, shall not be added to the collection and treatment systems (or used in washing) without prior approval by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) to prevent hydrocarbon and/or particulate matter carryover into the receiving water.
11. EPA may modify this permit in accordance with EPA regulations in 40 Code of Federal Regulations (CFR) §122.62 and §122.63 to incorporate more stringent effluent limitations, increase the frequency of analyses, or impose additional sampling and analytical requirements.

12. All existing manufacturing, commercial, mining and silvicultural dischargers must notify the Director 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 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 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 in accordance with 40 C.F.R.§122.21(g)(7); or
 - (4) Any other notification level established by the Director in accordance with 40 C.F.R.§122.44(f).
 - b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent 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) 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 40 C.F.R.§122.21(g)(7).
 - (4) Any other notification level established by the Director in accordance with 40 C.F.R.§122.44(f).
 - c. That 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.
13. Toxics Control
- a. The permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.

- b. Any toxic components of the effluent shall not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.

B. STORM WATER POLLUTION PREVENTION PLAN

1. The permittee shall develop, implement, and maintain a Storm Water Pollution Prevention Plan (SWPPP) designed to reduce, or prevent, the discharge of pollutants in storm water to the receiving waters identified in this permit. The SWPPP shall be a written document and consistent with the terms of this permit. The permittee shall comply with the terms of its SWPPP.
2. The SWPPP shall be completed or updated and signed by the permittee within 90 days after the effective date of this permit. The permittee shall certify that the SWPPP has been completed or updated and that it meets the requirements of the permit. The certification shall be signed in accordance with the requirements identified in 40 CFR §122.22. A copy of this initial certification shall be sent to EPA and MassDEP within one hundred and twenty (120) days of the effective date of the permit.
3. The SWPPP shall be consistent with the general provisions for SWPPPs included in the most current version of the Multi-Sector General Permits for Storm Water Discharges Associated with Industrial Activities. (The current MSGP was issued October 30, 2000 – see 65 FR 64812-64815.) The SWPPP shall include best management practices (BMPs) for on-site activities that will minimize the discharge of pollutants in storm water to waters of the United States.
4. The SWPPP shall be prepared in accordance with good engineering practices, identify potential sources of pollution that may reasonably be expected to affect the quality of the storm water discharges, and describe and ensure implementation of practices which will be used to reduce the pollutants and assure compliance with this permit. Specifically, the SWPPP shall contain the elements listed below:
 - a. A pollution prevention team responsible for developing, implementing, maintaining, revising and ensuring compliance with the SWPPP.
 - b. A site description which includes a list of activities at the facility; a site map showing drainage areas and direction of storm water flows; receiving waters and outfall location; the location of industrial activities, storage, disposal, material handling; and all structural controls.
 - c. A summary of all pollutant sources which includes all areas where spills have occurred or could occur. For each source, identify the expected drainage and the corresponding pollutant.

- d. A summary of any existing storm water discharge sampling data.
 - e. A description of all storm water controls, both structural and non-structural. BMPs must include good housekeeping measures, preventative maintenance programs, spill prevention and response procedures, runoff management practices, and proper handling of salt or materials containing salt that are used for deicing activities. The SWPPP shall describe how the BMPs are appropriate for the facility. All BMPs shall be properly maintained and be in effective operating conditions.
5. All areas identified in the SWPPP shall be inspected, at least on a quarterly basis. Inspections shall occur beginning the 1st quarter after the effective date of the permit. EPA considers quarters as follows: January to March; April to June; July to September; and October to December.
 6. The permittee shall amend and update the SWPPP within 14 days for any changes at the facility affecting the SWPPP. Changes which may affect the SWPPP include, but are not limited to, the following activities: a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the waters of the United States; a release of a reportable quantity of pollutants as described in 40 CFR §302; or a determination by the permittee or EPA that the SWPPP appears to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity. Any amended or new versions of the SWPPP shall be re-certified by the permittee. Such re-certifications also shall be signed in accordance with the requirements identified in 40 CFR §122.22
 7. The permittee shall certify at least annually that the previous year's inspections and maintenance activities were conducted, results were recorded, records were maintained, and that the facility is in compliance with the SWPPP. If the facility is not in compliance with any aspect of the SWPPP, the annual certification shall state the non-compliance and the remedies which are being undertaken. Such annual certifications also shall be signed in accordance with the requirements identified in 40 CFR §122.22. The permittee shall keep a copy of the current SWPPP and all SWPPP certifications (the initial certification, re-certifications, and annual certifications) signed during the effective period of this permit at the facility and shall make it available for inspection by EPA and MassDEP.

C. REOPENER CLAUSES

1. This permit shall be modified, or alternately, revoked and reissued, to comply with any applicable standard or limitation promulgated or approved under sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

- a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- b. Controls any pollutants not limited in the permit.

D. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Form(s) postmarked no later than the 15th day of the month following the effective date of the permit. Signed and dated originals of these, and all other reports required herein, shall be submitted to EPA at the following address:

Environmental Protection Agency, Region 1
Water Technical Unit (SEW)
P.O. Box 8127
Boston, Massachusetts 02114

Signed and dated Discharge Monitoring Report Form(s) and all other reports required by this permit shall also be submitted to the State at the following addresses:

Massachusetts Department of Environmental Protection
Southeast Regional Office
Bureau of Waste Prevention
20 Riverside Drive
Lakeville, Massachusetts 02347

and

Massachusetts Department of Environmental Protection
Division of Watershed Management
Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, Massachusetts 01608

E. STATE PERMIT CONDITIONS

- 1. This discharge permit is issued jointly by the EPA and the MassDEP under Federal and State law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MA DEP pursuant to M.G.L. Chap.21, §43.

2. Each Agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this permit is declared, invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as a NPDES permit issued by the U.S. Environmental Protection Agency. In the event this permit is declared invalid, illegal or otherwise issued in violation of Federal law, this permit shall remain in full force and effect under State law as a permit issued by the Commonwealth of Massachusetts.