MA0029297

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 the facility located at

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

to receiving waters named: Un-named tributary to Acushnet River, and
Wetland to Acushnet River (Buzzards Bay River Basin)

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

This permit shall become effective on 60 days from the date of signature.

This permit and the authorization to discharge **expires at midnight, two years from the effective date.**

This permit consists of 10 pages in Part I including effluent limitations, monitoring requirements; **Attachment A** listing Freshwater Chronic Toxicity Test Procedures and Protocols; and 35 pages in Part II including General Conditions and Definitions.

Signed this 13th day of May, 2004

Linda M. Murphy, Director
Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA

Director, Division of Watershed Management
Bureau of Resource Protection
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning the effective date and lasting through the expiration date, the permittee is authorized to discharge treated quarry de-watering, process cooling water, vehicle rinse water, pressure washer, and storm water from vehicle maintenance and fuel area storm water from outfall serial number **001**, to the Acushnet River, via a fresh water creek, a Class B water. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitation				Monitoring Requirement	
	Average Monthly	Maximum Daily	Average Monthly	Maximum Daily	Measurement Frequency	Sample Type [8, 9]
Flow (gpd)	*****	*****	Report gpd	Report gpd	1 / Week	Estimate
TSS	*****	*****	25 mg/l	45 mg/l	2 / Month	Composite [6]
pH [1]	6.5 - 8.3 SU	(See Condition I.A.3.b. on Page 6)			2 / Month	Grab
Oil & Grease [1]	*****	*****	*****	15 mg/l	2 / Month	Grab
Turbidity	*****	*****	*****	25 NTU	2 / Month	Grab
Whole Effluent Toxicity Testing [2, 3, 4, 5]	Acute $LC_{50} \geq 100$ % Chronic C-NOEC = 100 %				1 Test [2]	Composite [6]
Sulfates, Total [7]	*****	*****	*****	Report mg/l	2 / Month	Grab
Ammonia as Nitrogen [7]	*****	*****	*****	Report mg/l	2 / Month	Composite
Nitrate [7]	*****	*****	*****	Report mg/l	2 / Month	Composite
Nitrite [7]	*****	*****	*****	Report mg/l	2 / Month	Composite
Total Kjeldahl Nitrogen [7]	*****	*****	*****	Report mg/l	2 / Month	Composite

** Samples taken in compliance with the monitoring requirements specified above shall be taken after Pond 1C and prior to discharge to the Acushnet River. Samples shall be taken: twice per month during dry weather, normal operating conditions; and once per calendar quarter during wet weather conditions. See Footnotes 10 and 11.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning the effective date and lasting through the expiration date, the permittee is authorized to discharge treated quarry de-watering, process cooling water, and storm water from outfall serial number **002**, to a wetland, a Class B water. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitation				Monitoring Requirement	
	Average Monthly	Maximum Daily	Average Monthly	Maximum Daily	Measurement Frequency	Sample Type [8, 9]
Flow (gpd)	*****	*****	Report gpd	Report gpd	1 / Week	Estimate
TSS	*****	*****	25 mg/l	45 mg/l	1 / Month	Composite [6]
Oil & Grease [1]	*****	*****	*****	15 mg/l	1 / Month	Grab
Turbidity	*****	*****	*****	25 NTU	1 / Month	Grab
pH [1]	6.5 - 8.3 SU (See Condition I.A.3.b. on Page 6)				1 / Month	Grab
Whole Effluent Toxicity Testing [2, 3, 4, 5]	Acute $LC_{50} \geq 100$ % Chronic C-NOEC = 100 %				1 Test [2]	Composite [6]
Ammonia as Nitrogen	*****	*****	*****	Report mg/l	1 / Month	Composite
Nitrate	*****	*****	*****	Report mg/l	1 / Month	Composite
Nitrite	*****	*****	*****	Report mg/l	1 / Month	Composite
Total Kjeldahl Nitrogen	*****	*****	*****	Report mg/l	1 / Month	Composite

** Samples taken in compliance with the monitoring requirements specified above shall be taken after Pond 2C and prior to discharge to the wetland. Samples shall be taken: once per month during dry weather, normal operating conditions, when discharge occurs; and once per calendar quarter during wet weather conditions. See Footnotes 10 and 11.

Footnotes:

1. Required for State Certification.

2. The permittee shall conduct one chronic (and modified acute) toxicity test, within the first year of the permit. The chronic test may be used to calculate the acute LC_{50} 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 second week of July. The test results shall be submitted by the last day of the month following the completion of the test. The results are due August 31th. The tests must be performed in accordance with test procedures and protocols specified in **Attachment A** of this permit.

Test Date	**Submit Results By:**	**Test Species**	**Acute Limit LC_{50}**	**Chronic Limit C-NOEC**
second week of July	August 31th	Ceriodaphnia dubia (daphnid) Pimephales promelas (fathead minnow)	≥ 100 %	100 %

3. The LC_{50} is the concentration of effluent which causes mortality to 50% of the test organisms. Therefore, a 100% limit means that a sample of 100% effluent shall cause no more than a 50% mortality rate.

4. 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 % or greater" limit is defined as a sample which is composed of 100 % (or greater) effluent. This is a maximum daily limit derived as a percentage of the inverse of the dilution factor of 1.

5. If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, the permittee shall follow procedures outlined in **Attachment A Section IV., DILUTION WATER** in order to obtain permission to use an alternate dilution water. In lieu of individual approvals for alternate dilution water required in **Attachment A**, 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 A**. 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 A**.

6. A composite sample will consist of 4 aliquots collected at 3-hour time intervals over the course of a 12-hour work day.

7. EPA anticipates that the permittee may request a reduction in the monitoring frequency for Sulfates and 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.

8. Any change in sampling location must be reviewed and approved in writing by EPA and MADEP. 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.

9. Limits are in effect year round.

10. Two sampling events for Outfall 001 and one sampling event for Outfall 002 shall be taken each month during dry weather, under normal operating conditions.

11. 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 inch rainfall) storm event. The grab samples 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.

This permit shall be modified, or alternatively, revoked and reissued to incorporate additional testing requirements, including chemical specific limits, if results of the storm water analyses indicate the discharge causes an exceedance of any State water quality criterion. Results from these storm water analyses are considered "New Information" and the permit may be modified as provided in 40 CFR Section 122.62(a)(2).

I.A.3. Conditions for Outfalls 001 and 002.

a. The discharge shall not cause a violation of the water quality standards of the receiving waters.

b. The pH of the effluent shall not be less than 6.5 nor greater than 8.3 at any time for freshwater, unless these values are exceeded as a result of an approved treatment process.

c. The discharge shall not cause objectionable discoloration of the receiving waters.

d. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.

e. The effluent shall not contain materials in concentrations or in combinations which are hazardous or toxic to aquatic life or which would impair the uses designated by the classification of the receiving waters.

f. The results of sampling for any parameter above its required frequency must also be reported, in accordance with 40 CFR § 122.41(l)(4)(ii).

I.A.4.

This permit shall be modified, or revoked and reissued to comply with any applicable effluent standard or limitation issued 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:

(1) contains different conditions or is otherwise more stringent than any effluent limitation in this permit; or

(2) controls any pollutant not limited by this permit.

If the permit is modified or reissued, it shall be revised to reflect all currently applicable requirements of the Act.

I.A.5.

All existing manufacturing, commercial, mining, and silvi-cultural dischargers must notify the Director as soon as they know or have reason to believe (40 CFR 122.42):

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "Notification levels":

(1) One hundred micrograms per liter (100 ug/l);

(2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or

(4) Any other notification level established by the Director in accordance with 40 CFR §122.44(f).

b. That any activity as 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 ug/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 CFR §122.21(g)(7); or

(4) Any other notification level established by the Director in accordance with 40 CFR §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.

I.A.6. 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.

I.A.7. Numerical Effluent Limitations for Toxicants

EPA or DEP may use the results of the toxicity tests and chemical analyses conducted pursuant to this permit, as well as national water quality criteria developed pursuant to Section 304(a)(1) of the Clean Water Act (CWA), state water quality criteria, and any other appropriate information or data, to develop numerical effluent limitations for any pollutants, including but not limited to those pollutants listed in Appendix D of 40 CFR Part 122.

B. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from outfalls listed in Part I.A. of this permit. Discharges of wastewater from any other point sources are not authorized by this permit and shall be reported in accordance with Section D.1.e.(1) of the General Requirements of this permit (Twenty-four hour reporting).

C. STORM WATER

The permittee shall continue to implement its Storm Water Pollution Prevention Plan (SWPPP) of Spring 2001. The permittee shall modify its SWPPP program to enhance its effectiveness and shall **retain annual status reports** for drainage areas 001 and 002 which describe any changes to the permittee's SWPPP activities. The SWPPP shall continue to identify potential sources of pollution which may reasonably be expected to effect the quality of storm water discharges associated with industrial activity from the facility. In addition, the SWPPP shall continue to describe and ensure the implementation of practices which are to be used to reduce the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit.

As part of the SWPPP requirements for active mining facilities, the permittee shall conduct quarterly visual inspections of all Best Management Practices (BMPs), including: assessment of the integrity of storm water discharge diversions, conveyance systems, sediment control and collection systems and containment structures; inspections to determine if soil erosion has occurred at, or as a result of vegetative BMPs, serrated slopes and benched slopes; inspections of material handling and storage areas and other potential sources of pollution for evidence of actual or potential discharges of contaminated storm water.

As part of the SWPPP requirements for asphalt paving manufacturers, the permittee shall conduct monthly inspections of the following areas as part of the maintenance program: material storage and handling areas; liquid storage tanks; hoppers / silos; vehicle and equipment maintenance, cleaning and fuel areas; material handling vehicles; equipment and processing areas.

As part of the SWPPP requirements for Glass, Clay, Cement, Concrete, and Gypsum Product manufacturers, the permittee perform monthly inspections while the facility is in operation and include all of the following areas exposed to storm water: Material handling areas, above ground storage tanks, hoppers or silos, dust collection / containment systems, truck wash down / equipment cleaning areas.

As part of good housekeeping measures for Glass, Clay, Cement, Concrete, and Gypsum Product manufacturers, the permittee shall prevent or minimize the discharge of: spilled cement; aggregate (including sand or gravel); kiln dust; fly ash; settled dust; or other significant material in storm water from paved portions of the site that are exposed to storm water. The permittee shall consider using regular sweeping or other equivalent measures to minimize the presence of these materials. Indicate in your SWPPP the frequency of sweeping or equivalent measures. Determine the frequency from the amount of industrial activity occurring in the area and the frequency of precipitation, but it must be performed at least once per week if cement, aggregate, kiln dust, fly ash or settled dust are being handled / processed. The permittee must also prevent the exposure of fine granular solids (cement, fly ash, kiln dust, etc.) to storm water where practicable, by storing these materials in enclosed silos / hoppers, buildings or under other covering.

D. SPECIAL CONDITIONS, MANAGEMENT PRACTICES, AND OTHER NON-NUMERIC LIMITATIONS

Releases in excess of Reportable Quantities This permit does not relieve the permittee of the reporting requirements of 40 CFR 117 and 40 CFR 302. The discharge of hazardous substances in the storm water discharge(s) from a facility shall be minimized in accordance with the applicable storm water pollution prevention plan for the facility, and in no case, during any 24-hour period, shall the discharge(s) contain a hazardous substance equal to or in excess of reporting quantities.

E. MONITORING AND REPORTING

Monitoring results obtained during each calendar **month** shall be summarized and reported on Discharge Monitoring Report Form(s) postmarked **no later than the 15th day of the following month.**

Signed and dated originals of these, and all other reports required herein, shall be submitted to the Director and the State at the following addresses:

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection
Southeast Regional Office
20 Riverside Drive
Lakeville, MA 02347

In addition, copies of all Discharge Monitoring Reports and toxicity reports required by this permit shall also be submitted to the State at following address:

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

F. STATE PERMIT CONDITIONS

This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP) 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.

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 an 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.