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),

Avon Custom Mixing Service, Inc.

is authorized to discharge from the facility located at

Avon Custom Mixing Service, Inc.
55 High Street
Holbrook, MA 02343

to receiving water named

Trout Brook (Taunton Watershed - MA 62-07)

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

This permit shall become effective on the date of signature if no comments are received during public notice. If comments are received during public notice, this permit will become effective on the first day of the 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 proceeding the effective date.

This permit supersedes the permit issued on November 19, 2001.

This permit consists of 11 pages in Part I including effluent limitations, monitoring requirements, and state-permit conditions; 25 pages in Part II, Standard Conditions; Attachment A – Freshwater Chronic Toxicity Test Procedure and Protocol; and Attachment B, Sludge Compliance Guidance.

Signed this ___ day of _____, 2007.

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

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

PART I
A. EFFLUENT LIMITS AND MONITORING REQUIREMENTS, Outfall 001

1. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated sanitary wastewater from outfall serial number **001** to Trout Brook. Such discharge shall be limited and monitored by the permittee as specified below. Samples taken in compliance with the monitoring requirements specified below shall be taken at a location that provides a representative analysis of the effluent.

Effluent Characteristic	**Units**	**Discharge Limitation**			**Monitoring Requirement**	
Parameter		**Average Monthly**	**Average Weekly**	**Maximum Daily**	**Measurement Frequency**	**Sample Type**
Flow	GPD	1500	----	3000	Continuous[1]	Meter
BOD_5[2]	mg/l lbs/day	30 0.375	45 0.563	---- ----	1/Week 1/Week	24-Hour Composite[3] 24-Hour Composite[3]
TSS[2]	mg/l lbs/day	30 0.375	45 0.563	---- ----	1/Week 1/Week	24-Hour Composite[3] 24-Hour Composite[3]
pH Range[4]	std units	≥ 6.5 and ≤ 8.3			1/Day	Grab
Dissolved Oxygen[4]	mg/l	≥ 6.0			1/Day	Grab
Fecal Coliform Bacteria[4, 5] (April 1 through October 31)	cfu/100 ml	200	----	400	1/Week	Grab
EColi Bacteria[4, 5] (April 1 through October 31)	cfu/100 ml	Report	----	Report	1/Week	Grab
Total Residual Chlorine[4, 6] (April 1 through October 31)	mg/l	0.053	----	0.091	1/Day	Grab

Effluent Characteristic	Units	Discharge Limitation			Monitoring Requirement	
Parameter		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Total Phosphorus, as P (April 1 through October 31)	mg/l	0.2	----	----	1/Month	24-Hour Composite[3]
Total Phosphorus, as P (November 1 through March 31)	mg/l	Report	----	----	1/Month	24-Hour Composite[3]
Total Ammonia, as N	mg/l	1	1	2	1/Week	24-Hour Composite[3]
(April 1 through October 31)	lbs/day	0.0125	0.0125	0.0250	1/Week	24-Hour Composite[3]
Copper, Total	µg/l	29		42	1/Quarter	24-Hour Composite[3]
Acute Whole Effluent Toxicity Testing[7, 8, 10]	%	Acute $LC_{50} \geq 100\%$			2/Year	Grab
Chronic Whole Effluent Toxicity Testing[7, 9, 10]	%	Chronic C-NOEC $\geq 21\%$			2/Year	24-Hour Composite[3]

Footnotes:

1. Record daily flows and report average monthly and maximum daily values.

2. Sampling required for influent and effluent in order to determine percent removal under part I.A.1.d.

3. A 24-hour composite sample will consist of at least eight (8) grab samples taken during a working day.

4. Required for State Certification.

5. Fecal coliform bacteria, E. coli bacteria, and total residual chlorine monitoring will be conducted from April 1 through October 31 only, to reflect seasonal disinfection. Fecal coliform discharges shall not exceed a monthly geometric mean of 200 colony forming units (cfu) per 100 ml, nor shall they exceed 400 colony forming units per 100 ml as a daily maximum.

6. The minimum level (ML) for total residual chlorine is defined as 20 µg/l. This value is the minimum level for chlorine using EPA approved methods found in the most currently approved version of Standard Methods for the Examination of Water and Wastewater, Method 4500 CL-E and G, or USEPA Manual of Methods of Analysis of Water and Wastes, Method 330.5. One of these methods must be used to determine total residual chlorine. Sample results of 20 ug/l or less shall be reported as zero on the discharge monitoring report.

7. The permittee shall conduct chronic (and modified acute) toxicity tests two times per year. 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 minnows, *Pimephales promelas*. Toxicity test samples shall be collected during the months of February, and August. The test results shall be submitted by the last day of the month following the completion of the test. The results are due March 31 and September 30, respectively. The tests must be performed in accordance with test procedures and protocols specified in **Attachment A** of this permit. The following table illustrates the schedule for whole effluent toxicity testing:

Test Dates:	**Submit Results By:**	**Test Species:**	**Acute Limit, (LC_{50}):**	**Chronic Limit, (C-NOEC):**
February August	March 31 September 30	*Ceriodaphnia dubia* (daphnid) *Pimephales promelas* (fathead minnows)	$\geq$ 100%	$\geq$ 21%

8. 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 (no dilution) 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 "21% or greater" limit is defined as a sample which is composed of 21% (or greater) effluent, the remainder being dilution water.

10. If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, the permittee shall either follow procedures outlined in **Attachment A (Toxicity Test Procedure and Protocol**) **Section IV., DILUTION WATER** in order to obtain an individual approval for use of an alternate dilution water, or the permittee shall follow the Self-Implementing Alternative Dilution Water Guidance which may be used to obtain automatic approval of an alternate dilution water, including the appropriate species for use with that water. This guidance is found in Attachment G of NPDES Program Instructions for the Discharge Monitoring Report Forms (DMRs) which is sent to all permittees with their annual set of DMRs and may also be found on the EPA, Region I web site at http://www.epa.gov/region1/enforcementandassistance/dmr.html. If this guidance is revoked, the permittee shall revert to obtaining individual approval as outlined in **Attachment A**. Any modification or revocation to this guidance 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**.

I.A.1. (Continued)

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

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

c. The effluent shall not contain visible oil sheen, foam, floating solids or settleable solids at any time.

d. The permittee's treatment facility shall maintain a minimum of 85 percent removal of both total suspended solids and biochemical oxygen demand. The percent removal shall be based on monthly average values.

e. The permittee shall minimize the use of chlorine while maintaining adequate bacterial control.

f. The results of sampling for any parameter done more often than its required frequency in accordance with EPA approved methods must also be reported.

2. In accordance with 40 Code of Federal Regulations (CFR) §122.42, 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 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 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) and Massachusetts regulations.

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 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) and Massachusetts regulations.

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.

3. No components of the effluent shall result in any demonstrable harm to aquatic life or violate any 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, with the permittee being so notified.

4. This permit shall be modified, or alternatively, 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.

5. Toxic Pollutants

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.

c. EPA or the Massachusetts Department of Environmental Protection (MassDEP) 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.

6. Operation and Maintenance

Operation and maintenance of the facilities shall be in compliance with the Part II standard conditions of this permit and the following terms and conditions:

a. Maintenance Staff

The permittee shall provide an adequate staff to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this permit.

b. Alternate Power Source

In order to maintain compliance with the terms and conditions of this permit, the permittee shall continue to provide an alternate power source with which to sufficiently operate its treatment works (as defined at 40 CFR §122.2).

7. Sludge Requirements

a. The permittee shall comply with all existing federal and state laws and regulations that apply to sewage sludge use and disposal practices and with the CWA Section 405(d) technical standards (see **Attachment B**).

b. The permittee shall comply with the more stringent of either the state or federal (40 CFR part 503), requirements.

c. The requirements and technical standards of 40 CFR part 503 apply to facilities which perform one or more of the following use or disposal practices:

i) Land application - the use of sewage sludge to condition or fertilize the soil

ii) Surface disposal - the placement of sewage sludge in a sludge-only landfill

iii) Sewage sludge incineration in a sludge-only incinerator

d. The 40 CFR part 503 conditions do not apply to facilities which place sludge within a municipal solid waste landfill. These conditions also do not apply to facilities which

do not dispose of sewage sludge during the life of the permit but rather treat the sludge (e.g., lagoons; reed beds), or are otherwise excluded under 40 CFR 503.6.

e. The permittee shall use and comply with the attached Sludge Compliance Guidance document **(Attachment B)** to determine appropriate conditions. Appropriate conditions contain the following elements:

   i. General requirements

   ii. Pollutant limitations

   iii. Operational Standards (pathogen reduction requirements and vector attraction reduction requirements)

   iv. Management practices

   v. Record keeping

   vi. Monitoring

   vii. Reporting

   Depending upon the quality of material produced by a facility, all conditions may not apply to the facility.

f. The permittee shall monitor the pollutant concentrations, pathogen reduction and vector attraction reduction at the following frequency. This frequency is based upon the volume of sewage sludge generated at the facility in dry metric tons per year:

Less than 290	1/ year
290 to less than1500	1 /quarter
1500 to less than 15000	6 /year
15000 +	1 /month

g. The permittee shall sample the sewage sludge using the procedures detailed in 40 CFR 503.8.

h. The permittee shall submit an annual report to EPA containing the information specified in the guidance by **February 19**. Reports shall be submitted to the address contained in the reporting section of the permit. Sludge monitoring is not required by the permittee when the permittee is not responsible for the ultimate sludge disposal. The permittee must be assured that any third party contractor is in compliance with appropriate regulatory requirements. In such case, the permittee is required only to submit an annual report by **February 19** containing the following information:

   i. Name and address of contractor responsible for sludge disposal

ii. Quantity of sludge in dry metric tons removed from the facility by the sludge contractor

I.B. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from the outfall listed in Part I A.1.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 Part II Standard Conditions of this permit (Twenty-four hour reporting).

I.C. 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 EPA and the MassDEP at the following addresses:

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

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

Signed and dated Discharge Monitoring Report Forms and toxicity test reports required by this permit shall also be submitted to the State at:

Massachusetts Department of Environmental Protection
Division of Watershed Management-2nd Floor
627 Main Street
Worcester, Massachusetts 01608

Additional monitoring and recordkeeping requirements are contained in Section C of the Part II Standard Conditions. Section C includes, but is not limited to, the requirements to record: the date, exact place, and time of sampling, measurements, and analyses; the individual(s) who performed the sampling, measurements, and analyses; the analytical techniques or methods used; and the results of such analyses. Section C of Part II also includes the requirements to retain

records of all monitoring information, including all data, for a period of at least 3 years from the date of the sample, measurement, report or application. Section C also notes the following exception to this requirement: sewage sludge use and disposal activities, which shall be retained for a period of at least 5 years (or longer as required by 40 CFR Part 503).

Additional reporting requirements are contained in Section D of the Part II Standard Conditions of this permit. Section D requires reporting of monitoring results on a Discharge Monitoring Report (DMR), as well as reporting within 24 hours of any noncompliance which may endanger health or the environment. Section D also requires reporting to EPA if a variety of conditions exist, including planned changes to the facility and anticipated or unanticipated noncompliance. This section also sets the signatory and public availability requirements of reports sent to EPA.

I.D. STATE PERMIT CONDITIONS

This discharge permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) under Federal and State law, respectively. As such, all the terms and conditions are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MassDEP 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.