

**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"),

Aquatic Research Organisms, Inc.

is authorized to discharge from the facility located at

**One Lafayette Road, Building #7
Hampton, New Hampshire 03843**

to receiving waters named

Taylor River (Hydrologic Unit Code: 01060003)

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

This permit will become effective on the first day of the calendar month immediately following sixty days after signature.*

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

This permit supersedes the permit issued on August 14, 2006 that became effective on November 1, 2006.

This permit consists of **Part I** (9 pages including effluent limitations and monitoring requirements); **Attachment A** (Marine Acute Toxicity Test Procedure and Protocol, September 1996, 10 pages); and **Part II** (25 pages including Standard Conditions).

Signed this day of

Stephen S. Perkins, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency (EPA)
Region I
Boston, Massachusetts

* Pursuant to 40 CFR 124.15(b)(3), if no comments requesting a change to the draft permit are received, the permit will become effective upon the date of signature.

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PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through expiration, the permittee is authorized to discharge from outfall number 002 to the tidal Taylor River. Such discharges 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 prior to mixing with any wastestreams authorized under NPDES permit number NH0022055.

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Average</u> <u>Monthly</u>	<u>Maximum</u> <u>Daily</u>	<u>Measurement</u> <u>Frequency</u>	<u>Sample</u> <u>Type</u>
Flow; MGD	0.007	0.012	Continuous	Recorder ¹
TSS; mg/l	Report	50 ²	1/Week ²	Grab ²
pH Range ³ ; Standard Units	6.5 to 8.0 (See I.E.1.a.)		1/Day	Grab
Fecal Coliform ^{3,4,5} ; Colonies/100 ml	14	Report	5/Week	Grab
Enterococci ^{3,4,5} ; Colonies/100 ml	Report	Report	2/Week	Grab
Total Residual Chlorine ⁶ ; mg/l	0.75	1.0	2/Day (when in use)	Grab
Whole Effluent Toxicity				
LC50 ^{7,8,9} ; Percent	---	100	1/Year	24 Hour Composite
Ammonia Nitrogen as N ¹⁰ ; mg/l	---	Report	1/Year	24 Hour Composite
Total Recoverable Cadmium ¹⁰ ; mg/l	---	Report	1/Year	24 Hour Composite
Total Recoverable Chromium ¹⁰ ; mg/l	---	Report	1/Year	24 Hour Composite
Total Recoverable Copper ¹⁰ ; mg/l	---	Report	1/ Year	24 Hour Composite
Total Recoverable Lead ¹⁰ ; mg/l	---	Report	1/ Year	24 Hour Composite
Total Recoverable Nickel ¹⁰ ; mg/l	---	Report	1/ Year	24 Hour Composite
Total Recoverable Zinc ¹⁰ ; mg/l	---	Report	1/ Year	24 Hour Composite

See page 3 for explanation of superscripts

EXPLANATION OF SUPERSSCRIPTS TO PARTS I.A.1.on page 2:

- (1) The effluent flow shall be continuously measured and recorded using a flow meter and totalizer.
- (2) Sampling must be conducted during a culture tank cleaning episode.
- (3) State certification requirement.
- (4) Fecal coliform and enterococci bacteria shall be sampled concurrently. The average monthly values for fecal coliform and enterococci bacteria shall be determined by calculating the geometric mean. Not more than 10 percent of the fecal coliform samples collected shall exceed a most probable number (MPN) of 43 colonies per 100 ml for a 5 tube decimal dilution test. All fecal coliform and enterococci bacteria data collected must be submitted with the Monthly Discharge Monitoring Reports (DMRs).
- (5) Fecal coliform testing shall be performed using Standard Methods for the Examination of Water and Wastewater (18th, 19th or 20th Edition), Method 9221 C E, 9221 C E-99, 9222 D or 9222 D-97, EPA Method – p. 124, or USGS Method B-0050-85. Enterococci testing shall be performed using EPA Method 1600, ASTM Method D6503-99 or the IDEXX Enterolert Method.
- (6) When chlorine is in use, total residual chlorine (TRC) shall be tested in outfall 002 using the low level Amperometric titration or the DPD spectrophotometric method. These methods are found in Standard Methods for the Examination of Water and Wastewater (18th, 19th or 20th Edition), Method 4500-Cl E and Method 4500-Cl G. The minimum level (ML) for total residual chlorine is defined as 20 ug/l. Sample results of 20 ug/l or less shall be reported as zero on the DMRs. Monitoring for fecal coliform and enterococci bacteria as described in footnotes (4) and (5) above shall be conducted concurrently with the monitoring for TRC, when chlorine is in use.
- (7) "LC50" is defined as the concentration of wastewater that causes mortality to 50 percent of the test organisms. The permit limit of 100 percent is defined as a sample composed of 100 percent effluent. This limit is a maximum daily limit.
- (8) The permittee shall conduct 48-hour acute toxicity tests using mysid shrimp (Mysidopsis bahia) and inland silverside (Menidia beryllina) (See Attachment A). This testing shall be performed in the third quarter (July, August, September) of each year and results should be submitted by October 15th.
- (9) This permit shall be modified, or alternatively, revoked and reissued to incorporate additional toxicity testing requirements, including chemical specific limits, if the results of the toxicity tests indicate the discharge causes an exceedance of any State water quality criterion. Results from these toxicity tests are considered "New Information" and the permit may be modified as provided in 40 C.F.R §122.62(a)(2).
- (10) For each toxicity test, the permittee shall report on the appropriate DMR the concentrations of ammonia-N as N and these six (6) metals (cadmium, chromium, copper, lead, nickel, and zinc)

found in the 100 percent effluent sample. Also, the permittee should note that all metals results must still be reported with the appropriate toxicity test report.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

2. The permittee shall notify EPA and the State within 24-hours upon the occurrence of a water quality induced mortality of greater than 25 percent in any aquatic species under culture at the facility in accordance with reporting requirements in Part II.D.1.e. This requirement applies only to cultures directly connected to the discharge.
3. The discharges shall not cause a violation of the water quality standards of the receiving water.
4. The permittee shall not discharge into the receiving water any pollutant or combination of pollutants in toxic amounts.
5. The discharges shall be adequately treated if necessary to ensure that the surface water remains free from pollutants in concentrations or combinations that settle to form harmful deposits or float as foam, oil & grease, debris, scum or other visible pollutants. Any necessary treatment shall ensure that the surface waters remain free from pollutants which produce odor, color, taste or turbidity in the receiving water which is not naturally occurring and would render it unsuitable for its designated uses.
6. All existing manufacturing, commercial, mining, and silvicultural 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 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 New Hampshire 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 New Hampshire 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.
7. The permittee must notify EPA-New England and the NHDES-WD when there is a “reportable failure” in (as defined immediately below), or damage to, the structure of an aquatic animal containment system (i.e. culture unit) or its wastewater treatment system that results in an unanticipated material discharge of pollutants to waters of the United States.
- A reportable failure applies to any active culture units and ancillary components (pipes, valves, plumbing fixtures or physical barriers that prevent water, sediment or settled solids from spilling.
8. In the event of a spill of drugs, feed or other products that results in a discharge to water of the United States, the permittee must provide an oral report of the spill to EPA-New England and the NHDES-WD within 24 hours of its occurrence and a written report within 5 days to the above Agencies. The report shall contain the identity and quantity of the material spilled.
9. 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.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

B. RESIDUALS

The permittee shall comply with all existing federal, state and local laws and regulations that apply to the reuse or disposal of industrial residuals such as those found in the culture tanks. These include but

are not necessarily limited to 40 CFR Section 257 and Env-Ws 800.

C. MONITORING AND REPORTING CONDITIONS

1. **For a period of one year from the effective date of the permit**, the permittee may either submit monitoring data and other reports to EPA in hard copy form or report electronically using NetDMR, a web-based tool that allows permittees to electronically submit Discharge Monitoring Reports (DMRs) and other required reports via a secure internet connection. **Beginning no later than one year after the effective date of the permit**, the permittee shall begin reporting using NetDMR, unless the facility is able to demonstrate a reasonable basis that precludes the use of NetDMR for submitting DMRs and reports. Specific requirements regarding submittal of data and reports in hard copy form and for submittal using NetDMR are described below:

- a. Submittal of Reports Using NetDMR

NetDMR is accessed from: <http://www.epa.gov/netdmr>. **Within one year of the effective date of this permit**, the permittee shall begin submitting DMRs and reports required under this permit electronically to EPA using NetDMR, unless the facility is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMRs and reports (“opt-out request”).

DMRs shall be submitted electronically to EPA no later than the 15th day of the month following the completed reporting period. All reports required under the permit shall be submitted to EPA as an electronic attachment to the DMR. Once a permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to EPA or to NHDES.

- b. Submittal of NetDMR Opt-Out Requests

Opt-out requests must be submitted in writing to EPA for written approval at least sixty (60) days prior to the date a facility would be required under this permit to begin using NetDMR. This demonstration shall be valid for twelve (12) months from the date of EPA approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to EPA unless the permittee submits a renewed opt-out request and such request is approved by EPA. All opt-out requests should be sent to the following addresses:

Attn: NetDMR Coordinator
U.S. Environmental Protection Agency, Water Technical Unit
5 Post Office Square, Suite 100 (OES04-4)
Boston, MA 02109-3912

And

Attn: Compliance Supervisor
New Hampshire Department of Environmental Services (NHDES)
Water Division
Wastewater Engineering Bureau
P.O. Box 95
Concord, New Hampshire 03302-0095

c. Submittal of Reports in Hard Copy Form

Monitoring results shall be summarized for each calendar month and reported on separate hard copy DMRs postmarked no later than the 15th day of the month following the completed reporting period. All reports required under the permit shall be submitted as an attachment to the DMRs. Signed and dated original DMRs and all other reports or notifications required herein or in Part II shall be submitted to the Director at the following address:

U.S. Environmental Protection Agency
Water Technical Unit (OES04-SMR)
5 Post Office Square - Suite 100
Boston, MA 02109-3912

Duplicate signed copies of all reports or notifications required above shall be submitted to the State at the following address:

New Hampshire Department of Environmental Services
Water Division
Wastewater Engineering Bureau
P.O. Box 95
Concord, New Hampshire 03302-0095

Any verbal reports, if required in **Parts I** and/or **II** of this permit, shall be made to both EPA-New England and to NHDES-WD.

D. SPECIAL CONDITIONS

1. Effluent diffusers shall be maintained when necessary to ensure proper operation. Proper operation means that the plumes from each port will be balanced relative to each other and that they all have unobstructed flow. Maintenance may include dredging in the vicinity of the diffuser, clean out of solids in the diffuser header pipe, removal of debris and repair/replacement of riser ports and pinch valves.
2. Any necessary maintenance dredging must be performed only during the marine construction season authorized by the New Hampshire Fish & Game Department and only after receiving all necessary permits from the NHDES Wetlands Bureau, U.S. Coast Guard, U.S. Army Corps of Engineers, etc.
3. To determine if maintenance will be required the permittee shall have a licensed diver or licensed

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marine contractor inspect and videotape the operation of the diffuser. In order to aid the videotaping of the outfall and to be able to identify effluent coming out of the diffuser, Rhodamine WT dye or similar product shall be added to the effluent during the dive inspection. The inspections and videotaping shall be performed in accordance with the following schedule.

- a. Every year if no pinch valves have been installed on the riser ports; or
- b. Every two years if pinch valves have been installed on the riser ports.

EPA and the NHDES-WD shall be contacted at least seven (7) days prior to the dive inspection.

4. Copies of a report summarizing the results of each diffuser inspection shall be submitted to EPA and NHDES WD within 60 days of each inspection. Where it is determined that maintenance will be necessary, the permittee shall provide the proposed schedule for the maintenance.

E. STATE PERMIT CONDITIONS

1. The permittee shall comply with the following conditions which are included as State Certification requirements.
 - a. The pH range of 6.5-8.0 standard units (S.U.) must be achieved in the final effluent unless the permittee can demonstrate to NHDES: (1) that the range should be widened due to naturally occurring conditions in the receiving water or (2) that the naturally occurring source water pH is unaltered by the permittee's operations. The scope of any demonstration project must receive prior approval from NHDES. In no case, shall the above procedure result in pH limits less restrictive than any applicable federal categorical effluent limitation guidelines regulations.
 - b. Aquatic Research Organisms is responsible for immediately notifying the New Hampshire Department of Environmental Services, Watershed Management Bureau, Shellfish Section of possible high bacteria/virus loading events from its facility. Such events include:
 - i. Any lapse or interruption of normal operation of the facility's effluent disinfection system, or other event that results in discharge of effluent that has not undergone full treatment as specified in the NPDES permit; or
 - ii. Daily flows in excess of the facility's maximum daily flow of 0.012 MGD; or
 - iii. Daily post-disinfection effluent sample results of greater than 43 fecal coliform cts/100ml. Notification shall also be made for instances where NPDES-required bacteria sampling is not completed, or where the results of such sampling are invalid.

Notification to the NHDES Shellfish Program shall be made using the program's 24-hour pager. Upon initial notification of a possible high bacteria/virus loading event, NHDES Shellfish Program staff will determine the most suitable interval for continued notification and updates on an event-by-event basis.

2. This NPDES Discharge Permit is issued by the U.S. Environmental Protection Agency under Federal and State law. Upon final issuance by the EPA, the NHDES may adopt this permit, including all terms and conditions, as a State permit pursuant to RSA 485-A:13.

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 the permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION I
FIVE POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

FACT SHEET

**DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES**

PUBLIC NOTICE START AND END DATES: April 6, 2012 – May 5, 2012

PUBLIC NOTICE NUMBER: NH-007-12

CONTENTS: 16 pages including Attachments A through C

NPDES PERMIT NO.: NH0022985

NAME AND ADDRESS OF APPLICANT:

Aquatic Research Organisms, Inc.
P.O. Box 1271
Hampton, New Hampshire 03843-1271

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Aquatic Research Organisms, Inc.
One Lafayette Road, Building #7
Hampton, New Hampshire 03843

RECEIVING WATERS:

Taylor River - Channel (Hydrologic Unit Code: 01060003)

CLASSIFICATION: B

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I. Proposed Action, Type of Facility and Discharge Location.

Aquatic Research Organisms, Inc. (ARO) cultures marine and freshwater aquatic invertebrate species and fish used in environmental and biological testing. The discharge to the Taylor River is through an outfall diffuser. The discharge (approximate average flow of 6,000 gallons per day) to the Taylor River consists of culture cooling water and culture water from the saltwater/groundwater intake. The culture water consists of flow through water, water from cleaning the culture systems, and water spilled while collecting the various species for shipment.

A private well serves as the source of fresh water and the Taylor River as the salt water. ARO first filters the intake waters and then disinfects using ultraviolet light (UV) prior to pumping to storage tanks and subsequent use in the culture systems. Filtering for freshwater consists of a sand filter, and ion exchange unit, and an activated carbon filter. Filtering of salt water consists of a high volume sand filter and an activated carbon filter. The combined salt and fresh water flows through this facility are disinfected using UV prior to discharge.

The previous permit was issued on August 14, 2006, became effective on November 1, 2006, and expired on October 31, 2011. The expired permit (hereafter referred to as the “2006 permit”) has been administratively extended as the applicant filed a complete application for permit reissuance as per 40 Code of Federal Regulations (CFR) §122.6. The 2006 permit authorizes discharge from Outfall 002. Outfall 002 is shared with EnviroSystems, Inc. (ESI) located adjacent to ARO; though the outfall is shared, each facility has a separate NPDES permit.

The location of the facility, Outfall 002 and the receiving water are shown in Attachment A.

II. Description of Discharge.

A quantitative description of significant effluent parameters based on discharge monitoring data (November 2006 through October 2011) is shown in Attachment B.

III. Limitations and Conditions.

This draft permit contains limitations for flow, total suspended solids, pH, fecal coliform, and total residual chlorine (when in use). In addition, a “report only” requirement for enterococci bacteria is included. The effluent limitations and monitoring requirements are found in Part I of the draft NPDES permit. The basis for each limit and condition is discussed in section IV of this fact sheet.

IV. Permit Basis and Explanation of Effluent Limitations Derivation

A. Background

The Clean Water Act (Act) prohibits the discharge of pollutants to waters of the United States without a National Pollutant Discharge Elimination System (NPDES) permit unless such a discharge is otherwise authorized by the Act. The NPDES permit is the mechanism used to implement technology and water-quality based effluent limitations and other requirements including monitoring and reporting. The draft NPDES permit was developed in accordance with various statutory and

regulatory requirements established pursuant to the Act and any applicable State administrative rules. The regulations governing EPA's NPDES permit program are generally found in 40 CFR Parts 122, 124, 125 and 136. Many of these regulations consist primarily of management requirements common to all permits.

EPA is required to consider technology and water quality-based requirements as well as all requirements/limitations in the 2006 permit when developing permit limits. Technology-based treatment requirements represent the minimum level of control that must be imposed under Sections 301(b) and 402 of the Act (See 40 CFR §125 Subpart A) to meet Best Practicable Control Technology Currently Available (BPT) for conventional pollutants and some metals, Best Conventional Pollution Control Technology (BCT) for conventional pollutants, and Best Available Technology Economically Achievable (BAT) for non-conventional and toxic pollutants. Technology guidelines (effluent limitations) for various industrial categories are found in 40 CFR §400-471, Subchapter N, Effluent Guidelines and Standards.

In the absence of published technology-based effluent guidelines, the permit writer is authorized under Section 402(a)(1)(B) of the Act to establish effluent limitations on a case-by-case basis using Best Professional Judgement (BPJ).

In general, all statutory deadlines for meeting various technology-based guidelines (effluent limitations) established pursuant to the Act have expired. For instance, compliance with publicly owned treatment works (POTW) technology-based effluent limitations is, effectively, from date of permit issuance (40 CFR §125.3(a)(1)). Those for non-POTW technology-based effluent limitations must be complied with as expeditiously as practicable but in no case later than three years after the date such limitations are established and in no case later than March 31, 1989 (40 CFR §125.3(a)(2)). Compliance schedules and deadlines not in accordance with the statutory provisions of the Act cannot be authorized by a NPDES permit.

EPA regulations require NPDES permits to contain effluent limits more stringent than technology-based limits where more stringent limits are necessary to maintain or achieve state or federal water-quality standards. A water-quality standard consists of three elements: (1) beneficial designated use or uses for a waterbody or a segment of a waterbody; (2) a numeric or narrative water-quality criteria sufficient to protect the assigned designated use(s); and (3) an antidegradation requirement to ensure that once a use is attained it will not be eroded. Receiving water requirements are established according to numerical and narrative standards in the state's water quality standards adopted under state law for each stream classification.

The proposed draft permit attempts to limit any pollutant or pollutant parameter (conventional, non-conventional, toxic and whole effluent toxicity) that is or may be discharged at a level that causes or has "reasonable potential" to cause or contribute to an excursion above any water-quality criterion. An excursion occurs if the projected or actual in-stream concentration exceeds the applicable criterion outside of a mixing zone.

In determining reasonable potential, EPA considers: (1) existing controls on point and non-point sources of pollution; (2) pollutant concentration and variability in the effluent and receiving water as determined from permittee's reissuance application, Monthly Discharge Monitoring Reports (DMRs), and State and Federal Water Quality Reports; (3) sensitivity of the species to toxicity

testing; (4) known water-quality impacts of processes on wastewaters; (5) statistical approach outlined in **Technical Support Document for Water Quality-based Toxics Control, March 1991, EPA/505/2-90-002** in Section 3; and, where appropriate, (6) dilution of the effluent in the receiving water. In accordance with State statutes and administrative rules [50 RSA 485-A:8, and Env-Wq 1705.02], available dilution for discharges to freshwater receiving waters is based on an estimated value of the 7 consecutive-day mean low flow at the 10-year recurrence interval (7Q10) for aquatic life or the mean annual flow for human health (carcinogens only) in the receiving water at the point of discharge. For discharges to marine/estuarine waters the available dilution is determined using hydrodynamic mixing zone modeling.

The draft permit may not be renewed, reissued, or modified with less stringent limitations or conditions than those conditions in the previous permit unless in compliance with the anti-backsliding requirement of the Act [See Sections 402(o) and 303(d)(4) of the Act and 40 CFR §122.44(l)(1 and 2)]. EPA's antibacksliding provisions prohibit the relaxation of permit limits, standards, and conditions unless certain conditions are met. Therefore, unless those conditions are met the limits in the reissued permit must be at least as stringent as those in the previous permit.

In addition, the draft permit must conform to the conditions established pursuant to a State Certification under Section 401 of the Act that meet the requirements of 40 CFR §124.53 and §124.55. EPA regulations pertaining to permit limits based upon water-quality standards and state requirements are contained in 40 CFR §122.44(d).

The conditions of the draft permit reflect the goal of the Act and EPA to achieve and then to maintain water quality standards. To protect the existing quality of the State's receiving waters, the New Hampshire Department of Environmental Services, Water Division (NHDES-WD) adopted Antidegradation requirements (Env-Ws 1708) in their NH Standards.

ARO is not considered a concentrated aquatic animal production facility according to the definition given in 40 CFR 122.24 because they are believed to be well under the threshold for fish production. However, EPA believes that this permit is sufficient to limit any pollutants of concern related to fish production. No national effluent limitation guidelines have been promulgated that cover a discharge of this type.

B. Flow and Conventional Pollutants

Flow

The current flow limits on this discharge are 10,000 gpd for Average Monthly and 15,000 gpd for Maximum Daily. These values were established using information provided by the applicant in 1997. These flow limits were established to represent the current and future operations at this facility. However, based upon information provided by the applicant in May 2011, the actual flow is much lower than these limits. Hence, the flow limits are being decreased to 7,000 gpd for Average Monthly and 12,000 gpd for Maximum Daily. Flow limits are necessary since water quality based permit limits are based on the assumption that the discharge will have a certain flow. Flow must be measured with a flow meter and recorded continuously.

ARO and ESI historically were two divisions under Millipore of New Hampshire. After Millipore's sale of the divisions, ARO and ESI were established as individual companies and

EPA-New England issued permits NH0022055 to ESI and NH0022985 to ARO. These permits reflect each applicant's discharge, even though these two facilities share a common outfall pipe (002). Although the flow limit in this permit reissuance for ARO is decreasing from 10,000 gpd to 7,000 gpd, the maximum allowable monthly average flow from ESI is increasing from 4,000 gpd to 7,000 gpd. Hence, the total maximum allowable monthly average flow from Outfall 002 (14,000 gpd) and the available dilution for these facilities remain the same as in the 2006 permit (see section on "Available Dilution" below).

Total Suspended Solids (TSS)

The 2006 permit includes a maximum daily TSS limit of 50 mg/l and requires weekly monitoring. Over the period of November 2006 - October 2011, TSS concentrations have ranged from 0 mg/l to 56 mg/l with an average of 13.36 mg/l (see Attachment C). Weekly monitoring and a maximum daily limit of a 50 mg/l have been retained in the draft permit. This maximum daily limit is intended to protect the Taylor River from TSS concentrations that could form objectionable benthic deposits in the vicinity of the discharge. TSS concentrations are expected to be at their highest during the cleaning of the culture tanks; therefore, a grab sample taken during cleaning activity is required. TSS and all other samples must be collected by ARO at a location prior to mixing with the discharge from ESI.

Bacteria

New Hampshire State statute N.H. RSA 485-A:8,V. specifies that the bacteria standard shall be "...as recommended under the National Shellfish Program Manual of Operation, United States Department of Food and Drug Administration." This standard applies to facilities which discharge into tidal waters used for growing or taking of shellfish for human consumption, and therefore applies to ARO. The recommended criteria for fecal coliform bacteria is 14 colonies per 100 milliliters and includes a condition that "...not more than 10 percent of the collected samples to exceed a Most Probable Number (MPN) of 43 per 100 milliliters for a 5-tube decimal dilution test."

N.H. RSA 485-A:8,V. also requires enterococci bacteria limits for discharges to "tidal waters utilized for swimming purposes." The recommended criteria for enterococci bacteria is that the water should contain "... not more than either a geometric mean based on at least 3 samples obtained over a 60-day period of 35 colonies per 100 milliliters in any one sample unless naturally occurring."

The draft permit includes compliance monitoring frequency for fecal coliform five times per week (5/week), and two times per week (2/week) for enterococci bacteria. These monitoring frequencies are the same as the 2006 permit.

The draft permit also contains a state permit condition to notify the New Hampshire Department of Environmental Services, Watershed Management Bureau, Shellfish Section whenever there is an upset or bypass of the disinfection system.

pH

NHDES requires that pH limits be satisfied at end-of-pipe with no allowance for dilution. The limit for pH is based upon State Certification Requirements and RSA 485-A:8.I. which requires that Class B waters maintain a pH range of 6.5 to 8.0, except when due to natural causes. The

draft permit limits for pH are the same as the limits in the existing permit. If the applicant can demonstrate (see Part I.E.1.a. of the draft permit) to the satisfaction of NHDES that the in-stream standard will be protected when the discharge is outside of the permitted range, then they or NHDES-WD may request (in writing) that the permit limits be modified by EPA to incorporate the results of the demonstration. EPA will notify the permittee and the NHDES-WD if it concurs with the results.

The compliance monitoring frequency for pH is daily, the same as in the 2006 permit. This frequency conforms to the latest version of **EPA/NHDES-WD's Effluent Monitoring Guidance (EMG)** mutually agreed upon and first implemented in March 1993 and last revised on July 19, 1999. The analytical method for pH requires that the sample type be a grab.

C. Available Dilution and Nonconventional and Toxic Pollutants

Water quality-based limits for specific pollutants such as chlorine or metals are determined from chemical specific numeric criteria derived from extensive scientific studies. The specific toxic pollutants and their associated toxicity criteria are known as the "Gold Book Criteria" which EPA published in **Quality Criteria for Water, 1986, (EPA 440/5-86-001 as amended)**. The State of New Hampshire adopted these "Gold Book Criteria" with certain exceptions, and included them as part of the NH Standards. EPA uses these pollutant specific criteria and available dilution in the receiving water to determine a specific pollutant's draft permit limit.

Available Dilution

Available dilution in the receiving water for outfall 002, as discussed in the 2006 permit, was determined to be:

- 97.9 (maximum daily flow); and
- 100 (monthly average flow).

Outfall 002 is a multiport diffuser located on the river bottom near the middle of the tidal Taylor River. The diffuser was designed using the Cornell Mixing Zone Expert System (CORMIX), to account for re-entrainment of a previously discharged plume such as that which occurs in tidally reversing rivers.

The worst case acute and chronic dilutions predicted by CORMIX occurred 15 minutes after the spring low tide. The multiport diffuser outfall supports both ARO and the discharge permitted under NPDES permit number NH0022055 (ESI). A flow of 14,000 gallons/day, the combined maximum allowable monthly average flow from ARO and ESI, was used for the modeling and remains the combined allowable flow in the current reissuance of these permits. Based on this, the chronic (monthly average) dilution factor will remain the same as above. The maximum allowable daily flow from the two facilities is also maintained at a total of 19,000 gallons/day. Based on this, the acute (maximum daily) dilution factor will also remain the same as above. However, there are not any maximum daily water quality-based limits in the draft permit.

Outfall diffusers are mechanical structures that will require periodic maintenance. If they are not working as designed, the available dilution upon which permit limitations are based may not be achieved. Further, the reasonable potential calculations that are used to determine if a permit limit is necessary may be in error. Either of these situations could lead to violations of the NH standards. Accordingly, NHDES and EPA-New England have included a permit condition that requires periodic inspections and any necessary maintenance of the diffuser pursuant to 40 CFR 122.41(3), “*Proper operation and maintenance*”.

Total Residual Chlorine

ARO uses an ultraviolet (UV) disinfection system for all of its process water and effluent. In the event of a malfunction of the UV unit, ARO may use chlorine as an alternative disinfection method. Therefore, total residual chlorine (TRC) is limited in outfall 002. Since it is not normally used, however, the draft permit requires monitoring twice daily only when chlorine is being used. This frequency is consistent with the EPA/NHDES Effluent Monitoring Guidance described above. The monthly average numeric limitation included in the draft permit was derived using the monthly average dilution factor of 100 and the chronic marine water quality standard for chlorine. The maximum daily limitation of 1.0 is the same as in the existing permit and was derived using Best Professional Judgment (BPJ) under the authority granted in Section 402(a)(1) of the Act and 40 CFR 125.3. This is consistent with antibacksliding regulations.

Formaldehyde

ARO uses a Formalin product (such as Paracide-F, Formalin-F or Parasite-S) which contains approximately 37% by weight formaldehyde gas. The formalin product is used for the therapeutic treatment of fungal infections on the eggs of finfish and to control certain external protozoa and monogenetic trematodes of all finfish species. This means that Formalin is more toxic to the invertebrate species than to vertebrates, for it is formulated to selectively kill certain attached organisms, but not the finfish themselves when properly applied. Therefore, when setting the necessary permit limits to protect the receiving water’s aquatic environment from the effects of Formalin in a discharge, it is more important to develop limits to protect invertebrates species over the vertebrates species, for the former are more sensitive to the effects of Formalin’s active ingredient (formaldehyde).

Formalin use should be consistent with U.S. Food and Drug Administration (FDA) labeling instructions as per 21 CFR Section 529.1030. Existing toxicity data indicates that formalin is toxic to aquatic organisms at concentrations below FDA labeling guidelines. Currently there are no acute and chronic aquatic life criteria for either Formalin or formaldehyde in the NH Standards. However, New Hampshire law states that, “all surface waters shall be free from toxic substances or chemical constituents in concentrations or combination that inure or are inimical to plants, animals, humans, or aquatic life;...” (N.H. RSA 485-A:8, VI and the N.H. Code of Administrative Rules, PART Env-Wq 1703.21(a)(1)). Therefore, in the absence of specific Formalin or formaldehyde aquatic life and chronic criteria in the NH Standards, EPA-New England has decided to impose formaldehyde limits in the draft permit based on acute and chronic aquatic life criteria taken from the Derivation of Ambient Water Quality Criteria for Formaldehyde (Hohreiter, D.W. and Rigg, D.K., *Journal of Science for Environmental Technology in Chemosphere*, Vol. 45, Issues 4-5, November 2001, pgs 471-486). EPA-New England believes that since these criteria were developed in accordance with the United States Environmental Protection Agency’s (U.S. EPA’s) *Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic*

Organisms and Their Uses they are appropriate for use in limit setting purposes. From that publication, the acute (maximum daily) and chronic (average monthly) aquatic-life criteria for formaldehyde are 4.58 and 1.61 mg/l, respectively. Because available dilution in the Taylor River is 97.9 and 100 for the acute and chronic aquatic-life criteria respectively, the limits in the draft permit would be 448 mg/L and 161 mg/L respectively.

The permittee sampled its effluent quarterly for formaldehyde between January 2007 and March 2009. Of these 9 samples, only 2 detected formaldehyde with a maximum value of 0.37 mg/l. Because these results are well below both acute and chronic formaldehyde criteria, there is no reasonable potential that this discharge would cause or contribute to an exceedence of the criteria; hence, no limit or monitoring requirement has been included in the draft permit.

D. Whole Effluent Toxicity

EPA's recently published **Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001, March 1991**, recommends using an "integrated strategy" containing both pollutant (chemical) specific approaches and whole effluent (biological) toxicity approaches to control toxic pollutants in effluent discharges from entering the nation's waterways. EPA-New England adopted this "integrated strategy" on July 1, 1991, for use in permit development and issuance. These approaches are designed to protect aquatic life and human health. Pollutant specific approaches such as those in the Gold Book and State regulations address individual chemicals, whereas, whole effluent toxicity (WET) approaches evaluate interactions between pollutants thus rendering an "overall" or "aggregate" toxicity assessment of the effluent. Furthermore, WET measures the "Additivity" and/or "Antagonistic" effects of individual chemical pollutants which pollutant specific approaches do not, thus the need for both approaches. In addition, the presence of an unknown toxic pollutant can be discovered and addressed through this process.

Section 101(a)(3) of the Act specifically prohibits the discharge of toxic pollutants in toxic amounts and State law N.H. RSA 485-A:8, VI and the N.H. Code of Administrative Rules, PART Env-Wq 1700 states that, "all classes of waters shall be free from toxic pollutants or chemical constituents in concentrations or combination that injure or are inimical to plants, animals, humans, or aquatic life;". NPDES regulations under 40 CFR §122.44(d)(1)(v) require WET limits in a permit when a discharge has a "reasonable potential" to cause or contribute to an excursion above the State's narrative criterion for toxicity.

In the 2006 permit, EPA-New England believed there was "reasonable potential" to cause an excursion of the no toxics provision in the State's regulations based on data from the permit application and the fact that the discharge contained several toxic pollutants.

The 1998 permit was conditioned for ARO to conduct a one-time pass/fail toxicity test, and if the pass/fail test was unsuccessful, quarterly acute toxicity testing was required. As a special condition of the 1998 permit, the frequency of testing could be reduced by a certified letter from EPA-New England upon written request by the permittee. Accordingly, the 1998 permit was modified in March 2001 to reduce toxicity testing to one time per year. The requirement for once per year toxicity testing has been carried forward to the current draft permit.

An analysis of the facilities WET reports shows consistent compliance with the LC50 limit of 100%. From 2007 to 2011, each annual test (5 total) was reported as 100% (See Attachment B).

E. Essential Fish Habitat and Endangered Species

Essential Fish Habitat

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104267), established a new requirement to describe and identify (designate) “essential fish habitat” (EFH) in each federal fishery management plan. Only species managed under a federal fishery management plan are covered. Fishery Management Councils determine which areas will be designated as EFH. The Councils have prepared written descriptions and maps of EFH, and include them in fishery management plans or their amendments. EFH designations for New England were approved by the Secretary of Commerce on March 3, 1999.

The 1996 Sustainable Fisheries Act broadly defined essential fish habitat as “waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.” Waters include aquatic areas and their associated physical, chemical, and biological properties. Substrate includes sediment, hard bottom, and structures underlying the waters. Necessary means the habitat required to support a sustainable fishery and the managed species contribution to a healthy ecosystem. Spawning, breeding, feeding, or growth to maturity covers all habitat types utilized by a species throughout its life cycle. Adversely affect means any impact which reduces the quality and/or quantity of EFH. Adverse effects may include direct (i.e. contamination, physical disruption), indirect (i.e. loss of prey), site specific or habitat wide impacts including individual, cumulative, or synergistic consequences of actions.

According to the Guide to Essential Fish Habitat Designations in the Northeastern United States; Volume 1: Maine and New Hampshire (March 1999), EFH has been designated for the following species associated with the Taylor River.

Species	Eggs	Larvae	Juveniles	Adults
Atlantic cod (<i>Gadus morhua</i>)	X	X	X	X
haddock (<i>Melanogrammus aeglefinus</i>)			X	
pollack (<i>Pollachius virens</i>)			X	
whiting (<i>Merluccius bilnearis</i>)	X	X	X	X
red hake (<i>Urophycis chuss</i>)	X	X	X	X
redfish (<i>Sebastes fasciatus</i>)	n/a	X	X	X
winter flounder (<i>Pleuronectes americanus</i>)	X	X	X	X
yellowtail flounder (<i>Pleuronectes ferruginea</i>)			X	X
windowpane flounder (<i>Scophthalmus aquosus</i>)			X	X

American plaice (<i>Hippoglossoides platessoides</i>)			X	X
ocean pout (<i>Macrozoarces americanus</i>)	X	X	X	X
Atlantic halibut (<i>Hippoglossus hippoglossus</i>)	X	X	X	X
Atlantic sea scallop (<i>Placopecten magellanicus</i>)	X	X	X	X
Atlantic sea herring (<i>Clupea harengus</i>)			X	X
monkfish (<i>Lophius americanus</i>)	X	X	X	X
long finned squid (<i>Loligo pealei</i>)	n/a	n/a	X	X
short finned squid (<i>Illex illecebrosus</i>)	n/a	n/a	X	X
Atlantic butterfish (<i>Peprilus triacanthus</i>)	X	X	X	X
Atlantic mackerel (<i>Scomber scombrus</i>)	X	X	X	X
summer flounder (<i>Paralichthys dentatus</i>)				X
scup (<i>Stenotomus chrysops</i>)	n/a	n/a	X	X
black sea bass (<i>Centropristus striata</i>)	n/a			
surf clam (<i>Spisula solidissima</i>)	n/a	n/a	X	X
ocean quahog (<i>Artica islandica</i>)	n/a	n/a		
spiny dogfish (<i>Squalus acanthias</i>)	n/a	n/a		
bluefin tuna (<i>Thunnus thynnus</i>)				X

The notation “n/a” indicates some of the species either have not data available on the designated lifestages, or those lifestages are not present in the species’ reproductive cycle.

The conditions, limitations, and monitoring requirements contained in this draft permit are designed to be protective of all aquatic species in the Taylor River. Accordingly, it is EPA’s opinion that adverse impacts to EFH for the species listed above have been minimized to the extent that they are negligible and that no additional mitigation is warranted. If adverse affects to EFH do occur as a result of this permit action, or if new information changes the basis for this conclusion, then NMFS will be notified and consultation will be reinitiated.

Endangered Species

The Endangered Species Act (16 U.S.C. 1451 et seq.), Section 7, requires the EPA to ensure, in consultation with the U.S. Fish and Wildlife Service (USFWS) and/or NOAA Fisheries, as appropriate, that any action authorized by EPA is not likely to jeopardize the continued existence of any endangered or threatened species, or adversely affect its critical habitat.

NOAA Fisheries was contacted to determine whether or not endangered or threatened species are present in the Taylor River. Ms. Christine Vaccaro (NOAA Fisheries Biologist, contacted 2/29/2012) stated that there was a low probability that transiting species, such as shortnose sturgeon, Atlantic sturgeon or sea turtles, would be present in the vicinity of the discharge. However, should

there be any incidental contact of the highly diluted discharge with these species in the Taylor River, EPA believes that this draft permit would preclude any adverse effects for the following reasons.

- The permit prohibits the discharge to cause a violation of State water quality standards.
- The discharge has a high dilution factor (100:1).
- The permit contains water quality-based limits for total residual chlorine.
- The permit prohibits the discharge of pollutants or combinations of pollutants in toxic amounts.
- The permit requires toxicity testing once per year to ensure that the discharge does not present toxicity problems.

EPA believes the proposed limits are sufficiently stringent to assure that water quality standards will be met and to ensure protection of aquatic life and maintenance of the receiving water as an aquatic habitat. The Region finds that adoption of the proposed permit is unlikely to adversely affect any threatened or endangered species or its critical habitat. If adverse effects do occur as a result of this permit action, or if new information becomes available that changes the basis for this conclusion, then EPA will notify and initiate consultation with the USFWS and/or NOAA Fisheries, as appropriate.

F. Additional Requirements and Conditions

The effluent monitoring requirements in the draft permit have been established to yield data representative of the discharge under the authority of Section 308(a) of the Act in accordance with 40 CFR §122.41(j), §122.44(i) and §122.48.

The remaining conditions of the permit are based on the NPDES regulations 40 CFR, Parts 122 through 125, and consist primarily of management requirements common to all permits.

V. Antidegradation

This draft permit is being reissued with an allowable wasteload identical to the 2006 permit. The parameter coverage has changed slightly to remove the formaldehyde monitoring requirement. Since the State of New Hampshire has indicated there will no lowering of water quality and no loss of existing uses, no additional antidegradation review is warranted.

VI. State Certification Requirements

EPA may not issue a permit unless the State Water Pollution Control Agency with jurisdiction over the receiving water(s) either certifies that the effluent limitations contained in the permit are stringent enough to assure that the discharge will not cause the receiving water to violate State Water Quality Standards or waives its right to certify as set forth in 40 CFR §124.53. The only exception to this is that sludge conditions/requirements are not part of the Section 401 State Certification. The staff of the New Hampshire Department of Environmental Services, Water Division (certifying authority), has reviewed the draft permit and advised EPA that the limitations are adequate to protect water quality. EPA has requested permit certification by the State and expects that the draft permit will be certified. Regulations governing state certification are set forth

in 40 CFR §124.53 and §124.55.

VII. Comment Period, Hearing Requests, and Procedures for Final Decisions

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period to: **Mr. Michael Cobb, U.S. Environmental Protection Agency, Region 1 (New England), 5 Post Office Square - Suite 100, Mail Code OEP06-1, Boston, MA 02109-3912.** Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to EPA-New England and the State Agency. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty days public notice whenever the Regional Administrator finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit, the Regional Administrator will respond to all significant comments and make these responses available to the public at EPA-New England's Boston office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Regional Administrator will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice.

VIII. EPA Contact

Additional information concerning the draft permit may be obtained between the hours of 9:00 a.m. and 5:00 p.m. (8:00 a.m. and 4:00 p.m. for the state), Monday through Friday, excluding holidays from:

**Mr. Michael Cobb, Environmental Engineer
U.S. Environmental Protection Agency
Office of Ecosystem Protection
5 Post Office Square
Suite 100, Mail Code: OEP06-1
Boston, Massachusetts 02109-3912
Telephone No.: (617) 918-1369
FAX No.: (617) 918-0369**

4/2/2012

Date:

**Stephen S. Perkins, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency**

ATTACHMENT A

OUTFALL LOCATION MAP



Photo taken 4/11/98 and obtained through www.terraserver.microsoft.com.

ATTACHMENT B

CONCENTRATIONS OF EFFLUENT CHARACTERISTICS AT OUTFALL 002

The following effluent characteristics were derived from analysis of discharge-monitoring data collected from Outfall 002 during the period from November 2006 through October 2011. All these data were extracted from the monthly Discharge Monitoring Reports submitted by Aquatic Research Organisms, Inc. These effluent values characterize culture flow through effluent discharged from this facility.

Effluent Characteristic	Average of Average Monthly	Range of Average Monthly	Range of Maximum Daily
Flow (MGD)	0.0023	0.0015 - 0.0035	0.003 - 0.008
TSS (mg/l)	13.36	0 - 56	0 - 120
pH (S.U.)	-----	-----	6.76 – 8.0
Total Residual Chlorine (mg/L)	None used	None used	None used
Fecal Coliform (#/100 mL)	0.425	0.03 - 2.34	1 – 2352
Enterococci (#/100 mL)	0.68	0 – 6.02	0 - 189
Formaldehyde (mg/L)	-----	-----	0 - 0.37

Whole Effluent Toxicity (LC50 in % Effluent) (Acute)	
Species	Range of LC50
<i>Americamysis bahia</i>	100% - 100%
<i>Menidia beryllina</i>	100% - 100%

Metals Data Summary from Annual WET Testing (3 rd quarter of each year, 2007-2011)					
	Cadmium	Copper	Lead	Nickel	Zinc
	DAILY MX	DAILY MX	DAILY MX	DAILY MX	DAILY MX
	mg/L	mg/L	mg/L	mg/L	mg/L
Maximum	0.	0.038	0.001	0.007	0.051
Average	0.	0.016	0.0004	0.002	0.028

ATTACHMENT C

CALCULATIONS OF MASS-BASED LIMITS

Equation used to calculate monthly average and maximum daily Total Residual Chlorine limit:

$$\text{Chlorine Limit} = \text{Dilution Factor} \times \text{water quality standard}$$

where:

Marine water quality standards for chlorine are

- 0.0075 mg/l (Chronic)
- 0.013 mg/L (Acute)

Dilution factors are 97.9 for Acute and 100 for Chronic.

NEW HAMPSHIRE DEPARTMENT OF
ENVIRONMENTAL SERVICES
WATER DIVISION
P.O. BOX 95
CONCORD, NEW HAMPSHIRE 03302-0095

U.S. ENVIRONMENTAL PROTECTION
AGENCY
OFFICE OF ECOSYSTEM PROTECTION
REGION I
BOSTON, MASSACHUSETTS 022030001

JOINT PUBLIC NOTICE OF A DRAFT NATIONAL POLLUTANT DISCHARGE
ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE INTO THE WATERS OF
THE UNITED STATES UNDER SECTIONS 301 AND 402 OF THE CLEAN WATER ACT
(THE "ACT"), AS AMENDED, AND REQUEST FOR STATE CERTIFICATION UNDER
SECTION 401 OF THE ACT, AND ISSUANCE OF A STATE SURFACE WATER PERMIT
UNDER NH RSA 485-A:13, I(a).

DATE OF NOTICE: April 6, 2012–May 5, 2012

PERMIT NUMBER: **NH0022985**

PUBLIC NOTICE NUMBER: **NH-007-12**

NAME AND MAILING ADDRESS OF APPLICANT:

Aquatic Research Organisms, Inc.
c/o Stanley Sinitski, President
P.O. Box 1271
Hampton, New Hampshire 03843

NAME AND LOCATION OF FACILITY WHERE DISCHARGE OCCURS:

Aquatic Research Organisms, Inc.
One Lafayette Road, Building #7
Hampton, New Hampshire 03843

RECEIVING WATER: Taylor River

RECEIVING WATER CLASSIFICATION: Class B

PREPARATION OF THE DRAFT PERMIT:

The U.S. Environmental Protection Agency (EPA) and the New Hampshire Department of Environmental Services, Water Division have cooperated in the development of a draft permit for the above identified facility. The effluent limits and permit conditions imposed have been drafted to assure that State Water Quality Standards and provisions of the Clean Water Act will be met. EPA has formally requested that the State certify the draft permit pursuant to Section 401 of the Clean Water Act and expects that the draft permit will be certified.

INFORMATION ABOUT THE DRAFT PERMIT:

A fact sheet (describing the type of facility; type and quantities of wastes; a brief summary of the basis for the draft permit conditions; and significant factual, legal and policy questions considered in preparing this draft permit) and the draft permit may be obtained at no cost at http://www.epa.gov/region1/npdes/draft_permits_listing_ma.html or by writing or calling EPA's contact person named below:

Michael Cobb
U.S. Environmental Protection Agency–Region 1
5 Post Office Square, Suite 100 (OEP06-1)
Boston, MA 02109-3912
Telephone: (617) 918-1369

The administrative record containing all documents relating to the draft permit is on file and may be inspected at the EPA Boston office mentioned above between 9:00 a.m. and 5:00 p.m., Monday through Friday, except holidays.

PUBLIC COMMENT AND REQUEST FOR PUBLIC HEARING:

All persons, including applicants, who believe any condition of the draft permit is inappropriate, must raise all issues and submit all available arguments and all supporting material for their arguments in full by **May 5, 2012**, to the U.S. EPA, 5 Post Office Square, Boston, Massachusetts 02109-3912. Any person, prior to such date, may submit a request in writing to EPA and the State Agency for a public hearing to consider the draft permit. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty days public notice whenever the Regional Administrator finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit, the Regional Administrator will respond to all significant comments and make these responses available to the public at EPA's Boston office.

FINAL PERMIT DECISION:

Following the close of the comment period, and after a public hearing, if such hearing is held, the Regional Administrator will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice.

HARRY T. STEWART, P.E., DIRECTOR
WATER DIVISION
NEW HAMPSHIRE DEPARTMENT OF
ENVIRONMENTAL SERVICES

STEPHEN S. PERKINS, DIRECTOR
OFFICE OF ECOSYSTEM PROTECTION
U.S. ENVIRONMENTAL PROTECTION
AGENCY - REGION I