STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
PERMITTING & ENFORCEMENT DIVISION
79 ELM STREET
HARTFORD, CT 06106-5127

Wastewater Discharge Permit Compliance Information Package

Amey W. Marrella, Commissioner

Revised only to reflect current contact information on February 2, 2021

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July 11, 1996

Dear Sir/Madam:

This Compliance Information Package is designed to help you comply with your permit so that the waters of the state remain clean, and so you can avoid costs associated with violations, including remediation costs and any penalties.

This package is designed to help you become familiar with the key provisions of both your permit and the permit regulations. We have provided information on those requirements that permittees frequently violate and some suggestions on how to avoid those violations. We have included guidance on what to expect when we arrive to inspect your facility and how to respond if you receive a Notice of Violation (NOV) following such an inspection. We have also included information concerning the DEEP staff who will be dealing with you as you operate under this permit so you are more familiar with us and our needs in regulating the discharges under your permit. Lastly, we have provided you with helpful information, and sources of other information, regarding pollution prevention opportunities you can use to further reduce your compliance costs.

If you have any questions on any aspect of your permit, need copies of the regulations or statutes, or have any suggestions on how we can provide other compliance assistance, please call us at one of the numbers in this package. We are committed to working with you to ensure that you stay in compliance with your permit. It makes both our jobs easier and helps keep Connecticut a good place to live and do business.

Thank you again for helping us keep Connecticut's waters clean.

Sincerely,

OZZIE INGLESE

Director
Permitting and Enforcement Division
Bureau of Materials Management and Compliance Assurance

Wastewater Discharge Permit Compliance Information Package

Table of Contents

Section 1. General Advice on How to Maintain Compliance with Your Permit

Please understand that this package is only a summary of key information and requirements that apply to your permit, taken in part from the permit regulations [Sections 22a-430-3 and 4 of the Regulations of Connecticut State Agencies (RCSA)], and the Connecticut General Statutes (CGS). *In operating under your permit, it is your obligation to be familiar with all applicable requirements of the permit. You should refer to the permit and CGS Sections 22a-430 and RCSA Section 22a-430-3, 4, 6 and 7 for a complete understanding of all requirements that apply to your facility. This guide is not a substitute for a thorough review of your permit and applicable laws. In the event there is a discrepancy between this document and either your permit or the applicable statutes and regulations, the statutes, regulations and your permit control. Remember it is your responsibility to comply with your permit.*

(a) Introduction

You are required to comply with *all* provisions of your permit at all times. Please take the time to carefully read your permit, then refer to this guidance. If you still have questions, please call the Department of Energy and Environmental Protection (DEEP). You should pay special attention to the effluent limitations, monitoring requirements, reporting and notification requirements, any compliance schedules that may be included (not all permits include these), prohibitions against certain practices, such as bypasses, limitations on the type of wastewater you can discharge and requirements regarding the method of control or operation of any collection and treatment facilities you may have. Additional guidance regarding some of these requirements is found later in this document. Your permit states both explicitly and by reference the terms and conditions under which you are authorized to discharge. Requirements incorporated by reference are equally important and as enforceable as those found explicitly in the permit.

You are also required to monitor the activities associated with your discharge. Your permit requires that certain information be regularly submitted to the DEEP and that other records including monitoring, operations and maintenance data be retained on-site and submitted upon request. You are expected to maintain constant compliance with your permit. In the event that you have, or suspect you may have a violation, malfunction, or certain other problems related to your treatment system, discharge or other related areas, you are also required to notify the DEEP and provide certain information. Note: You are under an obligation to submit this information *regardless of whether we explicitly request it*. In some cases where a discharge is directed to a local sewage treatment plant, notification of local officials is also required.

(b) Effluent Limitations

Under your permit you are authorized to discharge: (A) pollutants in quantities and concentrations as specified in the permit; and (B) those listed substances resulting from the processes or activities described in the permit application, and any other substances or materials from such processes or activities, in quantities and concentrations which the commissioner determines cannot reasonably be expected to cause pollution and will not adversely affect the operation of any Publicly Owned Treatment Works (POTW). The discharge of a listed substance in excess of the level specified in the application, or discharge of any substance which is not

listed on the permit or in Appendix B or D of the permit regulations (RCSA Section 22a-430-4) but results from processes or activities described in the permit application, shall not be deemed to be a permit violation or result in a forfeiture if such newly determined substance or increase resulted from a process or activity described in the permit application. However, the commissioner may seek an injunction or issue an order and may seek criminal penalties against a permittee who willfully or with criminal negligence causes or threatens pollution. (See RCSA Section 22a-430-3(d), *Effect of a Permit*.)

Therefore, although RCSA Section 22a-430-3(d) provides some latitude with respect to the types of materials which may be present in your discharge, *it is in your best interest to identify as fully as possible all substances present at your facility which could potentially enter a discharge authorized by your permit.* Such identification should be made in your permit application or in subsequent correspondence to the DEEP upon your becoming aware of the potential to discharge a new substance or increase the concentration of an existing substance beyond the level indicated in the permit application. Mandatory notification requirements for making process and material changes are specified later in this document. *Note that the discharge of any Appendix B or D substance not listed in your permit application may require prior written approval and permit modification.*

If you are unsure as to whether the discharge of any particular substance is authorized, you should contact the DEEP for clarification. Please ask for the engineer or supervisor familiar with your facility, or speak to the Engineer of the Day at 860-424-3018.

(c) Monitoring

You are required to monitor your discharge(s) in accordance with the terms and conditions of your permit. The specific monitoring requirements for each discharge are noted separately under each discharge serial number (DSN). Measurements and samples must be taken as specified in your permit. Appropriate collection, preservation and analytical procedures are detailed in Title 40, Part 136 of the Code of Federal Regulations (40 CFR Part 136) (See also Section 5. Sample Collection and Documentation of this package). Monitoring equipment for verifying compliance with the permit limitations shall be as approved by the commissioner. If you monitor any discharge more frequently than required by the permit using test procedures approved under the federal regulations 40 CFR Part 136 or specified in the permit, the results must be included in the calculation and reporting of the data in the monitoring report [See RCSA Section 22a-430-3(j)(6)]. DEEP may from time to time alter your monitoring requirements at your request or to meet changing conditions and department objectives, for example, to accommodate changes in the federal regulations. In the event that monitoring changes are necessary, you will be notified and your permit will be modified as needed in accordance with applicable regulations.

(d) Referenced Approvals, etc.

All wastewater discharged from your facility must be collected and discharged in accordance with your permit application and all permits and approvals issued by this department. Letters, reports and other documentation submitted in relation to the application are considered to be part of the application. Approvals relevant to your permit application, including approvals for wastewater treatment systems, engineering studies, best management practices, etc. may be referenced in the permit. Note that certain approvals issued by this department may be presented to the Department of Revenue Services with a request for tax relief under CGS Section 12-412(21), 12-217d and 12-31(51).

(e) Schedules

Your permit may include a schedule for performing studies or other tasks related to your discharge. Approvals for such work may be granted by the DEEP upon satisfactory completion of the required tasks. If you discover that a date cannot be met, you should notify the DEEP immediately and request an extension of the schedule via permit modification. DEEP will grant a modification where appropriate. You should also recognize that schedules proposed by you and approved by the DEEP for completing work required under the permit are enforceable permit conditions. Failure to meet such schedules shall be considered a permit violation.

(f) Prohibitions

(1) Bypasses

You are prohibited from bypassing the collection system or treatment facilities or any part thereof unless: (A)(i) such bypass is unanticipated, unavoidable, and necessary to prevent loss of life, personal injury or severe property damage, and (ii) there were no feasible alternatives to the bypass, including but not limited to the use of auxiliary or backup treatment facilities, retention of untreated wastes, stopping the discharges, or maintenance during normal periods of equipment downtime; or (B) you receive prior written approval of the bypass from the commissioner in order to perform essential maintenance, and the bypass does not cause effluent limitations to be exceeded. Please refer to the permit regulations [RCSA Section 22a-430-3(k)] for additional requirements pertaining to bypasses.

(2) Facility Modifications

You may not expand or significantly alter any wastewater collection or treatment facility or its method of operation without the prior written approval of the commissioner. There is an exception to this rule if the change is necessary to correct a permit violation or avoid an imminent permit violation. If you make any changes under this exception you must notify DEEP. For further information see RCSA Section 22a-430-3(i)(3) and Section 1(g) "Notification Requirements", in this document.

You may not initiate a facility expansion or alteration, production increase or process modification which may a) result in the discharge of any new water, substance or material, or b) increase the quantity or concentration of an existing pollutant beyond permit conditions, or c) constitute a new source without first notifying the commissioner and obtaining from him either written notification that a permit modification is not required, *or* a permit modification. [Ref. RCSA Section 22a-430-3(i)(2)] Note that, if specifically authorized under an individual permit, certain process changes may be undertaken without prior written approval of the commissioner.

(3) Substances and Materials

You are prohibited from discharging substances and materials not authorized to be discharged under your permit. For substances and materials which you are authorized to discharge, see Section 1(b) "Effluent Limitations" in this document.

(4) Discharges to POTWs

No discharge may for any reason cause or threaten, either singly or in combination with other discharges, interference with or adverse effect upon the operation, discharge, safety, integrity, sludge handling, or environmental impact of a POTW. For more specific prohibitions please refer to the permit regulations [RCSA Section 22a-430-4(t)], your discharge permit and your local sewer ordinance.

In addition to the specific prohibitions listed in the previous paragraph, you are prohibited from conducting any activity which you know will cause or may cause pollution.

(g) Notification Requirements

The principal notification requirements associated with your permit are outlined in Section 9. Notification Requirements in this document. After reviewing the outline, any questions you might have should be directed to your district engineer or our Engineer of the Day at 860-424-3018. District Engineers and their phone numbers are listed in Section 10 of this document.

(h) Expiration/Renewal

The expiration date of your permit is clearly noted towards the end of the permit, typically following the monitoring requirements for the final discharge serial number and preceding the General Conditions section of your permit. If you wish to continue an activity authorized by a permit after the expiration date of the permit, you must apply for and obtain a renewed permit. A complete application for a permit renewal shall be submitted at least one hundred eighty (180) days prior to the expiration date of the existing permit. If you submit your application within this time period, your existing permit will continue in effect until your permit is either reissued or your application is denied. DEEP will notify you of the need to renew your permit 270 days prior to permit expiration.

(i) Permit Application and Review Process

All applications must be made on forms prescribed by the commissioner and should be carefully prepared in accordance with the *Instructions for Completing the Permit Application for Wastewater Discharges (DEP-PERD-INST-100).* Upon receipt of your application, the DEEP will notify you of any areas of obvious insufficiency (normally within 60 days) or else proceed with a more detailed review. Should additional comments be generated you will have up to 90 days to respond (for renewals), and the dialogue may continue until we reach a determination to either issue or deny the permit. Note that your adherence to the application requirements and specified timelines will minimize any unnecessary delays in issuing your permit, and, in the case of a renewal application, prevent your application from being rejected. Should your application for renewal be rejected for any reason, you must immediately discontinue the discharge or else be subject to fines of up to $25,000 per day and criminal penalties for discharging without a permit. (Ref. CGS Section 22a-438. See also RCSA Section 22a-430-4(d), Preliminary Review.)

Should you have any questions in completing the application, or feel that a pre-application meeting would be helpful, please call your district engineer or our Engineer of the Day at 860-424-3018. District Engineers and their phone numbers are listed in Section 10 of this document.

In the future, you may find that one or more of your discharges qualify to be authorized by a general permit, a streamlined permitting process with minimal DEEP involvement. If a discharge qualifies for a general permit, you will not need to reapply for an individual permit for that discharge but may need to register under the general permit program. For a complete listing of available general permits please see Section 12. Reference and Resources in this document. All application materials are available at the DEEP or may be obtained by contacting our Engineer of the Day at 860-424-3025 or DEEP's Permit Assistance Office at 860-424-3003.

(j) Fees

Permit application, modification, transfer and annual fees are specified in RCSA Section 22a-430-6 and 7.

- An invoice for annual fees will be sent, annually in the month of May. The annual fee is due July 1st of each year. Permit annual fees for major process discharges range from $4337.50 to $8,425.00.

- You must pay $1,300.00 when you submit a new or renewal permit application for wastewater discharges, otherwise your permit application will not be processed.

- New or renewal permit application fees for major process discharges range from $7,600.00 to $14,950.00.

- You will be billed the balance of any remaining fees including past due annual and late fees which must be paid within the time specified in the billing.

- Permit modification fees, if any, must be paid with the submission of the modification request.

- A permit transfer fee of $940.00 must be paid prior to approval of any transfer.

(k) DEEP Contacts

A list of DEEP contacts within the Permitting and Enforcement Division is contained in Section 10. Permitting and Enforcement Division Phone Numbers for Information and Assistance of this document. Please feel free to contact any of the listed individuals. If you need to obtain permits from several of our programs (i.e. the Bureaus of Air, Water, and Waste) or have special or pressing concerns, you may wish to contact our Client Concierge at 860-424-3074. As mentioned previously, you are always free to contact the DEEP engineer familiar with your facility or our Engineer of the Day at 860-424-3025.

Section 2. The Inspection Process - What To Expect

DEEP from time to time conducts inspections at permitted facilities throughout Connecticut. Under state law inspectors have the authority to enter your facility at reasonable times to evaluate compliance with your permit and the Water Discharge Permit Regulations of the State of Connecticut. Inspections are unannounced so that we can observe normal operating conditions at your facility. It is your responsibility to provide thorough and complete answers to any questions and have available for review and inspection the records and reports required under your permit.

In order to prepare for an Inspection, we suggest that you identify contacts on site who are familiar with the sources of wastewater at the site, the operation of the treatment system, the method of sample collection, and the location of pertinent records such as operator's logs and sampling and maintenance records. If the primary contacts are not on-site on an inspection day, there should be an alternate contact who would, at a minimum, be available to escort the inspector to the treatment system so that he/she may observe the treatment tanks and monitoring instrumentation, and to the final discharge point so that a wastewater sample may be obtained. The inspector may return for a more detailed inspection when the main contact is present or may conduct the full inspection on the initial visit if appropriate and if the objectives of the inspection can be achieved.

During the inspection the inspector's objectives will be to determine if:

- the collection and treatment systems are properly operated and maintained,

- the treatment system conforms to the approved plans and specifications,

- samples are collected and handled properly,

- the method and location of flow measurement is adequate,

- proper records are being kept with regard to daily operations, daily flow data, treatment system maintenance and sampling,
- operator coverage and alarm systems are adequate,
- emergency procedures for treatment control are established, and
- all wastewater discharges are properly permitted.

Toward this end, the inspector will want to interview the appropriate personnel, inspect the treatment system components, tour the process and waste collection areas, review the operation and maintenance manuals and as-built drawings of the treatment system, review all records associated with the wastewater discharges and collect samples of the discharge. In addition, the inspector may want to review the facility Hazard Communication Plan (OSHA), Stormwater Pollution Prevention Plan if pertinent and sludge disposal records.

Upon completion of the inspection, the inspector will summarize his/her findings and recommendations and attempt to specifically identify readily apparent issues and concerns. Because of the need of our field staff to further review documents and notes, it will not always be possible for them to identify all areas of noncompliance during the exit discussion. You should begin correcting any noncompliance as soon as possible and document such efforts. Where appropriate, DEEP may issue a "Notice of Violation" to ensure that the noncompliance will be adequately addressed or take a formal enforcement action. Please see Section 4. Advice to Permittees Receiving Notices of Violation in this document, for how to respond.

Section 3. Common Violations and How to Avoid Them

(a) Listed Below Are Five Common Areas of Noncompliance

(1) Effluent Violations

You must maintain effluent quality within the limits specified in your permit. Since there are many factors that can contribute to an effluent violation, you must always:

- properly operate and maintain the wastewater treatment system,
- have capable and trained personnel operate and monitor the treatment system,
- treat only wastewater that has been authorized for treatment and/or discharge by the DEEP.

Complying with these minimum standards should allow you to avoid or control the majority of circumstances which could lead to an effluent violation or Notice of Violation.

(2) Improper Sample Collection, Preservation, Handling and/or Analytical Techniques

You should review your permit requirements and pertinent regulations (especially 40 CFR Part 136 of the federal regulations, see Section 8. Required Containers, Preservation Techniques and Holding Times of this document) and the example DMR Sample Data Form in Appendix A. Sample location, collection method, sample volume, sample containers, sampling preservative, holding time, chain of custody, and analytical method must all be appropriate to ensure valid monitoring results. Please see Section 7. Flow Proportioned Sample Collection Procedures and Section 8. Required Containers, Preservation Techniques and Holding Times for guidance on sampling and analytical procedures.

(3) Not Maintaining or Maintaining Incomplete Monitoring Records; Not Submitting or Submitting Incomplete DMRs.

You must maintain monitoring sufficient to complete your DMR. You should review the DMR Instruction Manual, Appendix A of this document, and you are encouraged to initiate the use of monitoring, maintenance and operational logs. See Section 5 of this document for examples of these logs. The logs and DMR must be complete and accurate, and the DMR must be submitted in a timely manner as prescribed in your permit.

(4) Discharging Wastewater Without a Permit

You should determine if *all* wastewater discharges associated with your facility and activities are authorized by a permit and that the wastewater is being discharged in accordance with the permit and all approvals issued by the commissioner.

(A) Submitting a Late Permit Application

The department must receive your application for permit renewal at least 180 days prior to the expiration date of the permit. If you do not submit a complete application on time your permit will expire and you will be discharging without a permit unless, in the commissioner's judgment, you are likely to obtain a renewed permit and the public interest would best be served by allowing the permitted activity to continue uninterrupted [See RCSA Section 22a-430-4(d) and CGS Section 22a-6j(a)-(b)]. Late applications are subject to significant late fees proportional to the amount of time which they are overdue. The commissioner will notify you 270 days prior to permit expiration.

(5) Improper Operation & Maintenance of Monitoring Equipment and Alarms; Not Maintaining an Operation and Maintenance Manual

You must properly maintain all monitoring equipment and alarms associated with the limitations specified in your permit to ensure accurate readings and to prevent or mitigate effluent violations. Proper maintenance includes but is not limited to regular probe cleaning and meter calibration, and periodic testing of alarms.

Section 4. Advice to Permittees Receiving Notices of Violation*

(a) Read the Notice of Violation

It tells you:

- what activity you have conducted or what condition on your property is causing or may result in damage to the environment;
- the environmental laws you are not complying with;
- in some cases, what action you need to take to address the environmental problem;
- how quickly DEEP expects you to take action; and
- who to contact if you have a question or problem.

(b) Do Not Cause Additional Problems

Make sure that you do not engage in activity that might result in further environmental harm.

(c) Follow the Deadlines

If you can't meet the deadlines provided in the Notice of Violation, call the contact person specified in the Notice of Violation. Explain why you can't meet the deadline. Staff will explore with you the feasibility of alternate deadlines.

(d) Cooperate with DEEP

Generally, DEEP's first attempt to resolve violations is through the issuance of a Notice of Violation. If you disregard this notice, it will be assumed you do not wish to cooperate, and you should expect that DEEP will take more formal enforcement action. This can include issuing an administrative order and/or filing suit to obtain an injunction and penalties as provided by law. The most important thing to remember is to call DEEP if you have any questions.

(e) Call If You Don't Understand

The name and telephone number of appropriate DEEP staff are given at the end of the Notice of Violation. Staff are available to try to answer your questions and work with you to resolve the environmental compliance issue. In some cases you may need to obtain the services of a professional consultant to plan and implement effective corrective measures. DEEP staff can discuss with you the kind of professional help you may need to address the alleged violation cited in the notice.

* The Notice of Violation does not necessarily specify all environmental violations which may exist at your property regulated by the department. Nothing in the Notice relieves you of other obligations under applicable federal, state and local law.

Section 5: Sample Collection and Documentation

(a) DMRs & Monitoring, Maintenance and Operational Logs

To report monitoring activity to the Bureau of Materials Management and Compliance Assurance, a preprinted DMR is provided to the permittee by the department.* The permittee should utilize the DMR Instruction Manual (Appendix A to this document) to complete and submit the DMR to the Bureau of Materials Management and Compliance Assurance.

The discharge permit and RCSA Section 22a-430-3(j) require that the DMR include a detailed explanation of any violations of the limitations specified in the permit. The department encourages the use of a cover letter attached to the preprinted DMR forms as a means of detailing any violations. The cover letter should include the following: what the violation is; when the violation occurred including the duration, date(s) and time(s); the cause of the violation; what corrective action(s) has been taken; and what is being done to prevent a recurrence of the violation(s).

The permittee must collect, pretreat and/or discharge wastewater in accordance with the permit, relevant permit application materials and all approvals issued by the department. The permittee has the responsibility to monitor the discharge(s) and report results to the Bureau of Materials Management and Compliance Assurance according to the schedule specified in the permit. The permit specifies the minimum frequency of sampling and the type(s) of samples to be collected; RCSA Section 22a-430-3(j) and 40 CFR Part 136 further specify the monitoring, records and reporting requirements necessary for compliance.

In addition to submitting the DMR, the permittee must maintain at their facility for a minimum of five years a file consisting of the following [Ref. RCSA Section 22a-430-3(j)(9)]:

(1) A copy of all DMRs that the facility has submitted to the Bureau of Materials Management and Compliance Assurance.

(2) Copy of Cover Letters – A copy of all cover letters that the facility has submitted with their DMR's to explain and detail any violations of the permit limitations.

Only the DMR should be submitted to the Bureau of Materials Management and Compliance Assurance, except for months when violations occur, in which case both a DMR and cover letter describing the violations must be submitted.

(3) Original Laboratory Analysis Report(s) - Analysis must be by methods as specified in 40 CFR Part 136 or by methods specified in your permit. Permittees are encouraged to use a laboratory certified by the Connecticut Department of Public Health for wastewater sample analysis. Some parameters such as pH and residual chlorine require immediate analysis and should be performed by the permittee.

* As an alternative to the preprinted DMR, the permittee may develop its own spreadsheet and begin using it upon approval by this department. In order to obtain an expedient approval, the content of the spreadsheet must be identical to that of the preprinted form, including certifications. If you wish to use such a spreadsheet, please submit the form for our written approval, attention "DMR Processing".

(4) Monitoring, Maintenance and Operational Logs - Data forms used by the permittee to record monitoring, maintenance and operational activity required by the permit. Each permittee should develop these logs specific to the facility and their permit.

Immediately following are suggestions for monitoring, maintenance and operational logs to facilitate daily operations and demonstrate compliance with the monitoring, sampling and analysis requirements of your permit.

Model Monitoring Log

(with example information to document monitoring activity required by the permit)

This section applies to all permittees (includes EXAMPLE INFORMATION).

Permit Number: **CT...** or **SP...** Discharge Serial No.: **001**

Date of Sample Collection: **01/01/96**

Company Name: **XYZ Company**
Date of Batch Treatment**: 01/01/96**
Sampling Location: **Flow Metering Station for Daily Composites**
Batch ID Number: **96-001** Batch Volume: **550 gallons**
Collector Name(s): **John Sampler**
Initial Batch pH: **3.5** Final Batch pH: **8.2**
Samples Refrigerated During Collection & Transport ☐ Yes ☐ No
Time Batch Discharge Start: **07:00 a.m.** Time Batch Discharge Finish: **07:35 a.m.**
Samples Chemically Preserved ☐ Yes ☐ No

Daily Composite Sample is Flow Proportioned ☐ Yes ☐ No

Final pH probe cleaned ☐ Yes ☐ No

Final pH probe calibrated; pH of buffers used ☐ Yes ☐ No

pH: _____ _____

Expiration dates: _____ _____

Collector Signature(s):

The following applies only to permittees with batch discharges (includes EXAMPLE INFORMATION). For continuous discharges, skip to the next page. You should select the table(s) applicable to your discharge(s). Please also refer to your permit for specific variations in collection procedures.

Manual Composite Sample - Batch Discharge *(includes EXAMPLE INFORMATION)*

Aliquot	Time	Aliquot Volumes (ml)	pH	Observations	Name of Chemical Preservative
1	**7:00 a.m.**	**100 ml**	**8.4**	**Clear**	
2	**7:15 a.m.**	**100 ml**	**8.6**	**Slight yellow color**	
3	**7:30 a.m.**	**100 ml**	**8.5**	**Slight yellow color**	**Nitric for Metals**

An appropriate table for **Manual Grab Sample Average Sampling** applicable to both batch and continuous discharges is shown on the following page.

The following applies to continuous discharges (includes EXAMPLE INFORMATION). You should select the table(s) applicable to your discharge(s). Please also refer to your permit for specific variations in collection procedures.

Time Collection Started:	**0700**	Time Collection Finished:	**1700**
Maximum pH from final chart:	**9.1**	Minimum pH from final chart:	**8.1**
Time Interval (if constant):	**One Hour**	Daily Flow:	**1500 gallons**
Method Sample Collection:	**Constant Time, Variable Volume**		
Aliquot Volume (if constant):	**Not Applicable**		

Manual Flow Proportional Daily Composite Sample *(includes EXAMPLE INFORMATION)*

Aliquot	Time	Flow (gpm)	Aliquot Volumes (ml)	pH	Observations	Name of Chemical Preservative
1	7:00 a.m.	100	100 ml	8.4	Clear	
2	8:00 a.m.	200	200 ml	8.6	Slight yellow color	
3	9:00 a.m.	100	100 ml	8.5	Clear	
						Nitric for Metals

Manual Grab Sample Average Sampling *(includes EXAMPLE INFORMATION)*

Sample	Time	Sample Location	Observations	Name of Chemical Preservative(s)
1	0000	CN pretreatment	pH = 9.2; mv = 800	Ascorbic, NaOH
2	0400	CN pretreatment		
3	0800	CN pretreatment		
4	1200	CN pretreatment		
...	...			

Totalizer Flow Meter Readings *(includes EXAMPLE INFORMATION)*

Time	Totalizer	GPM	Total Gallons Discharged
0700	18000		
1700	19500		1500 gallons

Below are examples of daily operations and preventative maintenance logs. The frequency of inspections and the items to be inspected may vary depending on available system equipment, required maintenance of that equipment and the type of wastewater being treated and discharged. Additional elements which you may have to include in your industrial wastewater treatment system operation and maintenance manual and/or checklist can be found in Attachment I of the Permit Application for Wastewater Discharges package.

Model Wastewater Treatment Maintenance Log

(includes EXAMPLE INFORMATION)

Instrument Calibration for the Week of [date]

pH CN 1st stage clean/calibrate

ORP CN 1st stage clean/calibrate

pH CN 2nd stage clean/calibrate

ORP CN 2nd stage clean/calibrate

pH CR+6 clean/calibrate

ORP CR+6 clean/calibrate

pH neutralization clean/calibrate
equalization clean/calibrate
effluent clean/calibrate (etc.)

Discharge flow meter clean/calibrate

Mon	Tue	Wed	Thu	Fri

Inspections/System Checks

Check tanks, piping for leaks/integrity

Check level alarms
(sumps, tanks, etc.)

Maintenance

Clean lamella/clarifier

Repair/replace (as required)
pumps
mixers
probes
etc.

Model Daily Operations Log - Wastewater Treatment

Date: Time: Flow Totalizer Reading: Operator:

System Start up

Continuous Monitoring Charts dated & signed? ☐ Chemical Levels Adequate? ☐ Dosing Pumps Operational? ☐

Instrumentation

Time	Equalization pH	Neutrialization pH	Final Adjust pH	Cr^{+}6pH 1st/2nd	Cr^{+}6ORP 1st/2nd	CN pH 1st/2nd	CN ORP 1st/2nd	Floc Appearance	Effluent Appearance	Flow GPM	Operator
0000											
0400											
0800											
1200											
1600											
2000											
2400											

Comments

(Describe): [Problems, system upsets, alarm conditions and corrective actions taken.
Types and quantities of any concentrated wastes batch treated and discharged to main treatment system.
Sludge dewatering activities, volume of sludge generated.
Operator's signature/initials]

System Shut Down

Time: _____ Operator: _____

Section 6: Key Definitions from the Water Discharge Permit Regulations Pertaining to Monitoring, Sampling and DMR Requirements

A complete list of definitions incorporated by reference in your permit can be found in RCSA Section 22a-430-3(a). In the event there is a discrepancy between these definitions and the definitions listed in RCSA Section 22a-430-3(a), the regulations control and should be followed. Definitions below pertain to sampling and monitoring requirements.

"Aliquot sample" means a grab sample taken for the purpose of combining with other grab samples to make a composite sample.

"Average" means the arithmetic average.

"Average daily concentration" means the average concentration of a substance in a daily composite sample.

"Average Daily Flow" means the average of all total daily flows measured during any calendar month.

Note: Average Daily Flow is calculated by summing the "Total Daily Flow" of each "Operating Day" during a calendar month, then dividing by the total number of operating days in that month. Since an "Operating Day" is defined as the portion of a calendar day during which a discharge exists, *days on which a discharge does not occur should not be included in the calculation* (i.e., do <u>not</u> average in zero flows).

- ***Example***

  A discharge occurs five (5) days a week, Monday through Friday, resulting in a total of twenty-three (23) operating days during a given calendar month. The sum of the total daily flows for the operating days is 103,250 gals, calculated as follows:

  (5,500 gals on Wed, the 1st day of the month + 6,100 gals on Thurs, the 2nd + 3,000 gals on Fri, the 3rd + 4,550 gals on Mon, the 6th + etc.) = 103,250 gals.

  Therefore, the "Average Daily Flow" for the month is: 103,250 gals / 23 days = <u>4,489 gpd</u>

"Average daily quantity" means the average quantity of waste generated during an operating day.

"Average monthly concentration" means the average concentration of a substance as measured by the average of all daily composite samples or grab sample averages taken during any calendar month.

"Average monthly discharge limitation" means the highest allowable average of all daily discharges during any calendar month.

"Average weekly concentration" means the average concentration of all daily composite samples taken during any calendar week.

"Average weekly discharge limitation" means the highest allowable average of a substance as measured by the average of all daily discharges during any calendar week.

"Composite Sample" means a sample collected over a specified period of time in order that the results are representative of the monitored activity over the same time period.

"Daily composite" means (1) a composite sample taken over a full operating day consisting of grab samples collected at equal intervals of no more than sixty (60) minutes and combined proportionally to flow, or (2) a composite sample continuously collected over a full operating day proportionally to flow. Upon submission of documentation by the applicant satisfactory to the commissioner that a discharge is of consistent effluent quality, the commissioner may allow equal sampling intervals of up to four (4) hours for a daily composite sample.

"Grab Sample" means an individual sample collected in less than fifteen minutes.

"Grab Sample Average" means the arithmetic average of all grab sample analyses. Grab samples shall be collected at least once every four hours over a full operating day for as long as a discharge exists on that day (minimum of two grab samples per day).

"Maximum Concentration" means the maximum concentration at any time as determined by a grab sample.

"Operating Day" means that portion of a calendar day during which a discharge exists. Note: Unless otherwise specified in the permit, an operating day is the twenty-four hour period commencing at 12:00 a.m. ending 11:59 p.m.

"*Total Daily Flow*" means the total flow of wastewater over an operating day.

Section 7: Flow Proportioned Sample Collection Procedures

The Regulations require flow proportioning for all daily composite samples [Ref. RCSA Section 22a-430-3(a)(3)]. This requirement is often a major area of non-compliance for permittees.

Permittees that have a constant discharge rate as demonstrated by recorded flow data can collect and combine equal volume aliquot samples taken at equal intervals over a full operating day. Permittees that have a fluctuating discharge rate, however, must collect a series of aliquot samples over a full operating day and combine them proportionally to the flow rate at the time each aliquot is collected.

(a) Listed below are four widely used methods for collecting flow proportioned samples for fluctuating discharges:

Please remember that prior to using any of the following methods, preliminary **calculations should be performed to ensure that an adequate final sample volume will be obtained.**

(1) Constant aliquot sample volume, variable time interval (maximum allowable time period between each aliquot is one hour unless otherwise approved by the commissioner), samples collected based on flow rate. When using this method you need to know four things:

(A) Minimum Daily Flow

Note: The minimum daily flow should be based upon recent historical data. Since the actual flow on the day of sampling will likely be different than the historical minimum, the total sample volume will usually vary from the required amount. To ensure that an adequate sample volume will be collected, you may wish to use in your calculations a conservative value for the minimum daily flow rate (i.e., a somewhat lower value than what the historical records indicate).

(B) Hours of Discharge

(C) Sample Volume Required by Contract Laboratory

(D) Required Sample Volume divided by Minimum Daily Flow (ml/gallon)

Example:

Minimum Daily Flow: *22,000 gallons*
Hours of Discharge: 10
Required Sample Volume: *10,000 ml*
10,000 ml divided by *22,000 gallons* equals *0.45ml/gallon* (round 0.5)

If sample period is set at 1,000 gallon intervals

0.5ml/gal x 1,000 gal equals 500 ml aliquot sample volume

After each thousand gallons of discharge collect a 500 ml aliquot sample. This will give you the required sample volume plus a safety of 1000 ml. (Always use a safety factor to guarantee that enough sample is collected.)

This method can be used for manual collection or collection by an automatic sampler that is interfaced with a flow meter.

(2) Variable aliquot sample volume, time interval between samples remains constant (Maximum allowable time period between each aliquot is one hour unless otherwise approved by the commissioner.), based on the total flow between aliquot sample collection. When using this method you need to know four things:

(A) Minimum Daily Flow

Note: The minimum daily flow should be based upon recent historical data. Since the actual flow on the day of sampling will likely be different than the historical minimum, the total sample volume will usually vary from the required amount. To ensure that an adequate sample volume will be collected, you may wish to use in your calculations a conservative

value for the minimum daily flow rate (i.e. a somewhat lower value than what the historical records indicate).

(B) Sample Volume Required by Contract Laboratory

(C) Required Sample Volume divided by Minimum Daily Flow

(D) Hourly Flow Rates

Example:

Minimum Daily Flow: *22,000 gallons*
Required Sample Volume: *10,000 ml*
10,000 ml divided by *22,000 gallons* equals 0.45ml/gallon (use 0.5)
Required aliquot volume of .5 ml of sample per gallon of discharge.

Hourly Flow Rates

Time	Discharge Volume	Required Aliquot Volume	Sample Volume
07:00	1000 gallons	x 0.5 =	Aliquot Volume 500ml
08:00	2500 gallons	x 0.5 =	Aliquot Volume 1250ml
09:00	2500 gallons	x 0.5 =	Aliquot Volume 1250ml
10:00	2000 gallons	x 0.5 =	Aliquot Volume 1000ml
11:00	3000 gallons	x 0.5 =	Aliquot Volume 1500ml
12:00	1000 gallons	x 0.5 =	Aliquot Volume 500ml
13:00	1000 gallons	x 0.5 =	Aliquot Volume 500ml
14:00	3000 gallons	x 0.5 =	Aliquot Volume 1500ml
15:00	2500 gallons	x 0.5 =	Aliquot Volume 1250ml
16:00	1500 gallons	x 0.5 =	Aliquot Volume 750ml
17:00	4000 gallons	x 0.5 =	Aliquot Volume 2000ml
Totals 24,000 gallons Sample Volume 12,000 ml [Includes safety factor, See Note under (2)(A)]			

This method can be done manually or by using an automatic sampler that collects individual aliquot samples.

(3) Constant time interval (Maximum allowable time period between each aliquot is one hour unless otherwise approved by the commissioner.), variable aliquot sample volume based on instantaneous flow rate at the time of aliquot sample collection. When using this type of sampling you need to know the following items:

(A) Average Instantaneous Flow

Note: The average value of instantaneous flow should be based upon recent historical measurements. Since the actual flow on the day of sampling may be different than the historical average, the total sample volume may vary from the required amount. To ensure that an adequate sample volume will be collected, you may wish to use in your calculations a conservative value for the historical average (i.e. a somewhat lower value than what the historical records indicate).

(B) Sample Volume Required by Contract Laboratory

(C) Number of Aliquot Samples to be taken (at least one per hour)

(D) Sample Volume Required Divided by Number of Aliquots

(E) Factor for Flow Proportioning [(D) divided by (A)]

Example:

Average Instantaneous Flow Rate: 22 gpm
Sample Volume Required: 4,000 ml
Number of Aliquots: 5
Volume Required Divided by no. of samples: 4,000 ml/5 samples = 800 ml
Factor: 800 ml divided by 22 gpm = 36.4ml/gpm (round to 37)

Time	Flow Rate	X Sample Vol./Flow Rate =	Aliquot Volume
07:00	25gpm	37ml/gpm	925ml
08:00	100gpm	37ml/gpm	3700ml
09:00	10gpm	37ml/gpm	370ml
10:00	15gpm	37ml/gpm	555ml
11:00	20gpm	37ml/gpm	740ml
Total Sample Volume 6290ml [See NOTE under (3)(A)]			

This method can be done manually or by using an automatic sampler that collects individual aliquot samples.

(4) Continuous Composite Sample - This type of composite sample is collected by having a continuous drip through a small tap valve that flows only while a discharge is occurring. Flow rate is controlled by pressure in the discharge line from either pumping or gravity. The samples generated tend to be larger than needed. When properly installed, this method requires very little manual effort.

To further explain the concept of flow proportioning for daily composite samples, and to illustrate how a facility can comply with this requirement, the following example is provided:

A manufacturing facility operates 24 hours a day, seven days a week, with three shifts of production daily. Each shift generates, collects, and pretreats wastewater with a resultant permitted effluent-discharge. For discussion purposes, the first shift's effluent-discharge rate is 100 gallons per minute (gpm) over eight hours, the second shift's effluent rate is 50 gpm, and the third shift's rate is 25 gpm.

The facility's permit requires a daily composite sample be collected weekly. Because the facility has a fluctuating discharge flow rate over the operating day, the permittee must collect a series of aliquot samples to be combined into a composite sample, proportional to the flow rate.

The wastewater treatment operator collects an hourly 500 milliliters (ml) aliquot sample over the entire manufacturing day, resulting in 24 individual aliquot samples (the size of the aliquot sample only needs to be adequate to furnish the laboratory with sufficient volume). The 24 individual aliquot samples are then combined by the operator into one composite sample proportional to the flow-rate at the time each individual aliquot sample was collected. Because the facility discharged at three different flow rates (100, 50 and 25 gpm), three different aliquot volumes will be used to combine the aliquot samples into a composite sample.

Of the aliquot samples collected during the first shift (effluent rate of 100 gpm), 100 ml from each 500 ml aliquot sample are added to the composite sample container. Of the aliquot samples collected during the second shift (effluent rate of 50 gpm), 50 ml from each 500 ml aliquot are added to the composite sample container. Of the aliquot samples collected during the third shift (effluent rate of 25 gpm), 25 ml from each 500 ml aliquot sample are added to the composite sample container.

The facility now has a complete flow proportional daily composite sample that can be submitted to their laboratory for the required analysis. Just as a portion of each 500 ml aliquot sample was drawn from each sample to make the daily composite, a portion of the daily composite (a subsample) can be submitted to the laboratory. *Before drawing a portion of an aliquot sample or a composite sample, the sample must be thoroughly mixed to ensure that the removed portion is representative.*

The example provided in the preceding paragraphs is a simple situation, where the flow rate is constant during each shift of production, but fluctuates between shifts of production. Depending upon a number of factors (personnel, configuration of piping, availability and capability of an automatic sampler and flowmeter), the permittee must determine a method of sample collection appropriate for their specific facility. Staff at DEEP are available at 860-424-3824 to assist permittees in achieving compliance with the flow proportioning requirement.

Section 8: Required Containers, Preservation Techniques, and Holding Times (Excerpted from 40 CFR Part 136, Table II)

Permittees are required by RCSA Section 22a-430-3(j)(7) to determine compliance with numerical effluent limitations in the permit by sample collection, preservation, handling and analytical techniques prescribed by 40 CFR Part 136 of the federal regulations.

Parameter	Container[1]	Preservative [2,3]	Maximum Holding Time[4]
Bacterial Tests			
Coliform, fecal and total	P,G	Cool, 4°C 0.008% $Na_2S_2O_3$[5]	6 hours
Fecal streptococi	P,G	Cool, 4°C 0.008% $Na_2S_2O_3$[5]	6 hours
Inorganic Tests			
Acidity	P,G	Cool, 4°C	14 days
Alkalinity	P,G	Cool, 4°C	14 days
Ammonia	P,G	Cool, 4°C H_2SO_4 to pH<2	28 days
Biochemical oxygen demand	P,G	Cool, 4°C	48 hours
Bromide	P,G	None required	28 days
Chemical oxygen demand	P,G	Cool, 4°C H_2SO_4 to pH<2	28 days
Chloride	P,G	None required	28 days
Chlorine, total residual	P,G	None required	Analyze immediately
Color	P,G	Cool, 4°C	48 hours
Cyanide, total and amenable to chlorination	P,G	Cool, 4°C NaOH to pH<12 0.6 g ascorbic acid[5]	14 days[6]
Fluoride	P	None required	28 days
Hardness	P,G	HNO_3 to pH<2, H_2SO_4 to pH<2	6 months
Hydrogen ion (pH)	P,G	None required	Analyze immediately
Kjeldahl and organic nitrogen	P,G	Cool, 4°C H_2SO_4 to pH<2	28 days
Metals[7]			
Chromium VI	P,G	Cool, 4°C	24 hours
Mercury	P,G	HNO_3 to pH<2	28 days
Metals (except Chromium VI & Mercury)	P,G	HNO_3 to pH<2	6 months
Nitrate	P,G	Cool, 4°C	48 hours
Nitrate-nitrite	P,G	Cool, 4°C H_2SO_4 to pH<2	28 days
Nitrite	P,G	Cool, 4°C	48 hours
Oil and grease	G	Cool, 4°C HCl or H_2SO_4 to pH<2	28 days
Organic carbon	P,G	Cool, 4°C HCl or H_2SO_4 to pH<2	28 days

Parameter	Container[1]	Preservative [2,3]	Maximum Holding Time[4]
Orthophosphate	P,G	Filter immediately Cool, 4°C	48 hours
Dissolved oxygen Probe Winkler	 G bottle & top G bottle & top	 None required Fix onsite and store in the dark	 Analyze immediately 8 hours
Phenols	G	Cool, 4°C H_2SO_4 to pH<2	28 days
Phosphorus (elemental)	G	Cool, 4°C	48 hours
Phosphorus (total dissolved)	P,G	Cool, 4°C H_2SO_4 to pH<2	28 days
Residue, total	P,G	Cool, 4°C	7 days
Residue, filterable	P,G	Cool, 4°C	7 days
Residue, nonfilterable (TSS)	P,G	Cool, 4°C	7 days
Residue, settleable	P,G	Cool, 4°C	48 hours
Residue, volatile	P,G	Cool, 4°C	7 days
Silica	P	Cool, 4°C	28 days
Specific conductance	P,G	Cool, 4°C	28 days
Sulfate	P,G	Cool, 4°C	28 days
Sulfide	P,G	Cool, 4°C, add zinc acetate plus sodium hydroxide to pH>9	7 days
Sulfite	P,G	None required	Analyze immediately
Surfactants	P,G	Cool, 4°C	48 hours
Temperature	P,G	None required	Analyze immediately
Turbidity	P,G	Cool, 4°C	48 hours
Organic Tests[8]			
Purgeable halocarbons	G, teflon-lined septum	Cool, 4°C 0.008% $Na_2S_2O_3$[5]	14 days
Purgeable aromatic hydrocarbons	G, teflon-lined septum	Cool, 4°C 0.008% $Na_2S_2O_3$[5] HC1 to pH2[9]	14 days
Acrolein and acrylonitrile	G, teflon-lined septum	Cool, 4°C 0.008% $Na_2S_2O_3$[5] Adjust pH to 4-5[10]	14 days
Phenols[11]	G, teflon-lined cap	Cool, 4°C 0.008% $Na_2S_2O_3$[5]	7 days until extraction 40 days after extraction
Benzidines[11]	G, teflon-lined cap	Cool, 4°C 0.008% $Na_2S_2O_3$[5]	7 days until extraction[13]
Phthalate esters[11]	G, teflon-lined cap	Cool, 4°C	7 days until extraction 40 days after extraction
Nitrosamines[11, 14]	G, teflon-lined cap	Cool, 4°C 0.008% $Na_2S_2O_3$[5] Store in the dark	7 days until extraction 40 days after extraction
Polychlorinated biphenyls (PCBs)[11]	G, teflon-lined cap	Cool, 4°C	7 days until extraction 40 days after extraction

Parameter	Container[1]	Preservative [2,3]	Maximum Holding Time[4]
Nitroaromatics and isophorone[11]	G, teflon-lined cap	Cool, 4°C 0.008% $Na_2S_2O_3$[5] Store in the dark	7 days until extraction 40 days after extraction
Polynuclear aromatic hydrocarbons[11]	G, teflon-lined cap	Cool, 4°C 0.008% $Na_2S_2O_3$[5] Store in the dark	7 days until extraction 40 days after extraction
Haloethers[11]	G, teflon-lined cap	Cool, 4°C 0.008% $Na_2S_2O_3$[5]	7 days until extraction 40 days after extraction
Chlorinated hydrocarbons[11]	G, teflon-lined cap	Cool, 4°C	7 days until extraction 40 days after extraction
(2,3,7,8-tetrachlorodibenzo-p-dioxin)[1] TCDD	G, teflon-lined cap	Cool, 4°C 0.008% $Na_2S_2O_3$[5]	7 days until extraction 40 days after extraction
Pesticides Test			
Organochlorine pesticides[11]	G, teflon-lined cap	Cool, 4°C pH 5-9[15]	7 days until extraction 40 days after extraction
Radiological Test			
Alpha, beta, and radium	P,G	HNO_3 to pH<2	6 months

Notes to Section 8:

[1] Polyethylene (P) or glass (G)

[2] Sample preservation should be performed immediately upon sample collection. For composite chemical samples, each aliquot should be preserved at the time of collection. When use of an automatic sampler makes it impossible to preserve each aliquot, then chemical samples may be preserved by maintaining at 4°C until compositing and sample splitting are completed.

[3] When any sample is to be shipped by common carrier or sent through the United States mail, it must comply with the (U.S.) Department of Transportation Hazardous Materials Regulations (49 CFR Part 172). The person offering such material for transportation is responsible for ensuring such compliance. For the preservation requirements of this Table, the Office of Hazardous Materials, Materials Transportation Bureau, Department of Transportation has determined that the Hazardous Materials Regulations do not apply to the following materials: hydrochloric acid (HC1) in water solutions at concentrations of 0.04% by weight or less (pH about 1.96 or greater); nitric acid (HNO_3) in water solutions at concentrations of 0.15% by weight or less (pH about 1.62 or greater); sulfuric acid (H_2SO_4) in water solutions at concentrations of 0.35% by weight or less (pH about 1.15 or greater); and sodium hydroxide (NaOH) in water solutions at concentrations of 0.08% by weight or less (pH about 12.3 or less).

[4] Samples should be analyzed as soon as possible after collection. The times listed are the maximum times that samples may be held before analysis and still be considered valid. Samples may be held for longer periods only if the permittee, or monitoring laboratory, has data on file to show that the specific types of samples under study are stable for the longer time and has received a variance from the (USEPA) Regional Administrator under 136.3(e). Some samples may not be stable for the maximum time period given in the table. A permittee, or monitoring laboratory, is obligated to hold the sample for a shorter time if knowledge exists to show that this is necessary to maintain sample stability.

[5] Should only be used in the presence of residual chlorine.

[6] Maximum holding time is 24 hours when sulfide is present. Optionally, all samples may be tested with lead acetate paper before pH adjustments to determine whether sulfide is present. If sulfide is present, it can be removed by the addition of cadmium nitrate powder until a negative spot test is obtained. The sample is filtered, then NaOH is added to pH 12.

[7] Samples should be filtered immediately onsite before adding preservative for dissolved metals.

[8] Guidance applies to samples to be analyzed by GC, LC, or GC/MS for specific organic compounds.

[9] Samples receiving no pH adjustment must be analyzed within 7 days of sampling.

[10] The pH adjustment is not required if acrolein will not be measured. Samples for acrolein receiving no pH adjustment must be analyzed within 3 days of sampling.

[11] When the extractable analyses of concern fall within a single chemical category, the specified preservation and maximum holding times should be observed for optimum safeguarding of sample integrity. When the analytes of concern fall within two or more chemical categories, the sample may be preserved by cooling to 4°C, reducing residual chlorine with 0.008% sodium thiosulfate, storing in the dark, and adjusting the pH to between 6 and 9; samples preserved in this manner may be held for 7 days before extraction and for 40 days after extraction. Exceptions to this optional preservation and holding time procedure are noted in footnote 5 (re: the requirement for thiosulfate reduction of residual chlorine) and footnotes 12 and 13 (re: the analysis of benzidine).

[12] If 1,2-diphenylhydrazine is likely to be present, adjust the pH of the sample to 4.0 $\pm$ 0.2 to prevent rearrangement to benzidine.

[13] Extracts may be stored up to 7 days before analysis if storage is conducted under an inert (oxidant-free) atmosphere.

[14] For the analysis of diphenylnitrosamine, add 0.0008% $Na_2S_2O_3$ and adjust pH to between 7 and 10 with NaOH within 24 hours of sampling.

[15] The pH adjustment may be performed upon receipt at the laboratory and may be omitted if the samples are extracted within 72 hours of collection. For the analysis of Aldrin, add 0.008% Na_2SO_3 .

Section 9: Notification Requirements

For Persons Holding a Permit under CGS Section 22a-430

The following list summarizes the principal notification requirements under State and Federal Regulations (RCSA Section 22a-430-3 and 40 CFR Subpart 403.12). You will need to contact either the commissioner, the Director of the Bureau of Materials Management and Compliance Assurance, the DMR Processing Unit or the superintendent of the receiving POTW for the situations indicated. Some situations require immediate notification by telephone and/or a letter of explanation. Please familiarize yourself with each situation and consult the regulations whenever such a circumstance arises. Note that the following information is intended to provide guidance only. Other notification requirements may apply to your facility. In the event of any inconsistency between the following information and applicable regulations, the language of the regulation is controlling. Remember, you are responsible for complying with all regulations applicable to your facility.

Summary List:

DMR Violations - Permit Limitation [Notify DEEP - See Section 9(a)(1)]

Failure or Malfunction of Monitoring Equipment [Notify DEEP - See Section 9(b)(1)]

Bypass of Any or All of the Waste Treatment System [Notify DEEP - See Section 9(b)(2)]

Noncompliance with Permit Terms or Conditions [Notify DEEP and POTW Superintendent - See Section 9(b)(3)]

Exceedance or Potential to Exceed the Pollutant Concentration Levels Specified under RCSA Section 22a-430-3(j)(11)(E) [Notify DEEP - See Section 9(b)(4)]

Modification of any Wastewater Treatment System or its Method of Operation for the Purpose of Correcting or Avoiding a Permit Violation [Notify DEEP - See Section 9(b)(5)]

Adoption of a Limitation by the EPA for a Discharge to a POTW [Notify DEEP - See Section 9(b)(6)]

Use of Alternative Collection and Treatment Scheme to Prevent Bypass during Scheduled Maintenance [Notify DEEP - See Section 9(b)(7)]

Discharge of Unauthorized or Excess Pollutants to a POTW (Applicable to POTWs only) [Notify DEEP - See Section 9(b)(8)]

Submission of Incorrect or Incomplete Information [Notify DEEP - See Section

9(b)(9)] Compliance with Step in Order Schedule [Notify DEEP - See Section

9(b)(10)]

Facility Modifications [Notify DEEP - See Section 9(b)(11)]

(A) Facility Expansion or Alteration, Production Increase or Process Modification

(B) Expansion or Significant Alteration of Any Wastewater Treatment Facility or its Method of Operation

Discharge of a Hazardous Waste to a POTW [Notify DEEP and POTW Superintendent - See Section 9(b)(12)]

Noncompliance with a Local Requirement (Notify POTW Superintendent - See Section 9(c)(1)]

Note: All verbal notifications to the DEEP should be directed to the Enforcement Staff of DEEP's Water Permitting and Enforcement Division (WPED), the DEEP Permit Engineer or Supervisor cognizant of your facility, or, in the case of a bypass outside of normal business hours, to the department's Emergency Response Unit at 860-424-3338. All written communications to the DEEP should be addressed to the Director of the Bureau of Materials Management and Compliance Assurance, PERD, except for (A) written notification of discharges of hazardous waste to a POTW, written notification in reference to Compliance with Step in Order Schedules and written notification of Facility Modifications which are to be directed to the commissioner and (B) for DMR Violations – Permit Limitations, written notification to be submitted with the next DMR form.

The following is a brief explanation of each of the circumstances provided in the Summary List requiring notification, including specific references to the RCSA:

(a) Circumstances Requiring Notification of the DMR Processing Unit

(1) DMR Violations - Permit Limitation - RCSA Section 22a-430-3(j)(1)

If you have a violation of a permit limitation, you must submit a letter of explanation with your next routine monitoring report (DMR form) that contains the following information:

(A) What the violations are;

(B) Why the violation occurred;

(C) What corrective actions have been taken; and

(D) What is being done to prevent recurrence of the violation.

(b) Circumstances Requiring Notification of the Director of the Bureau of Materials Management and Compliance Assurance

(1) Failure or Malfunction of Monitoring Equipment - RCSA Section 22a-430-3(j)(8)

If you have a failure or malfunction of any monitoring equipment, you must notify the Bureau of Materials Management and Compliance Assurance within two (2) hours of the failure or malfunction or, if it occurs outside of normal business hours, at the start of the next business day.

You must also submit a written report to the Director within five (5) days of the failure or malfunction and must include the following information:

(A) The cause of the problem;

(B) The duration of the problem (including dates and times);

(C) The corrective actions taken to minimize adverse impacts; and

(D) Plans to prevent recurrence of the problem.

(2) Bypass of Any or All of the Waste Treatment System - RCSA Section 22a-430-3(k)(4)

If you bypass any or all of a wastewater collection or treatment system, you must notify the Bureau of Materials Management and Compliance Assurance within two (2) hours of becoming aware of the bypass or, if it occurs outside of normal business hours, the department's Emergency Response Unit at 860-424-3338.

You must also submit a written report to the Director within five (5) days of the bypass containing the following information:

(A) The cause of the bypass;

(B) The duration of the bypass (including dates and times);

(C) The corrective actions taken to minimize adverse impacts; and

(D) Plans to prevent recurrence of the bypass

In addition, if you have reason to believe that any effluent limitation specified in the permit may be violated, you must:

(E) Immediately take steps to prevent or correct the violation;

(F) Record the quantity and quality of the discharge;

(G) Monitor the discharge in accordance with the permit terms; and

(H) Submit monitoring results (as a separate report) with the next DMR.

(3) Noncompliance with Permit Terms or Conditions - RCSA Section 22a-430-3(j)(11)(D)

You must notify the Bureau of Materials Management and Compliance Assurance and, for SPDES (sanitary sewer) discharges, the superintendent of the receiving POTW within two hours of becoming aware of an actual or anticipated noncompliance with permit terms or conditions, or, if outside of normal business hours, at the start of the next business day, when:

(A) For NPDES Permits, you exceed twice any permit limit or have an exceedance of any Maximum Daily Limit.

For sanitary sewer permits, you exceed twice any permit limit.

(B) For all permits, you become aware of any condition that may endanger human health, the environment or the operation of a POTW, including sludge handling and disposal.

You must also submit a written report to the Director of the Bureau of Materials Management and Compliance Assurance within five days of the actual or anticipated noncompliance, containing the following information:

(i) A description of the noncompliance;

(ii) The cause of the noncompliance;

(iii) The period of noncompliance (including dates and times);

(iv) The corrective actions taken and planned to minimize adverse impacts;

(v) If the noncompliance has not been corrected, how long it will last; and

(vi) Plans to prevent recurrence of the noncompliance.

You do not need to report less severe exceedances of effluent limitations except in the next monitoring report (DMR) as specified under Section 9(a)(1).

(4) Exceedance or Potential to Exceed the Pollutant Concentration Levels Specified under RCSA Section 22a-430-3(j)(11)(E)

You are required to notify the Bureau of Materials Management and Compliance Assurance within seventy-two hours and in writing to the Director within thirty days, if you know or have reason to believe that the concentration in the discharge of any listed substance or any toxic substance as listed in

appendix B or D of RCSA Section 22a-430-3 has exceeded or will exceed the highest of the following levels:

(A) One hundred micrograms per liter;

(B) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2, 4 - dinitrophenol and for 2 - methyl - 4, 6 - dinitrophenol; and one milligram per liter for antimony;

(C) An alternative level specified by the commissioner, provided such level shall not exceed the level which can be achieved by the permittee's treatment system;

(D) A level two times the level specified in the permit application.

(5) Modification of any Wastewater Treatment System or its Method of Operation for the Purpose of Correcting or Avoiding a Permit Violation - RCSA Section 22a-430-3(i)(3)

You are required to notify the Bureau of Materials Management and Compliance Assurance of any modification of any wastewater treatment system or its method of operation within two hours of making the change or at the start of the next business day if the change is made outside normal business hours.

You must also submit a written report describing the changes made and the reasons therefore to the Director of the Bureau of Materials Management and Compliance Assurance for his review and approval within thirty (30) days of the modification.

(6) Adoption of a Limitation by the EPA for a Discharge to a POTW - RCSA Section 22a-430-3(j)(11)(F)

You must submit a report to the Director of the Bureau of Materials Management and Compliance Assurance containing the following information within ninety (90) days of EPA adoption of a limitation for a discharge to a POTW:

(A) the nature and concentration of all substances in the discharge for which new limitations have been so adopted; and

(B) an indication of whether the new limitations are being met on a consistent basis, and, if not, the additional facilities or procedures needed to meet the new limitations.

(7) Use of Alternative Collection and Treatment Scheme to Prevent Bypass during Scheduled Maintenance - RCSA Section 22a-430-3(k)(3)

You must notify the Director of the Bureau of Materials Management and Compliance Assurance not less than twenty-four (24) hours prior to the use of any alternative collection, treatment or pretreatment scheme intended to prevent a bypass during periods of scheduled maintenance. Such a scheme shall not be used without the Director's prior written approval.

(8) Discharge of Unauthorized or Excess Pollutants or Wastewaters to a POTW

(Applicable to POTWs only) - RCSA Section 22a-430-3(l)(2)

Any municipality operating a POTW must provide written notification to the Director of the Bureau of Materials Management and Compliance Assurance of:

(A) any known discharge of pollutants to its POTW in excess of those quantities or concentrations permitted by the commissioner,

(B) any known discharge of wastes to its POTW in excess of those quantities or concentrations which existed prior to the issuance of the POTW's permit, or

(C) any known new discharges of any process wastewaters or cooling waters to its POTW without a permit from the commissioner.

Such notice must include information on the quality and quantity of effluent entering the POTW and any anticipated impact of the discharge on the quantity or quality of effluent to be discharged from the POTW.

(9) Submission of Incorrect or Incomplete Information - RCSA Section 22a-430-3(j)(9)(c)

If at any time you become aware that incorrect or incomplete information has been submitted, you must:

(A) Notify the Bureau of Materials Management and Compliance Assurance within seventy-two (72) hours.

(B) Submit written correct and/or complete information to the Director within thirty (30) days.

(10) Compliance with Step in Order Schedule - RCSA Section 22a-430-3(j)(11)(c)

If a schedule of compliance is included in a permit either directly or indirectly by reference to a separate abatement order, the permittee shall notify the comissioner in writing when compliance with each step is achieved.

(11) Facility Modifications - RCSA Section 22a-430-3(i)(2)&(3)

(A) Facility Expansion or Alteration, Production Increase or Process Modification RCSA Section 22a-430-3(i)(2)

You must notify the Bureau of Materials Management and Compliance Assurance and obtain the commissioner's written approval prior to undertaking any facility expansion or alteration, production increase or process modification if such modification may result in the discharge of any new water, substance or material or increase the quantity or concentration of an existing pollutant beyond permit conditions, or may constitute a new source.

(B) Expansion or Significant Alteration of any Wastewater Treatment Facility or its Method of Operation - RCSA Section 22a-430-3(i)(3)

You must notify the Bureau of Materials Management and Compliance Assurance and obtain the commissioner's written approval prior to undertaking an expansion or significant modification of any wastewater treatment facility or its method of operation unless such change is necessary to correct a permit violation or avoid an imminent permit violation. Where a modification is necessary to correct or avoid a permit violation, you must follow the notification and reporting procedures specified under Section 9(b)(5).

(12) Discharge of a Hazardous Waste to a POTW - 40 CFR Part 403.12(p) and (j)

You must provide a one-time written notification to the commissioner of the department and the superintendent of the receiving POTW within 180 days of any discharge of:

(A) More than fifteen (15) kilograms during any calendar month of a substance, which, if otherwise disposed of, would be a hazardous waste under 40 CFR Part 261, or

(B) Any quantity of a substance which, if otherwise disposed of, would be an acute hazardous waste as specified in 40 CFR 261.30(d) and 261.343(e).

Such notification must include the following information:

(i) the name of the hazardous waste as set forth in 40 CFR Part 261;

(ii) the EPA hazardous waste number; and

(iii) the type of the discharge (continuous, batch, other).

If you discharge more than 100 kilograms of such waste per calendar month to the POTW, the notification must also contain the following information:

(iv) an identification of the hazardous constituents contained in the wastes;

(v) an estimation of the mass and concentration of such constituents in the wastestream discharged during that calendar month; and

(vi) an estimation of the mass of constituents in the wastestream during the following twelve months.

You need only submit the required notification once for each hazardous waste discharged, however, you must promptly notify the POTW in advance of any substantial change in the volume or character of such waste. These notification requirements do not apply to pollutants already reported under the self-monitoring requirements in your permit.

(c) Circumstances Requiring Notification of the Receiving POTW

Noncompliance with Permit Terms or Conditions - RCSA Section 22a-430-3(j)(11)(D) [See Section 9(b)(3)]

Discharge of a Hazardous Waste to a POTW - 40CFR Part 403.12(p) [See Section 9(b)(12)]

(1) Noncompliance with a Local Requirement

You may be required to notify the superintendent of the receiving POTW if specified in any agreement reached between yourself and the municipality operating the POTW to which you discharge.

Section 10: Permitting and Enforcement Division Phone Numbers for Information and Assistance

Name	Phone
24-Hour Emergency Response Unit	860-424-3338
Wastewater Treatment System Operational System, Modification, Bypass or Spill	860-424-3025
General Information, Assistance and Engineer of the Day	860-424-3025
DEEP Client Concierge	860-424-3074
Water Permitting & Enforcement Division:	
Oswald Inglese, Director	860-424-3725
Kim Hudak, Assistant Director	860-424-3396
Subsurface Disposal and Agriculture:	
Michael Hart, Supervisor	860-424-3819
NPDES Industrial Permits:	
Michael Hart, Supervisor	860-424-3819
Pretreatment:	
Michelle Gore, Supervisor	860-424-4160
Stormwater:	
Karen Allen, Supervisor	860-424-3842
Industrial General Permits:	
Melissa Blais, Supervisor	860-424-3834
DMR Processing:	
Suzette Flecha, Supervisor	860-424-3809
Aquatic Toxicity:	
Traci Iott, Supervisor	860-424-3025

Section 11: DEEP Inspectors

Name	Phone Number
NPDES Industrial Permits:	
Rita Langan	860-424-3822
Robin Jazxhi	860-424-3280
Subsurface Disposal and Agriculture:	
Robin Jazxhi	860-424-3280
Joseph Wettemann	860-424-3803
Pretreatment Permits:	
Chris Gerke, Pretreatment Inspection Lead	860-424-3818
Stormwater:	
Karen Abbott	860-424-4038
Laura Gaughran	860-424-4049

Section 12: References and Resources

- RCSA Section 22a-430-3, Water Discharge Permit Regulations
- RCSA Section 22a-430-4, Water Discharge Permit Regulations
- RCSA Section 22a-430-6, Water Permit Fee Regulations
- CGS Chapter 446k of Title 22a, Water Pollution Control
- Code of Federal Regulations, 40 CFR Parts 100-149, 400-699 (Water Programs, Effluent Guidelines & Standards)
- Permit Application for Wastewater Discharges (DEP-PERD-APP-100)
- Instructions for Completing the Permit Application for Wastewater Discharges (DEP-PERD-INST-100)
- RCSA Section 22a-449(c), Hazardous Waste Management Regulations
- CGS Chapter 454 of Title 22a, Permits for the Collection, Storage, Treatment, Containment, Removal or Disposal of Certain Substances, Materials or Waste
- Code of Federal Regulations, 40 CFR Parts 260-269, 270 and 279 (Hazardous Waste Regulations)
- Pollution Prevention Options - Fact Sheets for Industry, dated June 1, 1993
- Best Management Practices for the Protection of Groundwater, dated September 21, 1992
- Case Studies and Fact Sheets for Wastewater Reduction and Pollution Prevention Opportunities (EPA/ConnTAP)

Selections attached to this package include:

- Reuse of Process Water and Non-Contact Cooling Water
- Energy Efficient Cooling and Closed-Loop Operation
- Reducing Water Use and Discharges
- Counterflow Rinsing and Process Improvements Results in Less Waste
- Water Conservation Tips for Industry
- Reducing and Recycling Non-Contact Cooling Water
- Material Recovery Technologies for Wastewater
- Environmental Research Institute, University of Connecticut, 860-486-4015

General Permits

A list of currently available general permits for wastewater can be found on our DEEP website at: https://portal.ct.gov/DEEP/Permits-and-Licenses/Water-Discharge-Permits-and-General-Permits

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL
PROTECTION BUREAU OF MATERIALS
MANAGEMENT AND COMPLIANCE ASSURANCE
PERMITTING AND ENFORCEMENT
DIVISION 860-424-3025

Discharge Monitoring Report Instruction Manual

Amey W. Marrella, Commissioner

Revised only to reflect current contact information on January 6, 2021

Last full revision: 10/01/2009

Discharge Monitoring Report (DMR) Instructions

To avoid common mistakes in completing DMRs, please be sure to read and adhere to the following:

Submitting your DMR

1. *You are responsible* for making enough copies of the enclosed DMR forms needed for the life of your permit. You will *not* be sent additional DMR forms unless your permit is modified or reissued.

    - File the original DMR (enclosed) to enable you to make copies each year for the life of your permit.

    - Use only the forms provided by the DEEP or an exact replica. Facilities that create their own forms must include a certification statement on each DMR as follows:

      "I certify under penalty of law that this document is identical in format and content to the preprinted Discharge Monitoring Report which I received from the Department of Environmental Protection on **[insert date]** "

2. *You must submit a DMR each month even if you did not have a discharge for the entire month*. The only exception is for DMRs with parameters that are required to be sampled quarterly, semiannually, or annually.

    - If there was a discharge during *part* of a sampling period, you are still required to sample and report those results.

    - If you do not have a discharge for a sampling period, indicate by writing "NO FLOW" through the column concerned. *If you do not have a discharge for an entire sampling period, you must submit a DMR indicating that there was no flow for the entire period.*

    - For those parameter(s) that are no longer required by your permit to be sampled, you should write "LIMITS NO LONGER IN EFFECT" on the DMR where you would normally record the results.

    - Submit each DMR by the end of the month after the month in which sampling occurs. All DMRs for the sampling month **must be received** by the end of the month following sample collection. Example: January samples are due by February 28.

    - Do not report more than one month's sample results. Samples taken in different calendar months should be reported on separate DMRs. Example: a sample taken on Wednesday 9/30/02 is to be reported on the September DMR, a sample taken Thursday 10/01/02 is to be reported on the October DMR.

3. If your permit has been modified and you have not received a new set of preprinted DMRs, follow the procedure below until you receive your new DMRs:

    - If the modification now includes additional parameter(s) to be sampled and reported, you must begin to sample and report results for that parameter **immediately**. You should write the results either on the bottom of the DMR or attach additional sheets to the DMR. You should identify the discharge and the parameter name and all sampling results as required. Be sure to include your

permit ID and facility name on each sheet. Please contact the DMR unit for a copy of the new DMRs.

4. For those companies that have completed and mailed their DMR and later notice an error or omission, send a corrected DMR marking the top of the form "REVISED" (use red pen), and highlight all changes. This will alert the Data Staff of a revised DMR and exactly what the changes are. Also include an explanation for each change and a second signed certification attesting to the validity of the revised information. Under RCSA section 27a-430-3 (j), if the permittee becomes aware that any information submitted was erroneous, or that required or any necessary information was omitted, he or she shall notify DMR processing within seventy two hours and submit the correct information in writing within thirty days.

   - Remember: You are required to follow the monitoring requirements of your permit at all times, even if the DMR form is inconsistent with the permit.

5. Report all samples results obtained with proper analytical techniques on your DMR. If you sample more frequently than what space allows, attach additional sheets. You should identify the discharge and the parameter name and all sampling results as required. Be sure to include your permit ID and facility name on each sheet.

6. Submit the original DMR signed and dated by a responsible officer, owner or duly authorized representative (See RCSA Section 22a-430-3(b) (2)(B), Signatory Requirements).

7. Continue to submit DMRs until your permit is revoked. Indicate "NLD" if you are no longer discharging. To revoke a permit, a request must be made in writing to the district engineer. You must also submit a closure plan for approval if you have waste chemical solutions to dispose of.

8. If you notice any errors on the DMR form contact:

   Lilly Molina 860-424-3922
   Luis Muniz 860-424-3812

Completed DMRs should be mailed to:

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
DMR PROCESSING UNIT
79 ELM STREET
HARTFORD, CT 06106

The Permit ID should be included on any correspondence concerning your permit or DMRs.

Completing your DMR

1. The DMR form must be filled out completely and can be typed or neatly handwritten. Provide all required information. Any parameters that do not have a result will be tagged as non-reported. Leaving a parameter blank or inappropriately inserting “NA” or “NO FLOW” will be considered as non-reported. Non-reported results are considered permit violations.

2. Do not change the units on the DMR form. Perform any calculation necessary to report the result in the units originally printed on the DMR form. If the units on the DMR are in "mg" and the results are reported in "ug", a limit violation will occur. If the units on the DMR form are not consistent with your permit you are required to follow the monitoring requirements of your permit at all times. Please contact the DMR unit to resolve these issues. Submit a corrected DMR as instructed previously in this document under item 4 "Submitting your DMR".

3. Use decimals as necessary, not fractions.

4. Permittees must enter results in the minimum, average and maximum columns (whichever is applicable per their permit) for each reporting period.

   - In the minimum column report the lowest single sampling result of all the samples taken. Do this for each pollutant parameter that requires a minimum sample result.

   - In the average column report the average of all the pollutant parameter samples taken. Add the individual sample results for that month, divide by the number of samples taken and enter that result in the average column. Do this for all pollutant parameters except for those with a sample type of RC (range during composite) which cannot be averaged. This column should be prefilled with "XXXX"s, if not leave the average column blank for these. In calculating average concentrations, use zeros for "non-detect" values.

   - In the maximum column report the highest single sampling result of all the samples taken. Do this for each pollutant parameter that requires a maximum sample result.

   - If just one sample is taken in a given month, enter the same value in all three columns.

   - If the sampling frequency is more than once a week, the results must be submitted on a separate page attached to the DMR.

   - To assist you in filling out your DMRs, "XXXXX"'s have been prefilled to indicate that no minimum, average, or maximum sample result is required for a particular pollutant parameter.

   - If the analysis of the sample indicates results below the detection limit, enter a "ND" (non detected) before the minimum column and fill in the minimum, average and maximum columns with whatever the detection limit was **using a less than sign before the detected limit**. See example below. Do not use the term "trace" as a quantification value.

     Example:

Parameter Name	Minimum	Average	Maximum
Copper	ND <0.01	0.0	ND <0.01
Zinc	ND <0.01	0.10	1.15

5. **Parameters:**

- **pH:** Enter the range of pH under "Sample Weeks (1-5)" for each day that a grab sample average or composite sample is collected.

- **pH (CODE 00400 Range During Composite):** pH must be reported as a range composite samples. It is the low and high value for the sampling period. You cannot average a pH value. If both values are not present you will be considered in violation. Enter the range of pH for the month in the "Minimum" and "Maximum" columns.

- **pH (CODE 00400 Grab):** If more than one grab sample was done for a reporting period, the lowest result must be entered as the minimum and the highest result must be entered as the maximum. If only one sample was taken, that result should appear in the minimum and maximum columns. Those results cannot be averaged.

- **Total Residual Chlorine (CODE 50060 Range During Composite):** Total residual chlorine must be reported as a range. It is the low and the high value for the sampling period. You cannot average this value. If you do not report both results, you will be considered in violation.

- **Total Residual Chlorine (CODE 50060 Grab):** If more than one grab sample was taken for the reporting period, the lowest result must be entered as the minimum and the highest result must be entered as the maximum. If only one sample was taken, that result must appear in the minimum and maximum columns.

- **Total Toxic Organics (TTO) (CODE 78141):** You must report a value for TTO unless you have a Solvent Management Plan (Toxic Organic Management Plan) approved by DEEP. With an approved Solvent Management Plan you may submit a result or initial the compliance statement on each monthly DMR as required by your permit. If there is no discharge for the month you must still initial the certification statement.

- **Flows:**
  - **Average Daily Flow:** is the average of all-total daily flows measured during any calendar month. Use only those days on which a discharge occurs to calculate average daily flow.

  - **Hours of Discharge:** is the total amount of time the discharge occurred on the day of **sampling**. Report all time in hours and decimal fractions of hours (not minutes). (Example: Enter 7.25 for 7 hours and 15 minutes.)

  - **Total Flow for the day of Sampling:** is the entire **flow** for the day that samples were taken.

- **Aquatic Toxicity:** For aquatic toxicity enter a "P" for pass or an "F" for fail in the average column. Do not indicate the percentage survival rate. Tests must be performed early in the required testing month to insure that all laboratory data is available by the end of the following month. When an aquatic toxicity test fails, it is the facility's responsibility to retest within 30 days and submit results by the end of the following month. Write the testing parameter names and codes with the results on the bottom of the DMR to be submitted.

6. **Remember**: You are required to sample and report all parameters, inspections and/or validations as specifically required by your permit. If your new DMR does not list all of the parameters required by your permit, you should contact the DMR unit to resolve the issues and:

   - Write the additional results on the bottom of the DMR or on additional sheets identifying the discharge, parameter name, and the minimum, average and maximum results. Attach any other result that you are required by your permit to report. Be sure to include your permit ID and facility name on each sheet. Submit a corrected DMR as instructed previously in this document under item 4 "Submitting your DMR". See example below:

NEW PARAMETER:

DSCH	PARAMETER	MIN	AVG	MAX	1	2	3	4	5
001 A Mon Loc 1	Copper	XXX	0.78	1.4	0.2	0.1	1.4	1.2	1.0

7. **Additional Notes:**

   - If your permit contains a provision which requires monitoring for one or more pollutant(s) only under certain specified conditions, for example only at times when they are expected to be present in a discharge, please make sure that such monitoring is undertaken and the results provided in the DMR or note on the DMR why no sample was taken.

   - Please make sure that sampling is conducted on the months specified in the definitions section of the permit (e.g. January, April, etc.) or if it is not specified, then as specified in the pre-printed DMRs you receive from DEEP.

   - Please be sure to include in the DMR submission, a cover letter with an explanation for any violation(s) of effluent limitations (including flow limits) and corrective actions taken, and explain any failure to monitor for any pollutants.

   - In some instances a permittee will submit a laboratory report of a sample analysis and write on the DMR "see results attached". The permittee is responsible for completing the DMR form based on the lab results.

   - If your company changes ownership, your permit must be transferred to the new owner, corporation, or LLC. Transfer forms can be found on DEEP's website at https://portal.ct.gov/DEEP/Permits-and-Licenses/Permitting-Factsheets/Permit-Transfer-Fact-Sheet and shall be submitted 30 days prior to transfer.

   - To request a modification or revocation of your permit, please contact the appropriate permitting district for your area at 424-3018. Facilities must submit a written request and receive approval from the DEEP per CGS Section 22a-430-4(p).

   - Note your permit expiration date. A renewal application must be submitted 180 days prior to permit expiration to continue legal coverage and avoid late fees.

   - See Water Discharge Permit Regulations Section 22a-430-3 and 22a-430-4 for definitions.

Specific DMR Form Instructions

The following definitions correspond to a labeled number on the attached example DMR form. Any shaded areas on the DMR form should be prefilled by DEEP. Any white non-shaded areas must be completed by the applicant. Please verify that all prefilled areas are consistent with your permit. If not, follow the instructions under item 4 "Submitting your DMR" to correct your DMR form. Remember: You are required to follow the monitoring requirements of your permit at all times, even if the DMR form is inconsistent with the permit.

1. **PERMIT TYPE CODE:** Identifies one of the following types of permit the DMR represents.
   - **CT –NPDES Permit:** permit ID's beginning with CT which represent discharges to surface water
   - **SP – State permit:** permit ID's beginning with SP which represent discharges to a sanitary sewer (POTW), also known as pretreatment permits
   - **AG:** permit ID's beginning with AG which represent agricultural discharges
   - **LF:** permit ID's beginning with LF which represent landfill discharges
   - **UI:** permit ID'S beginning with UI which represent discharges from septic systems (underground injection control sites)

2. **PERMIT ID:** A unique 9-character code that identifies a specific permit.

3. **PERMIT DESIGNATION:**
   - **MAJ:** Major
   - **SIG:** Significant Minor
   - **MIN:** Minor

4. **Dist, Town, Loc:** Codes used to uniquely identify your company by district, town and location.

5. **Key, Issue, Expire:** Identifies the permit number and issuance and expiration dates.

6. **Discharge or Monitoring ID:** Identifies the Discharge Serial Number (same as on your permit) that identifies the discharge and/or monitoring sites. Listed under the discharge or monitoring ID's are the parameters required to be sampled.

7. **Mon Loc:** Is a code used by the agency to further identify the discharge or monitoring site. One parameter may have several monitoring location requirements pertaining to the same pipe. Note the Mon Loc that identifies the pipe itself is 1.

8. **Sample Month and Year:** Is the calendar month and year in which you took samples and are reporting the results for.

9. **Sample Week(s):** Fill in the date(s) the samples were taken.

10. **1 through 5:** Under each sample week (week number one through five) enter the sample results for that week. Use these sample results to calculate the Minimum, Average and Maximum results. Note that pollutant parameters with a sample type of RC (range during composite**) cannot be**

averaged, therefore enter the low and high for RC samples taken that week. The average column should be prefilled with "XXXX"s otherwise leave it blank.

11. **CODE:** Is a code used to identify a specific pollutant parameter.

12. **Start:** Is the date the limits for each pollutant parameter went into effect.

13. **S:** Is a code used to identify if a pollutant parameter has seasonal limits.

14. **M:** Is a code used to identify if a pollutant parameter has been modified.

15. **TYP:** Is a code used to identify the type of sample you are required to perform.

#A	# Hours Average Taken	I	Instantenous Flow
24C	24 Hour Composite	IM	Instantenous Measurement
4C	4 Hour composite	N/A	Not Applicable
BC	Batch Composite	OC	Occurs
BT	Total Of Batches	RC	Range During Composite
CA	Calculate	RD	Range During Day
CN	Continuous	REP	Attach Report
CP	Composite	RGS	Range During Grab Sample
CR	Check Requirements	RS	Range During Sampling
DC	Daily Composite	RY	Range Collect Cyanide Sample
E	Estimates	S	See Permit
G	Grab	T	Total
GSA	Grab Sample Average	V	Visual
H	Time In Hours		

16. **UNIT:** Is a code used to identify the units that your permit requires reports in.

10 Per Milliliter	10/ML	Degrees Centigrade	DEG C
1000 Cubic Feet	1000CF	Degrees Fahrenheit	DEG F
1000 Gallons Per Day	TGAL/D	Degrees Farenheit Per Hour	F/HR
Acres	ACRES	Dry Tons	DTONS
Acute Toxicity	AC/TOX	Feet	FT
Admi Unit Color	ADMI	Feet Per Second	FTS
British Thermal Units	BTU	Fibers Per Liter	FIB
BTU'S Per Day	BTU/D	Formazin Turbidity	FTU
BTU'S Per Hour	BTU/HR	Gallons	GAL
BTU'S Per Minute	BTU/M	Gallons Per Batch	GPB
BTU'S Per Second	BTU/S	Gallons Per Day	GPD
Centimeters	CM	Gallons Per Hour	Gal/Hr
Chronic Toxicity	CH/TOX	Gallons Per Minute	GPM
Color, Platinum Cobolt	PT-CO	Gallons Per Month	GAL/M
Conductance, Micromho/CE	UHM/CM	Gallons Per Ton Live Weight	GA/TLW
Counts Per Liter	CNT/L	Gallons Per Week	GAL/WK
Cubic Feet Per Day	FT3/D	Gallons Per Year	GAL/Y
Cubic Meters Per Day	M3/D	Gallons Per Acre	GAL/AC
Cubic Yards	CUB YD	Grams Per Day	GR/DAY
Curies Per Milliliter	CU/ML	Grams Per Liter	GR/L
Curies/Day	CU/D	Grams Per Milliliter	GR/ML
Cycles	CYC	Grams Per Milliliter	G/ML
Day	D/Day	Hours	HRS
Days Per Week	D/WK	Hours Per Day	HR/D
Degrees C Per Hour	C/HR		

Hours Per Month	HR/MO	Most Probable Number Per 100ML	PN/100
Hours Per Week	HR/WK	Nanograms Per Liter	NG/L
Jackson Turbidity Candle Unit	JTU	Nephelometric Turbidity Units	NTU
Kilograms Per Month	KG/M	No = O Yes = 1	Y/N
Kilograms	KG	Number Of Days	# DAYS
Kilograms Per 1000 Gallons	KG/TGA	Number Per 100 Milliliters	#/HML
Kilograms Per 1000 Kilograms	K/1000	Number Per Milliliter	#/ML
Kilograms Per Batch	KG/BAT	Occurrences Per Day	OCC/D
Kilograms Per Day	KG/D	Occurrences Per Week	OCC/WK
Kilograms Per Hour	KG/HR	Parts Per Billion	PPB
Kilograms Per Liter	KG/L	Parts Per Million	PPM
Kilograms Per Metric Ton Prod	KG/MTP	Parts Per Quadrillion	PPQ
Kilograms Per Year	KG/YR	Parts Per Thousand	PPTH
Liters	LITER	Parts Per Trillion	PPT
Megawatts	MWATTS	Pass/Fail	P/F
Meters	METER	Percent	%
Meters Per Second	MPS	Percent Mortality	%/MORT
Metric Tons Per Day	MT/D	Percent Removal	% REM
Microcuries Per Milliliter	UC/ML	Percent Samples In Compliance	%COMP
Micrograms Per Kilogram	UG/L	Percent Survival	% SURV
Micrograms Per Liter	UG/L	Picocuries Per Liter	PCI/L
Micromhos	UMHOS	Picocuries Per Milligram	PCI/MG
Milligrams Per Day	MG/DAY	Picocuries Per Milliliter	PIC/ML
Milligrams Per Kilogram	MG/KG	Picograms Per Liter	PCG/L
Milligrams Per Liter	MG/L	Pounds	LBS
Milligrams Per Square Meter	MG/SM	Ratio	RATIO
Milliliters Per Liter	ML/L	Severity Units	SEV U
Million BTU'S Per Day	MBTU/D	Short Tons Per Day	ST/D
Million Gallon Per Day	MGD	Sludge Volume Index	SVI
Million Gallons Per Batch	MGAL/M	Square Feet	FT2
Million Gallons Per Month	MGAL/M	Standard Units	SU
Million Gallons Per Batch	MGAL/B	Streamflow Cubic Meter Per Day	CMSF/D
Million Gallons Per Month	MGAL/M	Threshold Number	THRESH
Million Gallons Per Year	MGA/YR	Time, Hours And Minutes	HHMM
Million Gallons Per Year	MGAL/Y	Tons Per Day	TON/D
Million Pounds Per Year	MLBS/Y	Total Numbers	NUMBER
Minutes	MIN	Toxicity Units	TOX U
Minutes Per Day	M/DAY	Visual	VISUAL

17. **Parameter:** Is the name of the pollutant parameter that you are required to sample and report the results of analyses and/or readings. See your permit for verification of the exact parameter to sample, although this item is prefilled by DEEP.

18. **Minimum Average Maximum:** Are the columns you enter pollutant parameter sample results. Use the results under the **Sample Week(s)** to calculate the minimum, average, and maximum results and enter those results in the Minimum, Average and Maximum columns. For samples that are taken more than once a week, identify on attached sheets these results and calculate the minimum, average, and maximum results directly from the attached sheets and enter those minimum, average, and maximum results under the Minimum, Average and Maximum columns.

19. **FREQ:** Is a code used to identify the frequency of sampling required.

10/30	10 Times Per Month
12/01	12 Times Per Day
12/30	12 Times Per Month
15/30	15 Times Per Month
16/01	16 Per Day
18/30	18 Per Month
20/30	20 Times Per Month
03/05	3 Times Per 5 Days
03/BA	3 Times Per Batch
03/07	3 Times Per Week
03/YR	3 Times Per Year
04/BA	4 Times Per Batch
04/01	4 Times Per Day
05/08	5 Times Per 8 Days
05/01	5 Times Per Day
05/30	5 Times Per Month
05/90	5 Times Per Quarter
05/SH	5 Times Per Shift
05/07	5 Times Per Week
05/WK	5 Times Per Week
06/30	6 Times Per Month
08/BA	8 Times Per Batch
08/01	8 Times Per Day
08/30	8 Times Per Month
09/01	9 Times Per Day
09/30	9 Times Per Month
88/88	Cleaning
99/99	Continuously
01/01	Daily, One Per Day
02/14	Every 2 Weeks
48/01	Every Half Hour
05/BA	Five Per Batch
04/30	Four Per Week
24/01	Hourly
N/A	No Sampling Requires
01/12	Once Per 12 Days
½	Once Per 2 Days
01/60	Once Per 2 Months
01/14	Once Per 2 Weeks
01/03	Once Per 3 Days
01/28	Once Per 4 Weeks
01/05	Once Per 5 Days
01/08	Once Per 8 Days
01/BA	Once Per Batch
01/DD	Once Per Discharge Day
01/DW	Once Per Discharge Week
01/SH	Once Per Shift
01/07	Once Per Week (Weekly)
01/YR	Once Per Year (Annually)
01/90	Once Every 3 Months (Quarterly)
01/30	Once Per Month (Monthly)
03/99	See Permit
04/99	See Permit
07/30	Seven Times Per Month
06/01	Six Per Day
06/07	Six Per Week
03/30	Three Per Month
03/08	Three Times Per 8 Days
03/01	Three Times Per Day
02/30	Twice A Month (Bi-Monthly)
02/YR	Twice A Year (Semi-Annually)
02/BA	Twice Per Batch
02/01	Twice Per Day
02/SH	Twice Per Shift
02/07	Twice Per Week
02/90	Twice Quarterly
WH/DS	When Discharge Occurs

20. **TTO Statement:** Either write the results of a TTO sample or initial the compliance statement. You are required to follow the monitoring requirements of your permit at all times. TTO sampling must be performed at the frequency specified in your permit until your solvent management plan has been approved in writing by the commissioner.

21. **Number of Pages:** This is used to verify if all pages of your DMR form are sent in.

Please remember, each monthly DMR report could have different parameters and number of pages. Some parameters are required annually or quarterly and would not appear on each monthly DMR report. The same is true for pipes, some pipes are due annually or quarterly and will only appear on the monthly DMR reports they are required. Always use the correct monthly DMR report when submitting your results, we will be sending back any DMR reports that are not submitted on the correct DMR report, and you will be in non-compliance until we receive the results on the correct monthly DMR report.

DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MATERIALS MANAGEMENT AND COMPLIANCE ASSURANCE
DMR PROCESSING UNIT
79 ELM STREET
HARTFORD, CT 06106

DATE RECEIVED (Stamped):

☐ Logged ☐ Entered ☐ QA'd

SAMPLE Discharge Monitoring Report

If there are any changes or corrections with your facility information, please cross out incorrect information and replace with correct information, mark the top of the form "Revised" in red pen and include an explanation for each change on an attached sheet. Please see DMR instructions for more details.

Facility: **ABC Circuits, Inc.**

Town: **Bethel**

Phone: **203-999-9999**

Contact: **John Smith**

Permit:	1 SP	2 0000003	3 MAJ						4 Dist: I1 Town: 009 Loc: 020				
5 Key: SP0000003 Issue: 042991 Expire: 042996				Average Flow: 20000 GPD Metal Finishing					8 Sample Month: January___(yr)				
6 Discharge: 001 1			7 Mon Loc: 1						9 Sample Weeks				
11 Code	12 Start	13/14 S/M	15 TYP	16 Unit	17 Parameter	18 Minimum	18 Average	18 Maximum	19 Freq	10 1	10 2	10 3	10 4	10 5
01027	042991	0/0	DC	MG/L	Cadmium, Total	xxxxxxxx			01/30					
01034	042991	0/0	DC	MG/L	Chromium, Total (AS CR)	xxxxxxxx			01/30					
01042	042991	0/0	DC	MG/L	Copper, Total	xxxxxxxx			01/07					
00720	042991	0/0	GSA	MG/L	Cyanide, Total	xxxxxxxx			01/07					
81381	042991	0/0	H	HR/D	Duration of Daily Dischar	xxxxxxxx			01/07					
74076	042991	0/0	T	GPD	Flow, Day of Sampling	xxxxxxxx			01/07					
01051	042991	0/0	DC	MG/L	Lead, Total (AS PB)	xxxxxxxx			01/07					
01067	042991	0/0	DC	MG/L	Nickel, Total (AS NI)	xxxxxxxx			01/07					
00400	042991	0/0	RC	SU	pH		xxxxxxxx		01/07					
01077	042991	0/0	DC	MG/L	Silver, Total (AS AG)	xxxxxxxx			01/07					
00530	042991	0/0	DC	MG/L	Solids, Total Suspended	xxxxxxxx			01/07					

Key: SP0000003 Issue: 042991 Expire: 042996					Average Flow: 20000 GPD Metal Finishing					Sample Month: January___(yr)				
Discharge: 001 1			Mon Loc: 1							Sample Weeks				
Code	Start	S/M	TYP	Unit	Parameter	Minimum	Average	Maximum	Freq	1	2	3	4	5
01102	042991	0/0	DC	MG/L	Tin, Total (AS SN)	xxxxxxxx			01/07					
78141	042991	0/0	G	MG/L	*Total Toxic Organics (TTO)	xxxxxxxx	xxxxxxxx		01/30					
01092	042991	0/0	DC	MG/L	Zinc, Total (AS ZN)	xxxxxxxx			01/30					

20

*At the frequency required in the discharge permit, include either the result of analyses for TTO or initial the following statement:
Based on my inquiry of the person or persons responsible for managing compliance with the permit limitation for Total Toxic Organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing the last discharge monitoring report, which required such certification. I further certify that this facility is implementing the solvent management plan approved by the commissioner.
_____ (Provide initials here)

Key: SP0000003 Issue: 042991 Expire: 042996					Average Flow: 1000 GPD Metal Finishing					Sample Month: January___(yr)				
Discharge: 002 1			Mon Loc: 1							Sample Weeks				
Code	Start	S/M	TYP	Unit	Parameter	Minimum	Average	Maximum	Freq	1	2	3	4	5
81381	042991	0/0	H	HR/D	Duration of Daily Dischar	xxxxxxxx			01/30					
74076	042991	0/0	T	GPD	Flow, Day of Sampling	xxxxxxxx			01/30					
00400	042991	0/0	RC	SU	pH		xxxxxxxx		01/30					
00530	042991	0/0	DC	MG/L	Solids, Total Suspended	xxxxxxxx			01/30					

Statement of Acknowledgement

21 **This DMR consists of____pages for the reporting period January_____(yr)**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature of Authorized Official | Title (if applicable) | Date

Name of Authorized Official (print or type):