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# ZDHC Gateway Electronic Data Reporting System Guidelines

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Version 2.0

*February 2020*



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# 1.0.0 Revision History

In the spirit of continuous improvement, the ZDHC Gateway Electronic Data Reporting System Guidelines may be revised as needed to incorporate learnings and opportunities identified during the practical application and implementation of the ZDHC Wastewater Guidelines. A historical record of the updates to the Guidelines is noted in the table below.

Version Number	Changes	Publish Date
Version 1.0	ZDHC Gateway Electronic Data Reporting System Guidelines	August 2019
Version 2.0	<p>Changes to field names, i.e. "Sampling Location" changed to "Sample type", "Extraction Method" changed to "Test method":</p> <p>Additional optional fields added i.e. "Field ID Latitude" and "Field ID Longitude".</p> <p>Additional required fields added i.e. "EDR Version Number",</p> <p>Changes to field material i.e. switch from "CAS" to "Parameter Code"</p> <p>Changes to Parameters i.e. Changes in from "Colour (436nm; 525; 620nm)" to "Colour (436nm)", "Colour (525nm)", and "Colour (620NM)".</p> <p>Removal of fields including "Extraction Method", "Sub-test method".</p> <p>Removal of fields requesting QA/QC data such as "Spike Added" and "Surrogate".</p>	February 2020

	<p>The addition of data validation on input values. Every field listed on the EDR has a set of specific validation rules. Only data that meets every validation rule will be accepted into the ZDHC Gateway.</p> <p>The addition of smart logic on the EDR including the inability to fill out corresponding fields without the correct prerequisites. I.e. inability to report "Percent Solid" if the "Sample Type" field is not reported to be "Sludge".</p> <p>Updates to the ZDHC Gateway in accordance with the changes made in ZDHC Gateway Electronic Reporting Guidelines.</p>	
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## 2.0.0 Introduction

ZDHC Gateway Wastewater Module was launched in July 2017. To ensure the data upload procedure is efficient and accurate these guidelines for the ZDHC Gateway Electronic Data Reporting System were created. Moving forward, it is vital that the data integrity is at its highest possible standard in order to support the textile, apparel, leather, and footwear industry to make scientific and data driven decisions in shaping the future of the ZDHC Programme.

## 3.0.0 Purpose of the Document

This document provides a detailed framework for the ZDHC Accepted Laboratories to report the wastewater and sludge test results onto the ZDHC Gateway Wastewater Module using a standard data scheme. The scope of this document may be expanded in the future should other means of output (for example Air Emissions) be required to be reported.

## 4.0.0 Reference Documents

Before implementing the ZDHC Gateway Electronic Data Reporting System Guidelines, it is necessary to understand the related work within the ZDHC that supports the implementation efforts. The key documents are listed as follows, and readers should refer to the latest version of the documents unless specifically stated:

- ZDHC Manufacturing Restricted Substances List (ZDHC MRSL) Version 2.0 released in November 2019.
- ZDHC Textile Industry Wastewater Discharge Quality Standards Literature Review released in May 2015.
- ZDHC Gateway Laboratory Acceptance Programme - Wastewater Guidelines. The details of this programme, such as minimum acceptance criteria, subcontracting principles, application, and review processes are available on the online laboratory

application form, which is publicly accessible.

- ZDHC List of Accepted Laboratories for ZDHC Wastewater Guidelines Testing.
- ZDHC Wastewater and Sludge Laboratory Sampling and Analysis Plan (SAP).
- ZDHC Gateway Electronic Data Reporting System Guidelines.
- ZDHC Gateway

The latest version of documents specified above are available on the ZDHC Output Focus Area webpage [here](#).

- ZDHC Gateway User Terms and Conditions.
- ZDHC Root Cause Analysis and Corrective Action Plan Template.

The latest version of these specified documents are available on the ZDHC Gateway under “Help and Support” (login required).

## 5.0.0 Expectations

ZDHC Accepted Laboratories are expected to fully meet the requirements stated in the latest versions of:

- a. ZDHC Wastewater Guidelines
- b. ZDHC Gateway Laboratory Acceptance Programme - Wastewater Guidelines
- c. ZDHC Wastewater and Sludge Laboratory Sampling and Analysis Plan (SAP)

In addition, when the ZDHC Gateway Electronic Data Reporting System becomes available on the ZDHC Gateway Wastewater Module, ZDHC Accepted Laboratories are expected to meet the requirements stated in this document.

ZDHC reserves the right to:

- Require existing ZDHC Accepted Laboratories to demonstrate that they meet the

technical and data integrity conditions of ZDHC Gateway Electronic Data Reporting System

- Require all applicant laboratories:
  - To successfully demonstrate that they are able to use the ZDHC Gateway Electronic Data Reporting System
  - To show the ability to meet all technical and data integrity conditions of the ZDHC Gateway Electronic Data Reporting System.
- Conduct random data audits as part of the performance review of the ZDHC Accepted Laboratories
- For those who repeatedly do not meet the requirements of the ZDHC Gateway Electronic Data Reporting System the ZDHC will temporarily deactivate the account of the laboratory ZDHC Gateway and/ or discontinue acceptance status.

## 6.0.0 ZDHC Gateway Electronic Data Reporting System Framework

### 6.1.0 System Design

The current design of the ZDHC Gateway Electronic Data Reporting System is based on a standardised data template, in which the data rules have been set (See Appendix A for more information). The procedure for uploading the test data onto the ZDHC Gateway are as follows:

1. Define the Supplier's Sample Locations and Sample Plan (Option 1, Option 2, or ZLD).
2. Drawing from the data from the Laboratory Information Management System (LIMS), the ZDHC Accepted Laboratories are expected to populate test results and related data onto the ZDHC Gateway Electronic Reporting Template with a complete dataset. This means every single parameter / analyte must be reported, unless indicated otherwise in Appendix A- EDR Field Definitions. In the event that a parameter / analyte was not analysed, then a reason must be provided. Please see "NA" in Appendix A-

EDR Field Definitions for accepted reasons.

3. When the ZDHC Accepted Laboratories are ready to upload the data onto the ZDHC Gateway, the ZDHC Accepted Laboratories shall drag and drop the completed Electronic Reporting Template onto the Gateway.
4. ZDHC Gateway will conduct an automated data validation. ZDHC Gateway will only accept the entire dataset when it is fully compliant to the data rules set forth in the documents.
5. In case the system detects issues with specific data points, the ZDHC Gateway will reject the entire dataset and point out which data point(s) need to be rectified. The Accepted Laboratories must re-upload the entire dataset after these data points have been fixed. After the dataset is uploaded another round of automated data validation will be processed before any acceptance of data. This process will repeat until all data on the Electronic Data Reporting Template is compliant with the validation rules described in Appendix A: EDR Field Definitions.
6. After successfully submitting the dataset, suppliers will be given the opportunity to review the data. The suppliers can either accept or reject the rest results as per the current system set up. Publication of the test data on the ZDHC Gateway will be done in accordance with the latest version of the ZDHC Gateway Terms and Conditions.

### 6.2.0 System Design Rationale

The ZDHC Gateway Electronic Data Reporting System is designed based on the Drag and Drop approach directly via the interface of the ZDHC Gateway. This provides the ZDHC Accepted Laboratories the full in-app experience and necessary feedback after the data validation is completed.

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## 6.3.0 Specification for Data Upload

It is possible to upload multiple test reports within the same ZDHC Gateway Electronic Data Reporting template. The file format must be Excel Macro **(.xlm)** and no larger than 10 MB.

ZDHC Accepted Laboratories should be aware that in case there are any issues with the data integrity or non-conformance to the data rules set forth in the most current version of the ZDHC Gateway Electronic Data Reporting System Guidelines, the entire dataset will be rejected by the ZDHC Gateway automatically. Therefore, ZDHC Accepted Laboratories must fix the data issues before the dataset is accepted. For this reason, the ZDHC Accepted Laboratories may consider uploading the dataset on an individual test report basis until the Accepted Laboratories are confident with the data integrity.

# Appendix A

## EDR Data Entry Requirements

The following table highlights the standardised data entry requirements. The rules apply as part of the data validation process when the dataset is uploaded onto the ZDHC Gateway.

Column Name	ZDHC Explanatory Note	Example	Data Type / Validation		Required
EDR Version Number	Version of the EDR used to determine logic to process the EDR this number will change as new fields are added or validation is changed.	1.0	Default value is the most current version of the EDR		Optional
Supplier Name	Name of the facility where sampling is conducted. Name should match the facility name on the ZDHC Gateway.	Acme Supplier A Ltd.	Type: Characters (255)	Validation: Length	Optional
Supplier ZDHC AID	Refers to the Account ID (AID) that the supplier has on the ZDHC Gateway. Labs should request this number from the supplier, and it serves as a counter-check from a data standpoint.	AB 124 M6G	Type: Characters (8)	Validation: [A-Z],[0-9] Map to an existing ZDHC AID.	Required
Supplier Lab ID	The facility/ supplier ID assigned by the Laboratory and used by the Laboratory for audit purposes.	101-1ABC	Type: Characters (255)	Validation: Length	Optional
Lab Name	The name of the primary laboratory. The name should match the Lab Name listed Gateway but it is not required.	Sample Lab GmbH	Type: Characters (255)	Validation: Length	Optional
Lab ZDHC AID	Refers to the Account ID (AID) that the accepted lab has on the ZDHC Gateway.	EDG 2334A	Type: Characters (8)	Validation: [A-Z],[0-9] Maps to an existing ZDHC AID.	Required
Sample Type	The acceptable values are as follows: - "Incoming" - "Raw" - "Discharge" - "Sludge"	Raw	Type: Characters (10)	Validation: Value is a listed option.	Required
Field ID	If the sample locations are permitted locations use the permit names. If the sample location is not permitted, use a single letter to designate the area: - "I" - Incoming - "R" - Raw - "D" - Discharge - "S" - Sludge  Follow the single letter with a zero padded 4 digit number will be the default value. For Example, D0001, I0001, I0002, S0001, S0002.	R0001	Type: Characters (50)	Validation: Length Unique for each supplier	Required

Field ID Latitude	DD.DDDDD	23.512	Type: Decimal	Validation: XXX.XXXXXX  Up to 3 digits to the left of the decimal Up to 7 digits to the right of the decimal  Positive or Negative Value  Either both Latitude and Longitude are populated or neither are.	Optional
Field ID Longitude	DD.DDDDD	23.512	Type: Decimal	Validation: XXX.XXXXXX  Up to 3 digits to the left of the decimal Up to 7 digits to the right of the decimal  Positive or Negative Value  Either both Latitude and Longitude are populated or neither are.	Optional
Lab Test Ref ID	Test Report Sample ID number assigned by the Accepted Laboratory. (Used for traceability purpose and updating the Sample Values.)  For Historic Data, if the sample ID already exists in the Gateway, then the sample will be replaced.  See 'How to Update and Delete Test Reports'.		Type: Characters (150)	Validation: Must be unique for each lab.	Optional
TRID	The Gateway Test Report ID (TRID) number assigned by the Gateway.  This is used to group all samples that are presented in a single ClearStream report. If the TRID is present in the new/ updated file all existing data linked to the TRID will be replaced by the data in the new/ updated file.  See 'How to Update and Delete Test Reports'.	TR 12P456	Type: Characters (8)	Validation: Must be in the correct format "TR" followed by 6 alphanumeric characters ([0-9],[A-Z])	Optional
Parameter Code	CAS number of the analytes that you are reporting. In case an analyte carries a multiple CAS numbers, only those stated in the ZDHC documents (such as the ZDHC Wastewater Guidelines and ZDHC MRSL) will be accepted. Please see Appendix D for a full list of Parameter Codes.	94-0-234	Type: Characters (50) ([0-9],[A-Z],-)	Validation: Must map to the Parameter Code column.	Required
Parameter	The name of the parameter that you are reporting. For Wastewater and Sludge testing, please follow the naming convention in the latest version of the ZDHC Wastewater Guidelines.	Naphthalene	Type: Characters (255)  Used for information purposes only.		Optional

Sample Date	Date of which the sampling was conducted. Date must be expressed in MMM-DD YYYY (Oct-10 2019, Jan-15 2019).	Oct-19 2018	Type: MMM-DD YYYY	Validation: Format.	Required
Preparation Date	The date the sample was prepared and extracted for analysis. Date must be expressed in MMM-DD YYYY (Oct-10 2019, Jan-15 2019).	Oct-19 2019	Type: MMM-DD YYYY	Validation: Format.	Optional
Analysis Date	The date of analysis. Date must be expressed in MMM-DD YYYY (Oct-10 2019, Jan-15 2019).	Oct-20 2020	Type: MMM-DD YYYY	Validation: Format.	Optional
Test Method	The methods which the accepted laboratory used to analyse the target analytes.  Guidance: If multiple test methods, include all methods and sub-methods.	SW 8270	Type: Characters (255)	Validation: Length	Optional
Percent Solid	The reported value is the final percentage of a dried substance. Do not include %.	95	Type: Numeric	Validation: Values 0-9. No decimals. XXX  Sample Type must be 'Sludge'	Optional
Result Numeric	Must be a number with up to 3 significant figures  For ND, leave the value blank. For NA, leave the value blank.  <b>Persistent Foam</b> - For non-persistent or non-detected foam please enter the result "ND" in the ND column. - For detection of Persistent Foam enter '0' in this column.	.00313	Type: Numeric	Validation: Numeric 3 Significant Figures	Required*  *Either Result Numeric, Result ND, Result NA must be populated.
Result Numeric Unit	Reporting units of measurement that are prescribed in the latest version of the ZDHC Wastewater Guidelines.	ug/L	Type: Char(25)	Validation: Must map to the parameter unit list.  Automatically populated during the creation of the template with the default unit of measure.	Required  Required if "Result Numeric" is populated
Result ND	ND = Not Detected  Report 'Yes' in case of "ND".	Yes	Required*  Type: Char(3)	Validation: If populated the value must be: Yes	Required*  * Either Result Numeric, Result ND, Result NA
Result NA	If sample was Not Analysed (NA), indicate one of the following NA reasons: - Bad Sample - Lost Sample - Not Requested	Bad Sample	Required*  Type: Char(18)	Validation: If populated the value must be either: - Bad Sample - Lost Sample - Not Requested	Required*  * Either Result Numeric, Result ND, Result NA must be populated.

ZDHC Limit	The ZDHC Parameter Limit is informational only. The value is populated during the creation of the upload template.  The unit of measurement matches the default unit of measure for the parameter.		Auto Populated during the creation of the templates.  Type: Numeric	Validation: Numeric	Optional
Laboratory Reporting Limit	Provide the Laboratory Reporting Limit  The laboratory reporting limit is 5-10 times higher than the MDL. That "safety factor" is applied to the MDL to compensate for varying "noise levels" of the method and varying sensitivity of the detector.  Therefore, the lab applies a safety factor to the MDL, based on their best judgement, so that on any day an "ND" reported result is absolutely below the Reporting Limit\ value.	0.00952	Type: Numeric [0-9, .]	Validation: Numeric 3 Sig. Figs.	Optional
Action	See 'How to Update and Delete Test Reports'.  Populated value must be either: - "Create" - "Update Keep Files" - "Update Delete Files" - "Delete"	Create	Type: Characters (10)	Validation: [A-Z]	Optional
Lab Test Report	The lab test report is the PDF attached to the complete set of test reports.  The file may include any photos of sample points or persistent foam.		Type: Characters (255)	Validation: On upload the name of the file matches the uploaded <b>.pdf</b> .	Required
Attachment1			Type: Characters (255)	Validations: Matches the name of an uploaded attachment.	Optional
Attachment2			Type: Characters (255)	Validations: Matches the name of an uploaded attachment.	Optional
Attachment3			Type: Characters (255)	Validations: Matches the name of an uploaded attachment.	Optional
Notes			Type: Characters (255)	Validations: Length	Optional
Error	Error description populated by ZDHC during the parsing of the file.		Data entered by ADEC		Optional

# Appendix B

## Specific Parameter

## Instructions

### Appendix B.1.0 Temperature

All temperatures values are reported in Celsius with the unit of measure C.

The existing temperature parameter has been replaced by three parameters:

- **Temperature of Receiving Body of Water**  
This reading must be taken at the nearest location to the outfall that is not impacted by the discharge water.  
Parameter Code is 'Temp-Receiving Water'
- **Temperature of Discharge Pipe**  
The temperature of the discharge at the point prior to entering the receiving body of water.  
Parameter Code is 'Temp-Discharge Pipe'
- **Temperature Difference**  
*Temperature Difference = Temperature Discharge Pipe - Temperature Receiving Body of Water.*  
If the Temperature of the Discharge Pipe is less than the receiving body of water report a negative value.  
Parameter Code is 'Temp-Difference'

### Appendix B.2.0 Persistent Foam

When reporting Persistent Foam the only acceptable values are either no reportable Persistent Foam, which should be recorded as "Result ND" = 'Yes'.

If there is reportable Persistent Foam enter a "1" into the "Result Numeric" column.

All Persistent Foam is reported in a Unit of Measure of 'None'.

### Appendix B.3.0 Colour

The Colour parameter has been divided from a single parameter into 3 separate parameters by wavelengths. The Colour parameters are:

- COLOUR 436 NM
- COLOUR 525 NM
- COLOUR 620 NM

All colour parameters will be reported using the unit of measure m-1.

# Appendix C

## How to Update and Delete Test Reports

Using the EDR and the 'Action' column a Test Report may be updated or deleted.

### Appendix C.1.0 Update

The update function has two options:

- Update Delete Attachments  
This removes the files currently linked to the Test Report. If the attachments are deleted then the update file must reference a new .pdf file.
- Update Keep Attachments  
The attachments linked to the Test Report are retained through the deleted process. There is no need to upload a new pdf version of the test report or other attachments.

Both Update options use a 'delete-and-replace' method for the sample header information and parameter details. The first step of the update is to delete the entire Test Report except for the TRID. The second step is to create the Test Report from the data in the file. The end result is the Test Report will be identical to the data in the EDR.

Requirements for the Update Action

1. The update option may be called by either the text "Update Delete Attachments" or "Update Keep Attachments" into the Action Column.
2. When updating a Test Report, you may use either the TRID or the Lab Test Ref ID to identify the Test Report in the Gateway system.
  - a. If the file contains the Lab Test Ref ID the Individual Test Report is identified by the Lab Test Ref ID and the Supplier AID.
3. The user updating the Test Report MUST have permissions to view and edit the test report.

4. In the EDR, Every row of the Updated Test Report MUST have the identical update action.
5. After the Update the Test Report is set to a status of "Pending" and follows the standard approval process.
  - a. If a supplier has an inactive account the Test Report will automatically be approved after 10 days.
6. If there is an error during Update, the entire update will be rolled back and the Test Report will be changed or altered.
7. Once the Update is successful, the change can NOT be reversed. Updates are irreversible.

### Appendix C.2.0 Delete

The delete Action can be used to remove the "Inactive" Test Report.

Requirements for Delete Action

- The Delete function can be called by adding 'Delete' into the Action column
- The EDR must contain only 1 delete row per Test Report. To delete 5 test reports the EDR will have 5 rows. Each row will have a unique TRID.
- The Test report MUST be 'Inactive' to be deleted. Active test reports will raise an error.
- Delete MUST reference the Test Report using the TRID.
- Delete actions are irreversible. Once a delete action is successful it can not be rolled back.

# Appendix D

## EDR Parameter Codes and Unit of Measure

### Appendix D.1.0 Multiple Codes

Some ZDHC Parameters have multiple CAS No. or identifiers. If the specific CAS No. is not on the parameter list you may use the generic name. For example, for the ZDHC Parameter MONO-, DI- AND TRI-BUTYLTIN DERIVATIVES, you may report under the CAS No. 0818-08-06 or the generic name 'BUTYLTIN'

### Appendix D.2.0 Parameter Codes

Parameter Category	Parameter	Parameter Code	Water UOM	Sludge UOM
Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): Including All Isomers	Nonylphenol (NP), Mixed Isomers	104-40-5	ppb or mg/L	
	Nonylphenol (NP), Mixed Isomers	11066-49-2	ppb or mg/L	
	Nonylphenol (NP), Mixed Isomers	25154-52-3	ppb or mg/L	
	Nonylphenol (NP), Mixed Isomers	84852-15-5	ppb or mg/L	
	Nonylphenol (NP), Mixed Isomers	NP	ppb or mg/L	
	Nonylphenol Ethoxylates (NPEO)	26027-38-3	ppb or mg/L	
	Nonylphenol Ethoxylates (NPEO)	37205-87-1	ppb or mg/L	
	Nonylphenol Ethoxylates (NPEO)	68412-54-4	ppb or mg/L	

Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): Including All Isomers	Nonylphenol Ethoxylates (NPEO)	9016-45-9	ppb or mg/L	
	Nonylphenol Ethoxylates (NPEO)	NPEO	ppb or mg/L	
	Octylphenol (OP), Mixed Isomers	140-66-9	ppb or mg/L	
	Octylphenol (OP), Mixed Isomers	1806-26-4	ppb or mg/L	
	Octylphenol (OP), Mixed Isomers	27193-28-8	ppb or mg/L	
	Octylphenol (OP), Mixed Isomers	OP	ppb or mg/L	
	Octylphenol Ethoxylates (OPEO)	68987-90-6	ppb or mg/L	
	Octylphenol Ethoxylates (OPEO)	9002-93-1	ppb or mg/L	
	Octylphenol Ethoxylates (OPEO)	9036-19-5	ppb or mg/L	
Anions	Octylphenol Ethoxylates (OPEO)	OPEO	ppb or mg/L	
	Cyanide	57-12-5	ppm or mg/L	mg/kg
	Cyanide	CYANIDE	ppm or mg/L	mg/kg
	Sulfide	18496-25-8	ppm or mg/L	
	Sulfide	SULFIDE	ppm or mg/L	
	Sulfite	14265-45-3	ppm or mg/L	
	Sulfite	SULFITE	ppm or mg/L	
Chlorobenzenes and Chlorotoluenes	1,2-Dichlorobenzene	95-50-1	ppb or ug/L	
	1,2,3-Trichlorobenzene	87-61-6	ppb or ug/L	
	1,2,3,4-Tetrachlorobenzene	634-66-2	ppb or ug/L	
	1,2,3,5-Tetrachlorobenzene	634-90-2	ppb or ug/L	

Chlorobenzenes and Chlorotoluenes	1,2,4-Trichlorobenzene	120-82-1	ppb or ug/L	
	1,2,4,5-Tetrachlorobenzene	95-94-3	ppb or ug/L	
	1,3-Dichlorobenzene	541-73-1	ppb or ug/L	
	1,3,5-Trichlorobenzene	108-70-3	ppb or ug/L	
	1,4-Dichlorobenzene	106-46-7	ppb or ug/L	
	2-Chlorotoluene	95-49-8	ppb or ug/L	
	2,3-Dichlorotoluene	32768-54-0	ppb or ug/L	
	2,3,4-Trichlorotoluene	7359-72-0	ppb or ug/L	
	2,3,4,5-Tetrachlorotoluene	76057-12-0	ppb or ug/L	
	2,3,4,6-Tetrachlorotoluene	875-40-1	ppb or ug/L	
	2,3,5,6-Tetrachlorotoluene	29733-70-8	ppb or ug/L	
	2,3,6-Trichlorotoluene	2077-46-5	ppb or ug/L	
	2,3,6-Trichlorotoluene	2077-46-5	ppb or ug/L	
	2,4-Dichlorotoluene	95-73-8	ppb or ug/L	
	2,4,5-Trichlorotoluene	6639-30-1	ppb or ug/L	
	2,4,6-Trichlorotoluene	23749-65-7	ppb or ug/L	
	2,5-Dichlorotoluene	19398-61-9	ppb or ug/L	
	2,6-Dichlorotoluene	118-69-4	ppb or ug/L	
	3-Chlorotoluene	108-41-8	ppb or ug/L	
	3,4-Dichlorotoluene	95-75-0	ppb or ug/L	

Chlorobenzenes and Chlorotoluenes	3,4,5-Trichlorotoluene	21472-86-6	ppb or ug/L	
	3,4,5-Trichlorotoluene	21472-86-6	ppb or ug/L	
	3,5-Dichlorotoluene	25186-47-4	ppb or ug/L	
	4-Chlorotoluene	106-43-4	ppb or ug/L	
	Hexachlorobenzene	118-74-1	ppb or ug/L	
	Monochlorobenzene	108-90-7	ppb or ug/L	
	Pentachlorobenzene	608-93-5	ppb or ug/L	
	Pentachlorotoluene	0877-11-2	ppb or ug/L	
Chlorophenols	2-Chlorophenol	95-57-8	ppb or ug/L	
	2,3-Dichlorophenol	576-24-9	ppb or ug/L	
	2,3,4-Trichlorophenol	15950-66-0	ppb or ug/L	
	2,3,4,5-Tetrachlorophenol	4901-51-3	ppb or ug/L	
	2,3,4,6-Tetrachlorophenol	58-90-2	ppb or ug/L	
	2,3,5-Trichlorophenol	933-78-8	ppb or ug/L	
	2,3,5,6-Tetrachlorophenol	935-95-5	ppb or ug/L	
	2,3,6-Trichlorophenol	933-75-5	ppb or ug/L	
	2,4-Dichlorophenol	120-83-2	ppb or ug/L	
	2,4,5-Trichlorophenol	95-95-4	ppb or ug/L	
	2,4,6-Trichlorophenol	88-06-2	ppb or ug/L	
	2,5-Dichlorophenol	583-78-8	ppb or ug/L	



Chlorophenols	2,6-Dichlorophenol	87-65-0	ppb or ug/L	
	3-Chlorophenol	108-43-0	ppb or ug/L	
	3,4-Dichlorophenol	95-77-2	ppb or ug/L	
	3,4,5-Trichlorophenol	609-19-8	ppb or ug/L	
	3,5-Dichlorophenol	591-35-5	ppb or ug/L	
	4-Chlorophenol	106-48-9	ppb or ug/L	
	Pentachlorophenol	87-86-5	ppb or ug/L	
Conventional Parameters	Ammonium-N	7664-41-7	ppm or mg/L	
	Ammonium-N	AMMONIUM-N	ppm or mg/L	
	Aox	AOX	ppm or mg/L	
	Bod5	BOD5	ppm or mg/L	
	Cod	COD	ppm or mg/L	
	Coliform	COLIFORM	bacteria / 100 ml	
	Colour 436 NM	Colour-436	m-1	
	Colour 525 NM	Colour-525	m-1	
	Colour 620 NM	Colour-620	m-1	
	Oil and Grease	OG	ppm or mg/L	
	Persistent Foam	FOAM	none	
	PH	PH	none	
	Phenol	108-95-2	ppm or mg/L	
	Total-N	TOTAL-N	ppm or mg/L	
	Total-P	TOTAL-P	ppm or mg/L	



Conventional Parameters	Temperature of the Receiving Body of Water.	Temp-Receiving Water	C	
	Temperature of the Water in The Discharge Pipe.	Temp-Discharge Pipe	C	
	The difference between the Discharge Pipe temperature and the Receiving body of water. (Discharge - Receiving)	Temp-Difference	C	
	TSS	TSS	ppm or mg/L	
Dyes - Azo (Forming Restricted Amines)	2-Naphthylamine	91-59-8	ppb or ug/L	
	2,4-Xylidine	95-68-1	ppb or ug/L	
	2,4,5-Trimethylaniline	137-17-7	ppb or ug/L	
	2,6-Xylidine	87-62-7	ppb or ug/L	
	3,'3-Dichlorobenzidine	91-94-1	ppb or ug/L	
	3,3'-Dichlorobenzidine	91-94-1	ppb or ug/L	
	3,3'-Dimethoxylbenzidine	119-90-4	ppb or ug/L	
	3,3'-Dimethylbenzidine	119-93-7	ppb or ug/L	
	4-Aminoazobenzene	60-09-3	ppb or ug/L	
	4-Aminodiphenyl	92-67-1	ppb or ug/L	
	4-Chloro-o-toluidine	95-69-2	ppb or ug/L	
	4-Chloroaniline	106-47-8	ppb or ug/L	
	4-Methoxy-m-phenylenediamine	0615-05-04	ppb or ug/L	
	4-Methyl-m-phenylenediamine	95-80-7	ppb or ug/L	
	4,4'-Methy-lene-bis-(2-chloro-aniline)	101-14-4	ppb or ug/L	

Dyes - Azo (Forming Restricted Amines)	4,4'-Methylenedi-o-toluidine	838-88-0	ppb or ug/L	
	4,4'-Methylenedianiline	101-77-9	ppb or ug/L	
	4,4'-Oxydianiline	101-80-4	ppb or ug/L	
	4,4'-Thiodianiline	139-65-1	ppb or ug/L	
	5-Nitro-o-toluidine	99-55-8	ppb or ug/L	
	6-Methoxy-m-toluidine	120-71-8	ppb or ug/L	
	Benzidine	92-87-5	ppb or ug/L	
	o-Aminoazotoluene	97-56-3	ppb or ug/L	
	o-Anisidine	90-04-0	ppb or ug/L	
Dyes - Carcinogenic	o-Toluidine	95-53-4	ppb or ug/L	
	C.I. Acid Red 26	3761-53-3	ppb or ug/L	
	C.I. Basic Blue 26 (With Michler's Ketone > 0.1%)	2580-56-5	ppb or ug/L	
	C.I. Basic Green 4 (Malachite Green Chloride)	569-64-2	ppb or ug/L	
	C.I. Basic Green 4 (Malachite Green Oxalate)	2437-29-8	ppb or ug/L	
	C.I. Basic Green 4 (Malachite Green)	10309-95-2	ppb or ug/L	
	C.I. Basic Red 9	569-61-9	ppb or ug/L	
	C.I. Basic Violet 14	632-99-5	ppb or ug/L	
	C.I. Direct Black 38	1937-37-7	ppb or ug/L	
	C.I. Direct Blue 6	2602-46-2	ppb or ug/L	

Dyes - Carcinogenic	C.I. Direct Red 28	573-58-0	ppb or ug/L	
	C.I. Disperse Blue 1	2475-45-8	ppb or ug/L	
	C.I. Disperse Blue 3	2475-46-9	ppb or ug/L	
	Disperse Orange 11	82-28-0	ppb or ug/L	
Dyes - Disperse (Sensitizing)	Disperse Blue 102	12222-97-8	ppb or ug/L	
	Disperse Blue 106	12223-01-07	ppb or ug/L	
	Disperse Blue 124	61951-51-7	ppb or ug/L	
	Disperse Blue 26	3860-63-7	ppb or ug/L	
	Disperse Blue 35	12222-75-2	ppb or ug/L	
	Disperse Blue 7	3179-90-6	ppb or ug/L	
	Disperse Brown 1	23355-64-8	ppb or ug/L	
	Disperse Orange 1	2581-69-3	ppb or ug/L	
	Disperse Orange 3	730-40-5	ppb or ug/L	
	Disperse Orange 37/59/76	13301-61-6	ppb or ug/L	
	Disperse Red 1	2872-52-8	ppb or ug/L	
	Disperse Red 11	2872-48-2	ppb or ug/L	
	Disperse Red 17	3179-89-3	ppb or ug/L	
	Disperse Yellow 1	119-15-3	ppb or ug/L	
	Disperse Yellow 3	2832-40-8	ppb or ug/L	
	Disperse Yellow 39	12236-29-2	ppb or ug/L	



Dyes - Disperse (Sensitizing)	Disperse Yellow 49	54824-37-2	ppb or ug/L	
	Disperse Yellow 9	6373-73-5	ppb or ug/L	
Flame Retardants	2,2-Bis (Bromomethyl)-1,3-propane - diol (BBMP)	3296-90-0	ppb or ug/L	
	Bis(2,3-dibromopropyl) phosphate (BIS)	5412-25-9	ppb or ug/L	
	Decabromodiphenyl ether (DecaBDE)	1163-19-5	ppb or ug/L	
	Hexabromocyclododecane (HBCDD)	3194-55-6	ppb or ug/L	
	Octabromodiphenyl ether (OctaBDE)	32536-52-0	ppb or ug/L	
	Pentabromodiphenyl ether (PentaBDE)	32534-81-9	ppb or ug/L	
	Polybromobiphenyls (PBB)	59536-65-1	ppb or ug/L	
	Short-chain chlorinated paraffins (SCCP) (C10-C13)	85535-84-8	ppb or ug/L	
	Tetrabromobisphenol A (TBBPA)	79-94-7	ppb or ug/L	
	Tris(1-aziridinyl)phosphine oxide (TEPA)	545-55-1	ppb or ug/L	
	Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8	ppb or ug/L	
	Tris(2-chloroethyl)phosphate (TCEP)	115-96-8	ppb or ug/L	
	Tris(2,3,-dibromopropyl)-phosphate (TRIS)	126-72-7	ppb or ug/L	
Glycols	2-Ethoxyethanol	110-80-5	ppb or ug/L	
	2-Ethoxyethyl Acetate	111-15-9	ppb or ug/L	
	2-Methoxyethanol	109-86-4	ppb or ug/L	
	2-Methoxyethylacetate	110-49-6	ppb or ug/L	



Glycols	2-Methoxypropylacetate	70657-70-4	ppb or ug/L	
	Bis(2-methoxyethyl)-ether	111-96-6	ppb or ug/L	
	Ethylene glycol dimethyl ether	110-71-4	ppb or ug/L	
	Triethylene glycol dimethyl ether	112-49-2	ppb or ug/L	
Halogenated Solvents	1,2-Dichloroethane	0107-06-02	ppb or ug/L	
	Methylene Chloride	75-09-2	ppb or ug/L	
	Tetrachloroethylene	127-18-4	ppb or ug/L	
	Trichloroethylene	79-01-6	ppb or ug/L	
Metals	Antimony	Antimony	ppm or mg/L	
	Arsenic	Arsenic	ppm or mg/L	
	Arsenic	Arsenic	ppm or mg/L	mg/kg
	Cadmium	Cadmium	ppm or mg/L	mg/kg
	Chromium (VI)	Chromium Vi	ppm or mg/L	mg/kg
	Chromium, total	Chromium Total	ppm or mg/L	mg/kg
	Cobalt	Cobalt	ppm or mg/L	
	Copper	Copper	ppm or mg/L	
	Lead	Lead	ppm or mg/L	mg/kg
	Mercury	Mercury	ppm or mg/L	mg/kg
	Nickel	Nickel	ppm or mg/L	
	Silver	Silver	ppm or mg/L	



Metals	Zinc	Zinc	ppm or mg/L	
Organotin Compounds	Mono-, di- and tri-butyltin derivatives	0818-08-06	ppb or ug/L	
	Mono-, di- and tri-butyltin derivatives	Butyltin	ppb or ug/L	
	Mono-, di- and tri-methyltin derivatives	Methyltin	ppb or ug/L	
	Mono-, di- and tri-octyltin derivatives	Octyltin	ppb or ug/L	
	Mono-, di- and tri-phenyltin derivatives	Phenyltin	ppb or ug/L	
Otho-Phthalates - Including all ortho esters of phthalic acid	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	ppb or ug/L	
	1,2-Benzenedicarboxylic acid, di-C7-11-Branched and linear alkyl esters (DHNUP)	68515-42-4	ppb or ug/L	
	Bis(2-Methoxyethyl) phthalate (DMEP)	117-82-8	ppb or ug/L	
	Butyl benzyl phthalate (BBP)	85-68-7	ppb or ug/L	
	Di-cyclohexyl phthalate (DCHP)	84-61-7	ppb or ug/L	
	Di-iso-decyl phthalate (DIDP)	26761-40-0	ppb or ug/L	
	Di-iso-octyl phthalate (DIOP)	27554-26-3	ppb or ug/L	
	Di-isobutyl phthalate (DIBP)	84-69-5	ppb or ug/L	
	Di-isononyl phthalate (DINP)	28553-12-0	ppb or ug/L	
	Di-n-hexyl phthalate (DNHP)	84-75-3	ppb or ug/L	
	Di-n-octyl phthalate (DNOP)	117-84-0	ppb or ug/L	
	Di-n-propyl phthalate (DPRP)	131-16-8	ppb or ug/L	



Otho-Phthalates - Including all ortho esters of phthalic acid	Di(Ethylhexyl) Phthalate (DEHP)	117-81-7	ppb or ug/L	
	Dibutyl Phthalate (DBP)	84-74-2	ppb or ug/L	
	Including all ortho esters of phthalic acid	84-66-2	ppb or ug/L	
	Dinonyl Phthalate (DNP)	84-76-4	ppb or ug/L	
Perfluorinated and Polyfluorinated Chemicals (PFCs)	6:2 FTOH	647-42-7	ppb or ug/L	
	8:2 FTOH	678-39-7	ppb or ug/L	
	PFBS	29420-49-3	ppb or ug/L	
	PFBS	PFBS	ppb or ug/L	
	PFHXA	307-24-4	ppb or ug/L	
	PFHXA	PFHXA	ppb or ug/L	
	PFOA	335-67-1	ppb or ug/L	
	PFOA	PFOA	ppb or ug/L	
	PFOS	355-46-4	ppb or ug/L	
	PFOS	432-50-7	ppb or ug/L	
	PFOS	PFOS	ppb or ug/L	
Polycyclic Aromatic Hydrocarbons (PAHs)	Acenaphthene	83-32-9	ppb or ug/L	
	Acenaphthylene	208-96-8	ppb or ug/L	
	Anthracene	0120-12-7	ppb or ug/L	
	Benzo[a]anthracene	56-55-3	ppb or ug/L	
	Benzo[b]pyrene (BaP)	50-32-8	ppb or ug/L	

Polycyclic Aromatic Hydrocarbons (PAHs)	Benzo[b]fluoranthene	205-99-2	ppb or ug/L	
	Benzo[e]pyrene	192-97-2	ppb or ug/L	
	Benzo[ghi]perylene	191-24-2	ppb or ug/L	
	Benzo[j]fluoranthene	205-82-3	ppb or ug/L	
	Benzo[k]fluoranthene	0207-08-09	ppb or ug/L	
	Chrysene	0218-01-09	ppb or ug/L	
	Dibenz[a,h]anthracene	53-70-3	ppb or ug/L	
	Fluoranthene	206-44-0	ppb or ug/L	
	Fluorene	86-73-7	ppb or ug/L	
	Indeno[1,2,3-cd]pyrene	193-39-5	ppb or ug/L	
	Naphthalene	91-20-3	ppb or ug/L	
	Phenanthrene	85-01-8	ppb or ug/L	
	Pyrene	129-00-0	ppb or ug/L	
Volatile Organic Compounds (VOC)	Benzene	71-43-2	ppb or ug/L	
	M-Cresol	108-39-4	ppb or ug/L	
	O-Cresol	95-48-7	ppb or ug/L	
	P-Cresol	106-44-5	ppb or ug/L	
	Xylene	1330-20-7	ppb or ug/L	