ZDHC Gateway Electronic Data Reporting System Guidelines Version 1.0

Ø ZDHC

The Roadmap To Zero Programme

August 2019



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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 Nummer	Changes	Publish Date
Version 1.0	ZDHC Gateway Electronic Data	August 2019
	Reporting System Guidelines	

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 industry to make a scientific and data driven decision in shaping the future of the ZDHC Programme and the industry.

The EDR system is under development and will be launched and implemented in 2020 (exact date to be announced).

3.0.0 Purpose of the Document

This document provides a detailed framework for the ZDHC Accepted Laboratories 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 emission) are required to be reported in the future.

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 (MRSL) Version 1.1 released in December 2015 <u>click here</u>.
- 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 publically 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 Electronic Data Reporting Template

The latest version of documents specified on point b to g (above) are available on the ZDHC Output Focus Area webpage <u>click here</u>.

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

The latest version of documents specified on point h to i (above) are available on the ZDHC Gateway under Help and Support Section (login required) click here.

ZDHC Gateway Electronic Data Reporting System Guidelines

5.0.0 Expectations

ZDHC Accepted Laboratories are expected to fully meet the requirements stated in the latest version 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 in 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 using a sandbox system on the Demo version of the ZDHC Gateway Wastewater Module
- As part of the Accepted Laboratory application, require all applicant laboratories:
 - to successfully demonstrate that they are able to use the ZDHC Gateway Electronic Data Reporting System within the sandbox environment and
 - have shown the ability to meet all technical and data integrity conditions of the ZDHC Gateway Electronic Data Reporting System.
- Conduct random data audit as part of the performance review of the ZDHC Accepted Laboratories
- In future, apply penalties that may include the cost of rework related to data corrections to ZDHC Accepted Laboratories who repeatedly not meeting the requirements of ZDHC Gateway Electronic Data Reporting System.

ZDHC Gateway Electronic Data Reporting System Guidelines

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 B for more information). The procedure for uploading the test data onto the ZDHC Gateway are as follows.

- 1. 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 Data Reporting Template with a complete dataset. This means every single parameter/analyte must be reported. In the event that a specific parameter/analyte is not tested, the laboratory must indicate that the parameter/analyte was "Not Analysis" and provide the reason for it. See Appendix B for more information
- 2. When the ZDHC Accepted Laboratories are ready to upload the data onto the ZDHC Gateway, the ZDHC Accepted Laboratories shall use the drag and drop system on the Gateway and upload the data with the completed Electronic Data Reporting Template.
- ZDHC Gateway will conduct an automated data validation. ZDHC Gateway will only
 accept the entire dataset when it is fully compliant to the data data rules set forth in the
 documents.
- 4. In case the system detects issues with specific data point, the ZDHC Gateway will reject the entire dataset and will 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.
- 5. After successfully submitting the dataset, suppliers will be given the opportunity to review the data. The suppliers can either accept or reject the test results as per the current system set up. Publication of the test data on the ZDHC Gateway will be done in accordance to the latest version of the ZDHC Gateway Terms and Condition.

ZDHC Gateway Electronic Data Reporting System Guidelines

Start of Process System flags up file(s) with issues $\overline{\mathsf{V}}$ \checkmark Lab LIMS# LIMS system \checkmark Lab admin drag & drop System auto-check if automatically populates the files contains any multiple data file on the Gateway Web Interfact buas (e.a. data file template (can be for different supplier at the same facility name & System requests lab unique ID code) to address issues Facility questions lab test results / request corrective actions from the lab Factory Upload Corrective Action Plan if applicable Request data for acceptance **End of Process**

Figure 1: Initial design of the ZDHC Gateway Electronic Data Reporting System. The workflow

6.2.0 System Design Rationale

The ZDHC Gateway Electronic Data Reporting System is designed based on the Drag & 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.

6.3.0 Specification for Data Upload (Tentative)

It is possible to upload multiple test reports within the same ZDHC Gateway Electronic Data Reporting template.

File Format: .xlm

Maximum file size: 10 MB (ADEC will need to run tests on the system to ensure speed for data transfer and validation speed can be run at an optimal level)

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 this document, 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 upload the dataset on the individual test report basis until the Accepted Laboratories are confident with the data integrity.

ZDHC Gateway Electronic Data Reporting System Guidelines

6.4.0 Supporting System on ZDHC Gateway

ZDHC Gateway Electronic Data Reporting System enables the upload the wastewater & sludge testing results in a resource effective manner. To ensure data integrity is implemented effectively, the ZDHC Gateway Electronic Data Reporting System is supported by the following pieces of software on the ZDHC Gateway.

6.4.1 Data Validation

Data Validation will be an integral part of the ZDHC Gateway Electronic Data Reporting System. This is to ensure the data entering onto the ZDHC Gateway follows the data rules set forth in this document. It will be designed in such a way that dataset will be rejected in case of non-conformant to the data rules. The concerned Accepted Laboratories will be asked to rectify the specific data point(s) before the dataset are allowed to be uploaded onto the system.

Data Validation will check for the following:

HAVE DATA BEEN ENTERED ACCORDING TO THE STANDARDISED DATA RULE?

- ALL data has been entered according to the rule stated in Appendix B of this document?
- Correct and complete entry of ALL analytes stated in the latest version of Wastewater Guidelines
- In case certain analytes are not analysed, the system will request the Accepted Laboratory need to provide the reasons for not testing - for more information see Column X in Appendix B.
- Correct use of decimal points
- Correct number of significant digits in the test results
- Correct entry of units

• WHETHER THE SUPPLIERS ARE REGISTERED ONTO THE ZDHC GATEWAY & PAY THE ANNUAL REPORTING FEE?

- Prior to data upload, the Accepted Laboratories should check if the facility has a ZDHC Gateway account and have paid for the reporting fee
- Data upload will be blocked in case this condition are not met

ZDHC Gateway Electronic Data Reporting System Guidelines

- CROSS CHECKS AGAINST THE INFORMATION AGAINST THE SUPPLIER PROFILE

- To determine if ZDHC Accepted Laboratories have enter the correct supplier name
- If they have sampled and tested all discharged wastewater at ALL discharge points

CHECK WHETHER MULTIPLE TESTING WERE REPORTED LESS THAN A 3 MONTH GAP?

 The system will flag up and alert the Accepted Laboratory and Supplier that this is the case because the Wastewater Guidelines recommend the avoidance of repeated testing

HAS INCORRECT INFORMATION BEEN ADDED OR ARE THERE CONFLICT OF INFORMATION?

 The system will flag up the issues and block the upload until they are rectified or resolved directly on the system (either by labs or suppliers)

WHAT ELSE DOES DATA VALIDATION DO?

- Applying testing & sampling rule according to WWG & based on the facility's discharge type and/or material type. This information is to be declared by the suppliers on the supplier profile.
- Conclude the outcome (i.e. foundational, progressive & aspirational) based on the limits of latest WWG & specific industry requirements (e.g. MMCF, Leather, PU Coated Fabric, Textile etc.)
- Based on the sampling, receiving and analysis time and date to determine if the samples were tested within the holding time.

6.4.2 Modularisation of ZDHC Gateway Wastewater Module

ZDHC Foundation is anticipating the update of the ZDHC Wastewater Guidelines to Version 2.0, which potentially includes different wastewater and sludge discharge requirements for textile, leather, PU coated fabrics (i.e. synthetic leather) and MMCF manufacturing facilities. Therefore, ZDHC Gateway Wastewater Module will need to be built with version in mind whereby the system:

Contains a list of wastewater and sludge testing requirements for all versions of Wastewater Guidelines as well as requirements of different types of manufacturing facilities.

ClearStream Report to automatically indicate the facility types of suppliers and what version of the WWG was tested against.

Wastewater and sludge test results data download for the brands must contain identifiers of the specific facility types and the version of WWG that testing was conducted against.

6.4.3 Sandbox on ZDHC Gateway Demo Version

To ensure the Accepted Laboratories are capable to transfer the test data from the LIMS system to the Gateway via the ZDHC Gateway Electronic Reporting Template, each accepted laboratory will be given access to the sandbox system. This is a piece of software which the exact same set of functionalities as the live system, and it aims to: Allow the Accepted Laboratories to be familiarised with the new ZDHC Gateway Electronic Data Reporting System

Allow time for the Accepted Laboratories time to configure their internal LIMS system to populate the ZDHC Gateway Electronic Data Reporting template. Thereby testing out within a safe environment whether it is fully compatible using the live system.

Allow ZDHC Foundation and ADEC Innovation to determine if the ZDHC Gateway Electronic Data Reporting System may have inherent bugs that need fixing before the live system is released to the live system.

Appendix A: Screenshot Of Zdhc Gateway Electronic Data Reporting Template

Figure 2: Screenshot of the ZDHC Electronic Data Reporting Template

ZDHC ELECTRONIC DATA REPORTING TEMPLATE (VERSION 1)

	C explanatory notes are embedded in each data field header in row 3. Hover your mouse to reveal information full instructions on filling in this data template and uploading dataset onto the ZDHC Gateway, please refer to the latest version of the ZDHC Gateway Electronic Data Reporting System Guidelines																	
	Supplier's Name	ZDHC Supplier Account ID	Lab Name	ZDHC Lab Account ID	Sampling Locations	Unique Sampling Location Code	Field ID	Lab Sample ID	Lab Report Number	Testing Type	CAS	Analyte	Sample Date	Sampling Time	Receive Date	Receiving Time	Extraction Method	Analysis D
Water	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	х
Sludge	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Air	×	×	×	×	x	×	×	×	×	×	×	×	×	×	×	×	×	х
Material/Prod	×		×					×	×	×	×	×	×		×		×	×
MRSL	×	×	×	×				×	×	×	×	×	×		×		×	×
	Sample Supplier Pvt.	AB124M6G	Sample Lab Gm	EDG2334A	Discharged Was	D1	1234567	1234501	TR123456	Water	91-20-3	Naphthalene	01-03-2019	13:45	03-03-2019	09:23	SOLVENT EXTER	08-03-201
	Sample Supplier Pvt.	AB124M6G	Sample Lab Gm	EDG2334A	Discharged War	D1	1234567	1234501	TR123456	Water	1330-20-7	Xylene	01-03-2019	13:45	03-03-2019	09:23	150 11423-1	08-03-201
	Sample Supplier Pvt.	AB124M6G	Sample Lab Gm	EDG2334A	Discharged Wa	D1	1234567	1234501	TR123456	Water	118-74-1	Hexachlorobenzene	01-03-2019	13:45	03-03-2019	09:23	DICHLOROMET	08-03-201
	Sample Supplier Pvt.	AB124M6G	Sample Lab Gm	EDG2334A	Discharged Was	D1	2345678	LC50948	TR123456	Water	NONE	Colour 436nm	01-03-2019	13:45	03-03-2019	09:23	SW3510	08-03-201
	Sample Supplier Pvt.	AB124M6G	Sample Lab Gm	EDG2334A	Discharged War	D1	2345678	LC50948	TR123456	Water	NONE	Colour 525nm	01-03-2019	13:45	03-03-2019	09:23	SW3510	08-03-201
	Sample Supplier Pvt.	AB124M6G	Sample Lab Gm	EDG2334A	Discharged Wa	D1	2345678	LC50948	TR123456	Water	NONE	Colour 620nm	01-03-2019	13:45	03-03-2019	09:23	SW3510	08-03-201
	Sample Supplier Pvt.	AB124M6G	Sample Lab Gm	EDG2334A	Discharged Was	D1	2345678	LC50948	TR123456	Water	NONE	Temperature - Discha	01-03-2019	13:45	03-03-2019	09:23	SW3510	08-03-201
	Sample Supplier Pvt.	AB124M6G	Sample Lab Gm	EDG2334A	Discharged War	D1	2345678	LC50948	TR123456	Water	NONE	Temperature - Ambie	01-03-2019	13:45	03-03-2019	09:23	SW3510	08-03-201
	Sample Supplier Pvt.	AB124M6G	Sample Lab Gm	EDG2334A	Discharged Was	D1	2345678	LC50948	TR123456	Water	NONE	pH	01-03-2019	13:45	03-03-2019	09:23	SW3510	08-03-201
	Sample Supplier Pvt.	AB124M6G	Sample Lab Gm	EDG2334A	Discharged Was	D1	2345678	LC50948	TR123456	Water	NONE	Persistent Foam	01-03-2019	13:45	NONE	NONE	NONE	01-03-201
	Sample Supplier Pvt.	AB124M6G	Sample Lab Gm	EDG2334A	Sludge	51	3456789	WB1-0920	TR123456	Sludge	91-20-3	Naphthalene	01-03-2019	13:45	03-03-2019	09:23	DICHLOROMET	08-03-201
	Sample Supplier Pvt.	AB124M6G	Sample Lab Gm	EDG2334A	Sludge	S1	3456789	W81-0920	TR123456	Sludge	1330-20-7	Xylene	01-03-2019	13:45	03-03-2019	09:23	US EPA 5035	08-03-201
	Sample Supplier Pvt.	AB124M6G	Sample Lab Gm	EDG2334A	Sludge	51	3456789	WB1-0920	TR123456	Sludge	118-74-1	Hexachlorobenzene	01-03-2019	13:45	03-03-2019	09:23	DICHLOROMET	08-03-201
	Sample Supplier Pvt.	AB124M6G	Sample Lab Gm	EDG2334A	Sludge	S1	NONE	NONE	TR123456	Sludge	95-47-6	Lead	NONE	NONE	NONE	NONE	NONE	NONE

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Appendix B: Data Entry Requirement

The following table highlights the standardised data entry requirement. The rule applies as part of the data validation process when the dataset is uploaded onto the ZDHC Gateway.

Column	Required Data	ZDHC Explanatory Note	Example
В	Supplier's Name	Name of the facility that sampling is conducted. Name should match the facility name on the ZDHC Gateway. Free Text Field	Sample Supplier Pvt. Ltd.
С	ZDHC Supplier Account ID	Refers to the account ID that the supplier has on the ZDHC Gateway. Labs should request this number from the supplier, and it serves as a counter-check from data standpoint. Alphanumeric Value Only in This Field	AB124M6G
D	Lab Name	The name of the accepted laboratory as per listed on the ZDHC Gateway. Free Text Field	Sample Lab GmbH
Е	ZDHC Lab Account ID	Refers to the account ID that the accepted lab has on the ZDHC Gateway. It serves as a counter-check from data standpoint. Alphanumeric Value Only In This Field	EDG2334A
F	Sampling Location	It is the location where the samples were collected from. The only acceptable values are as follows: - "Incoming Water" - "Raw Wastewater" - "Discharged Wastewater - to sea" - "Discharged Wastewater - to other bodies of water" - "Sludge"	Discharged Wastewater - to other bodies of water

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G	Unique Sample Location Code	Unique sampling location code assigned by the ZDHC Gateway to the suppliers based on their facility setup indicated by the supplier on the Gateway profile. This is especially important if a supplier's facility has multiple number of discharge points. Typical sampling location codes are as follows: - I01 (where I denotes Incoming Water) - R01 (where R denotes Raw Wastewater) - D02 (where D denotes Discharged Wastewater) - S01 (where S denotes Sludge) The number is assigned in a sequential order. If a supplier's facility has two discharge points, then one of the discharge points carries R01 unique sampling location code and the other one would be R02. Alphanumeric Value Only In This Field. The accepted laboratory should obtain this information from the suppliers.	D1
н	Field ID	Sampling field ID assigned by the laboratory's sampling team. If the lab did not perform any sampling then, fill in "NONE". Alphanumeric Value and Special Characters In this Field	1234567
1	Lab Sam- ple ID	Sample ID number assigned by the accepted laboratory for sample traceability purpose. If the lab did not perform any sampling then, fill in "NONE". Alphanumeric Value and Special Characters in this Field.	1234501
J	Lab Report Number	Lab Testing Report Number assigned by an accepted laboratory. If the lab did not perform testing on a certain analyte for whatever reason, the lab must also fill in report number for analytes that were not tested.	TR123456
К	Testing Type	The nature of samples which the accepted laboratory is testing for. Available Values to be excepted are: "Water" "Sludge" "Air" "Chemical_MRSL" "Material_RSL"	Water

L	CAS	CAS number of the analytes that you are reporting. In case an analyte carries a multiple CAS number, only those stated in the ZDHC documents (such as the ZDHC Wastewater Guidelines and ZDHC MRSL) will be accepted. Numerical Values and "-' only, except in the following conditions: In case the specific analyte does not have a CAS number e.g. pH. Please indicate "NONE" In case the analyte you are reporting is a technical mix or family of substances, then you can indicate "Multiple". For example; Mono-, di- and tri-octyltin derivatives.	91-20-3
М	Analyte	The name of the analyte that you are reporting. For Wastewater and Sludge testing, please follow the naming convention in the latest version of the ZDHC Wastewater Guidelines. Alphanumeric Value and special characters such as - and '	Naphthalene
N	Sample Date	Date of which the sampling was conducted. Date must be expressed in DD-MM-YYYY. In case the date or month is a single digit, please place '0' as the first digit. e.g. 01-03-2019 for 1st March 2019. Numerical and - only in this field	01/03/2019
О	Sample Time	Time at which the sampling was conducted. Time must be expressed in HH:MM in 24-hour format. In case the hour or minute is a single digit, please place '0' as the first digit. e.g. 09:45 In case the Accepted Laboratory is reporting legal parameters tested by a government approved lab and that this information is not made available to you, report "NONE". Numerical and: only in this field	13:45
Р	Receiving Date	Date of which the sample was received in the testing laboratory. Date must be expressed in DD-MM-YYYY. In case the date or month is a single digit, please place '0' as the first digit. e.g. 01-03-2019 for 1st March 2019. In case the Accepted Laboratory is reporting legal parameters tested by a government approved laband that this information is not made available to you, report "NONE". Numerical and - only in this field	03/03/2019

Q	Receiving Time	Time at which the sample was received at the testing laboratory. Time must be expressed in HH:MM in 24-hour format. In case the hour or minute is a single digit, please place '0' as the first digit. e.g. 09:45 In case the Accepted Laboratory is reporting legal parameters tested by a government approved lab and that this information is not made available to you, report "NONE". Numerical and: only in this field	09:23
R	Extraction Method	The method in which the accepted laboratory used in extracting the target analytes. In case no extraction is needed for a specific parameter, fill in "NONE" Free Text in this field	SW3510
S	Analysis Date	Date of which the analysis took place in the testing laboratory. Date must be expressed in DD-MM-YYYY. In case the date or month is a single digit, please place '0' as the first digit. e.g. 01-03-2019 for 1st March 2019. Numerical and - only in this field	08/03/2019
Т	Analysis Time	Time at which the analysis took place at the testing laboratory. Time must be expressed in HH:MM in 24-hour format. In case the hour or minute is a single digit, please place '0' as the first digit. e.g. 09:45 In case the Accepted Laboratory is reporting legal parameters tested by a government approved lab and that this information is not made available to you, report "NONE". Numerical and: only in this field	12:07
U	Analysis Method	 The method in which the accepted laboratory used in analysing the target analytes. In case no analytical methods is needed for a specific parameter, fill in "NONE". For Persistent Foam, fill in "VISUAL" In case an accepted laboratory uses a regional test methods that are not listed in the latest version of the ZDHC Wastewater Guidelines, for instance as per requirements of the legal permit, please indicate "Other Method" In case you are reporting on behalf of government approved labs for legal parameters, please indicate "Other Method". Alphanumeric Value with special characters in this field 	SW8270SIMV

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V	Sub-Test Method	In case the analytical method indicated in Column U has other sub-clauses or sub-methods within the main Analysis Method, please state this method. If there is no sub-method, fill in "NONE". If an accepted laboratory indicates that it has used a regional test method (for example: to comply with legal permit), then the accepted laboratory must indicate the exact test method here. Free Text	NONE
W	Percent Solid	Data field is only applicable to sludge samples. Acceptable value is between 0-100. There is no need to fill in "%" as data entered is considered as a percentage. No decimal points are permitted. In case sample matrix is a non-sludge sample, fill in "NONE"	92
X	Result	This is the final reported value, corrected for percent solids, masses used, volumes used, etc. To report a positive result, only numerical values are permitted. Decimal Points " must be used. Laboratory can report up to 3 significant figures. Lab must not use characters such as ">", "<", "+", "-" as part of the test result. In the event, the values are lower than the reporting limit, fill in "ND". For reporting persistent foam, the only option is: "Meet Requirement", "Not Meet Requirement". If the lab wishes to comment on the foam, use column Y Comment Box. In the event, analytes are not tested please indicate one of the following options. - "NA - Sample Lost / Destroyed in Transit" - "NA - Test Item Not Requested" - "NA - Unable to Analysed	0.181
Y	Units	Reporting units that are prescribed in the latest version of the ZDHC Wastewater Guidelines In case of - degree Celsius, report as "deg C" -µg/L report as "ug/L" - Colour (m-1) report as "m^-1" - Coliform report as "bacteria/100ml" - no unit is required such as pH, report as "NONE"	ug/L

Z	Lab RL	This is the lab reporting limit. This is the lowest point on the calibration curve. Must be corrected for dilution factor, % solids. To report a value, only numerical values are permitted and up to 3 significant figures. Decimal Points! must be used and number of decimal places is limited to 3. Lab must not use characters such as ">", "<", "+", "-" as part of the test result. In case reporting limits are not applicable to specific parameters, such as Visible Foam, then fill in "NONE". In case the reporting limit indicated here is greater than those listed on the progressive or the aspirational limits, and that you reported "ND" in column X, then the conclusion in the ClearStream report will be either "Meeting Foundational Limit" and "Meeting Progressive Limit" respectively.	0.00952
AA	This report meets all QC require- ments	It is a declaration from the accepted laboratory to indicate whether test result meets applicable quality requirements. This is in lieu of submitting all QA/QC data onto the Gateway. If analytes have been tested, the only acceptable answers are "YES" or "NO"; If analytes have not been tested, the only acceptable answer is "NONE"	Yes
АВ	Is this a QA/QC Sample?	This is data field for the future. It is not applicable for now. Fill in "NONE" at the moment. When the data field is required, fill in either "Yes" or "No".	Yes
AC	Type of QA/QC	This is data field for the future. It is not applicable for now. Fill in "NONE" at the moment. In future, when labs are required to fill in the QA/QC information, - "LCS" - lab control sample or lab fortified blank - "MB" - method blank - "MS" - matrix spike - "MSD" - matrix spike duplicate - "T" - Target analyte (not QA/QC sample)	MS
AD	Surrogate	This is data field for the future. It is not applicable for now. Fill in "NONE" at the moment. When the labs are required to report QA/QC data, then use this field to indicate if the analyte in this row is a surrogate spike. "Yes" or "No" are the only options If the reported result is not a QA/QC sample, fill in "NONE"	Yes

AE	Spike Added	This is data field for the future. It is not applicable for now. Fill in "NONE" at the moment. When the labs are required to report QA/QC data, use this field to report the true value of the spike added to Method Spike and Lab Control Samples. Numerical value only - unit is same as Column Y. When no spike is added, fill in "0". If the reported result is not a QA/QC sample, fill in "NONE"	0.5
AF	% Recov- ery	This is data field for the future. It is not applicable for now. Fill in "NONE" at the moment. When the labs are required to report QA/QC data, use this field to report the % Recovery. Numerical Value Only, no need to fill in % sign. Except if the reported result is not a QA/QC sample, fill in "NONE"	95
AG	Comments	Any further comments that the laboratory wish to make. In case the accepted laboratory is reporting test results for legal requirements from the government approved lab, please state "Legal testing requirement - results from external government accepted labs" In case the accepted labs are required by local authority to use a local test methods, please state "Local test methods required by the local authority" In case the analyte was tested by a subcontractor lab, please state "Tested by subcontractor lab [insert full lab name here]" In case there are no comments, fill in "NONE".	NONE

Other additional reporting requirements:

- 1. The minimal requirements are to report all analytes listed on the ZDHC Wastewater Guidelines. It is possible to report additional parameters or conjugates of parameters.
- 2. To report direct or indirect discharge suppliers, the Accepted Laboratories must either report in accordance to Option 1 or Option 2 (please refer to the ZDHC Wastewater Guidelines Version 1.1 for more information. Under the ZDHC Wastewater Guidelines Version 1.1, incoming water is not part of the requirements and therefore should not be reported. The laboratory must omit such results without needing to state the reasons for not testing.
- 3. Under the current temperature requirement, the suppliers need to be conformance to either the absolute temperature of the discharged wastewater (expressed in 25oC for example in the ZDHC Wastewater Guidelines) or the relative temperature between the discharged wastewater and ambient temperature of receiving water body. For this reason, the lab must enter two line items as follows. With this the system will determine the relative temperature.
 - a. "Temperature Discharge Wastewater" in Column M (Analyte)
 - b. "Temperature Receiving Water Body" in Column M (Anayte)
- 4. For report colour, the ZDHC Accepted Laboratories must report the test results measured at three different wavelengths (436 nm, 525 nm, 620 nm) as three separate line items. You must fill in the analyte as "Colour 436 nm", "Colour 525 nm", "Colour 620 nm" in Column M for each of the line items.
- 5. For report **Persistent Foam**, the Accepted Laboratories
 - a. must follow the specific requirement definition stated in the ZDHC Wastewater Guidelines version 1.1, section 9.6 (a) to determine if the foam meet the requirements or not
 - b. must upload a digital photo of the foam that the laboratory representative had witness on-site, along with the date and time that the photo was taken. Technical requirements of the photos (for example minimum resolution and file size) as well as a way to upload the files are still being discussed with ADEC.

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- **6. For reporting antimony**, limits for foundational, progressive and aspirational level will not apply to facilities that manufacture polyester fibres. For these facilities, it is purely for data collection only, and it will also be reflected on the ClearStream reports.
- 7. It is possible for the Accepted Laboratories to report legal parameters that have been issued by the government accepted labs. In this case, you will have to fill in "Legal testing requirement results from external government accepted labs" in the comment box (Column AG). This means the accepted laboratory who uploaded this data is not responsible for the data quality or data integrity of these specific test results.
- 8. If a ZDHC Accepted Laboratory is also a government accepted laboratory or mandated by the local authority to use a local test method, you must fill in "Local test methods required by the local authority" in the comment box (Column AG).

Appendix C: Acronym

EDR	Electronic Data Reporting
LIMS	Laboratory Information Management System
MRSL	Manufacturing Restricted Substance List
MMCF	Man-made Cellulosic Fibre
NA	Not Analysed
ND	Not Detected
SAP	Sampling & Analysis Plan
SFTP	Secured File Transfer Protocol
TT	Task Team
WWG	Wastewater Guidelines

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