



Ministry of
Environment and
Climate Change Strategy

**BC Environmental Monitoring System
(EMS)**

**Electronic Data Transfer
for
Federal/Provincial Pulp and Paper Format (FPP)**

USER OVERVIEW

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INSTRUCTION SUMMARY

What is EMS?	<ul style="list-style-type: none"> The Environmental Monitoring System (EMS) is the Ministry of Environment's monitoring database.
What is EDT?	<ul style="list-style-type: none"> Electronic Data Transfer (EDT) provides analytical laboratories and permit holders with a simple means to transfer analytical data electronically to the EMS system.
System Requirements	<ul style="list-style-type: none"> a computer with internet access an up-to-date web browser access to an e-mail account (i.e. through a commercial Internet Service Provider)
EDT Account Access	<ul style="list-style-type: none"> Request through your regional Ministry Contact A Business BCeID is required
File Format	<ul style="list-style-type: none"> A comma delimited ASCII data file in the required file format (see Appendix for technical specifications)
Internet URL	https://a100.gov.bc.ca/ext/emsedt/upload.do
File Transfer Procedures	<ul style="list-style-type: none"> Click on the appropriate function, QA, Upload or Dashboard perform the desired actions in the subsequent screens
QA Index Only Option	<ul style="list-style-type: none"> Users are expected to QA their file before uploading any necessary corrections to the data can be made before submitting the data to EMS NOTE: The file is NOT loaded into EMS under the QA Index Only option

Appendix A

1.0 FPP File Format

This file format should be used only by data providers who report data electronically under the Federal/Provincial Pulp and Paper Agreement.

1. DLM--Delimiter record

Delimiter records are usually used to separate data for sites, however they may be used to group the data for other reasons. Note that "NTE" records must be preceded by a "DLM" record.

Field	Position	Length	Contents
1	1-3	3	DLM
2	4-9	6	ENVIRODAT project number
3	10-29	20	File Name: Optional user-defined file name
4	30-81	52	Filler: Any information is ignored

2. NTE--Notes record

As many note records as required may be included. Any information entered here is not entered into EMS. Note that "NTE" records must be preceded by a "DLM" record.

Field	Position	Length	Contents
1	1-3	3	NTE
2	4-80	77	Comments or notes which the data provider may wish to pass on to the technician.

3. CIN--Common information record

The “CIN” record indicates the start of a new sample. It must always be present.

Field	Position	Length	Contents
1	1-3	3	CIN
2	4-23	20	Ministry Contact: Ministry staff responsible for the sample. Validated against Staffs’ table UserID. Permit holders may enter the permit number to indicate the Ministry contact. If permit number is used, it must be in the format AAnnnnn (File Type, Waste Type plus 5 digit numeric e.g. PE99999).
3	24-25	2	Sampling agency: Code for the agency which collected the sample.
4	26-27	2	Sample state: Type of sample (e.g. FW for Fresh Water).
5	28-29	2	Sample state descriptor: Further note on sample state (e.g. GE for General).
6	30-36	7	Site number: Code for the site at which sampling was done.
7	37-40	4	Lower depth: The lower (deeper) depth at which sampling was done (in meters, including a decimal point if needed).
8	41-44	4	Upper depth: The upper (shallower) depth at which sampling was done (in meters, including a decimal point if needed). Should be equal to lower depth if sampling was performed at only one depth.
9	45-50	6	Sample Class: Code indicating the general class of the sample (e.g. REG for Regular).
10	51-90	40	E-mail address: of user who sent the file.

4. SCM--EMS sample comment record

As many records as required may be generated. EMS will only store the first 255 characters.

Field	Position	Length	Contents
1	1-3	3	SCM
2	4-255	251	Sample comment: Notes pertaining to the sample.

5. CIE--ENVIRODAT common information

This record must be present.

Field	Position	Length	Contents
1	1-3	3	CIE
2	4-6	3	Code: indicating the method used to collect the sample.
3	7-16	10	ENVIRODAT sample number.
4	17-26	10	ENVIRODAT group sample number.
5	27-46	20	Optional cross reference sample number: Laboratory sample number.
6	47-80	33	Filler: Any information is ignored.

6. SCE--ENVIRODAT sample comment record

As many records as required may be generated. ENVIRODAT will only store the first 242 characters.

Field	Position	Length	Contents
1	1-3	3	SCE
2	4-80	77	Sample comment: Notes pertaining to the sample.

7. RIN--Result information record

The Result information record must always be present.

Field	Position	Length	Contents
1	1-3	3	RIN
2	4-13	10	Sampling start date: The date and time at which the sample was collected. Format is YYMMDDHHMM (year, month, day, hour, minutes) where the time is in 24 hour format (0000-2359).
3	14-23	10	Sampling end date: Only included if the sample is a composite, for example if the sample was collected over a period to time. Format as for sampling start date. Must be later or equal to the sampling start date.
4	24	1	Tide code: Code to indicate the state of the tide for marine or estuarine sites which were not sampled over an extended period of time.
5	25-32	8	EMS sparcode: Code of the test for which the result is being reported.
6	33-35	3	Unit code: Code of the result being reported.
7	36-37	2	Analyzing agency: Code for the agency which performed the analysis.
8	38-43	6	Result: The analytic result which is being reported. Includes a sign and decimal point if required.
9	44	1	Exponent sign: The sign of the exponent if the result is reported in scientific notation.
10	45	1	Exponent value: The value of the exponent if the result is reported in scientific notation (blank defaults to zero).
11	46	1	Result letter: The letter associated with the reported result. Valid values are >, <, M, and blank.
12	47	1	Result flag: Code used to flag the result if it is in some way unusual. Valid values are I, B, P and blank. This field may be left blank.
13	48-50	3	Replicate: ENVIRODAT replicate number.
14	51-56	6	Detection Limit: The minimum detection limit for the analysis method.

Field	Position	Length	Contents
15	57	1	Exponent sign: The sign of the exponent if the detection limit is reported in scientific notation.
16	58	1	Exponent value: The value of the exponent if the detection limit is reported in scientific notation (blank defaults to zero).
17	59-68	10	Measurement start time: The date and time at which the analysis was started. Format is YYMMDDHHMM (year, month, day, hour, minutes) where the time is in 24 hour format (0000-2359). Date must be entered though time is optional.
18	69-78	10	Measurement end time: The date and time at which the analysis was completed. Format is YYMMDDHHMM (year, month, day, hour, minutes) where the time is in 24 hour format (0000-2359). Date must be entered though time is optional. If start and end are the same, leave end time blank.
19	79	1	Pre-Treatment code.
20	80	1	Questionable results and maximum (X) and minimum (I) result flags . Valid flags are T,E,Q (federal only), I and X.
21	81-90	10	Filler: Any information is ignored.
22	91-96	6	Confidence Interval: Includes a sign and decimal point if required.
23	97	1	Exponent sign: The sign of the exponent if the Confidence Interval is reported in scientific notation.
24	98	1	Exponent value: The value of the exponent if the Confidence Interval is reported in scientific notation (blank defaults to zero).

8. DXF--Dioxin/Furan

When submitting Dioxin/Furan data records for ENVIRODAT, the data must be submitted as answers to Dioxin/Furan questions in the following format:

Field	Position	Length	Contents
1	1-3	3	DXF
2	4	1	Q
3	5-6	2	Question number "01","02" ..."10"
4	7	1	“.” (period)
5	8	1	part of question "A","B" or "C"
6	9	1	answer (Y/N) for ALL
7	10	1	answer (Y/N) for TCDD
8	11	1	answer (Y/N) for TCDF
9	12-80	69	Filler: Information is ignored.

Questions are as follows:

Questions	ALL	TCDD	TCDF
1. Have all required data forms been submitted? (Figure 8, Parts I & II, 9, 10, 11, 12, 13 of the Reference Method)	Y/N	Y/N	Y/N
2. Figure 8, Part I a) Are all surrogate recoveries within specified limits? (See section 8(c) of the Reference Method) b) Are all reported detection limits at or below maximum target values? (See Table 5 of the Reference Method)	Y/N Y/N	Y/N Y/N	Y/N Y/N
3. Figure 8, Part II Are ion abundance ratios within acceptable limits for 2,3,7,8-TCDD and 2,3,7,8-TCDF? (See subsection 6.5 and 6.7 of the Reference Method)	Y/N	Y/N	Y/N

Questions	ALL	TCDD	TCDF
4. Figure 10 a) Are all surrogate recoveries within range of 40 to 120% for each of the three tests? (See subsection 5.2 of the Reference Method) b) Are all native congener recoveries within 20% of the spiked amount for each of the three tests?	Y/N	Y/N	Y/N
5. Figure 11 Are %RSD values within specification for all native congeners? (See subsection 6.6 of the Reference Method)	Y/N	Y/N	Y/N
6. Figure 12 a) Was calibration verified within 12 hours from analysis for each reported compliance sample? (See section 8(j) of the Reference Method) b) Are [calculated/actual] concentration ratios for all native congeners within the specified limits? (See section 8(j) of the Reference Method) c) Are all surrogate recoveries within the range of 75 to 125%?	Y/N	Y/N	Y/N
7. Figure 13 Were analytical identification criteria satisfied for 2,3,7,8-TCDD and 2,3,7,8-TCDF in CS1 for each date on which compliance sample analyses were performed? (See section 6.5 and section 8(k) of the Reference Method)	Y/N	Y/N	Y/N
8. Were windows verified and was acceptable chromatographic performance confirmed for each date on which compliance sample analyses were performed? (See section 6.2 and 6.3 of the Reference Method)	Y/N	Y/N	Y/N
9. Were all compliance sample analyzed at MS resolution of 10,000 or better? (See section 6.2 and 6.3 of the Reference Method)	Y/N	Y/N	Y/N
10. Was PCDD/PCDF contamination non-detectable or below maximum allowance levels in all blank samples?	Y/N	Y/N	Y/N

Appendix B

1.0 Example of the FPP File Format

```
DLMPY1006
NTETestDataSubmission
CINNPEPPIN          PEWWFRE248209          REG  Nellie.Peppin@gems5.gov.bc.ca
SCMThis is an example of the FPP format acceptable to EMS
CIEGRBPY990001
SCEComments in this field will be captured by ENVIRODAT only.
RIN01110105000111010500 0115X013001PE8          I          0111010500
RIN01110105000111010500 0008X017001PE20         I          0111010500
RIN01110205000111020500 0008X017001PE8          I          0111020500
RIN01110305000111030500 0115X013001PE7          I          0111030500
RIN01110305000111030500 0008X017001PE19         I          0111030500
RIN01110405000111040500 0008X017001PE22         I          0111040500
RIN01110405000111040500 AOX-x250001052.6        I          0111040500
RIN01110505000111050500 0115X013001PE7          I          0111050500
RIN01110505000111050500 0008X017001PE20         I          0111050500
RIN01110605000111060500 0008X017001PE14         I          0111060500
RIN01110705000111070500 0115X013001PE8          I          0111070500
RIN01110705000111070500 0008X017001PE13         I          0111070500
DLMPY1116
CINNPEPPIN          PEWWFRE248209          REG  Nellie.Peppin@gems5.gov.bc.ca
SCMThis is an additional comment
CIE014Py990001
SCEComments in this field will be captured by ENVIRONDAT only.
RIN01110805000111080500 0013XM15032PE13         I          0111080500
RIN01110905000111090500 0013XM15032PE13         I          0111090500
RIN01111005000111100500 0013XM15032PE13         I          0111100500
RIN01111105000111110500 0013XM15032PE13         I          0111110500
RIN01111205000111120500 0013XM15032PE13         I          0111120500
RIN01111305000111130500 0013XM15032PE13         I          0111130500
DXFQ01.YYY
DXFQ02.AYYY
DXFQ03.BYYY
DXFQ04.YYY
DXFQ05.YYY
DXFQ06.YYY
DXFQ07.YYY
DXFQ08.YYY
DXFQ09.YYY
```

2.0 Examples of EMS QA Index/Error Reports

1. Example message received from EMS indicating all data has been processed and successfully submitted to EMS.

*From: EMS [ems@envux1.env.gov.bc.ca]
To: Nellie.Peppin@gems7.gov.bc.ca
Subject: EDT: TRAIN Load Result: PY1006
Date: March 20, 2002 1:14 PM*

QA Index Only: FALSE

2002-03-20 13:14

PL/SQL procedure successfully completed.

*#OK#nellie.peppin@gems7.gov.bc.ca
Users Original Filename: PY1006
#STOP#
No errors were found during the import of data to EMS*

=====
PL/SQL procedure successfully completed.

2002-03-20 13:14

2. Example message received from EMS indicating all data has been processed and the file failed EMS validation checks. The file was rejected and the errors in this file have to be corrected by the data provider and resubmitted to EMS. Keyfields identifying the errors are bolded for this example.

*From: EMS [ems@envux1.env.gov.bc.ca]
To: Nellie.Peppin@gems7.gov.bc.ca
Subject: EDT: TRAIN Load Results: PY1006
Date: March 20, 2002 1:13PM*

QA Index Only: FALSE

2002-03-20 13:12

PL/SQL procedure successfully completed.

#OK#nellie.peppin@gems7.gov.bc.ca

Users Original Filename: PY1006

#START#nellie.peppin@gems7.gov.bc.ca

Users Original Filename: PY1006

The following warnings/errors were found during the import of data to EMS

Data will have to be corrected if Errors were found and resubmitted to EMS

If you have any questions please contact the ministry contact listed below

=====

Except for any records identified below, all data included in this file
have been assigned a QA index of C. The QA index assigned to this data
may be modified by EMS if/when additional QA information is
included/received by the system.

Ministry Contact: Nellie Peppin E-Mail Address: nellie.peppin@gems7.gov.bc.ca

ERROR : Invalid Parameter Code Found : **4470** for EMS ID : **E248209** Sample
Date : **0111010500** Analytical Method: **X037**

ERROR : Parameter and Analytical Method not found in dictionary: for EMS ID :
E223619 Sample Date : **0111010500** Parm Code : **4470** Analytical Method: **X037**

ERROR : Duplicate Result found for EMS ID: **E248209** Sample Date: **08-NOV-01**
Parm Code: **0013** Analytical Method: **XM15** Analytical Date:

#STOP#

PL/SQL procedure successfully completed.

2002-03-20 13:12