Appendix F

AIR EMISSIONS RISK ASSESSMENT
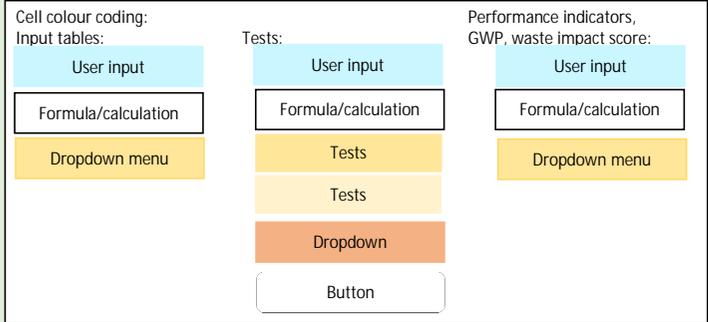
Environment Agency

NIEA | Northern Ireland Environment Agency
www.daera-ni.gov.uk

H1 software
Version number: 9
Last updated April 24

SEPA Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

Cyfoeth Naturiol Cymru Natural Resources Wales

The H1 tool enables calculation of the impact of proposed substance releases to various media.
It screens out from detailed assessment those releases described as 'insignificant' emissions to air or deposition onto land, and for discharges to water or to sewer of effluent streams containing substances which are not 'liable to cause pollution'.
However, for releases to air the calculation of the predicted ground level concentration is pessimistic and should not be used to determine a stack height to produce an insignificant environmental impact. Detailed modelling should be employed for this purpose. Prior to submitting an application for a new or modified permit, guidance is provided by the relevant authorising body, and this includes discussions on appropriate stack heights.

Before the start of the assessment, you have to enable macros for the tool to work.
Please start your assessment with the red button below. The tool will allow you to undertake an environmental assessment. Each page includes navigation buttons to skip through the pages and see the same page for all options.
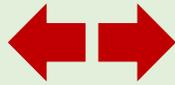
QA sheet

Cell colour coding:
Input tables:

User input
Formula/calculation
Dropdown menu

Tests:

User input
Formula/calculation
Tests
Tests
Dropdown
Button

Performance indicators, GWP, waste impact score:

User input
Formula/calculation
Dropdown menu

Reference info

Objectives

List of BAT-AEL

EQS Table Water

EQS Table Air

Output tables

START YOUR ASSESSMENT

Main

Enter your information in the relevant cells. Click the "Enter" key of your keyboard to go to the next field. Select your sector from the dropdown menu

Facility reference information

Company name:	Enva E-waste Limited
Location:	Dartford, Kent
Permit number:	To be confirmed
Sector:	
Authorising Body:	Environment Agency

Describe the objectives

Depending on the reason for the assessment you will need to complete different parts of the tools

Select the type of assessment:

Environmental assessment of the releases resulting from the facility as a whole

You have selected an environmental assessment

Air	Water	Energy	Raw materials	Waste
Yes	No	No	No	No

Please select whether you have releases in the dropdown menus above

Activities	
1	Fridge Deconstruction
2	Small mixed WEEE Deconstruction
3	
4	
5	
6	
7	
8	
9	
10	

Identify relevant impacts		If the impacts are not relevant, please select 'No' and justify your omission	You will be able to go back to this page if you click on the 'Identify' button in each of the assessments.

1:Env Assmt

Releases?		Test Impact?	Justification for omission?	Go to Input ..	Go to Test ..
Yes	Air	Yes		Water (input)	
No	Deposition from air to land	No			Water
No	Water	No			
No	Waste	No			
No	Visual	No			
	Ozone creation	No			
	Global warming	No			
	BAT-AEL test	No			
	Performance indicators	No			

Air release points and emissions inventory | 1 of 24

Select a test to view

Water

View Air Tests

1. Add release point details in the top table

2. In the lower table, select release point in the 1st column and fill in substance details

Users inputs are shaded in light blue and dropdown menu in yellow.

User input

Formula/calculation

Dropdown menu

Environmental Assessment

3

Release point code	Location or grid reference	Activity/Activities	Effective height (metres)	Dispersion factor (Long term)	Dispersion factor (short term)	Dispersion factor (monthly)	Efflux velocity (m/s)	Total flow (m3/h)
A1	TQ 57275 75464	Fridge Line	0	148	3900	529	0.0028	10
A2	TQ 57275 75464	Weee Line	0	148	3900	529	11.11	40
A3	TQ 57275 75464	Blowing agent recovery system	0	148	3900	529	0.055	200

6

Release Point	Substance	Measurement method	Operating mode(%)	Long term conc (mg/m3)	Release rate g/s (long term)	Measurement basis (Long term)	Short term conc (mg/m3)	Release rate g/s (short term)	Measurement basis (short term)	Annual rate (t/yr)	Long term PC (ug/m3)	Short term PC (ug/m3)	Total Flow (m3/h)
A1	Particulates (PM10)	Estimated	72%	5	0.00		5	0.00		0.00	0.00	0.03	10.00
A1	Benzene	Estimated	72%	15	0.00		15	0.00		0.00	0.00	0.10	10.00
A2	Particulates (PM10)	Estimated	72%	5	0.00		5	0.00		0.00	0.01	0.13	40.00
A2	Benzene	Estimated	72%	15	0.00		15	0.00		0.00	0.02	0.38	40.00
A3	Particulates (PM10)	Estimated	72%	5	0.00		5	0.00		0.01	0.03	0.64	200.00
A3	Benzene	Estimated	72%	15	0.00		15	0.00		0.02	0.09	1.92	200.00

Results of the air and water assessments

Click on "Report test results" to populate the tables with information. Substances for which all relevant tests fail will be coloured in red. The "Clear output tables" button clears the information in the tables.

Air

Option	Substance	Test 1	Test 2
1	Particulates (PM10)	Pass	
1	Benzene	Fail	Pass

Freshwater

Option	Type of water body	Release point code	Substance	Freshwater test 1	Freshwater test 2	Freshwater test 3	Freshwater test 4a	Freshwater test 4b

Significant Load

Option	Type of water body	Description	Substance	Significant load test