APPENDIX G – ENVIRONMENTAL RISK ASSESSMENTS

KEMSLEY SUSTAINABLE ENERGY PLANT

PERMIT APPLICATION EA/EPR/SP3431KJ/A001

On behalf of E.ON Energy from Waste

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Name of Operator	E.ON Energy from Waste
Name of Site	Kemsley Sustainable Energy Plant
Permit Application Number	EA/EPR/SP3431KJ/A001

Are you considering all the risks from your site?	All foreseeable risks are considered.
If relevant, what is the set of standard rules that you are close to meeting?	Standard rules are not being applied for.
What risks or receptors are different between your proposals and the standard rules?	No standard rules apply.

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1 H1 Part 1 – Simple assessment of environmental risk for accidents, odour, noise and fugitive emissions

Summary

1.1 This section provides the completed assessment of environmental risk for accidents, odour, noise and fugitive emissions in accordance with the required format prescribed in EPR – H1 Environmental Risk Assessment, Part 1.

Table A1 : Odour risk assessment and management plan

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
Odour emissions from the fuel reception hall and fuel delivery vehicles	Local residents (nearest receptors approx. 750 m from the Installation).	Air	The following odour control measures are proposed: The building will operate under a negative pressure and air from this area will be drawn into the furnace for combustion during operation of the Plant therefore destroying any potentially odorous compounds. High standards of housekeeping will be maintained to ensure that the waste materials are kept within the bunker area and that any material which is accidentally deposited outside of the bunker is cleared up immediately. Crane operators will be trained to ensure that the materials in the bunker are well mixed and that incoming fuel is not being left within the bunker for excessive periods. Odour will be monitored by daily sniff testing at the site boundary or following an odour complaint and records of any such inspections kept. In the event of a total plant shut down air from above the bunker will be discharged via a carbon filter unit to provide odour control.	Low	Minor odour annoyance (at worst).	Not significant.

Table A2 : Noise risk assessment and management plan

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
Noise from delivery vehicles and offloading (such as reverse warnings)	Local residents (nearest receptors approx. 750 m from the Installation).	Air	Main traffic movements associated with the SEP will occur between 07:00 and 19:00hrs. Outside of these hours deliveries will be much reduced. Doors will be closed at all times other than for entry and exit to the tipping hall. Noise mitigation measures have been incorporated within the design (See Appendix D for details) In the event of a complaint, EEW will follow a complaints procedure to record and act on the complaint, and to inform the EA.	Medium However, noise would be intermittent and the majority of deliveries will be made between 07:00 and 19:00 hours.	Low Noise modelling undertaken demonstrates that the noise effects of operational traffic will not be significant.	Not significant.
Noise from main plant and generator buildings	Local residents (nearest receptors approx. 750 m from the Installation).	Air	Proposed plant and the generator building will be constructed of lightweight metal cladding. Turbines will be enclosed within an acoustic enclosure and within a building. In the event of a complaint, EEW will follow a complaints procedure to record and act on the complaint, and to inform the EA.	Low due to the distance to local residents.	Low Unlikely to cause annoyance to sensitive receptors. Noise modelling undertaken demonstrates that the noise effects of plant operation are not significant.	Not significant.

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
Vibration from plant	Local residents (nearest receptors approx. 750 m from the Installation).	Land	Any plant vibration issues will be resolved during the plant commissioning period. In the event of a complaint, EEW will follow a complaints procedure to record and act on the complaint, and to inform the EA.	Low.	Low Noise assessment considered that significant vibration effects from the SEP during its operation were unlikely.	Not significant.

Table A3 : Fugitive emissions risk assessment and management plan

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
To Air						
Dust from waste deliveries and handling	Local residents (nearest receptors approx. 750 m from the Installation).	Air	Fuels have a low potential for dust. All handling will take place within a building and doors will remain shut other than for access. Forced draught fans are located above the bunker to create a slight negative pressure to prevent dust leaving the building. Roller shutters which remain shut other than during tipping will be in place. Fuel delivery vehicles/containers will be fully contained to minimise dust emissions. Visual dust monitoring procedures will be developed prior to operation.	Low.	Low Nuisance, dust on windows, cars etc.	Not significant if dust mitigation measures are managed.

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
Hydrated Lime deliveries and handling	Local residents (nearest receptors approx. 750 m from the Installation).	Air	Deliveries are made using an sealed connection system between the road vehicle and APC storage silo. Level monitoring will be included and will be linked to a switch to prevent over filling. Any spillage of material during a delivery, for example during the disconnection of the hose would be cleared immediately. Storage vessels will be fitted with a filter to minimise fugitive emissions of dust.	Low	Low Nuisance, dust on windows, cars etc.	Not significant.
Calcium oxide deliveries and handling	Local residents (nearest receptors approx. 750 m from the Installation).	Air	Deliveries are made using an sealed connection system between the road vehicle and APC storage silo. . Level monitoring will be included and will be linked to a switch to prevent over filling. Any spillage of material during a delivery, for example during the disconnection of the hose would be cleared immediately. Storage vessels will be fitted with a filter to minimise fugitive emissions of dust.	Low	Low Nuisance, dust on windows, cars etc.	Not significant.

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
Powdered activated carbon deliveries and handling	Local residents (nearest receptors approx. 750 m from the Installation).	Air	Deliveries are made using an enclosed road tanker with hose connection to the storage vessel. Level detection will be provided for the storage tank which will be linked via a switch to prevent overfilling. Any spillage of material during a delivery, for example during disconnection of the hose would be cleared immediately. Storage vessels will be fitted with a filter to minimise fugitive emissions of dust.	Low	Low Nuisance, dust on windows, cars etc.	Not significant.
Ammonia fumes from deliveries and handling of ammonium hydroxide	Local residents (nearest receptors approx. 750 m from the Installation).	Air	Delivery vehicles will off load using a sealed connection. Level monitoring will be included and will be linked to a switch to prevent over filling. The storage vessel will have a scrubber on the vent to control emissions.	Low, release would require failure of scrubber.	Medium. Short duration release during off loading.	Not significant.

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
APC dust from residue handling and storage	Local residents (nearest receptors approx. 750 m from the Installation).	Air	APC residues are handled in an enclosed system. Residues either discharged via a sealed connection to a road tanker or mixed with water prior to discharge to a contained vehicle for off-site disposal Filter on silo vent is fitted with a differential pressure alarm and automatic cleaning Disposal of APC from site will be monitored by site personnel.	Low – the APC system is fully contained. During routine plant walkovers, any leakage would be identified. .	Medium – material is hazardous and fine.	Not significant
VOCs from deliveries and storage of light fuel oil	Local residents (nearest receptors approx. 750 m from the Installation).	Air	Delivery vehicles will off load using a sealed connection. The storage vessel will have a vent to permit tank breathing. Emissions from this source are not considered to be significant since the material being stored will be relatively non-volatile. The integrity of all liquid storage containers will be subject to routine checks as part of daily site inspections.	Low	Low	Not significant

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
To Water						
Run off from fuel bunker	Local water course	Ground/ surface drains	The fuel bunkers will be designed to be water tight and be constructed of thick concrete walls and base. Any moisture within the incoming fuel will be fully contained and will pass through the combustion stage with the waste. During shutdown periods, the bunkers will be visually inspected to ensure that it is in a good state of repair. The bunkers have been designed to form part of the firewater containment system and therefore are designed to fully contain firewater run-off into this part of the facility.	Low – highly unlikely	Medium. Surface water/groundwater contamination.	Not significant.
Run-off from bottom ash bunker	Local water course	Ground/ surface drains	The bottom ash bunker will be designed to be water tight and be constructed of thick concrete walls and base. Run-off is collected and returned to the bottom ash quench water system Process areas are appropriately surfaced and drains collect waters for re-use.	Low	Low/Medium Run-off volumes are expected to be low	Not significant

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
Transfer of bottom ash from bunker to ash processing plant.	Local water course	Ground/surface drains	Bottom ash handling and transfer will be enclosed to prevent loss of material. Any spillage of bottom ash would be cleaned up immediately.	Low	Low – any aqueous release would be small	Not significant
Transfer of ash from stockpiles into lorries	Local water course	Ground/ surface drains	Excess water will have been removed during the maturation process prior to loading the ash for removal off-site, therefore there is limited potential for discharge of significant amounts of run-off during loading. Lorries will be parked within an enclosed building which will be suitably surfaced. Any spillage of bottom ash would be cleaned up immediately.	Low	Low – any aqueous release would be small	Not significant

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
Leakage from ammonia solution storage area	Local water course	Surface water drainage system	A hard, impermeable surface will underlay all chemical and oil storage areas to prevent fugitive emissions to groundwater should spills/ leaks occur. The ammonia storage area will be appropriately bunded. The storage container used will be impervious to ammonia. A procedure will be designed to ensure that any damaged or leaking containers are dealt with and to allow regular inspections for any signs of deterioration.	Very Low A release would only occur in the event of an accident/incident and would require failure of both primary and secondary containment. Operational management procedures will prevent this from happening.	Medium/high (depending on quantity) Surface water/groundwater contamination.	Not significant.

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
Leak of fuel oil storage area.	Local Water course	Surface water drainage system	Deliveries are all overseen by a trained member of staff, who will ensure that there is sufficient capacity within the storage vessel for the delivery. The storage tank is within a bund to contain any spillage and a drip tray is provided to contain any minor spillage during connection/disconnection of the delivery hose. Fuel oil storage area will be appropriately bunded. A hard, impermeable surface will underlay all chemical and oil storage areas to prevent fugitive emissions to groundwater should spills/ leaks occur. Spill kits will be available to contain and clean up any spills. A procedure will be designed to ensure that any damaged or leaking containers are dealt with and to allow regular inspections for any signs of deterioration.	Very low. A release would only occur in the event of an accident/incident and would require failure of both primary and secondary containment. Operational management procedures will prevent this from happening.	Medium/high Contamination of local water course	Not significant.

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
Run off/spillage from maintenance oils storage.	Local Water course	Surface water drainage system.	A hard, impermeable surface will underlay all chemical and oil storage areas to prevent fugitive emissions to groundwater should spills/ leaks occur. The oil storage areas will be appropriately bunded. A procedure will be designed to ensure that any damaged or leaking containers are dealt with as soon as practicable and to provide for regular inspections to identify as soon as possible any signs of deterioration. Regular visual inspections of the maintenance oil storage area will be completed to allow for early detection of any sign of damage/leaks and trigger immediate remedial action.	Low A release would only occur in the event of an accident/incident and would require failure of both primary and secondary containment. Operational management procedures will prevent this from happening.	Low/medium Small volumes of maintenance will be stored on site.	Not signficant

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
Litter						
Fuel release from reception hall and delivery vehicles.	Local residents	Windblown to air	All fuel will be transported to the facility in enclosed vehicles. The fuels will be delivered to the waste reception hall and deposited in the bunkers which have been designed to hold the maximum quantities of fuel required to ensure effective operation of the facility, whilst avoiding prolonged storage of the material. Good housekeeping procedures will be developed to ensure all fuel is removed from vehicles before leaving the tipping hall. Any unexpected spillage would be cleaned up immediately	Low	Low/medium Nuisance to local receptors	Not significant
Fuels release from temporary external storage of containers	Local residents	Windblown to air	Storage containers will be fully contained. External storage will only be temporary. Good housekeeping procedures will be developed and any unexpected spillage would be cleaned up immediately	Low	Low/medium Nuisance to local receptors	Not significant

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
Pests						
Flies (or other pests) in fuel storage area.	Local residents	Air	No black bag wastes will be received at the site and therefore the potential for infestation of flies or other pests will be significantly lower than with unprocessed MSW. The reception hall will be within an enclosed building. In the event of a planned prolonged shut down, material in the bunker will be run down. Pest control measures will be applied in accordance with recommendations from a specialist pest control advisor.	Low Good site management procedures should prevent this occurring.	Low/medium Nuisance	Not Significant

Table A4 : Accidents risk assessment and management plan

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
Operator error	Air/land/water	Various – dependant on nature of error	The plant will be automatically controlled under normal operation, thereby minimising the potential for operator error. The automatic control system will include alarms to alert the operator of potential operational problems and where relevant will be triggered with sufficient safety margin to permit operator intervention to prevent an actual problem occurring. All operational staff will be fully trained against the site operating procedures. Training will include awareness raising of key plant parameters and the potential implications of failure to control operations as designed and the associated potential impact on the environment.	Low	Variable depending upon nature of incident.	Not significant provided operating procedures are followed.

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
Loss of containment during transfer of reagents, chemicals and fuels	Water	Surface water drainage system	An emergency spillage management plan will be produced. All bunds will be visually checked each day to ensure that they are empty. All process storage tanks will be built of suitable materials which are resistant to the vessel content. A maintenance programme will be established for the inspection of all storage tanks. Potential release to groundwater would require simultaneous failure of the storage tank and containment. Bulk deliveries will be overseen by a trained member of staff who will be responsible for checking that there is sufficient capacity in the storage vessel to receive the delivery. A site spill procedure will be developed and followed in the event of a spillage. Spill kits will be available to contain and clean up the spill.	Very low – requires multiple failure events	Contamination of local water course - Medium/High consequence depending on quantity and material released.	Not significant as long as delivery procedures are adhered to, and in the event of a spillage, the spill management plan is followed.

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
			Solid raw materials will be cleaned using dry techniques. Incidents will be recorded and investigated appropriately according to the site incident procedure. Significant incidents will be reported to the EA in accordance with the requirements of the permit. Significant incidents (i.e. not small drips/insignificant amounts) will be reported to the EA in accordance with the requirements of the permit.			

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
Fire in fuel bunker causing emissions to air	Air	Direct release of combustion gases to air	The plant has been designed such that the fuel bunker is physically separate from ignition sources. The feed hopper is designed to prevent backflow of material and includes a level alarm to alert the operator that a low level of fuel is present in the hopper Water cannons will be provided within the main bunker, which will be activated in the event of a fire. Fire detection units will be installed within the reception hall to alert site operators of a fire. The detection units will alarm, following which the Fire Emergency procedure will be activated.	Low	Low/medium Uncontrolled release of combustion gases to air. Impacts likely to be short term	Not significant.
Failure to contain firewater.	Local water course	Surface water drainage system	Measures are in place to protect against a fire. Fire response systems should ensure a rapid response thereby addressing the fire at the earliest point to avoid fire spread and therefore minimising the potential volumes of fire-waters. The detailed design stage will ensure that there is sufficient capacity on site to contain foreseeable firewater volumes.	Low – plant designed to contain firewater	Moderate (although firewater would not be discharged to surface water).	Low

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
APC equipment failure	Air	Stack	All abatement plant is continuously monitored (i.e. reagent flow and consumption/ bagfilter pressure drops) to ensure that it is operating as designed and that reagent feed systems are working. In addition, emissions to air from the process are continuously monitored for key pollutants which would identify any potential increases in pollutant concentrations. All of these systems will include appropriate alarms to alert the operator to a potential problem and permit appropriate action to be taken.	Low	Low/medium - potential for increased air emissions, quick identification of a problem will minimise release duration. It will also allow for fast repair or plant shutdown.	Not Significant

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
Flooding	Local water course	Surface water drainage system	The proposed development site lies above the flood plain and therefore is considered to be at low risk of flooding from local watercourses. Localised flooding will be avoided through the inclusion of surfacing which promotes run-off e.g. through the inclusion of soft landscaping and design of the new drainage system. The plant layout and storage facilities for reagents and fuel oils are designed to ensure all materials are contained and in the event of a flood, materials would not be released. As part of the sites emergency procedures the appropriate procedures for responding to, reporting, and the investigation on the event of a flood will be assessed.	Very low.	Medium Potential contamination of flood waters.	Not Significant.

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**

What do you do that can harm and what could be harmed			Management the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk?**
Vandalism	Air/land/water	Various	A security fence will be in place around the perimeter of the site, and access to the site will be controlled. The site will be manned 24 hours a day, 7 days a week. CCTV surveillance systems will be in place, with feedback to the control room.	Low due to security measures in place.	Variable. Potential contamination of local water course/air/land and/or local nuisance depending on nature of event.	Not significant., given the very low probability of any unauthorised access of the site.

2 H1 Part 2 - Assessment of point source releases

Summary

2.1 The following H1 assessment has been undertaken in accordance with the H1_Part 2[1] guidance provided by the Environment Agency.

2.2 Part 2 of the H1 assessment assesses the overall impact of the facility in relation to point source releases.

[1] EPR-H1 Environmental Risk Assessment Part 2 – Assessment of point source releases and cost benefit analysis

Welcome to the H1 software

Introduction

This version of the database tool accompanies the IPPC Guidance version H1v6 July 2003.

This software tool is for use with the IPPC guidance note H1 "Environmental Assessment & BAT Appraisal". The H1 guidance provides a structured methodology to demonstrate that an activity uses the Best Available Techniques, by:

- assessing the the costs and environmental benefits of options for pollution prevention and control techniques; and
- conducting an environmental assessment to demonstrate that no significant pollution is caused.

Important Notes:

This software tool can be used to complete most of the modules within H1. However, further information may need to be provided in the following areas:
- detailed assessment of fate and effects, where required
- decision-making trails for the comparison and ranking of options

This software provides a general structure for assessing costs and environmental impacts. You may need to decide the best way to apply this structure to fit the nature and pattern of your operation, in particular:
- where load is variable, such as seasonal or demand-led operations
- where a number of processes are conducted at the same time, such as integrated operations
- where a number of products are made, with possible differences in unit operations and release points employed
- where fugitive or potential emergency releases are of particular interest

Information in this database will be used to determine your PPC permit, therefore to get the most from this software tool, you should:

- read the introduction to the H1 guidance, to understand the basic principles, module structure and methods

- use the HELP boxes and refer to the H1 guidance as you progress to ensure that the data you input is representative and accurate

- use the comments boxes to clarify assumptions and data sources

Some basic instructions for using the software tool are provided in Appendix I of the H1 Guidance

ENVIRONMENT AGENCY

The application has been optimised for a screen resolution of 800 x 600

Version 1.8.2 31 August 2007

ability

www.ability-software.co.uk

Reference Information

Please complete the following information:

Company Name:	E.ON Energy from Waste
Location:	Kemsley
Permit Number:	EA/EPR/SP3431KJ/A001

module 1

Introduction to Module 1

Module 1: Describe the Scope and Options

The aim of this module is to:

- state the OBJECTIVES of the assessment

- in the case of ENVIRONMENTAL ASSESSMENT of the whole installation, describe the scope of the activities to be included in the assessment;

- in the case of OPTIONS APPRAISALS, identify candidate options for BAT by considering all relevant techniques to prevent and minimise pollution and the scope of activities covered by the techniques.

Depending on the reason for the assessment, you will need to complete different modules of the guidance. The software will automatically select the required modules according to the responses you enter.

NOTE: If you are going to complete more than one assessment or appraisal, make sure that you create a copy of the H1 file for each new assessment BEFORE you begin to input data. This is because Microsoft Access automatically saves changes to the current file you are using, rather than allowing you to save your changes at the end of your work.

TO CONTINUE WITH MODULE 1, PRESS "NEXT".

module 1

1.1

Describe the Objectives

Depending on the reason for the assessment, you will need to complete different modules of the guidance.

Select the type of assessment:

○ a)	to conduct a costs/benefits OPTIONS APPRAISAL to determine BAT for selected releases from an installation	Do modules 1,2, 3 and 4 and continue with 5 and 6 if necessary
◉ b)	to carry out an ENVIRONMENTAL ASSESSMENT of the emissions resulting from the installation as a whole	Do modules 1, 2 and 3 only

1.1 Briefly summarise the objectives and reason for the assessment in terms of the main environmental impacts or emissions to be controlled:

To undertake an environmental assessment of point source emissions from the proposed SEP.

module 2

Introduction to Module 2

Module 2: Emissions Inventory

The aim of this module is to produce an inventory of sources and releases of polluting substances from each option. This is used as the basis for the subsequent evaluation of environmental impacts.

For this module you will require information on:

- release points and sources of emissions to all media

- concentration and mass rate of emitted substances

- frequency and duration of emissions and how these relate to long term and short term effects

IMPORTANT NOTES

- you may need to consider a suitable method for assessment of groups of pollutants, such as VOCs, heavy metals, uncharacterised liquid effluents, etc (see H1 guidance for details).

TO CONTINUE WITH MODULE 2, PRESS "NEXT".

module 2

Air Release Points

Please define your Release Points for Releases to Air

Are there any Air emissions? Yes

Number	Description	Location or Grid Reference	Activity or Activities	Effective Height (metres)	Efflux Velocity (m/s)	Total Flow (m3/hr)
1	A1	Line 1 Stack	Combustion products from burning waste	68	15	283320
2	A2	Line 2 Stack	Combustion products from burning waste	68	15	283320

Comments

module 2

Air Emissions Inventory

Please list all Substances released to Air for each Release Point identified in the previous page.

Number	Substance	Meas'ment Method	Operating Mode (if relevant)	Data relating to Long Term effects			Data relating to Short Term effect			Annual Rate	ELV Conc.
				Conc. mg/m3	Release Rate g/s	Meas'ment Basis	Conc. mg/m3	Release Rate g/s	Meas'ment Basis	tonne/yr	mg/m3
1	Particulates	Estimated*	100%	10	0.787	daily average	30	0.374	Half hourly average	22.7	
2	Carbon monoxide	Estimated*	100%	50	3.935	daily average	100	7.87	Half-hourly average	113.3	
3	Sulphur dioxide (ecological receptor)	Estimated*	100%	50	3.935	daily average	200	2.495	Half-hourly average	113.3	
4	Hydrogen chloride	Estimated*	100%	10	0.787	daily average	60	0.749	Half-hourly average	22.7	
5	Hydrogen fluoride (as F)	Estimated*	100%	1	0.0787	daily average	4	0.3148	Half-hourly average	2.3	
6	Nitrogen dioxide (ecological receptor)	Estimated*	100%	200	15.74	daily average	400	31.48	Half-hourly average	453	
7	Total Organic Carbon	Estimated*	100%	10	0.787	daily average	20	1.574	Half-hourly averagHalf-hourly average	22.7	
8	Cadmium and its compounds (as Cd)	Estimated*	100%	0.025	0.001968	daily average value				0.06	
9	Thallium, soluble compounds (as Tl)	Estimated*	100%	0.025	0.001968	average value				0.06	
10	Mercury and compounds, except mercury alkyls, (as	Estimated*	100%	0.05	0.003935	average value				0.11	
11	Arsenic and compounds (as As)	Estimated*	100%	0.5	0.03935	average value				1.1	
12	Antimony and compounds (as Sb) except antimony tri	Estimated*	100%	0.056	0.004407	average value				0.13	
13	Chromium (VI) compounds (as Cr)	Estimated*	100%	0.5	0.03935	average value				1.1	
14	Cobalt and cmds (as Co)	Estimated*	100%	0.056	0.004407	average value				0.13	
15	Copper dusts and mists (as CU)	Estimated*	100%	0.5	0.03935	average				1.1	

Air Emissions Inventory Base Option, Release Point: 1 'A1'

						value						
16	Lead	Estimated*	100%	0.5	0.03935	average value					1.1	
17	Manganese and compounds (as Mn)	Estimated*	100%	0.056	0.004407	average value					0.13	
18	Nickel and inorganic compounds (as Ni)	Estimated*	100%	0.5	0.004407	average value					1.1	
19	Vanadium	Estimated*	100%	0.056	0.004407	average value					0.13	
20	Dioxins and Furans	Estimated*	100%	1E-07	7.87E-09	average value					2.3E-07	
21	Polychlorinated biphenyls	Estimated*	100%	0.005	0.000394	average value					0.011	
22	Polycyclic Aromatic Hydrocarbon	Estimated*	100%	0.01	0.000787	average value					0.023	
23	Carbon dioxide	Estimated*	100%	136039.2	10706.29	annual average value					308341	
24	Nitrous oxide	Estimated*	100%	30	2.361	average value					68	
25	Ammonia (ecological receptor)	Estimated*	100%	5	0.3935	average value					11.3	

Measurement method: * provide detail in comments box Comments

Assumptions are the same for both stacks (A1 and A2).

For co-incineraiton plant there are no half hourly limits only daily limits.

Long term emisions taken as WID limits (where they exist) except for:

Cadmium and Thallium for which WID limits are set for the total of both metals; long term emissions assume present in equal portions.

For As; Sb; Cr; Co; Cu; Pb; Mn; Ni and V the concetrations assumed are calculated using to the National Air Emissions Inventory factors.

Emissions where no WID limits are set have been based as follows:

PCBs; PAHs; Nitrous oxides - based on BREF levels.

Ammonia provided by E.ON Energy from Waste based on slippage at existing operational plant.

Carbon dioxide emissions include both fossil and biogenic carbon dioxide and is calcualted on the basis of the expected carbon content of the fuel.

Mass Emissions based on 8,000 hours operation per annum

module 2

Air Emissions Inventory

Please list all Substances released to Air for each Release Point identified in the previous page.

Number	Substance	Meas'ment Method	Operating Mode (if relevant)	Data relating to Long Term effects			Data relating to Short Term effect			Annual Rate	ELV Conc.
				Conc. mg/m3	Release Rate g/s	Meas'ment Basis	Conc. mg/m3	Release Rate g/s	Meas'ment Basis	tonne/yr	mg/m3
1	Particulates	Estimated*	100%	10	1.574	daily average	30	4.722	Half hourly average	22.7	
2	Carbon monoxide	Estimated*	100%	50	3.935	daily average				113.3	
3	Sulphur dioxide (ecological receptor)	Estimated*	100%	50	3.935	daily average	200	15.74	Half hourly average	113.3	
4	Hydrogen chloride	Estimated*	100%	10	0.787	daily average	60	4.722	Half hourly average	22.7	
5	Hydrogen fluoride (as F)	Estimated*	100%	1	0.0787	daily average	4	0.3148	Half hourly average	2.3	
6	Nitrogen dioxide (ecological receptor)	Estimated*	100%	200	15.74	daily average	400	31.48	Half hourly average	453	
7	Total Organic Carbon	Estimated*	100%	10	0.787	daily average	20	1.574	Half hourly average	22.7	
8	Cadmium and its compounds (as Cd)	Estimated*	100%	0.025	0.001968	average value				0.06	
9	Thallium, soluble compounds (as Tl)	Estimated*	100%	0.025	0.001968	average value				0.06	
10	Mercury and compounds, except mercury alkyls, (as	Estimated*	100%	0.05	0.003935	average value				0.11	
11	Arsenic and compounds (as As)	Estimated*	100%	0.5	0.03935	average value				1.1	
12	Antimony and compounds (as Sb) except antimony tri	Estimated*	100%	0.056	0.004407	average value				0.13	
13	Chromium (VI) compounds (as Cr)	Estimated*	100%	0.5	0.03935	average value				1.1	
14	Cobalt and cmds (as Co)	Estimated*	100%	0.056	0.004407	average value				0.13	
15	Copper dusts and mists (as CU)	Estimated*	100%	0.5	0.03935	average value				1.1	
16	Lead	Estimated*	100%	0.5	0.03935	average value				1.1	

Air Emissions Inventory Base Option, Release Point: 2 'A2'

17	Manganese and compounds (as Mn)	Estimated*	100%	0.056	0.004407	average value				0.13	
18	Nickel and inorganic compounds (as Ni)	Estimated*	100%	0.5	0.03935	average value				1.1	
19	Vanadium	Estimated*	100%	0.056	0.004407	average value				0.13	
20	Dioxins and Furans	Estimated*	100%	1E-07	7.87E-09	average value				2.3E-07	
21	Polychlorinated biphenyls	Estimated*	100%	0.005	0.000394	average value				0.011	
22	Polycyclic Aromatic Hydrocarbon	Estimated*	100%	0.01	0.000787	daily average value				0.023	
23	Carbon dioxide	Estimated*	100%	136039.2	10706.29	annual average				308341	
24	Nitrous oxide	Estimated*	100%	30	2.361	average value				68	
25	Ammonia (ecological receptor)	Estimated*	100%	5	0.3935	average value				11.3	

Measurement method: * provide detail in comments box Comments

Assumptions are the same for both stacks (A1 and A2).

For co-incineraiton plant there are no half hourly limits only daily limits.

Long term emisions taken as WID limits (where they exist) except for:

Cadmium and Thallium for which WID limits are set for the total of both metals; long term emissions assume present in equal portions.

For As; Sb; Cr; Co; Cu; Pb; Mn; Ni and V the concetrations assumed are calculated using to the National Air Emissions Inventory factors.

Emissions where no WID limits are set have been based as follows:

PCBs; PAHs; Nitrous oxides - based on BREF levels.

Ammonia provided by E.ON Energy from Waste based on slippage at existing operational plant.

Carbon dioxide emissions include both fossil and biogenic carbon dioxide and is calcualted on the basis of the expected carbon content of the fuel.

Mass Emissions based on 8,000 hours operation per annum

module 2

Energy Consumption

Please list all Energy Sources and Annual Consumption

Select energy sources by Clicking on 'Add' and using the pull-down list.

Number	Energy Sources		Delivered MWh/yr	Conversion Factor	Primary MWh/yr	CO2 Factor	CO2 tonne/yr
1	Gas oil	direct emissions	11836	1.00	11,836	0.25	2,959

Comments: Emissions assoicated with plant electricity consumption are included within the stack emissions given that it is assumed that this elecrticity comes from the SEP.

module 2

Raw Materials

Please list all Raw Materials Consumed:

Number	Material	Annual Consumption	Units
1	Non-potable Water	340000	tonnes/year
2	Potable Water	2000	tonnes/year
3	Incoming Waste	550000	tonnes/year
4	Ammonium	3280	tonnes/year
5	Lime	5020	tonnes/year
6	Powdered activated carbon	480	tonnes/year
7	Hydrated Lime	10850	tonnes/year

Comments: Potable water is used within amenities only.

Usage assumes 8,000hours operation per annum

module 2

Waste Inventory

Please list all Waste Streams emitted:

Are there any Waste Hazard emissions: Yes

Number	Waste Stream	Hazard Category	Mass tonne/yr
1	Bottom ash	non-hazardous	130,500
2	Air pollution control residues	hazardous	32,460
3	Ferrous metals	non-hazardous	4,750
4	Non-ferrous metals	non-hazardous	475

Comments: APC residues include boiler ash

module 2

Performance Indicators

Enter consumption data to determine your performance indicators

Which of the following parameters do you use for calculating your performanc: Raw Material

Please describe and justify your choice

Tonnes of waste burned - the efficiency of burning this material and quantity used will directly effect impacts

Basic Consumption Data

	Name	Annual Quantity	Units
Amount of Product:	Power (heat and el	766,000	MWhrs
Main Raw Material:	Incoming Waste	550,000.00	tonne
Potable Water:		2,000.00	m3
Non Potable Water:		340,000.00	m3
Energy:		11,836.00	MWh
Waste: Inert:			tonne
Hazardous:		32,460.00	tonne
Non Hazardous:		135,725.00	tonne

Specific Consumption per tonne of Incoming Waste:

Production Efficiency:	1.39	MWhrs/tonne
Potable Water:	0.00	m3
Non Potable Water:	0.62	m3
Energy:	0.02	MWh
Waste: Inert:		tonne
Hazardous:	0.06	tonne
Non Hazardous:	0.25	tonne

module 3

3.1 Identify Relevant Impacts

Identify any environmental impacts that are not relevant to this assessment by deselecting from the list below:

Emissions in Module 2?			Justification for omission
Yes	☑	Air	
Yes	☑	Deposition from Air to Land	
No	☐	Water	no point source release to water under normal operation
No	☐	Noise	noise is considered in part 1 of the ERA and in Appendix D
No	☐	Odour	odour is consisdered in part 1 of the ERA
Yes	☑	Waste Hazard	
-	☐	Accidents	assessment of this impact should be carried out according to sector guidance
Yes	☑	Visual	
Yes	☑	Ozone Creation	
Yes	☑	Global Warming	

If you have deselected an environmental impact as not relevant to this assessment,
no further assessment of this impact will be carried out

module 3

3.2

Local Environmental Quality

Describe the Quality of the Environment:

Provide a brief description of the main local factors that may influence the importance of the impact of emissions in the surrounding environment

Air Quality

Are there any Environmental Quality Standards relating to substances released from the activities, which may be at risk due to additional contribution from the activity ? (Environmental Quality Standards for air and water are described in IPPC Technical Guidance Notes)	Yes, air quality standards apply to releases from the facility.
Are there any Local Air Quality Management Plans applicable to releases from the activity?	

Water Quality & Resources

Are there any Environmental Quality Standards relating to substances released from the activities, which may be at risk due to additional contribution from the activity?	No
Are proposals to abstract water satisfactory in order to obtain an abstraction licence?	No
Is the activity located in a groundwater vulnerable zone (for activities with direct releases to land only)?	There are no direct releases to land

Proximity to Sensitive Receptors

Is public annoyance likely to be an issue for noise, odour or plume visibility ?	see ERA part 1
Are there any wildlife habitats, eg Special Areas of Conservation,or Special Protection Areas, likely to be affected by releases from the activity? (Description of requirements of Habitats Directive is provided in IPPC Technical Guidance Notes)	Yes - See Appendix C and F

module 3

3.3.1 Air Impacts

Calculate Process Contributions of Emissions to Air

This table estimates the Process Contribution (PC), calculated as the maximum ground level concentration for each emission listed in the inventory, according to the release point parameters input earlier. If you have more accurate data obtained through dispersion modelling, this may be entered as indicated and will be used instead of the estimated PC.

		Long Term			Short Term		
Number	Substance	EAL µg/m3	PC µg/m3	* Modelled PC µg/m3	EAL µg/m3	PC µg/m3	Modelled PC µg/m3
1	Particulates	40	0.633	0.15	50	89.2	
2	Carbon monoxide	350	2.11	0.75	10000	207	
3	Sulphur dioxide (ecological receptor)	20	2.11	0.7		319	42.7
4	Hydrogen chloride	20	0.422	0.15	800	95.8	12.9
5	Hydrogen fluoride (as F)		0.0422		250	11.0	0.8
6	Nitrogen dioxide (ecological receptor)	30	8.44	2.1		1,102	28.5
8	Cadmium and its compounds (as Cd)	0.005	0.00106	0.000376	1.5	0.0689	
9	Thallium, soluble compounds (as Tl)	1	0.00106	0.000376	30	0.0689	
10	Mercury and compounds, except mercury alkyls, (as	0.25	0.00211	0.000751	7.5	0.138	
11	Arsenic and compounds (as As)	0.2	0.0211	0.000366	15	1.38	
12	Antimony and compounds (as Sb) except antimony tri	5	0.00237	0.000835	150	0.155	
13	Chromium (VI) compounds (as Cr)	0.1	0.0211	0.00184	3	1.38	
14	Cobalt and cmds (as Co)	0.2	0.00237	0.000835	6	0.155	
15	Copper dusts and mists (as CU)	10	0.0211	0.000804	200	1.38	
16	Lead	0.5	0.0211	0.00263		1.38	
17	Manganese and compounds (as Mn)	1	0.00237	0.000835	1500	0.155	
18	Nickel and inorganic compounds (as Ni)	1	0.0118	0.00187	30	0.766	
19	Vanadium	5	0.00237	0.000835	1	0.155	
21	Polychlorinated biphenyls	0.2	0.000211	0.0000754	6	0.0138	
25	Ammonia (ecological receptor)	8	0.211	0.08	3300	13.8	

Note that the Process Contribution shown for each substance is the sum of the individual process contributions of each point from which the substance is emitted. Process Contributions obtained from modelling data should incorporate all relevant release points and flow conditions.

* State the location of any detailed air dispersion modelling and also the main assumptions:

Comments

module 3

3.3.2 Air Impact Screening

Screen out Insignificant Emissions to Air

This page displays the Process Contribution as a proportion of the EAL or EQS. Emissions with PCs that are less than the criteria indicated may be screened from further assessment as they are likely to have an insignificant impact.

Number	Substance	Long Term EAL	Short Term EAL	Long Term			Short Term		
				PC	% PC of EAL	> 1% of EAL?	PC	% PC of EAL	> 10% of EAL?
		µg/m3	µg/m3	µg/m3	%		µg/m3	%	
1	Particulates	40.0	50.0	0.151	0.376	No	89.2	178	Yes
2	Carbon monoxide	350	10,000	0.751	0.215	No	207	2.07	No
3	Sulphur dioxide (ecological receptor)	20.0	-	0.701	3.51	Yes	42.8	-	
4	Hydrogen chloride	20.0	800	0.151	0.751	No	13.0	1.62	No
5	Hydrogen fluoride (as F)	-	250	0.0422	-		0.801	0.321	No
6	Nitrogen dioxide (ecological receptor)	30.0	-	2.11	7.00	Yes	28.6	-	
8	Cadmium and its compounds (as Cd)	0.00500	1.51	0.000377	7.52	Yes	0.0689	4.60	No
9	Thallium, soluble compounds (as Tl)	1.000	30.0	0.000377	0.0377	No	0.0689	0.230	No
10	Mercury and compounds, except mercury alkyls, (as	0.251	7.51	0.000752	0.301	No	0.138	1.84	No
11	Arsenic and compounds (as As)	0.201	15.0	0.000367	0.184	No	1.38	9.19	No
12	Antimony and compounds (as Sb) except antimony tri	5.00	150	0.000836	0.0168	No	0.155	0.103	No
13	Chromium (VI) compounds (as Cr)	0.1001	3.00	0.00185	1.85	Yes	1.38	46.0	Yes
14	Cobalt and cmds (as Co)	0.201	6.00	0.000836	0.418	No	0.155	2.58	No
15	Copper dusts and mists (as CU)	10.00	200	0.000805	0.00805	No	1.38	0.689	No
16	Lead	0.501	-	0.00264	0.527	No	1.38	-	
17	Manganese and compounds (as Mn)	1.000	1,500	0.000836	0.0836	No	0.155	0.0103	No
18	Nickel and	1.000	30.0	0.00188	0.188	No	0.766	2.56	No

Environment Agency H1 Database

	inorganic compounds (as Ni)								
19	Vanadium	5.00	1.000	0.000836	0.0168	No	0.155	15.5	Yes
21	Polychlorinated biphenyls	0.201	6.00	0.00007540	0.0378	No	0.0138	0.230	No
25	Ammonia (ecological receptor)	8.00	3,300	0.0801	1.000	No	13.8	0.418	No

module 3

3.3.3

Air Impact Modelling

Identify need for Detailed Modelling of Emissions to Air

This page displays the Process Contributions in relation to the backgound pollutant levels and the EAL or EQS. You should use this information to decide whether to conduct detailed modelling. Note that releases that are insignificant are not shown as they are screened from further assessment. Also complete this page if you have already done detailed modelling.

			Long Term				Short Term	
Number	Substance	Air Bkgrnd Conc. µg/m3	PC µg/m3	% PC of headroom (EAL -	PEC µg/m3	% PEC of EAL %	PC µg/m3	% PC of headroom (EAL - Bkgrnd)
1	Particulates	28.7	0.151	1.33	0	0	89.2	-1,205
3	Sulphur dioxide (ecological receptor)	2	0.701	3.89	2.71	13.6	42.8	-
6	Nitrogen dioxide (ecological receptor)	21.3	2.11	24.2	23.5	78.0	28.6	-
8	Cadmium and its compounds (as Cd)	0.0002	0.000377	7.84	0.000577	11.6	0.0689	4.60
13	Chromium (VI) compounds (as Cr)	0.0023	0.00185	1.89	0.00414	4.14	1.38	46.0
19	Vanadium	0.0074	0.000836	0.0168	0	0	0.155	15.7

module 3

3.3.3 Air Impact Modelling Assessment

See guidelines in H1 section 3.3.3 and respond to the following

Describe here the justification for whether detailed modelling is, or is not required for any of the releases. Refer to the quidelines in H1 section 3.3.3	Detailed modelling has been undertaken and is repoted in Appendix C
Describe source of background information:	See Appendix C
Document Reference of detailed modelling work:	Appendix C

module 3

3.4

Deposition to Land from Air

With reference to H1 Section 3.4, describe assessment of deposition below:

Number	Substance	% PC of EAL %	Decision whether to screen as insignificant: Insignificant?	Reason (See section 3.4.1 of H1)
1	Particulates	0.376	Yes	< 1%
2	Carbon monoxide	0.215	Yes	< 1%
3	Sulphur dioxide (ecological receptor)	3.51	No	
4	Hydrogen chloride	0.751	Yes	< 1%
5	Hydrogen fluoride (as F)	-	No	
6	Nitrogen dioxide (ecological receptor)	7.00	No	
7	Total Organic Carbon	-	No	
8	Cadmium and its compounds (as Cd)	7.52	No	

Deposition to Land from Air Base Option

9	Thallium, soluble compounds (as Tl)	0.0377	Yes	< 1%
10	Mercury and compounds, except mercury alkyls, (as	0.301	Yes	< 1%
11	Arsenic and compounds (as As)	0.184	Yes	< 1%
12	Antimony and compounds (as Sb) except antimony tri	0.0168	Yes	< 1%
13	Chromium (VI) compounds (as Cr)	1.85	No	
14	Cobalt and cmds (as Co)	0.418	Yes	< 1%
15	Copper dusts and mists (as CU)	0.00805	Yes	< 1%
16	Lead	0.527	Yes	< 1%
17	Manganese and compounds (as Mn)	0.0836	Yes	< 1%
18	Nickel and inorganic compounds (as Ni)	0.188	Yes	< 1%

Deposition to Land from Air Base Option

19	Vanadium	0.0168	Yes	< 1%
20	Dioxins and Furans	-	No	
21	Polychlorinated biphenyls	0.0378	Yes	< 1%
22	Polycyclic Aromatic Hydrocarbon	-	No	
23	Carbon dioxide	-	No	
24	Nitrous oxide	-	No	
25	Ammonia (ecological receptor)	1.000	No	

For those emissions not screened as insignificant, describe the location of any further assessment here: See appendix C and F

module 3

3.8

Visual Impacts

Assess the visual impacts of plumes generated from the release points

Can ANY of the Options generate a visible plume	Yes
Can any of the release points generate a Visible Plume?	Yes
Does the Plume extend beyond the installation boundary for more than 5% of the time?:	No

module 3

3.8

Visual Impacts

Assess the visual impacts of plumes generated from the release points

Can ANY of the Options generate a visible plume	Yes
Can any of the release points generate a Visible Plume?	Yes
Does the Plume extend beyond the installation boundary for more than 5% of the time?:	No

module 3

3.10

Photochemical Ozone Creation Impacts

Number	Substance	Annual Rate tonne/yr	POCP Value per tonne	POCP
2	Carbon monoxide	226.60	2.7	611.82
6	Nitrogen dioxide (ecological receptor)	906.00	2.8	2,536.80
3	Sulphur dioxide (ecological receptor)	226.60	4.8	1,087.68
			Total:	4,236.30

Comments

module 3
3.11

Global Warming Potential Impacts

Substance	Source	Annual Rate tonne/yr	GWP Value per tonne	Annual GWP
C02 Energy: direct	direct emissions	11,836.00	1.00	2,959.00
Carbon dioxide Process: direct	A1	308,341.00	1.00	308,341.00
Carbon dioxide Process: direct	A2	308,341.00	1.00	308,341.00
Nitrous oxide Process: direct	A1	68.00	310.00	21,080.00
Nitrous oxide Process: direct	A2	68.00	310.00	21,080.00
			Total:	661,801.00

Comments: Includes both biogenic and non-biogenic carbon releases from burning of waste fuel

module 3

3.12

Waste Hazard and Disposal Impacts

Number	Waste Stream	Final treatment or disposal method			Transport	Pre-Treatment Hazard	Pre-Treatment Mass	Post-Treatment Hazard	Post-Treatment Mass
1	Bottom ash	recycling	3	4	51-100 miles	non-hazardous	130,500	non-hazardous	138,000
2	Air pollution contr	non-inert landfill	30	6	200+ miles	hazardous	32,460	hazardous	28,000
3	Ferrous metals	recycling	3	3	31-50 miles	non-hazardous	4,750	non-hazardous	10,500
4	Non-ferrous meta	recycling	3	3	31-50 miles	non-hazardous	475	non-hazardous	1,500

Comments

module 3

3.12

Waste Hazard Screening and Impacts

Number	Waste Stream	Screen Out?	Reason for Screening	Hazard Score	Disposal / Treatment Score
1	Bottom ash	No		10.5747	12
2	Air pollution contr	No		17.2520	180
3	Ferrous metals	No		22.1053	9
4	Non-ferrous meta	No		31.5789	9
				81.5109	**210**

Comments

module 3

Summary Tables

Print or Preview summary tables:

Choose a summary table

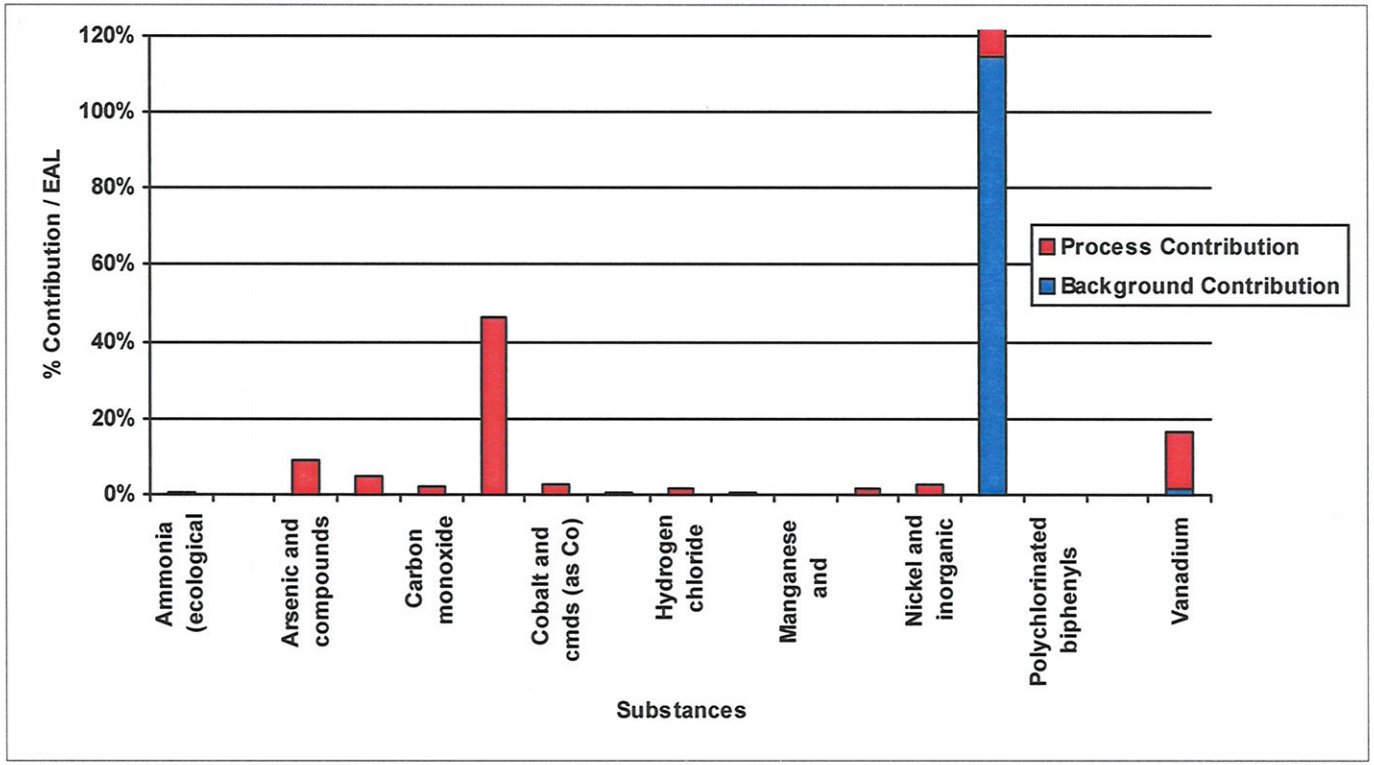
- Air
- Deposition from Air to Land
- Waste Hazard
- Visual
- Ozone Creation
- Global Warming

Preview

Print

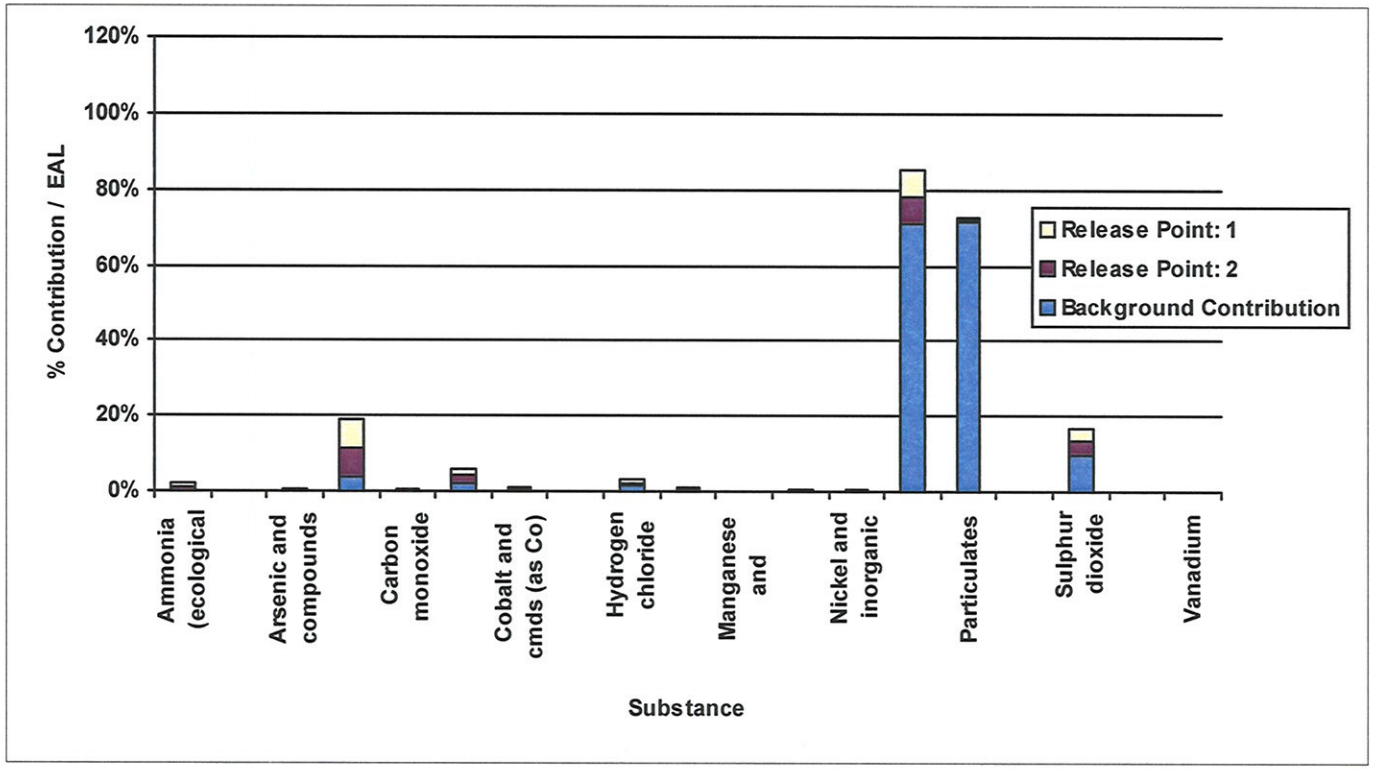
module 3

Air Short Term Effects - Comparison by Substance



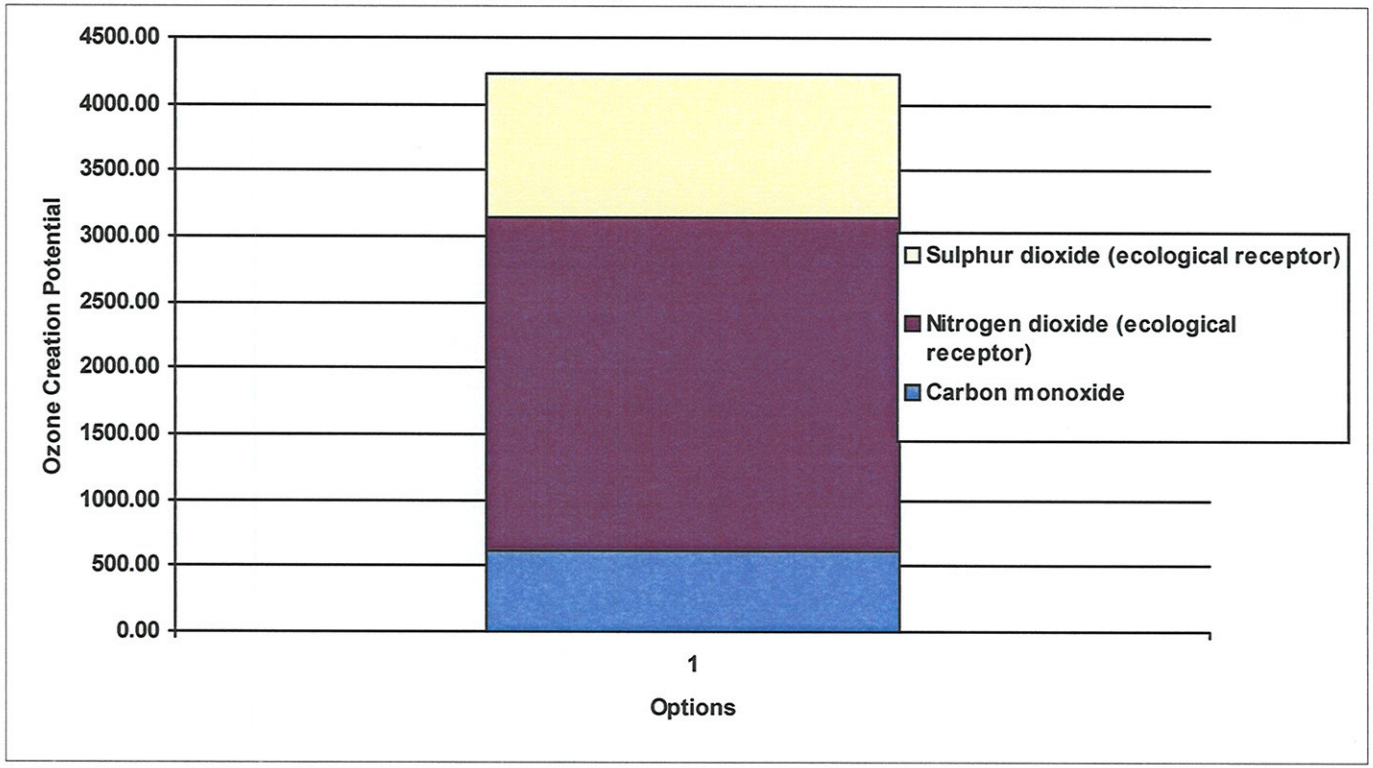
module 3

Air Long Term Effects - Comparison by Substance



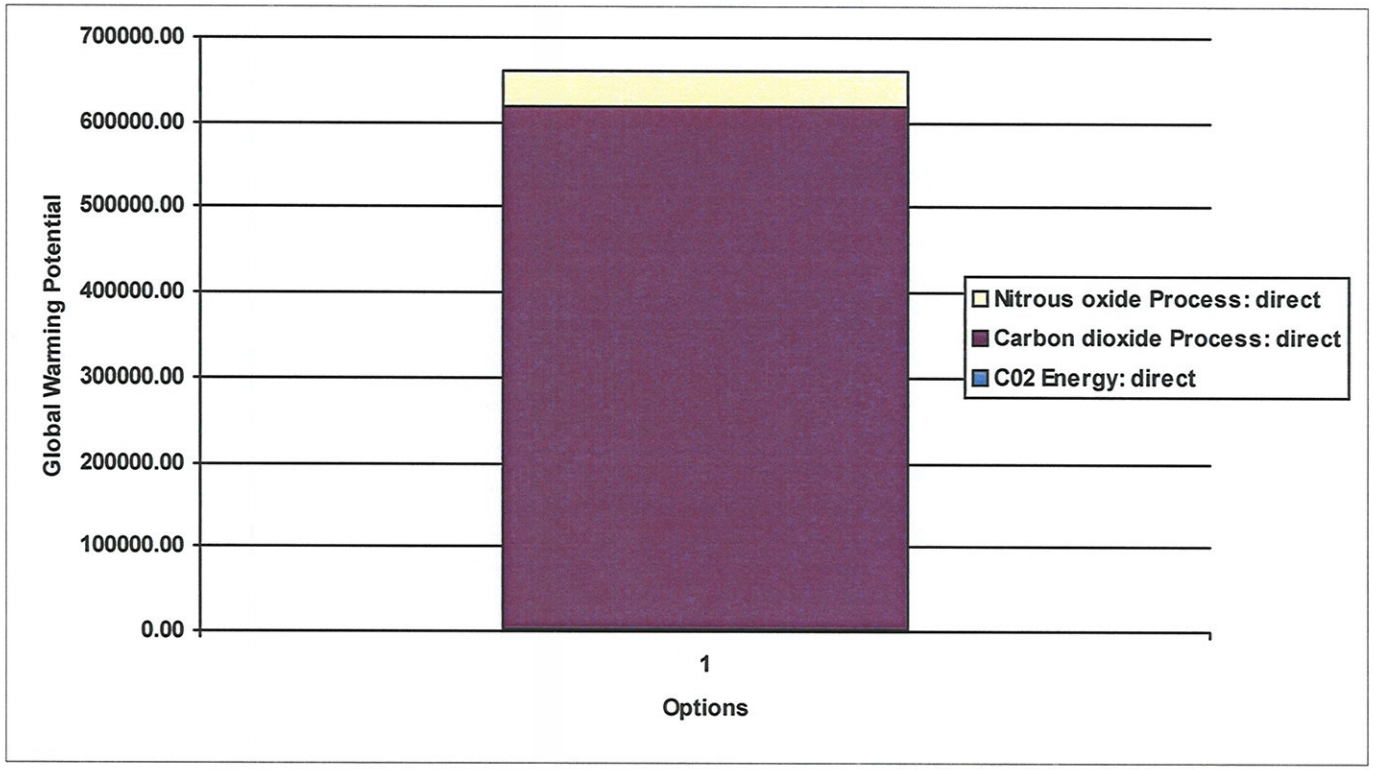
module 3

Ozone Creation - Substance Comparison



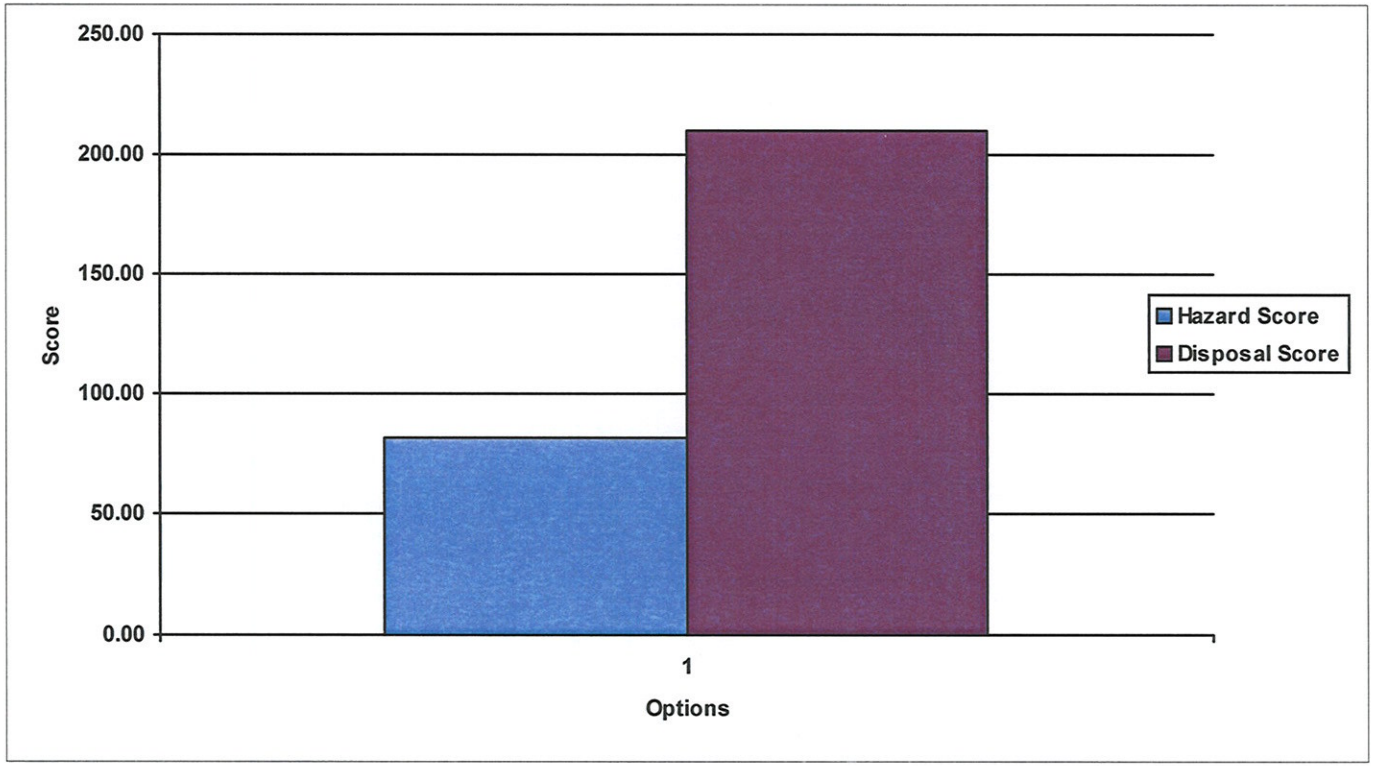
module 3

Global Warming - Substance Comparison



module 3

Waste Hazard - Option Comparison



module 3

Summary of Environmental Assessment

You have now completed all of the steps in this software for the environmental assessment. This will provide you with:

- an inventory of all emissions sources and substances emitted from your activities
- an information trail of how the impacts of these emissions have been assessed
- a summary of the impacts

You now need to use this information to confirm whether the emissions are acceptable, i.e. that they do not cause significant pollution to occur, by responding below:

Do any of the emissions exceed any of the folllowing

Statutory Emission limit values:	No	If yes, identify the substances concerned and improvements that are needed to at least meet the statutory requirement
Environmental Quality Standards (air and water):	No	If yes, identify the substances concerned, the contribution from the activities and investigate whether further detailed fate and effect modelling and/or pollution controls are needed. Ensure that the relevant EQS reference conditions are applied.
Environmental Assessment Levels:	No	If yes, identify the substances concerned, the contribution from the activities and investigate whether further detailed fate and effect modelling and/or pollution controls are needed.

Use the box below to provide further information on any of the above to which you have responded 'Yes':

Finally, print all of the information and submit with your application. Remember to include any supplementary information and reports that you have had made reference to during the assessment procedure.