The following table lists the emission tables for Attachment E and states if the table is attached or not used.

Table Reference	Status
TABLE E.1(i) LANDFILL GAS FLARE EMISSIONS TO ATMOSPHERE	Not used
TABLE E.1(ii) MAIN EMISSIONS TO ATMOSPHERE	Not used
TABLE E.1(iii): MAIN EMISSIONS TO ATMOSPHERE - Chemical characteristics of the emission	Not used
TABLE E.1(iv): EMISSIONS TO ATMOSPHERE - Minor /Fugitive	Attached (MA01)
TABLE E.2(i): EMISSIONS TO SURFACE WATERS	Attached (SW3)
TABLE E.2(i): EMISSIONS TO SURFACE WATERS	Attached (SW4)
TABLE E.3(i): EMISSIONS TO SEWER	Not used
TABLE E.3(ii): EMISSIONS TO SEWER - Characteristics of the emission	Not used
TABLE E.4(i): EMISSIONS TO GROUNDWATER	Attached (GWE1)
Table E.5(i): NOISE EMISSIONS - Noise sources summary sheet	Attached (N1, N2)

TABLE E.1(iv): EMISSIONS TO ATMOSPHERE - Minor /Fugitive

The heating boiler on site is a minor emission point.

Emission point Reference Numbers	Description	Emission details[1]				Abatement system employed
		material	mg/Nm^{3} [2]	kg/h.	kg/year	
MA01	Heating Boiler					Not applicable

1 The maximum emission should be stated for each material emitted, the concentration should be based on the maximum 30 minute mean.
2 Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0^{o}C101.3kPa). Wet/dry should be clearly stated. Include reference oxygen conditions for combustion sources.

Attachment E.2 Emissions to Surface Waters

TABLE E.2(i): EMISSIONS TO SURFACE WATERS
(One page for each emission)

Emission Point:

Emission Point Ref. Nº:	SW3
Source of Emission:	Rainfall from the developed parts of the site and surface drainage from all roads is directed to the surface water stream via an oil/water interceptor.
Location :	Surface water stream
Grid Ref. (10 digit, 5E,5N):	30386, 14858
Name of receiving waters:	Stream adjacent to recycling building
Flow rate in receiving waters:	Not Recorded $m^3.sec^{-1}$ Dry Weather Flow Not Recorded $m^3.sec^{-1}$ 95%ile flow
Available waste assimilative capacity:	Not Calculated kg/day

Emission Details:

(i) Volume to be emitted			
Normal/day	m^3	Maximum/day	6,652 m^3
Maximum rate/hour	277 m^3	Note – Emission volumes are dependant on rainfall volumes.	

(ii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up /shutdown to be included):*

Periods of Emission (avg)	_____min/hr _____hr/day day/yr Periods of emission are dependant on rainfall events

TABLE E.2(ii): EMISSIONS TO SURFACE WATERS - Characteristics of the emission (1 table per emission point)

Emission point reference number : SW3

Parameter	Prior to treatment				As discharged				% Efficiency
	Max. hourly average (mg/l)	Max. daily average (mg/l)	kg/day	kg/year	Max. hourly average (mg/l)	Max. daily average (mg/l)	kg/day	kg/year	
pH (pH units)	Water flows through an oil water interceptor before discharge to the stream				7.1*		Not applicable	Not applicable	Not applicable
Conductivity (at 25oC) (mS/cm)					420*		Not applicable	Not applicable	Not applicable
Ammoniacal Nitrogen (mg/l as N)					0.7*		Not applicable	Not applicable	Not applicable
Temperature (oC)					--				Not applicable
Dissolved Oxygen (mg/l)					4.74*				Not applicable
COD (mg/l)					32*				Not applicable
BOD (mg/l)					3*				Not applicable
Chloride (mg/l)					24.5*				Not applicable
Total Suspended Solids (mg/l)					<10*				Not applicable

*These results relate to an average of 4 no. samples taken at the discharge of the oil/water interceptor in 2008.

Attachment E.2 Emissions to Surface Waters

TABLE E.2(i): EMISSIONS TO SURFACE WATERS
(One page for each emission)

Emission Point:

Emission Point Ref. Nº:	SW4
Source of Emission:	Rainfall from the roof of the recycling building.
Location :	Roof of recycling building discharging to stream at SW4 as shown in Drawings CE07-253-01_206 and CE07-253-01_207.
Grid Ref. (10 digit, 5E,5N):	30399, 14867
Name of receiving waters:	Stream adjacent to recycling building
Flow rate in receiving waters:	Not recorded $m^3.sec^{-1}$ Dry Weather Flow Not recorded $m^3.sec^{-1}$ 95%ile flow
Available waste assimilative capacity:	Not calculated kg/day

Emission Details:

(i) Volume to be emitted			
Normal/day	m^3	Maximum/day	2,851 m^3
Maximum rate/hour	118 m^3	Note – Emission volumes are dependant on rainfall volumes.	

(ii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up /shutdown to be included):*

Periods of Emission (avg)	_____min/hr _____hr/day day/yr Periods of emission are dependant on rainfall event

TABLE E.2(ii): EMISSIONS TO SURFACE WATERS - Characteristics of the emission (1 table per emission point)

Emission point reference number: SW4

Parameter	Prior to treatment				As discharged				% Efficiency
	Max. hourly average (mg/l)	Max. daily average (mg/l)	kg/day	kg/year	Max. hourly average (mg/l)	Max. daily average (mg/l)	kg/day	kg/year	
pH (pH units)	No prior treatment. Rainwater from roof of recycling building.						Not applicable	Not applicable	Not applicable
Conductivity (at 25oC) (mS/cm)							Not applicable	Not applicable	Not applicable
Ammoniacal Nitrogen (mg/l as N)							Not applicable	Not applicable	Not applicable
Temperature (oC)									Not applicable
Dissolved Oxygen (mg/l)									Not applicable
COD (mg/l)									Not applicable
BOD (mg/l)									Not applicable
Chloride (mg/l)									Not applicable
Total Suspended Solids (mg/l)									Not applicable

Attachment E4 Emissions to Groundwater

TABLE E.4(i): EMISSIONS TO GROUNDWATER (1 Page for each emission point)

Emission Point or Area:

Emission Point/Area Ref. Nº:	GWE1
Emission Pathway: (borehole, well, percolation area, soakaway, landspreading, etc.)	Raised percolation area
Location :	North west corner of the facility
Grid Ref. (10 digit, 5E,5N):	30388, 14858
Elevation of discharge: (relative to Ordnance Datum)	157.3 m (relative to a site datum of 157.0 m at the floor of the existing recycling building)
Aquifer classification for receiving groundwater body:	The area is underlain by Glacial Till over Ordovician Volcanics (& possible granite) which is classed as a Regionally Important Aquifer (fractured).
Groundwater vulnerability assessment (including vulnerability rating):	The vulnerability is High to Low (interim study only) Rf/H to Rf/L but the subsoil map shows shallow rock nearby which suggests that the overburden may be thin.
Identity and proximity of groundwater sources at risk (wells, springs, etc):	Refer to Drawing CE07-253-01-204
Identity and proximity of surface water bodies at risk	Refer to Drawing CE07-253-01-204

Emission Details:

(i) Volume to be emitted			
Normal/day*	m^3	Maximum/day	m^3
Maximum rate/hour	m^3		

(ii) Period or periods during which emissions are made, or are to be made, including daily or seasonal variations (*start-up /shutdown to be included):*

Periods of Emission (avg)	_____min/hr _____hr/day day/yr

*There is no maximum or minimum discharges as the treated effluent passes slowly and gradually through the percolation area. The Bio-Crete unit pumps water to the percolation area using a float switch attached to the pump when the float rises the pump will kick in.

Attachment E5 Noise

Table E.5(i): NOISE EMISSIONS - Noise sources summary sheet

Source	Emission point Ref. No	Equipment Ref. No	Sound Pressure[1] dBA at reference distance	Octave bands (Hz) Sound Pressure[1] Levels dB (unweighted) per band									Impulsive or tonal qualities	Periods of Emission
				31.5	63	125	250	500	1K	2K	4K	8K		
Mobile concrete crusher and screener Note 2	N1	To be determined	To be determined											Periodically Approximately 2 days per month.
Timber shredder	N2	To be determined	To be determined											Periodically Approximately 2 days per week intermittently.
Other Internal Fixed Plant Note 3	Not Applicable	--	--											Noise emission is breakout from building.

1. For items of plant sound power levels may be used.
2. The mobile concrete crusher and screener will be used on a temporary basis (approximately two days per month) outdoors in the area reserved for C&D recovery. Details will be forwarded to the Agency prior to use.
3. Other plant consists of bailer, compactor, and trommel, loading shovels and grabs. These plants are located indoors.

ATTACHMENT F EMISSIONS CONTROL AND MONITORING

Attachment F.1 Emissions and Abatement

The main potential environmental emissions to air from the facility are:

- Odour
- Dust

The recycling building is a fugitive odour emission point. The yard is a fugitive dust emission area. There is also a minor emission from the boiler used to heat the administration offices on site.

Monitoring of dust is prescribed in Condition 8 and Schedule C and Schedule D of the existing waste permit WP/08/23. In accordance with conditions of pervious permits, dust monitoring was conducted and no dust deposition levels have exceeded 350 mg/m^2/day.

Proper management of the site and adhering to facility procedures will serve as successful abatement techniques. Handling of wastes which may lead to odours will be dealt with within the recycling building and recovery of some C&D material which will occur outdoors will be managed in such a manner as not to give rise to fugitive dust emissions.

Dust Control

Dust levels will be kept to a minimum on site as all areas leading into and around the waste recycling building are concreted or proposed to be concreted. Also a good standard of housekeeping around the recycling building and trommel and elsewhere on site will be adhered to.

Site roads and access roads may occasionally get dusty. However, because of the nature of the vehicles entering the site dust accumulation should be negligible. In the event that the roads do get dusty, roads and hardstanding areas will be cleaned regularly using a Rota multi-sweeper with water sprayer. Speed restrictions are in place to prevent dust generation.

Odour Control

Operations at the facility involve the collection of recyclable material and the compaction and transfer of solid waste. No liquids, agricultural or sewage sludges will be accepted at the site.

Waste accepted at the facility will have generally undergone relatively little decomposition and so will have little potential for odour generation.

For the fraction of domestic/municipal waste that is accepted on site which does have odour generation potential, odour is actively controlled at the waste recycling building with odour neutralising spray mist. Residual waste is stored in the recycling building at all times and is removed from site every two days to minimise potential for odour generation.

Surface water

Potential emissions include:

- Suspended solids runoff
- Leachate-related contamination
- Fuel and other oils-related contamination to soils and waters

Surface water Control
All surface water generated on site (with the exception of the roof water from the recycling building) is routed through an oil-water interceptor.

The leachate drainage system in the recycling building will be completely isolated from the surface water drainage network and will be routed to a leachate collection tank.

All roads and parking areas flow to the interceptor thus any spillages can be held back from the stream. The on-site diesel tank is fully bunded to 110% its capacity.

Monitoring of surface water is conducted in accordance with Condition 8, Table D1 and Table D2 of the existing waste permit WP/08/23. Monitoring up gradient and down gradient of the site has been ongoing since the first permit was granted in 2005. Results of surface water monitoring can be seen in Tables I2 in Attachment I below.

Sewer

There is no sewer connection therefore no discharge to sewer.

Groundwater

A raised percolation area is located at the northern western corner of the site.

Groundwater Control

Monitoring of groundwater has been conducted at the site in accordance with previous permits granted to Murray Waste Recycling Ltd. at the facility and under the existing waste permit WP/08/23 in accordance with Condition 8 and Table D3. Results of groundwater monitoring can be seen in Table I4 contained in Attachment I.

Noise emissions

Monitoring of noise is conducted in accordance with Schedule 3 and Tables C.1 and C.2 of the existing waste permit WP/08/23. The results of noise monitoring are tabulated in Table I6 Attachment I. Potential sources of noise emissions are:

- On-site machinery and plant
- Delivery vehicles
- Construction plant

Noise Control

On-site machinery is specified and maintained to manufacturers' standards. This standard extends to hired-in plant.

Noise from delivery vehicles is mitigated by speed control and also by the presence and continuing development of screening mounds. As the onsite tree planting grows, it too will mitigate noise.

F2 Air Quality
Air quality is monitored in accordance with Condition 8 and Schedule C of the waste permit WP/08/23. Dust deposition monitoring results are tabulated in Attachment I1 below.

F3 Surface water
Surface water is monitored in accordance with Condition 8 and Schedule D of the waste permit WP/08/23. Results of surface water monitoring can be seen in Tables I2 in Attachment I below.

F5 Groundwater
Groundwater is monitored in accordance with Condition 8 and Schedule D of the waste permit WP/08/23. Results of groundwater monitoring can be seen in Tables I4 contained in Attachment I.

F6 Noise
Monitoring of noise is monitored in accordance with Condition 8 and Schedule C of the waste permit WP/08/23. The results of noise monitoring are tabulated in Tables I6 Attachment I.

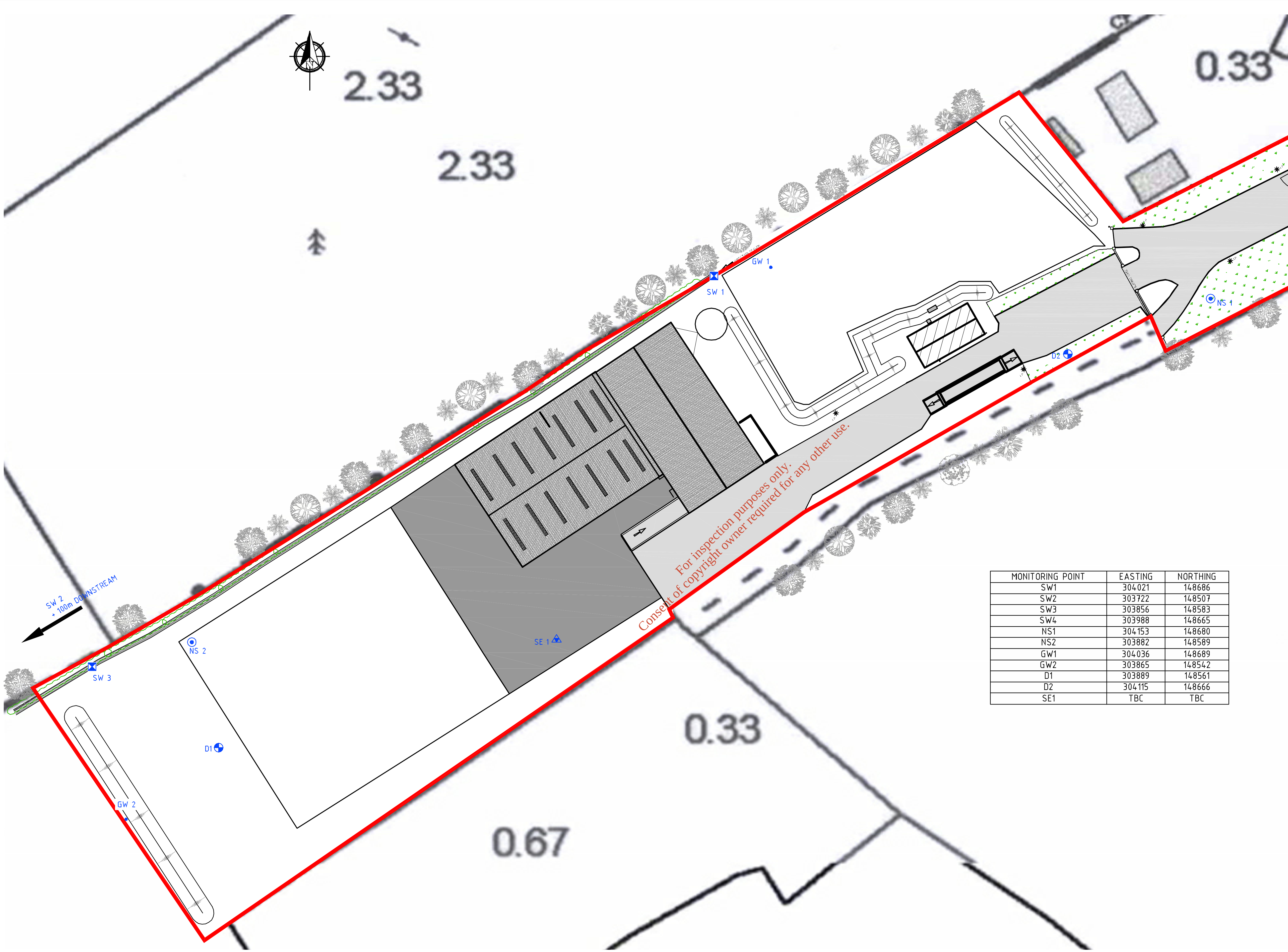
F7 Meteorological Monitoring
Meteorological monitoring is not required on site. The nearest synoptic meteorological station is located in Rosslare.

F8 Leachate
Any leachate generated on site will be completely isolated from surface water and routed to a leachate collection tank which will be emptied periodically and sent to a nearby wastewater treatment plant for treatment. Murray Waste Recycling Ltd. is currently in contact with Wexford County Council in relation to this matter.

F9 Landfill Gas
Landfill gas is not generated on site.

NOT FOR CONSTRUCTION UNLESS SPECIFICALLY STATED OTHERWISE

Do not scale. Use figured dimensions only. If in doubt - Ask!



LEGEND:

- SW — SURFACE WATER MONITORING POINT
- NS 2 — NOISE MONITORING POINT
- GROUND WATER MONITORING POINT
- D1 — DUST MONITORING POINT
- SE 1 — LEACHATE MONITORING POINT

MONITORING POINT	EASTING	NORTHING
SW1	304021	148686
SW2	303722	148507
SW3	303856	148583
SW4	303988	148665
NS1	304153	148680
NS2	303882	148589
GW1	304036	148689
GW2	303865	148542
D1	303889	148561
D2	304115	148666
SE1	TBC	TBC

SITE PLAN

Scale 1:1000

Scale 1:1000

Ordnance Survey Ireland Licence No. EN 0001208 © Ordnance Survey Ireland and Government of Ireland
Wexford 1:2500 4902-D & B, 4903 -A Surveyed 1993 Revised 1999 Levelled 1992

Rev.	Drawn	Chk'd	App'd	Rev Origin / Date	Description
A	KL	PL	DOS	CORK 09.02.09	ISSUE FOR WASTE LICENCE APP NOT FOR CONSTRUCTION

Revision History A

Name of Client

Name of Job

WASTE LICENCE APPLICATION
FERNS, CO. WEXFORD

Title of Drawing

1:1000
MONITORING POINTS

Scales Used 1:1000 — This Drawing was printed to A3

Dwg. No. Ce07-253-01-208 — Rev. A

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ORIGINAL DRAWING SIZE A1 - (841 x 594)

ATTACHMENT G RESOURCE USE AND ENERGY EFFICIENCY

G1 Raw Materials and Product

The primary materials used in the facility are diesel fuel and heating oil.

During improvement and expansion works construction materials will be imported onto the site for construction purposes. Murray Waste Recycling Ltd is conscious of the need to minimise the 'environmental footprint' associated with imported materials and strive to source materials as close as practicable to the facility and where possible reuse material.

MSDS are provided for any insecticides, pesticides and herbicides used on site.

Rentokil

Pest Control

Safety Data Sheet

NOTE: Access to a copy of this Safety Data Sheet (SOS) via our Website does not constitute the issue of a controlled Copy under EU legislation. To be issued with such a copy please contact RentokilInitial at the address below by telephone, fax or in writing. In order to confirm the latest version of the SOS for this product see web: www.ri-research.com and click on Technical Information / Product Safety.

REVISION (see box 16) Issue: 10 13' 06 : 2006

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name	BROMATROL (with Bitrex®)
Description	A ready-ta-use rodenticide for use by professional operators in the control of rats and mice. A blue, whole grain bait with no perceptible odour containing a bitlering additive.
Company	RentokilInitial Supplies, Webber Road, Knowsley Industrial Park, Uverpool, L33 7SR. For general enquiries telephone: +44 (0) 151 5485050. For safety or regulatory enquiries telephone: +44 (0) 1342833022.

2 HAZARD IDENTIFICATION

Classification (Supply - Use) : In compliance with EC Directive 1999/45.

Not classified

Adverse Physical, Chemical, Significant Human Health and Environmental Effects (See also box 11):

None expected under normal conditions of handling and use.

This product contains an anticoagulant compound. If ingested symptoms may include nosebleed and bleeding gums. In severe cases there may be bruising, haematomas of the joints and blood present in the faeces and urine.

Combustion or thermal decomposition may evolve toxic and irritant vapours.

3 COMPOSITION / INFORMATION ON INGREDIENTS (SEE ALSO BOX 16)

%w/w	Common*/Chemical Name, Elincs/Einecs & CAS No. of Ingredients	EC 1999/45 Classification
0.005	Bromadiolone* / 3-[3-(4-bromobiphenyl-4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxycoumarin EINECS : 249-205-9 CAS : 28n2-56-7	T+ : R26/27/28 N : R50/53
>2.5 ≤10.0	Monopropylene glycol' / propane-1 ,2-diol EINECS : 200-338-0 CAS : 57-55-6	Not classllied.
≤2.5	Bitrex®* / denatonium benzoate EINECS : 223-095-2 CAS : 3734-33-6	Xn : R20/22 R38 R41 R52/53

4 FIRST-AID MEASURES (SEE ALSO "ADVERSE EFFECTS" IN BOX 2)

Inhalation	This route of exposure is not anticipated.
Eye Contact	Rinse affected eye with clean running water, or eyewash solution, for at least 15 minutes holding eyeilds weil apart. Rinse entire surface and do not allow run-off to contaminate unaffected eye. Seek medioaJ attention.
Skin Contact	Remove and wash contaminated clothing immediately. Wash attected area thoroughly with soap and water. If the patient feels unwell seek medical advice.
Ingestion (SwallOWing)	Do NOT induce vomiting. If unconscious place in the recovery posi1lon and apply supportive measures if necessary. If conscious give patient up to ½ lilre or 1 pint of water to drink. Seek medical attention.
Emergency EqUipment Suggested	Appropriate first-aid eqUipment should be provided. Forthe UK this should be In acoonfilnce with the Health & Safety (Rrst-Ald) Regulations 19B1. See also the Approved Code of Practice "First-aid at Work".
Note To Doctor	Further information on all Rentokillni1lal formulations is lodged with the National Poisons Information SelVice in the UK. Vilamln K1 is a known antidote.

5 FIRE FIGHTING MEASURES

Fire extinguisher Type	Use carbon dioxide, foam, waler, or dry powder extinguishers.
Special Fire-Fighting Procedures	Wear self-contained breathing apparatus and sullable personal protective c1olhlng,
Special Exposure Hazards	Combustion or thermal decomposi1lon may evolve loxic and irTitant vapours.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions (See also box 8)	Wear suitable personal protective equipment.
Environmental Precautions	Keep away from drains, surface and ground water, and soil.
Clean-up Procedure (See also box 13)	Coilect up spilt malerial and transfer to a SUitable container for re-use or subsequent jisposal. DO NOT contaminate watercourses or ground.

7 HANDLING AND STORAGE (SEE ALSO BOX 8)

Handling	Avoid all contact by mouth. Wash hands and exposed skin before meals and after use.
Storage	Store in original container in a cool, dry, ventilated place out of the reach of children and away from food. drink and animal feeding sluffs.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Standard · Directive EC/98/24 (1" IOELV Dlroctive)	Workplace Exposure Umit (WEL) for monopropylene glycol is 474 mglm long-term exposure (B hour Time Weighted Average) and for particulates is 10 mg/m³ long-term exposure (B hour Time Weighted Average). Monopropylene glycol is referred to as propane-1,2-diolln Directive EC/9B/24 (1 s1 10ELV Directive).
Engineering Controls	Where exposure may occur, engineering controls, rather than the provision of Personal Pr:rtectJve Equipment (PPE) should be employed. On complailon of a risk assessment, the foilowing PPE may be required:
Eye Protection	None necessary during normal handling and use.
Hand Protection	Suitabie hand protection such as gloves.
Skin Protection	Suitable skin protection such as coveralls.
Breathing Protection	None necessary during normal handling and use.
Environmental Exposure Controls	Use only in accordance with instructions given.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odour	A blue, whole-grain bait, with no perceptible odour and a bittering additive.		
pH	Not applicable.	Solubility in Water	Insoluble.
Density	0.7 g/cm³	Solubility in Other Solvents	Not determined.
Flash Point	Not appiicable.	Explosive Properties	None known.
Flammability	Non-flammable.	Combustibility	Combustible.
Boiling Point/Range	Not applicable.	Oxidising Properties	None known.
Vapour Density	Not applicable.	Evaporation Rate	Not applicable.
Vapour Pressure	Not applicable.	Partition Coefficient	Not applicable.
Viscosity	Not applicable.	Other Data	None known.

10 STABILITY AND REACTIVITY

Conditions to avoid	Avoid extremes 01 temperature, e.g. below **0°C** and above **40°C.**
Materials to avoid	None.
Hazardous Breakdown Products	**Combustion or thermal decomposition may evolve toxic and irritant vapours.**

11 TOXICOLOGICAL INFORMATION (SEE ALSO BOX 2)

Acute Toxicity	Oral	For similar product: LD,o (rat): >2000 mg/kg.
	Inhalation	Unlikely route of exposure.
	Dermnl	Not determined.
Corrosivityl Irritation	Skin	No skin irritation expected.
	Eyes	No eye irritation expected.
	Respiratory tract	No respiratory tract irritation potentiai expected.
Sensitlsation	Skin	**Contains no known skin sensitisers.**
	Rasplratory	**Contains no known respiratory sensitisers.**
Repeat-Dose Toxicity		Product does not contain any componenls known to have any ellects relating to repeated-dose toxicity.
Mutagenicity		**Product does not contain any components known to have a mutagenic effect.**
Carcinogenicity		**Product does not contain any components known to have a carcinogenic effect.**
Reproductive Toxicity	Fartlllty	Product does not contain any components known to have effects on fertility.
	Development	Product does not contain any components known to be toxic to the reproductive system.
Other Information		**Bromadiolone is an indirect anticoagulant. Phytomenadione, Vitamin K1, is antidotal. Determine** prothrombin times not less **than 18 hours** after consumption. If elevated, administer Vrtamin K1 and continue until prothrombin time normalises. Continue determination 01 prothrombin time for two weeks after withdrawal 01 the antidote and resume treatment if elevation occurs in that time.

12 ECOLOGICAL INFORMATION

General Information	The bromadiolone In this product is classified as very toxic to **aquatic** organisms and *may'* cause long-term adverse effects in the aquatic environment. The Bitrex® in this product Is clasSified as harmful to aquatic organisms and may cause long-term adverse effects in the aquatic **environment. However, when used in accordance with instructions given, controlled release of this product is not expected to cause environmental contamination.**
EcotOlCicity Data	**For bromadiolone ;** LC,o (96h) (Biuegill sunfish): 3.0 mg/L LC,o (96h) {Rainbow trout): 1.4 mg/L EC_{50} (48h) *(Daphnia):* 2.0 mg/L E_bC_{50} (73h) (Algae: *Scenedesmussubspicatus):* 0.17 *mg/L* **For Bitrex®** : LC_{50} (96h) (Rainbow trout): >1000 mg/L EC_{50} (48h) *(Daphnia magna):* 13 mg/L LC,o (96h) (Shrimp): 400 mg/L
Mobility	For **Bitrex®:** Water solUbility: 45 g/L
Persistence and Degradability	**For bromadiolone:** Bromadiolone is not considered volatile and is **not** expected to volatilise to air in significant quantities. **For Bitrex®:** Abiotic degradation: 10% after 5 days at **50°C** at all pH's. Abiotic degradation: 10% after 30 days at **25°C** at all pH's.
Bioaccumulative Potential	**For bromadiolone:** Log Pow is greater than 3, which indicates a potential to bioaccumulate.
other Adverse Effects	**For Bitrex®:** If this substance is discharged at low concenlralions into an adapted biological eflluent treatment plant, the degrading action of the activated sludge will not be affected.

13 DISPOSAL CONSIDERATIONS

Disposal of Waste / Containers	Under normal circumstances, waste / empty containers will be disposed of by RentokilInitial.
Classification	Hazard Code: Not classified.
(Council Directive 91/689/EC, Commission Decision 2000/532/EC (amended) Commission Decision 2001/11 BIEC»	**Components making the waste hazardous Concentrations (%):** Not required.
Note for Disposal	For further advice about disposal, In the UK, contact the local office of the Environment Agency (England and Wales) or Scottish Environment Prolection Agency. Local rate from anywhere in the UK: +44 (0) 870 850 6506.

14 TRANSPORT INFORMATION (INTERNATIONAL UNLESS OTHERWISE INDICATED)

UN No.	Not classified.	Tremcard Reference No.	Not required.	RIS Code
Transport Category	Not required.	UK Hazchem EAC	Not required.	PSB21
ADR2005 (International Road)	Class Not required.	ADRHIN	Not required.	Labels
Proper Shipping Name	Not required.			
Limited Quantity Exemptions	Not required.			
Special Reauirements	Not required.	Packing Group	Not required.	Not required.
IMDG2004 (Sea)	Class Not required.	IMDGEMS	Not required.	
Proper Shipping Name	Not required.			
Limited Quantity Exemptions	Not required.			
Special Requirements	Not required.	Packing Group	Not required.	
Note for Transport	Local, State or National requirements may apply to the carriage of this product			

15 REGULATORYINFORMAIION (HEALTH AND SAFETY INFORMAII0N (SEE ALSO BOX2»

Safety Phrases	Safely phrases are not required.
Additional Label Phrases	Safety data sheet available for professional user on request. To avoid risks to man and the environment, comply with instructions for use.
Legislation	labelling is in accordance with UK reguialions implementing the EC Directive 1999/45. Additional labelling requirements may be necessary in accordance with other National legislation. Outside the UK, the registration of this product may be necessary before use and any additional local requirements must be observed at all times. The Information given on this Safety Data Sheet (SDS) does not constitute an assessment in accordance with Control of Substances Hazardous to Health (COSHH) Regulations 2002, in the UK Other National measures or guidance should be followed where appropriate.

16 Other Information and indication of revisions

Bitrex® is a registered trademark of Macfarlan Smith Ud.

Packaqinq Information	25 kg In a poiypropylene sack
Revisions	Changes have been made to the conlent of boxes 01, 02, 03, 04, 06, 08, 09, 11, 12, 13, 14,1S & 16 (as indicated by the thick lines on the left-hand side of the boxes) compared with Issue 09
Risk phrase text (From box 3 - These refer to the ingredients only. See box 2 for the product risl(phrases)	*R26j27j28* : Very toxic by inhalation, In contact with skin and If swallowed. RSa/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in I, e aquatic environment. R20/22 : Harmful by inhaiation and if swallowed. R38 : Irritating to skin. R41 : Risk of serious damage to eyes. R52/53 : Harmful to aquatic organisms may cause long-term adverse effects in the aquatic environment.

Rentokil

Pest Control

Safety Data Sheet

DATE : 01 : 07 : 2004
ISSUE No. : 03

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REVISION (see box 16)

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

PRODUCT NAME	BROMATROL RAT BLOCKS (with Bitrex™)
DESCRIPTION	A blue, rodenticidal, ready-lo-use grain-based bail block with no perceptible odour. For professional use in the control of rats. Contains a bittering additive.
COMPANY	RentokilInilial UK Ltd, Pest Control, Felcourt, East Grinstead, West Sussex. RH192JY. United Kingdom. Telephone: +44 (0)1342 833022 Facsimile: +44 (0)1342 326229

2 HAZARD IDENTIFICATION

CLASSIFICATION AND DANGER SYMBOL (SUPPLY USE) : IN COMPLIANCE WITH EC DIRECTIVE 1999/45.

Not classified

ADVERSE PHYSICAL, CHEMICAL, SIGNIFICANT HUMAN HEALTH AND ENVIRONMENTAL EFFECTS (SEE ALSO BOX 11):

Combustion or thermal decomposition may evolve toxic or irritant vapours.

This product contains an anticoagulant compound. If sufficient quantities are ingested, nose-bleed and bleeding gums may occur. In severe cases there may be bruising, haematomas of the joints and blood present in the urine and faeces.

Adverse effects on the environment are unlikely, provided that the product is used as intended.

3 COMPOSITION / INFORMATION ON INGREDIENTS (SEE ALSO BOX 16)

%w/w	COMMON*/CHEMICAL NAME, ELINcs/EINECS AND CAS OF INGREDIENTS		EC 1999/45 CLASSIFICATION
0.005	Bromadiolone' / 3-[3-(4'-bromobiphenyl-4-yl)-3-hydroxy-1-phenylpropyl)-4-hydraxycoumarin.	EINECS : 249-205-9 CAS: 28772-56-7	T+ : R27/28 N : R51/53
≤1.0	Bitrex™ / denatonium benzoate	EINECS : 223-095-2 CAS: 3734-33-6	Xn : R20/22 Xi : R38 Xi : R41 : R52,53
> 2.5 ≤ 10.0	Propylene glycol' / propane-1,2-diol	EINECS : 200-338-0 CAS: 57-55-6	Not classified.

4 FIRST-AID MEASURES (SEE ALSO "ADVERSE EFFECTS" IN BOX 2)

INHALATION	Unlikely route of exposure. However, remove patient to fresh air, keep warm and at rest. Apply supportive measures if necessary and seek medical attention.
EVE CONTACT	Rinse affected eye with clean running water, or eyewash solution, for at least 15 minutes holding eyelids well apart. Rinse entire surface and do not allow run-off to contaminate unaffected eye. Seek medical attention.
SKIN CONTACT	Remove and wash contaminated c10lhing immediately. Wash affected area thoroughly with soap and water. If the patient feels unwell seek medical advice.
INGESTION (SWALLOWING)	Do NOT induce vomiting. If unconscious place in the recovery position and apply supportive measures if necessary. If conscious give patient up to ½ litre or 1 pint of water to drink. Seek medical attention.
EMERGENCV EQUIPMENT SUGGESTED	Appropriate first-aid equipment should be provided. For the UK this should be in accordance with the Health & Safety (First-Aid) Regulations 1981. See also the Approved Code of Practice "First-aid at Work".
NOTE To DOCTOR	Further information on all Rentokil Initial formulations is lodged with the National Poisons Information Service in the UK. Telephone +44 (0) 870 600 6266 - 24 hours.

5 FIRE FIGHTING MEASURES

FIRE EXTINGUISHER TYPE	Use foam, water, carbon dioxide or dry powder extinguishers.
SPECIAL FIRE·FIGHTING PROCEDURES	Wear self-conlained breathing apparatus and suitable protective clothing.
SPECIAL EXPOSURE HAZARDS	Combustion or thermal decomposition may evolve toxic or irritant vapours.

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS (See also box 8)	Wear suitable personal protective equipment.
ENVIRONMENTAL PRECAUTIONS	OO NOT contaminate watercourses or ground.
CLEAN-UP PROCEDURE (See also box 13)	Brush up spillage and transfer to a suitable container for subsequent disposal.

7 HANDLING AND STORAGE

HANDLING	Avoid all contact by mouth.
	Wash hands and exposed skin before meals and after use.
STORAGE	Store in original container in a cool, dry, ventilated place out of the reach of children and away from food, drink and animal feeding stuffs.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION (SEE ALSO BOX 7)

EXPOSURE STANDARD· DIRECTIVE EC/98/24 (1 ST IOELV DIRECTIVE)	OES for propylene glycol for total (vapour and particulates) is 474 mglm long term exposure (8 hour Time Weighted Average) and for parliculates is 10 mg/m^3 long-term exposure (8 hour TWA). Propylene glycol is deferred 10 as propane-1 ,2-diol in Direclive EC198/24 (151 rOELV Directive).
ENGINEERING CONTROLS	Where prevention of exposure is not reasonably practicable, adequate control of exposure should be achieved by engineering controls rather than the provision of personal protective equipment and clothing. More specific details cannot be given without carrying out a full risk assessment for each and every use scenario. Suitable and approved personal protective equipment and clothing may include the follOWing item(s):
EVE PROTECTION	None necessary under normal working conditions.
HAND PROTECTION	None necessary under normal working conditions.
SKIN PROTECTION	None necessary under normal working conditions.
BREATHING PROTECTION	None necessary under normal working conditions.
ENVIRONMENTAL EXPOSURE CONTROLS	Product should be used in accordance with instructions given.

9 PHYSICAL AND CHEMICAL PROPERTIES

ApPEARANCE AND ODOUR	A blue, grain-based bait block with no perceptible odour.		
pH	Not applicable.	SOLUBILITY IN WATER	Insoluble.
BULK DENSITY	1.2-1 .3 g/cm^3 at 20°C	SOLUBILITY IN FAT	Insoluble.
FLASH POINT	Not applicable.	EXPLOSIVE PROPERTIES	None known.
FLAMMABtlITY	Non-flammable.	COMBUSTIBILITY	Combustible.
AUTOFLAMMABILITY	Not applicable.	OXIDISING PROPERTIES	Not determined.
BOILING POINT/RANGE	Not applicable.	MELTING POINT	Decomposes before melting at around 240"C
VAPOUR DENSITY	Not applicable.	EVAPORATION RATE	Not applicable.
VAPOUR PRESSURE	Not applicable.	PARTITION COEFFICIENT	Not applicable.
VISCOSITY	Not applicable.	OTHER DATA	None known.

14 TRANSPORT INFORMATION (INTERNATIONAL UNLESS OTHERWISE INDICATED)

UN No.	Not Classified.	TREMCARD REFERENCE ND.	Not required.	RIS CODE
TRANSPDRT CATEGORY	Not required.	UK HAZCHEM EAC	Not required.	PSD65
ADR 2003 (INTERNATIDNAL ROAD)	CLASS Not required.	ADRHIN	Not required.	LABELS Not required.
PROPER SHIPPING NAME	Not required.			
LIMITED QUANTITY EXCEPTIONS	Not required.			
SPECIAL REQUIREMENTS	Not required.		PACKING GROUP Not required.	
IMDG 2002 (SEA)	CLASS Not required.	IMDG EMS	Not required.	
PROPER SHIPPING NAME	Not required.			
LIMITED QUANTITY EXCEPTIONS	Not required.			
SPECIAL REQUIREMENTS	Not required.		PACKING GROUP Not required.	
NOTE FDR TRANSPORT	Local, State or National requirements may apply to the carriage of this prodUCt.			

15 REGULATORY INFORMATION (HEALTH AND SAFETY INFORMATION (SEE ALSO BOX 2))

HAZARD SYMBOLS	
INDICATION OF DANGER	Not required.
RISK PHRASES	Risk phrases are not required.
SAFETY PHRASES	Safety phrases are not required.
LEGISLATION	Labelling is according 10 UK regulations Implemenling Ihe EC Direclive 1999/45. Additional labelling requirements maybe necessary in accordance with local legislation. Specific legislation used within this Safety Data Sheet is listed in the above boxes.

16 OTHER INFORMATION and indication of revisions

The information given on this Safety Data Sheet (SDS) does not constitute an assessment in accordance with Control of Substances Hazardous to Health (COSHH) Regulations 2002, in the UK.

Before using any product, ensure that you read and understand its label.

Outside the UK, the registration of this product may be necessary before use and any additional local requirements must be observed at all times.

Bitrex™ is a registered trademark of Macfarlan Smith Ltd.

REVISIONS	Changes have been made to Ihe conlenl of boxes 2, 3, 4, 6, 7, 8, 9, 11, 12, 13, 15 & 16 las indicated by the thick lines on the left-hand side of the boxes) compared with issue 02.
RISK PHRASE TEXT (from box 2)	R27/28 : Very toxic in contact with skin and if swallowed. R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R20/22 : Harmful by inhalation and if swallowed. R38 : Irritating to skin. R41 : Risk of serious damage to eyes. R52/53 : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

10 STABILITY AND REACTIVITY

CONDITIONS TO AVOID	Avoid extremes of temperature. e.g. below *Doe* and above 40°C.
MATERIALS TO AVOID	None.
HAZARDOUS BREAKDOWN PRODUCTS	Combustion or thennal decomposition may evolve toxic or irritant vapours.

11 TOXICOLOGICAL INFORMATION (SEE ALSO BOX 2)

ACUTE TOXICITY	ORAL	LD_{50} (rat) : 6233 to 8014 *mg/kg*.
	INHALATION	Unlikely route of exposure.
	DERMAL	Not determined.
CORROSIVITYI IRRITATION	SKIN	Product is not expected to be irritating to skin.
	EVES	Product is not expected to be Irritating to eyes.
	RESPIRATORY TRACT	Product is not expected to be irritating to the respiratory tract.
SENSITISATION	SKIN	Contains no known skin sensitisers.
	RESPIRATORY	Contains no known respiratory sensitisers.
REPEAT-DoSE TOXICITY		Product does not contain any components known to have any effects relating to repeated-dose toxicity.
MUTAGENICITY		Product does not contain any components known to have a mutagenic effect.
CARCINOGENICITY		Product does not contain any components known to have a carcinogenic effect.
REPRODUCTIVE TOXICITY	FERTILITY	Product does not contain any components known to have effects on fertility.
	DEVELOPMENT	Product does not contain any components known to be toxic to the reproductive system.
OTHER INFORMATION		Bromadiolone is an indirect anticoagulant. Phytomenadione (Vitamin K1) is antidotal. Determine prothrombin times not less than eighteen hours after consumption. If elevated, administer Vitamin K1 until prothrombin time for two weeks after withdrawal of antidote and resume treatment if elevation occurs in that time.

12 ECOLOGICAL INFORMATION

GENERAL INFORMATION	The full ecotoxicologicat profile of this product has not been evaluated. Do not contaminate the environment.
ECOTOXICITY DATA	For bromadiolone: LC" Bluegill sunfish (96h): 3.0 *mg/L*. LC" *Daphnia* (4Bh): 2.0 *mgfL*. For **Bitrex™:** LC" Rainbow trout (96h): >1000 mgIL. EC" *Daphnia magna* (48h): 13 *mg/L*.
MOBILITY (of appropriate constituents)	For **Bitrex™:** water solubility: 45 g/L.
PERSISTENCE AND DEGRADABILITY (of appropriate constituents)	For Bromadiolone: Very rapid degradation by agents that make water drinkable (chlorine, ozone, chlorine bioxide). Rapid degradation on soil under aerobic conditions: half-life of a few days. High sensitivity to photolysis in aqueous medium: half-life 2.1h at pH 7.3. lower sensitivity to hydrolysis: 67 days at pH 7. For **Bitrex™:** Abiotic degradation: 10% after 5 days at 50°C at all pHs. Abiolic degradauon: 10% after 30 days at 25' C al all pHs.
BIOACCUMULATIVE POTENTIAL (of appropriate constituents)	For Bromadiolone: Fixation on clayey soil. For **Bitrex™:** has a low bioaccumulation potential.
ENVIRONMENTAL CONSIDERATIONS	DO NOT contaminate watercourses or ground. The Bromadiolone in this product is classified as toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The Bitrextl in this product is classified as harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Thus, every care must be taken to avoid its release and the subsequent contamination of the aquatic environment.
OTHER ADVERSE EFFECTS	None.

13 DISPOSAL CONSIDERATIONS

DISPOSAL OF WASTE	Under normal circumstances, waste will be disposed of by RentokilInitial.
DISPOSAL OF CONTAINERS:	Under normal circumstances, empty containers will be disposed of by Renlokil Initial.
CLASSIFICATION OF INGREDIENTS. (Council Directive *91/689/EC*, Commission Decision 2000/532/EC (amended) Commission Decision *2001/118/EC*))	Hazard Code: Not classified. Components making the waste hazardous Concentrations (%): Not required.
NOTE FOR DISPOSAL	Disposal should be in accordance with local, State or National requirements. For further advice about disposal, in the UK, contact the local office of the Environment Agency (England and Wales) or Scottish Environment Protection Agency. Local rate from anywhere in the UK: 0845 9333111.

Rentokil

Pest Control

Safety Data Sheet

NOTE: Access to a copy of this Safety Oata Sheet (SOS) via our Website does not constiMe the issue of a controlied Copy under EU legislation. To be issued with such a copy please contact Rentokil Initial at the address below by telephone, fax or in writing. In order to confinn the latest version of the SOS for this product see web: www.ri-research,com and click on Technica1Infonnation / Product Safety.

REVISION (see box 16) Issue : 05 01 : 07 : 2004

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

PRODUCT NAME	DIFENARD 0.005% (with Bitrex™)
DESCRIPTION	A blue, ready-te-use, rodenticidal paste bait with no perceptibie odour and a bittering additive. For use by professional operators in the control of mice.
COMPANY	RentokilInilial UK Ud, Pest Control, Felcourt, East Grinstead, West Sussex. RH19 2JY. United Kingdom. Telephone: +44 (0)1342 833022 Facsimile: +44 (0)1342326229

2 HAZARD IDENTIFICATION

CLASSIFICATION AND DANGER SYMBOL (SUPPLY — USE) : IN COMPUANCE WITH EC DIRECTIVE 1999/45.

Not classified

ADVERSE PHYSICAL, CHEMICAL, SIGNIRCANT HUMAN HEALTH AND ENVIRONMENTAL EFFECTS (SEE ALSO BOX 11):

No adverse physical or chemical effects expected.

This product contains an anticoagulant compound. If ingested symptoms may include nosebleed and bleeding gums. In severe cases there may bruising, haematomas of the joints and blood present in the faeces and urine.

Adverse effects on the environment are unlikely provided that the product is used as intended.

3 C OMPOSITION / INFORMATION ON INGREDIENTS (SEE ALSO BOX 16)

%w/w	COMMON*/CHEMICAL NAME, EUNCS/EINECS AND CAS OF INGREDIENTS	EC 1999/45 CLASSIRCATION
0.005	Oifenacoum* /3-(3-biphenyl-l ,2,3,4-tetrahydro-1-naphthyl)-4-hydroxycoumarin EINECS: 259-978-4 CAS: 56073-07-5	T+ : R28 T : R48/25 N : R50,53
> 1.0 ≤ 2.5	Propylene glycol* / propane-l ,2-diol EINECS : 200-338-0 CAS: 57-55-6	Not classified.
≤1.0	Bitrex™* / denatonium benzoate EINECS : 223-095-2 CAS: 3734-33-6	X_n : R20/22 X_i : R38 X_i : R41 : R52,53

4 FIRST-AID MEASURES (SEE ALSO "ADVERSE EFFECTS" IN BOX 2)

INHALATION	Unlikely route of exposure. However, remove patient to fresh air, keep wanm and at rest. Apply supportive measures if necessary and seek medical attention.
EYE CONTACT	Rinse affected eye with clean running water, or eyewash solution, for at least 15 minutes holding eyelids well apart. Rinse entire surface and do not allow run-off to contaminate unaffected eye. Seek medical attention.
SKIN CONTACT	Remove and wash contaminated clothing immediately. Wash affected area thoroughly with soap and water. If the patient feels unwell seek medical advice.
INGESTION (SWALLOWING)	Do NOT induce vomiting. If unconscious place in the recovery position and apply supportive measures if necessary. If conscious give patient up to V, litre or 1 pint of water to drink. Seek medical attenlion.
EMERGENCY EQUIPMENT SUGGESTED	Appropriate first-aid equipment should be provided. For the UK this should be in accordance with the Health & Safety (First-Aid) Regulations 1981. See also the Approved Code of Practice "First-aid at Work".
NOTE To DOCTOR	Further information on all Rentokii Initial formulations is lodged with the Nalional Poisons Information Service in the UK. Telephone +44 (0) 870600 6266 - 24 hours.

5 FIRE FIGHTING MEASURES

FIRE E>mNGUISHER TYPE	Use foam, water, carbon dioxide or dry powder extinguishers.
SPECIAL FIRE-FIGHTING PROCEDURES	*Wear* self-contained breathing apparatus and suilable personal protective equipment.
SPECIAL ExPOSURE HAZARDS	Combustion or thermal decomposition may evolve toxic and irritant vapours.

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS (See also box 8)	Wear suitable personal protective eqUipment.
ENVIRONMENTAL PRECAUTIONS	DO NOT contaminate watercourses or ground.
CI.EAN-UP PROCEDURE (See also box 13)	Gather up split material and transfer to a suitable container for subsequent disposal.

7 HANDLING AND STORAGE

HANDUNG	Wash hands thoroughly with soap and water after handling.
STORAGE	Store in original container in a cool, dry, ventiiated place out of the reach of children and away from food, drink and animal feeding stuffs.

8 ExPOSURE CONTROLS/PERSONAL PROTECTION (SEE ALSO BOX 7)

EXPOSURE STANDARD - DIRECTIVE EC/98/24 (1ST IOELV DIRECTIVE)	OES for Propylene glycol for total (vapour and particulates) is 474 mg/m^3 long term exposure (8 hour Time Weighted Average) and for partlculates is 10 mg/m^3 long-term exposure (8 hour TWA). Propylene glycol is refeRed to as propane-1,2-diol in Directive EC/98/24 (1S, 10ELV Directive).
ENGINEERING CONTROLS	Where prevention of exposure is not reasonably practicable, adequate control of exposure should be achieved by engineering controls rather than the provision of personal protective equipment and clolhing. More specific details cannot be given without carrying out a full risk assessment for each and every use scenario. Suitable and approved personal protective equipment and clothing may include the follOWing item(s):
EYE PROTECTION	None necessary under normal working conditions.
HAND PROTECTION	None necessary under nonna! working conditions.
SKIN PROTECTION	None necessary under normal working conditions.
BREATHING PROTECTION	None necessary under normal working conditions.
ENVIRONMENTAL EXPOSURE CONTROLS	Product should be used in accordance with instructions given.

9 PHYSICAL AND CHEMICAL PROPERTIES

ApPEARANCE AND ODOUR	A blue paste with no perceptibie odour.		
pH	Not applicabie.	SOLUBILITY IN WATER	Insoiuble.
DENSITY	1.0 g/cm' at 20°C	SOLUBIUTY IN FAT	Soluble.
FLASH POINT	Not applicable.	ExPLOSIVE PROPERTIES	None known
FLAMMABIUTY	Non-flammable.	COMBUSTIBIUTY	Combustible.
AUTOFLAMMA81UTY	Not applicable.	OXIDISING PROPERTIES	Not determined.
BOILING POINT/RANGE	Not applicable.	MELTING POINT/RANGE	45-50°C
VAPOUR DENSITY	Not applicable.	EVAPORATION RATE	Not applicable.
VAPOUR PRESSURE	Not applicable.	PARTITION COEFFICIENT	Nol applicable.
VISCOSITY	Not applicable.	OTHER DATA	None known.

10 STABILITY AND REACTIVITY

CONDmoNS TO AVOID	Avoid extremes of temperature, e.g. below O°C and above 40°C.
MATERIALS TO AVOID	None known.
HAZARDOUS BREAKDOWN PRODUCTS	Combustion or thermal decomposition may evolve toxic and irritant vapours.

11 TOXICOLOGICAL INFORMATION (SEE ALSO BOX 2)

ACUTE TQ)()crrv	ORAL	For **Difenard 0.01**% (similar product):
		LO.. (rat) : >2000 mg/kg
	INHALA110N	Unlikely route of exposure.
	DERMAL	For **Difenard** 0.01 % (similar product):
		LD" (rat) : >2000 mg/kg
CORROSIVITY/ IRRITATION	SKIN	For **Difenard** 0.01 % (similar product): non-irritating to rabbit skin.
	EYES	For **Difenard** 0.01 % (similar product): **slightly** irritaling to rabbit eyes.
	RESPIRATORY TRACT	May be slightly irritating to the respiratory traeL
SENSmSATION	SKIN	Contains no known skin sensitisers.
	RESPIRATORY	Contains no known respiratory sensitisers.
REPEAT-DOSE TOXICITY		Product does not **contain** any components known to have any effects relating to repeated-dose toxicity.
MUTAGENICITY		Product does not contain any components at concentrations greater than 0.01 % known to have a mutagenic effect.
CARCINOGENICrrv		Product does not contain any components at concentrations greater than 0.01% known to have a carcinogenic effect.
REPRODUCTIVE **TOXICITY**	FERIIIITY	Product does not contain any components known to have effects on fertility.
	DEVELOPMENT	Product does not contain any components known to be toxic to the reproductive system.
OTHER INFORMATION		Difenacoum is an indirect anticoagulant. Phylomenadione, Vitamin K1, is antidotal. Determine prothrombin times not less than eighteen hours after consumption. If elevated, administer Vitamin K1 until prothrombin time normalises. Continue detennination of prothrombin time for two weeks after withdrawal of antidote and resume treatment if elevation occurs in that time.

12 ECOLOGICAL INFORMATION

GENERAL INFORMATION	The full ecotoxicological profile of this product has not been evaluated. Do not contaminate the environment
ECOTOXICITY DATA	For difenacoum:
	LC,. **(Rainbow** trout) (96h) : 0.10 mg/L
	LC,. *(Daphnia)* (48h) 0.52 mg/L
MOBIUTY (of appropriate constituents)	Not determined.
PERSISTENCE AND DEGRADABILITV (of appropriate constituents)	For Bitrex™:
	Abiotic degradation 10% after 5 days at 50°C at all pHs.
	Abiotic degradation 10 after 30 days at 25°C at all pHs.
BIOACCUMULATIVE POTENTIAL (of appropriate constituents)	For Bitrex™:
	Low bioaccumulation potential.
ENVIRONMENTAL CONSIDERATIONS	DO NOT contaminate watercourses or ground.
	The difenacoum in this product is classified as very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The Bitrex™ In this product is classified as harmful to aquatic organisms, may cause long-term adverse elfects In the aquatic environment. Thus, every care must be taken to avoid its release and the subsequent contamination of the aquatic environment.
OTHER ADVERSE EFFECTS	None.

13 DISPOSAL CONSIDERATIONS

DISPOSAL OF WASTE	Under normal circumstances, wasle will be disposed of by RentokilInitial.
DISPOSAL OF CONTAINERS:	Under normal circumstances, empty containers will be disposed of by Rentokil Initial.
CLASSIFICATION OF INGREDIENTS. (Council Directive 91/6119/EC, Commission Decision 2000/532/EC (amended) Commission becision 2001/118/ECI)	Hazard Code: Not classified. Components making the waste hazardous Concentrations (%): Not required.
NOTE FOR DISPOSAL	Disposal should be in accordance wilh local, State or National requirements. For further advice about disposal, in the UK, contact the local office of the Environment Agency (England and Wales) or Scottish Environment Protection Agency. Local rate from anywhere in the UK: 0845 9333111.

14 TRANSPORT INFORMATION (INTERNATIONAL UNLESS OTHERWISE INDICATED)

UN No.	Not Classified.	TREMCARD REFERENCE No.	Not required.	RIS CODE
TRANSPORT CATEGORY	Not required.	UK HAZCHEM EAC	Not required.	PSD62
ADR2003 (INTERNATIONAL ROAD)	CLASS Not required.	ADRHIN Not required		LABELS
PROPER SHIPPING NAME	Not required.			Not required.
LIMITED QUANTITY EXCEPTIONS	Not required.			
SPECIAL REQUIREMENTS	Not required.		PACKING GROUP Not required.	
IMDG2002 (SEAI	CLASS Not required.	IMDGEMS Not required.		
PROPER SHIPPING NAME	Not required.			
LIMITED QUANTITY EXCEPTIONS	Not required.			
SPECIAL REQUIREMENTS	Not required.		PACKING GROUP Not required.	
NOTE FOR TRANSPORT	,-ocal, State or Nallonai requirements may apply to the carnage ot thiS proaucl			

15 REGULATORY INFORMATION (HEALTH AND SAFETY INFORMATION (SEE ALSO BOX 2»

HAZARD SYMBOLS	Not required.
INDICATION OF DANGER	Not required.
RISK PHRASES	Risk phrases are not required.
SAFETY PHRASES	Safety phrases are not reqUired.
LEGISLATION	Labelling is according to UK regulations implementing the EC Directive 1999/45. Additional labelling requirements may be necessary in accordance with local legislation. Specific legislation used within this Safety Data Sheet is listed in the above boxes.

16 OTHER INFORMATION and indication of revisions

The infonnation given on this Safety Data Sheet (SOS) does not constitute an assessment in accordance with Control of Substances Hazardous to Health (COSHH) RegUlations 2002, in the UK.

Before using eny prOdUct, ensure thet you reed and understend Its label.

Outside the UK, the registration of this product may be necessary before use and any additional local requirements must be observed at atl times.

Bitrex'" is a registered trademark of Macfar/an Smith Ltd.

Note: This SOS also supersedes SOS 494.

REVISIONS	Changes have been made to the content of boxes 2, 3, 4, 6, 7, 8, 9, *10,* 11, 12, 13, 14, 15 & 16 (as indicated by the thick lines on the lelt-hand side of the boxes) compared with issue *04.*
RISK PHRASE TEXT (from box 3)	R20/22 : Hanniul by inhalation and if swallowed. R28 : Very toxic if swaliowed. R38 : Irritating to sl,in. R41 : Risk of serious damage to eyes. R48/25 : Toxic: danger of serious damage to health by prolonged exposure if swallowed. R50,53 : Very toxic to aquatic organisms, may cause long-tenn adverse effects in the aquatic environment. R52,53 : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Best-Chem Limited

SAFETY DATA SHEET

I.O.E.2407 (SEA BREEZE)

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

PRODUCT NAME:	I.O.E.2407 (Se. Breeze)
USES:	Odour Eliminator
PRODUCT CODE:	800.079
SUPPLIER:	BeSI-Chem LId Barracks Road Sandy Lane Industrial Estate Stourport on Severn Wore, DY13 90B
TELEPHONE: FAX:	+44 (0)1299 827232 +44 (0)1299 627608
EMERGENCY TELEPHONE NUMBER	+44 (0)1299 827232

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization	Corn. osition of essential oils.

3. HA2ARDS IDENTIFICATION

No particular hazards known

4, FIRST AID MEASURES

GENERAL ADVICE	Remove contaminated clothing.
INHALATION:	Provide rest, warmth and fresh air.
SKIN CDNTACT:	Wash the skin immediately with soap and water.
EYE CONTACT:	Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.
INDIGESTION:	In the event of symptoms seek medical advice.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Not Applicable.

SPECIAL FIRE FIGHTING PROCEDURES:

No specific fire fighting procedures given.

UNUSUAL FIRE & EXPLOSION HA2ARDS:

HA2ARDOUS DECDMPOSITION PRODUCTS:

In case for fire the following can be released: carbon dioxide, carbon monoxide, zinc oxide.

6. ACCIDENTAL RELEASE MEASURES

SPILLCLEAN UP METHODS: Large spill: Absorb in verrniculite, dry sand or earth and place into containers. Smaller spill: Flush clean with lots of water. Be aware of potential for surfaces to become slippery. Do not let washing down contaminated ponds or waterways,

7. HANDLING AND STORAGE

USAGE PRECAUTIONS:	**Avoid spilling, skin and eye contact.**
STORAGE PRECAUTIONS:	**Keep container tightly closed.**

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT COMMENTS: **No exposure limits noted for ingredient(s).**

PROTECTIVE EQUIPMENT:

VENTILATION:	**Not relevant.**
RESPIRATORS:	**No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.**
PROTECTIVE GLOVES:	**For prolonged or repeated skin contact use suitable protective gloves.**
EYE PROTECTION:	**Wear approved chemical safety goggles where eye exposure is reasonably probable.**
HYGIENIC WORK ROUTINES:	**Wash at the end of each work shift and before eating, smoking and using the toilet.**

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	**Clear. Liquid.**	COLOUR:	**Pale Amber.**
ODOURITASTE:	**Fresh.**		
SOLUBILITY DESCRIPTION:	**Soluble in water.**		
BOILING POINT (0C):	**not measured**	MELTING POINT (0C):	**Not measured**
SPECIFIC GRAVITY (Water=1):	- 1.03@20 °C	pH·VALUE:	8·10

110.STABILITY AND REACTIVITY

STABILITY: **No particular stability concerns.**
HAZARDOUS REACTIONS: **No hazardous reaction**
HAZARDOUS DECOMPOSITION PRODUCTS:
Non with proper storage and handling

11. TOXICOLOGICAL INFORMATION

Note **Proper use provides no adverse health effects have been observed or have been come to our knowledge.**

12. ECOLOGICAL INFORMATION

DEGRADABILITY: >90% BIODEGRADABLE (EEC 82/243)

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS: **Dispose of in accordance with Local Authority requirements.**

14. TRANSPORT INFORMATION

LABEL FOR CONVEYANCE:	No transport warning sign required.
ROAD:	
RAIL:	
SEA:	
AIR:	

115. REGULATORY INFORMATION

EEC (EINECS) No.:	
LABEL FOR SUPPLY	This product does not require a hazard warning label.
RISK PHRASES:	
UK REGULATORY REFERENCES:	Chemicals (Hazard Information & Packaging) Regulations 1993.
EC DIRECTIVES:	Dangerous Preparations Directive 88\379.
STATUTORY INSTRUMENTS:	Chemicals (Hazard Information and Packaging) Regulations.
APPROVED CODE OF PRACTICE:	Safety Data Sheets for Substances and Preparations L62.

116. OTHER INFORMATION

INFORMATION SOURCES:	CES10 - Classification and Labeling of Anionic, Nonionic Surfactants (2000) Dangerous Properties of Industrial Materials Report, N.Sax et.a!.
REVISION COMMENTS:	
REVISION DATE:	*17/08/06*
REVISION NO./REPLACES SOS ISSUED:	
SAFETY DATA SHEET STATUS:	Approved.

DISCLAIMER

The information given in this safety data sheet is based on knowledge available at the time of compilation and is intended to describe the product only in terms of health and safety requirements. It does not signify any warranty with regard to specific properties or specifications.

ATTACHMENT B1 APPLICANT DETAILS

a) **a Certified Copy of the Certificate of Incorporation or Memorandum and Article of Association;**

The Certificate of Incorporation is attached overleaf.

b) **the Company's Registration Number from the Companies Registry Office**

370563

c) **List of the Company Directors.**

Michael Murray (Managing Director)
Maria Murray (Director)

Site Location Map 1:2500 CE07-253-01-201
The site ownership plan in 1:2500 CE07-253-01-202

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G2 Energy

Electrical energy is used to power pumps, lighting and the administration building; Most of the plant is diesel powered; the amount used 2008-2009 is as follows:

PARAMETER	UNITS	08-09
Electricity	(kWh)	28,751
Diesel Fuel	(Litres)	147,379
Heating oil	(Litres)	2,000
Hydraulic engine oil	(litres)	1,904

ATTACHMENT H MATERIALS HANDLING

TABLE H.1(ii) WASTE - Other Waste Recovery/Disposal

Waste material	EWC Code	Main source[1]	Quantity		On-site recovery/ disposal[2]	Off-site Recovery, reuse or recycling	Off-site Disposal
			Tonnes / month	m^3 / month	(Method & Location)	(Method, Location & Undertaker)	(Method, Location & Undertaker)
Mixed dry recyclables	15 01 01 15 01 02 15 01 05 15 01 06 15 01 09	Wexford Co Co. Wastepal, MWR Skips.	400		Recovery, Storage, Picking line	Clearpoint Recycling Ltd, South East Regional MRF, Regional Material Recovery, Ballymount, Co. Dublin.	
Cardboard & Newspaper	15 01 01 19 12 01 20 01 01	MWR Skips, Commercial	20		Recovery Hand picked/Tromm el. Bulked waste cardboard.	Clearpoint Recycling Ltd, Greyhound Recycling Ltd, Highlander International Recycling.	
Residual Commercial waste	15 02 03 19 08 01 19 12 12 20 01 08 20 03 01	MWR Skips,	200		Residual waste from skips		Disposal (landfilling), Ballynagran residual Landfill. Holmestown Landfill.
Mixed C&D waste and Soil and stone	17 01 01 17 01 02 17 01 03 17 01 07 17 03 02 17 04 11 17 05 04	MWR Skips from construction sites and skips from general public	400		Hand-picked/ Trommel. Crusher and Screener	Recovery, CRS Crushing & Recycling Ltd. Philip O'Grady Plant Hire Ltd, SWG, Cadigan Plant Hire, Holmestown landfill, Molloy Metal Recycling, Leon	

	17 05 06 17 05 08 17 06 04 17 08 02 17 09 04 20 02 02					Recycling	
Compost	20 01 08 20 02 01 20 02 03	MWR Skips, Wastepal.	140		Recovery, bulking of waste.	Recovery, O' Tooles Compost, Veolia Waterford.	
Glass	15 01 07 16 01 20 17 02 02 19 12 05 20 01 02	MWR Skips.	5		Recovery, bulking of waste.	Recycling, Glassco Recycling Ltd	
Timber	15 01 03 17 02 01 19 12 07 20 01 38	MWR Skips.	200		Recovery, Shredding bulking of chipped timber.	Reuse Holmestown, Ballynagran landfill, Shredwood Ltd	
Metals	02 01 10 15 01 04 16 01 17 16 01 18 16 02 14 16 02 16 17 04 01 17 04 02 17 04 03 17 04 04 17 04 05 17 04 06 17 04 07 17 04 11 19 12 02 19 12 03 20 01 40	MWR Skips.	50		Recovery, Sorting and bulking of metals.	Recycling, Molloy Metal Recycling/Leon Recycling	

Plasterboard	17 08 02	MWR Skips.	20		Recovery, bulking of plasterboard.	Gypsum Recycling Ltd. & Recycle Works Ltd.	
Textiles	15 01 09 19 12 08 20 01 10 20 01 11	MWR Skips.	0.25		Recovery, bulking of textile.	Recovery, Eco Environmental Services/ Cookstown Textile Recyclers	
Plastic and Rubber	02 01 04 15 01 02 16 01 03 16 01 19 17 02 03 19 12 04 20 01 39	MWR Skips.	7		Recovery, bulking/baling of plastics and rubber.	Recycled, Clearpoint Recycling Ltd & Greyhound Recycling & Recovery	
MSW	20 01 08 20 01 99 20 03 01 20 03 02 20 03 03	MWR Skips, Wastepal.	600		Trommel, picking line, recovery of recyclables, bulking of waste	Clearpoint Recycling Ltd, South East Regional MRF. Regional Material Recovery, Ballymount, Co. Dublin.	Ballynagran Residual Landfill, Holmestown Landfill.

1 A reference should be made to the main activity/ process for each waste.
2 The method of disposal or recovery should be clearly described and referenced to Attachment H.1
3 These waste figures relate to estimated quantities for 2011.

H2 Waste Acceptance Procedures

Currently all waste is delivered to the site in Heavy Goods Vehicles (HGV) provided with appropriate covers to prevent loss of load. Each vehicle first proceeds to the incoming weighbridge where it is weighed. A description of the waste type is given by the driver and recorded on the weighbridge docket. The waste collection vehicle then proceeds to the recycling building and tipped in an area where the waste is inspected.

The vehicles weigh out at the outgoing weighbridge and receive an individual weighbridge docket before exiting the site.

The procedures for waste acceptance and forms for record keeping are given in the Waste Acceptance Manual.

H3 Waste Handling Procedures

Waste acceptance procedures relating to the waste permit are attached as a matter of information. These procedures will be undated in accordance with conditions of the waste licence.

Municipal solid waste is tipped onto a designated area of the floor of the recycling building. This waste is then processed through the trommell and picking line with recoverable materials removed either by manual picking off the picking line, or mechanically separated into residual waste, organics, timber and metal. Residual waste is repacked into the waste ejector trailer for disposal to landfill.

Construction and demolition waste from skips is tipped onto the floor of the recycling building with waste separated mechanically using a grab and trommel and picking line. The remaining concrete, soil and stones fractions will be stockpiled on designated hardstanding areas outside pending crushing and screening and recovery into different types of reusable material. Recovered metal, plastics and timber will either be stored, baled or shredded and stored pending removal off site for reuse or recovery.

As with all waste accepted at the site, the yard manager and operatives inspect the deposited wastes for items that are not acceptable under the Waste Licence. These items will be removed and stored in appropriate quarantine areas for later removal from the site. Where asbestos waste is suspected, the load will be quarantined and a licensed asbestos specialist contacted to confirm the presence of asbestos containing material (ACM) to advise on appropriate disposal. The originator of the waste will also be contacted. MWR Ltd. will also notify the Agency in accordance with the licence.

Mixed dry recyclables are deposited in a designated area of the recycling building. Large recoverable materials are removed mechanically and the remainder of the material is passed through the picking line for recovery into appropriate recoverable fractions prior to removal off site for further recovery.

H4 Waste Arisings

This section is not applicable to the application.

Waste Acceptance Procedure
for
Murray Waste Recycling Ltd
Coolatore
Ferns
Enniscorthy
Co Wexford

Murray Waste Recycling Ltd
Coolatore
Ferns
Enniscorthy
Co Wexford

January 2009

Waste Acceptance Procedure

For

Murray Waste Recycling Ltd
Coolatore
Ferns
Enniscorthy
Co Wexford

REVISION CONTROL TABLE

Rev. Nr.	Description of Changes:	Prepared by:	Date:
3	Issue to Client	DWD	04/01/2009

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1. SCOPE/OBJECTIVE

Wexford County Council (WCC) issued Murray Waste Recycling Ltd with a Waste Permit on 29th June 2005 (Waste Permit Register Number: WP/05/03). Condition 4.2.1 of the Waste Permit requires the preparation of procedures for the acceptance and handling of all wastes at Murray Waste Recycling Ltd. The requirement of the condition states that:

"Prior to commencement of waste acceptance at the facility, the Permit Holder shall establish detailed written procedures for the acceptance and handling of wastes. These details shall be submitted to Wexford County Council with 28 days of the granting of the Waste Permit."

The purpose of this procedure is to determine if wastes entering the site are in accordance with the conditions of Waste Permit No: WP/05/03 and any subsequent Waste Permits granted to Murray Waste Recycling Ltd. The Waste Catalogue and Hazardous Waste List obtained from the EPA website and valid from 1st January 2002 will be used to categorise wastes entering the site. Methods and procedures to determine if wastes are in accordance with the permit are outlined herein.

Wastes accepted at the transfer station are as per Schedule A of the Waste Permit (No: WP/08/23) and are presented in Table 1. Murray Waste Recycling Ltd is not permitted to accept hazardous waste.

Table 1.1: Waste Types

WASTE TYPE		MAXIMUM (TONNES PER ANNUM)
Non-Hazardous commercial & industrial sourced dry recyclable wastes including [Note 1]:- **Household** **Non-Hazardous Commercial** **Non-Hazardous C & D Waste** **Non-Hazardous Industrial Waste**		• **Less than 5,000 tonnes (Maximum) of waste for *Disposal* • **Less than 16,000 tonnes approx., of recyclable materials for *Recovery* for acceptance at the Facility
EWC CODE: As specified in Table 1 of Appendix A – Description of Waste types and Quantities Proposed to be accepted at the Facility & dated 30th May 2008.		
TOTAL	**See column on right	

EWC Code	Description
02 01 04	Waste Plastic (except packaging)
15 01 01	Paper and Cardboard Packaging
15 01 02	Plastic Packaging
15 01 03	Wooden Packaging
15 01 04	Metallic Packaging
15 01 05	Composite Packaging
15 01 06	Mixed Packaging
15 01 07	Glass Packaging
15 01 09	Textile Packaging
15 02 03	Absorbents, filter materials, wiping cloths & protective clothing other than those mentioned in 15 02 02
16 01 20	Glass (Windscreens)
16 01 06	**Non Acceptable – See Note 2**
16 01 17	Ferrous Metals
16 01 19	Plastic
17 01 01	Concrete
17 01 02	Bricks
17 01 03	Tiles & Ceramics
17 01 07	Mixture of concrete, bricks, tiles & ceramics other than those mentioned in 17 01 06
17 02 01	Concrete
17 02 02	Glass
17 02 03	Plastic
17 03 02	Bituminous mixtures containing other than those mentioned in 17 03 01
17 04 01	Copper, bronze & brass
17 04 02	Aluminium
17 04 03	Lead
07 04 04	Zinc
17 04 05	Iron & Steel
17 04 06	Tin

17 04 07	Mixed Metals	
17 04 11	Cables other than those mentioned in 17 04 10	
17 05 04	Soil & stones other than those mentioned in 17 05 03	
17 05 06	Dredging spoil other than those mentioned in 17 05 03	
17 05 08	Track ballast other than those mentioned in 17 05 07	
17 06 04	Insulation materials other than those mentioned in 17 06 01 & 17 06 03	
17 08 02	Gypsum-based construction materials other than those mentioned in 17 08 01	
19 12 01	Paper and Cardboard	
19 12 02	Ferrous Metal	
19 12 03	Non-ferrous Metal	
19 12 04	Plastic and Rubber	
19 12 05	Glass	
19 12 07	Wood other than that mentioned in 19 12 06	
19 12 08	Textiles	
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	
20 01 01	Paper and Cardboard	
20 01 02	Glass	
20 01 08	Biodegradable Kitchen & Canteen Waste	
20 01 10	Clothes	
20 01 11	Textiles	
20 01 38	Wood other than that mentioned in 20 01 37	
20 01 39	Plastics	
20 01 40	Metals	
20 01 99	Other fractions not otherwise specified	
20 02 01	Biodegradable waste	
20 02 02	Soil & Stones	
20 02 03	Other non-biodegradable wastes	
20 03 01	Mixed Municipal Waste	
20 03 02	Waste from markets	

Note 1: Other dry-recyclables may be acceptable *subject to prior written agreement* with Wexford County Council.
Note 2: The necessary storage for EWC 16 01 06 (End of Life Vehicles) has not been provided for at this facility. Acceptance of this Waste Code *shall not commence* until written approval for same is given by Wexford County Council.
Note 3: Other Waste Materials may be acceptable subject to prior written agreement with Wexford County Council.
Note 4: The individual limitation on waste streams may be varied with the agreement of Wexford County Council.

2. WASTE CHARACTERISATION, TESTING AND VERIFICATION

2.1. Introduction

The EPA manual on waste acceptance outlines a three-level hierarchy which should be employed prior to acceptance of waste. The hierarchy consists of the following levels:

- Level 1 Basic Characterisation
- Level 2 Compliance Testing
- Level 3 On-site Verification

Level 1: Basic Characterisation – Performed by the driver/contractor before the waste leaves the producer. Such characterisation should define the type of waste and whether or not there are any hazardous waste elements. This characterisation should be included in the waste transfer documentation.

Level 2: Compliance Testing – Performed by the weighbridge operator. This testing involves the use of standard methods to determine if the waste complies with permit conditions and the characterisation shown in Level 1 screening.

Level 3: On-site Verification – Performed in the recycling shed. This involves visual inspection of the waste and associated documentation before and after unloading at the Transfer Station. This inspection allows the operator to determine if the waste load matches the physical description and characterisation that may have been undertaken at Level 1 or Level 2. More detailed testing may be required if visual inspection does not enable the site operator to make a conclusive verification.

2.2. Waste Characterisation, Testing and Verification at Murray Waste Recycling Ltd.

Murray Waste Recycling Ltd currently undertakes Level 1, 2 and 3 characterisation on all waste entering their transfer station.

2.3. Level 1: Basic Characterisation

It is the responsibility of the driver/contractor to complete Level 1 characterisation of the waste prior to leaving the site of origin. Murray Waste Recycling Ltd will refer the waste producer/contractor to the EPA Waste Acceptance Manual and the Waste Catalogue and Hazardous Waste List for guidance. As a general guideline Figure 1, Procedure for Characterising Waste will be used to categorise a waste.

Murray Waste personnel should satisfy themselves that the Level 1 characterisation has been undertaken by suitable trained staff and that the appropriate level of quality assurance/quality control has been applied.

When the Level 1 testing has been completed by the driver/contractor, the weighbridge operator will determine if the waste is acceptable for recovery/disposal at the facility. A number of factors should be considered when making this evaluation.

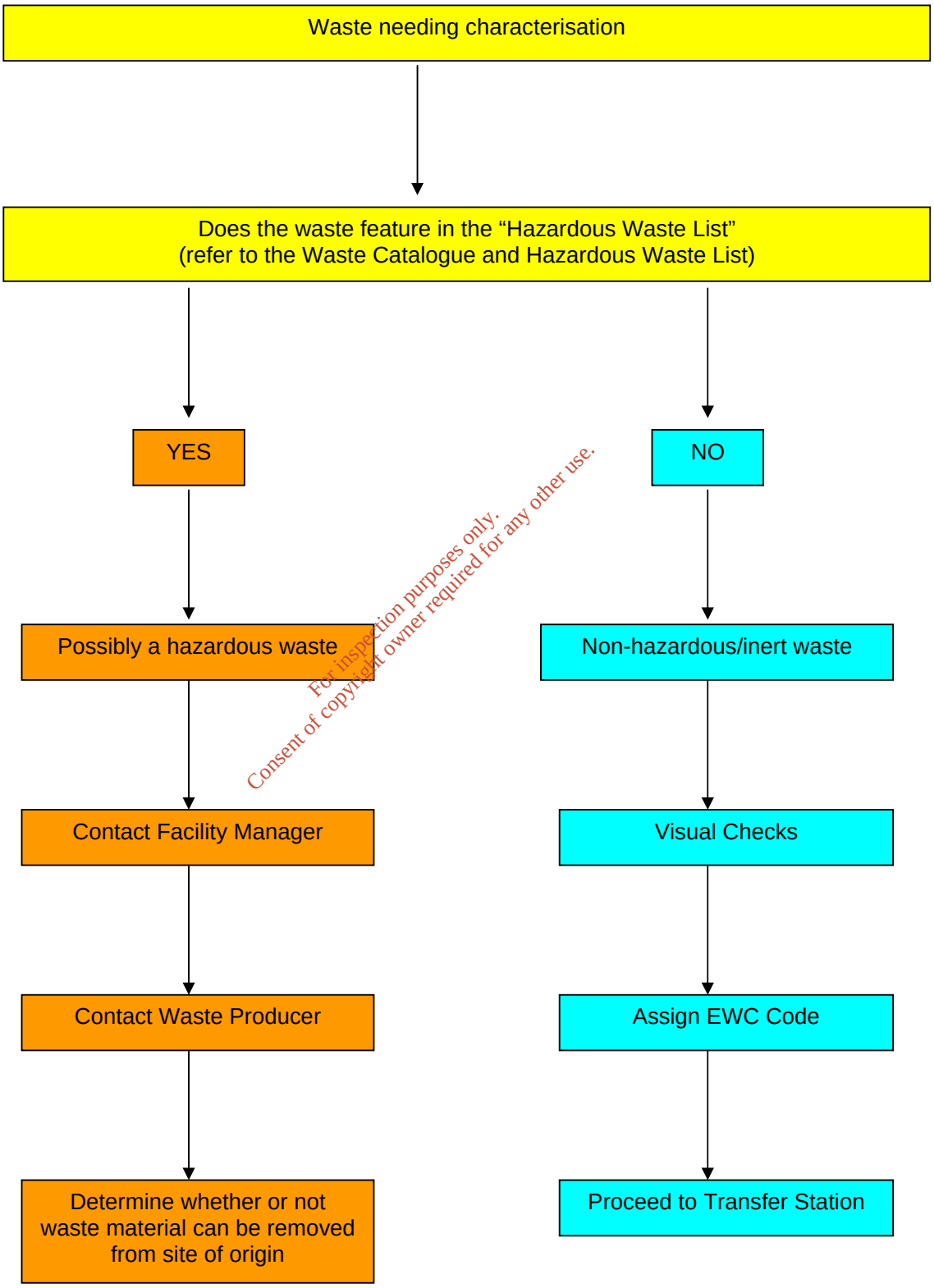
- Has the waste been properly characterised by comparison to the European Waste Catalogue and Hazardous Waste List.
- Does the nature of the waste (i.e. density, moisture content, heavy metal content etc) deem it necessary to undertake leaching tests on the material.

Murray Waste Recycling Ltd currently requires Level 1 characterisation for the handing of waste on site.

Inert waste

The acceptance of inert waste for recovery will be as specified in Section 2.1 in EU Directive (2003/22/EC).

Figure 2.1: Procedure for Characterising Waste



2.3.1 Level 3: On-site Verification

Each load arriving on the site must be subjected to Level 3 verification. This will involve visual inspection and documentation checks to ensure that the waste on arrival matches the description as given in the accompanying documentation. The following procedures will be carried out:-

Visual Inspection of the Waste Load

Visual inspection will be carried out at the weighbridge and tipping area on all vehicles. The facility operator will inspect loads of waste as it is deposited at the tipping area and will notify the office to enable the completion of a waste inspection report sheet (weight docket) as shown in Appendix 1. During visual inspection anything unusual in relation to odour, colour, presence of containers, moisture content etc. will be noted.

Where the operator is not satisfied that the material is acceptable, the waste will be diverted to the quarantine area for more detailed analysis.

Documentation

The waste load will be checked against the supporting documentation to ensure that what is described is what has been presented for disposal. These documents include waste collection permits and waste tracking forms (refer to Appendix 2). Copies of these documents will be retained by any contractors involved. A copy will also be retained by the facility operator on acceptance of waste.

Every contractor entering the facility will be required to present a copy of their Waste Collection Permit for examination prior to bringing waste to the facility. Waste Tracking forms will be provided to the contractors and one should be produced with every load presented at the weighbridge. Further testing to categorise the waste at Level 1 may be necessary at this stage before the waste is deemed acceptable.

The site operator should be satisfied that:

- The accompanying documentation pertains to the same waste as characterised at Level 1
- Before the waste is accepted the key characteristics highlighted in Level 1 correspond with those of the waste in question.

Where the waste cannot be inspected at the inspection area, it will be either inspected at the producer's site or at the tipping area. It is preferable that such loads would be primarily observed at their original source locations.

Appropriately trained and designated staff will conduct documentation checks. The following information must be provided:

- A description of the waste material
- Quantity (volume) of waste
- Containment – loose, baled, compacted, packed container-sealed etc.
- Any other information which the producer should inform the operator about.

A detailed description of the waste should include:

- Waste origin – i.e. nature of production process
- Names and description of substances contained in the waste and their physical and chemical properties. If more common names are generally used to physically or chemically describe a waste these should be included.

3. WASTE ACCEPTANCE PROCEDURE

All waste accepted at the facility should comply with the waste categories as outlined in Table 1. The following procedures are required to be conducted prior to acceptance of waste to Murray Waste Recycling Ltd.

3.1. Documentation Checks

All waste loads arriving at the facility must pass over the weighbridge. Details such as date, time, origin, waste type, waste haulier, quantities, EWC code, vehicle registration and waste collection permit number will be recorded.

Waste loads entering the site will also be visually checked at the weighbridge against the appropriate supporting documentation including waste tracking documents and waste collection permits. This is to ensure that the physical description of the waste matches the waste load. For example colour, odour, composition, physical form. The volume of the load will also be verified. If the waste operator is in doubt about the suitability of the load the waste will be diverted to a holding area prior to validation checking.

The facility manager will carry out regular checks on the particulars of the waste tracking form against the waste catalogue list at the landfill. Wastes will not be accepted on-site without the appropriate level of documentation which details the testing undertaken to deem them acceptable for recovery/disposal.

3.2. Visual Inspection and Verification Procedures

When the facility operator is satisfied that the waste load meets the appropriate requirements of the waste permit the delivery will be transferred from the weighbridge to the tipping area.

Each waste load will be visually inspected at the tipping area and the office notified as to whether or not the load is being accepted. During visual inspection anything unusual in relation to odour, colour, presence of containers, moisture content etc. will be noted.

Suspect loads may be deposited in the waste inspection/waste quarantine area in accordance with the terms of conditions of the waste permit. No waste shall be stored in the Waste Quarantine area for more than three days.

3.3. Loads from Kerbside Collection

Loads of waste coming from Kerbside collection will also follow these procedures but should also be aware of and follow the procedures laid out in “WAP2 - Procedure for emptying all Kerbside Waste Collection Vehicles. See Appendix 3.

3.4. Procedures for Rejection of Loads – Hazardous

Where the facility operator decides that further testing on inspection in necessary for a waste load it will be directed to the waste inspection/quarantine area. This waste will then be inspected by the Facility Manager to determine if further testing is required prior to acceptance or if the load should be rejected.

If the load is rejected it is the responsibility of the waste producer/contractor to ensure that the waste is disposed of in a safe and proper manner as required by the Waste Management Act 1996 - 2007. The facility manager will however, record the occurrence as an incident and report same to Wexford County Council.

A site procedure has been developed for the rejection of non-conforming waste loads (Refer to Appendix 4).

For rejected loads the facility manager will complete a report identifying the waste producer, the waste type and reasons for rejection.

3.5. Procedures for Dealing with Cross-Contaminated loads or non conforming waste

Where the facility operator decides that further inspection is necessary for a waste load, it will be directed to the waste inspection/quarantine area. This waste will then be inspected and photographed by the Facility Manager to determine whether or not it may be accepted or if further consultation with the waste provider is necessary.

In the case of cross-contamination of waste, the waste provider will be contacted by telephone and copies of the photographs of the load will be emailed to the person responsible. If MWRL are permitted to accept the waste the provider will be notified of this fact and of any additional charges. The waste material will then be dealt with in accordance to the procedures laid out above. The facility manager will record this occurrence as an incident and Wexford County Council will be notified with the AER.

In the case of non permitted waste, the load will be rejected and will become the responsibility of the waste producer/contractor to ensure that the waste is disposed of in a safe and proper manner as required by the Waste Management Act 1996 - 2007. In accordance with waste permit no: WP/07/06 this material will be reloaded and returned to the site of origin within 24 hours. The facility manager will however, record the occurrence as an incident and notify Wexford County Council immediately.

A site procedure has been developed for the rejection of non-conforming waste loads (Refer to Appendix 5).

For rejected loads the facility manager will complete a report identifying the waste producer, the waste type and reasons for rejection.

3.6. Competence of Staff

Personnel involved in waste acceptance at the facility must be competent in the following area:-

- Have a clear knowledge of types of waste and their acceptance criteria specified under the Waste Permit WP/05/03.
- Have a knowledge of the type and detail of the documentation accompanying the waste.
- Be capable of identifying conforming and non-conforming loads.
- Be aware of the health and safety requirements required to inspect, sample or handle loads arriving on-site.
- Be aware of the procedures to be followed where a load requires validation or rejection
- Keep complete and competent logs of all waste loads entering the site.

There will be appropriate site personnel under the supervision of the facility manager. It is anticipated that the following personnel will require special training/qualifications to operate the waste acceptance procedures effectively:

Facility Manager
Deputy Manager
Yard Manager
Sales Manager
Weighbridge Operator
General Operatives

These personnel will require a thorough knowledge of the Waste Acceptance Manual. Special training will be required for the identification of potential problematic wastes, on-site verification testing, health and safety and legislative issues. The remaining site staff will require health and safety training which will be provided by Murray Waste Recycling Ltd. or their agent.

4. PRE-TREATMENT OF WASTE

Schedule A, Note 1 of the waste permit states that "*Other dry-recyclables may be acceptable subject to prior written agreement with Wexford County Council".*

In accordance with Article 2 of the Landfill Directive "Treatment" means the physical, thermal, chemical or biological processes, including sorting, that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery.

Murray Waste Recycling Ltd. proposes to implement the above "treatment" through the following measures:

Industrial non hazardous and Construction and demolition waste

Producers of the above waste streams shall advise Murray Waste Recycling Ltd. of measures taken to pre-treat waste prior to presenting them at the facility for recovery/disposal.

Inert waste accepted at the facility is subject to treatment only where technically feasible.

Household and commercial waste streams

Waste Minimisation is a key element of Murray Waste's Waste Management Plan. The main objective is to actively encourage waste prevention and minimisation.

Appendix 1

Waste Inspection Report Sheet

Coolatore,
Ferns,
Enniscorthy,
Co. Wexford.

MURRAY
WASTE RECYCLING
L I M I T E D
SKIP HIRE

Phone: 053-9366778
053-9366858
Mobile: 087-6746978
Fax: 053-9366860
Waste permit No.:
WP/05/03

• *Industrial, Commercial & Domestic Skips* • *Also suppliers of Refuse Compactors & Waste Bailers* •

WEIGH DOCKET

Transaction No.:	
Nett Weight:	
Tare:	
Gross:	
Date:	
Time In/Out:	
EWC Code:	

Account / Site:

WP / WL No.:

Order No.:

Container:	
Waste Type:	

Source:	
Ref. 1:	

Inspector:	
Rejected:	

Haulier:	
Driver:	

WCP No.:	
Waste In / Out:	

Notes:

Vehicle Reg:

Weighbridge Signature:

Customer Signature:

DMC Technologies: Industrial Weighing Specialists Tel: 057 93 20695 info@dmctech.ie

Appendix 2

Waste Tracking Form

MURRAY
WASTE RECYCLING
LIMITED

Name of Waste Carrier:	
Address of Waste Carrier: Main Office address of the waste carrier	
Registration Number of Waste Collection Permit	
Vehicle Registration Number:	
Waste Producer:	
Composition and Nature of Waste: Process from which the waste has been generated. Describe Waste, e.g. odour, colour, dry solids.	
EWC Code: European Waste Catalogue available to download at www.epa.ie	
Weight of Waste Consignment: To be completed at weighbridge at Murray Waste	

Appendix 3

Procedure for emptying all Kerbside Waste Collection Vehicles.

Procedure for emptying all Kerbside Waste Collection Vehicles.
Procedure No: WAP-02

Revision No: 2	**Date: November 2008**
Procedure purpose: To ensure that waste material is accepted on site from Kerbside Collections in a safe manner.	
Scope of procedure: This procedure will apply to all personnel working at Murray Waste Recycling Ltd. and all personnel accompanying the kerbside collection vehicles	
Personnel involved: All personnel	
Description of tasks involved with this procedure: • When a Waste Collection Vehicle is seen in the yard, all work in the vicinity of the MDR/MSW area ceases and all personnel clear this area. • A member of Murray Waste Recycling Ltd staff then directs the lorry into the bay. • A member of the kerbside collection vehicles crew then exits the vehicle and opens the back door to release the waste material. • When the load has been discharges the member of the kerbside collection vehicles crew closes the back door of the unit and returns to his position inside the vehicle. • Only when all personnel are in the vehicle can it proceed out of the recycling shed. • Once the waste collection vehicle has left the area normal work can resume.	
Expected results from this procedure: • The safe discharge of waste material from kerbside waste collection vehicles in the recycling shed.	
Date of procedure review (and revision where necessary) Annually between October and December	
Persons responsible for updating this procedure: Facility Manager, Deputy Facility Manager and Yard Manager	

Appendix 4

Procedure for Rejection of Loads - Hazardous

Procedure for rejection of loads - Hazardous

Revision No: 1 **Date: November 2008**

Procedure purpose:
To ensure that any hazardous waste entering the site is dealt with in a proper fashion and without delay.

Scope of procedure:
This procedure will apply to all personnel working at Murray Waste Recycling Ltd. and all personnel accompanying waste to the facility.

Personnel involved:
All personnel

Description of tasks involved with this procedure:

Upon discovery of a contaminated load of waste the following procedures should be followed:

1. The Facility Operator must immediately contact the Facility Manager or his Deputy.
2. The Facility Manager will decide whether the full load needs to be rejected or if the Hazardous fraction can be segregated.
3. In all cases the waste producer will be informed immediately.
4. An incident report will be prepared and forwarded by fax or email to Wexford County Council identifying the waste producer, the waste type and reasons for rejection.
5. The waste producer will be informed as soon as is possible of the costs which will be incurred in disposing of, in a proper fashion, the rejected material.
6. The producer will then decide whether he/she wishes Murray Waste to organise the disposal of the rejected material or is they would prefer to make alternative arrangements.
7. Wexford County Council will be notified of the decision made.
8. Hazardous waste will be moved off site within 24 hours.

Expected results from this procedure:

- The safe and proper handling of hazardous waste material on site.

Date of procedure review (and revision where necessary)
Annually between October and December

Persons responsible for updating this procedure:
Facility Manager, Deputy Facility Manager and Yard Manager

Appendix 5

Procedures for Dealing with Cross-Contaminated loads or non permitted waste

Procedures for Dealing with Cross-Contaminated loads or non conforming waste

Revision No: 0 **Date: November 2008**

Procedure purpose:
To ensure the proper handling of Cross Contaminated or non conforming waste.

Scope of procedure:
This procedure will apply to all personnel working at Murray Waste Recycling Ltd. and all personnel accompanying waste to the facility.

Personnel involved:
All personnel

Description of tasks involved with this procedure:

Upon discovery of cross contaminated load or non conforming load of waste the following procedures should be followed:

1. The Facility Operator must immediately contact the Facility Manager or his Deputy.
2. The waste will be photographed by the Facility Manager or his deputy
3. The Facility Manager will decide whether the full load needs to be rejected or if the cross-contaminated or non conforming fraction can be segregated.
4. Should the Facility Manager decide that the entire load should be rejected, he will then contact the waste producer or agent to inform him that the waste has been rejected.
5. In all cases the waste producer will be informed of the reasons for the rejection of the waste.
6. An incident report will be prepared and forwarded by fax or email to Wexford County Council identifying the waste producer, the waste type and reasons for rejection.
7. The waste producer will be informed as soon as is possible of the costs which will be incurred in disposing of the rejected material in accordance with the appropriate Waste Management Legislation.
8. Murray Waste Recycling Ltd will dispose of the cross contaminated / non-conforming material by appointing an appropriately permit waste collector for handling such material.

Expected results from this procedure:

- The safe and proper handling of cross contaminated or non conforming waste material on site.

Date of procedure review (and revision where necessary)
Annually between October and December

Persons responsible for updating this procedure:
Facility Manager, Deputy Facility Manager and Yard Manager

ATTACHMENT I EXISTING ENVIRONMENT AND IMPACT

I.1.Assessment of atmospheric emissions

Emissions of main polluting substances (as defined in the Schedule of S.I. 394 of 2004) to the atmosphere are not likely to impair the environment. The most recent dust monitoring was carried out in August 2008 the results of which are tabulated below in Table I.1. The air quality in the region overall is typical of a rural environment. Dust deposition levels analysed at the site are within the dust deposition limit set in Table C.3 of the waste permit WP/08/23.

Sample No.	Organic Dust $mg/m^2/day$	Inorganic Dust $mg/m^2/day$	Total Dust $mg/m^2/day$	Waste Permit Limit $mg/m^2/day$
D1	141	198	339	350
D2	95	35	130	350

A daily site walkover to inspect for litter nuisance is carried out on site. Any windblown litter is collected and disposed of correctly.

I.2. Assessment of Impact on Receiving Surface Water
A small stream/drain runs along the northern boundary of the site and discharges to a sub-tributary of the River Bann.

Emissions of main polluting substances (as defined in the Schedule of S.I. 394 of 2004) to water are not likely to impair the environment.

I.3. Assessment of Impact of Sewage Discharge
There is no emission to sewer.

I.4 Assessment of impact of ground/groundwater emissions
The only emission to ground is the percolation area from the septic tank, this is not monitored however monitoring of the groundwater wells on site has not shown any impact from this emission.

I.5 Ground and/or groundwater contamination
The site was a greenfield site up until construction commenced on the waste recycling facility in 2005. Waste acceptance on site commenced in September 2005. Impact on ground and/or groundwater has not been noted on site since monitoring commenced.

I.6 Noise Impact
Noise emissions from site have not been noted to impact on the surrounding environment. There have been no complaints with regard to noise at the facility since operations commenced.

I.7 Assessment of Ecological Impacts & Mitigation Measures
An Article 6 assessment was conducted in January 2009 to determine the need or otherwise for an Appropriate Assessment to be carried out for this site. This report concluded that it is not considered likely that there will be any impacts on the River Slaney Valley cSAC. Therefore an Appropriate Assessment is not required for this Natura 2000 site.

Table I.2(i) SURFACE WATER QUALITY

(Sheet 1 of 2) Monitoring Point/ Grid Reference: _____SW1 (30402E 148686N)____

Parameter	Results (mg/l)				Sampling method[2] (grab, drift etc.)	Normal Analytical Range[2]	Analysis method / technique
	Jan 2008	Jul 2008	Sept 2008	Nov 2008			
pH	7.17	7.251	7.031	7.5	Grab		Meter
Temperature	10.6	12.7	12.3	8.9	Grab		Meter
Electrical conductivity EC	387	285	207	252	Grab		Meter
Ammoniacal nitrogen NH_4-N	<0.2	<0.2	<0.2	<0.2	Grab		Spectrometry
Chemical oxygen demand	19	<15	<15	<15	Grab		Spectrometry
Biochemical oxygen demand	<2	--*	<2	<2	Grab		5day ATU
Dissolved oxygen DO	6.38	2.94	4.46	5.05	Grab		Meter
Calcium Ca	-	-	-	-			
Cadmium Cd	-	-	-	-	-		
Chromium Cr	-	-	-	-	-		
Chloride Cl	24	23	23	24	Grab		Kone
Copper Cu	-	-	-	-	-		
Iron Fe	-	-	-	-	-		
Lead Pb	-	-	-	-	-		
Magnesium Mg	-	-	-	-	-		
Manganese Mn	-	-	-	-	-		
Mercury Hg	-	-	-	-	-		IR
Oils Fats Greases	<1	<1	<1	<1	Grab		Gravimetic
Total Suspended Solids	<10	<10	<10	85**	Grab		

--* BOD not analysed due to laboratory error
** Stream bed disturbed during sampling

Surface Water Quality (Sheet 2 of 2)

Parameter	Results (mg/l)				Sampling method (grab, drift etc.)	Normal Analytical Range	Analysis method / technique
	Jan 2008	Jul 2008	Sept 2008	Nov 2008			
Nickel Ni	-	-	-	-	-	-	-
Potassium K	-	-	-	-	-	-	-
Sodium Na	-	-	-	-	-	-	-
Sulphate SO_4	-	-	-	-	-	-	-
Zinc Zn	-	-	-	-	-	-	-
Total alkalinity (as $CaCO_3$)		-	-	-	-	-	-
Total organic carbon TOC	-	-	-	-	-	-	-
Total oxidised nitrogen TON	-	-	-	-	-	-	-
Nitrite NO_2	-	-	-	-	-	-	-
Nitrate NO_3	-	-	-	-	-	-	-
Faecal coliforms (/100mls)	<1	-	<1	16	Grab	-	Standard Methods/filtration
Total coliforms (/100mls)	28	-	10000	10000	Grab	-	Standard Methods/filtration
Phosphate PO_4	-	-	-	-	-	-	-

Table I.2(i) SURFACE WATER QUALITY

(Sheet 1 of 2) Monitoring Point/ Grid Reference: _____SW2_ (303722E 148507N)

Parameter	Results (mg/l)				Sampling method[2] (grab, drift etc.)	Normal Analytical Range[2]	Analysis method / technique
	Jan 2008	Jul 2008	Sept 2008	Nov 2008			
pH	7.32	7.02	6.89	7.60	Grab	-	Meter
Temperature	10.3	15.5	14.4	7.2	Grab	-	Meter
Electrical conductivity EC	400	458	455	577	Grab	-	Meter
Ammoniacal nitrogen NH_4-N	<0.2	1.5	0.4	<0.2	Grab	-	Spectrometry
Chemical oxygen demand	19	27	23	42	Grab	-	Spectrometry
Biochemical oxygen demand	<2	--*	<2	10	Grab	-	5day ATU
Dissolved oxygen DO	8.39	2.59	2.82	3.84	Grab	-	Meter
Calcium Ca	-	-	-	-	-	-	
Cadmium Cd	-	-	-	-	-	-	
Chromium Cr	-	-	-	-	-	-	
Chloride Cl	25	21	20	34	Grab	-	Kone
Copper Cu	-	-	-	-	-	-	
Iron Fe	-	-	-	-	-	-	
Lead Pb	-	-	-	-	-	-	
Magnesium Mg	-	-	-	-	-	-	
Manganese Mn	-	-	-	-	-	-	
Oils Fats Greases	<1	-	<1	<1	-	-	IR
Total Suspended Solids	<10	-	<10	27	Grab	-	Gravimetic

--* BOD not analysed due to laboratory error

Surface Water Quality (Sheet 2 of 2)

Parameter	Results (mg/l)				Sampling method (grab, drift etc.)	Normal Analytical Range	Analysis method / technique
	Jan 2008	Jul 2008	Sept 2008	Nov 2008			
Nickel Ni	-	-	-	-	-	-	-
Potassium K	-	-	-	-	-	-	-
Sodium Na	-	-	-	-	-	-	-
Sulphate SO_4	-	-	-	-	-	-	-
Zinc Zn	-	-	-	-	-	-	-
Total alkalinity (as $CaCO_3$)		-	-	-	-	-	-
Total organic carbon TOC	-	-	-	-	-	-	-
Total oxidised nitrogen TON	-	-	-	-	-	-	-
Nitrite NO_2	-	-	-	-	-	-	-
Nitrate NO_3	-	-	-	-	-	-	-
Faecal coliforms (/100mls)	8	-	600	800	Grab		Standard Methods/filtration
Total coliforms (/100mls)	200	-	50000	60000	Grab		Standard Methods/filtration
Phosphate PO_4	-	-	-	-	-	-	-

Table I.2(i) SURFACE WATER QUALITY

(Sheet 1 of 2) Monitoring Point/ Grid Reference: _____SW3 (303856E 148583N)

Parameter	Results (mg/l)				Sampling method[2] (grab, drift etc.)	Normal Analytical Range[2]	Analysis method / technique
	Jan 2008	Jul 2008	Sept 2008	Nov 2008			
pH	7.21	6.93	6.76	7.40	Grab		Meter
Temperature	10.1	15.5	14.7	7.0	Grab		Meter
Electrical conductivity EC	420	527	339	394	Grab		Meter
Ammoniacal nitrogen NH_4-N	0.4	0.8	1.5	<0.2	Grab		Spectrometry
Chemical oxygen demand	26	23	52	25	Grab		Spectrometry
Biochemical oxygen demand	3	--*	5	2	Grab		5day ATU
Dissolved oxygen DO	8.14	1.13	3.16	6.52	Grab		Meter
Calcium Ca	-	-	-	-	-		
Cadmium Cd	-	-	-	-	-		
Chromium Cr	-	-	-	-	-		
Chloride Cl	24	23	22	29	Grab		Kone
Copper Cu	-	-	-	-	-		
Iron Fe	-	-	-	-	-		
Lead Pb	-	-	-	-	-		
Magnesium Mg	-	-	-	-	-		
Manganese Mn	-	-	-	-	-		
Oils Fats Greases	<1	1	<1	<1	Grab		IR
Total Suspended Solids	<10	<10	<10	<10	Grab		Gravimetic

--* BOD not analysed due to laboratory error

Surface Water Quality (Sheet 2 of 2)

Parameter	Results (mg/l)				Sampling method (grab, drift etc.)	Normal Analytical Range	Analysis method / technique
	Jan 2008	Jul 2008	Sept 2008	Nov 2008			
Nickel Ni	-	-	-	-	-		
Potassium K	-	-	-	-	-		
Sodium Na	-	-	-	-	-		
Sulphate SO_4	-	-	-	-	-		
Zinc Zn	-	-	-	-	-		
Total alkalinity (as $CaCO_3$)		-	-	-	-		
Total organic carbon TOC	-	-	-	-	-		
Total oxidised nitrogen TON	-	-	-	-	-		
Nitrite NO_2	-	-	-	-	-		
Nitrate NO_3	-	-	-	-	-		
Faecal coliforms (/100mls)	47	-	3400	10000	Grab		Standard Methods/filtration
Total coliforms (/100mls)	150	-	670000	30000	Grab		Standard Methods/filtration
Phosphate PO_4	-	-	-	-	-		

Table I.4(i) GROUNDWATER QUALITY

(Sheet 1 of 2) Monitoring Point/ Grid Reference: GW1 (304036E 148689N)

Parameter	Results (mg/l)				Sampling method (composite etc.)	Normal Analytical Range	Analysis method / technique
	Nov 2006	August 2007	Jan 2008				
pH	7.46	7.17	7.58		Purge and grab		Meter
Temperature	10.2	11.9	10.9				Meter
Electrical conductivity EC	247	235	243				Meter
Ammoniacal nitrogen NH_4-N	<0.2	-	-				Spectroscopy
Dissolved oxygen DO	-	-	5.14				Meter
Biological Oxygen Demand	<2	<2	<2				5 day ATU
Chemical Oxygen Demand	<15	<15	<15				Spectroscopy
Cadmium Cd	<1	-	-				
Chromium Cr	-	-	-				
Chloride Cl	22	20	26				Kone
Copper Cu	<1	-	-				ICP-MS
Cyanide Cn, total	<0.05	-	-				Spectro
Iron Fe	<2	-	-				ICP-MS
Lead Pb	<1	-	-				ICP-MS
Magnesium Mg	14,400	-	-				ICP-MS
Manganese Mn	80	-	-				ICP-MS
Mercury Hg	<0.05	-	-				CV-AA
Nickel Ni	<1	-	-				ICP-MS
Potassium K	-	-	-				
Sodium Na	-	-	-				

Groundwater Quality (sheet 2 of 2)

Parameter	Results (mg/l)				Sampling method (composite, dipper etc.)	Normal Analytical Range	Analysis method / technique
	Nov 2006	August 2007	Jan 2008				
Phosphate PO_4	-	-	-				
Sulphate SO_4	-	-	-				
Zinc Zn	-	-	-				
Total dissolved solids	-	<10	155				Gravimetric
Total organic carbon TOC	-	-	-				
Total oxidised nitrogen TON	-	-	-				
Arsenic As	-	-	--				
Barium Ba	-	-	-				
Boron B	-	-	-				
Fluoride F	-	-	-				
Phenol	-	-	-				
Phosphorus P	-	-	-				
Selenium Se	-	-	-				
Silver Ag	-	-	-				
Nitrite NO_2	-	-	-				
Nitrate NO_3	-	-	-				
Faecal coliforms (/100mls)	<1	-	-				Filtration
Total coliforms (/100mls)	150	-	-				Filtration
Water level (m OD)			Artesian (Capped)				

Table I.4(i) GROUNDWATER QUALITY
(Sheet 1 of 2) Monitoring Point/ Grid Reference: _____GW2_(303865E 148542N)

Parameter	Results (mg/l)				Sampling method (composite etc.)	Normal Analytical Range	Analysis method / technique
	Nov 2006	August 2007	Jan 2008				
pH	7.98	7.17	7.28				Meter
Temperature	10.8	11.6	12.4				Meter
Electrical conductivity EC	604	696	653				Meter
Ammoniacal nitrogen NH_4-N	<0.2	-	-				Spectroscopy
Dissolved oxygen DO	-	-	11.3				Meter
Biological Oxygen Demand	<2	2	<2				5 day ATU
Chemical Oxygen Demand	<15	16	26				Spectroscopy
Cadmium Cd	<1	-	-				
Chromium Cr	-	-	-				
Chloride Cl	53	39	32				Kone
Copper Cu	<1	-	-				ICP-MS
Cyanide Cn, total	<0.05	-	-				Spectro
Iron Fe	<2	-	-				ICP-MS
Lead Pb	<1	-	-				ICP-MS
Magnesium Mg	16,050	-	-				ICP-MS
Manganese Mn	220	-	-				ICP-MS
Mercury Hg	<0.05	-	-				CV-AA
Nickel Ni	<1	-	-				ICP-MS
Potassium K	-	-	-				
Sodium Na	-	-					

Groundwater Quality (sheet 2 of 2)

Parameter	Results (mg/l)				Sampling method (composite, dipper etc.)	Normal Analytical Range	Analysis method / technique
	Nov 2006	August 2007	Jan 2008				
Phosphate PO_4	-	-	-				
Sulphate SO_4	-	-	-				
Zinc Zn	-	-	-				
Total dissolved solids	-	21	467				Gravimetric
Total organic carbon TOC	-	-	-				
Total oxidised nitrogen TON	-	--	-				
Arsenic As	-	-	-				
Barium Ba	-	-	-				
Boron B	-	-	-				
Fluoride F	-	-	-				
Phenol	-	-	-				
Phosphorus P	-	-	-				
Selenium Se	-	-	-				
Silver Ag	-	-	-				
Nitrite NO_2	-	-	-				
Nitrate NO_3	-	-	-				
Faecal coliforms (/100mls)	<1	-	-				Filtration
Total coliforms (/100mls)	7,600	-	-				Filtration
Water level (m OD)	-	-	-				Dipper

Table I.6(i) Ambient Noise Assessment

Third Octave analysis for noise emissions should be used to determine tonal noises

January 2008	National Grid Reference (5N, 5E)	Sound Pressure Levels $L(A)_{eq}$	$L(A)_{10}$	$L(A)_{90}$
1. SITE BOUNDARY				
Location 1: NS1*	148680N 304153E	56*	53	44
Location 2: NS2	148589N 303882E	55	53	41
Location 3:				
2. NOISE SENSITIVE LOCATIONS				
Location 1:				
Location 2:				
Location 3:				

NOTE: All locations should be identified on accompanying drawings.

*At NS1 noise levels exceeded the daytime noise emission limit of 55dB(A) L_{Aeq} (30 minutes) by 1 dB(A). Exceedence of the limit value at NS1 was due to vehicular noise as it is located near the Coolatore – Ferns roadway (28 vehicles passed by on this roadway during the monitoring period, only two of which were trucks leaving the recycling facility). According to the EPA's ''Environmental Noise Survey Guidance Document, 2003'', which states that while the *''long term mean value of the criterion noise level should not be exceeded, occasional exceedences of 2 dB(A) are acceptable''.*

NS2 shows compliance with the daytime noise emission limit of 55 dB(A) L_{Aeq} (30 minutes).

September 2008	National Grid Reference (5N, 5E)	Sound Pressure Levels $L(A)_{eq}$	$L(A)_{10}$	$L(A)_{90}$
2. SITE BOUNDARY				
Location 1: NS1	148680N 304153E	38	41	33
Location 2: NS2	148589N 303882E	52	51	37
Location 3:				
3. NOISE SENSITIVE LOCATIONS				
Location 1:				
Location 2:				
Location 3:				

NOTE: All locations should be identified on accompanying drawings.

Results from location NS1 and NS2 for September 2008 show compliance with the daytime noise emission limit of 55 dB(A) L_{Aeq} (30 minutes).

I.7 Assessment of Ecological Impacts & Mitigation Measures.

The waste facility is an existing facility with a proposal to extend the recycling building. As the waste facility is not a large scale facility, an ecological assessment has not been undertaken. However, an appropriate assessment has been undertaken as the stream/drainage channel at the northern boundary of the site flows to a tributary of the River Bann. This assessment is attached.

APPROPRIATE ASSESSMENT

FOR THE

COOLATORE WASTE RECYCLING FACILITY

FERNS CO. WEXFORD

(WASTE LICENCE APPLICATION)

Prepared for:

Murray Waste Recycling Ltd.

January 2009

MURRAY WASTE RECYCLING LIMITED

FEHILY TIMONEY & COMPANY

APPROPRIATE ASSESSMENT

FOR THE

COOLATORE WASTE RECYCLING FACILITY

FERNS CO. WEXFORD

(WASTE LICENCE APPLICATION)

Prepared for:

Murray Waste Recycling Ltd.

User is Responsible for Checking the Revision Status of this Document

Rev. Nr.	Description of Changes	Prepared by:	Checked by:	Approved by:	Date
0	Issued	DR	DE	DE	03/02/09

Client: Murray Waste Recycling Ltd.

Keywords: Murray Waste, Appropriate Assessment, Article 6 of the Habitats Directive, Natura 2000 sites.

Abstract: This document comprises the Appropriate Assessment for the Coolatore waste recycling facility at Ferns, Co. Wexford. This Appropriate Assessment forms part of the Waste License Application for the site, which currently operates under a waste permit granted by Wexford County Council (reference WP/08/23). The facility is located approximately 1 km from the River Slaney Valley SAC. The Appropriate Assessment is required under Article 6 (3) and (4) of the Habitats Directive for any project or plan that may give rise to significant effects on a Natura 2000 site. This assessment follows the methodological guidelines set out in the document 'Assessment of plans and projects significantly affecting Natura 2000 sites' (2001).

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APPENDICES

1. BACKGROUND

The requirements for Appropriate Assessments are set out in the E.U. Habitats Directive 92/43/EEC. Sub-articles 6(3) and 6(4) of this Directive state:

3. Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

4. If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.

The Murray Waste Recycling Facility is located just over 1 km from the River Bann, which is designated as part of the River Slaney Valley candidate Special Area of Conservation (cSAC, site code 000781). The granting of a license for the continuation and expansion of the recycling facility may have potential impacts on this Natura 2000 site. Therefore an Appropriate Assessment is required for this project under Article 6(3) and (4) of the Habitats Directive.

2. METHODOLOGY FOR APPROPRIATE ASSESSMENT

This assessment follows the methodological guidance set out in the document 'Assessment of plans and projects significantly affecting Natura 2000 sites, Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC' (2001). This document is referred to as the 'Guidance Document' in this report. These guidelines are read in conjunction with the document 'Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC' (2000). Throughout this Appropriate Assessment, those paragraphs in *italics* refer to specific instructions contained in the Guidance Document.

The assessment requirements of Article 6 are generally dealt with in a stage by stage approach. Each stage determines whether a further stage in the process is required. If, for example, the conclusions at the end of Stage One are that there will be no significant impacts on the Natura 2000 site, there is no requirement to proceed further. It is Best Practice, however, to complete a 'finding of no significant effects' report. The relationship of the 4 stages of this Assessment Guidance is illustrated in the Guidance Document.

The stages proposed by the Guidance Document are:

2.1. Stage 1: Screening

The process which identifies the likely impacts upon a Natura 2000 site of a project or plan, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant.

2.2. Stage 2: Appropriate Assessment

The consideration of the impact on the integrity of the Natura 2000 site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts.

2.3. Stage 3: Assessment of alternative solutions

The process, which examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site.

2.4. Stage 4: Assessment where adverse impacts remain

An assessment of compensatory measures where, in the light of an assessment of Imperative Reasons of Overriding Public Interest (IROPI), it is deemed that the project or plan should proceed.

3. STAGE ONE (SCREENING)

3.1. Brief description of the project

Murray Waste Recycling Ltd (MWR) operates at the site under a waste collection permit issued by Wexford County Council (reference WP/08/23). Under the current waste permit for the site, MWR accepts approximately 21,000 tpa (tonnes per annum). Currently, approximately 5,000 tpa of waste goes to landfill, the remaining waste is recycled at various permitted and licensed facilities. MWR intends to apply for a waste licence to increase waste acceptance to ca. 24,500 tpa resulting in an increase in the disposal of waste to landfill of greater than 5,000 tpa. This will involve the construction of an extension to the existing recycling shed and an increase in available waste handling area (subject to a planning application).

The site accepts non-hazardous commercial & industrial dry recyclable wastes. Waste transfer operations will be carried out on concrete hard-standing areas. The site is surrounded by farmland.

A small stream/drain runs along the northern boundary of the site and discharges to the River Bann. Site surface water is discharged to this stream following treatment through an oil/water interceptor. Results from surface water monitoring of this stream in January 2008 show that activities in Murray Waste Recycling Ltd are not impairing or interfering with the surrounding surface water (FTC, 2008a). Results of groundwater monitoring at the site indicate that levels are generally within the drinking water regulations limits and Dutch List criteria (FTC, 2008b).

3.2. Brief description of the Natura 2000 site

The River Slaney Valley cSAC (000781) comprises the freshwater stretches of the Slaney as far as the Wicklow Mountains; a number of tributaries (the larger of which includes the Bann), and the estuary at Ferrycarrig and Wexford Harbour. The total area of the site is 2,012 ha (http://EUNIS.eea.europa.eu).

The site is a candidate SAC selected for alluvial wet woodlands, a priority habitat on Annex I of the E.U. Habitats Directive, as well as for floating river vegetation, estuaries, tidal mudflats and old oak woodlands, all of which are listed on Annex I of the E.U. Habitats Directive. The site is further selected for the following species listed on Annex II of the same directive - Sea Lamprey, River Lamprey, Brook Lamprey, Freshwater Pearl Mussel, Twaite Shad, Atlantic Salmon and Otter.

The site also contains important numbers of wintering wildfowl including some species listed on Annex I of the EU Birds Directive (i.e. Little Tern). Nationally important numbers of Black-tailed Godwit, Teal, Tufted Duck, Mute Swan, Little Grebe and Black-headed Gull have been recorded.

The presence of wet and broad-leaved woodlands increases the overall habitat diversity and the occurrence of a number of Red Data Book plant and animal species adds further importance to the Slaney River site.

The River Bann (a tributary of the River Slaney) is located just over 1 km west of the development site at its closest point. The River Bann is designated as part of the River Slaney Valley cSAC. A small stream/drain flows along the northern boundary of the recycling facility and discharges into the river Bann downstream of Milltown (near Doran's Bridge). The length of this stream from the site to the discharge point at the River Bann is approximately 1.65 km.

3.3. Assessment Criteria

3.3.1. Description of the elements of the project likely to give rise to impacts on Natura 2000 sites

Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site.

The River Bann (designated as part of the River Slaney Valley cSAC) is located just over 1 km west of the development site at its closest point. A small stream/drain flows along the northern boundary of the recycling facility and discharges into the River Bann downstream of Milltown (near Doran's Bridge). The length of this stream from the site to the discharge point at the River Bann is approximately 1.02 km.

The construction of an extension to the existing recycling shed (and associated hard standing area) will lead to an increase in surface water run-off from the site into this stream. It is also possible that, without proper planning, leachate from the internally stored waste materials could run-off into the stream and consequently into the River Bann.

A regular surface water monitoring scheme is already in place at the site (as required by the waste permit) and this will ensure that any changes in water quality in the stream are quickly identified. Results of recent surface water and ground water monitoring show that activities at the existing recycling centre are not impairing or interfering with the surrounding surface water (FTC, 2008a & 2008b).

3.3.2. Description of the likely impacts of the project on Natura 2000 sites

Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:

Size, scale, land-take and distance from the Natura 2000 site

The proposed development site is located approximately 1 km from the River Slaney Valley cSAC. A stream, which drains the development site flows into the River Bann (part of the cSAC) approximately 1.65 km from the Recycling facility. The total area of the cSAC is 2,012 ha (http://EUNIS.eea.europa.eu). The size of the licensable site is 2.44 ha. There will be no land-take of the cSAC associated with this development.

Resource requirements (water abstraction etc)

The proposed development will have no resource requirements (i.e. water abstraction) from the cSAC. Site water is abstracted from a dedicated groundwater well.

Emission (disposal to land, water or air)

The proposed development (expansion) will lead to an increase in surface water run-off from the site into the adjacent stream (which discharges to the cSAC). As part of the proposed expansion works, all surface run-off from the site will pass through an oil-water interceptor. An appropriately sized leachate holding tank for wash down water from the floor of the recycling shed will be incorporated into the design of the proposed development. The leachate drainage system in the shed will be completely isolated from the surface water drainage network and will be routed to a leachate collection tank.

An appropriately sized fire water retention tank will also be incorporated into the design of the new development, thus ensuring that contaminated water does not enter the stream in the event of a fire incident. These measures will ensure that water quality in the stream adjacent to the site does not deteriorate as a result of the expansion of the recycling facility.

Foul sewerage from site offices is treated on site through a groundwater percolation system.

All roads and parking areas flow to the interceptor thus any spillages can be held back from the stream. Furthermore, the on-site diesel tank is fully bunded to 110% its capacity.

Excavation requirements

There will be no excavation requirements from the cSAC.

Transportation requirements

Waste for recycling will be brought on site by permitted hauliers. The expansion of the waste recycling facility will result in a slight increase in traffic on local access roads. This will have no impact on the cSAC.

Duration of construction, operation, decommissioning

The construction of the extension will take less than 6 months. Duration of operation will be subject to licence.

3.3.3. Description of the likely changes to the site

Describe any likely changes to the site arising as a result of:

- *reduction of habitat area:*
- *disturbance to key species;*
- *habitat or species fragmentation;*
- *reduction in species density;*
- *changes in key indicators of conservation value (water quality etc)*

It is not likely that there will be any changes to the River Slaney Valley cSAC as a result of the proposed development.

Key habitats present in the cSAC are alluvial wet woodlands, estuaries, tidal mudflats, old oak woodlands and their associated floral species. There will be no land-take of the cSAC as a result of the proposed expansion, therefore there will be no reduction or fragmentation of habitats in the cSAC. The River Bann at the stream discharge point (and immediately downstream of it) is surrounded by agricultural grassland and bank-side vegetation is a narrow band of scrub and treeline. No key habitats are located in the vicinity of the stream discharge point.

The key fauna species for which the cSAC has been designated are aquatic species, i.e. Sea Lamprey, River Lamprey, Brook Lamprey, Freshwater Pearl Mussel, Twaite Shad, Atlantic Salmon and Otter. Any reduction in water quality in the River Bann (part of the cSAC) as a result of contaminated run-off from the site could potentially lead to a reduction in species density here. It is not known whether any key species occur in the vicinity of the discharge point. The measures in place to prevent contaminated run-off from the site entering the stream (i.e. oil interceptors, leachate tank) as well as the small size of the stream and distance of the site from the River Bann (1.6 km along the stream) will ensure that no reduction in water quality in the cSAC will occur as a result of the proposed expansion of the recycling facility. Therefore, there will be no changes in water quality or species density in the cSAC as a result of the proposed expansion works.

Key avian species for which the cSAC has been designated occur mainly on estuarine parts of the site and include Little Tern, Black-tailed Godwit, Teal, Tufted Duck, Mute Swan, Little Grebe and Black-headed Gull. There will be no impact on these species as a result of the proposed expansion works as the estuarine habitat is located over 30 km from the stream discharge point.

3.3.4. The likely impacts on the Natura 2000 site as a whole

Describe any likely impacts on the Natura 2000 site as a whole in terms of:

- *interference with the key relationships that define the structure of the site;*
- *interference with key relationships that define the function of the site.*

It is not considered likely that there will be any significant impacts on the key relationships that define the structure or function of the site.

The main risk is a reduction in water quality in the River Bann (designated as part of the River Slaney Valley cSAC) as a result of contaminated run-off from the site. The measures in place to prevent contaminated run-off from the site entering the stream (*i.e.* oil interceptors, leachate tank) as well as the small size of the stream and distance of the development site from the River Bann (1.6 km) would indicate that there will be no reduction in water quality in the cSAC as a result of the proposed expansion of the recycling facility.

Furthermore, results from recent (January & February 2008) surface and ground water monitoring of the stream adjacent to the existing facility show that current activities in Murray Waste Recycling Ltd are not significantly impairing or interfering with the surrounding surface water (FTC, 2008a, 2008b).

3.3.5. Indicators of significance of these impacts

Provide indicators of significance as a result of the identification of effects set out above in terms of:

- *loss*
- *fragmentation*
- *disruption*
- *disturbance;*
- *change to key elements of the site (e.g. water quality etc.)*

Potential Impact	Significance indicator
Decline in water quality	Change in the Q-biotic index level in the stream adjacent to the site and/or change in surface and ground water parameters – as indicated from on-going monitoring already in place at the site. River Bann water quality data held by the EPA
Disturbance to fisheries	Decline in abundance of salmonids (reduction in catches, scientific monitoring) in the River Bann

3.3.6. The likely significance of the potential impacts

Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts are not known.

It is not considered likely that there will be any impacts on the River Slaney Valley cSAC as a result of the proposed development. Therefore an Appropriate Assessment (Stages 2-4) is not required for this Natura 2000 site. A finding of no significance report has been completed for this site. This is available in Appendix 1.

4. REFERENCES

Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Commission Directorate-General, Oxford, 2001.

FTC, 2008a. Surface water monitoring report, Murray Waste Recycling Ltd., Cooltore, Ferns, Co. Wexford. Waste Permit no: WP/07/06. Fehily Timoney & Company, January 2008.

FTC, 2008b. Surface water and groundwater monitoring report, Murray Waste Recycling Ltd., Cooltore, Ferns, Co. Wexford. Waste Permit no: WP/07/06. Fehily Timoney & Company, January 2008.

Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. European Commission. 2000.

APPENDIX 1

Finding of no significant effects report,

River Slaney Valley cSAC

Finding of no significant effects report	
Name and location of the Natura 2000 site	River Slaney Valley candidate Special Area of Conservation (cSAC, 000781). The cSAC is located approximately 1 km from the waste recycling facility.
Description of the project or plan	Murray Waste Recycling Ltd (MWR) operates at the site under a waste collection permit issued by Wexford County Council (reference WP/08/23). The site accepts non-hazardous commercial & industrial dry recyclable wastes. MWR intends to apply for a waste license to intensify waste acceptance from 21,000 tpa to ca. 24,500 tpa. This will involve the construction of an extension to the existing recycling shed (subject to planning application).
Is the Project or Plan directly connected with or necessary to the management of the site (provide details)?	No
Are there other projects or plans that together with the project of plan being assessed could affect the site (provide details)?	No
The assessment of significant effects	
Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site	A small stream/drain flows along the northern boundary of the recycling facility and discharges into the River Bann (designated as part of the cSAC). The construction of an extension to the existing recycling shed (and associated hard standing area) will lead to an increase in surface water run-off from the site into this stream. It is also possible that, without proper planning and on-site mitigation measures, leachate from the stored waste materials could discharge into the stream and consequently into the River Bann.
Explain why these effects are not considered significant	The measures in place to prevent contaminated run-off from the site entering the stream (i.e. oil interceptors, leachate tank), as well as the small size and distance of the site from the River Bann (1.6 km along the stream) would indicate that there will be no reduction in water quality in the cSAC as a result of the proposed expansion of the recycling facility.

Name of Agency or body consulted	Summary of Response
N/A	N/A

Data collected to carry out the assessment			
Who carried out the assessment	*Sources of Data*	*Level of assessment completed*	*Where can the full results of the assessment be accessed and viewed*
Fehily Timoney and Company	Field studies, existing records, www.NPWS.ie, Previous environmental monitoring reports	Waste License application report, Environmental monitoring	Environmental Protection Agency (EPA) website www.EPA.ie

Overall conclusions

It is not considered likely that there will be any impacts on the River Slaney Valley cSAC. Therefore an Appropriate Assessment is not required for this Natura 2000 site.

ATTACHMENT J ACCIDENT PREVENTION AND EMERGENCY RESPONSE

The procedures for accident prevention and Emergency Preparedness and Response are appended overleaf.

Emergency Response Procedure

For

Murray Waste Recycling Ltd.,
Coolatore,
Ferns,
Enniscorthy,
Co. Wexford.

Procedure Number: HS-02

February 2009

EMERGENCY RESPONSE PROCEDURE

For

Murray Waste Recycling Ltd.,
Coolatore,
Ferns,
Enniscorthy,
Co. Wexford.

Procedure Number: HS-02

REVISION CONTROL TABLE

User is Responsible for Checking the Revision Status of This Document

Rev. Nr.	Prepared by:	Checked by:	Approved by:	Date:
2	DWD			03-02-09

TABLE OF CONTENTS

LIST OF APPENDICES

1. SCOPE / OBJECTIVE

1.1 Scope

Wexford County Council granted a waste permit No: WP/08/23 to Murray Waste Recycling for their facility at Coolatore, Ferns, Enniscorthy, Co. Wexford. Condition 9.1 of permit WP/05/03 required the preparation of an Emergency Response Procedure (ERP). Condition 2.6 of the current permit WP/08/23 requires that the ERP remains current & the Procedures outlined in same shall continue as specified. This Emergency Response Procedure will apply to Murray Waste Recycling Ltd and describes the actions to be taken in the event of a site emergency.

1.2 Objectives

The purpose of this procedure is to propose appropriate actions to ensure health and safety risks to employees and visitors, and damage to property and the environment is minimised in the event of an emergency.

2. RESPONSIBILITY

2.1 Execution

This document describes the ERP for Murray Waste Recycling ltd. The facility manager will maintain the ERP at the facility. He will be responsible for the implementation of this procedure.

All employees of the site will be responsible for following this procedure.

2.2 Changes

Changes will not be made to this procedure without written approval from Wexford County Council.

A revision history is given in Appendix 1 of this document.

3. DEFINITION

3.1 Emergency

An emergency is defined as an unforeseen or sudden occurrence demanding immediate action.

Condition 2.6 of the permit states that this procedure HS-02 (as submitted with Permit Application WP 05/03) is current & the Procedures outlined in same shall continue as specified this includes the following:-

- In the event of a complete breakdown of equipment or any other occurrence which results in the closure of the transfer station building, any waste arriving at or already collected at the facility shall be transferred directly to appropriate landfill sites or any other appropriate facility until such time as the transfer station building is returned to a fully operational status. Such breakdown event will be treated as an emergency and rectified as soon as possible.

- All significant spillages occurring at the facility shall be treated as an emergency and immediately cleaned up and dealt with so as to alleviate their effects.

- No waste shall be burnt within the boundaries of the facility. A fire at the facility shall be treated as an emergency and immediate action shall be taken to extinguish it and notify the appropriate authorities.

4. CIRCULATION LIST

The ERP is distributed to those named below and is available for reference from the facility manager whose copy will be maintained at the site office. In order to maintain control of the procedure within the revision process the ERP should not be copied without permission from the facility manager. Persons using this document are responsible for checking that they are using the most up to date version.

Name	Position
Ms. Siobhan Donegan	Executive Engineer, Environment Enforcement, Wexford County Council.
Mr. Michael Murray	Managing Director / Facility Manager
Ms. Daphne Walshe-Deacon	Deputy Facility Manager

5. REFERENCES

The following forms are referenced in this procedure

Emergency Report Form (Appendix 3)
Site Incident Log (Appendix 4)

6. PROCEDURES

6.1 Emergency Response Procedures

Emergencies: An emergency on the site can be:

- Activation of site office fire alarm
- Discovery of a fire within the site boundary
- Explosions
- Flooding
- Uncontained spillage/leakage
- Major injury or dangerous occurrence
- Unable to accept waste

Emergency Response: In the event of an emergency all employees should react promptly and calmly, following the guidelines outlined in this document.

6.2 Activation of Office Fire Alarm

6.2.1 Alarms

The site's office will be fitted with a fire detector system. This alarm sounds if smoke is detected in the site office.

6.2.2 Activation

On hearing the alarm all personnel must evacuate the offices, closing all windows and doors behind them, if practical.

All personnel should proceed to the assembly point where employees and site visitors will be accounted for (the site visitors book should be checked if accessible).

The emergency services should be notified immediately by dialling 999 or 112 if it is suspected a fire has broken out or if the fire alarm sounds. Personnel should only tackle a fire if safe to do so and if they have been trained in the use of a fire extinguisher.

If the alarm is legitimate, the facility manager should be notified as soon as is practicable.

6.3 Procedure for Dealing with Burning Loads

Wexford County Council should be notified of all fires and explosions on site.

Entering Site

If on inspection a load is found to be hot or burning it should be refused admission to the site. Details of the load (name, registration number, type of load, site of origin) should be recorded in the appropriate register retained in the site office.

On Site

If the load has entered the site, prior to disposition, it should be directed to the Quarantine area, away from the recycling shed to a location where the material can be extinguished.

Deposited

If a load has been deposited it should be spread in a controlled manner and covered with inert material. This should be carried out by working from the edges of the load inwards towards the centre. Machinery must never be driven through the burning material.

Refer to 6.4 for dealing with fires.

6.4 Procedure for Dealing with Fires on Site

Wexford County Council should be notified of all fires and explosions on site.

6.4.1 Fires in the Waste Body

Waste Fires

The facility manager or deputy should be informed immediately. A fire on the surface of the waste, or within the waste, should, if it is safe to do so, be tackled as follows:

Using available mobile plant, (Bucket or blade), the fire should be smothered with inert material working from the outside edge of the fire towards the centre. Under no circumstances should a machine be driven into the centre of the fire, as this will endanger both driver and machine.

If the fire is not completely extinguished and continues to burn below the surface the material should be isolated. Dig out and spread on top of inert material, after which it should be smothered again.

In certain circumstances it may be necessary to call the emergency services.

A careful watch should be kept to ensure that all burning material has been fully and permanently extinguished. Access to the immediate waste area should be restricted. Under no circumstances should further waste be deposited until authorised by the facility manager.

Wexford County Council should be informed of the incident.

6.4.2 Other fires on site

Minor Fires

Fires on other areas of the site, including buildings or machinery, should be dealt with according to the relative scale of the fire. On-site personnel should use on-site fire suppressants to tackle minor fires.

Major Fires

The emergency services should be alerted. Personnel should not attempt to tackle major fires in site buildings or equipment.

Wexford County Council should be informed of the incident.

6.5 Procedure for Dealing with Explosions on Site

Wexford County Council should be notified of all fires and explosions on site.

Ensure all personnel and site visitors are accounted for.

Check site for signs of fires resulting from the explosion. If identified follow the procedures 1 above.

The facility manager or his appointed deputy should be called and if the explosion results in personal injury the emergency services in his absence. In the event of a fire refer to section 1 above. In addition, Wexford County Council should be notified as soon as is practicable.

Access to the immediate area should be restricted. Under no circumstances should further waste be deposited until authorised by the facility manager.

Every effort should be made after above to identify the cause and source of the explosion.

Wexford County Council should be informed of the incident.

6.6 Procedure for Dealing with Flooding

Reporting

Immediately report the occurrence to the facility manager or in his absence, his appointed deputy.

Every effort must be made to prevent the flood:

- Causing pollution to the nearby watercourses
- Leaving the site's boundary and entering neighbouring land

Containment

Barriers to contain the flood should be constructed using machinery and inert cohesive material. Care should be taken to ensure any contaminated water is contained. Any escape of such water into surrounding ground or surface waters should be prevented.

If efforts to contain the flood fail, the fire brigade should be called for assistance.

Wexford County Council

As soon as is practicable after the emergency Wexford County Council should be notified.

The incident will be reported on the Site's Incident Log and Emergency Report Form.

6.7 Procedure for Dealing with Uncontained Spillage

Immediately report the occurrence to the facility manager or in his absence, his appointed deputy.

Priorities in this incidence remain the same as those listed in Section 6.5 Step 2 (Dealing with floods). The spill should be contained and the material recovered (if possible) by the most appropriate means available (plant, inert material etc.).

Access to the immediate area should be restricted, if necessary.

Wexford County Council

Wexford County Council should be informed of the incident.

Having carried out all practicable actions Wexford County Council should be consulted to agree any further action that may be required.

The incident will be reported on the Site's Incident Log and Emergency Report Form.

6.8 Procedure for Dealing with a Notifiable Injury

Immediately report the incident to the facility manager or in his absence, his appointed deputy. If required, the emergency services should also be notified as soon as is practicable.

The immediate area should be kept clear to provide access for the emergency services.

Record all injuries in the accident book and note as much information about the accident as possible.

If practicable the area in which the incident took place should remain undisturbed until any investigations into the circumstances are complete.

The incident will be reported on the Site's Incident Log and Emergency Report Form.

6.9 Procedure for dealing with effects on the quantity and/or quality of the water supply at local wells.

If routine risk assessments reveal an impact on local water supplies the facility manager should be immediately informed or in his absence, his appointed deputy. The users of the water supplies should be contacted, though the procedures laid down in the communication procedure COM-01. The users should be informed of the quality impacts and the steps they should take.

Wexford County Council should be informed as soon as practical. Having carried out all practicable actions Wexford County Council should be consulted to agree any further action that may be required.

The incident will be reported to the Site's Incident Log and Emergency Report Form.

7. RECORDS

The following records will be kept

- Emergency Report Form (Appendix 3)
- Site Incident Log (Appendix 4)

8. REVIEW

The facility manager will review the cause of the emergency and will put appropriate measures in place to prevent the reoccurrence of such an emergency.

APPENDIX 1

REVISION HISTORY

REVISION HISTORY

Murray Waste Recycling Ltd.,
Coolatore, Ferns,
Enniscorthy, Co. Wexford.

Date	Section	Rev.	Amendment	By
04/10/06	All Sections	0	Initial Draft	DWD
20/11/06	All Sections	1	All Sections	DWD
03/02/09	All Sections	2	All Sections	DWD

APPENDIX 2

EMERGENCY CONTACT NUMBERS

Emergency Contact Numbers

Fire Brigade Ambulance Garda	999 or 112
Garda (Ferns)	053 93 66104
Garda (Enniscorthy)	053 92 33534
E.S.B. (24 hour line)	1850 372 999
Southern Regional Fisheries Board	052 23624
Wexford County Council	053 91 65000
Michael Murray **(Managing Director/Facility Manager)**	087 6746978
Daphne Walshe-Deacon **(Deputy Facility Manager)**	087 9887239

APPENDIX 3

EMERGENCY REPORT FORM

EMERGENCY REPORT FORM

Form No	Revision	Date	Prepared By	Approved By
001	0	20/11/06	DWD	

Time	Incident	Reported By	Action	Initial

APPENDIX 4

INCIDENT LOG

INCIDENT LOG

Form No	Revision	Date	Prepared By	Approved By
002	0	20/11/06	DWD	

Time	Incident	Reported By	Action	Initial

APPENDIX 5

FIRE RISK ASSESSMENT

ATTACHMENT K RESTORATION AND AFTER-CARE PLAN

Cessation of Recycling and Recovery Activities on site

The operation of the facility will be ongoing with an open ended lifespan. If the decommissioning of part or all of the Murray Waste Recycling Ltd facility should be required in the future, the following programme will be put in place. The decommissioning of the site will be carried out in a phased operation as follows:

1. The site will notify all waste contractors delivering to the site and will stop accepting materials at the site after a specified date.

2. All remaining materials which have been deposited at the site prior to this date will be treated as per the current operations i.e. waste will be disposed of to recycling/recovery/landfill facilities.

3. All plant and equipment on site will be disassembled and decommissioned and materials sent for reuse, recovery or disposal, as appropriate. No plant will be left derelict on site post closure.

4. After all material has been removed all site floors and process buildings will be power swept and washed to clear all debris and dust. All interceptors will be cleaned.

5. A programme of environmental monitoring for all potential emissions including storm water, foul water and dust will be conducted after the decommissioning process in order to ensure that emissions from the facility have ceased. The monitoring programme will consist of monitoring rounds which will be agreed with the EPA and carried out within six months of decommissioning of the facility.

6. A site audit will be carried out to ensure that the local environment has not been adversely affected by the closure of the facility and that no residual material remains on the site.

7. After the site audit and monitoring has been completed, the site may be used for other purposes, in line with proper planning and development of the site.

Aftercare Management

It is not envisaged that the activities at the Murray Waste Recycling Ltd Facility will have an adverse affect on the site, which will result in detailed aftercare management of the site being required. When operations have ceased, and assuming confirmation from the monitoring programme that emissions have ceased, it is expected that there will be no requirement for long term aftercare management at the site. If necessary a programme of post-closure environmental monitoring at the site will be agreed with the Environmental Protection Agency (EPA).

ATTACHMENT L STATUTORY REQUIREMENTS

Attachment L. 1 Section 40(4) WMA

Indicate how all the requirements of Section 40(4)[(a) to (i)] of the Waste Management Acts 1996 to 2003 will be met.

Attachment L.1 should contain the documentation requested above, along any relevant additional information.

The requirements of Section 40(4)[(a) to (i)] of the Waste Management Acts 1996 to 2003 are set out below in italics with a commentary on how Murray Waste Recycling Ltd will meet same

The Agency shall not grant a waste licence unless it is satisfied that

(a) any emissions from the recovery or disposal activity in question ("the activity concerned") will not result in the contravention of any relevant standard, including any standard for an environmental medium, or any relevant emission limit value, prescribed under any other enactment,

MWR operate under waste permit WP/08/23 at the existing facility. MWR conduct environmental monitoring at the facility in accordance with this permit and in accordance with EPA guidance on sampling at waste facilities. MWR are aware of its environmental and social responsibility for maintaining the facility, plant and waste handling procedures in accordance with the permit and conditions set by the Agency or other statutory body.

(b) the activity concerned, carried on in accordance with such conditions as may be attached to the licence, will not cause environmental pollution,

MWR will comply in full with conditions imposed by the Agency and in accordance with conditions set in the waste licence.

(bb) if the activity concerned involves the landfill of waste, the activity, carried on in accordance with such conditions as may be attached to the licence, will comply with Council Directive 1999/31/EC on the landfill of waste,

The activity does not involve the landfilling of waste.

(c) the best available technology not entailing excessive costs will be used to prevent or eliminate or, where that is not practicable, to limit, abate or reduce an emission from the activity concerned,

MWR will adopt Best Available Techniques (BAT) in accordance with the waste licence and BAT Guidance Notes for the Waste Sector: Waste Transfer Activities (Draft EPA Document February 2008), by either eliminating, or limit, abate or reduce an emission where possible.

(cc) the activity concerned is consistent with the objectives of the relevant waste management plan or the hazardous waste management plan, as the case may be, and will not prejudice measures taken or to be taken by the relevant local authority or authorities for the purpose of the implementation of any such plan,",

MWR Ltd. is an active facility and aware of no prejudice in relation to the waste management or hazardous waste management plans for the region.

(d) if the applicant is not a local authority, the corporation of a borough that is not a county borough, or the council of an urban district, subject to subsection (8), he or she is a fit and proper person to hold a waste licence,

Murray Waste Recycling Ltd. (Managing Director Mr. Michael Murray) is a fit and proper person to hold a waste licence.

(e) the applicant has complied with any requirements under section 53

Murray Waste Recycling Ltd. maintains its accounts in accordance with the requirements of the State. Murray Waste Recycling knows of no financial discrepancies associated with its business. Murray Waste Recycling Ltd. will allow the EPA to contact its bank to confirm its credit rating and financial standing.

Applicants should also describe how the proposed facility will comply with the requirements of BAT. In particular reference should be made to the considerations referred to in Annex IV of Council Directive 96/61/EC concerning integrated pollution prevention and control.

Murray Waste Recycling Ltd. will conduct its business in accordance with the Draft BAT Guidance Note on Best Available Techniques for the Waste Sector: Transfer Activities.

In accordance with IPPC Directive 96/61/EC Murray Waste Recycling places emphasis on pollution prevention techniques rather than end of pipe treatment. In particular MWR Ltd. will take account of the costs and advantages of measures and to the principles of precaution and prevention by;

- the use of low-waste technology;
- the use of less hazardous substances;
- the furthering of recovery and recycling of substances generated and used in the process and of waste, where appropriate;
- comparable processes, facilities or methods of operation which have been tried with success on an industrial scale;
- technological advances and changes in scientific knowledge and understanding;
- the nature, effects and volume of the emissions concerned;
- the commissioning dates for new or existing installations;
- the length of time needed to introduce the best available technique;
- the consumption and nature of raw materials (including water) used in the process and their energy efficiency;
- the need to prevent or reduce to a minimum the overall impact of the emissions on the environment and the risks to it;
- the need to prevent accidents and to minimize the consequences for the environment;
- the information published by the Commission pursuant to Article 16 (2) or by international organisations.

MWR Ltd. will, in accordance with BAT eliminate or reduce emissions from processes, reducing or eliminating environmental pollution by proper design, effective management, and appropriate processes, technologies and facility operations.

Currently, in accordance with the conditions set in the waste permit (WP/08/23), and the waste acceptance procedures and EMS for the facility, MWR operate the facility to reduce potential emissions to air, odours, surface water, groundwater and noise. Energy efficiency is considered at all aspects of the management of the facility. This is undertaken by ensuring equipment is serviced and maintained regularly, that when equipment is not in use, it is switched off and by ensuring that on site vehicle movements are kept to a minimum and when vehicles are not in use that the engines are switched off.

MWR Ltd. will ensure that the proposed extension to the recycling building is carried out in such a manner as to ensure no adverse environmental impact occurs and in its construction, materials are selected in accordance with current best practice.

MWR ensure through its EMS and management of the facility, that construction of the site is undertaken and maintained to a high standard including enclosed waste handling and storage areas for waste which may have the potential to give rise to odours or dust being conducted indoors. Where waste activities are conducted outdoors appropriate dust suppression techniques such as dampening of C&D will be conducted. MWR ensure that all site roads are maintained and cleaned on a regular basis.

Odour control is managed within the recycling building by the handling of potentially odourous waste indoors. In addition an odour abatement system is utilised in the recycling building, which utilises odour neutralising spray.

Surface water is handled in such a way so as not to cause pollution or damage to surface water systems. An oil/water interceptor is used at the site and a programme for it maintenance is implemented. Roads and hardstanding areas (when complete) will be of impervious concrete with runoff from these areas going to the oil/water interceptor. Wash down water from the floor of the recycling building will be collected within the recycling building and sent to a leachate holding tank pending collection and further treatment at an off site waste water treatment plant, to be agreed with the local authority and the Agency.

Surface water monitoring is conducted upgradient and down gradient of the stream and at the point where the surface water from the oi/water interceptor enters the stream. Regular weekly visual inspections are conducted of the water quality in the stream.

Groundwater is also monitored upgradient and down gradient of the site. Fuel oil is stored in a fully bunded area, located to the rear of the recycling building. The bunded area is constructed to 110% capacity of the largest tank in the bunded area. All valves and pipework are also contained within the bund. It is intended to carry out a certified integrity test in the near future. Details of the findings of the integrity test will be forward to the Agency.

The management of the facility is undertaken, taking account of the neighbouring properties. Since the operations commenced at the facility, no complaints have been received from the general public or neighbours. MWR Ltd. ensure that all plant is maintained and serviced in accordance with manufacturers specifications, that noisy plant is not operated for long periods or at inappropriate times. Plant emitting noise will be located at the rear of the facility and operated for short periods. The majority of waste activities will be conducted indoors. MWR Ltd. will ensure that equipment used on site will confirm to relevant standards.

Internal site access roads and concrete hardstanding areas will be maintained to reduce the risk of mud generation and dust build up. Any dirt on the internal access road will be swept up immediately. MWR are also conscious of any dirt which may inadvertently be carried out onto the main road. If this occurs, appropriate action will be taken to remove any dirt or litter from outside the main entrance to the site.

A contract for vermin control is undertaken at the site by Rentokil. MWR conduct inspections of the site for wind blow litter on a daily basis. Waste acceptance procedures ensure that waste is covered when entering, and residual waste covered when leaving the site. All biodegradable waste and residual waste is removed from the site within 48 hours.

Attachment L.2 Fit and Proper Person

Mr. Michael Murray was prosecuted under the Waste Management Acts 1996 -2003 for activities relating to the holding of waste at the family home in Tomsallagh, Ferns, Co. Wexford in 2004. This matter was resolved with Wexford County Council who issued the Section 55 notice against Mr. Murray. This case is now closed.

In addition Wexford County Council issued a Section 55 notice against Murray Waste Recycling in October 2008 due to ambiguities relating to the waste permit issued in 2007. This matter has been rectified with the issuing of waste permit WP/08/23. Murray Waste Recycling Ltd. has requested the lifting of this notice and this matter is currently with Wexford County Council.