

## TABLE OF CONTENTS

### APPLICATION FORM

Introduction .....	3
Checklist .....	4
Procedures .....	10
Section A: Non-Technical Summary.....	12
Section B: General .....	13
Section C: Management of the Facility .....	19
Section D: Infrastructure & Operation.....	20
Section E: Emissions .....	25
Section F: Control & Monitoring.....	27
Section G: Resources Use & Energy Efficiency .....	30
Section H: Materials Handling .....	31
Section I: Existing Environment & Impact of the Facility .....	34
Section J: Accident Prevention & Emergency Response.....	36
Section K: Remediation, Decommissioning, Restoration and Aftercare.....	37
Section L: Statutory Requirements.....	37
Section M: Declaration .....	39

### ATTACHMENT A

*For inspection purposes only  
Consent is given by copyright owner required for any other use.*

<b>Attachment A.1: Non-Technical Summary .....</b>	<b>A1</b>
A.1.1 Nature of Facility .....	A1
A.1.2 Developer Profile.....	A2
A.1.3 Classes of Activity .....	A4
A.1.4 Quantity and Nature of Waste .....	A6
A.1.5 Raw and Ancillary Materials .....	A6
A.1.6 Site Infrastructure and Operations.....	A7
A.1.7 Section 40(4) of the Waste Management Act .....	A13
A.1.8 Nature of Emissions from the Facility .....	A16
A.1.9 Impacts of Emissions from the Facility .....	A19
A.1.10 Monitoring and Sampling.....	A21
A.1.11 Waste Arisings .....	A22
A.1.12 Accident Prevention and Emergency Response.....	A23
A.1.13 Closure, Restoration and Aftercare .....	A24
A.1.14 Definitions and Abbreviations .....	A25

**ATTACHMENT B**

<b>Attachment B.1: Company Details .....</b>	<b>B1</b>
B.1.1 Branch Registration and Certificate of Incorporation .....	B1
B.1.2 Registration Details .....	B1
B.1.3 Company Directors .....	B1
B.1.4 Site Ownership.....	B1
B.1.5 Company Details Modifications .....	B2
<b>Attachment B.2: Site Plan, Location and Services .....</b>	<b>B3</b>
B.2.1 Site Plan, Location and Services Maps .....	B3
B.2.2 Site Plan, Location and Services Modifications .....	B3
<b>Attachment B.3: Planning Permission and Waste Licence .....</b>	<b>B5</b>
B.3.1 Permissions and Licences.....	B5
B.3.2 Permissions and Licences Modifications .....	B5
<b>Attachment B.6: Site Notice.....</b>	<b>B6</b>
<b>Attachment B.7: Type of Activity .....</b>	<b>B7</b>
B.7.1 Principal Activity .....	B7
B.7.2 Other Relevant Activities .....	B7
B.7.3 Activity Modifications .....	B8
<b>Attachment B.8: SEVESO II Directive.....</b>	<b>B10</b>
B.8.1 SEVESO opinion and correspondence.....	B10
B.8.2 Permissions and Licences Modifications .....	B10

**ATTACHMENT C**

<b>Attachment C.1: Site Management.....</b>	<b>C1</b>
C.1.1 Management structure .....	C1
C.1.2 Responsibilities, qualifications and training .....	C3
C.1.3 Management Structure Modifications .....	C10
<b>Attachment C.2: Environmental Management Systems .....</b>	<b>C11</b>
C.2.1 Indaver's quality, environmental and health and safety management policies..	C11
C.2.2 Environmental Management Modifications .....	C12
<b>Attachment C.3: Hours of Operation .....</b>	<b>C13</b>
C.3.1: Hours of Operation.....	C13
C.3.2 Hours of Operation Modifications .....	C13

**ATTACHMENT D**

<b>Attachment D.1: Infrastructure.....</b>	<b>D1</b>
D.1.1 General Description .....	D1
D.1.a Site security arrangements.....	D2

D.1.b-c	Site roads and hardstanding areas.....	D2
D.1.d	Plant (weighbridge) .....	D2
D.1.e	Wheel Wash.....	D2
D.1.f	Laboratory facilities .....	D3
D.1.g	Fuel storage .....	D3
D.1.h-i	Waste Quarantine and Inspection .....	D3
D.1.j	Traffic control .....	D3
D.1.k	Sewerage and Surface Water Drainage .....	D4
D.1.l	All Other Services .....	D8
D.1.m	Plant Sheds, Garages and Compounds .....	D11
D.1.n	Site Accommodation .....	D11
D.1.o	Fire control system.....	D12
D.1.p	Civic Amenity Sites .....	D12
D.1.q	Any other waste infrastructure.....	D13
D.1.r	Composting infrastructure .....	D13
D.1.s	Construction and demolition waste infrastructure .....	D13
D.1.t	Incineration infrastructure .....	D13
D.1.u	Any Other Infrastructure .....	D15
D.1.v	Infrastructure Modifications .....	D16
<b>Attachment D.2:</b>	<b>Description of Processes .....</b>	<b>D18</b>
D.2.1	Overview.....	D18
D.2.2	Waste acceptance and handling .....	D20
D.2.3	Moving Grate Furnace.....	D23
D.2.4	Boiler.....	D25
D.2.5	Energy Recovery and Water/Steam Circuit .....	D26
D.2.6	Flue Gas Treatment .....	D28
D.2.7	Residues Handling .....	D31
D.2.8	Utilities .....	D33
D.2.9	Calibration and maintenance system.....	D34
D.2.10	Modifications to the Process Description.....	D36

## ATTACHMENT E

<b>Attachment E.1:</b>	<b>Emissions to Atmosphere .....</b>	<b>E1</b>
E.1.1	Point Source Emissions .....	E1
E.1.2	Fugitive Emissions .....	E1
E.1.3	Modifications to Air Emissions.....	E3
<b>Attachment E.2:</b>	<b>Emissions to Surface Waters.....</b>	<b>E4</b>

E.2.1	Process Water .....	E4
E.2.2	Stormwater Drainage .....	E4
E.2.3	Modifications to Surface Water Emissions.....	E5
<b>Attachment E.3:</b>	<b>Emissions to sewer.....</b>	<b>E6</b>
E.3.1	Modifications to Sewer Emissions .....	E6
<b>Attachment E.4:</b>	<b>Emissions to Groundwater.....</b>	<b>E7</b>
E.4.1	Area Source Emissions .....	E7
E.4.2	Fugitive Emissions .....	E8
E.4.3	Modifications to Groundwater Emissions.....	E8
<b>Attachment E.5:</b>	<b>Noise emissions .....</b>	<b>E9</b>
E.5.1	Point Source Emissions .....	E9
E.5.2	Fugitive Emissions .....	E9
E.5.3	Vibration.....	E10
E.5.4	Modifications to Noise Emissions .....	E10
<b>Attachment E.6:</b>	<b>Other Environmental Nuisances .....</b>	<b>E11</b>
E.6.1	Vermin Control .....	E11
E.6.2	Dust Control .....	E11
E.6.3	Litter.....	E11
E.6.4	Traffic.....	E11
E.6.5	Fire Control .....	E12
E.6.6	Modifications to Other Nuisances .....	E12

## ATTACHMENT F

<b>Attachment F.1:</b>	<b>Abatement Systems .....</b>	<b>F1</b>
F.1.1	Air Emissions .....	F1
F.1.2	Effluent Emissions.....	F3
F.1.3	Abatement Systems Modifications .....	F5
<b>Attachment F.2:</b>	<b>Monitoring &amp; Sampling Air .....</b>	<b>F6</b>
F.2.1	Point Source Emissions Monitoring .....	F6
F.2.2	Ambient Monitoring .....	F7
F.2.3	Air Monitoring and Sampling Modifications.....	F8
<b>Attachment F.3:</b>	<b>Monitoring &amp; Sampling Surface Water .....</b>	<b>F9</b>
F.3.1	Point Source Emissions Monitoring .....	F9
F.3.2	Surface Water Monitoring and Sampling Modifications.....	F9
<b>Attachment F.5:</b>	<b>Monitoring &amp; Sampling Ground Water.....</b>	<b>F10</b>
F.5.1	Point Source Emissions Monitoring .....	F10
F.5.2	Ambient Monitoring .....	F10

F.5.3 Groundwater Monitoring and Sampling Modifications ..... F11

**Attachment F.6: Monitoring & Sampling Noise..... F12**

F.6.1 Point Source Emissions Monitoring ..... F12

F.6.2 Ambient Monitoring ..... F12

F.6.3 Noise Monitoring and Sampling Modifications ..... F12

**Attachment F.7: Monitoring & Sampling Meteorological Data..... F13**

F.7.1 Meteorological Monitoring Station ..... F13

F.7.2 Meteorological Monitoring and Sampling Modifications ..... F13

**ATTACHMENT G**

**Attachment G.1: Raw Materials .....** **G1**

G.1.1 Raw Material Use ..... G1

G.1.2 Modifications to Raw Materials ..... G4

**Attachment G.2: Energy Efficiency .....** **G5**

G.2.1 Energy Efficiency ..... G5

G.2.2 Modifications to Energy Efficiency ..... G9

**ATTACHMENT H**

**Attachment H.1: Residual Waste..... H1**

H.1.1 Definitions ..... H1

H.1.2 North East Region Waste Management Plan ..... H1

H.1.3 Residual Waste Modifications ..... H2

**Attachment H.2: Waste Acceptance..... H3**

H.2.1 Waste Acceptance Procedures ..... H3

H.2.2 Waste Acceptance Modifications ..... H3

**Attachment H.3: Waste Handling .....** **H4**

H.3.1 Waste Handling Procedures ..... H4

H.3.2 Waste Handling Modifications ..... H4

**Attachment H.4: Waste Arisings .....** **H5**

H.4.1 Solid Residues ..... H5

H.4.2 Other Wastes ..... H8

H.4.3 Modifications to Wastes Arising ..... H11

**ATTACHMENT I**

**Attachment I.1: Impact on Air Quality .....** **I1**

I.1.1 Existing Environment ..... I1

I.1.2 Impacts on Air Quality ..... I3

I.1.3 Modifications to Impacts on Air Quality ..... I4

**Attachment I.2: Impact on Surface Water .....** **I6**

I.2.1	Existing Environment .....	I6
I.2.2	Impacts .....	I6
I.2.3	Modifications to Impact on Surface Water .....	I6
<b>Attachment I.4:</b>	<b>Impact on Ground and Ground Water.....</b>	<b>I7</b>
I.4.1	Existing Environment .....	I7
I.4.2	Impacts .....	I7
I.4.3	Modifications to Ground and Groundwater Impacts.....	I7
<b>Attachment I.5:</b>	<b>Ground and Groundwater Contamination .....</b>	<b>I8</b>
I.5.1	Existing Environment .....	I8
I.5.2	Modifications to Ground and Groundwater Contamination .....	I10
<b>Attachment I.6:</b>	<b>Impact on Noise .....</b>	<b>I11</b>
I.6.1	Existing Environment .....	I11
I.6.2	Impacts .....	I11
I.6.3	Modifications to Noise Impacts.....	I11
<b>Attachment I.7:</b>	<b>Impact on Ecology .....</b>	<b>I12</b>
I.7.1	Existing Environment .....	I12
I.7.2	Impacts .....	I12
I.7.3	Modifications to Ecological Impacts.....	I12

## ATTACHMENT J

<b>Attachment J.1:</b>	<b>Accident Prevention and Emergency Response.....</b>	<b>J1</b>
J.1.1	Accident Prevention .....	J1
J.1.2	Emergency Response.....	J2
J.1.3	Public Liability Insurance.....	J4
J.1.4	Modifications to Accident and Emergency Measures .....	J4

## ATTACHMENT K

<b>Attachment K.1:</b>	<b>Cessation of Activity.....</b>	<b>K1</b>
K.1.1	Cessation of Activity .....	K1
K.1.2	Cessation of Activity Modifications .....	K1

## ATTACHMENT L

<b>Attachment L.1:</b>	<b>Compliance with the Waste Management Act 1996 to 2003 .....</b>	<b>L1</b>
L.1.1:	Section 40(4) of the WMA 1996 to 2003.....	L1
L.1.2:	Impact of facility on environment and health.....	L1
L.1.3:	Application of Best Available Techniques .....	L3
L.1.4:	Compliance with Waste Management Plan .....	L9
L.1.5:	Fit and Proper Person .....	L9
L.1.6:	Compliance with Section 53 .....	L9

L.1.7:	Energy efficiency.....	L9
L.1.8:	Noise Emissions.....	L9
L.1.9:	Accident Prevention .....	L9
L.1.10:	Cessation of Activity.....	L10
L.1.11:	Modifications to WMA Compliance .....	L11
<b>Attachment L.2:</b>	<b>Fit and proper person .....</b>	<b>L13</b>
L.2.1	Convictions under the Waste Management Acts .....	L13
L.2.2	Technical Knowledge and/or Qualifications .....	L13
L.2.3	Financial provision .....	L14
L.2.4	Modifications to Fit and Proper Person.....	L15

For inspection purposes only.  
Consent of copyright owner required for any other use.

## LIST OF FIGURES

- Figure A.1.a: Location of the Site  
Figure A.1.b: Indaver NV facility in Flanders, Belgium  
Figure A.1.c: Indaver Ireland Limited solvent blending facility in Dublin Port  
Figure A.1.d: General layout of the facility  
Figure A.1.e: Schematic of the process  
Figure C.1.a: Meath Waste Management Facility Management Structure  
Figure C.2.a: Structure of QESH Management System  
Figure D.1.a: Site Layout  
Figure D.1.b: Site Drainage Plan  
Figure D.1.c: Site Water Balance  
Figure D.2.a: Schematic of Plant  
Figure D.2.b: Waste Acceptance and Handling Process Flow  
Figure D.2.c: Moving Grate Furnace Process Flow  
Figure D.2.d: Boiler Process Flow  
Figure D.2.e: Steam Cycle Process Flow  
Figure D.2.f: Flue Gas Treatment System Process Flow  
Figure D.2.g: Residues Handling Process Flow  
Figure F.1.a: Design of water tight waste bunker  
Figure G.2.a: Heat Balance for Meath Waste-to-Energy Plant  
Appendix F6: Diagram of Typical Stack Monitoring Station
- Consent to copy right owner requires only  
for internal purposes only.

## LIST OF DRAWINGS

- Appendix B2: Site Ownership Plan - Drawing 15013\WL\001  
Appendix B3: Site Plan - Drawing 15013\WL\002  
Appendix B4: Location Map - Drawing 15013\WL\003  
Appendix B5: Services Plan - Drawing 15013\WL\004  
Appendix D1: Site Layout – Drawing 15013\WL\005  
Appendix D2: Site Entrance – Drawing 15013\WL\007  
Appendix D3: Plant Layout – Drawing 15013\WL\008  
Appendix D5: Site Drainage Plan – Drawing 15013\WL\006  
Appendix D6: Diagram of Hydrocells – Drawing 16058\SW\004  
Appendix D7: Warehouse Layout – Drawing 15013\WL\011  
Appendix D8: Site Accommodation – Drawing 15013\WL\012  
Appendix D9: Plant Layout From End Showing Turbine Building – Drawing 15013\WL\0010  
Appendix D11: Plant Layout From Side – Drawing 15013\WL\009  
Appendix E1: Location of Emissions Points – Drawing 15013\WL\013

## LIST OF TABLES

- Table A.1.a: Waste Types Accepted at the Facility
- Table B.1.a: Modifications to company details
- Table B.2.a: Location of Drawings
- Table B.2.b: Modifications to site plan, location and services
- Table B.2.c: Comparison of Site Layout
- Table B.3.a: Modifications to permissions and licences
- Table B.7.a: Modifications to activity type
- Table B.8.a: Modifications to permissions and licences
- Table C.1.a: Indaver Ireland Management
- Table C.1.b: Meath Facility Management
- Table C.1.c: Modifications to Management Structure
- Table C.3.a: Modifications to hours of operation
- Table D.1.a: Average water requirement
- Table D.1.b: Infrastructure Modifications
- Table D.2.a: Modifications to the Process Description
- Table E.1.a: Modifications to air emissions
- Table E.2.a: Modifications to Surface Water Emissions
- Table E.4.a: Typical Treated Effluent Quality from the Puraflo system
- Table E.5.a: Modifications to Noise Emissions
- Table E.6.a: Modifications to other nuisances
- Table E.1(ii)(a): Main emissions to atmosphere (A2-1)
- Table E.1(iii)(a): Main emissions to atmosphere (A2-1) - Chemical Characterisation
- Table E.1(ii)(b): Minor emissions to atmosphere (A2-2)
- Table E.1(iii)(b): Minor emissions to atmosphere (A2-2) – Chemical Characterisation
- Table E.2(i): Emissions to Surface Waters
- Table E.4(i): Emissions to Groundwater
- Table E.5(i): Noise Emissions – Noise sources summary sheet
- Table F.1.a: Abatement and Treatment Techniques for Emissions Point A2-1
- Table F.1.b: Modifications to Abatement Systems
- Table F.2.a: Modifications to Air Monitoring and Sampling
- Table F.3.a: Modifications to Surface Water Monitoring and Sampling
- Table F.5.a: Modifications to Groundwater Monitoring and Sampling
- Table F.6.a: Modifications to Noise Monitoring and Sampling
- Table F.7.a: Modifications to Meteorological Monitoring and Sampling
- Table F.1 (A2-1): Abatement / Treatment Control for Emission A2-1
- Consent for printing or copying for internal purposes only. Not required for any other use.

- Table F.1 (A2-2): Abatement / Treatment Control for Emission A2-2
- Table F.1 (SW1): Abatement / Treatment Control for Emission SW1
- Table F.1 (GW1): Abatement / Treatment Control for Emission GW1
- Table F.2 (A2-1): Monitoring and Sampling for Emission A2-1
- Table Ff (AA1): Monitoring and Sampling for Ambient Air Emissions
- Table F.2 (SW1): Monitoring and Sampling for Emission SW1
- Table F.2 (GW1): Monitoring and Sampling for Emission GW1
- Table Ff (AGW1): Monitoring and Sampling for Ambient Groundwater Emissions
- Table Ff (AN1): Monitoring and Sampling for Ambient Noise Emissions
- Table Ff (AA2): Monitoring and Sampling for Meteorological Conditions
- Table G.1.a: Raw, Product and Ancillary Materials, Substances, Preparations, Fuels and Energy Used or Produced by Activity
- Table G.1.b: Modifications to Raw Materials
- Table G.2.a: Parameters used in R1 calculation
- Table G.2.b: Modifications to Energy Efficiency
- Table H.1.a: Modifications to residual waste definitions
- Table H.2.a: Modifications to Waste Acceptance Procedures
- Table H.3.a: Modifications to Waste Handling Procedures
- Table H.4.a: Selected leaching limit criteria for the reuse of bottom ash
- Table H.4.b: Other wastes arising
- Table H.4.c: Modifications to Wastes Arising
- Table H.1(i): Hazardous Waste Recovery/Disposal
- Table H.1(ii): Other Waste Recovery/Disposal
- Table I.1.a: Baseline Assessment Findings
- Table I.1.b: Modifications to Impacts on Air Quality
- Table I.2.a: Modifications to Impacts on Surface Water
- Table I.5.a: Modifications to Ground and Groundwater Contamination
- Table I.6.a: Modifications to Noise Impacts
- Table I.7.a: Modifications to Ecological Impacts
- Table I.4(i): Groundwater Quality
- Table I.6(i): Ambient Noise Assessment
- Table J.1.a: Modifications to Accident and Emergency Measures
- Table L.1.a: Modifications to WMA Compliance
- Table L.2.a: Modifications to the Applicant being a Fit and Proper Person

## APPENDICES

- Appendix A1: Confirmation that Application Constitutes a Review
- Appendix B1: Certified Copy of Certificate of Incorporation and Registration as Branch
- Appendix B2: Site Ownership Plan
- Appendix B3: Site Plan
- Appendix B4: Location Map
- Appendix B5: Services Plan
- Appendix B6: Planning Permission PL17.219721
- Appendix B7: Waste Licence 167-1
- Appendix B8: Copy of Site Notice and Advertisement
- Appendix B9: Updated Seveso Assessment
- Appendix B10: Correspondence with the HSA
- Appendix C1: Training and Staff Competence Procedure
- Appendix C2: Accreditation Certificates
- Appendix C3: QESH Policy
- Appendix C4: Index of QESH Procedures
- Appendix D1: Site Layout
- Appendix D2: Site Entrance Drawing
- Appendix D3: Plant Layout
- Appendix D4: Puraflo Brochure
- Appendix D5: Site Drainage Plan
- Appendix D6: Diagram of Hydrocells
- Appendix D7: Warehouse Layout
- Appendix D8: Site Accommodation
- Appendix D9: Plant Layout From End Showing Turbine Building
- Appendix D10: Waste Incineration Directive
- Appendix D11: Plant Layout From Side
- Appendix E1: Location of Emissions Points
- Appendix E2: Point Source Emission Tables E.1 (ii) (a) and E.1 (iii) (a)
- Appendix E3: Excerpt from Indaver NV Sustainability Report
- Appendix E4: Minor Emission Tables E.1 (ii) (b) and E.1 (iii) (b)
- Appendix E5: Surface Water Emission Table E2(i)
- Appendix E6: Groundwater Emissions Table E.4 (i)
- Appendix E7: Noise Emission Table E.5 (i)
- Appendix E8: Cumulative Traffic Assessment submitted as Additional Information
- Appendix F1: Treatment, Abatement and Control for Emission A2-1

Consent of copyright owner required for any other use.  
For inspection purposes only.

- Appendix F2: Treatment, Abatement and Control for Emission A2-2
- Appendix F3: Treatment, Abatement and Control for Emission SW1
- Appendix F4: Treatment, Abatement and Control for Emission GW1
- Appendix F5: Monitoring and Sampling for Emission A2-1
- Appendix F6: Diagram of Typical Stack Monitoring Station
- Appendix F7: AMESA Monitoring System Brochure
- Appendix F8: Monitoring and Sampling for Ambient Air Emissions
- Appendix F9: Monitoring and Sampling for Emission SW1
- Appendix F10: Monitoring and Sampling for Emission GW1
- Appendix F11: Monitoring and Sampling for Ambient Groundwater Emissions
- Appendix F12: Monitoring and Sampling for Ambient Noise Emissions
- Appendix F13: Monitoring and Sampling for Meteorological Conditions
- Appendix G1: Dioxorb Properties
- Appendix G2: Excerpt from Waste Framework Directive
- Appendix G3: Annex 10.4 of BREF Document on Waste Incineration
- Appendix G4: Spreadsheet of Calculations
- Appendix G5: Example of Awareness Campaign Posters
- Appendix H1: Draft Waste Acceptance Procedure
- Appendix H2: Draft Waste Handling Procedures
- Appendix H3: Hazardous Waste Recovery and Disposal
- Appendix H4: Other Waste Recovery/Disposal
- Appendix H5: Ash Properties at Indaver facility in Belgium
- Appendix I1: Results of 2001–2002 Studies on HF, PM10 and Dioxin levels
- Appendix I2: Results of 2005 Soil Study
- Appendix I3: Groundwater Quality
- Appendix I4: Report on Attempted Sampling of Monitoring Wells
- Appendix I5: Ambient Noise Assessment
- Appendix I6: Revised Ecology Study
- Appendix I7: Revised Air Dispersion Model Results
- Appendix J1: Example of Dublin Port Emergency Response and Cleanup Operational Procedure
- Appendix L1: Extract of Indaver NV 2007 Sustainability Report
- Appendix L2: Pollution Legal Liability
- Appendix L3: Public Liability