



SECTION A NON-TECHNICAL SUMMARY

Non-Technical Summary of IPC Licence Application

A non-technical summary of the application is to be included here. The summary should identify all environmental impacts of significance associated with the carrying on of the activity/activities, and describe mitigation measures proposed or existing to address these impacts. This description should also indicate the normal operating hours and days per week of the activity.

Supporting information is included in Attachment A.1

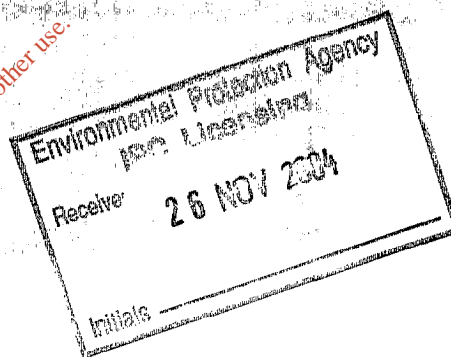
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**SmartPly Europe Limited
Application for a Revised
IPPC Licence**

**Attachment A - Non-
Technical Summary**

Issue No

53460-004



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Appendix A.1 Site location maps

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1. INTRODUCTION

SmartPly Europe Limited is an Oriented Strand Board (OSB) manufacturing facility situated in Belview, Co. Kilkenny. Site location maps are presented in Appendix A.1.

SmartPly Europe Limited is a wholly owned subsidiary of Coillte and was formerly known as Louisiana Pacific Coillte Ireland limited (LPCI). LPCI was incorporated in Ireland in 1993 as a joint venture concern of Coillte and the U.S. Fortune 500 multi-national building products company Louisiana Pacific Corporation headquartered in Portland, Oregon. Discussions began with Louisiana Pacific in January, 1993 with a finalised joint venture contract and construction budget of £39.3 million agreed in September, 1993. Site preparation began in July 1994 at Belview, (grid reference E265964, N113890). The first board was produced in March, 1996.

SmartPly Europe Limited have continued to make substantial investments in air pollution control equipment and on energy conservation to keep the facility up to date with latest technologies. SmartPly Europe Limited were granted planning permission by Kilkenny County Council in 2003 (Planning Ref. 03/766) for a €1.4 million development at the plant which involves increasing the existing chimney stack from 42 meters to 90 meters above ground level. This project was undertaken in order to resolve the issue of plume grounding and odour nuisance at local residences in the vicinity of the site. Works on the stack extension project began in October 2004 and are expected to be completed in December 2004.

This application for a review of the Integrated Pollution Prevention and Control (IPPC) licence has been prepared by SmartPly Europe Limited in order to update the existing licence (Reg. Ref. 1) which was granted in 1996 by the Environmental Protection Agency. The licence will be updated to incorporate new legislative requirements, to consider the stack extension project and to reflect the application of Best Available Techniques (BAT) in relevant areas of SmartPly Europe Limited's activities.

SmartPly Europe Limited employ 175 people at the site. The facility operates on a twenty-four hour, 4-cycle shift, 7 days per week basis, with limited weekend production. The facility is manned by security on a twenty-four hour, 7-day per week basis.

2. FACILITY OPERATIONS

SmartPly Europe Limited manufactures Oriented Strand Board (OSB), an innovative, environmentally sustainable timber based product which is used for structural and non-structural applications.

OSB is made by flaking logs into thin wafers which are then dried, coated with a binder and pressed back together under high temperature and pressure. There are associated

warehouse facilities on-site to provide storage facilities for raw materials and final product.

All production activities, ancillary production support services, administration, canteen facilities occur within the main production building.

The manufacturing process is summarised as follows:

Following inspection and weighing, the delivery trucks are unloaded by a loader unit in the yard area. Logs are sorted and stacked according to their species.

Logs are transported to the log infeed system by the loaders where they are conveyed to the debarker system which removes all of the bark on the logs.

Debarked logs are then conveyed to the strander where logs are shredded into flakes. Flakes are stored in the wet bins.

Stored flakes are transported to either of four dryer units. Emissions from the dryers are passed through the air pollution abatement system (WESP's).

Dry flakes are then conveyed to the blenders where resins are added to bind the strands together.

The strands then pass to the forming line which orientates the strands in the desired nature.

The product then enters the press where heat and pressure are applied to form the final orientated strand board (OSB) product. Emissions from the press are vented to the WESPs.

Finally, the OSB is cut to size as per customer requirements.

All product is transported from the site via trucks.

3. RAW MATERIALS AND PRODUCT

The principal raw materials utilised at the SmartPly Europe Limited facility for production operations include:

- Timber
- Binding Agents

Timber Timber logs are flaked into thin wafers before drying, binding and pressing. The nature of the process is such that OSB can be made from small diameter, low quality logs. The logs are generally drawn from forests owned and operated by Coillte, predominantly in the Southern and Eastern part of the country. There is a long-term supply agreement with Coillte for 650,000m³ of pulpwood per annum.

Binding Agents After the thin timber wafers are dried, they are coated with a binder, before being pressed back together under high temperature and pressure. A mixture of waxes and resins are blended with the flakes so the flakes fuse together when heated and under pressure in the press.

Products from the (Reg. Ref. 1) site may be classified into two main categories – commodity grade products and construction grade products.

End uses for the commodity grade products include industrial and export packaging, furniture forming, DIY, site hoarding, agricultural and garden sheds and structural uses in dry environments while the construction grade products are used for flooring, roofing and wall sheeting. More than 75% of the output is directed to the export market, the target being the UK and Benelux. The Belview facility also serves the domestic Irish construction and industrial markets and there are also occasional seasonal shipments to the United States.

4. EMISSIONS TO ATMOSPHERE

Point Source Emissions

A summary list of main emissions points to atmosphere is provided in Table 1, as follows:

Table 1 Summary of Main Emission Points to Atmosphere

Ref No.	Description
A2-1	Main Stack - Combined emissions from WESP 1 and WESP 2
A2-2	Baghouse 1 - Sawline
A2-3	Baghouse 2 – Forming line bin hopper
A2-4	Baghouse 3 – Hammer mills, laiding bin
A2-5	Baghouse 4 – T&G line & Sanders
A2-6	Baghouse 5 - Cut saws and trimmers
A2-7	Baghouse 6 (proposed) – dry flake storage bins

4.1.1 Control & Abatement Technology

SmartPly Europe Limited employs a number of technologies which are considered to be BAT for this Sector, to control and abate atmospheric emissions. These include

- Wet Electrostatic Precipitators (WESP's)

- Baghouse Filters

WESP's are employed at the site to remove a variety of materials from gaseous waste streams including particulates, volatile organic compounds (VOC's) and formaldehyde. The gaseous waste streams are primarily produced from the drying and pressing processes. Further details of the installed abatement equipment is included in Attachment E.1.

Baghouse Filters are employed to remove dust particulates produced at various stages in the process such as sawing, cutting and trimming. Further details of the installed abatement equipment is included in Attachment E.1.

4.2 Fugitive Emissions

Fugitive emissions arising from the SmartPly Europe Limited facility are primarily comprised of dusts generated from the following activities:

- ◆ Handling of timber and bark in the Log Yard
- ◆ The movement of vehicles around the site
- ◆ The handling of ash from the thermal oil heater

Environmental Management Programs are underway to reduce fugitive emissions. These are detailed in Attachment C.1.

4.3 Assessment of Impact of Atmospheric Emissions

URS Ireland Ltd. has completed a conservative dispersion modelling assessment of formaldehyde emissions from the SmartPly Europe Limited plant based the following:

- 90m stack height
- 20 mg/m³ BAT limit value as specified in Sector Guidance Note IPPC SG1 (Table 3)

Modelling of the BAT maximum emission rate for formaldehyde indicates that the maximum predicted ground level concentrations (GLC's) for five years of applied meteorological data are below applicable air quality standards, including short-term Occupational Exposure Limits (OEL) and WHO guideline limit values.

In addition, a comparison was also carried out of predicted GLC's with available Danish C-values. It should be noted that the Danish C-value is considered to be a highly conservative short-term limit value. In addition, the conservative nature of the modelling assessment (e.g. continuous emissions at the licence limit over the entire year) should also be noted in assessing the results. Modelling based on the maximum release rates indicates that exceedences of the Danish C-values are not likely in practice. Based on the

results of this modelling assessment it is therefore considered that in practice, emissions from the site will not have a detrimental impact on local air quality and that the occurrence of odour incidents arising from plume grounding events will be effectively minimised.

5. EMISSIONS TO SEWER

The production processes at the site do not generate an aqueous process effluent and as such there are no emissions to sewer from the SmartPly Europe Limited site.

6. EMISSIONS TO WATER

6.1. Surface Water Emissions

Table 2 contains details of the surface water emissions.

Table 2 Emissions to Surface Water

Location	Location	Source
SW1	South western boundary of Site	Storm Water Runoff from site and effluent from 2 Sewage Treatment Plants (STP's)

Surface run-off incorporates building roof and ground run-off from the roads and concrete yard area, paved car parks, logyard and buildings on the SmartPly Europe Limited site. The quantities of surface water run-off arising on-site are dependent on rainfall.

The 2 STP's (Rotating Biological Contactors) at the facility are used to treat the domestic wastewater generated from staff toilet areas and from the canteen.

Surface Water Emission Point SW1 is a combined discharge from 2 STP's and surface run-off. This ultimately discharges to the River Suir.

6.2. Control and Abatement Technology

6.2.1. Abatement of Surface Water Run-off

Surface run-off is collected and channelled to the large settling pond (Capacity 4000m³) located at the south eastern corner of the site. Prior to entering the pond, runoff is screened to remove coarse materials. After screening, surface water passes to an oil interceptor to remove any oils and grease. Finally, the surface water passes through a

monitoring chamber prior to entering the settling pond. The settlement pond is divided to facilitate sludge removal.

6.2.2. STP Abatement

Each sewage treatment plant (STP) is a rotating biological contractor (RBC). The purpose of the RBC units is to reduce the BOD and suspended solid content of domestic effluent prior to discharge to the River Suir. The STP's consist of a 3-stage system comprising of primary settlement, biological treatment and final clarification.

6.3. Assessment of Impact of Emissions on Receiving Water.

Once the combined final discharge (SW1) from the SmartPly Europe Limited facility complies with the requirements of the IPC licence, then it is not expected to have any adverse impact of the receiving River Suir. It is recognised that there have been occasional instances of discharges that have not been compliant with the IPC licence emission limit values. However, it is obvious from the water quality monitoring on the River Suir for The Three Rivers Project, Ref. Attachment I.2, that these exceedances on the licence limits have not had any adverse impact on the receiving waters of the River Suir.

7. EMISSIONS TO GROUND

There are no emissions to ground from the SmartPly Europe Limited facility. However, the company is monitoring site groundwater on an annual basis in accordance with IPC licence requirements.

8. NOISE EMISSIONS

Noise monitoring surveys are to be conducted at local noise sensitive receptors in the vicinity of the SmartPly Europe Limited site on an annual basis. Noise monitoring surveys to date have demonstrated compliance with IPC licence specified emission limit values for noise at the monitoring locations listed in Table 3. Schedule 4(i) specifies maximum noise limit values for six louvred areas at the plant. Noise monitoring conducted according to Schedule 4(i), indicates that three of the six locations (Dryer Burner, Thermal Oil Heater and Pump Room) cannot be practically measured given the close proximity and noise contribution of the Bark Burner I.D.fan. The three locations measured demonstrate compliance with the licence limits for the majority of the surveys. Figures presented in

Table E.5 (I) represent the maximum recorded values measured at a reference distance of 3m.

Table 3 Noise monitoring locations

Ref No.	Location
N1	Louvres (Compressor room)
N2	Louvres (Hydraulic Oil)
N3	Louvres (Dryer burner)
Noise Sensitive Locations	
1	Keogh's
2	Cullen's
3	Conway's

9. WASTE MANAGEMENT

Wastes arising at the SmartPly Europe Limited facility from production processes, laboratory, packaging, and other typical sources are both hazardous and non-hazardous, and are classified accordingly. Rigorous waste management programmes are controlled by standard operating procedures, which are established on-site for waste segregation, handling, labelling, documenting, storage and disposal of waste off-site. A summary of the waste arising in SmartPly Europe Limited is submitted as part of the Annual Environmental Report as per the requirements of the IPC licence. The AER summaries waste disposal and recovery quantities for the previous year. This is then used to further identify opportunities to reduce waste and to recover/re-use and recycle waste on and off site.

10. SAMPLING AND MONITORING

Monitoring of emissions are conducted to ensure all control/treatment systems continue to operate to specification and in compliance with emission limit values and the requirements of the IPC licence. Table 4 below contains a list of all monitoring points, the parameter measured at each point, the method of measurement and the frequency of measurement.

Table 4 Monitoring Points

Emissions to Atmosphere			
Monitoring Points	Parameter	Monitoring Method	Frequency
A2-1 Main stack	Volume Flow Rate	Digital Manometer	Annually
	Particulates	Isokinetic/Gravimetric	Quarterly
	Condensable VOC's	Pumps and charcoal Tubes and GC/MS	Quarterly
	Total Aldehydes	Pumps and silica gel Tubes and GC/MS	Quarterly
	CO	Flue Gas Analyser and Electrochemical Sensors	Quarterly
	NO _x	Flue Gas Analyser and Electrochemical Sensors	Quarterly
	SO ₂	Flue Gas Analyser and Electrochemical Sensors	Annually
	Formaldehyde	Chiller Impinger Method and HPLC	Quarterly
	MDI (as NCO group)	Pumps and Piperazine filters	Annually
	Phenol	HPLC	Quarterly
A2-2 to A2-7 Baghouse filters	Volume Flow Rate	Digital Manometer	Annually
	Particulates	Gravimetric	Annually

Emissions to Surface Water			
SW1	Visual	Daily	Daily
	pH	pH probe	Monthly
	Trace Organics	Standard Method	Annually
	BOD	Standard Method	Monthly
	Suspended Solids	Standard Method	Monthly
	Major Anions	Standard Method	Quarterly
	Major Cations	Standard Method	Quarterly
	Phenol	Standard Method	Quarterly
	Heavy Metals	Standard Method	Annually
	OF & G	Standard Method	Quarterly
	Toxicity	Standard Method	Annually
Groundwater Monitoring			
GW1	pH	Standard Method	Annually
GW2	Temperature	Standard Method	Annually
GW3	Electrical Conductivity	Standard Method	Annually
	Total Ammonia	Standard Method	Annually
	Dissolved Oxygen	Standard Method	Annually
	Phenol	Standard Method	Annually
	Major Anions	Standard Method	Annually
	Major Cations	Standard Method	Annually
	Nitrate	Standard Method	Annually
	Individual Heavy Metals	Standard Method	Annually
	Coliforms	Standard Method	Annually

Noise Monitoring			
N1	dB(A)	Type 1 Integrating averaging Sound Level Meter fitted with 1:1 and 1:3 octave band filters	Annually
N2			
N3			
Keoghs			
Cullens			
Conways			
Ambient Air Monitoring			
DG1	Dust deposition rate (mg/m ² -day)	Dust Deposition Gauge/ Gravimetric	Monthly
DG2			
DG3			

11. ENERGY EFFICIENCY

Energy demand at the SmartPly Europe Limited is met by renewable biomass energy, electricity, gas, gas oil and fuel oil. SmartPly Europe Limited have increased their overall energy performance since 2001. In 2003 SmartPly Europe Limited maintained the 2002 average diesel consumption, which is a 70% reduction on the 2001 average level. In 2003, the average propane consumption was reduced by 25% and 65% based on the 2002 and 2001 levels respectively. The average electricity consumption for 2003 represents a reduction of 5% and 35% based on the average 2002 and 2001 levels respectively. (All consumption levels are per cubic meter of OSB produced).

SmartPly Europe Limited intend to conduct an energy efficiency audit in 2005 and are currently in discussions with external consultants who may provide the auditing service.

12. CONTAINMENT OF ACCIDENTAL SPILLAGES

Surface run-off from the site is collected and channelled to the large settling pond. Prior to entering the pond, runoff is screened. After screening, surface water passes to an oil interceptor to remove any oils and grease. Finally, the surface water passes through a monitoring chamber prior to entering the settling pond. The settlement pond is divided to

facilitate sludge removal and the treated run-off is discharged to the River Suir. This system ensures that the potential for contaminants being discharged from the site is minimised and that all potential spillage's entering the surface water system can be effectively contained within the site.

The storage and containment of all materials at SmartPly Europe Limited conforms to existing IPC licence requirements and best practise. Bund capacities incorporate the required 110% of the volume of the largest tank or 25% of the volume of the total tankage within the bund, whatever is the greater. Rainwater collected in banded areas is inspected and analysed and if uncontaminated is released to surface water under controlled conditions. If the bund water is contaminated, then it will be appropriately stored on-site, prior to disposal off-site.

13. EMERGENCY RESPONSE

SmartPly Europe Limited implement and employ high standards of safety and environmental protection equipment and have developed procedures to prevent and minimise accidental emissions to the environment in accident or emergency scenarios. Furthermore, a comprehensive Emergency Plan comprising emergency response procedures prepared for potential emergencies, which may arise at the SmartPly Europe Limited facility, is in operation on-site.

14. ENVIRONMENTAL MANAGEMENT

Overall responsibility for environmental, health and safety (EHS) matters on-site rests with the Managing Director. The Compliance Manager and the environmental Technician are dedicated to environmental projects. The Compliance Manager has responsibility for the day-to-day operation of the site Environmental Management System (EMS), together with implementation of a number of specific compliance related programmes under the EMP. The Compliance Manager is supported by an Environmental Technician responsible for monitoring, measurement, waste management and licensing issues.

Since 1995, the site has operated under the Integrated Pollution Control licensing system and were the first company in the State to be licensed by the Agency. SmartPly Europe Limited intend to further develop their environmental management and performance by obtaining ISO 14001 accreditation in the future.

15. DECOMMISSIONING

SmartPly Europe Limited operates a strict environmental policy. Therefore any shutdown of the site will be a well-planned and well-resourced event. This implies that the shutdown date will be known well in advance and that both production schedules and raw materials purchasing will be planned with the shutdown already factored in. It also implies



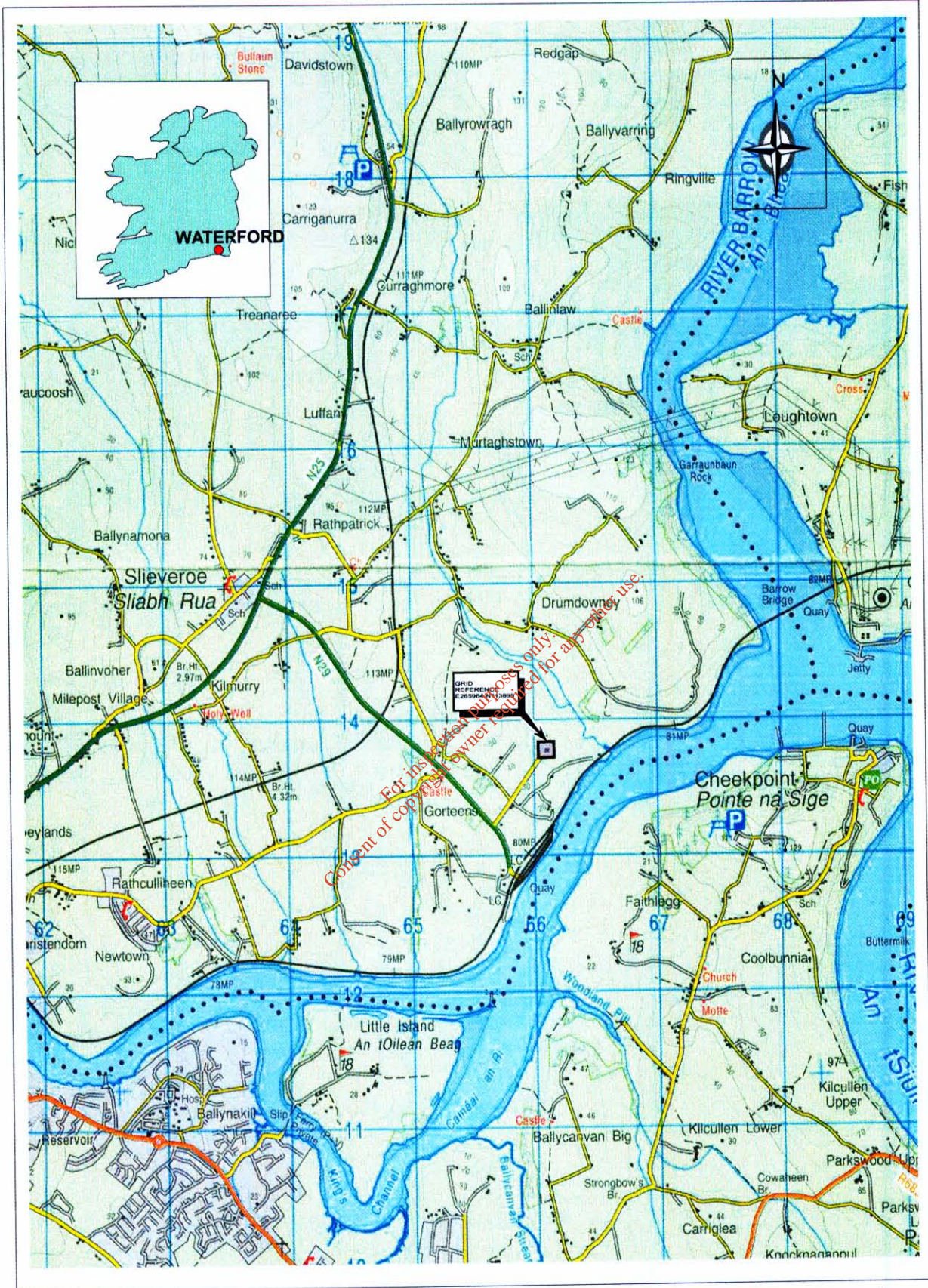
that SmartPly Europe Limited will have the financial resources to implement the RMP through completion – with no requirement for external financing. The plan will result in a decommissioned and decontaminated site.

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Appendix A.1

Site location maps

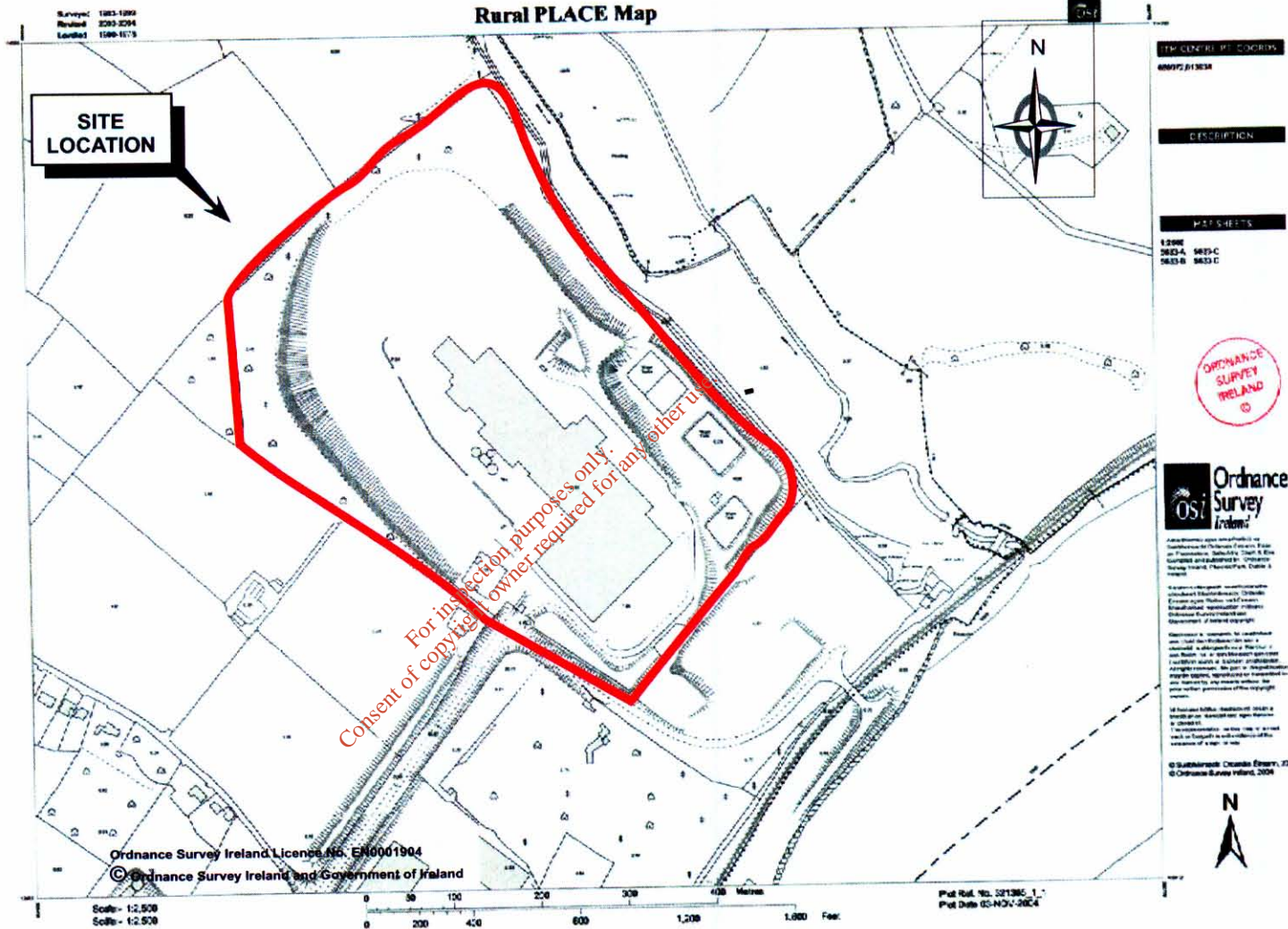
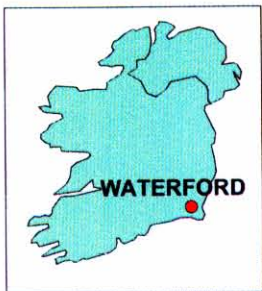
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Title	SITE LOCATION PLAN
Project	APPLICATION FOR A REVISED IPPC LICENCE
Location	BELVIEW, CO WATERFORD
Client	SMARTPLY EUROPE LIMITED

App'd	Reference	Date
	IJB/IB/DUB	NOV 2004
TI App'd	Job No.	Scale
	53460-004-447	1:50 000
		FIGURE B.2.1



Title	SITE LOCATION PLAN
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Client	SMARTPLY EUROPE LIMITED

App'd	Reference	IJB/IB/DUB	Date	NOV 2004
TI App'd	Job No.	53460-004-447	Scale	1:2500
			FIGURE B.2.2	