This Report has been cleared for submission to the Board by Programme Manager, David			
Liz Rea	ay and a state of the state of		
Signed:	── Date: <u>26th April 2018</u>		
Environmental Protection Agency At Dissistance of Canadada	OFFICE OF ENVIRONMENTAL SUSTAINABILITY		
INSPECTOR'S REPORT RE	ON A WASTE LICENCE APPLICATION, LICENCE GISTER NUMBER W0297-01		
TO: DIRECTORS			
FROM: Ewa Babiarczyk	DATE: 26 th April 2018		
Applicant:	Harp Refrigerants Limited		
CRO number:	532851 (status: normal)		
Location/address:	Industrial site located at Harp Refrigerants Limited, Unit 2, Whitestown Road, Whitestown Industrial Estate, Tallaght, Dublin 24.		
Application date:	2 nd June 2017		
	R 3 Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes), which includes gasification and pyrolysis using the components as chemicals;		
Classes of activity (Waste Management Act 1996 as amended):	R 12 Exchange of waste for submission to any of the operations numbered R 1 to R 11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as, amongst others, dismantling, sorting, crushing, compacting, pelletising, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11);		
	R 13 Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced).		
European Directives/Regula appendix of this report.	ations relevant to this assessment are listed in the		

Activity description/background:

Proposal to reclaim waste refrigerant gases for placing back on the market and temporarily store waste refrigerant gases, waste refrigerant oil and cooling fluids prior to recovery off-site.

Types of waste proposed in the RD to be authorised:

- Waste refrigerant gas
- Waste refrigerant oil
- Waste refrigerant cooling fluids

List of waste codes proposed to be authorised:

- Chlorofluorocarbons, HCFC, HFC (LoW code 14 06 01*);
- Gases in pressure containers (incl. halons) containing dangerous substances (LoW code 16 05 04*);
- Gases in pressure containers other than those mentioned in 16 05 04* (LoW code 16 05 05);
- Discarded organic chemicals consisting of or containing dangerous substances (LoW code 16 05 08*);
- Discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08 (LoW code 16 05 09);
- Mineral based non-chlorinated engine, gear and lubricating oils (LoW code 13 02 05*)
- Other engine, gear and lubricating oils (LoW code 13 02 08*)

Additional information	Article 14 Re	ply (received in two parts: on 2 February
received:	2018 and 15 th	March 2018)
No of submissions received:	None	
EIS submitted: No		NIS submitted: No
Site visit: 1 nd August 2017		Site notice check: 1 nd August 2017

1. Activity description/background

Harp Refrigerants Limited (hereafter the applicant) are at present authorised under a Certificate of Registration (COR-DS-15-0003-04) for the temporary storage, pending transfer off-site, of waste refrigerant gases, halons and fluorinated greenhouse gasses. The main proposed activities in the licence application will be the reclamation of waste refrigerant gases in addition to the storage and transfer activities already authorised. The reclamation process will result in the recycling of the refrigerant gases and their placing on the Irish market alongside virgin gases. The applicant proposes to accept 516 tonnes of waste per annum. Most of the proposed waste is hazardous waste. The maximum quantity of waste proposed to be stored on site will be 4,000 litres, however this seems low given that each of the two proposed storage tanks are 2,000 litres capacity. See Figures 1 and 2 for the view of the facility.



Figure 1: Site layout



Figure 2: The facility building looking towards the front door

Reclamation of refrigerant gases

Refrigerant gases are commonly reclaimed and recycled and placed back on the market alongside virgin gases. To date, this reclamation has taken place outside Ireland. This will be the sole reclamation plant here if a licence is granted.

Gases are carried in pressure vessels or bottles of various sizes, as shown in Figure 2 above. An infrared gas analyser will be used to identify the refrigerant gas in a bottle and determine

if it is suitable for reclamation. Once a suitable bottle has been identified, it will be connected to the refrigerant reclaim plant which has a number of treatment steps.

First, the gas is released into the reclaim plant and will pass through an oil separator to remove residual oil. This residual oil will be collected and, typically once a month, drained into a suitable drum and transferred to the waste refrigerant oil storage tank for onward transfer to another waste facility.

Then the gas is discharged into a clean receiver drum. The gas will be sampled and the level of moisture and non-condensable gasses recorded. The refrigerant, in its liquid phase, will be pumped through a molecular sieve dryer to remove moisture and back into the same drum in a closed loop process until it meets the desired specification (Figure 3).



Figure 3: Simplified drying process

The next part of the process is removal of the non-condensable gases using a Cogal Belgium Purger (also referred to as de-nagger). The gas is drawn into the de-nagger and cooled to allow condensable refrigerant in its liquid form to be pumped back into the drum whilst non-condensable gases containing oxygen and nitrogen will be vented off to atmosphere at emission point A3-1 (Figure 4). The applicant claims that no substances other than oxygen and nitrogen gases until a set point is reached and then it will shut down. The refrigerant gas will be then re-sampled and, if grade and composition are correct, the process will be considered complete. Reclaimed gas will be distributed back to the Irish market. The RD specifies that reclaimed gas should meet an appropriate product standard before being placed on the market.



Figure 4: Simplified drying process

Transfer and storage of waste refrigerant oils and cooling fluids

Waste refrigerant oils and cooling fluids are delivered to the site in drums and stored inside the facility building. Oils are also removed from reclaimed gases, as described above.

Incoming liquids are inspected, weighed and logged into the waste tracking system. They are transferred into two 2,000 litre self-bunded storage tanks (one for each waste stream). Once the storage tanks reach their maximum capacity, the waste oil and cooling fluids are removed by an authorised hazardous waste contractor and transferred off-site for recovery.

Authorisation	Details	Date granted	Currently in force?
Certificate of Registration (Ref. No. COR-DS-15- 0003-04)	To store temporarily up to 500 tonnes of waste refrigerant gases, halons and fluorinated greenhouse gases.	5 th February 2016	Yes
Waste Facility Permit (Ref. No. WFP-DS-09-0008- 04)	Storage facility of waste refrigerant gas and WEEE transfer	22 nd December 2014	No

2. Licence/Permit History

3. Best Available Techniques

BAT for waste facilities

I have examined and assessed the application documentation and I am satisfied that the site, technologies and techniques specified in the application and as confirmed, modified or specified in the attached Recommended Decision comply with the requirements and principles of BAT, specifically the EPA *Final Draft BAT Guidance Note on Best Available Techniques for the Waste Sector: Waster Transfer and Materials Recovery, December 2011.* I consider the technologies and techniques as described in the application, in this report, and in the RD, to be the most effective in achieving a high general level of protection of the environment having regard - as may be relevant - to the way the waste facility is located, designed, built, managed, maintained, operated and decommissioned.

4. Planning Permission, EIS and EIA Requirements

4.1 EIA Screening

In accordance Section 40(2A) of the Waste Management Act 1996 as amended, the Agency must ensure that before a licence or revised licence is granted, that the application is made subject to an environmental impact assessment (EIA) where the activity meets the criteria outlined in Sections 40(2A)(b) and 40(2A)(c). In accordance with the EIA Screening Determination, the Agency has determined that the activities are not likely to have a significant effect on the environment, and accordingly an EIA is not required.

4.2 Planning Status

The applicant has provided a determination by South Dublin County Council that the proposed development will not require planning permission.

A number of relevant planning permissions exist. Details of these planning permissions have been provided in the application form and are summarised below.

Planning reference	Purpose application	of	planning	EIS with applica	required planning ation	Date of grant
89A/2304	To retain extension				No	6 th April 1990
R.A 739	Workshop and offices			No	13 th July 1978	

5. Submissions

There were no submissions made on this application.

6. Emissions to Air

6.1 Channelled Emissions to Air

There will be no emissions to air of environmental significance. The applicant proposes to vent non-condensable gas containing oxygen and nitrogen arising from the de-nagger at emission point A3-1 which is proposed to be a vent in the warehouse building.

Schedule C.1.2 requires periodic monitoring and characterisation of the vented gas.

6.2 Climate Impact

Climate change is a significant global issue which affects weather and environmental conditions which consequently affects human resources and amenities as well as biodiversity and habitats. Climate change is caused by warming of the climate system by enhanced levels of atmospheric greenhouse gases (GHG) due to human activities.

With regard to reducing the climate impact of the installation under IED, the RD requires an energy efficiency audit and an assessment of resource use efficiency to be undertaken in accordance with Condition 7.

Additionally, Condition 1.7 requires the licensee to comply with the following regulations:

- Regulation (EU) No 517/2014 of the European Parliament and of the Council of 16 April 2014 on fluorinated greenhouse gases and repealing Regulation (EC) No 842/2006, as amended, and
- Regulation (EC) No. 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer, as amended.

Given the small quantity of climate altering substances that could be released from the activity, in a national context, I consider that the impact of any emissions from the facility on climatic considerations should be minimal.

6.3 Fugitive Dust

Dust generation is associated mainly with vehicle movements within the facility during dry weather.

The waste itself is not dusty and minimising dust formation is mainly a function of good housekeeping at the facility and keeping the concrete surface in a clean condition.

Schedule B.5 sets a dust deposition limit and Schedule C.6 provides for dust deposition monitoring should this be required. However the risk of activities at the facility becoming a source of fugitive dust emissions is very small.

6.4 Odour

There will be no odorous wastes accepted so there is no potential for odour emissions.

7. Discharges to Water and Ground

7.1 Discharges to Waters

There are no process emissions to surface water at the facility.

Stormwater arising at the site discharges via an underground pipe into Whitestown Stream. Condition 3.8 requires preliminary treatment of stormwater from the yard area.

7.2 Emissions to Sewer

There are no process emissions to sewer.

7.3 Discharges to Ground or Groundwater

There are no process emissions to ground or groundwater at the facility.

8. Noise

The main sources of noise at the facility include vehicles, including a fork lift truck, weighing scales and the proposed reclaim plant.

Standard noise conditions and limit values, to apply at noise sensitive locations, have been included in the RD.

9. Waste Generation

The activity produces municipal type waste from office and welfare facilities onsite.

If dealt with in accordance with the conditions of the RD, the management of waste generated at the facility will be in accordance with the requirements of Section 29 (2A) of the Waste Management Acts as amended.

10. Use of Resources

Electricity for the reclaim plant equipment, weighing machine and office equipment will be provided from the national grid. There is no water consumed in the reclamation process or in the temporary storage of waste. Small volume of diesel will be used for operation of a forklift. Overall, use of natural resources by the activity will not be significant. Condition 7 of the licence provides for the efficient use of resources and energy in all site operations. It requires a Resource Use and Energy Programme to be established and an energy audit to be carried out and repeated at intervals as required by the Agency.

11. Prevention of Accidents

The refrigerant gases are non-flammable and are fire retardants. However, there is potential for explosion due to fact that many of the waste materials stored at the facility are classified as H280 substances. H280 contains gas under pressure which may explode if heated.

The RD requires the licensee to:

- employ a suitably qualified and experienced facility manager (Condition 2.1.1);
- put in place a documented Accident Prevention Procedure which addresses all hazards on-site (Condition 9.1);
- put in place an Emergency Response Procedure which will ensure any effects of an emergency on-site are minimised (Condition 9.2);
- implement a preventative maintenance programme (Condition 2.2.2.8); and
- implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled (Condition 2.2.2.5).

There is also risk of leakages of refrigerant gases, diesel leak from delivery and collection vehicles and forklifts, spillage from oil or cooling fluid storage tanks, leak of waste oil from the reclamation plant and risk of fire which might be caused by electrical fault.

The facility is equipped with spill kits, fire alarms and extinguishers and emergency lighting. Pressure receptacles and hoses are regularly tested. Equipment undergoes regular maintenance and is fitted with pressure relief valves, emergency stop buttons and alarms. Waste liquids will be stored in bunded tanks which will be regularly inspected for signs of leaks and damage. Condition 6.9 requires that the integrity of tanks to be assessed every 3 years and maintenance carried out as required.

The refrigerant gases pose a threat to the environment due to their global warming and ozone depleting potentials. Therefore, safeguards are in place to prevent escape of gas to the atmosphere. Condition 9 of the RD requires procedures to be put in place to prevent accidents with a possible impact on the environment and to respond to emergencies. An Environmental Liabilities Risk assessment (ELRA) has also been submitted with the application (see Fit and Proper Person Assessment section below for further details).

12. Cessation of activity

The application details a range of measures to be employed upon cessation of the activity. These include:

- Cancellation of waste acceptance at the facility;
- Decommissioning of the reclamation plant;
- Removal of waste and substances from site;

Condition 10 of the RD requires procedures to be put in place to ensure the proper closure of the activity with aim of protecting the environment. A Closure, Restoration and Aftercare

Management Plan (CRAMP) has also been submitted with the application (see Fit and Proper Person Assessment section below for further details).

13. Appropriate Assessment

There are ten European Sites in the vicinity of the facility:

- Glenasmole Valley SAC (Site Code: 001209)
- Wicklow Mountains SAC (Site Code: 002122)
- Rye Water Valley/Carton SAC (Site Code: 001398)
- South Dublin Bay SAC (Site Code: 000210)
- Knocksink Wood SAC (Site Code: 000725)
- North Dublin Bay SAC (Site Code: 000206)
- Rockabill to Dalkey Island SAC (Site Code: 003000)
- Wicklow Mountains SPA (Site Code: 004040)
- South Dublin Bay and River Tolka Estuary SPA (Site Code: 004024)
- North Bull Island SPA (Site Code: 004006)

Appendix 1 lists the European Sites assessed, their associated qualifying interests and conservation objectives.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activities, individually or in combination with other plans or projects are likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Sites at Glenasmole Valley SAC (Site Code: 001209), Wicklow Mountains SAC (Site Code: 002122), Rye Water Valley/Carton SAC (Site Code: 001398), South Dublin Bay SAC (Site Code: 000210), Knocksink Wood SAC (Site Code: 000725), North Dublin Bay SAC (Site Code: 000206), Rockabill to Dalkey Island SAC (Site Code: 003000), Wicklow Mountains SPA (Site Code: 004040), South Dublin Bay and River Tolka Estuary SPA (Site Code: 004024) and North Bull Island SPA (Site Code: 004006).

The activities are not directly connected with or necessary to the management of any European Site and the Agency considered, for the reasons set out below, that it can be excluded, on the basis of objective information, that the activities, individually or in combination with other plans or projects, will have a significant effect on any European Site and accordingly determined that an Appropriate Assessment of the activities was not required.

The reasons for which the Agency determined that an Appropriate Assessment is not required are as follows:

- The facility is not located within the above European Sites.
- The activity will not result in damage to, or loss of, habitat in these European Sites.
- There will be no emissions to air or water of environmental significance.
- Only clean storm water run-off arising from the facility building's roof and the external area not used for waste activities is a proposed discharge to surface water from the facility.

It is therefore, considered that the activities will not give rise to any significant adverse impacts on the integrity of Natura 2000 sites, alone or in combination with any other plan or project in the area.

14. Fit & Proper Person Assessment

The Fit & Proper Person test requires three elements of examination:

Technical Ability

The licensee has provided details of the qualifications, technical knowledge and experience of key personnel. The licence application also includes information on the on-site management structure. It is considered that the applicant has demonstrated the technical knowledge required.

Legal Standing

Neither the licensee nor any relevant person has relevant convictions under the Waste Management Act 1996, as amended, or under any other relevant environmental legislation.

Financial Provision/Strength

ELRA, CRAMP & FP

The licence category and proposed facility was assessed for the requirements of Environmental Liabilities Risk Assessment (ELRA), Closure, Restoration and Aftercare Management Plan (CRAMP) and Financial Provision (FP), in accordance with Agency guidance. Under this assessment it has been determined that ELRA, CRAMP and FP are required.

The applicant submitted an ELRA and CRAMP as part of the licence application. The costs were estimated at $\in 10,563$ and $\in 30,576$ respectively. Having consulted with OEE, it is apparent that the cost of CRAMP is satisfactory. The cost of ELRA is insufficient due to the fact that the submitted ELRA does not address the risk of explosion due to the fact that many of the materials stored at the facility are stored in pressure vessels. Additionally, the ELRA does not address the fact the building roof is covered with asbestos sheeting (see Figure 2). Accordingly, ELRA is required to be revised to address these points and resubmitted within three months of grant of a licence (Condition 12.2.2).

Financial Provision to cover any liabilities associated with the operation, including closure, restoration and aftercare, is required under Condition 12.2.3.

Conclusion

It is my view, and having regard to the conditions of the RD, that the applicant can be deemed a Fit & Proper Person for the purpose of this application.

15. Cross Office Consultation

I consulted OEE Inspector, Stephen McCarthy and OES Scientific Officer, Eamonn Merriman, in relation to, respectively, CRAMP and ELRA and to applicability of the F-gases and ODS regulations for this activity.

16. Charges

The annual enforcement charge recommended in the RD is \in 4,072 which reflects the anticipated enforcement effort required and the cost of monitoring.

17. Recommendation

The RD specifies the necessary measures to provide that the facility shall be operated in accordance with the requirements of Section 40(4) of the Waste Management Act 1996 as amended, and has regard to the AA screening and EIA screening. The RD gives effect to the requirements of the Waste Management Act 1996 as amended.

I recommend that a Proposed Decision be issued subject to the conditions and for the reasons as drafted in the RD.

Signed

Ewa Babiarczyk

Procedural Note

In the event that no objections are received to the Proposed Decision on the application, a licence will be granted in accordance with Section 43(1) of the Waste Management Act 1996 as amended, as soon as may be after the expiration of the appropriate period.

Appendix 1

List of European Sites assessed, their associated qualifying interests and conservation objectives.

Site Code	Site Name	Qualifying Interests (* denotes a priority habitat)	Conservation Objectives
001209	Glenasmole Valley SAC	Habitats 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia) (* important orchid sites)* 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) 7220 Petrifying springs with tufa formation (Cratoneurion)*	<i>NPWS (2016) Conservation objectives for Glenasmole Valley SAC [001209]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</i>
002122	Wicklow Mountains SAC	Habitats 3110 Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) 3160 Natural dystrophic lakes and ponds 4010 Northern Atlantic wet heaths with Erica tetralix 4030 European dry heaths 4060 Alpine and Boreal heaths 6130 Calaminarian grasslands of the Violetalia calaminariae 6230 Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)* 7130 Blanket bogs (* if active bog) 8110 Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) 8210 Calcareous rocky slopes with chasmophytic vegetation 8220 Siliceous rocky slopes with chasmophytic vegetation 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles	NPWS (2017) Conservation Objectives: Wicklow Mountains SAC 002122. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

Site Code	Site Name	Qualifying Interests (* denotes a priority habitat)	Conservation Objectives
		Species 1355 Otter <i>(Lutra lutra)</i>	
001398	Rye Water Valley/Carton SAC	Habitats 7220 Petrifying springs with tufa formation (Cratoneurion)* Species 1014 Narrow-mouthed Whorl Snail <i>(Vertigo angustior)</i> 1016 Desmoulin's Whorl Snail <i>(Vertigo moulinsiana)</i>	NPWS (2016) Conservation objectives for Rye Water Valley/Carton SAC [001398]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.
000210	South Dublin Bay SAC	Habitats 1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 1310 Salicornia and other annuals colonising mud and sand 2110 Embryonic shifting dunes	NPWS (2013) Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
000725	Knocksink Wood SAC	Habitats 7220 Petrifying springs with tufa formation (Cratoneurion)* 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno- Padion, Alnion incanae, Salicion albae)*	NPWS (2016) Conservation objectives for Knocksink Wood SAC [000725]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

Site Code	Site Name	Qualifying Interests (* denotes a priority habitat)	Conservation Objectives
000206	North Dublin Bay SAC	Habitats1140 Mudflats and sandflats not covered by seawater at low tide1210 Annual vegetation of drift lines1310 Salicornia and other annuals colonising mud and sand1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)1410 Mediterranean salt meadows (Juncetalia maritimi)2110 Embryonic shifting dunes2120 Shifting dunes along the shoreline with Ammophila arenaria (white dunes)2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*2190 Humid dune slacksSpecies1395 Petalwort (Petalophyllum ralfsii)	<i>NPWS (2013) Conservation Objectives: North Dublin Bay SAC 000206. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</i>
003000	Rockabill to Dalkey Island SAC	Habitats 1170 Reefs Species 1351 Harbour Porpoise <i>(Phocoena phocoena)</i>	NPWS (2013) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
004040	Wicklow Mountains SPA	Birds A098 Merlin <i>(Falco columbarius)</i> A103 Peregrine <i>(Falco peregrinus)</i>	NPWS (2016) Conservation objectives for Wicklow Mountains SPA [004040]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht

Site Code	Site Name	Qualifying Interests (* denotes a priority habitat)	Conservation Objectives
			Affairs.
004024	South Dublin Bay and River Tolka Estuary SPA	BirdsA144 Sanderling (Calidris alba)A157 Bar-tailed Godwit (Limosa lapponica)A149 Dunlin (Calidris alpina)A162 Redshank (Tringa totanus)A179 Black-headed Gull (Chroicocephalus ridibundus)A143 Knot (Calidris canutus)A192 Roseate Tern (Sterna dougallii)A046 Light-bellied Brent Goose (Branta bernicla hrota)A141 Grey Plover (Pluvialis squatarola)A130 Oystercatcher (Haematopus ostralegus)A193 Common Tern (Sterna hirundo)A137 Ringed Plover (Charadrius hiaticula)HabitatsWetlands	NPWS (2015) Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
004006	North Bull Island SPA	Birds A160 Curlew (Numenius arquata) A149 Dunlin (Calidris alpina) A157 Bar-tailed Godwit (Limosa lapponica) A162 Redshank (Tringa totanus) A179 Black-headed Gull (Chroicocephalus ridibundus) A144 Sanderling (Calidris alba) A156 Black-tailed Godwit (Limosa limosa)	NPWS (2015) Conservation Objectives: North Bull Island SPA 004006. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Site Code	Site Name	Qualifying Interests (* denotes a priority habitat)	Conservation Objectives
		A143 Knot <i>(Calidris canutus)</i> A169 Turnstone <i>(Arenaria interpres)</i> A054 Pintail <i>(Anas acuta)</i> A046 Light-bellied Brent Goose <i>(Branta bernicla hrota)</i> A048 Shelduck <i>(Tadorna tadorna)</i> A052 Teal <i>(Anas crecca)</i> A141 Grey Plover <i>(Pluvialis squatarola)</i> A056 Shoveler <i>(Anas clypeata)</i> A130 Oystercatcher <i>(Haematopus ostralegus)</i> A140 Golden Plover <i>(Pluvialis apricaria)</i> Habitats Wetlands	

Appendix 2

Relevant European (and international) legal instruments

The following Irish and European instruments are regarded as relevant to this application assessment and have been considered in the drafting of the Recommended Determination.

Habitats Directive (92/43/EEC) & Birds Directive (79/409/EC)

Waste Framework Directive (2008/98/EC)

Ozone depleting substances (ODS) Regulations

F-gases Regulations