

APPENDIX 1: OEE ENFORCEMENT POLICY ON UNAUTHORISED WASTE

OFFICE OF ENVIRONMENTAL ENFORCEMENT (OEE)

ENFORCEMENT POLICY ON UNAUTHORISED WASTE ACTIVITIES

The policy of the Office of Environmental Enforcement (OEE), which is an Office of the Environmental Protection Agency, is to detect, sanction and remediate illegal waste activity using its regulatory enforcement powers in a systematic, coherent and consistent manner. The OEE policy is to deliver outcomes from effective, proportionate and dissuasive enforcement actions.

In support of this policy, the OEE will take the following actions

- Assess the operations of all waste facilities licensed by the EPA for compliance with those licences;
- Oversee the actions taken by local authorities to prevent and detect illegal waste activity;
- Take the necessary enforcement actions to protect the environment;
- Subject unauthorised waste activities to sanctions and not actions only aimed at their cessation;
- Oversee the implementation of the EPA Code of Practice^[1] for assessing illegal waste sites so that decisions on the management of these sites are based on this risk assessment;
- Ensure the removal of illegally deposited waste, or regularise illegally deposited waste through a permit or licence if appropriate;
- Seek civil and criminal prosecutions/sanctions at the highest appropriate level;
- Deter illegal waste activity and seek to remove any financial gain or advantage to illegal operators;
- Subject illegal waste disposal activities to the application of the landfill levy;
- Implement nationally both the Recommendation on the Minimum Criteria for Environmental Inspections (RMCEI) and the Environmental Complaints Procedure in conjunction with local authorities/other enforcement agencies;
- Highlight the importance of compliance with waste legislation through the use of various media outlets and the provision of information and advice to stakeholders.

The OEE will allocate resources to achieve the above policy objectives and will review this policy and its enforcement plans annually.

[1] Code of Practice: Environmental Risk Assessment for Unregulated Waste Disposal Sites

APPENDIX 2: ANALYSIS OF COMPLIANCE PERFORMANCE BY IPPC INDUSTRY (LICENSED BY EPA)

Further details of industry enforcement activities are included below along with a discussion of compliance and enforcement issues in each sector of industrial activities regulated by the EPA.

APPENDIX TABLE 2.1 EPA IPPC enforcement activities in 2006–2008

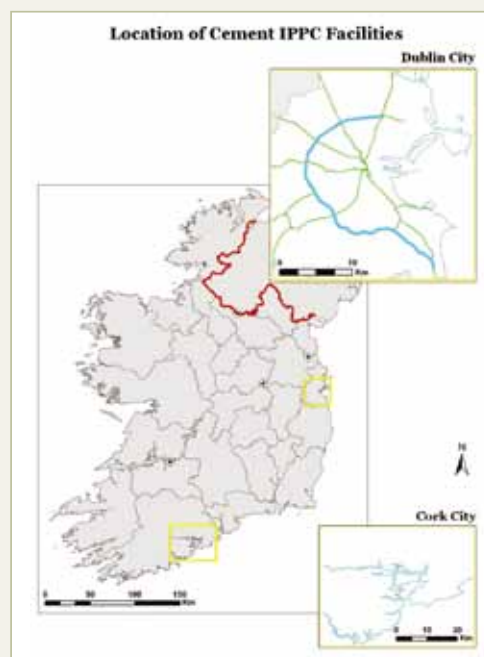
	2006			2007			2008		
	Audits & inspections	Water monitoring	Air monitoring	Audits and inspections	Water monitoring	Air monitoring	Audits and inspections	Water monitoring	Air monitoring
1. Minerals and Other Materials Sector	18	25	5	15	21	2	11	25	3
2. Energy Sector	20	31	11	20	36	17	17	33	6
3. Metals Sector	35	32	11	42	34	19	32	26	9
4. Mineral Fibres and Glass Sector	4	14	5	5	10	1	7	2	3
5. Chemical Sector	102	169	55	114	150	27	98	168	49
6. Intensive Agriculture	83	10		95	11		63	9	0
7. Food and Drink Sector	135	160	19	114	153	19	110	188	16
8. Wood, Paper, Textiles and Leather	73	61	14	92	59	4	63	58	11
9. Fossil Fuels Sector	2	7		2	6		4	7	0
10. Cement	8	6	2	9	8	5	4	12	2
12. Surface coatings Sector	86	89	24	93	80	30	77	91	38
13. Class 13 Sectors	17	20	10	23	15	7	20	14	11
TOTALS	583	624	156	624	583	132	506	637	148

APPENDIX TABLE 2.2 Non-compliances (NONCs) detected and Enforcement Notices issued against IPPC facilities in 2006–2008

	2006		2007		2008	
	NONCs detected	NONCs issued	NONCs detected	NONCs issued	NONCs detected	NONCs issued
1. Minerals and Other Materials Sector	50	17	29	14	23	11
2. Energy Sector	20	12	13	9	14	7
3. Metals Sector	81	27	66	28	63	34
4. Mineral Fibres and Glass Sector	17	5	8	6	14	8
5. Chemical Sector	137	74	156	79	104	68
6. Intensive Agriculture	272	80	390	66	115	47
7. Food & Drink Sector	163	73	221	94	178	126
8. Wood, Paper, Textiles and Leather	130	52	166	70	132	55
9. Fossil Fuels Sector	1	1	1	2	3	2
10. Cement	6	4	8	6	1	3
12. Surface coatings Sector	235	77	205	79	149	64
13. Class 13 Sectors	38	11	33	13	45	9
Total	1,150	433	1,292	446	841	434

Cement Sector^[1]

Four facilities are licensed within this sector and during 2006–2008 a total of 56 audits, inspections and monitoring visits were undertaken by the EPA. The main compliance issues raised included exceedance of emission values, failure to provide specified infrastructure, and dust and noise nuisance. Between 2001 and 2007 NO_x emissions from cement production increased by 95%, with NO_x emissions from the cement sector accounting for 59.6% of total industrial NO_x emissions and 9.5% of total national emissions (based on 2007 figures). This is the largest increase in NO_x emissions for any sector and is a contributing factor in the difficulties currently being encountered in meeting the NO_x emission target value set under the EU National Emissions Ceiling Directive. The industry must adequately prioritise, and ensure sufficient resources are provided, to address these issues. The EPA prosecuted one of the sites in 2007 in relation to an unauthorised emission of dust to atmosphere. The number of complaints received by the EPA in connection with this sector has decreased since the previous reporting period. A large number of the complaints were received in 2006 in relation to one facility that was undergoing a licence review at the time; however, the number of complaints for this facility has significantly reduced in 2007 and 2008, following a large amount of enforcement activity carried out by the Agency.



APPENDIX TABLE 2.3(B) National NO_x emissions & the National Emissions Ceiling

NO _x Emissions	% share 1990	% share 2007	% change 1990–2007
Power Stations	36.7%	22.4%	–41.7%
Residential & Commercial	6.2%	6.1%	–5.9%
Industrial	7.8%	16.0%	97.8%*
Agriculture & Forestry	7.4%	9.1%	17.3%
Transport	40.6%	45.4%	7.0%
Other	1.3%	1.1%	–18.1%

*Cement production contributes almost 60% of this increase

APPENDIX TABLE 2.3 Cement Sector licence status & enforcement activity 2006–2008

Details of licensed facilities ¹				
Facilities licensed (excluding surrenders)	4			
Total operational facilities	4			
Total closed/ceased and under threshold/not commenced	0			
Total surrendered in 2006–2008	0			
Audits/Inspections/Monitoring	2006	2007	2008	
Audits and inspections	8	9	4	
Water monitoring	6	8	12	
Air monitoring	2	5	2	
Enforcement actions taken	2006	2007	2008	
Notifications of non-compliance issued	4	6	3	
Number of non-compliances	6	8	1	
Number of complaints	89	12	8	
Number of prosecutions	0	1	0	
Number of convictions	0	1	0	

Note 1: Details of facilities licensed on 31/12/2008

[1] This includes activities licensed under the EPA Act: Class 10.1.

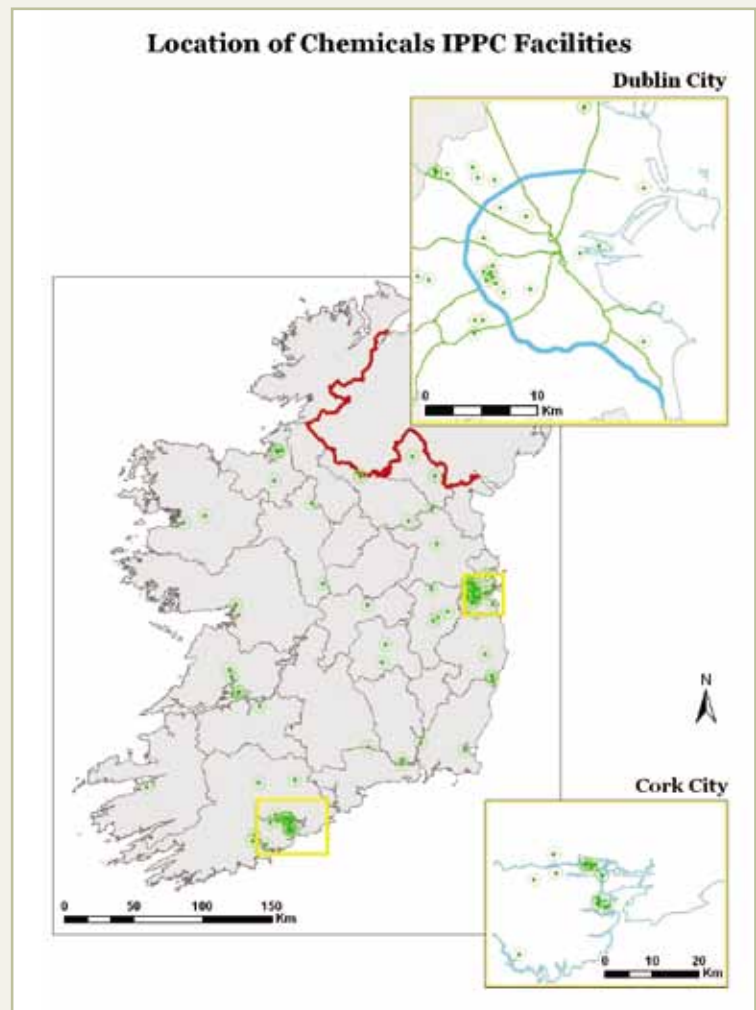
Chemical Sector^[2]

The Chemical Sector is one of the largest sectors licensed by the EPA. Its activities include the manufacture of organic or organo-metallic chemical products, inorganic chemicals, pesticides, pharmaceuticals, paints, inks, resins, dyes, glues and adhesives. There are 82 active sites throughout the country with a concentration of facilities in the Dublin and Cork areas. Sites in this sector are typically classified for high enforcement due to the nature of the activities. However, they are in general large complex facilities with dedicated environmental protection staff and a high environmental standard. The main environmental concerns associated with this sector are groundwater and surface water contamination and hazardous waste management.

The EPA carried out 909 site visits in this sector during the 2006 to 2008 period, compared to 694 in the 2004 to 2005 period. A total of 221 notifications of non-compliance were issued over this period (up from 141 in the 2004 to 2005 period).

The major compliance issues at these sites relate to bunding and material handling and ELV exceedance. Monitoring and waste management were the other main compliance issues identified. Compliance levels at these facilities are generally at a satisfactory level. The majority of facilities in this sector were not issued with non-compliances from 2006 to 2008. This is a reflection of the high level of investment and commitment to environmental compliance typical of the sector. Eight facilities accounted for 40% of the non-compliances.

Complaints received for this sector have shown a decreasing trend in particular from a level of 246 during 2004–2005 period. This reflects improvements in environmental performance as a result of improved control and investments made by the sector in noise and odour abatement systems.

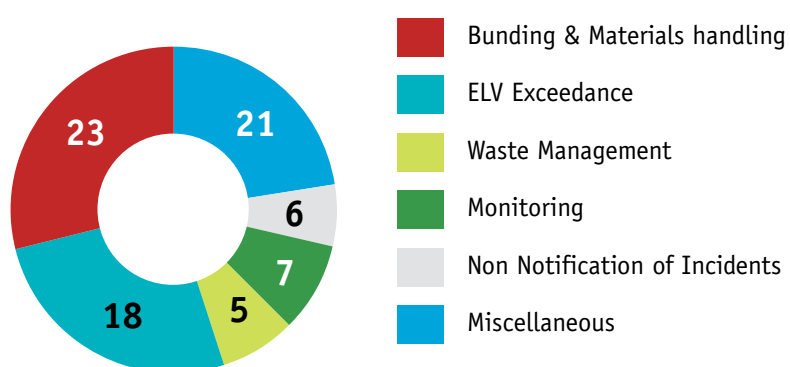


[2] Includes facilities licensed under EPA Act: Classes 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 5.10, 5.11 and PoE Act: Classes 5.12, 5.13, 5.14, 5.15, 5.16, 5.17

APPENDIX TABLE 2.4 Chemical Sector licence status and enforcement activity, 2006 to 2008

Details of licensed facilities¹				
Facilities licensed (excluding surrenders)	97			
Total operational facilities	82			
Total closed/ceased and under threshold/not commenced	15			
Total surrendered in 2006–2008	0			
Audits/Inspections/Monitoring	2006	2007	2008	
Audits and inspections	102	114	98	
Water monitoring	169	150	168	
Air monitoring	55	27	49	
Enforcement actions taken	2006	2007	2008	
Notifications of non-compliance issued	74	79	68	
Number of non-compliances	137	156	104	
Number of complaints	49	22	15	
Number of prosecutions	2	1	1	
Number of convictions	2	1	0	

Note 1: Details of facilities licensed on 31/12/2008

APPENDIX FIGURE 2.1 Breakdown of non-compliances in the Chemical Sector

Energy Sector^[3]

The Energy Sector includes a total of 22 licensed facilities involved in the operation of combustion installations with a rated thermal input equal to or greater than 50 MW, of which 16 are operational, while three plants have closed and three plants did not commence operations within the three year time frame required by the licence.

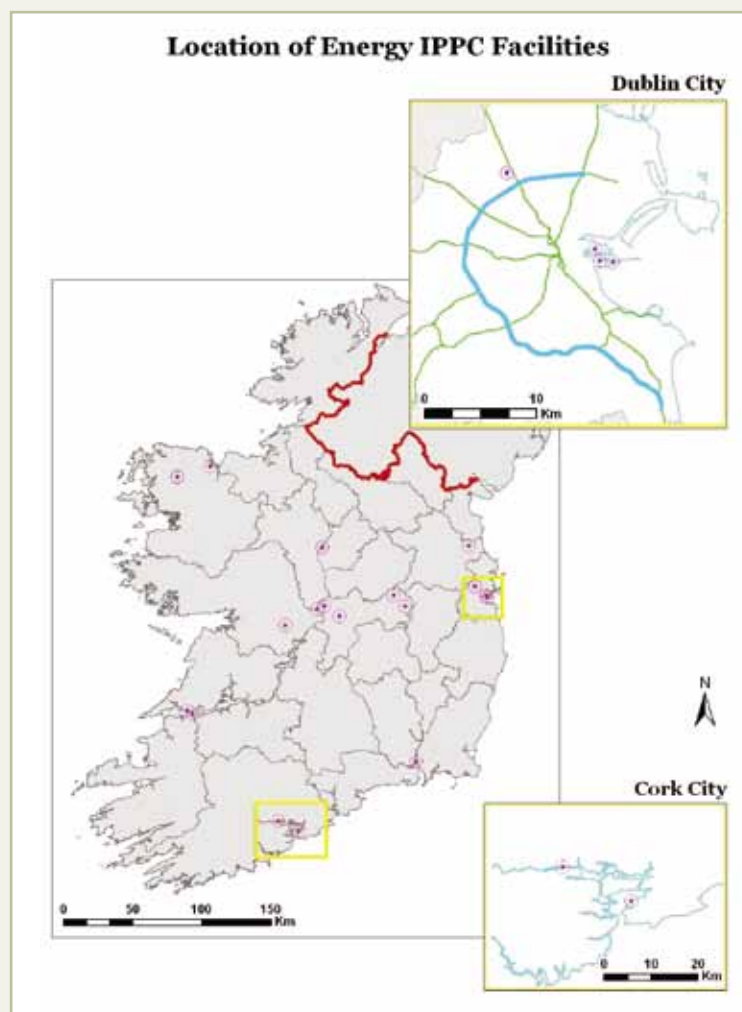
While the energy sector in Ireland is relatively small in number, there has been, and will continue to be, some significant developments in this sector. To encourage competition in the Irish electricity market the Commission for Energy Regulation directed the ESB to sell off some of its generating capacity. In addition a number of new power plants (mainly gas-fuelled) have come on stream over the past few years, many owned by new entrants to the Irish market.

Operations on energy generation sites are mainly related to the transportation of fuel (coal, oil, peat, gas) onto the site, and the combustion of this fuel to produce electricity for the national grid. The main emissions from this sector are release of flue gases such as sulphur dioxide (SO₂), oxides of nitrogen (NO_x), and particulates to the atmosphere (while emissions of CO₂ are permitted under the Emissions Trading Scheme).

The Large Combustion Plant Directive (LCPD) allows for a National Emissions Reduction Programme (NERP) to achieve reductions of (SO₂), (NO_x), and particulates emissions to atmosphere. The main player in the NERP, which came into force in 2008, is the ESB Moneypoint plant, which is undergoing a major programme of works costing around €360 million to allow for reductions in SO₂, NO_x, and particulates. The targets set out in the NERP for NO_x and particulate emissions were met in 2008, however, the SO₂ target of 23,200 tonnes was exceeded by 1,577 tonnes. The Agency expects the NERP targets to be achieved in 2009.

Much of the focus over the coming years will be on the development and expansion of renewable sources of energy such as wind, wave, and bio-fuels.

In the three-year period from 2006 to 2008, a total of 188 audits, site inspections, and monitoring visits were carried out by the Agency.



APPENDIX TABLE 2.5 Energy Sector licence status & enforcement activity 2006–2008

Details of licensed facilities	
Facilities licensed (excluding surrenders)	22
Total operational facilities	16
Total closed/ceased and under threshold/not commenced	6
Total surrendered in 2006–2008	0

[3] This includes activities licensed under the EPA Act: Classes 2.1, 2.2

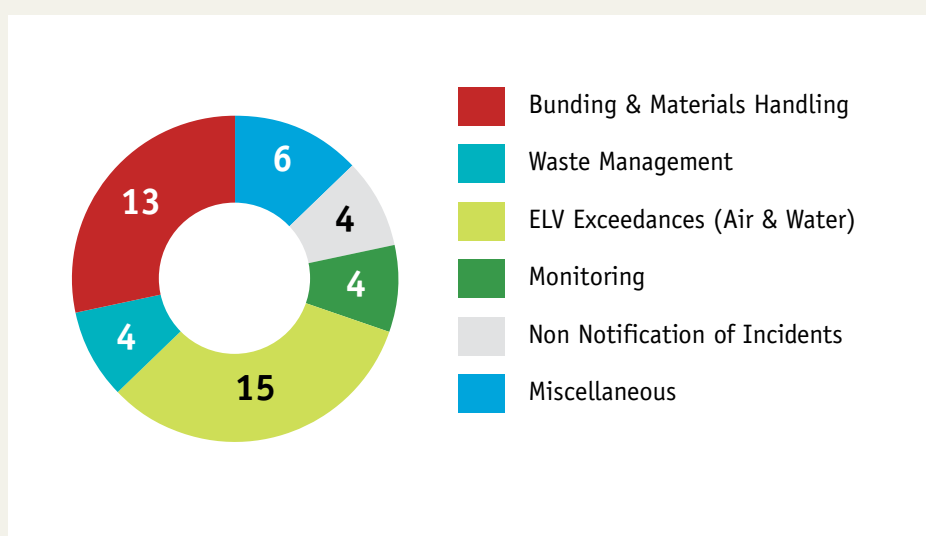
Audits/Inspections/Monitoring	2006	2007	2008
Audits and inspections	20	20	17
Water monitoring	31	36	33
Air monitoring	11	17	6
Enforcement actions taken	2006	2007	2008
Notifications of non-compliance issued	12	9	7
Number of non-compliances	19	13	14
Number of complaints	11	11	6
Number of prosecutions/convictions	0	0	0

Many of the facilities in this sector are compliant with their licence conditions. The main category for the non-compliances found in this sector was bunding and materials handling, which would mainly apply to oil and coal fired plants. Other problem areas include exceedances of emission limits values for emissions to atmosphere, emissions to water and issues associated with documentation and procedures. See **Figure 2.2**.

One of the main issues facing this sector will be to ensure that plants operate their Continuous Emission Monitoring Systems (CEMS) in line with the European standard EN 1418^[4]. The Agency has developed a Guidance Note (AG3) to aid process operators and test houses in this regard, which is available for download at: <http://www.epa.ie/downloads/advice/air/emissions/>. This is an area that EPA inspectors will be focusing on as part of their site audits/inspections in the future.

Compared to other sectors, there have not been many complaints made by the public against facilities in this sector, and the number is declining year on year. The main categories of complaints were emissions to air, fugitive dust emissions, noise emissions, and incidents such as small oil leakages arising on site.

APPENDIX FIGURE 2.2 Breakdown of non-compliances in the energy sector 2006–2008



[4] The operation, management, and calibration of the CEMS system should comply with BS EN 14181: Quality Assurance of Automated Measuring Systems.

Food and Drink Sector^[5]

The Food and Drink Sector includes 91 licensed facilities involved in processing dairy products, brewing and distilling, the slaughter of animals, the manufacture of fish meal and oil, the rendering of animal by-products, and the production of food from animal and vegetable raw materials. At the end of 2008, 76 facilities were operational, and 15 facilities were closed, or the licensable activity had ceased, or had not commenced. Over 50% of the facilities are in the slaughtering and rendering sub-sector. The facilities are spread throughout the country but are more concentrated in the south west and north east, and are generally characterised by discharge of treated wastewater to surface waters and sewer. Sites in this sector are typically classified as medium to high risk for medium to high enforcement.

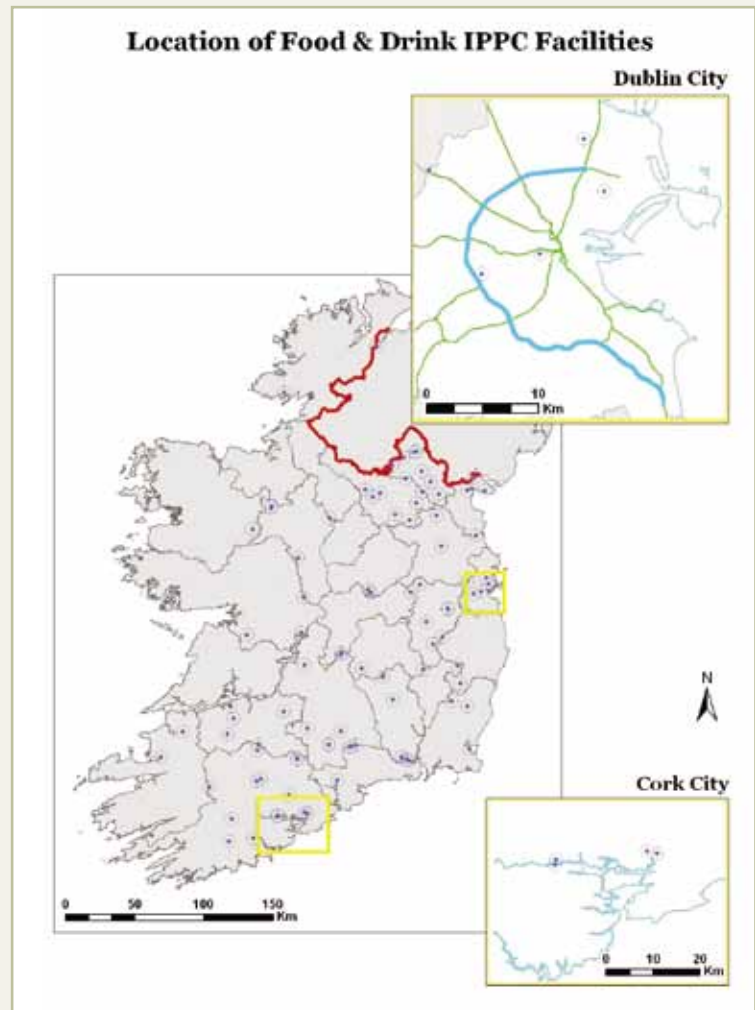
During the reporting period 2006–2008, a combined total of 359 site inspections and audits were carried on facilities in this sector and 293 notifications of non-compliance were issued. In addition, 501 water monitoring and 49 air-monitoring visits were carried out in the reporting period. (See **Table 2.6**).

The most common audit/inspection non-compliance findings relate to exceedances of emission limit values, and materials storage and handling (See **Figure 2.6**). Generally, compliance issues relate to wastewater treatment plant performance, bunding of areas used to store liquids, odour nuisance and general housekeeping.

Management and operational control of wastewater treatment plants is a particular problem for this sector. The focus of future enforcement activities in 2009 will be the performance of wastewater treatment plants and compliance with emission limit values on emissions to water/sewer. Enforcement effort will target facilities which may be impacting of water quality at seriously or moderately polluted stretches of river, as identified by the EPA river water quality monitoring programme (i.e. red and amber dot sites).

Five successful legal cases were taken by the EPA against food and drink sector facilities during 2006–2008. These cases relate primarily to malfunction of wastewater treatment plants resulting in emissions to the water and sewer, which exceeded the emission limit values, inappropriate storage of sludge and paunch contents and odour nuisance.

Complaints received by the EPA in relation to the sector related to a limited number of the operational sites. The vast majority of these facilities are in the slaughtering and rendering sub-sectors and the majority of the complaints relate to odour nuisance. There was a significant increase in the number of complaints received by the EPA in 2007 and 2008 compared to 2006. This is attributed mainly to an increase in the number of odour complaints received in relation to two particular facilities.

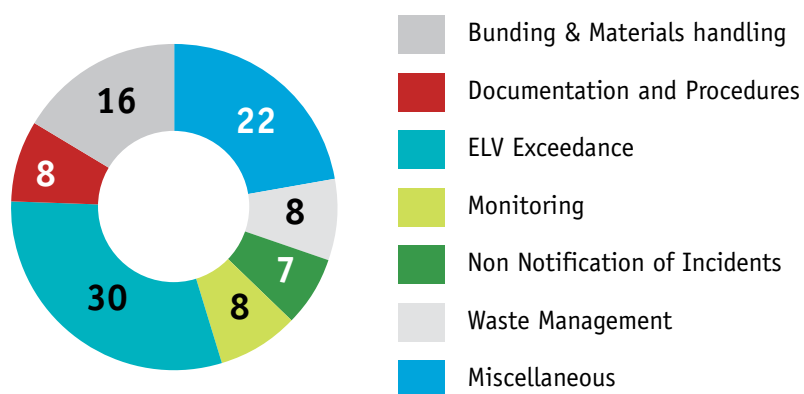


[5] This includes activities licensed under the EPA Act: Classes: 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7 and PoE Act Classes: 7.2.1, 7.2.2, 7.3.1, 7.3.2, 7.3.3, 7.4.1, 7.4.2, 7.5, 7.6, 7.7.1, 7.7.2, 7.8

APPENDIX TABLE 2.6 Food and Drink Sector licence status and enforcement activity, 2006 to 2008

Details of licensed facilities¹				
Facilities licensed (excluding surrenders)	91			
Total operational facilities	76			
Total closed/ceased and under threshold/not commenced	15			
Total surrendered in 2006–2008	0			
Audits/Inspections/Monitoring	2006	2007	2008	
Audits and inspections	135	114	110	
Water monitoring	160	153	188	
Air monitoring	19	19	16	
Enforcement actions taken	2006	2007	2008	
Notifications of non-compliance issued	73	94	126	
Number of non-compliances	163	221	178	
Number of complaints	148	247	315	
Number of prosecutions	2	2	1	
Number of convictions	2	2	1	

Note 1: Details of facilities licensed on 31/12/2008

APPENDIX FIGURE 2.3 Breakdown of non-compliances in the Food and Drink Sector

Intensive Agriculture Sector^[6]

The Intensive Agriculture Sector covers the intensive rearing of pigs and poultry. The licences issued to date comprise 88 pig-rearing and 10 poultry-rearing units. Recent audits and inspections show that a high proportion of licensees in this sector are experiencing great difficulty in reaching a satisfactory level of compliance with licence conditions. During years 2006 to 2008, a total of 241 audits and site inspections were carried out at intensive agriculture sites and 193 notifications of non-compliance were issued.

During the reporting period, the European Communities (Good Agricultural Practice for Protection of Waters) Regulations came into force. Also known as the 'Nitrates Regulations', they introduced general binding rules for the management and use of fertilisers including slurry. These Regulations have been incorporated into EPA enforcement practice.

The most common non-compliances relate to management of wastes generated on-site including slurry, inadequate documentation or procedures and outstanding reports. Compliance issues related to site management are commonplace, particularly the handling of waste, materials and waste storage, control of yard runoff and lack of monitoring. Priorities highlighted for enforcement within the Intensive Agriculture sector include:

Nutrient Management Plans

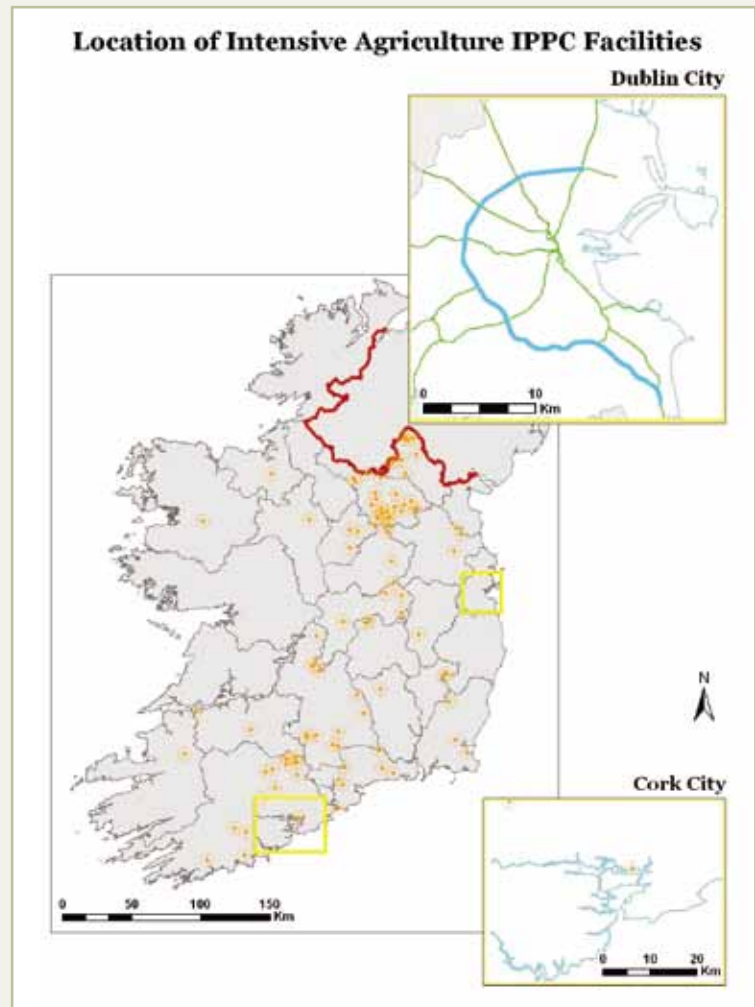
One of the main issues for this sector is the disposal/use of slurry from piggeries. Approximately 5% of the total estimated managed manure waste is produced by licensed sites in the intensive agriculture sector. To manage this material, licensees are required to prepare and submit a nutrient/slurry management plan (NMP) annually, which outlines how slurry is to be managed and disposed of. During the period reported on, this sector generally failed to provide the information required on NMPs in a satisfactory form.

The Agency and the Irish Farmers Association came to a negotiated agreement in 2008 regarding the information to be submitted to the Agency for assessment. This agreement has brought improved compliance. Since 2008 the numbers of piggeries in compliance with this aspect of their licence has almost doubled. However, a number of facilities have failed to submit the details required and the EPA will target their enforcement effort on these facilities, including prosecution where necessary.

Tank and Pipelines assessments

Under the intensive agriculture licences, licensees are required to conduct tank and pipelines assessments to improve tank integrity and to ensure that there is no risk of contamination to groundwater. There has been a high level of non-compliance with this requirement to date. The EPA is planning to continue to target facilities that have failed to comply with this licence requirement in the next reporting period.

Twelve prosecutions were taken against piggeries between 2006 and 2008. These cases mainly referred to a failure to adequately manage and/or control the slurry generated by the sites.



[6] Includes facilities licensed under EPA Act: Classes 6.1, 6.2

The Agency received 58 complaints between 2006 and 2008 regarding intensive agriculture facilities. The most common complaints related to odour, spreading of slurry and water pollution.

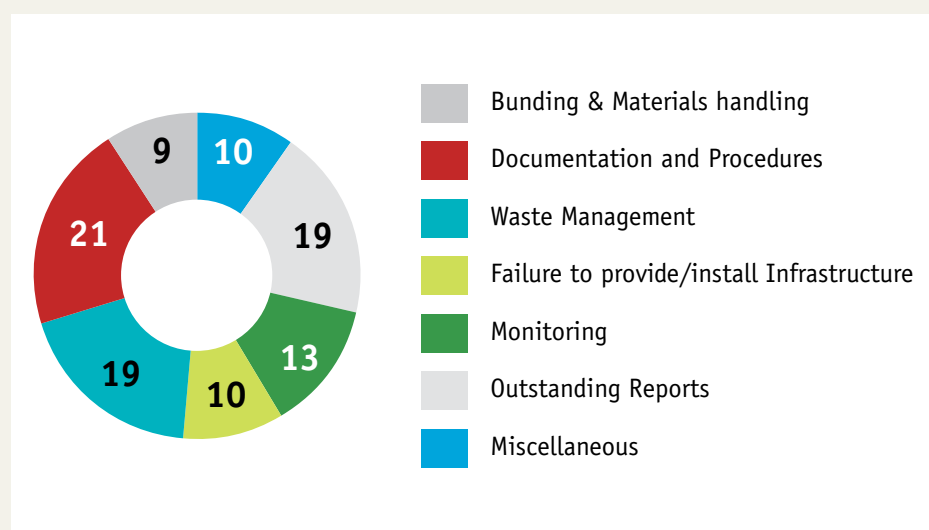
In addition the Protection of the Environment Act brought new licensable thresholds into Law in 2007 for Pigs and Poultry facilities. A number of licensable activities have failed to submit licence applications and are currently operating illegally. The Agency is going to target unlicensed intensive agriculture facilities during the next reporting period.

APPENDIX TABLE 2.7 Intensive Agriculture Sector licence status and enforcement activity, 2006 to 2008

Details of licensed facilities ¹				
Facilities licensed (excluding surrenders)	98			
Total operational facilities	96			
Total closed/ceased and under threshold/not commenced	2			
Total surrendered in 2006–2008	0			
Audits/Inspections/Monitoring	2006	2007	2008	
Audits and inspections	83	95	63	
Water monitoring	10	11	9	
Enforcement actions taken	2006	2007	2008	
Notifications of non-compliance issued	80	66	47	
Number of non-compliances	272	390	115	
Number of complaints	17	24	17	
Number of prosecutions	4	1	7	
Number of convictions	4	0	7	

Note 1: Details of facilities licensed on 31/12/2008

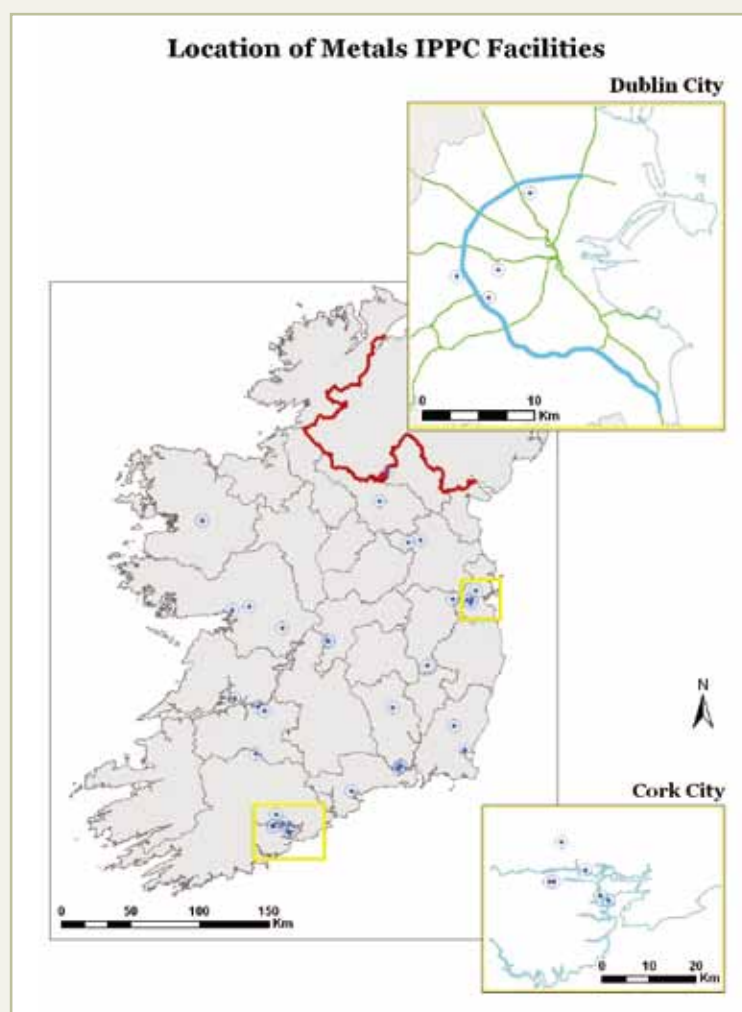
APPENDIX FIGURE 2.4 Breakdown of non-compliances in Intensive Agriculture



Metals Sector^[7]

The Metals Sector includes 35 facilities involved in the processing of iron and steel, the recovery and processing of non-ferrous metals and sheet metal fabrication. It typically consists of small-scale and long-established businesses. 25% have closed in recent years and there are now only 25 active sites in this sector. The facilities are spread throughout the country but are more concentrated in the larger urban areas. Sites in this sector are typically classified in the medium to low enforcement risk categories.

In the period 2006–2008, a total of 240 audits, site inspections and monitoring visits were carried out (compared to 150 in the period 2005–2006). Many of the facilities in this sector are not well managed from an environmental perspective. There were 62 notifications of non-compliance issued in the period 2007 to 2008 – a marginal improvement from the 63 notifications of non-compliance issued in the period 2005 to 2006. However, high standards can be achieved – no non-compliances were found for three of the 25 operating facilities during this two-year period.



APPENDIX TABLE 2.8 Metals Sector licence status and enforcement activity, 2006 to 2008

Details of licensed facilities¹

Facilities licensed (excluding surrenders)	35
Total operational facilities	26
Total closed/ceased and under threshold/not commenced	9
Total surrendered in 2006–2008	1

Audits/Inspections/Monitoring	2006	2007	2008
Audits and inspections	35	42	32
Water monitoring	32	34	26
Air monitoring	11	19	9

^[7] This includes activities licensed under the EPA Act: Classes 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9 and PoE Act: Classes 3.1.1, 3.1.2, 3.2.1, 3.2.2, 3.3.1, 3.3.2, 3.4.1, 3.4.2, 3.5, 3.6.1, 3.6.2

Enforcement actions taken	2006	2007	2008
Notifications of non-compliance issued	27	28	34
Number of non-compliances	81	66	63
Number of complaints	22	13	5
Number of prosecutions	0	0	0
Number of convictions	0	0	0

Note 1: Details of facilities licensed on 31/12/2008

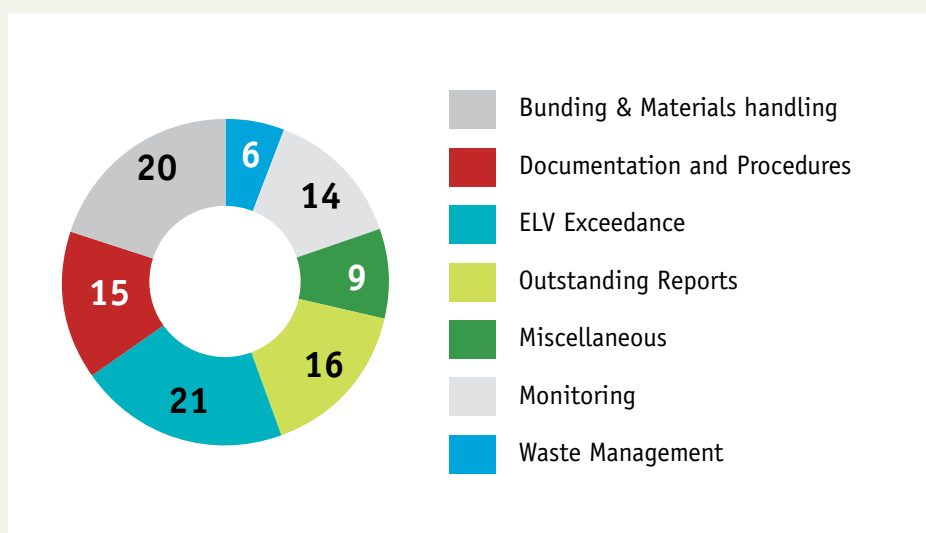
While it is not a major industrial sector in Ireland, it has the potential to generate hazardous wastes, cause noise pollution, release hazardous pollutants (e.g. heavy metals) to water or to sewer and release emissions to air.

Figure 2.5 indicates the categories for the non-compliances found in this sector over the past two years. The category of non-compliances that appear most frequently relate to the containment and storage of materials (20%). A priority for this sector is to address this through bunding and proper storage of material and waste.

These small-scale facilities typically do not have a dedicated environmental manager and have poorly developed environmental management systems. Accordingly the non-compliance categories relating to documentation and procedures and outstanding reports feature prominently. **Figure 2.5** also shows that the non-compliance categories relating to inadequate monitoring and exceeding emission limit values for effluent, and gaseous emissions occur regularly.

Facilities with a dedicated environmental manager and with a well developed and maintained environmental management system can expect to perform much better in the categories identified as problematic for this sector and all facilities are advised to consider what changes they can make in this regard.

APPENDIX FIGURE 2.5 Breakdown of non-compliances in Metals Sector



There have not been many complaints made by the public against facilities in this sector, with a 33% decrease in the number of complaints received by the EPA, from 27 (in the period 2005 to 2006) to 18 (2007 to 2008). The vast majority of these complaints related to noise and air pollution from just one facility. No prosecutions were taken against any facility in this sector in 2006–2008.

Minerals and Other Materials^[8]

There are 15 facilities in this sector with IPPC licences. The sector covers, among other things, the extraction and processing of minerals, peat and aluminium oxide. The sector includes some of the largest and most complex industrial sites in Ireland. Many of the facilities cover areas of operation of more than 100 hectares. Most of the sites are located in the midlands. One facility has ceased its licensable operations during the reporting period.

Ireland is the largest producer of zinc concentrates in Europe and the fourth largest producer of lead concentrates (behind Sweden, Russia and Poland). In 2008, 38% of Western Europe's zinc and 16% of its lead was produced in Ireland. The mineral sector generally extracts their raw material either by underground or by opencast operations and then processes it onsite. Some figures for extraction of materials in 2008 (in Million tonnes) were: Tara Mine 2.41 Mt, Lisheen Mine 1.8 Mt, Galmoy Mine 0.49 Mt. The Aughinish Alumina facility does not extract its raw material, but imports it and then processes it onsite. The peat sub-sector (i.e. Bórd na Móna) produced 2.88 Mt of milled peat in 2008.

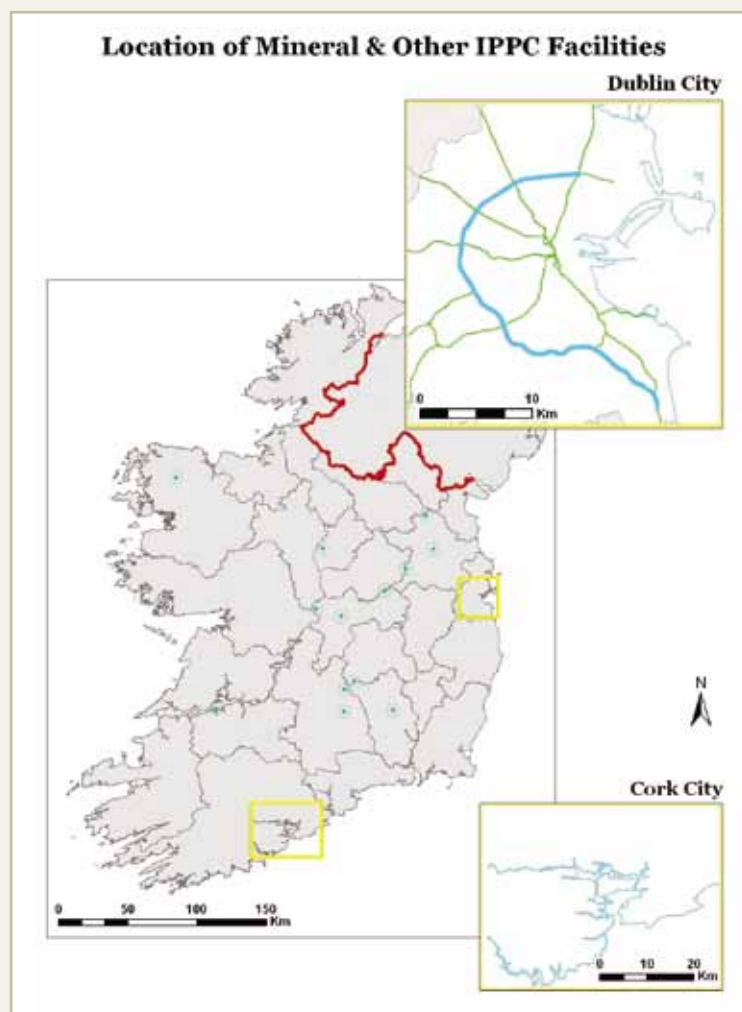
The level of compliance for the peat sub-sector during 2006–2008 was generally satisfactory. During this period the main issues among the nine peat sites were bunding, containment of materials and exceeding emission limit values.

The mining sub-sectors have greater potential to cause pollution, and this is reflected in the greater level of enforcement in this area in 2006–2008. It is estimated that over 16% of the total amount of groundwater abstracted nationally is from these underground mines. Most of this water is pumped to nearby rivers following treatment. However, there have been compliance issues with the management of water discharge at the mines in this period. The main type of non-compliance in the sector was in relation to the exceedance of emission limit values for emissions to water, notably for zinc, lead, ammonia, suspended solids and sulphate.

The planning for the approaching closure of two of the lead/zinc mines was the focus of much enforcement work and meetings with stakeholders in 2007 and 2008. Ensuring orderly closure of very large mineral waste storage facilities, compliance with the rehabilitation and aftercare requirements of the licences, and adequate financial provision for these facilities is a significant issue.

Forty-five complaints were recorded by the EPA for this sector for 2006–2008 mostly related to noise (in particular noise/vibration caused by blasting) and dust. There has been a slightly decreasing trend in the number of complaints in this sector from the previous reporting period of 2004–2005.

The transposition of the Directive on the Management of Waste from the Extractive Industries (2004/35/EC) by Regulations in 2009 will bring into force new obligations to manage extractive waste (tailings, waste rock, fines etc.) arising from mining, quarrying and peat harvesting in a way that minimises environmental impact.



[8] This includes activities licensed under the EPA Act Classes: 1.1, 1.2, 1.3, 1.4. and PoE Act, Classes: 1.1.1, 1.1.2

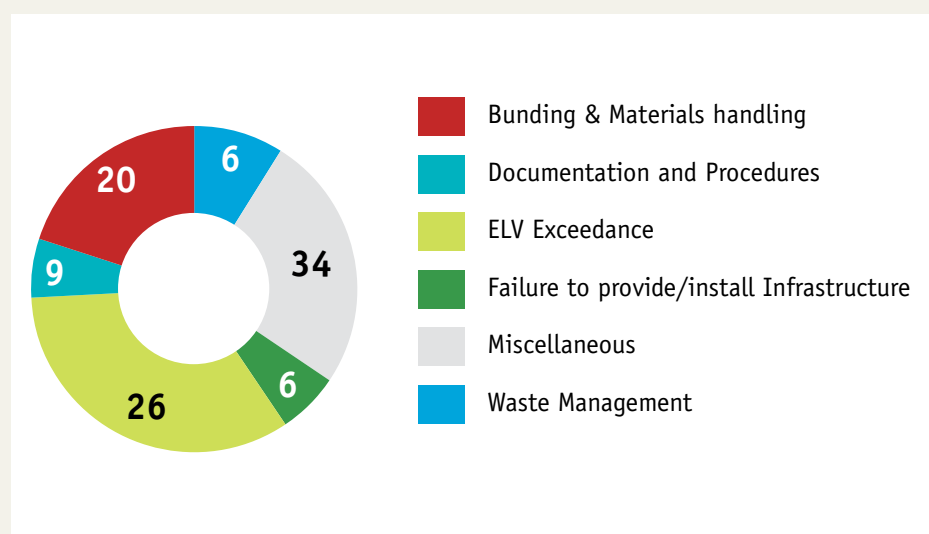
The Agency will play a significant role in the implementation of these regulations by reviewing and enforcing of existing IPPC licences and assisting local authorities in their tasks under these regulations, which taken together, will represent a significant review of the extractive industries throughout the State.

APPENDIX TABLE 2.9 Minerals and Other Materials Sector licence status and enforcement 2006–2008

Details of licensed facilities¹				
Facilities licensed (excluding surrenders)	15			
Total operational facilities	15			
Total closed/ceased and under threshold/not commenced	0			
Total surrendered in 2006–2008	0			
Audits/Inspections/Monitoring	2006	2007	2008	
Audits and inspections	18	15	11	
Water monitoring	25	21	25	
Air monitoring	5	2	3	
Enforcement actions taken	2006	2007	2008	
Notifications of non-compliance issued	17	14	11	
Non-compliances	50	29	23	
Number of complaints	16	17	12	
Number of prosecutions	0	0	1	
Number of convictions	0	0	1	

Note 1: Details of facilities licensed on 31/12/2008

APPENDIX FIGURE 2.6 Breakdown of non-compliances in Minerals & Other Materials Sector (2006–2008)

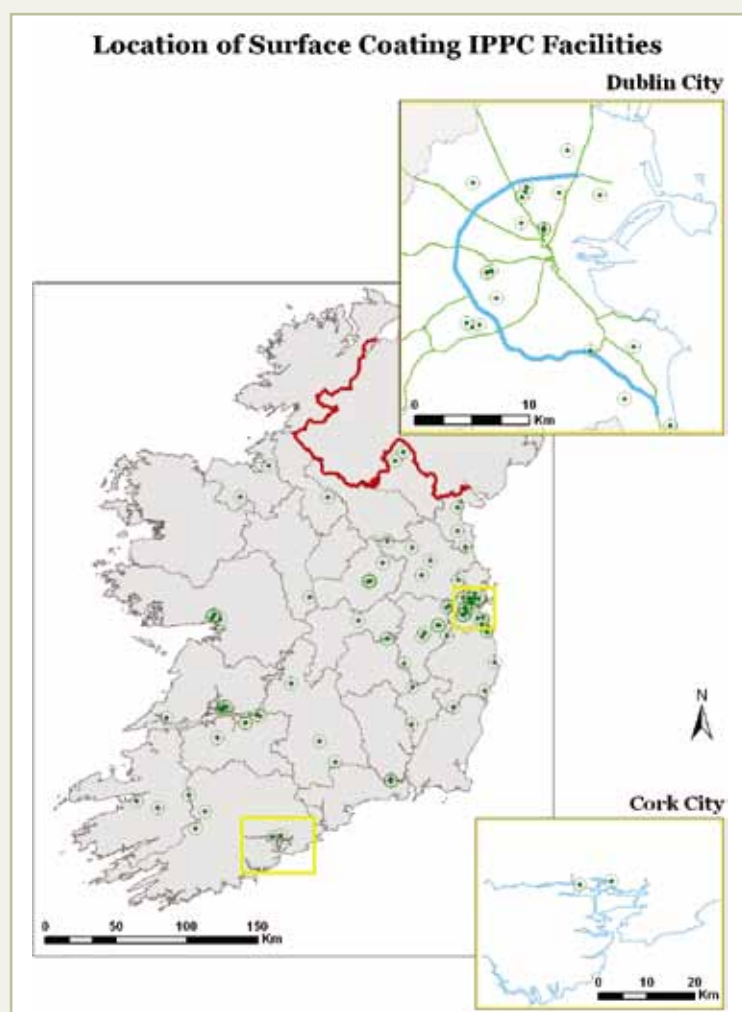


Surface Coating Sector^[9]

Of the 90 licensed facilities, there are 29 sites in this sector that have either ceased operations or have closed. At the end of 2008 the sector comprised 74 sites involved in surface coatings using organic solvents and 16 sites involved in electroplating. This sector is diverse in that it includes activities varying from small printing operations to large pharmaceutical manufacturers that conduct coating activities for prescription products. Sites in this sector are generally classified in the medium to low enforcement risk categories.

In the period 2006 to 2008, a total of 583 audits, site inspections and monitoring visits were carried out.

There were 220 notifications of non-compliance issued in the period 2006–2008.



APPENDIX TABLE 2.10 Surface Coatings Sector licence status and enforcement activity, 2006 to 2008

Details of licensed facilities ¹			
Facilities licensed (excluding surrenders)	90		
Total operational facilities	55		
Total closed/ceased and under threshold/not commenced	35		
Total surrendered in 2006–2008	3		
Audits/Inspections/Monitoring	2006	2007	2008
Audits and inspections	86	93	77
Water monitoring	89	80	91
Air monitoring	24	30	38
Enforcement actions taken	2006	2007	2008
Notifications of non-compliance issued	77	79	64
Number of non-compliances	235	205	149
Number of complaints	15	13	13
Number of prosecutions	1	2	0
Number of convictions	0	2	0

Note 1: Details of facilities licensed on 31/12/2008

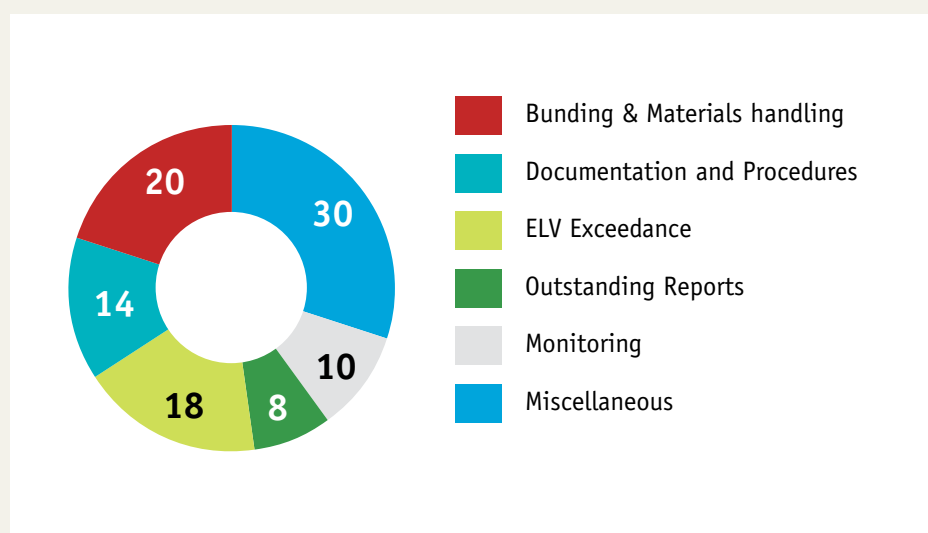
[9] Includes facilities licensed under EPA Act: Classes 12.1, 12.2, 12.3 and PoE Act: Classes 12.2.1, 12.2.2

Figure 2.7 indicates the categories for the non-compliances found in this sector over the past two years. The main compliance issues in this sector relates to bunding and materials storage (20%), exceedance of emission limit values (18%) and documentation/procedures (14%).

Facilities with a dedicated environmental manager and with a well developed and maintained environmental management system can expect to have a better level of compliance in relation to the issues highlighted above. This industry sector should focus on improving compliance on these highlight issues.

The major enforcement issue for the sector is ensuring compliance with the Solvents Directive where applicable. There is a slow movement towards the use of water based coating materials and a reduction in the solvent content of the majority of coatings in use is decreasing. In the short term the challenge is to ensure compliance with emission limits specified under the Solvents Directive for any installations subject to the Directive. There is draft guidance on solvent substitution from the Commission available at <http://circa.europa.eu/Public/irc/env/voc/library>

APPENDIX FIGURE 2.7 Breakdown of non-compliances in Surface Coating Sector



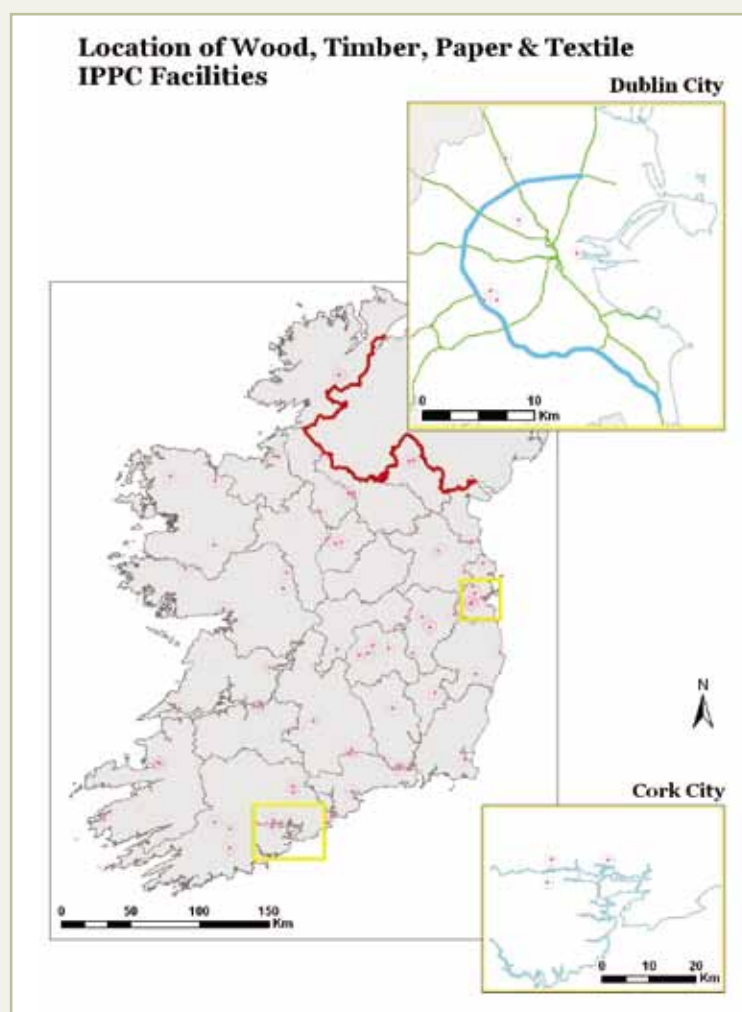
The number of complaints made by the public to the Agency against facilities in this sector has dropped significantly in this reporting period to 41, from 163 (in the period 2004 to 2005). A significant number of complaints in the 2004–2005 period were in relation to one facility, which has closed.

There were three prosecutions taken against this sector in 2006–2008 with two of these resulting in a conviction.

Wood, Paper, Textiles and Leather^[10]

Class 8 comprises: timber treatment, board manufacture, dyeing of textiles and the manufacture of synthetic fibres. There are 72 Class 8 licensed facilities, of which 47 are from the timber treatment sector (25 for other sectors). 20 facilities in this sector closed during 2006–2008. Timber treatment is carried out to extend the life of wood products, protecting them from damage caused by fungi and insect attack. Industrial wood preservation is a long-established activity in Ireland, but poor practices have left legacies of contaminated groundwater & soils at a number of treatment facilities. However, with improved industry practices and regulatory controls the environmental impacts of these operations are being mitigated.

During 2006–2008, 381 non-compliances were detected with the conditions of the IPPC licenses for the sector. 15% of these non-compliances relate to unsatisfactory environmental documentation systems and lack of procedures (e.g. to deal with the training of staff) and poor maintenance of waste records. A further 22% of non-compliances relate to inadequate bunding structures on-site (to prevent groundwater and surface water contamination). The non-submission of reports to the Agency is also a significant problem with this sector. See **Figure 2.8**. The Agency secured three convictions during this period: Laois Sawmills in 2007, Shannonside Building Supplies Limited and T & J Standish (Roscrea) Limited in 2008.



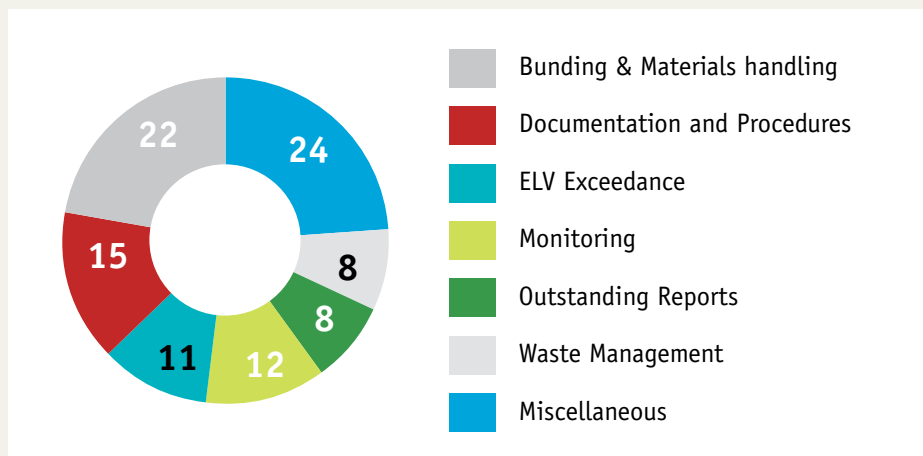
APPENDIX TABLE 2.11 Wood, Paper, Textiles & Leather Sector licence status & enforcement activity 2006–2008

Details of licensed facilities (on 31/12/2008)			
Facilities licensed (excluding surrenders)	72		
Total operational facilities	42		
Total closed	20		
Total surrendered in 2006–2008	6		
Audits/Inspections/Monitoring	2006	2007	2008
Audits and inspections	52	67	63
Water monitoring	39	39	58
Enforcement actions taken	2006	2007	2008
Notifications of non-compliance issued	41	50	55
Number of non-compliances	109	140	132
Number of complaints	17	6	6
Number of prosecutions	0	1	2
Number of convictions	0	1	2

[10] Includes facilities licensed under EPA Act: Classes 8.1, 8.2, 8.3, 8.4, 8.5, 8.6 and PoE Act: Classes 8.5.1, 8.5.2, 8.6.1, 8.6.2

A priority for the EPA for 2007 was to tackle the persistent soil and groundwater issues associated with the timber treatment industry. During 2007, the Agency carried out a study on all licensed operational high-pressure facilities (19 in total) to assess the potential impact these facilities may have on groundwater and surface water quality. Groundwater-monitoring boreholes were installed, and 19 groundwater samples and 42 surface water samples were analysed and interpreted. The study concluded that some sites continue to have copper, chromium and arsenic (CCA) contamination in surface water and groundwater as a result of poor historical practices. In addition, pesticides were detected in groundwater and surface water – thought to originate from poor operational practices from the use of preservatives on-site which have replaced CCA preservatives. The Agency has notified the 19 facilities studied, recommending actions to be taken to improve water quality at these timber treatment sites.

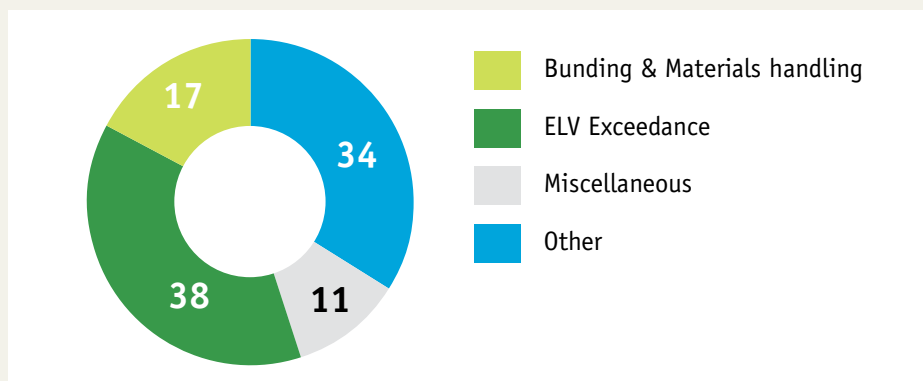
APPENDIX FIGURE 2.8 Breakdown of non-compliances in Timber Treatment Sector



There was a decrease in the number of complaints received by the Agency for this sector in 2007 and 2008 in comparison to 2006. Most complaints (17 No.) received during this 3-year period relate to one facility, with 10 of those complaints relating to noise.

The number of operational facilities in the board and paper manufacturing, textiles and fibres is now at eight out of 25 which demonstrates a continued decline in the level of activity of these sectors in Ireland. Of the eight operational facilities, compliance was generally satisfactory but varied depending on the facility. The types of non-compliances detected are detailed below.

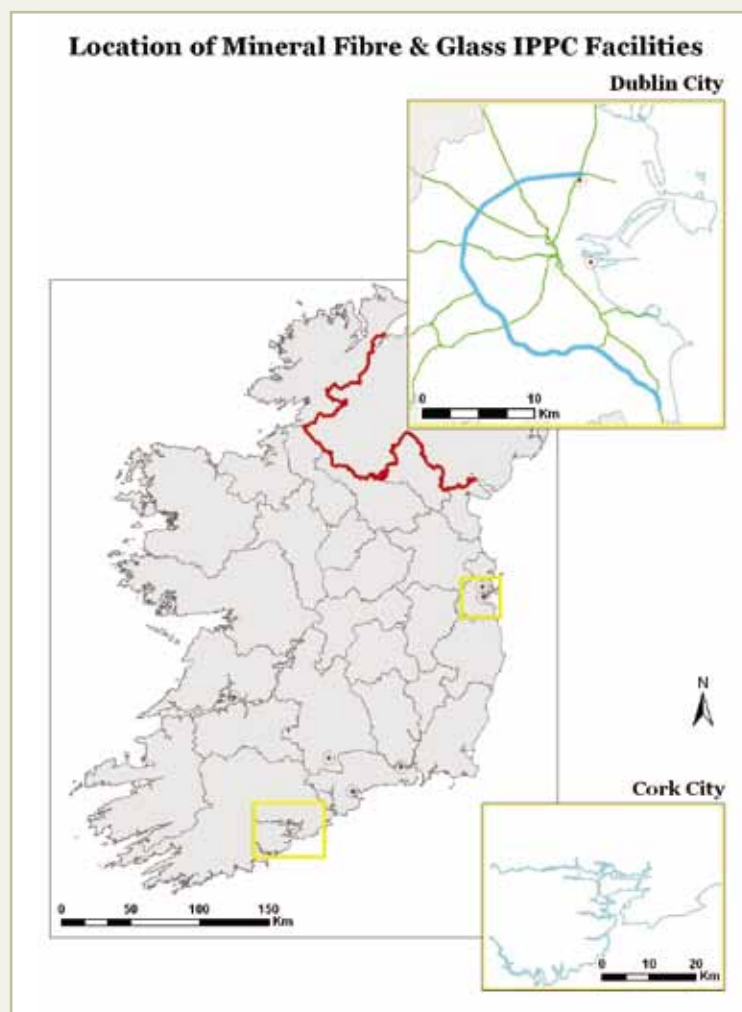
APPENDIX FIGURE 2.9 Non-compliances detected (excluding Timber Treatment)



Mineral Fibres and Glass^[11]

The Mineral Fibres and Glass Sector covers the manufacture of glass fibre or mineral fibre, the manufacture of glass and the manufacture of industrial diamonds. It is a very small sector in Ireland, with six facilities licensed of which three were active at the end of 2008. Sites in this sector are typically classified in the medium to high enforcement risk categories. The main environmental issues are emissions to air (particulates, acid gases), effluent discharges of heavy metals and heavy metals in solid waste.

There were no prosecutions taken in the period 2006–2008 compared to two in the previous two-year period. The compliance issues identified for this sector related to the exceedances of emissions limits for emissions to sewer and atmosphere; the disposal and recovery of waste; the lack of adequate bunding facilities for on-site storage of hazardous materials; and more recently to the requirements to carry out hydrogeological investigations, prepare site decommissioning plans, to carry out an environmental liabilities risk assessment and to maintain financial provisions to cover any environmental liabilities identified.



APPENDIX TABLE 2.12 Mineral Fibres & Glass Sector licence status & enforcement activity (2006–2008)

Details of licensed facilities ¹			
Facilities licensed (excluding surrenders)	6		
Total operational facilities (end 2008)	3		
Total closed/ceased and under threshold/not commenced (end 2008)	3		
Total surrendered in 2006–2008	0		
Audits/Inspections/Monitoring	2006	2007	2008
Audits and inspections	4	5	7
Water monitoring	14	10	6
Air monitoring	5	1	3
Enforcement actions taken	2006	2007	2008
Notifications of non-compliance issued	5	6	8
Number of non-compliances	17	8	14
Number of complaints	3	0	1
Number of prosecutions/convictions	0	0	0

Note 1: Details of facilities licensed on 31/12/2008

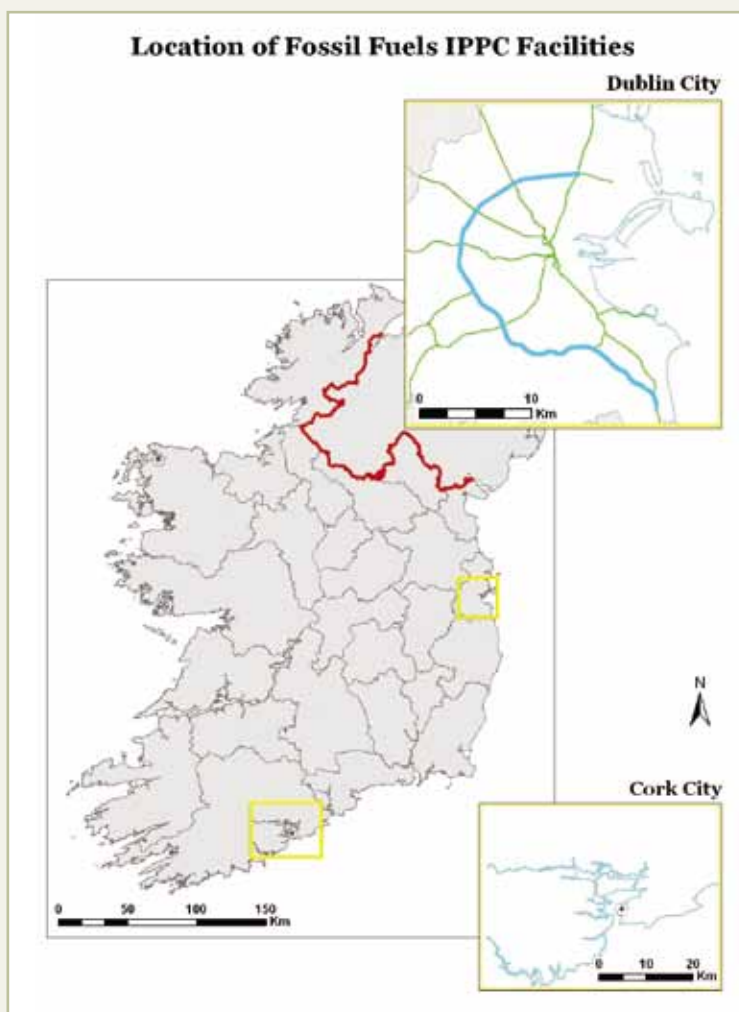
^[11] Includes facilities licensed under EPA Act: Classes 4.1, 4.2, 4.3, 4.4 and PoE Act: Classes 4.2.1, 4.2.2

Fossil Fuels^[12]

There is one operating oil refinery in Ireland, Conoco Philips Whitegate Refinery in Cork harbour. This facility and an additional facility, Conoco Philips Bantry Terminals in Bantry bay, is licensed by the Agency for the handling and storage of crude petroleum. A new facility, Shell E&P Ireland in Bellanaboy Bridge, Co. Mayo has been licensed by the Agency for the refining of gas brought on shore from an off shore gas well. A licence was issued for this facility in November 2007 and the facility has not yet commenced refining operations.

The two operational sites are generally well managed with a satisfactory level of compliance. The main environmental issues associated with these types of facilities are the risk of uncontrolled releases of oil and oil products to surface and groundwaters.

In the 2006 to 2008 period a total of 29 site visits were carried out. There were five notifications of non-compliance issued over the 2006 to 2008 period; three related to ELV exceedances. The EPA has received one complaint in relation to these facilities in the 2006–2008 period. This is down from 10 received during 2004 to 2005. There have been no prosecutions taken against any facility in this sector since 2004.



APPENDIX TABLE 2.13 Fossil Fuels Sector licence status and enforcement activity, 2006 to 2008

Details of licensed facilities ¹				
Facilities licensed (excluding surrenders)	3			
Total operational facilities	2			
Total closed/ceased and under threshold/not commenced	1			
Total surrendered in 2006–2008	0			
Audits/Inspections/Monitoring	2006	2007	2008	
Audits, inspections and monitoring	9	9	11	
Enforcement actions taken	2006	2007	2008	
Notifications of non-compliance issued	1	2	2	
Number of non-compliances	1	2	3	
Number of complaints	0	0	1	
Number of prosecutions/convictions	0	0	0	

Note 1: Details of facilities licensed on 31/12/2008

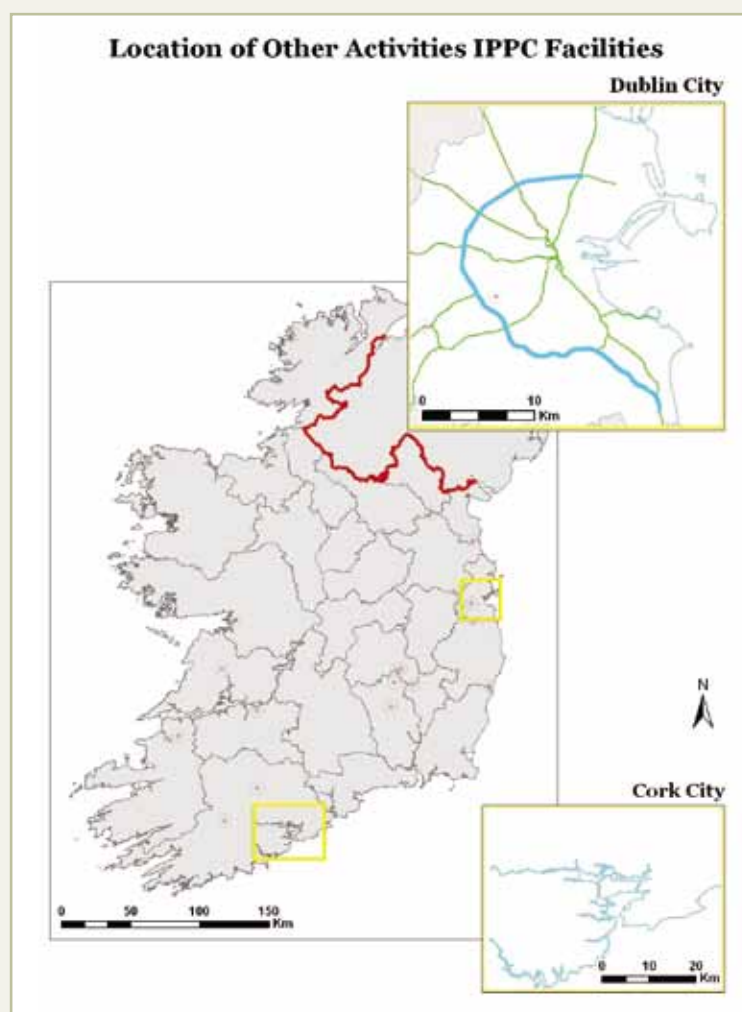
^[12] This includes activities licensed under the EPA Act: Classes 9.1, 9.2, 9.3, 9.4 and PoE Act: Classes 9.3.1, 9.3.2, 9.4.1, 9.4.2, 9.4.3, 9.4.4

Other Activities (Class 13)^[13]

Class 13 covers a diverse range of sectors, which includes the testing of engines, the manufacture of circuit boards, the production of lime and the manufacture of coarse ceramics. There are currently 12 operational facilities in this sector.

There were 17 audits and inspections completed in 2006, 23 in 2007 and 20 in 2008. The level of compliance for the sector varies depending on the facility. While there were 33 notifications of non-compliance issued over the reporting period, no prosecutions were taken against facilities in this sector during this time.

The principal non-compliance over the three-year period was for breaches of emission limit values in the licence. Bundling and storage of materials was another significant non-compliance. The sectors involved will need to focus on these issues to improve their level of licence compliance.



APPENDIX TABLE 2.14 Class 13 Sectors licence status and enforcement activity, 2006 to 2008

Details of licensed facilities ¹			
Facilities licensed (excluding surrenders)	17		
Total operational facilities	12		
Total closed/ceased and under threshold/not commenced	5		
Total surrendered in 2006–2008	2		
Audits/Inspections/Monitoring	2006	2007	2008
Audits and inspections	17	23	20
Water monitoring	20	15	14
Air monitoring	10	7	11
Enforcement actions taken	2006	2007	2008
Notifications of non-compliance issued	11	13	9
Number of non-compliances	38	33	45
Number of complaints	8	2	30
Number of prosecutions	0	0	0

Note 1: Details of facilities licensed on 31/12/2008

^[13] This includes activities licensed under the EPA Act: Classes 13.1, 13.2, 13.3, 13.4 and PoE Act: Classes 13.4.1, 13.4.2

APPENDIX 3: ANALYSIS OF COMPLIANCE PERFORMANCE BY WASTE ACTIVITIES

(LICENSED BY EPA)

Further details of waste enforcement activities are included below along with a discussion of compliance and enforcement issues in each sector of waste activities regulated by the EPA.

APPENDIX TABLE 3.1 EPA Waste enforcement activities in 2006–2008

Activity	2006			2007			2008		
	Audits & inspections	Water monitoring	Landfill Gas monitoring	Audits & inspections	Water monitoring	Landfill Gas monitoring	Audits & inspections	Water monitoring	Landfill Gas monitoring
Landfill Sector	161	69	36	245	69	38	153	72	26
Hazardous Waste Transfer Station Sector	21	18	0	20	23	0	17	27	0
Non-Hazardous Waste Transfer Station Sector	103	73	0	110	67	0	80	86	1
Compost Sector	20	1	0	23	4	0	29	4	0
Dredging Sector	6	0	0	1	0	0	1	0	0
Civic Amenity Sites Sector	4	4	0	3	5	0	3	5	0
Contaminated Land Sector	15	3	0	5	2	0	1	0	0
Totals	330	168	36	407	170	38	284	194	27

APPENDIX TABLE 3.2 Numbers of non-compliances detected and Notifications of non-compliance (NONCs) issued to Waste licensees in 2006–2008

Activity	2006		2007		2008	
	NONCs issued	NONCs detected	NONCs issued	NONCs detected	NONCs issued	NONCs detected
Landfill Sector	70	216	108	263	84	166
Hazardous Waste Transfer Station Sector	10	32	13	28	13	51
Non-Hazardous Waste Transfer Station Sector	59	200	74	196	59	144
Compost Sector	15	39	17	64	20	74
Dredging Sector	2	2	0	0	0	0
Civic Amenity Sites Sector	2	11	2	8	8	29
Contaminated Land Sector	7	11	3	4	1	1
TOTALS	165	511	217	563	185	465

Landfills^[1]

During the reporting period there were 79 licensed landfill facilities. Of these, at the end of the reporting period 35 were active – 29 of which were municipal landfills, with the others accepting non-municipal waste such as peat ash, sludge and inert waste. 44 landfills were closed, ceased and under threshold or had not commenced and no landfill licences were surrendered.

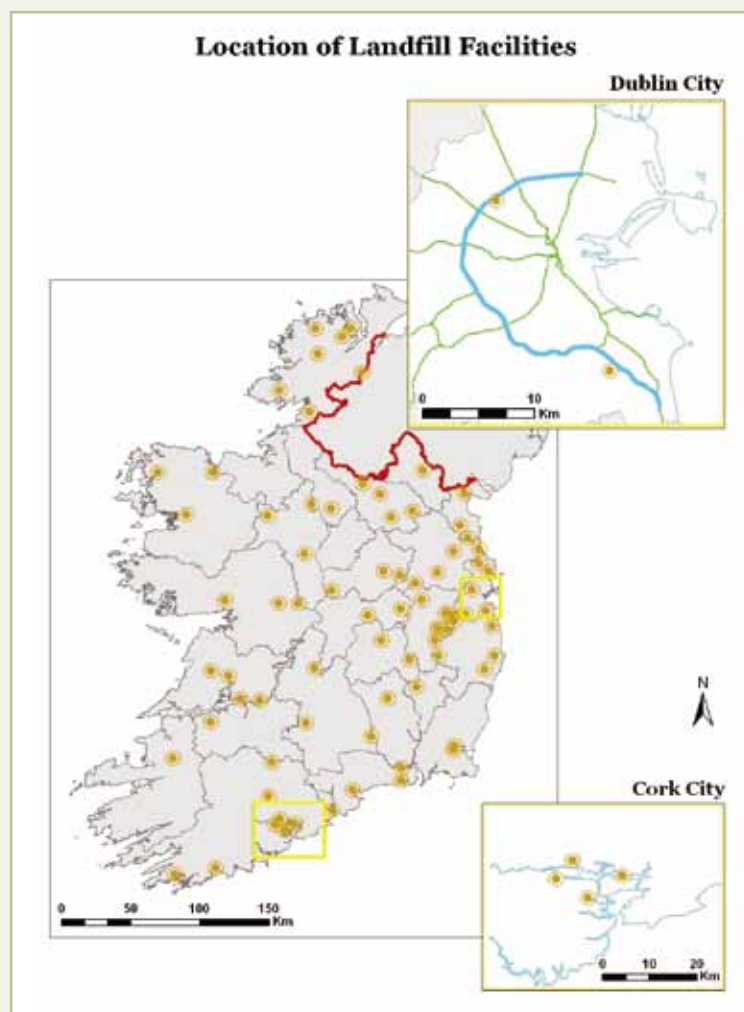
A number of the active and closed landfills are also authorised to undertake other waste activities such as waste transfer and recovery, the operation of civic amenity centres and composting. In some cases closed historic landfills are present on active waste transfer stations – but were not licensed as landfills. In these cases the facility is considered under the waste transfer station sector.

Over the course of the 2006 to 2008 reporting period, one local authority operated landfill and one privately operated landfill ceased accepting waste while two newly constructed privately owned and one new local authority residual waste landfills commenced operation. Of the 11 privately owned landfills, five were accepting non-hazardous waste and the remainder were accepting inert waste and/or their own waste (such as sludge, peat and peat ash). One new local authority landfill for the acceptance of residual non-hazardous waste was also being constructed during the reporting period but had not commenced accepting waste by the end of the reporting period.

Appendix Table 3.3 summarises the status of licences and the enforcement activities conducted by the Agency in relation to those landfill licences during the reporting period. In 2006, 161 audits and site inspections of landfill facilities were carried out with 245 carried out in 2007 and 153 conducted in 2008. The EPA issued 70 notifications of non-compliance to licensees in 2006, 108 in 2007 and 84 in 2008. These notifications of non-compliance contained 216, 263 and 166 individual non-compliances in 2006, 2007 and 2008 respectively. The Agency's Regional Laboratory personnel also carried out 69 monitoring visits to sample surface water, groundwater and leachate at landfills in both 2006 and 2007 and 72 similar visits in 2008. They also conducted landfill gas monitoring (36 visits in 2006, 38 visits in 2007 and 26 visits in 2008).

The most common non-compliances observed over the reporting period for the sector included:

- failure to install adequate infrastructure for the management of landfill gas and leachate;
- failure to install adequate infrastructure for the management of leachate;
- failure to cap finished areas of the landfill in a timely manner;
- activities giving rise to off-site nuisances including odour;
- failure to carry out monitoring as required by waste licences; and
- failure to cover waste adequately.



^[1] Includes facilities licensed under the EPA and PoE Act: Classes 3-1, 3-4, 3-5, 3-7, 3-12, 3-13, 4-2, 4-4, 4-11.

Appendix Figure 3.1 indicates the percentage of non-compliances in different categories over the reporting period.

Three successful prosecutions for non-compliance with landfill waste licence conditions were conducted during 2006, and one in both 2007 and 2008. Three of the prosecutions related to failure to provide infrastructure including capping, landfill gas management and leachate management infrastructure. One of the three prosecutions in 2006 also related to causing odour nuisance and impairment of the environment in the vicinity of the facility as did the prosecutions in 2007 and 2008.

Odour complaints

The most significant trend observed during the reporting period was a sharp increase in the number of complaints received by the Agency in relation to landfilling activities and particularly in relation to odours. The number of complaints received went from approximately 475 in 2004–2005, to 514, 1,620 and 1,322 for 2006, 2007 and 2008 respectively. The odour complaints related to the smell of waste, the smell of landfill gas or both.

In light of the increase in odour complaints, the EPA contracted consultants in 2007 to carry out independent detailed assessments of the landfill gas management systems at 10 of the operational landfills attracting the most significant numbers of odour complaints. The assessments included an appraisal of the adequacy of operation and management of the landfill gas control systems and detailed monitoring and mapping of volatile organic carbon (VOC) emissions from the surface of the landfills. The VOC monitoring and contour mapping gave an indication of the level of landfill gas leakage at the facilities and highlighted 'hotspots' of unacceptably high levels of leakage. A report on the landfill survey was provided to each landfill manager by the Agency and the consultants discussed the findings and recommendations of the report with the landfill managers on site. The landfill operators were required to carry out the mitigation measures identified in the consultants' reports and follow up surveys were conducted by the consultants to assess the effectiveness of the mitigation measures in reducing landfill gas leakage from the facilities. The project was successful in achieving significant improvement in landfill gas management at a number of facilities and showed that further work on gas management is needed. This project was being extended out to 17 other operational facilities in 2008 and 27 facilities in total were assessed in 2008.

Odour control at landfills will continue to be a priority issue for the EPA and there will be an ongoing enforcement focus on the achievement of high standards of operational practice at licensed landfills in relation to waste management and the design, operation and management of landfill gas control systems.

Licensees must ensure that facilities operate best practice by:

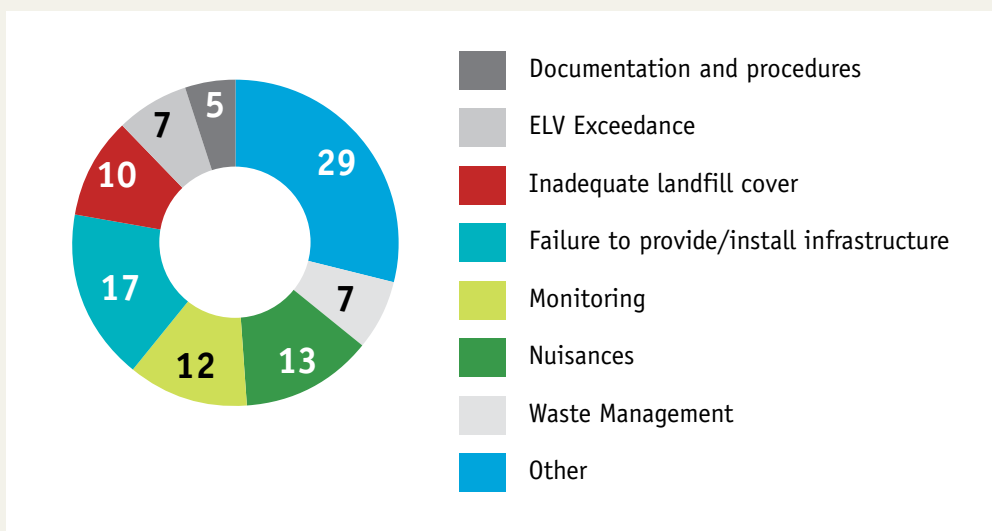
- the provision of adequate daily and intermediate cover for the waste;
- the provision of appropriate landfill gas control infrastructure;
- the appropriate sizing and phasing of cells including the management of flanked areas to minimise potential fugitive air emissions; and
- the timely capping of landfill cells.

There will also be an increased focus on the diversion of biodegradable waste away from landfill and towards composting and other waste treatment options.

APPENDIX TABLE 3.3 Landfill Sector licence status and enforcement activity, 2006 to 2008

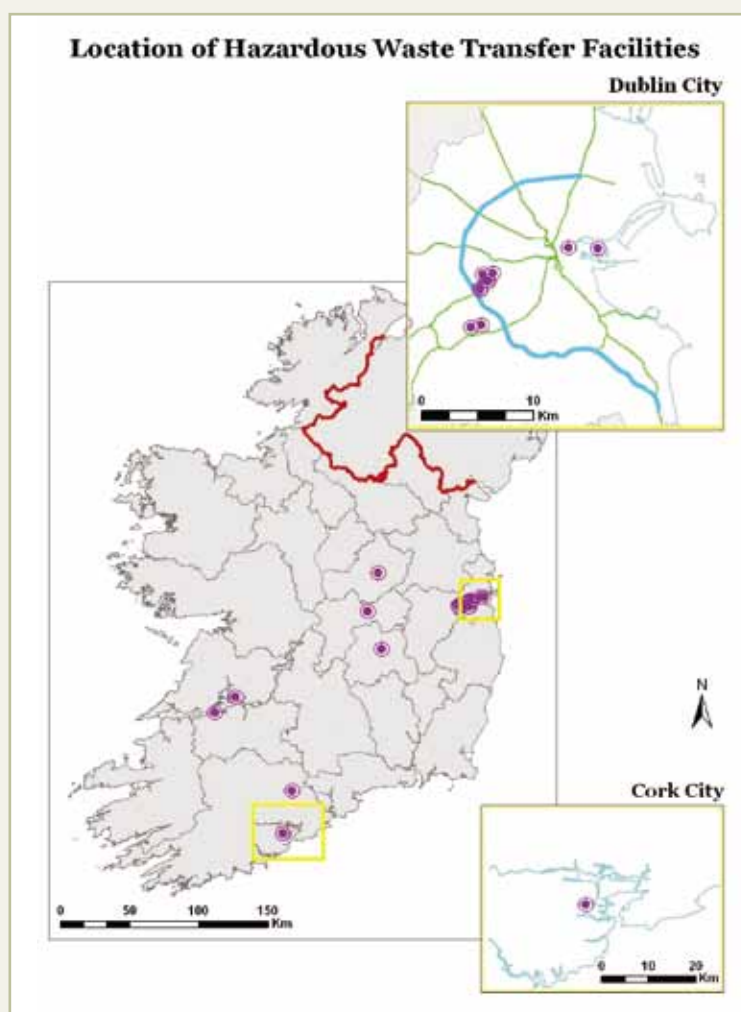
Details of licensed facilities¹			
Facilities licensed (excluding surrenders)	79		
Total operational facilities	35		
Total closed/ceased and under threshold/not commenced	44		
Audits/Inspections/Monitoring	2006	2007	2008
Audits and inspections	161	245	153
Water monitoring	69	69	72
Landfill gas monitoring	36	38	26
Enforcement actions taken	2006	2007	2008
Notifications of non-compliance issued	70	108	84
Number of non-compliances	216	263	166
Number of complaints	514	1,620	1,322
Number of prosecutions	3	1	1
Number of convictions	3	1	1

Note 1: Details of facilities licensed on 31/12/2008

APPENDIX FIGURE 3.1 Non-compliance types in the Landfill Sector

Hazardous Waste Transfer Stations^[2]

The Hazardous Waste Transfer Stations (WTS) sector consists of a variety of hazardous wastes storage and treatment facilities. The activities carried out at these facilities include storage of waste awaiting export, bulking/blending of waste solvent prior to export, recovery of waste solvent, recovery of materials from waste, physico-chemical treatment of waste and biological treatment of waste. There were 20 licensed hazardous waste transfer stations in operation by the end of 2008. These facilities are mainly situated in the large urban areas. The EPA detected 111 instances of non-compliances with the requirements of the waste licences at these facilities during 2006–2008. This resulted in the EPA issuing 36 notifications of non-compliances requiring specific corrective actions to be carried out with a defined time period. Two facilities accounted for >1/3 of all the non-compliances raised for this sector in the 2006–2008 period. Inadequate environmental management plans and procedures was the most frequent non-compliance detected.



One prosecution was taken and a conviction was secured in 2006 against one operator for inadequate waste storage arrangements. This situation was subsequently resolved to the satisfaction of the Agency. In general the level of compliance in this sector is good however due to the nature of the material handled at these facilities a high level of vigilance is always required.

APPENDIX TABLE 3.4 Hazardous WTS licence status & enforcement activity 2006–2008

Details of licensed facilities ¹				
Facilities licensed (excluding surrenders)	20			
Total operational facilities	15			
Total closed/ceased and under threshold/not commenced	5			
Total surrendered in 2006–2008	0			
Audits/Inspections/Monitoring	2006	2007	2008	
Audits and inspections	21	20	17	
Water monitoring	18	23	27	
Air monitoring	1	2	0	
Enforcement actions taken	2006	2007	2008	
Notifications of non-compliance issued	10	13	13	
Number of non-compliances	32	28	51	
Number of complaints	5	7	4	
Number of prosecutions	1	0	0	
Number of convictions	1	0	0	

Note 1: Details of facilities licensed on 31/12/08

^[2] Includes activities licensed under the EPA and PoE Act: Classes 3-7, 3-13, 4-1, 4-3, 4-8, 4-13

Non-Hazardous Waste Transfer Stations^[3]

The Non-Hazardous Waste Transfer Station (WTS) Sector includes EPA waste licensed facilities, also known as Waste Transfer Stations, Integrated Waste Management Facilities or Materials Recovery Facilities. These facilities accept domestic, commercial and industrial, and construction & demolition wastes. Mixed wastes are subject to mechanical and manual separation to allow recovery of recyclable fractions such as concrete, paper, cardboard, plastics and metals. The residual waste fraction is bulked and sent to landfill for disposal. There were 66 such facilities with waste licences dealing with non-hazardous waste by the end of 2008. Of these three had not commenced operation and three had closed by the end of 2008. These facilities are spread countrywide and range from small facilities with annual tonnages of 4,000 tonnes to the larger facilities, which accept more than 300,000 tonnes of waste per annum. The larger facilities tend to be located in the large urban areas.

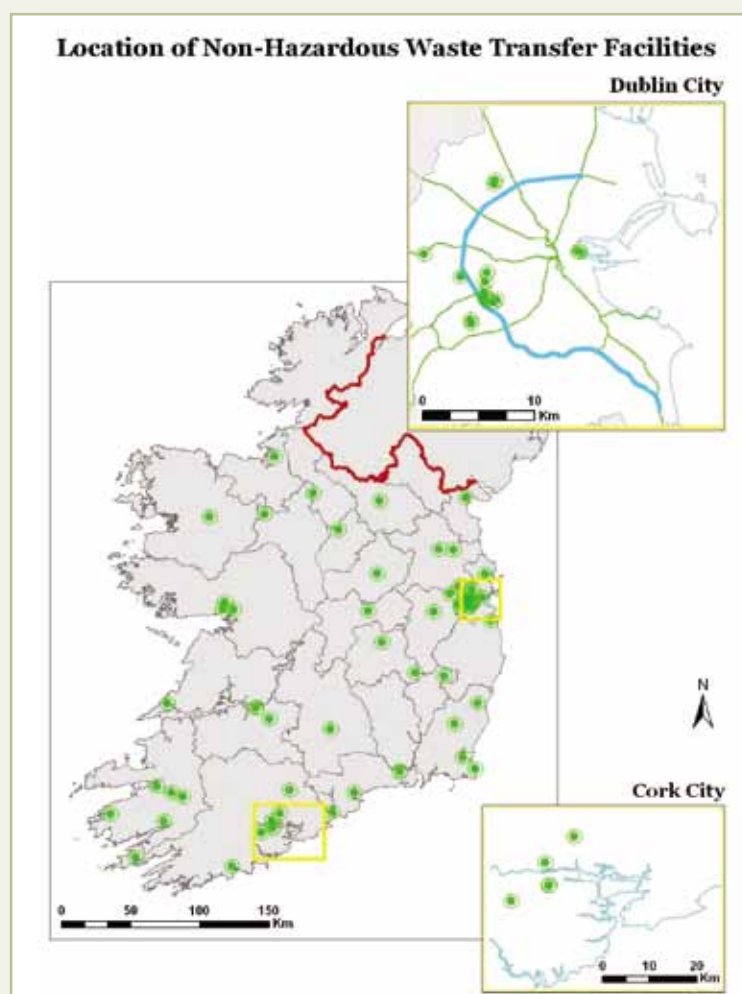


Table 3.5 provides a summary of sectoral status and enforcement activity during 2006–2008. The main non-compliances detected were in relation to failure to provide the required infrastructure, poor waste management practices & record keeping, odour nuisance and emissions in excess of licence limit values. The vast majority of the complaints received in relation to the operation of WTS facilities were in relation to nuisance odours from a small number of large urban facilities. In 2008 this number dropped to 68 and coincided with the provision of adequate odour abatement infrastructure at a number of facilities. The four successful prosecutions mainly related to breaches of annual waste tonnage limits and non-installation of odour abatement equipment.

APPENDIX TABLE 3.5 Non-Hazardous WTS licence status & enforcement activity 2006–2008

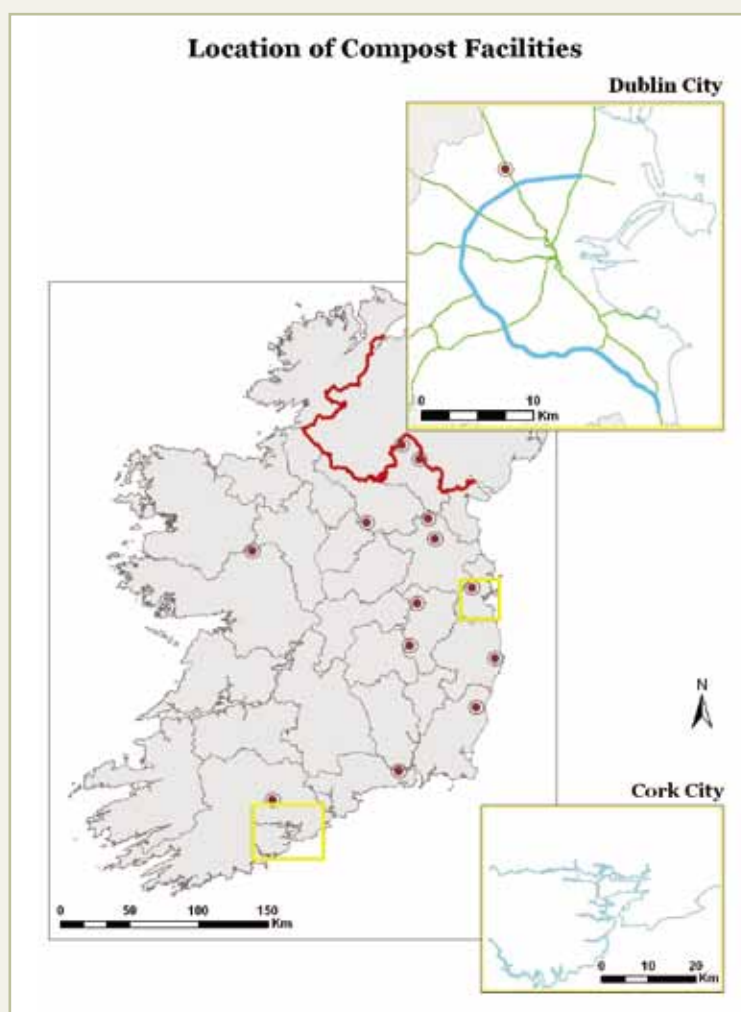
Details of licensed facilities (on 31/12/2008)			
Facilities licensed (excluding surrenders)	66		
Total operational facilities	60		
Total closed/ceased and under threshold/not commenced	6		
Total surrendered in 2006–2008	2		
Audits/Inspections/Monitoring	2006	2007	2008
Audits and inspections	103	110	80
Water monitoring	73	67	86
Enforcement actions taken	2006	2007	2008
Notifications of non-compliance issued	59	74	65
Number of non-compliances	200	196	170
Number of complaints	194	91	68
Number of prosecutions	1	0	3
Number of convictions	1	0	3

[3] Includes facilities licensed under EPA and PoE Act: Classes 3-11, 3-12, 3-13, 4-2, 4-3, 4-4, 4-13

Compost Sector^[4]

Composting activities are covered by the 2nd Class of the Fourth Schedule of the Waste Management Act, 1996 to 2007. It should be noted that this class of activity also allows for other biological treatment processes such as anaerobic digestion and biological remediation of contaminated land. Similarly, many waste facilities such as landfills and transfer stations are authorised to undertake the composting of waste, as a secondary activity (i.e. composting is not identified as the principle class of activity). Licensed facilities undertaking these activities are dealt with elsewhere in this report.

The number of licensed composting facilities where composting was identified as the principal activity rose slightly to 14 facilities at the end of 2008 compared to 11 facilities licensed at the end of 2005. Of the 14 licensed during the reporting period, on 31/12/08 seven were operational with four involved in the composting of green waste and/or biowaste of municipal origin and three involved in the composting of poultry/animal litter for the production of mushroom growing substrate (referred to hereafter as mushroom compost facilities).



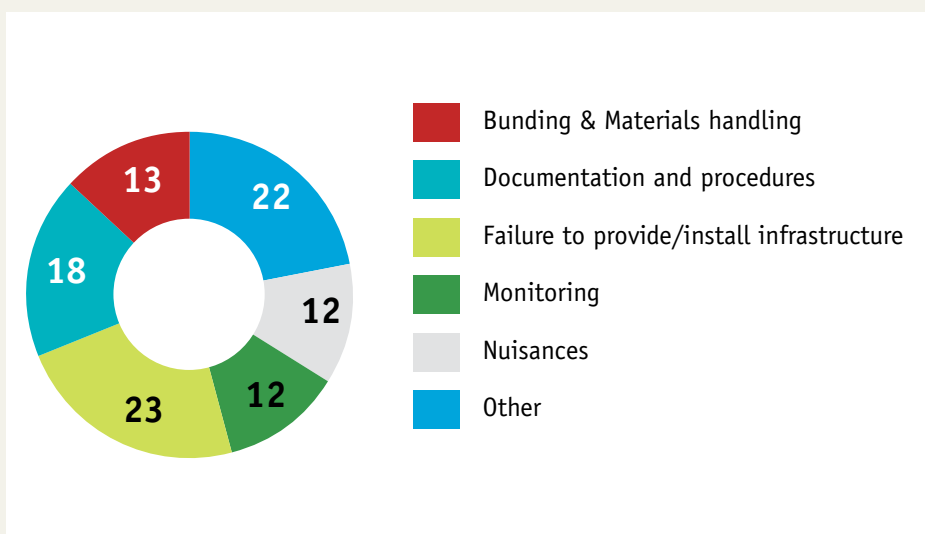
APPENDIX TABLE 3.6 Compost Sector licence status & enforcement activity 2006–2008

Details of licensed facilities (on 31/12/2008)				
Facilities licensed (excluding surrenders)	14			
Total operational facilities	7			
Total closed/ceased and under threshold/not commenced	7			
Total surrendered in 2006–2008	0			
Audits/Inspections/Monitoring	2006	2007	2008	
Audits and inspections	20	23	29	
Water monitoring	1	4	4	
Enforcement actions taken	2006	2007	2008	
Notifications of non-compliance issued	15	17	20	
Number of non-compliances	39	64	74	
Number of complaints	59	38	66	
Number of prosecutions	0	2	2	
Number of convictions	0	2	2 ^[5]	

[4] Includes activities licensed under the EPA Act Class 4-2

[5] 2 prosecutions initiated in 2008 and concluded with convictions in 2009

APPENDIX FIGURE 3.2 Breakdown of non-compliances in the Compost Sector



As can be seen from the information provided above, the sector continues to exhibit a high number of complaints and non-compliances relative to the small number of operational facilities in the sector. The vast majority of these were associated with the mushroom compost facilities. Of the 163 complaints received by the Agency during the 2006–2008 period, 96% related to the four licensed mushroom compost facilities that were operational. Complaints mainly related to odour nuisance, but also dealt with issues such as lack of infrastructure and noise nuisance.

Of the 177 individual non-compliances detected by the EPA during the 2006–2008 period, 89% were recorded against the four operational mushroom compost facilities. The main issue highlighted at these facilities as being non-compliant was the provision/installation of infrastructure (e.g. enclosure of operations and abatement of air emissions). This had knock-on implications for causing nuisance, as was evident in the high percentage of nuisance related non-compliances shown in **Figure 3.2** and the complaints information described above.

Ensuring the provision of necessary infrastructure, and in particular odour abatement systems, remains a major enforcement priority for this sector. The EPA has responded to the generally poor compliance status of this sector by taking two successful prosecutions in 2007. A further two prosecutions were initiated in 2008 and convictions in relation to these two cases were secured in early 2009.

An EPA-sponsored research report on developing an Industry-led quality standard for source-separated biodegradable material derived compost has been completed (see www.epa.ie STRIVE report series no. 22). This recommends a compost quality standard for Ireland which may form the basis of a future national standard. The development of a national compost quality standard would help support market development initiatives for compost products.

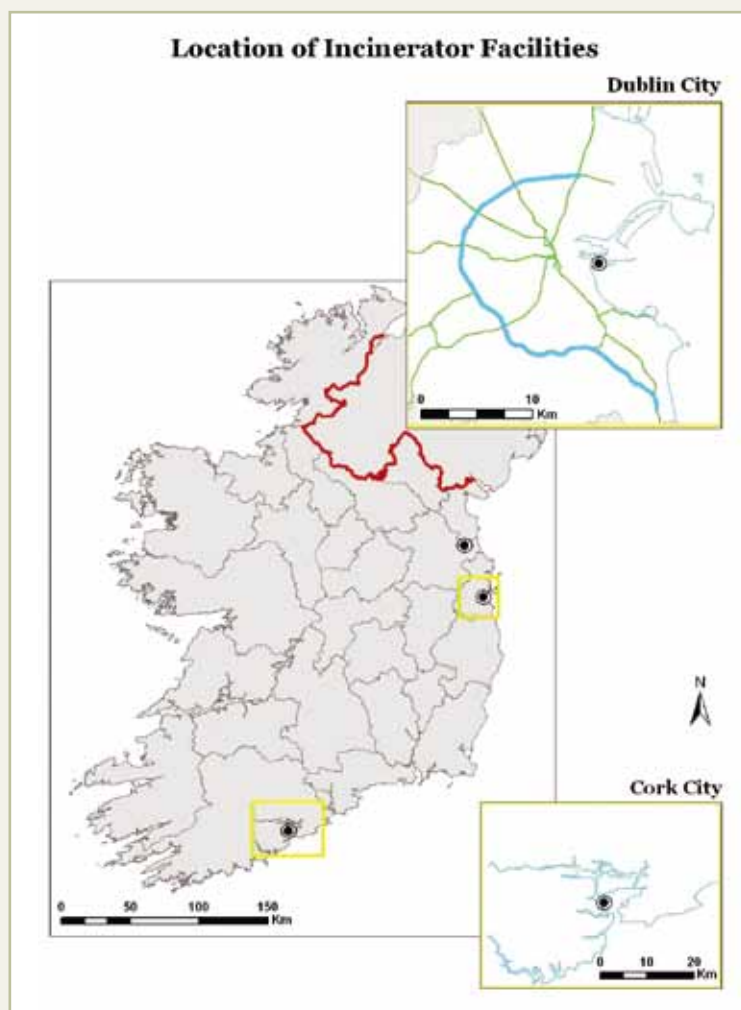
Incinerators^[6]

Two waste licences for the establishment of incinerators were issued at the end of 2005. A further licence was issued in late 2008. No licensed activity commenced under these licences during the reporting period. These facilities are licensed under Class 8 of the Third Schedule to the Waste Management Acts 1996 to 2008. Of the three licensed facilities, one is licensed to incinerate both hazardous waste and non-hazardous waste, while the other two are licensed to incinerate non-hazardous waste.

The three licences for commercial waste incinerators are as follows:

- W0167-01 – Indaver Ireland
- W0186-01 – Indaver Ireland
- W0232-01 – Dublin Waste to Energy Project

While there are no commercial incineration plants in operation at the moment, there are currently eight pharmaceutical installations that operate waste incineration plant under EPA licences in order to dispose of their own waste materials. All of these sites incinerate liquid waste streams while two sites also have capabilities to incinerate solid wastes. One cement kiln is also licensed by the Agency to co-incinerate waste, while one pharmaceutical plant is also licensed to co-incinerate liquid waste. All of these plants are subject to the stringent requirements of the Waste Incineration Directive (2000/76/EC). The level of compliance with the emission limit values (including dioxins and furans) specified in the directive is excellent. As well as the primary class of IPPC activity at the site, the above installations are also licensed under Class 11.1 of the first Schedule to the EPA Acts 1992 to 2007 in order to allow the disposal of waste at the site.



APPENDIX TABLE 3.7 Incinerator Sector licence status and enforcement activity, 2006 to 2008

Details of licensed facilities ¹	
Facilities licensed (excluding surrenders)	13
Total operational facilities	10

Note 1: Details of facilities licensed on 31/12/2008

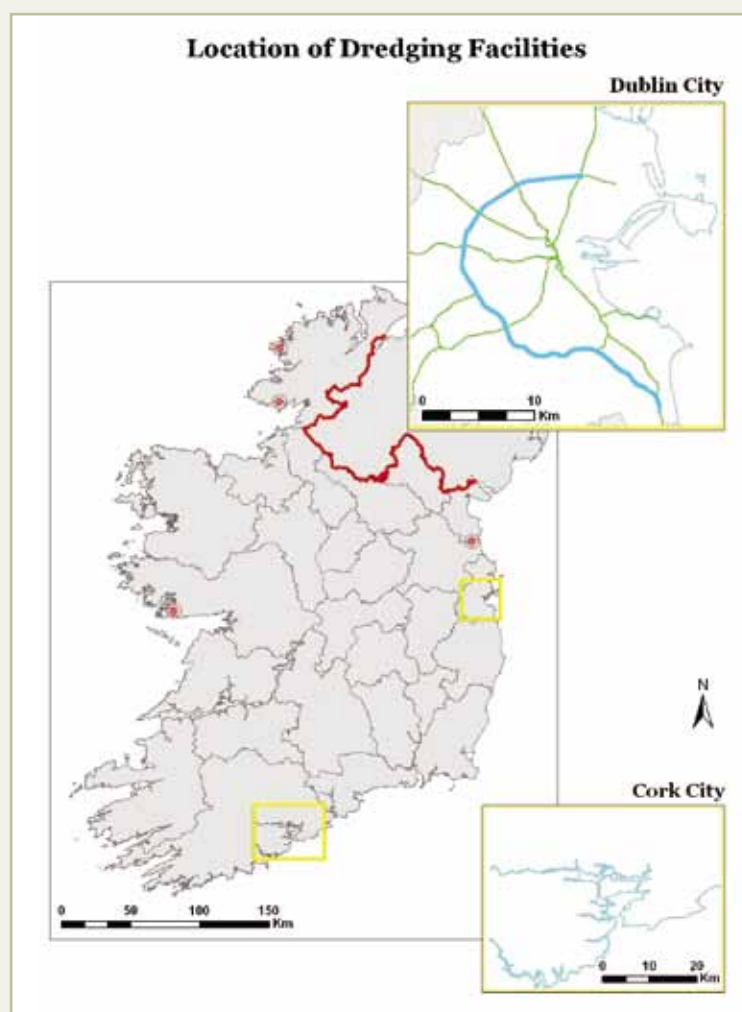
[6] Includes facilities licensed under the EPA and PoE Act: Class 3-8

Dredging Facilities^[7]

During the reporting period, four waste licences were in force regarding dredging operations in coastal areas. Of these licences, only one facility was operational during the reporting period. The focus of these licences has been to control the environmental impact of depositing and processing the dredged materials.

Table 3.8 summarises enforcement actions taken during the reporting period. The EPA undertook eight inspections during the reporting period resulting in two notifications of non-compliance being issued. Non-compliances noted by the EPA related to delays in the completion of restoration works.

The EPA received three complaints during the reporting period and these related to issues with the restoration works. The EPA undertook no prosecutions in relation to this sector during the reporting period.



APPENDIX TABLE 3.8 Dredging Sector licence status and enforcement activity, 2006 to 2008

Details of licensed facilities ¹			
Facilities licensed (excluding surrenders)	4		
Total operational facilities	1		
Total closed/ceased and under threshold/not commenced	3		
Total surrendered in 2006–2008	0		
Audits/Inspections/Monitoring	2006	2007	2008
Audits and inspections	6	1	1
Enforcement actions taken	2006	2007	2008
Notifications of non-compliance issued	2	0	0
Number of non-compliances	2	0	0
Number of complaints	2	1	0
Number of prosecutions	0	0	0
Number of convictions	0	0	0

Note 1: Details of facilities licensed on 01/01/2009

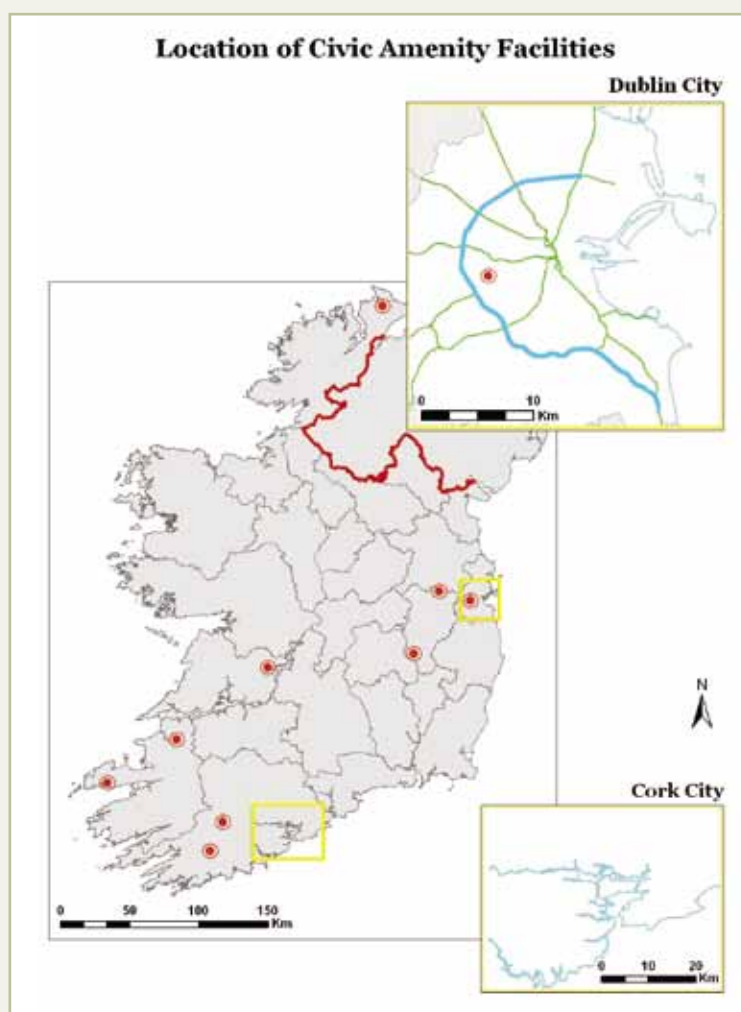
[7] Includes facilities licensed under the EPA and PoE Act: Classes 4-4, 4-13

Civic Amenity Sites^[8]

There are nine licences for stand-alone Civic Amenity Sites that accept waste from the public at least some portion of which is destined for disposal. Four of these are operational. A number of civic amenity sites also exist at licensed facilities where there is a different principal activity (e.g. landfills and larger transfer stations). Details in this section relate to the licences mentioned above for stand-alone civic amenity sites only.

Table 3.9 below summarises enforcement actions taken during the reporting period. There were 10 audits and inspections undertaken during the reporting period and a further 14 water monitoring compliance visits, with six notifications of non-compliance issued. Non-compliances included exceedances of waste tonnage and inadequate bunding, infrastructure, monitoring, record keeping, litter control and labelling of waste receptacles. The EPA took no prosecutions in relation to these facilities.

Generally these facilities present a low risk to the environment due to the nature of the activities carried out.



APPENDIX TABLE 3.9 Civic Amenity Sites Sector licence status and enforcement activity, 2006 to 2008

Details of licensed facilities ¹				
Facilities licensed (excluding surrenders)	9			
Total operational facilities	4			
Total closed/ceased and under threshold/not commenced	5			
Total surrendered in 2006–2008	0			
Audits/Inspections/Monitoring	2006	2007	2008	
Audits and inspections	4	3	3	
Water monitoring	4	5	5	
Enforcement actions taken	2006	2007	2008	
Notifications of non-compliance issued	2	2	2	
Number of non-compliances	11	8	3	
Number of complaints	1	0	0	
Number of prosecutions	0	0	0	
Number of convictions	0	0	0	

Note 1: Details of facilities licensed on 31/12/2008

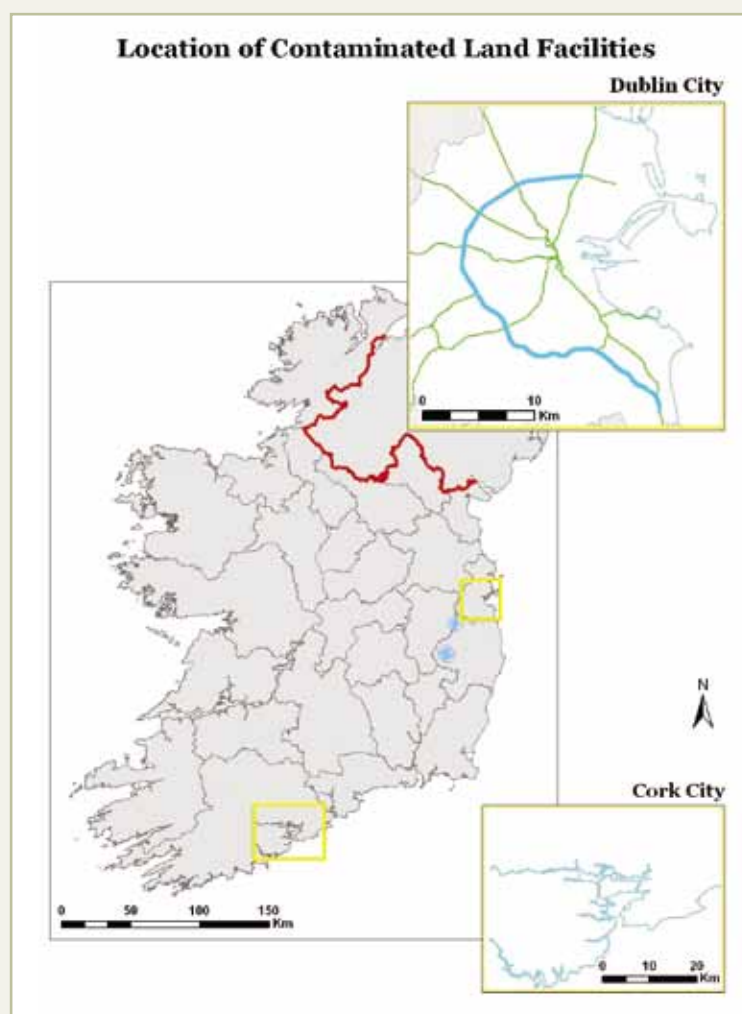
^[8] Includes activities licensed under the EPA and PoE Act Classes: 3-12, 4-13

Contaminated Land Sites^[9]

There are five waste licences relating to contaminated land and remediation activities. This sector includes licences issued for the remediation of contaminated land from previous activities and also for the treatment of waste that was deposited in unauthorised landfills.

In relation to the unauthorised landfills, waste is trommelled to segregate inert wastes from other wastes deposited. Non-inert waste is sent off site to waste facilities agreed with the EPA and inert waste is used on site for restoration works. An EPA Site Agent was appointed to one of the unauthorised landfills to oversee implementation of the requirements of the waste licence.

Table 3.10 below summarises enforcement actions taken during the reporting period. A total of 21 audits and inspections and five water monitoring compliance visits were undertaken during the reporting period. Eleven notifications of non-compliance were issued during the reporting period. Non-compliances noted by the EPA mainly related to inadequate infrastructure in place, inadequate monitoring, delays in restoration works and failure to fully implement waste characterisation procedures. A total of 25 complaints were received during the reporting period and these mainly related to odour nuisance complaints at one site.



APPENDIX TABLE 3.10 Contaminated Land Sector licence status and enforcement activity, 2006 to 2008

Details of licensed facilities ¹				
Facilities licensed (excluding surrenders)	3			
Total operational facilities	0			
Total closed/ceased and under threshold/not commenced	3			
Total surrendered in 2006–2008	2			
Audits/Inspections/Monitoring	2006	2007	2008	
Audits and inspections	15	5	1	
Water monitoring	3	2	0	
Enforcement actions taken	2006	2007	2008	
Notifications of non-compliance issued	7	3	1	
Number of non-compliances	11	4	1	
Number of complaints	22	3	0	
Number of prosecutions/convictions	0	0	0	

Note 1: Details of facilities licensed on 01/01/2009

^[9] Includes activities licensed under the EPA and PoE Act: Classes 3-1, 3-7

APPENDIX 4: PROSECUTIONS TAKEN BY THE EPA IN 2006 – 2008

Prosecutions taken by the EPA in 2006

Reg. No.	Respondent	Facility	Legislation	Court	Hearing Date	Total Fines Imposed	Total Fines & Costs Imposed
W0137-01	Haytonvale Developments Limited	Sir John Rogerson's Quay, Dublin	Waste Management Acts, 1996-2003	Court 54 Richmond Hospital, Dublin	09/01/2006	€50	€25,050
P0170-01	Kildare Chilling Company	Kildare, Co. Kildare	EPA Acts, 1992 & 2003	Kildare District Court	12/01/2006	€6,500	€12,500
N/A	Boots Retail (Ireland) Limited	Fitzwilton, Wilton Place, Dublin	Waste Management (WEEE) Reg's, 2005	Wexford District Court	23/01/2006	€1,200	€8,065
P-053-01	ADM Ringaskiddy	Ringaskiddy, Co. Cork	EPA Acts, 1992 & 2003	Cork District Court	30/01/2006	€1,500	€11,800
P-0269-01	Basta Parson Limited	Tubbercurry, Co. Sligo.	EPA Acts, 1992 & 2003	Tubbercurry District Court	25/01/2006	Summons Dismissed	€0
P-020-01	Schwarz Pharma Limited	Shannon, Co. Clare	EPA Acts, 1992 & 2003	Ennis Circuit Court	14/02/2006	€110,000	€152,000
W0111-01	South East Recycling Company Ltd.	Carrigbawn, Pembrokestown, Wexford	Waste Management Acts, 1996-2003	Wexford District Court	10/04/2006	€8,500	€13,500
P0308-01	Mr. Tom Horan	Ballyculhane, Glin, Co. Limerick	EPA Acts, 1992 & 2003	Listowel District Court	05/04/2006	€7,200	€16,547
P0642-01	Mr. Tom Lee	Clontyuffy, Mountnugent, Co. Cavan	EPA Acts, 1992 & 2003	Cavan District Court	21/04/2006	€1,000	€7,837
P0679-01	Mr. Gabriel Maguire	Finnaway, Ballyjamesduff, Co. Cavan	EPA Acts, 1992 & 2003	Cavan District Court	21/04/2006	€1,000	€10,328
W0136-02	Greenstar Recycling (Munster) Ltd.	Sarsfieldcourt Industrial Estate, Glanmire, Co. Cork	Waste Management Acts, 1996-2003	Cork City District Court	04/05/2006	Probation Act	€20,000
N/A	Argos Limited	Custom House Quay, Wexford	Waste Management (WEEE) Reg's, 2005	Wexford District Court	08/05/2006	€1,500	€11,500
P0225-01	John Ronan & Sons	Dudley's Mills, Clonmel, Co. Tipperary	EPA Acts, 1992 & 2003	Clonmel District Court	09/05/2006	€2,000	€7,442

Reg. No.	Respondent	Facility	Legislation	Court	Hearing Date	Total Fines Imposed	Total Fines & Costs Imposed
W0054-02	Eco-safe Systems Limited	Allied Industrial Estate, Kylemore Rd., Ballyfermot, Dublin 10	Waste Management Acts, 1996–2003	Dublin Metropolitan District Court	23/05/2006	€2,000	€7,126
W0075-01	Waterford County Council (Tramore Landfill)	Tramore, Co. Waterford.	Waste Management Acts, 1996–2003	Waterford Circuit Court	01/06/2006	€4,000	€16,719
W0018-01	Waterford City Council (Kilbarry Landfill)	Waterford City	Waste Management Acts, 1996–2003	Waterford Circuit Court	01/06/2006	€6,000	€16,801
P0194-01	Ashbourne Meats Roscrea	Castleholding, Roscrea, Co. Tipperary	EPA Acts, 1992 & 2003	Roscrea District Court	27/07/2006	€1,500	€6,900
P0602-01	Kilbride Piggeries Limited (following Appeal of decision of the District Court on 10/01/2006)	Kilbride, Mountnugent, Co. Cavan	EPA Acts, 1992 & 2003	Cavan Circuit Court	21/07/2006	€5,500	€10,300
W0027-02	Ballinasloe Town Council	Pollboy Landfill, Ballinasloe, Co. Galway	Waste Management Acts, 1996–2003	Ballinasloe District Court	06/09/2006	€1,750	€11,854
W0044-02	Padraig Thornton Waste Disposal Ltd.	Killeen Road, Ballyfermot, Dublin 10	Waste Management Acts, 1996–2003	Dublin Metropolitan District Court	11/09/2006	€1,500	€6,142
Totals:						€162,700	€372,411

Prosecutions taken by the EPA in 2007

Reg. No.	Respondent	Facility	Legislation	Court	Hearing Date	Total Fines Imposed	Total Fines & Costs Imposed
P0366-02	Alert Packaging Limited	IDA Business Park, Southern Cross Route, Bray, Co.Wicklow	EPA Acts, 1992 & 2003	Bray District Court	13/02/2007	€3,000	€13,000
P0168-01	Kepak Athleague	Athleague, Co. Roscommon	EPA Acts, 1992 & 2003	Roscommon District Court	16/01/2007	€4,000	€10,552
P0452-01	Adhesive Research Ireland Limited	Raheen Industrial Estate, Limerick	EPA Acts, 1992 & 2003	Limerick District Court	19/01/2007	€500	€7,365
P0169-01	Liffey Meats (Cavan) Limited	Ballyjamesduff, Co. Cavan	EPA Acts, 1992 & 2003	Virginia District Court	05/02/2007	€2,000	€14,987
W0044-02	Padraig Thornton Waste Disposal Ltd.	Killeen Road, Ballyfermot, Dublin 10	Waste Management Acts, 1996-2003	Dublin Metropolitan District Court	12/02/2007	€2,750	€12,750
P034-01	Dynea Ireland Limited	Marino Point, Cobh, Co. Cork	EPA Acts, 1992 & 2003	Cobh District Court	28/03/2007	€13,000	€23,000
P0322-01	Laois Sawmills Limited	Ballymacken, Portlaoise, Co. Laois	EPA Acts, 1992 & 2003	Portlaoise District Court	14/06/2007	€4,000	€11,265
P0029-01	Irish Cement Limited	Irish Cement Limited, Castlemungret, Co. Limerick	EPA Acts, 1992 & 2003	Limerick District Court	15/06/2007	€1,250	€12,805
W0118-01	Marley Compost Limited	Crush, Carrickroe, Co. Monaghan	Waste Management Acts, 1996-2003	Monaghan District Court	24/06/2007	€2,500	€10,359
W0077-02	Cavan County Council	Corranure, Coote Hill Road, Cavan	Waste Management Acts, 1996-2003	Cavan District Court	27/09/2007	€4,500	€26,000
P0493-01	Mr. James King	Lacken, Ballinagh, Co. Cavan	EPA Acts, 1992 & 2003	Cavan District Court	08/11/2007	Charitable Donation	€8,200
W0124-01	Carbury Compost Limited	Drummin, Carbury, Co. Kildare	Waste Management Acts, 1996-2003	Edenderry District Court	05/11/2007	€2,000	€11,135
Totals:						€39,500	€161,418

Prosecutions taken by the EPA in 2008

Reg. No.	Respondent	Facility	Legislation	Court	Hearing Date	Total Fines Imposed	Total Fines & Costs Imposed
PO617-01	Lagan Pigs Limited	Lagan, Belturbet, Co Cavan	EPA Acts, 1992 to 2007	Ballyconnell District Court	14/01/2008	€500 (Case proven but Probation Act applied donation to SVP)	€10,500
PO517-01	Galmoy Mines Limited	Galmoy, Co Kilkenny	EPA Acts, 1992 to 2007	Thurles District Court	21/01/2008	€7,500	€17,500
WO111-01	South East Recycling Company Limited	Carribawn, Pembrokestown, Co Wexford	Waste Management Acts 1996–2005.	Wexford District Court	25/02/2008	€3,000	€14,500
WO158-01	Ray Whelan Limited	Cappanboe, Co Laois	Waste Management Acts 1996–2005.	Carlow District Court	06/03/2008	€1,500	€8,820
WO059-02	Roscommon County Council	Aghalustia, Ballaghderreen, Co Roscommon	Waste Management Acts 1996–2005.	Ballaghderreen District Court	27/03/2008	€5,000	€13,300
PO126-01	Allergan Pharmaceuticals (Ireland)Limited	Castlebar Road, Westport, Co Mayo	EPA Acts, 1992 to 2007	Westport District Court	17/04/2008	€2,500	€2,500
N/A	Galway County Council	Craughwell, Co Galway	Regulation 10 (4) (a) of the European Communities (Drinking Water) (No.2) Regulations (S.I. 278/2007).	Loughrea District Court	23/04/2008	€4,000	€9,500

Reg. No.	Respondent	Facility	Legislation	Court	Hearing Date	Total Fines Imposed	Total Fines & Costs Imposed
PO383-01	Mr John Murphy	Clondrisse Pig Farm, Clondrisse, Killynan(Pratt), Cloghan, Co Westmeath	EPA Acts, 1992 to 2007	Killucan District Court	09/06/2008	Case dismissed without prejudice, on technical grounds. This dismissal was successfully judicially reviewed in 2009.	Case dismissed without prejudice, on technical grounds. This dismissal was successfully judicially reviewed in 2009.
PO319-01	Shannonside Building Supplies Limited	Fort Road, Kilrush, Co Clare	EPA Acts, 1992 to 2007	Kilrush District Court	28/06/2008	€500(Probation Act applied)	€12,862
PO427-01	Mr Bernard Maguire	Drumscruddan, Crosserlough, Co Cavan	EPA Acts, 1992 to 2007	Cavan District Court	12/06/2008	Act applied donation to Cavan Boxing Club)	0
PO466-02	Mr Frank Higgins	Tonylion, Kilnaleck, Co Cavan	EPA Acts, 1992 to 2007	Cavan District Court	12/06/2008	€500(Probation Act applied donation to Cavan Boxing Club)	0
PO640-01	Mr John Kiernan	Skeagh Pig Unit, Tullynaskeagh, Bailieboro, Co Cavan	EPA Acts, 1992 to 2007	Cavan District Court	12/06/2008	€500(Probation Act applied donation to Cavan Boxing Club)	0

Reg. No.	Respondent	Facility	Legislation	Court	Hearing Date	Total Fines Imposed	Total Fines & Costs Imposed
PO451-01	Mr Kevin Kiernan	Aghafad, Kilnaleck, Co Cavan	EPA Acts, 1992 to 2007	Cavan District Court	12/06/2008	€250 (Probation Act applied donation to Cavan Boxing Club)	0
PO469-01	Mr Kevin Kiernan	Mullacastle, Kilnaleck, Co Cavan	EPA Acts, 1992 to 2007	Cavan District Court	12/06/2008	€250 (Probation Act applied donation to Cavan Boxing Club)	0
N/A	System Video Limited	System House, Palmerstown Business Park, D20	Waste Management (Waste Electrical and Electronic Equipment) (WEEE) Regulations 2005.	Dublin Metropolitan District Court	14/07/2008	€3,750	€20,883
PO045-03	Premier Proteins(2000) Limited	Poolboy, Ballinasloe, Co Galway	EPA Acts, 1992 to 2007	Ballinasloe District Court	03/09/2008	€3,000	€11,820
N/A	Adelphi Distributors Limited	Units 12 and 13, Waterford Airport Business Park, Killowen, Co Waterford	Waste Management (Waste Electrical and Electronic Equipment) (WEEE) Regulations 2005.	Waterford District Court	12/09/2008	€2,000	€10,250.25
WO061-02	Mr Binman Limited	Luddenmore, Grange, Kilmallock, Co Limerick	Waste Management Acts 1996-2008.	Limerick District Court	17/10/2008	€2,000	€9,688
PO320-02	T & J Standish(Roscrea) Limited	The Leap Castle, Roscrea, Co Offaly	EPA Acts, 1992 to 2007	Roscrea District Court	27/11/2008	€5,000	€8,830
Total						€41,250	€150,953

More detail on each prosecution is available on the EPA's website at <http://www.epa.ie/OfficeofEnvironmentalEnforcement/Prosecutions>

GLOSSARY OF TERMS

A

Administrative Sanctions

Sanctions imposed by the Regulator without intervention by a Court or Tribunal.

Ammonia (NH₃)

A simple compound of nitrogen primarily originating in waste discharges. It can be toxic to fish under certain circumstances and is a source of nitrogen for plants and algae.

B

Biochemical Oxygen Demand (BOD)

A measure of the potential oxygen consumption of decaying organic matter in water. It is a widely used measure of organic pollution in rivers and in effluents discharged to water.

Biodegradable Municipal Waste

Biodegradable municipal waste is municipal waste (see definition below) that can undergo biological decomposition. It is typically composed of food and garden waste, wood, paper, cardboard and textiles.

Bituminous Coal

Type of coal that typically has a medium to high sulphur content.

Black Smoke

The fraction of total suspended particulates in air determined from the blackness measurement of the stain produced by passing the air through standard filter paper.

C

Carbon Dioxide (CO₂)

A naturally occurring gas which is also a by-product of burning fossil fuels and biomass, land-use changes and industrial processes. It is the principal anthropogenic greenhouse gas that affects the earth's radiative balance. It is the reference gas against which

other greenhouse gases are measured and therefore has a Global Warming Potential of 1.

Commercial Waste

The waste that is produced from a number of diverse sources, including shops, offices and commercial premises, and consists of materials such as paper and cardboard, plastics, organics and glass.

Construction and Demolition (C&D) Waste

All waste that arises from construction, renovation and demolition activities and all wastes mentioned in Chapter 17 of the European Waste Catalogue (EWC).

Continuous Emission Monitoring (CEMS)

Machines which measure, on a continuous basis, pollutants released by a source.

Criminal Sanctions

Criminal sanctions are imposed by the courts and consist of summary prosecutions at the District Court, prosecution on indictment at the Circuit Court, and High Court injunctions.

Cryptosporidium

A coccidian protozoan parasite that infects vertebrates such as sheep and cattle. It can infect humans and is a particularly dangerous parasite when its oocysts enter public water supply systems due to, for example, cattle slurry contamination.

D

Diffuse Source Pollution

Pollution that arises from diffuse areas in a catchment such as fields adjacent to a river or stream during heavy rainfall when surface runoff occurs.

Dioxins

A collective name given to a group of 75 closely related chemical compounds known as polychlorinated dibenzodioxins (PCDDs). Dioxins can form during combustion of organic materials containing chlorine, as undesirable by-products during chemical manufacture and bleaching operations.

Dissolved Oxygen (DO)

A measure of the concentration of oxygen in a liquid, such as water or wastewater, usually expressed in mg/l or percentage saturation.

E

Emissions Trading Scheme (ETS)

A market-based trading scheme for rights to emit greenhouse gasses that contribute to global warming

Eutrophication

The enrichment of water by nutrients, especially compounds of nitrogen and/or phosphorus, causing an accelerated growth of algae and higher forms of plant life to produce an undesirable disturbance to the balance of organisms present in the water and to the quality of the water concerned.

F

Faecal Coliforms

Bacteria which serve as indicators of the presence of human and animal faeces in waters.

G

Geographical Information System (GIS)

A set of integrated techniques for storing, retrieving, transforming and displaying spatially referenced thematic data in map form

Greenhouse Gases

Gaseous constituents of the atmosphere that absorb/trap infrared (thermal) radiation which is mainly emitted by the earth's surface and thereby influence the earth's temperature.

Groundwater

Water that occupies pores and crevices in rock and soil, below the surface and above a layer of impermeable material.

H

Hazardous Waste

Waste displaying properties that make it hazardous to human health or the environment.

I

Industrial Waste

Waste produced by industrial activity such as that of factories, mills and mines.

Inert Waste

Waste that does not normally undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in any way likely to give rise to environmental pollution or to harm human health.

Integrated Pollution Prevention and Control (IPPC)

Industrial activities licensed under IPPC are divided into 13 sectors ranging from intensive agriculture to chemicals. Some waste sites are also licensed under the IPPC directive. For clarity in this report IPPC refers to industrial non-waste activities directly controlled by the EPA. All waste sites are dealt with together under the waste theme.

K

Kyoto Protocol

The 1997 protocol to the Convention on Climate Change under which industrialised countries will reduce their combined greenhouse gas emissions by at least 5 per cent compared to 1990 levels by 2008–2012.

L

Landfill Gas

An often highly odorous gas arising from the decomposition of waste in a landfill. Consists of CO₂ and CH₄ and other compounds.

Limit Value

A level fixed on the basis of scientific knowledge, with the aim of avoiding, preventing or reducing harmful effects on human health and/or the environment as a whole, to be attained within a given period and not to be exceeded once attained.

M

Mechanical Biological Treatment (MBT)

Combines mechanical processes (to separate out recyclable materials such as glass and metals, combustible materials and biodegradable materials) and biological processes (to drive out moisture and biostabilise the organic-rich fraction of the mechanically treated waste).

Municipal Waste

Comprises household waste as well as commercial, industrial and street cleansing waste, which because of its nature and composition is similar to household waste.

N

National Emissions Reduction Plan (NERP)

The National Emissions Reduction Plan aims to achieve the air emissions reductions outlined in the Large Combustion Plant Directive (2001/80/EC)

Nitrate (NO₃)

A salt of nitric acid (HNO₃).

Nitrogen Oxides (NO_x)

A gas that usually includes the pollutants nitric oxide (NO) and nitrogen dioxide (NO₂), produced by high temperature.

O

Ozone (O₃)

A secondary pollutant in which the molecule of oxygen consists of three atoms rather than the more usual two.

P

Particulate Matter

Air pollutant comprising fine solid particles (dust) and liquid droplets.

Point Source Pollution

Pollution that arises from a well defined point, typically the end of a discharge pipe, but may include farmyard sources.

Polycyclic or Polynuclear Aromatic Hydrocarbons (PAHs)

Complex organic molecules found in soot, tar, vehicle exhausts and combustion products of fuels.

R

River Basin District

A river basin/catchment is an area of land from which all surface run-off flows through a series of streams, rivers and possibly lakes into the sea at a single river mouth or estuary. A River Basin District comprises one or more neighbouring river basins together with their associated wetlands, groundwaters and coastal waters.

S

Sulphur Dioxide (SO₂)

A colourless gas produced mainly by oxidation of the sulphur in fossil fuels through combustion.

V

Volatile Organic Compounds (VOCs)

Organic compounds that evaporate readily and contribute to air pollution mainly through the production of secondary pollutants such as ozone.

ABBREVIATIONS AND ACRONYMS

A

AERs	Annual Environmental Reports
AIC	Accredited Inspection Contractor
AQC	Analytical Quality Control

B

BOD	Biochemical Oxygen Demand
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C

C&D	Construction and Demolition
CCA	Copper, Chromium, Arsenic
CCMA	County and City Managers Association
CCTV	Closed-circuit television
CEMS	Continuous Emissions Monitoring
CFCs	Chlorofluorocarbons
COD	Chemical Oxygen Demand
COP	Code of Practice

D

DAFF	Department of Agriculture, Fisheries and Food
DoEHLG	Department of the Environment, Heritage and Local Government
DPP	Director of Public Prosecutions

E

E-PRTR	European Pollutant Release and Transfer Register
EC	European Commission
ECJ	European Court of Justice

EEN	Environmental Enforcement Network
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EHS	Environmental Health and Safety
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ELV	End-of-Life Vehicle
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ENDWARE	European Network of Drinking Water Regulators
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EPA	Environmental Protection Agency
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ETS	Emissions Trading Scheme
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EU	European Union
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F

FG	Flue gas desulphurisation
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FOG	Fat oil and grease
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G

GHG	Greenhouse gases
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H

HCFCs	Hydrochlorofluorocarbons
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HM	Heavy Metals
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I

IBEC	Irish Business and Employers Confederation
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IMPEL	The European Union Network for the Implementation and Enforcement of Environmental Law
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INAB	Irish National Accreditation Board
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IPPC	Integrated Pollution Prevention and Control
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L

LAs	Local Authorities
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LCPD	Large Combustion Plant Directive
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M

MCERTS	UK Environment Agency's Monitoring Certification Scheme
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N

NEC	National Emissions Ceilings
NGO	Non-Governmental Organisation
NIEA	Northern Ireland Environment Agency
NMP	Nutrient management plans
NO₂	Nitrogen Dioxide
NONC	Notices of Non-Compliance
NPWS	National Parks and Wildlife Service
NTFSO	National Transfrontier Shipment Office

O

OPW	Office of Public Works
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P

PCBs	Polychlorinated Bi-phenyls
PM_{2.5} PM₁₀	Particulate Matter measuring less than 2.5 µm and 10 µm in diameter
POMS	Programme of Measures
POPs	Persistent Organic Pollutants
PRTR	Pollutant Release and Transfer Register

R

RAL	Remedial Action List
RBMP	River Basin Management Plan
RMCEI	Recommendation for Minimum Criteria for Environmental Inspections

S

SI	Statutory Instrument
SS	Suspended Solids
STFG	Solid Fuel Trade Group Ltd
SWG	Sectoral Working Groups

T

TFS	Transfrontier Shipment
TN	Total Nitrogen
TP	Total Phosphorus

U

UKAS	United Kingdom Accreditation Service
UV	Ultraviolet

V

VOC	Volatile Organic Compound
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W

WEEE	Waste electrical and electronic equipment
WTD	Water Framework Directive
WWD	Wastewater Discharge
WWTP	Wastewater Treatment Plan
µg/m³	Micrograms per cubic metre

An Gníomhaireacht um Chaomhnú Comhshaoil

Is í an Gníomhaireacht um Chaomhnú Comhshaoil (EPA) comhlachta reachtúil a chosnaíonn an comhshaoil do mhuintir na tíre go léir. Rialaímid agus déanaimid maoirsiú ar ghníomhaíochtaí a d'fhéadfadh truailliú a chruthú murach sin. Cinntimid go bhfuil eolas cruinn ann ar threochtaí comhshaoil ionas go nglactar aon chéim is gá. Is iad na príomh-nithe a bhfuilimid gníomhach leo ná comhshaoil na hÉireann a chosaint agus cinntiú go bhfuil forbairt inbhuanaithe.

Is comhlacht poiblí neamhspleách í an Gníomhaireacht um Chaomhnú Comhshaoil (EPA) a bunaíodh i mí Iúil 1993 faoin Acht fán nGníomhaireacht um Chaomhnú Comhshaoil 1992. Ó thaobh an Rialtais, is í an Roinn Comhshaoil agus Rialtais Áitiúil a dhéanann urraíocht uirthi.

ÁR BHFREAGRACHTAÍ

CEADÚNÚ

Bíonn ceadúnais á n-eisiúint againn i gcomhair na nithe seo a leanas chun a chinntiú nach mbíonn astuithe uathu ag cur sláinte an phobail ná an comhshaoil i mbaol:

- áiseanna dramhaíola (m.sh., líonadh talún, loisceoirí, stáisiúin aistrithe dramhaíola);
- gníomhaíochtaí tionsclaíocha ar scála mór (m.sh., déantúsaíocht cógaisíochta, déantúsaíocht stroighne, stáisiúin chumhachta);
- diantalmhaíocht;
- úsáid faoi shrian agus scaoileadh smachtaíthe Orgánach Géinathraithe (GMO);
- mór-áiseanna stórais peitrealí.

FEIDHMIÚ COMHSHAOIL NÁISIÚNTA

- Stiúradh os cionn 2,000 iniúchadh agus cigireacht de áiseanna a fuair ceadúnas ón nGníomhaireacht gach bliain.
- Maoirsiú freagrachtaí cosanta comhshaoil údarás áitiúla thar sé earnáil – aer, fuaim, dramhaíl, dramhuisce agus caighdeán uisce.
- Obair le húdaráis áitiúla agus leis na Gardaí chun stop a chur le gníomhaíocht mhídhleathach dramhaíola trí chomhordú a dhéanamh ar líonra forfheidhmithe náisiúnta, díriú isteach ar chiontóirí, stiúradh fiosrúcháin agus maoirsiú leigheas na bhfadhbanna.
- An dlí a chur orthu siúd a bhriseann dlí comhshaoil agus a dhéanann dochar don chomhshaoil mar thoradh ar a ngníomhaíochtaí.

MONATÓIREACHT, ANAILÍS AGUS TUAIRISCIÚ AR AN GCOMHSHAOIL

- Monatóireacht ar chaighdeán aeir agus caighdeán aibhneacha, locha, uiscí taoide agus uiscí talaimh; leibhéil agus sruth aibhneacha a thomhas.
- Tuairiscíú neamhspleách chun cabhrú le rialtais náisiúnta agus áitiúla cinntiú a dhéanamh.

RIALÚ ASTUITHE GÁIS CEAPTHA TEASA NA hÉIREANN

- Cainníochtú astuithe gáis ceaptha teasa na hÉireann i gcomhthéacs ár dtiomantas Kyoto.
- Cur i bhfeidhm na Treorach um Thrádáil Astuithe, a bhfuil baint aige le hos cionn 100 cuideachta atá ina mór-ghineadóirí dé-ocsaíd charbóin in Éirinn.

TAIGHDE AGUS FORBAIRT COMHSHAOIL

- Taighde ar shaincheisteanna comhshaoil a chomhordú (cosúil le caighdeán aeir agus uisce, athrú aeráide, bithéagsúlacht, teicneolaíochtaí comhshaoil).

MEASÚNÚ STRAITÉISEACH COMHSHAOIL

- Ag déanamh measúnú ar thionchar phleananna agus chláracha ar chomhshaoil na hÉireann (cosúil le pleananna bainistíochta dramhaíola agus forbartha).

PLEANÁIL, OIDEACHAS AGUS TREOIR CHOMHSHAOIL

- Treoir a thabhairt don phobal agus do thionscal ar cheisteanna comhshaoil éagsúla (m.sh., iarratais ar cheadúnais, seachaint dramhaíola agus rialacháin chomhshaoil).
- Eolas níos fearr ar an gcomhshaoil a scaipeadh (trí cláracha teilifíse comhshaoil agus pacáistí acmhainne do bhunscoileanna agus do mheánscoileanna).

BAINISTÍOCHT DRAMHAÍOLA FHORGHNÍOMHACH

- Cur chun cinn seachaint agus laghdú dramhaíola trí chomhordú An Chláir Náisiúnta um Chosc Dramhaíola, lena n-áirítear cur i bhfeidhm na dTionscnamh Freagrachta Táirgeoirí.
- Cur i bhfeidhm Rialachán ar nós na treoracha maidir le Trealamh Leictreach agus Leictreonach Caite agus le Srianadh Substaintí Guaiseacha agus substaintí a dhéanann ídiú ar an gcrios ózóin.
- Plean Náisiúnta Bainistíochta um Dramhaíl Ghuaiseach a fhorbairt chun dramhaíl ghuaiseach a sheachaint agus a bhainistiú.

STRUCHTÚR NA GNÍOMHAIREACHTA

Bunaíodh an Gníomhaireacht i 1993 chun comhshaoil na hÉireann a chosaint. Tá an eagraíocht á bhainistiú ag Bord lánaimseartha, ar a bhfuil Príomhstiúrthóir agus ceithre Stiúrthóir. Tá obair na Gníomhaireachta ar siúl trí ceithre Oifig:

- An Oifig Aeráide, Ceadúnaithe agus Úsáide Acmhainní
- An Oifig um Fhorfheidhmiúchán Comhshaoil
- An Oifig um Measúnacht Comhshaoil
- An Oifig Cumarsáide agus Seirbhísí Corparáide

Tá Coiste Comhairleach ag an nGníomhaireacht le cabhrú léi. Tá dáréag ball air agus tagann siad le chéile cúpla uair in aghaidh na bliana le plé a dhéanamh ar cheisteanna ar ábhar imní iad agus le comhairle a thabhairt don Bhord.



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