

Research impact: making a difference

Making waste treatment a safer business

UK and Irish environment agencies have used LSE research to identify better and cheaper ways to regulate low-risk waste treatment sites

What was the problem?

The risks posed by nuclear power stations are obvious but it is harder to know how best to regulate lower-risk activities such as landfill and recycling sites, sewage treatment facilities and farming functions such as chicken sheds and piggeries.

The consequences of a problem at a low-risk site are generally not severe but they can still be unpleasant for households and politically challenging for the authorities, not to mention expensive to redress. In some cases they can prove equally serious, as in environmental pollution leading to contamination of the water supply or an outbreak of health problems.

The four environment agencies of the UK and the Republic of Ireland traditionally focused on high-risk sites but realised the need to broaden their focus to ensure they were allocating the correct resources to deal with such low-risk facilities. They also realised that they needed to find ways to streamline such regulation so as to manage the risk within their budget reduction targets.

The issue assumed greater importance and urgency in 2009, when the European Court of Justice found the Irish government to be in breach of its obligations under EU law for the inspection of septic tanks.

What did we do?

LSE Law Professors Julia Black and Robert Baldwin had carried out work for several bodies on the issues of risk and regulation, including at the international level the Organisation for Economic Co-operation and Development (OECD) and in the UK the National Audit Office and the Cabinet Office.

Their work caught the attention of SNIFFER, the research forum for the environmental agencies covering England & Wales, Northern Ireland, Scotland, and the Irish Republic. Baldwin and Black won a competitive bid to use research to build a strategy for SNIFFER. They constructed a framework that the agencies could use to select strategies for regulating low-risk sites most effectively and at the lowest cost.

At the heart of their research is an innovative matrix called the Good Regulatory Intervention Design (GRID) that enables regulators to identify the right regulatory response according to the nature of the risk and the attitude of the regulated body. It lays out options such as inspections,

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information and campaigns or regulatory controls, as well as guidance on the intensity of the response.

Black and Baldwin also constructed the Good Regulatory Assessment Framework (GRAF) that enables regulators to identify their strengths and weaknesses in choosing strategies for low-risk.

What happened?

All four UK and Irish environmental agencies are building on the groundbreaking research in developing new strategies for regulating low-risk treatment sites. Such strategies are lowering the likelihood of poor water treatment and similar facilities slipping through the regulatory net and causing emergencies such as pollution, contamination of the water system and outbreaks of health problems.

The UK Environment Agency (UKEA) and the Scottish Environment Protection Agency (SEPA) utilized the Baldwin/Black framework when reviewing their approaches to regulating small sewage discharges (including septic tanks) in the waste and industrial sectors, and the UKEA has indicated that it will take on board the GRID/GRAF framework for areas other than just low-risk sites and to inform its future regulatory models. SEPA has used the framework for three other low-risk facilities – water treatment operations, petrol stations and dry cleaners. On a broader level it is using GRID/GRAF as the foundation for its “better regulation” approach to pollution prevention.

Black and Baldwin presented their findings to the Irish Environmental Protection Agency (EPA) in Dublin. As a result the EPA has developed a national inspection plan for septic tanks and Ireland has been able to show it complies with the EU Directive that it had been breaching. The EPA has also implemented the framework for domestic waste water.

The research has had an impact well beyond the British Isles. The EU Network For The Implementation And Enforcement Of Environmental Law (IMPEL) has expressed an interest in the research, as have environmental regulators in Australia. It has also delivered an impact beyond environmental facilities: the Australian Senate’s economics committee cited Baldwin and Black’s research on risk-based financial regulation as part of their inquiry into the Australian Securities and Investments Commission.

“The research by Professor Julia Black and Professor Robert Baldwin addressed a key challenge in the regulation of wastewater from single houses and was timely in that it influenced policy not only alone here in Ireland but also in the European Commission’s Environment Directorate.”

**Laura Burke, Director General
of the Irish EPA**

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Julia Black is Pro Director for Research and a Professor of Law at the London School of Economics and Political Science. Her primary research interest is regulation. She has written extensively on issues of regulatory dynamics and advised policy makers, consumer bodies and regulators on issues of institutional design and regulatory strategy in the UK and overseas. In 2014 she was appointed as a lay member to the Board of the Solicitors Regulation Authority and is a member of its Regulatory Risk Committee. She is also an advisor to the Bank of England's review of Fair and Efficient Markets (2014-15).

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Robert Baldwin is a Professor of Law at the LSE, where he teaches Regulation and Criminal Law. He has written numerous books and learned articles on regulation, including the most widely used academic volume on regulation in the UK: *Understanding Regulation* (Oxford 1999 with Martin Cave). He has advised numerous corporations, international bodies, government departments and agencies on regulation and is a member of the National Audit Office's Panel of Regulatory Experts. He led the team that wrote the Scoping Study Report for the Government's Review of Legal Services Regulation as well as the team that wrote the DEFRA Review of Enforcement 2005-6.

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