
Micheál Spillane

BE C.Eng MIEI

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EDUCATION

1998 – 2002 University College Cork – BE Civil and Environmental Engineering
Core modules in water and wastewater, environmental hydraulics and coastal engineering

KEY COMPETENCIES

- Experience in waste management strategies & planning
- Knowledge of Irish & European waste legislation, regulations & policies
- Sustainability studies (specifically recycling, waste & construction-related)
- Waste management; waste licence applications, waste / IPPC licence compliance reporting, waste characterisation studies, waste strategies and planning etc.
- Experience in the design, procurement and construction of waste infrastructure (engineered landfills, recycling centres, waste transfer station, materials recovery facilities)
- Knowledge of alternative waste technologies
- Preparation of funding applications and tender submissions to secure new contracts
- Design to relevant codes and standards, particularly Health & Safety legislation
- Design of landfill gas extraction systems
- Modelling and reporting of pollutant emissions
- Asbestos Surveying
- Proficient with AutoCad, GasSim, MS Office, HELP software
- Use of recycled materials in engineering applications
- Expertise in the recycling of construction & demolition waste
- Application for accreditation and implementation of ISO 14001 Environmental Management Systems
- Knowledge of Green Building technologies

WORK HISTORY

Nov 2008 – May 2009 GHD Pty Ltd, Melbourne, Australia (www.ghd.com.au)

Position: Senior Civil / Environmental Engineer

Description: Practiced on a range of climate change and landfill-related projects including:

Review of Methane Emissions Estimation Tool – Dept of Climate Change; Victoria

- Involved in review of a proposed greenhouse gas emissions estimation methodology to be implemented as part of a future Carbon Pollution Reduction Scheme (CPRS) in Australia.
- Carried out a review of the methodology proposed for use in estimating methane emissions from municipal landfills and compiled recommendations to improve this methodology.

Carbon Pollution Reduction Scheme Assessments – Various Landfill Operators; Victoria

- Involved undertaking assessments of the potential future liability of landfill operators under the draft Carbon Pollution Reduction Scheme (CPRS); landfill operators who breach thresholds in the future may be required to purchase carbon permits where thresholds are exceeded.
- Undertook modelling of a number of scenarios regarding the current and future activities of the landfill operator and identified the associated financial implications under the draft CPRS.

Design of Alternative Landfill Remediation Systems – Coldstream Landfill, Victoria

- Involved design of evapo-transpiration (ET) cap to replace a conventional capping system to prevent infiltration of rainfall through the surface of a municipal waste landfill.
- The project also incorporated a biofiltration system instead of a landfill gas flare to treat landfill gas collected utilising a passive collection system.

Landfill Gas Risk Assessment – Numerous Landfills.

- Carried out an audit of a landfill gas extraction system for a series of landfills located close to residential areas to determine if systems in place were sufficient to prevent off site migration of landfill gas to nearby sensitive receptors.

Landfill Gas Migration Studies – Ballarat City Council, Victoria.

- Involved in an investigation of landfill gas migration at a closed municipal waste landfill; objective of project was to determine the extent of landfill gas migration in respect to adjacent residences and to establish if any risk to human health existed.

Landfill Cell Design – Doon Landfill, Victoria.

- Undertook the design of a new landfill cell in the extension of a local authority landfill.
- Produced detailed specification, surface water drainage design and drawings.

HELP Modelling – Numerous Contaminated Land Sites, Victoria

- Modelling of alternative landfill liner and capping design configurations using US EPA Hydraulic Evaluation of Landfill Performance (HELP) software to demonstrate equivalent performance to conventional design configurations.

June 2004 – May 2008 RPS Consulting Engineers Ltd.

Position: Civil Design Engineer

Description: Practiced on a range of waste management, sustainability, landfill and environmental-related projects including:

Civic Amenity & National Recycling Awareness Centre – Ballymun Regeneration Limited

- Part of an architect-led design team for the preliminary design & planning stage of the development of a publicly-funded flagship facility providing a community and national recycling educational centre along with a fully functional recycling centre in Ballymun.

Cleaner Greener Production Programme (CGPP) – Use of Recycled Materials & Renewable Energy Technology

- Submitted a successful proposal jointly made on behalf of several local authorities under an Environmental Protection Agency (EPA) CGPP funding programme.
- Significant funding was secured for the use of recycled materials and the incorporation of sustainable energy technologies in the development of three civic recycling centres.

EPA Waste Licence Application for Waste Transfer Station – Advanced Environmental Solutions (AES Ltd)

- Prepared a Waste Licence Application to the Environmental Protection Agency for a Waste Transfer Station in Nenagh, County Tipperary on behalf of the private waste operator, Advanced Environmental Solutions.

Environmental Impact Statement for Organic Gold Composting Facility

- Involved in preparation of an Environmental Impact Statement for a composting facility near Navan, Co. Meath.

Mullingar Recycling Centre – Westmeath County Council

- Project manager for the design/contract administration stages for a civic recycling facility for Westmeath County Council. Involved in production of contract documents and preparation of bill of quantities using IcePac Software.
- Managed site supervisory staff, resolved design issues, monitored and reported on progress health and safety.
- Managed project finances, chaired progress meetings, assessed claims and variations, and assisted with final certification.

Dungarvan Landfill – Waterford County Council

- Project engineer for the design of active landfill gas and leachate extraction systems in Dungarvan Co. Waterford for Waterford County Council.
- Involved the design of an innovative method of leachate treatment incorporating a series of Integrated Constructed Wetlands (ICWs) for treatment of landfill leachate on site.
- Also engaged in ongoing waste licence compliance issues and liaison with EPA.

Tramore Landfill – Waterford County Council

- Project engineer for design of an active landfill gas and leachate extraction system for a closed landfill in Tramore, Co. Waterford in an environmentally sensitive location.
- Responsible for the design of the systems and the production of Contract Documents and preparation of Bill of Quantities using IcePac Software.

Pollutant Release and Transfer Register (PRTR) Reporting – Various

- Assisted clients who operated municipal waste landfills in meeting their reporting obligations under the Pollutant Release and Transfer Register (E-PRTR) scheme and the preceding European Pollutant Emission Register (EPER) scheme.
- This involved modelling and compiling an inventory of emissions associated with the client's activities.

Sustainability Study for Áras an Uachtaráin – Office of Public Works (OPW)

- Involved in a project team to conduct a sustainability study on the Irish presidential residence for the Office of Public Works.
- Specific duties included improving performance pertaining to waste generation, recycling and resource-usage of the operation of the main residence and associated offices.
- These objectives were achieved by the development and implementation of staff-led management plans.

Dublin Waste Management Plan 2005 to 2010 – Dublin Local Authorities

- Project involved a review of the original Dublin Waste Plan; project role entailed a study on the management of the construction and demolition waste stream within the region as part of the overall regional waste management plan.
- Involved consultation with industry stakeholders to estimate quantity of waste arising, reporting on current management methods and recommending future policy for management of this waste stream for the period 2005 - 2010.

North East, Midlands, Limerick Clare Kerry and South East Waste Plans – Various Local Authorities

- Projects involved reviewing the existing waste plan in each region; project role entailed a study on the management of the construction and demolition waste stream as part of the overall regional waste management plan.

Ballyogan Civic Amenity (Recycling Centre) – Dun Laoghaire Rathdown County Council

- Project engineer for the redesign of a civic amenity within the Ballyogan Recycling Park for Dun Laoghaire-Rathdown County Council (Co. Dublin).
- This involved the development of a traffic management plan and the redesign of one of the busiest existing civic amenities in the country.

Childers Road Civic Amenity Centre – Limerick City Council

- Project engineer involved in conceptual layout design and Part VIII Planning for a proposed recycling centre for Limerick City Council.

Ballymurtagh Landfill Capping Works – Wicklow County Council

- Graduate engineer assisting in assessment tenders submitted for capping works for Wicklow County Council

Development of Waste Infrastructure

- Involved in conceptual design, detailed design, planning, obtaining waste licences and compliance for a range of waste facilities including waste transfer stations, materials recovery facilities, landfills, recycling centres and C&DW recycling facilities.

Municipal Waste Characterisation Programme – Environmental Protection Agency

- Project involved the development of a methodology to generate a national profile of the municipal waste stream in Ireland.
- Project engineer involved in development of the methodology, survey planning and implementation of the first waste characterisation campaign to obtain a national profile based on socio-economic, population and other factors.

Development of Waste Facilities under Public Private Partnership (PPP) Contracts

- Involved in different stages of the planning and preliminary works for the two largest waste facilities in proposed in Ireland, the proposed Dublin Waste-to-Energy Plant & proposed Dublin Landfill. RPS fulfilled role of client's representatives in submitting applications for statutory approvals and in discussions with private bidders.

Repak Packaging Waste Recovery Surveys - Various

- Managed a series of waste packaging surveys for private and public sector clients; objective of surveys were to determine the packaging content of the material being recovered by each organisation to support applications for recycling subsidies from Repak.
- Clients included Greenstar Ltd, Cork City Council, Killarney Waste Disposal and Waterford County Council.

Waste Characterisation Surveys – Various

- Project manager for a range of waste characterisation surveys conducted for both public and private sector clients for different waste streams.
- Purposes of studies included; determination of composition of particular waste streams, snapshots of recycling performance & determination of packaging content percentages to support applications for Repak recycling subsidies.
- Responsibilities included planning and managing waste surveys, compiling reports and liaising with relevant public sector agencies.

Type 3 Asbestos Survey – CEMEX

- Involved a Type 3 asbestos survey to determine the presence of asbestos prior to demolition of selected buildings for CEMEX on their cement-product production facility on Kileen Rd. Dublin.

Type 3 Asbestos Survey – River Tolka Flood Alleviation Works

- This involved a Type 3 asbestos survey to investigate the presence of asbestos in the public toilets in the grounds of a proposed new pumping station prior to demolition works commencing in Drumcondra, Dublin.

Sept. 2002 – April 2004

**Cleaner Production Promotion Unit, University College
Cork**

Position:

Research Assistant

Worked as a research assistant and undertook research into sustainable construction in this research centre attached to the Department of Civil & Environmental Engineering in University College Cork. Projects included contributing to presentation to Institute of Engineers Ireland on British Research Establishment's (BRE) BREEAM building assessment tool, assisting in IPPC licence applications, ongoing IPPC compliance works and developing environmental management plans.

June 2001 – Sept. 2001

Cork Main Drainage (Cork City Council)

Position:

Student Engineer

Based on site as part of resident engineering staff with during the construction of the Atlantic Pond Pumping Station, part of the Cork Main Drainage project.

REFEREES

Mr. Larry O'Toole, Operations Director
01 4882900, larry.otoole@rpsgroup.com

Mr. Warren Phelan, Associate
01 4882900, warren.phelan@rpsgroup.com

RPS Consulting Engineers, West Pier Campus, Dun Laoghaire, Co. Dublin