How comprehensive are your waste reports?

McGrath's innovative new waste report has been welcomed by the industry for setting a new benchmark in demonstrating compliance. Tara Donaghy of the McGrath Group explains how operators who use their facilities at Barking and Hackney MRFs can pass these benefits on to their own customers.

"Early in 2014, we became aware of the burgeoning demand for accurate data on the CO2 emitted during collection and recycling of wastes.

"In October 2013, it had become law for all UK quoted companies to report on their greenhouse gas emissions as part of their annual Directors' Report and it was with this in mind we started the development of a new report that could incorporate net and gross carbon emissions as well as give an accurate breakdown of the final destination of all our customer's materials by Waste Hierarchy categories.

"It resulted in our report being compliant with the Waste Regulations and Greenhouse Gas Reporting protocol and being standard issue to all those who tip with us.

"Although this type of reporting is currently voluntary for all types and sizes of organisation, many are taking the lead and choosing to include this information.

"We began looking into the practicability of developing a methodology for calculating the energy consumption for each of the three distinct stages involved in the collection and recycling or disposal of wastes – transport, sorting and re-processing.

To determine the energy expended during transportation, we needed to calculate the distance travelled and fuel consumption of our vehicles and developed a postcode application which could calculate distances travelled and integrated this with data on the average fuel consumption of the various vehicles in our fleet.

"Determining the energy expended during the sorting phase was achieved by assigning a combination of sorting processes to each waste material type and calculating average energy consumption by using in-house and published sources.

"Using standard conversion factors, we were able to convert the energy consumed in the transport and sorting process into equivalent carbon emissions for each waste destination. The carbon emitted during re-processing was already estimated and published, so we were able to use these carbon factors published by Zero Waste Scotland for our calculations.

"This data was combined to produce a figure for carbon emissions for each waste transaction. The report provides two carbon data sets – a figure for gross carbon emissions and one for net CO2 emissions which factor in the carbon benefits of recycling the wastes compared to landfilling.

"By providing two carbon figures; one for net and one for gross CO2e, we have delivered the world's first waste recycling report which is compatible with Scope 3 Greenhouse Gas Reporting Protocol.

"Our system was granted accreditation against the International Standard for Greenhouse Gas Reporting, ISO 14064 part 3 in March 2014, giving us the seal of authenticity required to build customer confidence in the accuracy of our data.

Breakdown Hierarchy

"Previously we had provided our customers with a certificate confirming that we used the Hierarchy of Waste in our waste management processes in order that they could demonstrate compliance, but now with this new report, we are able to give customers accurate evidence based data about how materials have been processed and their ultimate destinations.

"We are able to allocate factors for each category of each waste type (EWC Code) which is processed and itemised to create a summary of all materials handled across a period. Our detailed breakdown of waste destinations provides empirical data that our customers can use to demonstrate compliance with the Waste Directive.

"We updated the report's design to present this new information in a clear format. Using data tables and pie charts, it summarises total weight, total recycled, percentage diverted from landfill and the carbon saving for the period.

"The gross and net carbon emission data is highlighted and is followed by the material analysis by source, category and destinations (hierarchy). Transactional analysis explains the treatment of the various waste streams. The report finishes with latest industry news.

"For those organisations going the extra mile and volunteering to submit their Scope 3 emissions, our data can be simply extracted and used in their own environmental reporting systems.

"Feedback from industry experts and influencers has been resoundingly positive and the report is now issued as standard to customers tipping at our MRFs. Customers have reacted with enthusiasm and have cited the report as the reason for choosing to tip with us above our competitors."

A sample copy of the report is available to download from www.mcgrathgroup.co.uk/waste-report

ALL MATERIAL BY DESTINATION (HIERARCHY)

DESTINATION	WEIGHT (tonnes)	%
Re-used	2.00	<1
Recycled	486.50	93
Recovered (WtE)	145.90	7
Disposed (landfill)	0.00	0
TOTAL	542.46	100

This data can be used to demonstrate compliance with the Waste Directive 2011 regarding the application of the 'Hierarchy of Waste'.