

VISIT REPORT - MARCHWOOD INCINERATOR 31 JULY 2012

Michael Minton - Speaker's Secretary

A group of 32 members and ladies visited the Veolia Marchwood Incinerator and Energy Recovery Facility situated on Southampton Water opposite Southampton docks. After coffee a power-point presentation was given in the conference room by the Area Director, Rhys Johnson, on the facilities across Hampshire, followed by a detailed talk on this station by the Plant Manager, Mike Campbell. In Hampshire, to deal with the problem of the running out of landfill sites, Marchwood Incinerator was built as the result of Project Integra which was to devise a Waste Strategy which included waste minimisation, composting, recycling, anaerobic digestion, energy recovery and lastly disposal to landfill.



Marchwood ERF went through an extensive planning process both with the local authority and the Department for the Environment which sets very testing standards of control. The site was carefully designed by Jean Robert Mazaud, a leading architect, to fit into the local environment and has

a dome clad in aluminium which is 36 m high and 110m in diameter and two 65 metre stacks. The resulting ash residue is used in bricks, ceramics and glass and also for road fill.

Mike then gave a comprehensive analysis of the plant and its operations in non-technical language. He called it basically a kettle which raises steam to drive a turbine generator; the efficiency depends on the quality of the waste material used as fuel .

This plant can handle up to 200,000 tonnes of non recyclable waste material a year and together, the two boilers can produce up to 16MW of electricity at 30 percent efficiency, which is enough to power 22,600 homes. The water cooling is from Southampton Water. The temperature returning to the sea is kept at 11 degrees to minimise affects on sea life. It is hoped that in the future the heated cooling water can be used for Community Heating Projects.

The party was given a tour of the operations room and visitor centre to see the main waste arrival area and grabs depositing 2 tonnes at a time into the 2 hoppers holding 35 tonnes. Viewing panels showed the boiler and ancillary plants plus the turbines. This was highly informative and everyone left knowing a great deal more about waste and energy recovery plants; they had a much greater understanding of the need for waste management both in the home and in industry.