Waste Derived Fuel Plant and Q Fever

Disposal of domestic rubbish on the Island has been controversial for a number of years. The responsibility to dispose of the rubbish is the responsibility of the County Council and the Islands two Borough Councils have the responsibility for collection (this responsibility is discharged through a contract with a private firm). Sites for land fill have been difficult to find in recent years and the County Council elected to minimise the need for land fill by investing in a waste derived fuel plant. This plant is designed to process domestic rubbish unsorted by householders, and sort the rubbish into a light burnable faction and a heavy faction which is consigned to land fill after being passed under a magnet to remove recyclable ferrous metal. Separation is achieved by dropping the rubbish into a jet of hot air. The heavy faction falls through this jet onto a conveyor belt which eventually passes below a magnet. The light faction is dried and processed into pellets. The pellets pass out of the back of the plant into a small electricity generating station that can produce 1.8 m watts of electricity an hour.

The waste derived plant is controversial for two reasons. The first is a smell which is worse during the summer and has been objected to by the plants neighbours, a card printing firm.

The second source of controversy is the policy adopted by one of the Islands Borough Councils of encouraging households to sort their rubbish before collection, separating out paper, glass etc. The sorted factions are then 'diverted' for recycling and only the remainder (depleted of the burnable faction) is passed onto the County Council and the waste derived fuel plant. Such a policy greatly reduced the burnable faction reaching the waste derived fuel plant and resulted in intense political argument and the threat of legal action.

The Department of Public Health Medicine became involved with the Waste Derived Fuel Plant in 1992 when the electricity generating plant was being built. One member of the WDF staff and a number of the contractors had become unwell with a flu like illness with chest symptoms. A number of the men had been hospitalised. The initial suspicion was of legionnaires disease and appropriate environmental samples were taken. However, serology subsequently showed the outbreak of illness to be due to Q Fever. Help was given by Colindale and a seroprevelance study was undertaken at the WDF plant. Samples were sent to the English Reference Laboratory for Q Fever. Results indicated a high prevalence of Q Fever among workers at the WDF plant. These results caused considerable concern among the workers of the neighbouring card printing firm and they requested a seroprevalance study. This was undertaken and again the results showed a high prevalence of Q Fever. At this stage it became apparent that the laboratory had reported many false positives and results had to be 'corrected'. Legal action is still pending. The Public Health Laboratory Services have introduced a number of changes as a result of this incident. Great care is advised in investigating outbreaks of Q Fever.