

**Collated reports of**  
**Visit to Veolia ERF Facility, Portsmouth**  
**2<sup>nd</sup> February 2010**

Neil Proffitt

John Webb

Kirsten Dowty

Sharon Davies

Ian Barber

**Arrival:**

First sight of the plant was provided as we crested the hills several miles north of Portsmouth. The incinerator's twin flues were clearly visible projecting above the horizon on the coastal fringe with their smoke plumes streaming out like vapour trails from a jet plane. As we descended to the coastal plain local topography obscured further viewing with only intermittent sightings as we continued along the M27/A27 and arrived at the fringe of the industrial area where the plant was located.

First impressions as we approached the plant through the estate road were that the area appeared to be a purpose planned commercial/industrial area with quality infrastructure including major transport links. More akin to a business park adjacent a major air or sea port, a real contrast to Hartlebury an ex rural air force storage/maintenance base.

The general area appeared to be clean and well maintained, the entrance to the Veolia site continues these themes with modern clean lines to the administration facilities, curved facades to the primary plant building, and clear wide circulation areas for lorries and heavy plant.

Veolia provided an initial presentation setting out the background to site history, Hampshire's waste disposal arrangements, practical site management, and future plans. This was followed by a conducted tour of the facility.

**Observations:**

- Noise levels within plant rooms seemed similar to that that might be expected from manufacturing premises. (Cleaning using explosive ignition of gas within pipes during the initial presentation produced periodic 'bangs' that would now doubt be heard some distance from the site. We were advised that this only happens a few times a year). The incinerator operates 24/7.
- There was no overt smell of waste on arrival, in the administration block, or during our general walk around the buildings. Waste smells were evident in the lobby between the administration block and the plant area, and to a lesser extent in the Operations Room. The Operations Room provides a view of the tipping hall where waste is tipped into a bunker for temporary storage awaiting controlled input into the furnace feed hopper by an overhead grab crane.

It is here that a visual appraisal is provided to remove 'unsuitable' waste materials and manage the 'fast operation' external doors, which were not working during our visit. The weather was cold and will have contributed to the suppression of smells. It was also noted that amongst the household waste bags there were a number of items including wheel trims, other plastics, and general recyclables.

- Traffic arrives at the site via designated routes that take vehicles around residential areas via main arterial roads. Vehicles are either bin collection lorries coming from their rounds in the adjoining urban area of Portsmouth or bulk carriers bringing waste from strategically placed waste transfer stations throughout the county. This produces several hundred vehicle movements per day with peaks at mid morning and afternoon that coincide with the completion of collections rounds in Portsmouth.

**Personal summary:**

Hampshire County Council appears to have well developed integrated waste management arrangements. This includes waste monitoring to inform targeting of information/education regarding recycling to primary waste generators, and green waste recycling. They have chosen to build on existing incineration capacity, utilising favourable land-use/geography, as the primary route for household waste disposal. They have invested heavily in building quality buildings with architectural merit, having sufficient capacity to extend services to adjoining authorities in the future, no doubt with an eye to the financial benefits that will accrue. The location of the Portsmouth facility makes logistical sense but a building of this size<sup>+</sup> would not be appropriate on the Hartlebury site, and the logistical argument has yet to be made.

A facility of this nature will inevitably impact negatively on the Hartlebury area, the visit to Portsmouth has not enhanced the non-financial argument that there is a need to pursue large scale incineration at this location and, feedback is unlikely to reassure those that have concerns regarding the likely impact of the proposals.

Approaching the Veolia plant on the A27, it was quite visible about 1 mile away, but not dominant, identifiable by its tall but slender 65 m stacks. The surrounding area is very flat. It is situated in a light industrial area and on arrival it was apparent that the building is very large – at 32 m, I estimate about 1½ time the height of Hartlebury church tower. It has external architectural design features and has a Design Award from Portsmouth Civic Society. The stacks were emitting a white plume – presumably mainly steam – but no visible smoke.

Plant capacity is 165,000 tonnes p.a. of mainly municipal waste (black bin waste) from Portsmouth city within a radius of about 15 miles of the plant, plus some commercial waste of a similar nature (from offices, shops, factories, etc). Most of the vehicles delivering waste are kerbside collection lorries and there are 100+ vehicles in and out per day with the maximum occurring mid-morning and early afternoon with 5½ day operation. I did not observe any congestion during our visit. Access from Portsmouth city is by urban roads. The M27/A27 is about 1½ miles away.

We embarked on a tour of the plant. (*Details of the process are not described here: they can be found on the Envirecover or Veolia websites*) On entering, a slight odour was evident. This was not a smell of waste and not particularly strong or unpleasant – it later became apparent that it was from the hot bottom ash leaving the furnace by conveyor. At no point inside or outside the plant is any waste visible except in the receiving hall where the lorries unload – see later in this report. Inside the plant one realised how large the building is – cathedral-like and full of large structures, ducts, pipes, etc. The turbine/generating room was very noisy. Everywhere was very tidy and seemingly well managed.

Outside the main building are situated the condenser units which have large continuously running fans. These are fairly noisy when standing close by, although I was not aware of noise when standing at the perimeter of the plant – may be more noticeable at night?

The flue gas treatment systems are large box like units. The first is a scrubber followed by a large filtration unit which captures solid particulates in large sock-like filters. The material which collects on the filters is periodically blown down into a collection hopper from where sealed tankers remove it for treatment at a separate licensed site, so the material is fully contained at all stages.

Finally we visited the control room which is in an elevated position with a large window overlooking the interior of the waste receiving hall. The latter is large enough to accommodate several lorries which tip their waste onto the floor. A front loader moves this to a bunker situated along one wall of the hall. Operators in the control room operate overhead grabs which pick up the waste and lift it over into the furnace receiving hoppers. There was a problem with the receiving hall doors which did not close as they should after the entry or exit of each lorry. Otherwise the waste seemed to be well managed.

In the control room was an array of computer monitors displaying the various continuously monitored emission levels, all of which seemed to be running at well below EC limits.

Main concerns resulting from the visit:

- Size of building – to be considered in the context of the topography of Hartlebury.
- Possible noise problem at night.

## **Personal impression of visit to Portsmouth ERF – Veolia - 2<sup>nd</sup> February 2010.**

Report by Sharon Davies

### **View on approach -**

The facility was visible from our approach on the M27 into Portsmouth, the size of the unit and the chimneys clearly identifying the site. The site has a historic use for waste development and previously housed an old incineration facility. There are modern housing developments and a school nearby which have been built subsequently.

### **Location –**

Whilst housing is nearby the travel routes for vehicles avoid these areas, with clear sign posting to the facility. It is located in a very mixed industrial/trade area with other waste users, for example scrap yards. In this particular location the prevailing winds would take chimney emissions away from these areas out to sea.

### **Design and massing –**

The design of the Portsmouth building is far more aesthetically pleasing than the proposal for Hartlebury, with a very modern glass entry façade. Clearly more thought was given to this, yet its location is less sensitive than Hartlebury's given its green belt status, and general location. With regard to size of building the Portsmouth facility is smaller. The height of the chimneys is approximately 20 metres lower than that proposed for Hartlebury,

### **Traffic –**

Large volumes arrive during the day, local authority refuse vehicles and other large lorries arriving every few minutes with both re-cycling materials and general waste.

### **Noise and smell**

Internally, the operation as would be expected is terrifically noisy. Outside the enormous cooling fans which are in operation 24 hours a day are very loud and would be heard from some considerable distance. This coupled with the noise from refuse and other large vehicles emptying their load (eg; glass) arriving every few minutes make this a very noisy operation indeed. The fast closing doors were not in operation this would allow additional noise from the internal sorting areas to emanate. Smell was not an issue at the site, this may be rather different in summer?

### **Hours of operation –**

It is a 24 hour operation, operating with just 2 members of staff at night.

We viewed the waste arriving and being mechanically sorted from the internal operations room. It was quite appalling to see the types of materials that should be re-cycled amongst the waste, cardboard, plastics, car tyres being some of those I saw, all of which were incinerated.

**Sharon Davies 15/02/2010.**

**Visit to incinerator run by Veolia at Portsmouth.** Tuesday 2<sup>nd</sup> February 2010.

Report by Kirsten Dowty, Hartlebury resident.

First impressions of the plant was the immense size as the stacks could be seen from several miles away as we came into Portsmouth on the motorway (M27). The motorway is exceptionally close to this plant- I would estimate probably about 2-3 miles away. This incinerator is on a very large industrial estate which is also surrounded by a densely populated area with a significant number of terraced streets and large retail estates. The plant is also very close to the sea so depending on the prevailing wind dust etc may be blown away from residents. (my personal opinion).

On reaching the plant again the impression was the enormity of the building and the stacks as I felt that it dwarfed the other industrial units nearby. My impression was that the building alone was probably about 3 to 4 times higher than the other buildings on the industrial estate. I have photos to show the scale and size.

This plant burnt around 165,000 tonnes of waste per year and was smaller (size and capacity) than the proposed development at Hartlebury, which I understand is looking to burn 200,000 tonnes of rubbish per year and will be around 10m taller.

As the councils in the area supplying this incinerator do not separate out food waste or recycle "commercial and industrial" waste, as I understand it what is burnt here is essentially the entire contents of people's black bin which has not been sorted or any attempt made to recycle. Therefore when we went into the control room cardboard, glass and food were clearly visible in the pile of rubbish waiting to go into the furnace. Again I have a photo of this.

When we were in the control room it was very clear that the fast close doors which should have been closed immediately after the waste had been moved from the bunkers, remained open in the 10 minutes or so whilst we were there. According to control room staff this was due to the strong winds which could rip the doors off whilst they were closing.

Outside the plant it was exceptionally noisy with the sound of lorries/diggers and the air cooling fans (which I believe operate 24/7) going on the whole time we were there (approximately 20 minutes over lunch time).

From speaking to the control room operative he said that they normally have between 150 – 200 lorries per day and that at peak times there was one lorry on the weighbridge every 40 seconds. He also said that they dealt with around 630 tonnes of rubbish in the furnace per day and that waste lorries arrived from around 8-5.30 Monday to Friday and around 8-2.30 on a Saturday.

He also said that as they could only burn around 630 tonnes per day that around 3000 tonnes of rubbish was usually stored in the bunkers. He said that first thing on a Monday morning the rubbish was exceptionally smelly as it had been stored over the weekend. This rubbish will include food as Portsmouth and surrounding councils did not separate.

The director at the Portsmouth incinerator told us that before the incinerator was built, only around 20% of all waste was classed as municipal solid waste (black bin waste that has not had any attempt to remove recyclables). This would have gone to landfill. The remaining waste going to landfill was made up of around 30% construction and demolition and the balance being classed as commercial and industrial (C&I). This waste will still go to landfill other than small % of C&I which is burned.

The incinerator at Portsmouth burns roughly 90% municipal solid waste and around 10% commercial and industrial waste.

- 1 The Portsmouth Energy Recovery Facility (ERF) is on an industrial estate about 1km from the A2030 which links onto the A27/M27. Signage directs traffic to the plant via industrial estate roads, and not via the road that leads past a housing development about 500 m from the plant to the northeast. The plant was clearly visible from the elevated section of the A27/M27, but was, subjectively, less intrusive as one neared the plant.
- 2 The layout of the facility looked quite smart, with a 'civic frontage' to the building closest to the main road. The weighbridge office controlled traffic and visitor check-in. External areas around the weighbridge, car park etc were clean.
- 3 There was a significant occasional loud bang from the plant, which was explained as being associated with the periodic cleaning of part of the bag filtration system; not an everyday occurrence. Otherwise, externally, the plant was not significantly noisy.
- 4 Internal office areas were clean and well appointed.
- 5 Veolia's Project Director gave a comprehensive presentation about his Company's contract and waste management activities, including recycling, composting and energy from waste. He described the planning history of the Portsmouth ERF as well as the two other ERFs in the County.
- 6 Inside the plant proper, it was quite clean, and it was possible to talk over the noise of machinery. There was substantial noise from the turbine room, and visitors remained outside.
- 7 Visitors had the opportunity to look through viewing panels to see waste burning on the grate; to see bottom ash discharged from beneath the grates; to look at the bottom ash handling arrangements; the bag filters, and facilities for handling the fly ash and APC residues via a sealed ducting system.
- 8 Visitors inspected the control room and talked to plant operatives; the control room overlooks the tipping hall and waste bunker, which was substantially full. It was remarked that the tipping hall doors remained open for a long time; this was explained as being due to strong windy conditions which can apparently damage the doors. Notwithstanding the open doors there was no significant outbreak of litter.
- 9 Over buffet lunch there was a general discussion about waste inputs to the various ERFs in Hampshire.
- 10 At all times our hosts were receptive and responsive to questions; there was no hint of any information or detail being withheld. There was plenty of opportunity for photographs to be taken.
- 11 On leaving the plant we drove around to the nearest residential area to get an impression of the visual impact of the plant in the locality.