# Amery Hill Residents' Association

founded 1984

Representing the residents of Amery Hill, Amery Street, The Cloisters, Cromwell Gardens, Kingdon's Mews, Oliver Rise, Steeple Drive, Tanhouse Lane & Vicarage Hill, Alton

**Application Number:** 33619/007

**Site Reference:** EH141

**Proposal:** Development of an Energy Recovery Facility and Associated Infrastructure

**Introduction**

The paper below gives a broad view of the proposal and the planned system and controls, produced by Ian Sutherland. As a member of AHRA, Ian was asked to provide an overall review addressing the following specific points:

A. Power generation - is the output power intended for the Grid or other uses?
B. Appearance - the need for the chimney was accepted but what is intended for dealing with the general appearance.
C. Emissions - control to national standards - would data be publicly available?
D. Vehicle traffic – increase in traffic

Unfortunately, more data is required to be able to provide this level of detail, hence Ian's personal broad view. AHRA feels that Ian's paper provides a holistic view of the application and can be used as a basis for any comments you wish to make on an individual, personal level. This paper will be shared with Hampshire County Council who are requesting comments on this application until 14th August 2020.

Details about the application, including a link to make comments, can be found on Hantsweb: https://planning.hants.gov.uk/ApplicationDetails.aspx?RecNo=21197

**Review**

Summary

Any opponents of the scheme will say that the scheme is:

- Poisonous
- Unsightly
- Traffic heavy
- In the wrong place
- Unnecessary

On a positive note we can say that the plan is to put back into active use an existing waste site which has become redundant due to contract changes. The building will be more visible with an 80-metre exhaust stack and with tree and green wall visual offsets. It will generate enough electricity, notionally, for 75,000 homes - at a guess Guildford, Farnham and Alton (?) - plus secondary steam/heat for a suitable user nearby - not so far identified. The shorter the distance from generator to user the lower the losses in transmission. It will receive and burn the residue from recycling sorting Centres in the area. We have to assume the recycling elsewhere is effective and economic. Incineration is an interim solution until recycling capability and techniques improve. UK landfill and export elsewhere is no longer acceptable - environmentally or politically.

The System

The schematic in the application shows:

- Receipt by road of waste left after a recycling extraction process elsewhere
- Transfer from a bin to burners generating steam from boilers
- Steam feed to a turbine and generator and a heat exchanger
- Electricity via transformers to the GRID
- Steam/heat to a local user - not known now
- Flue gas and steam through gaseous and particulate filters to the stacks
- Ash - use not specified - may contain some recoverable materials
- Waste water to be treated and released via SUDS - if needed.

This would be described as a Combined Heat and Power (CHP) system.

Development and Operations

The indications are that if planning approval is granted, it could take three to four years to build. Commissioning into operation could take a few months. Construction may require up to 250 people on site over time and about fifty people to operate. Traffic during construction will involve large loads from time to time, e.g. stack sections, building sections and machines.

During operation, the primary concern is the impact of regular and frequent 24/7 vehicle loads being delivered from the sorting/recycling centres. For effective operation of the unit there needs to be a regular delivery level of material to push the unit to maximum output of power to the GRID 24/7 operation. If this can be achieved, the unit becomes part of the base load capacity for the whole distribution system albeit, ideally, for local use. It is not clear how widely the ‘catchment’ area will spread. There will be an economic limit to the distance waste can be transported from sorting to this unit. Compaction at the sorting base and night-time delivery only would minimise the cost and disruption of traffic and the impact on the road system around the A31.

Nuclear generation is the least polluting source of power for base load needs. Wind, light/sun systems are erratic and only predictable in a limited way. Tidal generation can be useful but variable four times daily. Pumped storage systems, e.g. in North Wales, and more big battery systems help to smooth peak demand times. It must be remembered that all systems consume power and create

carbon residue in manufacture, maintenance and disposal and release carbon and other gases to the atmosphere.

In operation, Veolia estimates 75% of the power output will be supplied to the GRID and 25% consumed in the process.

There are incinerators in operation and the Environment Agency have national standards to be met with published data on emissions. Within this proposal we cannot find data on volumes or speed of exhaust from the stacks or on the likely mix of gases, steam and particulates. There is a reference to filters in the system. The spread of the plume cannot be forecast at this stage.

It is possible that the stacks are double skinned to keep exhaust temperature up and so speed the plume for the widest distribution of gases and steam. With prevailing winds generally from the SW distribution will be NE and the apparent footprint will be pear-shaped with the stalk pointing to the site. Wind and rainfall will determine the distribution distances, the amount condensing out and any material reaching the ground.

There is reference to a condenser in the system. Cooling water and condensate will need disposal. A SUDS arrangement to cool the water is mentioned, does this suggest a possible release into the River Wey? If so, what will be the effect downstream? Heat and steam could be diverted to a user nearby - none is noted. Commercial glasshouses could benefit from this. A local heating system could work if demand emerges from a new estate of houses/businesses located nearby.

In a case like this, 'NIMBY'-ism is acceptable if, but only if, a better system can be proposed and justified for dealing with waste.

General Considerations

Please excuse a short sermon. Clearly avoidance of waste is the way ahead. Recycling must happen if it is technically and economically sensible. Use only classic clothing in wool, cotton, silk, bamboo and leather. We can deal with animal welfare issues elsewhere. Stop using polyester - made up in sweat shops in Indonesia and Leicester - using oil - then explain the problem to poverty-stricken workers. There are perhaps 3.5 billion people who will never own a car with the freedom of choice it gives. A bicycle perhaps. The Greens want to take energy out of the economic flywheel so ensuring that it slows down so that poor will stay poor. Until we reverse population growth and boost technology and productivity, we must stoke the flywheel and care for all in the world. More recycling and repurposing is essential and we must attempt to get some benefit out of power generation from the leftovers. There are many positive trends. We are producing more food from less land year by year.

The building will be more substantial than that in place now and visible from ridges around and the A31 road. Fast-growing trees (perhaps Eucalyptus?) and green walls are mentioned to mitigate the visual impact. The stacks will be lit at the tops for safety but after a short time will not be noticed. It is assumed the stacks will be self-supporting and without guys hazardous to birds. There are valid questions on the fall-out from the stacks for people living downwind of the site. Tests later could determine the distribution at ground level. If there is heavy rainfall with a SW wind or a NE wind some will land in Hampshire but there is not a case for parochialism. The Environment Agency does have standards and will monitor the reality. Are the standards tough enough? They will probably

toughen over time. There is no reason to hide the actuals. The records should include vehicle movements, tonnage received and waste plus power output. We will probably not have access to commercially sensitive trading accounts.

Conclusion

Recognising the concerns that will be expressed by many local people, the key questions must be pursued. Some will never accept the logic of the case, however carefully it is presented with strong evidence of careful management and oversight. Assuming that is how it will be with Veolia in charge. It will require continuous supply of material and a decent price from the grid. A new commercial glasshouse company nearby will help. My experience ranges from the gas, oil, nuclear, construction, shipbuilding, consultancy, Government advisory at national and local levels, publishing and books. I had one assignment persuading a Welsh authority in the sixties to change from the public using dustbins, old tin baths and buckets to plastic sacks reducing vehicle crews from six to three. I walked on the tip one day at the head of the valley. It was like being on a trampoline. I would prefer a well-managed incinerator any day to a smelly dangerous tip somewhere in the Wey valley. As a disclaimer I have never had and do not have any interest in any form with Veolia.

Ian Sutherland 15 June 2020

**AHRA's View**

The view of AHRA is that this is a sensitive planning application which requires proper engagement with the local community, and presently there are still many unanswered questions. We request the following information be provided so that the local community can make an informed decision about this application.

1. We want to be assured that the Environment Agency monitors and publishes exhaust data and that it betters their current standards throughout the life of the plant.
2. A clearer traffic analysis is needed – volume, origin and spillage control.
3. What tonnage of material is needed to ensure output for 75,000 homes - is the supply assured from day one? Will it be sustained or variable?
4. What schemes are being considered for 'surplus' heat/steam and water?
5. What are the ton/mile economics for collection journeys?
6. What will be done with the ash residues?
7. How will discharge to the River Wey from a SUDS system be controlled?
8. What are the details for the mitigation and disguise of the larger building being proposed for the site, both in terms of greening and planting and the ongoing maintenance thereof)?