

Our ref 3787/IEL/SAM/002

25 August 2005

Mr P. Wheelden
Torfaen County Borough
Department for the Environment
County Hall
Cwmbran
NP44 2WN

Dear Sirs

Re: Proposed Re-development of the Shanks Pontypool, High Temperature Incineration Facility for a Mechanical Biological Treatment Waste Management Facility

Sanderson Associates (Consulting Engineers) Limited are highway consultants appointed by Shanks Waste Management Limited to advise on highway issues resulting from the redevelopment of the Shanks Pontypool site.

The Shanks Pontypool site is located approximately 5km south of Pontypool, adjacent to the A4042(T) Newport to Abergavenny dual carriageway.

It is proposed to redevelop the site as a Mechanical, Biological Treatment (MBT) Waste Management Facility. The site was formally used for High Temperature Incineration (HTI). At its peak the HTI facility received in the order of 35,000 tpa of hazardous wastes resulting in an estimated total of 30-40 HGV movements per day. The company announced the permanent closure of the HTI in February 2005. Prior to this announcement the site had been 'mothballed' since March 2002.

Shanks is now seeking to redevelop the site to provide a new MBT plant; servicing potential local authority municipal waste contracts.

The new MBT plant is envisaged to receive an average 100,000 tpa of mixed household and commercial waste, rising to a potential maximum capacity of 120,000 tpa. Outputs from the MBT plant will comprise a series of recycle material streams, plus a residual waste stream to be disposed of to landfill or other secondary treatment facility.

The new MBT plant will operate 06.00 to 18.00 hours Monday to Friday and 06.00 to 12.00 hours Saturday.

Construction of the new MBT would commence in 2008 and become operational in 2009.

A meeting took place at Shanks Pontypool offices on 1 August 2005. In attendance were Mr T. Shaw (Torfaen Engineering and Transportation), Mr C. Edwards (Shanks) and Mr I. Ladbrooke (Sanderson Associates). The purpose of the meeting was to discuss the principles of the development proposals. A further meeting took place at Capita Symonds offices on 2 August 2005. In attendance were Mr D.

James (Capita Symonds) and Mr I. Ladbrooke. The purpose of this meeting was again to highlight the principles of the development and to ascertain the requirements the Welsh Assembly Government (WAG).

It was agreed at both meetings that a sensible way forward would be to present predicted traffic generations for the redevelopment proposals to both the Local Highway Authority and WAG, before any further detailed highway studies are undertaken.

The following information has been compiled by Shanks with additional information provided by Torfaen County Borough Council on current refuse vehicle inputs to its existing transfer station in New Inn.

It is important to note that the Shanks MBT plant will be reliant on Local Authority waste contracts to treat existing waste generated locally. Therefore the refuse collection vehicles are already occurring on the highway network but will deliver to the Shanks site as opposed to current destinations. For example in Torfaen, refuse collected is taken to the New Inn Waste compaction site approximately 0.8km north of the Shanks site. This existing traffic would be redirected to the Shanks site for treatment instead of to the compaction site. The traffic from Torfaen would represent 46% the total capacity of the MBT plant. The equivalent input from Blaenau Gwent County Borough Council equates to a further 39%. Therefore the MBT plant would result in a large proportion of traffic using the facility being redirected from existing routes rather than being new trips on the highway network.

Shanks have identified potential waste inputs to the Pontypool site from Torfaen and Blaenau Gwent Council Districts.

Torfaen (Information provided by Torfaen)

Current operation in New Inn

- Total vehicles per week = 107
- 21 vehicles per day (Mon-Fri)
- Based on 56,222 te per year

Blaenau Gwent

- Total vehicles per week = 92
- 18 vehicles per day (Mon-Fri)
- Based on 48,273 te per year

Total waste input = 104,495 te per year equating to 39 vehicles per day (Mon-Fri) from the two Councils. This represents the average waste input expected per year. It has been identified that the plants capacity could increase to a maximum of 120,000 te per year. Pro rata the average input to maximum input would increase vehicles per day from 39 to 46.

Therefore a worst case maximum waste input would result in 46 vehicles or 92 two way HGV movements per day (Mon-Fri) to the new MBT plant, with at least 85% of this traffic already on the highway network.

Shanks have identified the route for waste input as follows:-

- Waste in from Torfaen via the A4042(T) Rechem Roundabout avoiding New Inn.
- Waste in from Blaenau Gwent:-
50% via A472 Crumlin to Pontypool then A4042 (T) to Rechem Roundabout.
50% via A465 Abergavenny to Pontypool then A4042 (T) to Rechem Roundabout.

From Transport Assessments undertaken at other existing Shanks Waste Transfer facilities, the following daily distribution of Waste Input vehicle movements can be identified based on maximum capacity input.

Hour Beginning	% of Total Daily Vehicles in Time Period	Total Vehicles Per Hour	Inbound	Outbound	Two-Way
06.00	1.3%	1	1	1	2
07.00	2.7%	1	1	1	2
08.00	7.6%	3	3	3	6
09.00	11.6%	5	5	5	10
10.00	15.6%	7	7	7	14
11.00	15.2%	7	7	7	14
12.00	12.5%	6	6	6	12
13.00	12.9%	6	6	6	12
14.00	13.8%	6	6	6	12
15.00	6.3%	3	3	3	6
16.00	0.5%	1	1	1	2
17.00	0.0%	0	0	0	0
Total	100%	46	46	46	92

Recycled waste outputs from the MBT facility have been calculated by Shanks as follows:-

Waste out based on average Waste Input of 104,495 te per year

25% Water = 0 vehicles

25% Recyclables = 26,120 te per year = 6 vehicles per day at 18 te per load

50% Stabilate = 52,250 te per year = 17 vehicles per day at 12 te per load

Total Output = 23 vehicles per day (Mon-Fri)

Based on maximum waste input – 120,000 te pa

25% Water = 0 vehicles

25% Recyclables = 30,000 te per year = 7 vehicles per day

50% Stabilate = 60,000 te per year = 20 vehicles per day

Total output = 27 vehicles per day (Mon-Fri)

Shanks have identified the route for waste output as follows:-

- Waste out * % to Newport via A4042 (T) South to Newport
- Waste out * % to Midlands/North via A4042 (T) North to Abergavenny

*Currently envisaged to be 100% to Newport (but some material could head north)

Again from Transport Assessments undertaken at other existing Shanks Waste Transfer Facilities, the following daily distribution of waste output vehicle movements can be identified based on maximum capacity output.

Hour Beginning	% of Total Daily Vehicles in Time Period	Total Vehicles Per Hour	Inbound	Outbound	Two-Way
06.00	7.5%	2	2	2	4
07.00	10.2%	3	3	3	6
08.00	10.9%	3	3	3	6
09.00	14.7%	4	4	4	8
10.00	12.4%	3	3	3	6
11.00	11.3%	3	3	3	6
12.00	9.0%	2	2	2	4
13.00	13.9%	4	4	4	8
14.00	8.6%	2	2	2	4
15.00	1.5%	1	1	1	2
16.00	0.0%	0	0	0	0
17.00	0.0%	0	0	0	0
Total	100%	27	27	27	54

Shanks have provided information on the proposed level of staffing for the new MBT plant as follows:-

Total staff = 20

Staff shifts = 06.00 – 13.00 hours

11.00 – 18.00 hours

Staff on shift = 16 approx (2 x 8)

Assuming all staff travel by private car (worst case scenario) the following daily staff traffic movements could be expected:

Hour Beginning	Inbound	Outbound	Two-Way
05.00	8	0	8
08.00	4	0	4
10.00	8	0	8
13.00	0	8	8
17.00	0	4	4
18.00	0	8	8
Total	20	20	40

From the above information a daily traffic flow matrix can be created based on a worst case scenario with the MBT plant operating at maximum capacity.

Hour Beginning	Waste In		Waste Out		Staff		Total	
	In	Out	In	Out	In	Out	In	Out
05.00	0	0	0	0	8	0	8	0
06.00	1	1	2	2	0	0	3	3
07.00	1	1	3	3	0	0	4	4
08.00	3	3	3	3	4	0	10	6
09.00	5	5	4	4	0	0	9	9
10.00	7	7	3	3	8	0	18	10
11.00	7	7	3	3	0	0	10	10
12.00	6	6	2	2	0	0	8	8
13.00	6	6	4	4	0	8	10	18
14.00	6	6	2	2	0	0	8	8
15.00	3	3	1	1	0	0	4	4
16.00	1	1	0	0	0	0	1	1
17.00	0	0	0	0	0	4	0	4
18.00	0	0	0	0	0	8	0	8
Total	46	46	27	27	20	20	93	93
Two Way Total	92		54		40		186	

A summary of the worst case peak hour traffic generations from the entire site (staff and HGV's) can be given as:-

	Inbound	Outbound	Two-Way
08.00-09.00	10	6	16
17.00-18.00	0	4	4

A worst case assumption is that all site generated traffic uses the Rechem junction on the A4042 (T). Planning conditions limiting HGV movements to the Trunk Road Network and principally classified routes could be considered, where appropriate.

The peak hour summary shows greatest development impact in the AM peak hour with a total of 16 vehicle movements two-way. It is considered that 1 vehicle movement inbound every 6 minutes and 1 vehicle movement outbound every 10 minutes (approximately) in the peak period would not detrimentally affect capacity at the Rechem roundabout or wider highway network.

The views of the Local Highway Authority and Capita Symonds is sought on this information.

I look forward to your response.

Yours sincerely

I.E.Ladbrooke
For Sanderson Associates (CE) Limited

Copy to T. Shaw – Torfaen CB Highways
 D. James – Capita Symonds
 C. Edwards – Shanks
 A. Wilson – Golder Associates