

The District Planning Officer
Department of Technical Services
Clydebank District Council
District Council Offices
Clydebank G81 1TG

14 October 1995

Dear Mr. Gregor,

Objections to planning application 95/139 for a microwave hospital waste disposal development

I have only seen the documents that have been shown to the Community Council and those brought to the 11th October Town Hall meeting. From what I know about the application at present I would have to be against it, but I would be able to agree to it if the following comments and questions were satisfactorily answered:

Does the AAH microwave equipment safely convert hospital waste to harmless material that can be land filled?

1. The abstract of the scientific paper by Casanovas indicates that a microwave process can be satisfactory, unless the authors were funded by an interested party
2. Where is the evidence that the *Sanitec Microwave Disinfectant System* heats all parts of the waste for long enough at high enough temperature?
3. Where does the steam go? Probably it goes into the air, rather than being condensed and monitored. What toxic substances does it contain (whisky vapour isn't all water)?
4. HEPA filters don't stop toxic gasses going through.
5. How is it ensured that the operators are not exposed to microwaves?
6. Hot oil treatment in Angus differs in the radiation and absorption of heat, so that case cannot be used to justify this application.

Can the process be monitored and controlled safely?

1. I need far more detail of the "measurable parameters" and "automatic monitoring" or what control action is taken.
2. Does it monitor the shredding, mixing, wetting, transfer speed through the chamber, thermal conductivity, microwave power and absorption?
3. How is the system calibrated, eg temperature, which is notoriously difficult to measure in a microwave field, especially to indicate whether each part of the waste has been above 90° for at least 5 minutes?
4. How is the system maintained? How will the operators know when the magnetrons are at low power?
5. How do the operators know when to change the HEPA filters? How are they disposed?
6. The output may contain less bacteria than many food products, but aren't they likely to be more dangerous bacteria, and maybe viruses and other substances?

Will the process be operated properly?

1. Searching the internet showed up a medical research paper by Blenkarn - it asks "will the process be operated properly", and casts grave doubt on a positive answer.
2. Will hospitals separate waste and bag it correctly? We hear many stories that they are under too much pressure for this level of perfection. Can we be provided with written reports of potentially hazardous incidents that have occurred and how the hospitals will assure that they will not recur?
3. If different categories of waste get wrongly bagged, and some is processed by microwave rather than incinerator, then harmful substances (eg viruses, cancer-treatment and cytotoxic wastes that need 500° for destruction) will be put into the landfill.
4. Is this process planned to be fail-safe or just fail-soft, meaning it could still be run at

reduced effectiveness?

5. People switch off or hack at microprocessors (like I saw in a Dumfries factory this week, and as many children have learned to do), so microprocessors can't be relied on to prevent operators or management from changing the process to speed it up.
6. Will the containers be washed out and liquid put down a drain to the public sewage system? How will spillages in containers be disposed of?
7. This application would only have about four workers on each shift. Can the operators deter vandals and drug-users?
8. What are the monitoring arrangements for the landfill sites? They must be checked as the final test of the adequacy of the disposal system, rather than being ignored as no longer being "clinical waste".
9. Have AAH or DTZ ever infringed waste disposal regulations or conditions of a Waste Management Licence? If so, what were the outcomes? (Investigators associated with Clydebelt could discover any previous incident if they fail to inform us).
10. Are there any safety aspects of the Disinfectant System, and the whole operation from Hospital to landfill site, which AAH or DTZ are not yet fully confident can be overcome?

Can local people and District Council make a safe decision now?

1. No results have yet been presented to me for study on the tests which were proposed to be observed in the USA by SCIEH and AAH in July.
2. Can we see written statements from FOE and Greenpeace that they approve of the system?
3. Planning applications don't allow the Council or the public to consider, recommend or demand alternative solutions to the problem - eg better incineration, gasification plant, plasma processing - or alternative locations. The applicants assertions that this is the best process and the only location should not be taken as reasons to approve.
4. Planning procedures don't take the safety of the whole system into the account - they just "assume pollution control operates effectively". If there is any doubt, then the application should be rejected.
5. Planning permissions and Waste Management Licences only approve of the process. They assume that the process works well, and do not require thorough monitoring of the output. If there is no system available to monitor the output to the landfill, then the application should be rejected.
6. There are only informal guidelines on operation: no EC or IEE regulations seem to be applicable (or have they been ignored) and the SCIEH regulations are only advisory. Consideration of the application should be delayed, pending official regulations becoming in force.
7. It would be difficult for the Council to enforce any terms of granting the planning application, because stopping the process would allow a large amount of waste to accumulate, and there would be no alternative waste conversion plants in the area.
8. The Director of Environmental Health is not knowledgeable enough to make judgements and issue a Waste Management Licence. Who will the Council consult on the process who is truly independent and knowledgeable? Would Dr Douglas Stewart, chairman of SCIEH, be sufficiently independent - he has been paid by the NHS, one of the stakeholders in this application succeeding? There should be some mechanism for ensuring public approval of the status of any expert consultant.
9. The District Council should require that an Environmental Assessment be carried out if enough public concern is expressed (eg as at the public meeting on 11th October).
10. Responsibility is split between hospitals, AAH and landfill site operators. It is not good modern management practice to remove responsibility for safety from those who may cause danger.
11. Working practices cannot be guaranteed to be safe unless there are strong unions, safety committees, and protected whistle-blowers.
12. The suspicion and lack of public confidence that would remain even after a favourable Council decision would be detrimental to the amenity of the surrounding area, especially in making house sales more difficult.