

2, Tullis Close,
Sutton Courtenay,
Abingdon, OX 14 4BD,
UK.

R.M. Dell, Ph.D., D.Sc., FRSC, C.Chem.

Tel: +44-(0)1235-848339

e-mail: ronalddell@compuserve.com

The Planning Department,
VWHDC,
Abbey Close,
Abingdon OX14 3JE

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Dear Sirs,

WRG Application SUT/APF/616 60CM

I write as a resident of Sutton Courtenay, but also as a professional chemist, to voice strong opposition to the above application. My concerns are first and foremost with the projected formation and release of gaseous toxins, specifically polychlorinated dibenzodioxins (PCDDs). These substances are invariably formed during combustion processes in the presence of chlorine-containing substances (such as the plastic polyvinyl chloride, PVC, or many bleaches or bleached paper). PCDDs are reported to be teratogens (substances that cause foetal abnormalities), mutagens (substances that change the DNA of genes, or cause chromosome damage) and possibly human carcinogens. It was the uncontrolled, accidental release of PCDDs from a chemical factory that caused the notorious Seveso environmental catastrophe in Italy in the 1970s. PCDDs were also present in AGENT ORANGE the defoliant used by the US Air Force in the Vietnam war. Clearly, we do not want such substances released in Oxfordshire.

PCDDs are not the only polyhalogenated hydrocarbons formed during combustion processes. Related families of organic compounds are the polychlorinated dibenzofurans and biphenyls. These have been less studied than the PCDDs as regards their toxic effects but are anticipated to be almost as bad. The essential feature of all these compounds are that they are fat soluble and accumulate in human and animal lipids from which they are not readily metabolised or excreted. Much human uptake comes from eating animals that have ingested the compounds from pastureland contaminated from the atmosphere.

The EU and the UK Government have set stringent regulations controlling the release of PCDDs and I have some confidence that if these were strictly adhered to the public would be protected. The problem lies in monitoring and ensuring that these regulations are met. The concentration of PCDDs and related compounds in the exhaust gas will vary greatly depending upon the composition of the waste feedstock and the operating conditions of the incinerator. Ideally, chlorine-containing waste, such as PVC plastic, would be separated out before the waste is fed to the incinerator. PCDDs form or reform as the exhaust gas from the stack cools from 600°C to 200°C and need to be trapped at that point.

To ensure safe operation of an incinerator it would be necessary to monitor the level of PCDDs in the exhaust continuously and not just once in a while. The operating conditions of the incinerator can change rapidly, especially on start-up and shut-down, and I doubt whether there is instrumentation available for on-line monitoring. Delayed laboratory analysis is of no help to the operator in conforming to the regulations and it seems inevitable that from time to time any imposed limits will be breached.

Dioxins are not the only cause of environmental concern. Inevitably, combustion will lead to the formation of acid gases—sulfur dioxide, nitrogen oxides and hydrogen chloride. Coal-combustion at Didcot ‘A’ power station, adjacent to the proposed incinerator, gives rise to the first two of these gases and RWE npower has to conform to strict emission standards that sometimes even limit electricity production. Will there be comparable acid gas restrictions imposed on WRG and will these be additive to the RWE npower limits or will the two companies have to share the same “ration” of pollutants? If so, has RWE npower been consulted? If not, are the atmospheric standards for this region being lowered and what justification is there for that course of action?

There is also the issue of the fine particle emissions into the atmosphere (ash and soot) to add to those coming from the coal-fired boilers of Didcot A station. For many years, the latter have induced a micro-climate around Appleford and Sutton Courtenay which is well known to residents. Effects include a reduction in hours of sunshine, caused by cloud shading, and local heavy hoar frost on a cold, still winter’s day. We do not wish to add further to this atmospheric burden.

The point needs to be made forcibly that WRG, unlike RWE npower, is a company engaged in mostly low-tech operations with limited chemical, analytical and chemical engineering back-up, whereas an incinerator is essentially a chemical process plant requiring skilled, professional operators.. Here in Sutton Courtenay we have had extensive experience of WRG being unable to operate even a simple landfill site without receiving continual complaints about mal-odours and flies invading the village.

According to WRG’s own “handout”, its parent company FCC has developed the “Mechanical Biological Treatment” process, a quite different approach whereby metals and plastics are first separated from household waste and recycled. The organic (biological) matter is separated and treated either aerobically or anaerobically to produce compost and biogas. The residue is processed to form a solid fuel (refuse-derived fuel, RDF), while glass, stones grit etc. are used in roads and construction. The company has some 12 such plants operational in Spain with a total annual waste throughput of 1,824,000 tonnes. Superficially this seems to be a far better and safer approach to municipal waste treatment than incineration. If this approach is preferred in Spain, then why is it not suitable for Oxfordshire? WRG should be asked to re-consider this technology for Oxfordshire.

There are other reasons for opposing the planning application for Sutton Courtenay including the high level of traffic congestion at peak hours as well as the many burdens that have been placed on this beautiful and historic village over the past

40-50 years—two power stations, gravel extraction and landfill, Milton Park trading estate, low-flying army helicopters etc. I will leave others to develop these objections.

Yours sincerely,

Ronald Dell