

ORAL HEARING INTO THE DUBLIN WASTE - TO - ENERGY FACILITY

BRIEF OF EVIDENCE

FIRE SAFETY & EMERGENCY RESPONSE

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DUBLIN FIRE BRIGADE

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1 EXECUTIVE SUMMARY:

Dublin Fire Brigade has reviewed the proposals for the Waste to Energy facility at Poolbeg, has identified issues of relevance to the role of the Brigade and has evaluated how these can be addressed. The main issues identified were the fire safety of occupants, the response capability of the emergency services and the proximity of the proposed site to other sites (relative to its Seveso status).

The fire safety design of the plant will require approval by the granting of a Fire Safety Certificate under the Building Control Act and ongoing fire safety standards at the facility will be subject to the requirements of the Fire Services Act.

There are proposals to have an accredited safety management system, as well as fire suppression systems, a fire hydrant system and fire compartmentation of different operational areas.

Similar measures to those outlined above were noted by Dublin Fire Brigade on a visit to two waste-to-energy plants in Copenhagen, Denmark and Malmo, Sweden, where the fire safety aspects of the plants were discussed with management.

Based on observation of the operations and safety management regimes in place at these two plants, the fire protective measures proposed in the EIS/Major Accident Hazard Assessment and the requirement to have a Fire Safety Certificate for the fire safety design of the plant, it is considered that the safety of the occupants from a fire in the plant would be adequately provided for.

The proposed site is within a relatively short distance of three fire stations which are permanently manned and Dublin Fire Brigade is satisfied that it has the capability to mobilise the necessary resources to an incident at the plant.

As well as standard and specialist training of personnel to deal with a range of hazards, pre-fire planning and the holding of operational exercises is a normal part of the activities of Dublin Fire Brigade and these would be applied in the case of the proposed plant.

An Emergency Response Strategy is proposed as part of the plant management, to provide on-site emergency management response as well as co-ordination by way of liaison and joint exercises with the emergency services, and co-ordination with the Major Emergency Procedures (Dublin Metropolitan Region).

Issues relating to the potential hazards which may occur by virtue of the Upper Tier Seveso status of the site will be managed by way of an external emergency plan prepared by Dublin Fire Brigade under the COMAH

regulations. The Brigade has completed plans for other Seveso sites in the Dublin region and carries out a programme of exercises in relation to these.

2 Qualifications and Experience

I hold a Bachelor of Engineering (Civil) degree (1973) from University College, Cork. I am a Chartered Member of Engineers Ireland.

After graduation I worked for ten years in the civil engineering and construction sector in the UK and Ireland, and in 1983 was employed by Dublin City Council as a Building Surveyor. In 1984 I took up a post with Dublin Fire Brigade (a division of Dublin City Council) and worked in the Fire Prevention area until 2000.

I have been Assistant Chief Fire Officer in Dublin for eight years, my current main areas of responsibility being Fire Prevention and Health & Safety, as well as being part of the overall management team for the Brigade.

3 Introduction

Dublin Fire Brigade has a comprehensive emergency response capability available within the Greater Dublin area, and has reviewed the proposed waste-to-energy facility to establish whether the current capability was adequate to meet potential emergency response needs at the site.

4 Main Issues

The main issues identified were:

- Fire safety of occupants
- Response capability of emergency services
- Proximity of the proposed (Seveso) site to other sites.

4.1 Fire Safety of Occupants

The operator will be required to comply with all applicable regulations for the fire safety design of the plant.

Once the plant is occupied, the Fire Services Act will require the operator to take all practicable measures to ensure the safety of persons in the building in the event of fire. In practical terms he must ensure, on an ongoing basis, that the plant is properly provided for in terms of the fire safety of the building itself and the management of fire safety (including training).

The Major Accident Hazard Assessment indicates that the operator will have an accredited safety management system in place (OHSAS 18001). This will cover fire safety as well as general safety in the workplace. It provides for comprehensive organisation and management of operations, identification and control of hazards, planning for

emergencies etc. Specific provision is made for training of staff in firefighting (including the use of breathing apparatus), emergency evacuation, audit and review of policies and procedures etc.

Proposed fire safety measures include fire suppression systems, fire hydrant system and fire compartmentation of different operational areas.

Similar measures to those outlined above were noted by Dublin Fire Brigade on a recent visit to two waste-to-energy plants in Copenhagen, Denmark and Malmo, Sweden. They operate the same OHSAS 18001 system, and indicated that they have a very low rate of workplace accidents, including fire incidents.

Based on observation of the operations and safety management regimes in place at these two plants, on the fire protective measures proposed in the EIS/Major Accident Hazard Assessment and on the requirement to have a Fire Safety Certificate for the fire safety design of the plant, it is considered that the safety of the occupants from a fire in the plant would be adequately provided for.

4.2 Response Capability of Emergency Services.

The proposed site is within a relatively short distance of three fire stations, which are permanently manned. These stations are:

- **Townsend Street (Headquarters)** (1 Senior Officer vehicle, 2 fire engines, 2 turntable ladders, water tanker, chemical incident unit, 2 ambulances).
- **North Strand** (1 Senior Officer vehicle, 2 fire engines, foam tender, 1 ambulance)
- **Donnybrook** (1 Senior Officer vehicle, 2 fire engines, 1 ambulance)

The pre-determined attendance for a normal fire situation at the plant would probably be two fire engines, which would be available from any one of the fire stations listed above. This is also in line with the responses adopted in Copenhagen and Malmo. Additional resources from other Dublin fire stations can be deployed if necessary.

Maps 1 and 2 show these fire station locations with corresponding road travel distances and travel times to the Poolbeg site. Fire Brigade vehicles have sirens and blue lights available to assist with proceeding through road traffic when responding to incidents. Traffic conditions do not generally significantly impede fire appliances when responding, and in relation to this site, response is available from a number of directions into the Irishtown/Pigeon House Road area.

A fire in the waste bunker, if not dealt with by automatic suppression systems or the plant operatives, can be dealt with by Dublin Fire Brigade by direct application of water or Compressed Air Foam Systems (CAFS).

Fires involving diesel fuel, LPG, Ammonium Hydroxide or other substances can be dealt with by Dublin Fire Brigade standard operating procedures for which all personnel are trained and equipped.

Pre-fire plans are prepared by the Brigade for all major facilities in the Dublin area which detail the key hazards, fire safety measures and other relevant information for the location. These allow the Brigade to familiarise themselves with the key features at a plant, to plan a specific emergency response and to have information available when responding to an incident there. Similar plans would be prepared for the proposed facility, along with the holding of emergency response training exercises.

An Emergency Response Strategy is provided for in the EIS, which is designed to provide an on-site emergency management response as well as co-ordinating by way of liaison and joint exercises with the emergency services, and co-ordination with the Major Emergency Procedures (Dublin Metropolitan Region).

A new national Major Emergency Management framework is currently being rolled out by the DoEHLG and the Gardai, HSE and Local Authorities, which provides for more comprehensive identification of risks and preparedness for co-ordinated emergency response, and is expected to be fully in place within two years.

There are sufficient Fire Brigade resources of vehicles, equipment, trained personnel and procedures to provide an appropriate response to an emergency incident at the plant.

4.3 Proximity of the Proposed (Seveso) Site to Other Sites.

Issues relating to the potential hazards which may occur by virtue of the Upper Tier Seveso status of the site are regulated by the Seveso II Directive and the European Communities (Control of major accident hazards involving dangerous substances) regulations, 2000.

These provide for the Central Competent Authority (The Health and Safety Authority) to notify the local competent authority (LCA), in this case Dublin City Council, of the existence of an upper tier site, and requires the LCA to prepare an external emergency plan to respond to potential major accidents at the establishment. This process would come into effect on the LCA receiving such a notification about the proposed plant. Dublin Fire Brigade has prepared a number of external emergency plans for Upper Tier Seveso sites in the Dublin area, and has an ongoing programme of major exercises at these sites.