

Appendix B2 5c

Non-technical summary

The West Thurrock site, on the corner of Stoneness Road and Oliver Road has been owned by Industrial Chemicals Group Limited since the late 1990's. Prior to this, the site was owned and operated by National Power (now known as npower, as part of the RWE group) and prior to that the CEGB (Central Electricity Generating Board), with a power station on the site which had been designed to burn Coal, Oil and Gas. Currently Industrial Chemicals Limited (trading company) operates on most of the site and is owned by Industrial Chemicals Group Limited (holding company).

The tri-generation power plant will be operated by Industrial Power Limited. It was decided that the power generation side of the company had to be a separate company from both an operational, permitting & trade perspective. Industrial Power Limited will lease the part of the site from Industrial Chemicals Group Limited and will operate and trade as a separate company. There is to be a Directly Associated Activity (DAA) with Industrial Chemicals Limited (Permit BJ7298IF), as they will be the main customer for the power, steam and cooling generated from the tri-generation power plant.

Since acquiring the site, the company has been developing products and building plants, which are part of the company's ethos with regard to the future of the company and the types of products it supplies. In line with current regulations the company operates four processes that are permitted under the IPPC/EP regulations. All the other existing processes do not come under the umbrella of the current regulations.

In 2010, an application was made to vary the existing permit operated by Industrial Chemicals Limited to allow the operation of a Chlor-alkali facility (Process 3). In 2011, this variation was issued and has subsequently been varied a number of times since. The Chlor-alkali facility in permit BJ7298IF is known as Process 3 in the permit (due to issues of CinC in one of the other processes). Process 3, is known to be a highly energy demanding process and as a result of the cost of this energy demand, the company has concluded that building and operating its own energy generating facility is a sound move from both a financial and business perspective. This has then led the company to think about the future in general, especially with regard to energy supply, energy security, energy efficiency, increasing non-commodity energy costs and increasing customer demand.

As a result of this, Industrial Power Limited is applying for a Directly Associated Activity (DAA) permit for the generation of energy and for this DAA to supply the existing permitted processes on the site with energy, steam and cooling, which are owned and operated by Industrial Chemicals Limited.

As process 3 also requires significant energy to operate, the company is looking at building and operating a tri-generation power plant. The initial generation plant will be fuelled by natural gas and have a supply capacity of 16.8 mega-watts; this power will be distributed via our own substation into the Chlor-alkali facility with excess power being distributed via a connection, to the local area grid network.

In all cases low grade and high grade heat energy will be recovered from the generators in the form of steam and hot water which will be used for process heating and process cooling via an absorption chiller. By recovering the heat energy in this manner the generating plant will become a CHP (combined heat and power) station. At this point the plant will also be registered as an EUETS facility and will operate a management and recording system in accordance with the requirements of the EUETS.

Initially the management systems for QA, EMS & Safety will all be taken from the various Industrial Chemicals Operating systems, but during the building, commissioning & operations of the facility these management systems will be adopted into the Industrial Power Management systems.

The primary use for both the electrical and thermal energy will be for the EPR permitted processes with excess electrical energy being spilt to the local area network.

There is a land overlap of Process 1 from BJ7298IF, which has been utilised by the power plant. However, permission has been granted by the Environment Agency that the process does not at this time have to be surrendered as the area of land concerned was never actually built upon. The email confirming this is referenced as appendix B2 5ci and will be included in the application showing this temporary approval. Process 1 of permit BJ7298IF was originally provided with a larger area of land to be operated on, as at the time there was the plant to erect & operate spray drier units, to dry the liquid produced in Process 1, but this never happened and nothing was built or operated on the land taken over by the power plant facility.

This was due to product demand and also the purchase of a site with tanks, reactors and spray driers already in-situ meant that this process was transferred to the sister site in Selby (already under existing EPR permits for this site (no permit variation required to manufacture or dry these products)) and also the customer was closer, so a reduction in transport for the final product. As a result of this action, it was decided that process 1 was to remain on the existing Industrial Chemicals permit, but as a decommissioned plant. This would then enable Industrial Chemicals to keep the potential for the process to be re-activated if necessary or required. One of Industrial Chemicals unique skills has been to adapt where necessary or required to enable new products to be produced on existing plant as part of a multi-product protocol, which then enables the company to become a dynamic producer and to satisfy demand.

However, when it was determined/decided that a power generation facility would be built and operated, it was not realised that there would be a land overlap. This is predominantly due to the existing permit, not covering the whole site but just areas of the site. The simultaneous application for a permit variation for BJ7298IF that has been submitted at the same time as this application, details the expansion of the permitted area to cover the whole site, with the exception of power plant area and the SEA building. The variation application will detail that part of the area for Process 1 is to be handed over for the power plant construction and in due course either a transfer of the land or a land surrender will be applied.