
M E M O R A N D U M

DATE: 05/11/2004
TO: The Board of the Agency
FROM: Frank Clinton
RE: Application for a review of an IPC Licence by IFI Ltd,
Arklow, Co. Wicklow. (Register Number 495)
CC:

Section 85(1)b sent	4/6/99
Article 17 Notice issued	30/7/99
In compliance with article 17	17/8/99
Site visit	24/6/99

Irish Fertilisers in Arklow was granted an IPC Licence on 30/1/1997 providing for the carrying on of an artificial fertiliser and inorganic chemicals manufacturing operation at Arklow, Co. Wicklow.

This licence (Register No. 31) included a range of conditions dealing with emissions to air, water, waste and noise as well as the establishment of an Environmental Management System (EMS) and a comprehensive reporting procedure for the site. This licence also contained a number of conditions which required phased improvements in the quality of emissions to air and water. Not all of the targets which were set out in this licence have been achieved.

In May 1999 the company informed the Agency that it intended to eliminate 9 emission points from its process and to establish one new emission point. This project would provide for a significant reduction in the overall level of emissions from the plant and would allow the company to comply with requirements which had been contained in IPCL Register No. 31 in respect of air emissions.

The changes involved in the proposal made by the company were deemed by the Board to constitute a material change to the operation and on 4/6/99 the company were informed by the Agency that a review of the licence would be required.

An application for a review (including all relevant information) was submitted to the Agency on 30/6/99.

The activities being carried on at the site will not change. However, the older technology for prill manufacture is to become redundant in favour of the more modern granulation system, with a consequent reduction in the number of emission points. It should be noted that a granulation process is already in use on the site, and the outcome of the proposed changes which are now to take place will be to double up the granulation capacity at the plant.

Significantly, these changes will bring about the elimination of the use of the old prill tower, with its very visible and aesthetically displeasing particulates emissions which were frequently commented by members of the public who observed these emissions as they would drive past the plant on the N11. The actual loads to the environment of ammonium nitrate particulate and ammonia will also be significantly reduced through these measures.

Emissions to atmosphere :

The main element of the review being carried out is the elimination of ten of the emission points which were licensed under IPCL Register No. 31, and the establishment of one new emissions point (CAN 2 A14). Of the emission points being eliminated one in particular emitted ammonia at a concentration of 14,000 mg/m³ while another emitted particulate ammonium nitrate at a concentration of 1,700 mg/m³ at a flow of 158,000 m³ per day. In total, the eliminated emission points discharged up to 13 x 10⁶ m³ of air each day which was contaminated with ammonia and particulate.

The new emission point CAN 2 A14 will now discharge 3.8 x 10⁶ m³ per day of process gasses which contain levels of ammonia and dust which comply with new plant BATNEEC for the sector. This will undoubtedly lead to a significant improvement in the environmental impacts of the plant as well as improving the physical appearance of the site operations.

IPCL Register Number 31 required the company to achieve improvements to some emission points on the site and in the case of some of these the required improvements had not been achieved. In some cases, the improvements are simply late and in other cases changes to the process which are consequent to the elimination of the ten emission points referred to have led to changes in flow levels and pollutant concentrations in other vents. In particular, Vent CAN 2 A2 which was limited to 26,400 m³ flow with ammonia particulate concentrations of 14,400 and 1,700 respectively, will now be licensed in the reviewed licence to emit 9,600 m³ per day at ammonia and particulate levels of 35,000 mg/m³ each. This relaxation for this relatively low-flow vent will apply until 1/9/2000 only, and not until 1/9/2001 as proposed by the applicant.

Emissions reductions for some emission points which were scheduled under IPCL Register Number 31., to come into effect by 1/12/99, have been delayed in the case of some vents until 1/9/2000. This is justified on the basis that priority is being given to the elimination of 10 of the most polluting vents in favour of one new vent which complies with new plant BATNEEC for the sector.

A new condition (Condition 5.10) has been inserted to require an examination of the possibilities for the reduction of NO_x emissions from both of the Nitric Acid tail-gas vents. The purpose of the condition is to ensure that the NO_x reductions are achieved on-time and in a manner which is agreeable to the Agency.

Emissions to waters :

The revised IPC Licence will carry some minor changes to the contents of Schedule 2(i) Emissions to Water. Significant improvements in the emission of ammonia and nitrate have already been achieved, and the improvements to be achieved in the coming two years have been modified slightly in the light of better information coming available since the IPCL (Reg No 31.) was issued. The changes being implemented through the modification

of Schedule 2(i) will lead to reduced loads of ammonia and nitrate being emitted to the Avoca River when compared to the limitations as set in the former IPC licence (IPC Register No. 31).

The deadlines for these have also been shifted forward by one month, to coincide with the re-commencement of plant operations after the summer shut-down period.

Waste :

Very minor changes to Schedules 3(i) and 3(ii) are proposed in the revised licence. These are relatively minor in nature, but are nonetheless requirements which will provide for the better protection of the environment. The changes are being made in the context of the performance of the plant since the granting of the earlier IPC licence (Register No. 31).

Noise :

Two significant sources (PN11 and PN13) of noise emissions are to be eliminated by virtue of the changes being made at the site, while two relatively quieter emission points will be established. The overall impact of this change will be for a reduction in the noise emission from the site.

Groundwater :

The groundwater monitoring regime on the site is to be expanded in the proposed revision of the IPCL for the site. The number of wells being monitored will effectively be doubled over the numbers required in IPCL Register No., 31. This arises through the discoveries made on the site during the hydrogeological assessments already carried out on the site. The company has complied with the requirements of the old licence in regard to the investigation of the groundwater contamination under the site, and this work is programmed to continue under the terms of the revised licence.

Recommendation :

It is recommended that the Board of the Agency grant a revised licence (Reg No 495) in the case of the application for a review which was submitted by Irish Fertiliser Industry Ltd., Arklow, Co. Wicklow.

Signed

Frank Clinton

Acting Senior Inspector