

## Synchronized execution of remediation processes at INEOS in Geel

Ineos Polyolefins



INEOS manufactures a wide variety of chemical, petrochemical and oil products. This young enterprise became the world's third largest player in the chemical market, due to autonomic growth and a series of take-overs. The enterprise consists of 18 subsidiaries with 70 production sites in 14 countries. With its over 60,000 employees world wide, INEOS manufactures 60 million tons of chemical products, achieving a USD 44 billion annual turnover. INEOS Polyolefins Geel shared an industrial estate (built by Amoco Chemicals in 1967) with the BP Aromatics and Acetyls Group. Of its total 290 acres INEOS uses some 90 for the production of polyolefins, consisting of a wide range of innovative products in HDPE, LLDPE, LDPE and PP.

### Task for Asset Recovery

Dismantling of the 30-years-old plant for the production of polypropylene at the INEOS site in Geel, Belgium. The discovery of asbestos in insulating materials resulted in an additional asbestos remediation project, which was to be carried out simultaneously with the dismantling and demolition of the site.

### ***"Remediation requires flexibility"***

*It is not the kind of surprises a company likes being confronted with, but finding a considerable amount of insulating material containing asbestos definitely requires a cold-blooded approach. Especially when you are in the middle of a demolition process. INEOS Polyolefins found in Asset Recovery a partner capable of handling the asbestos remediation energetically and simultaneously with the first remediation process. Both teams worked well together.*

The polypropylene produced by INEOS is used in automobile parts and all kinds of appliances. Until recently two different production processes were available at the plant in Geel. In the PP1 unit, now 30 years old, polymerisation took place in a liquid phase while in the PP2 unit the polymerisation reaction happens in the gas phase (no liquid involved). Due to its higher energy consumption and the use of hexane as a solvent, the PP1 process posed an additional environmental risk. Besides, the process was very labour-intensive and no longer in line with the INEOS safety, health and environment policy. This was reason for INEOS to proceed to the dismantling in order to make room for new operations with state-of-the-art technologies.

### Project Management

The demolition of the PP1 was a large and complicated project for INEOS. Procurement Specialist Wim Hollevoet did not think that the coordination and the execution of such a project should be carried out by INEOS. "We are not at all familiar with this kind of projects. So we contacted a number of possible contractors for the dismantling and demolition of the PP1. Asset Recovery stood out from the other demolition contractors by their project ma-

agement. Most demolition contractors may have the technical skills to dismantle a unit, but this project required additional skills as well. A contractor has to be familiar with each and every phase of the whole process in order to align the phases, requiring diversified expertise and Asset Recovery was able to convince us of their added value. Asset Recovery has established a track record of projects in the chemical industry and is familiar with the great demands made on safety, health and environment. Thanks to their wide knowledge of the market they were the only ones able to submit a tailored tender at favourable conditions."

### Unexpected Turn

In May 2007 the PP1 was made idle and it was decided that Asset Recovery would execute the dismantling. The following month Asset Recovery started the first activities. "It was clear from the start that communication was open and free", Michel Distelmans remembers. As Mechanical & Reliability Engineer he functioned in the role of project owner. "It was very important to us that our own staff would be involved in the day-to-day supervision. Information exchange and communication between Asset Recovery, the demolition contractors and our own staff was performed at best. How important it was, was demonstrated when the project took an unexpected turn. The PP1 was disconnected completely from its surroundings, an extensive safety plan was developed and an external safety coordinator was hired with a good understanding of the civil engineering aspects of the demolition. In spite of all these preparations we were confronted with the problem of insulating material around the pipes containing asbestos. Actually, there was no mentioning of such a problem in the official docu-

ments we received when we took over the site. In the early nineties a huge asbestos remediation project had been carried out. Though Asset Recovery did not expect such problems, they were handled very well. Thanks to their flexibility, the asbestos remediation project was started as a second project, alongside the other remediation activities. To me this proved how important it is to go for quality right from the start during the selection process."

Wim Hollevoet

***"Asset Recovery's project management gave them a competitive edge over the demolition contractors."***

### Summary:

- During dismantling activities at the INEOS polymerisation plant in Geel quite some insulating materials containing asbestos were found
- Asset Recovery carried out the asbestos remediation project simultaneously with the dismantling
- A well-coordinated cooperation between INEOS employees, Asset Recovery and the contractors was essential for a successful execution



Before



Wim Hollevoet



Michel Distelmans



After