

Nippon Gases CO₂ Warrenpoint – Update Summer 2020.

Nippon Gases UK Ltd is a bulk industrial gas and dry ice supplier serving the food, energy, home delivery, medical, bio-pharmaceutical and animal husbandry sectors.

The atmospheric gases; oxygen, nitrogen and argon, are present in the air we breathe. The source is unlimited and is available wherever there is a requirement to capture it. In comparison, the sources of the so called “Process Gases” such as carbon dioxide and helium are limited and so the business and supply chain models for these gases are very different.

For Nippon Gases Europe, and for our competitors, the CO₂ that we process and sell is always the by-product of another industry. In Europe the largest source is agricultural fertiliser production, H₂ production through steam reforming in refineries and production of bio-ethanol. Nippon Gases’ CO₂ plants take a raw gas stream from the source plant, the gas is then compressed, purified and liquified ready to be delivered to our customers.

Regional supply of CO₂ is short of the demand and every year Nippon Gases move hundreds of thousands of tonnes of CO₂ from where it is available to where it is needed to keep the markets supplied. Nippon Gases Europe owns and operates ships that transport bulk CO₂ between the production sites and a network of terminals around Europe.

The island of Ireland is a region without local sources of CO₂, Nippon Gases has supplied the Irish market since the last indigenous production site closed in 2001.

The justification for Nippon Gases’ CO₂ terminal is to allow direct bulk import to serve the existing market in the island of Ireland for liquid carbon dioxide. The investment in the new facility will improve the security of supply for the market and remove the need for road tankers to cross the Irish Sea by ferry, yielding significant environmental and logistic benefits.

The Nippon Gases’ terminal was scheduled to start operations in May 2020, however due to delays, most recently linked to the Covid-19 restrictions, the terminal will not be operational until the Autumn of 2020. In order to meet the supply requirements of the Irish market, and our obligations to customers and partners, Nippon Gases have initiated a direct ship to road tanker supply system. This is an arrangement that has been proven to be safe and reliable in numerous locations across Europe.

The United Nations define carbon dioxide as a Class 2, Division 2.2: Non-flammable, non-toxic gas. It is a normal component of human respiration and the effects of exposure to low levels are fully reversible with no chronic effect. CO₂ is not listed as a hazardous product under the Seveso III or COMAH directives; the storage of bulk liquid carbon dioxide is not considered to be a Major Hazard by the EU or the UK HSE.

Theoretical risk assessment, using data from the Dutch TNO - Guidelines for Quantitative Risk Assessment - “Purple Book”, estimates the probability of a significant failure of the ship to tanker operation at less than 1 in 300,000 years. The UK HSE’s paper on CO₂ storage (HSE Assessment of the major hazard potential of carbon dioxide (CO₂)) calculates that any risk to health from such a failure would be confined within an immediate range of 70m. The road tanker loading operation at Warrenpoint berth 6 is circa 190 m from the closest residential buildings.

Nippon Gases Europe is the new brand of a company that has been operating in Europe since the nineteen fifties. Currently it operates in 13 countries, Belgium, Denmark, France, Germany, Netherlands, Ireland, Italy, Norway, Poland, Portugal, Spain, Sweden, and the United Kingdom, with more than 100 industrial production sites and around 3.000 employees. Nippon Gases has been a member of the European Industrial Gases Association EIGA since it’s inception. EIGA has awarded Nippon Gases with its



Annual Safety Award for best personnel safety performance the last 8 years and 15 times in the last 17 years. This award is the consequence of Nippon Gases priorities: safety, compliance, environmental sustainability, people excellence and customer focus.

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