

ENVIRONMENTAL PERFORMANCE

The Group companies hold all environmental decisions required by law, specifying the scope and manner of use of the natural environment, which due to the nature of its business the Company is required to obtain and hold.

SUSTAINABLE DEVELOPMENT >

Companies of the Grupa Azoty Group operate in the commodity chemical sector. Aware of its impact, the Grupa Azoty Group places particular emphasis on minimising the effect of its industrial operations on the environment and has engaged in many initiatives with a view to ensuring harmony and balance with the surrounding world.

The Parent has worked out a strategic approach to sustainable development. It prepared the 'Azoty Tarnów Sustainable Development Strategy for 2012–2016';

the Strategy rests on three pillars and outlines the Company's path towards creating stakeholder value. It serves as the foundation for the Group's strategy.



LEGAL REQUIREMENTS >

In accordance with the Environmental Protection Law, companies of the Grupa Azoty Group are required to adjust the permits they hold to the requirements stipulated in applicable laws.

In the reporting period, the following decisions were obtained for the Parent:

- decision of the Marshal of the Province of Kraków, granting an integrated permit for the Hydrogen Plant (valid until June 19th 2022),
- decision of the Governor of the Province of Kraków, granting an integrated permit for the Park Infrastructure Complex (valid until June 30th 2016 for the CHP II plant and until December 31st 2016 for other units),
- decision of the Governor of the Province of Kraków, granting an integrated permit for the POM Manufacturing and Compounding Complex (valid until December 31st 2016),
- decision of the Governor of the Province of Kraków, granting an integrated permit for the Technical Grade Nitric Acid Unit, Calcium Ammonium Nitrate and Ammonium Nitrate Unit, Nitrogen Fertilizer Granulation Unit, and Dolomite Milling Unit,
- decision of the Governor of the Province of Kraków, granting an integrated permit for the PTFE and Fluorine Compounds Complex (valid until December 31st 2016),
- decision of the Marshal of the Province of Kraków, granting an integrated permit for the Caprolactam and Polyamide Complex (valid until December 31st 2016),
- decision of the Marshal of the Province of Kraków, amending the integrated permit granted for the Caprolactam and Polyamide Complex (with respect to the Natural Polyamide Unit, valid until December 31st 2016),
- decision of the Governor of the Province of Kraków, granting permit for release of gases and dusts into the air to Grupa Azoty

S.A. (valid until December 28th 2024),

- › decision of the Marshal of the Province of Kraków, granting permit for participation in the European Union Emissions Trading System to the CHP plant located on the Parent's premises (valid until September 12th 2022),
- › decision of the Marshal of the Province of Kraków, granting permit for participation in the European Union Emissions Trading System with respect to greenhouse gas emissions from the units manufacturing nitric acid, ammonia and organic chemicals in bulk by way of cracking, reforming, oxidation or similar processes, with a daily production capacity exceeding 100 Mg (valid until June 29th 2021),
- › decision of the Mayor of Tarnów, granting permit for collective water supply and collective wastewater discharge (valid for an indefinite term),
- › decision of the Governor of the Province of Kraków, granting permit for special use of water – water abstraction from an underground water source located in Tarnów-Mościce (valid until December 31st 2034),
- › decision of the Governor of the Province of Kraków, granting permit for special use of water – surface water abstraction from the Dunajec river (valid until December 31st 2025),
- › decision of the Governor of the Province of Kraków, granting permit for discharge of wastewater containing substances particularly harmful to the water environment into the sewer system of Zakład Oczyszczania Ścieków Tarnowskie Wodociągi Sp. z o.o. (valid until June 8th 2015),
- › decision of the Marshal of the Province of Kraków, granting permit for discharge of wastewater to surface waters (valid until December 31st 2017),
- › decision establishing a protected zone for water intakes,
- › water-law permit decision for use and maintenance of the weir on the Dunajec river (valid until December 31st 2015),
- › decision of the Marshal of the Province of Kraków, granting permit for generation and recovery of waste (valid until December 21st 2020),
- › resolution of the Local Government of the Province of Kraków establishing an Industrial Zone at ZAT S.A.

SAFETY



The Group's business requires compliance with the most exacting safety standards, which minimise the risk of industrial incidents. Relevant solutions applied across the Group ensure appropriate conditions for the manufacture, storage, transport and distribution of substances to meet the natural environment protection requirements. The Group companies operate in the chemical industry and are classified as facilities with a high risk of a serious industrial incident. Being aware of the possible consequences of their operations, the Group companies strive to mitigate their negative environmental impact.

Rescue plans and safety management systems are in place for the Group facilities. Given the nature of its business, the Grupa Azoty Group is subject to the requirements of the Environmental Protection Law, the Water Law, the Waste Act, and other regulations on environmental protection. The legislation imposes certain obligations on Group companies with respect to the production activities, investment projects, site restoration and arrangement for appropriate conditions for the manufacture, storage, transport and distribution of substances. In 2014, the Parent updated, and adapted to the current legal requirements, the Safety Report – General Section with analyses of process risk for units posing a major risk of serious chemical plant failure, Internal Rescue Operation Plan, Industrial Accident Prevention Programme and High Risk Establishment Notification. As required under the Environmental Protection Law, drills were run on the PA6 Polyamide unit to test the External and Internal Rescue Operation Plans, with the participation of external rescue services of the National Fire Service, Provincial Inspectorate for Environmental Protection and State Labour Inspection Authority.

Based on the Declaration to Improve Occupational Safety, Fire Protection and Environmental Protection in the Chemical Industry of October 17th 2013, an inspection was rerun with respect to the ammonia storage facilities of the Fertilizers Business Unit. The inspection was carried out jointly by the State Labour Inspection Authority, Provincial Inspectorate for Environmental Protection and National Fire Service, based on the inspection specification comprising Part I (Occupational Safety), Part II (Fire Protection), Part III (Environmental Protection) and Part IV (Common Issues).

The Group companies operate appropriate organisational and technical safety measures, such as CCTV systems, safeguards, and procedures for incident prevention and mitigation of consequences. They maintain well-trained fire services capable of leading effective rescue operations, with additional support from chemical rescue teams and other services.

REACH



The Grupa Azoty Group companies adhere to the regulations that require thorough testing for hazardous properties of all marketed chemical substances, as well as introduction of usage rules and, in justified cases, usage restrictions and bans.

The Group has fulfilled its obligation to register all of its manufactured substances.

Information on potential hazards related to chemical substances and mixtures is provided to customers in the form of Material Safety Data Sheets (MSDSs). MSDS drafting and updating procedures have been implemented at the Group, along with a system ensuring their full availability to customers.

Also, relevant procedures for product labelling (vehicles and packaging) have been put in place, to the extent required by the REACH Regulation, and by Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP). The procedures reflect the new classification based on research under REACH registration.

In the performance of the provisions of Regulation (EC) No. 1907/2006 – REACH concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), in 2014 the Grupa Azoty Group companies submitted to the European Chemicals Agency the registration documentation for new products.

The registration documents for other marketed products, submitted earlier to the European Chemicals Agency, are updated on an ongoing basis.

The Group fulfils its obligations as a downstream user of chemical substances on a regular basis. In 2014, updates and registration of chemicals and chemical substances were completed as required by the European Chemicals Agency. These registrations reflect the current scope of the business of Group companies. Pursuant to the REACH Regulation, registration of further substances will be necessary in 2018. These substances are manufactured to a limited extent (less than 1,000 tonnes/year) and are of lesser importance for the Group's revenue.

SPOT



Out of concern for people's safety, property and the environment, the Group companies have joined the SPOT System of Assistance in Hazardous Material Transport, designed to limit the consequences of accidents in transport of hazardous materials by giving substantive and technical assistance to appropriate services. The largest chemical plants participate in the SPOT system.

It helps to improve the safety of transport in Poland, and in case of any incidents it facilitates effective removal of their consequences by joint effort and measures of the national rescue, fire services and SPOT members. SPOT's help in actively preventing potential threats and damage to property as well as in providing assistance to rescue services allows hazardous materials to be transported as safely and reliably as possible.

RESPONSIBLE GROWTH



As part of its R&D initiatives, the Group companies seek to implement solutions which will have a positive effect on the natural environment when completed. By using appropriate technologies it is possible to define emission thresholds to eliminate hazardous emissions or, should this prove impossible in practice, reduce the emissions and their effect on the environment as much as possible.

In 2014, at the Parent company, the work in this area included:

- › Optimisation of caprolactam production process. The work involved production optimisation of one of the Company's main products, caprolactam, and consisted in technology enhancement designed to improve product quality and reduce heat consumption in the manufacturing process.
- › Improvement of Tarnoform® production process. The work included research to optimise the Tarnoform® production process with a view to improving product quality and reducing the emissions of residual formaldehyde and feedstock consumption.
- › Upgrade of iron-chromium catalyst production technology. Work was performed to modernise the iron-chromium catalyst production to improve product characteristics and minimise its environmental impact.

ENVIRONMENTAL PROJECTS



In 2014, the Grupa Azoty Group implemented a number of investment projects designed to better protect the natural

environment:

Parent

- › Flue gas desulphurisation unit and Flue gas denitration unit
- › Upgrade of the interior of ammonia synthesis reactors
- › Modernisation of handling stands
- › Construction of a dust granulation system for the iron-chromium catalyst together with the sorting and dust removal stand
- › Modernisation of the cold water pumping station in the Ammonia Department

Grupa Azoty PUŁAWY

- › Construction of NOx reduction units at two boilers at the CHP plant
- › Biological Wastewater Treatment Plant's precipitate dehydration unit

Grupa Azoty ZAK S.A.

- › New CHP plant – stage I
- › Upgrade of waste treatment facilities
- › Filter press for dehydration of the precipitate from the biological wastewater treatment plant – transfer and connection
- › Upgrade of the isobutanol and n-butanol rail and road tanker loading bays.

Grupa Azoty POLICE

- › Expansion of the post-calcination gas desulfurisation system through the addition of two new reactors
- › Exhaust gas treatment unit and upgrade of the EC II CHP plant
- › Construction of an industrial wastewater neutralisation unit at the titanium white plant
- › Continuous monitoring of SO2 and particulate matter emissions
- › Construction of a decomposition sludge neutralisation unit
- › Construction of barriers to clean up the soil-water environment at the iron sulfate landfill site
- › Modernisation of the post-calcination gas distribution system

Grupa Azoty SIARKOPOL

- › Production control rooms
- › Liquid sulfur loading at Osiek
- › Liquid sulfur unloading at Dobrów

EMISSIONS



Companies of the Grupa Azoty Group have implemented a range of environmental protection solutions, which help curb air emissions.

The air protection equipment reduces the amount of flue gases and dust discharged into the atmosphere.

Also, emission volumes and pollutant concentration levels are measured at major emitters. Measurements are taken on a continuous basis (at the CHP plant and the dual-pressure nitric acid unit) or on a periodic basis at selected process emitters. Emission volumes and pollutant concentrations are measured in keeping with the applicable legal and administrative requirements. As participants of the emissions trading system, the companies review their annual reports and obtain rights on an annual basis.

NOISE



As production processes tend to generate noise, the Group companies select equipment with appropriate acoustic parameters for every new unit already at the design stage. In accordance with the integrated permits, noise generation must not exceed the permitted levels. This applies to both the noise at the workplace and the noise emitted outside. The Grupa Azoty Group monitors its noise emissions, and measures them in accordance with the requirements set out in the integrated permits.

