

Product responsibility



Social performance

PGMs are used in a wide range of applications which contribute to human health and well-being along with environmental health benefits.

Some of the most well-known applications include the use of PGMs in autocatalysts, which are fitted in the exhaust systems of motor vehicles to reduce the amount of deadly carbon monoxide, hydrocarbons and nitrous fumes in their emissions. PGMs are also used in various medical and dental applications. The use of these products to enhance and improve quality of life is a widespread practice worldwide. Nonetheless some potential exists, largely in the production process, for some of the processes and intermediate materials, to have an adverse effect on people and/or the environment. Northam and its partners have measures in place to mitigate any harmful consequences arising from the processing, refining, marketing, transport and sale of its products.

Zondereinde metallurgical operations

At Zondereinde mine, Merensky and UG2 ores are processed separately in two concentrator plants (which are designed to treat sulphide ores), with the concentrate from both blended in slurry form in the feed tank prior to filtration and drying at the smelter from which granulated converter matte is fed to the base metals removal (BMR) plant. In the BMR, nickel and copper metals are removed as crystalline nickel sulphate and copper cathode which are transported directly to local consumers for further beneficiation. Nickel sulphate is labelled as a hazardous material and containers are accompanied by the appropriate safety data sheets for the information of transporters, handlers and customers.

The remaining PGM solutions are filtered and dried to produce a final concentrate, which is weighed and drummed and prepared for shipment to the Heraeus refinery in Hanau, Germany. The final concentrate shipped to Hanau, is not required to be labelled as a hazardous material. At Hanau, the platinum and palladium are refined and transported back to Heraeus SA. The product produced in South Africa is guaranteed to be of London-Zurich Good Delivery Status at a minimum purity level of 99.95%. Northam then sells its high purity refined metal including platinum, palladium, rhodium, ruthenium, iridium, gold and silver to contractual customers in the major economic centres of the world, Europe, North America and Japan.

Precious metals refining logistics

Since 1992, in terms of a long-standing partnership, all Zondereinde's PGM concentrate has been toll-refined under contract with Heraeus of Germany. The concentrate is delivered on a weekly basis to the Heraeus refinery in Hanau.

More recently, in conjunction with Northam and in order to facilitate downstream beneficiation opportunities (please see page 21 of this report), Heraeus and Northam jointly initiated a three-phase refinery construction and expansion programme in Port Elizabeth, South Africa. The first phase of the Heraeus Refinery South Africa (HRSA), commissioned in February 2007, treats all of Zondereinde's platinum and palladium production.

In terms of Northam's precious metals refining arrangements, final PGM concentrate is transported from the Zondereinde metallurgical complex to Johannesburg, from where it is flown on commercial airlines to Hanau, Germany, to the Heraeus refinery.

Although this material is not considered to be harmful in any way, strict guidelines set out by the international aviation authorities regulate the conditions and terms of their transportation. At the same time, the Hanau refinery is subject to strict European Union guidelines.

Platinum and palladium are partially refined in Hanau and then air freighted as intermediate products to the fine metal refinery (FMR) in Port Elizabeth for final refining. Northam then sells the product to its global customers.

Rhodium, gold, silver, ruthenium and iridium are toll-refined at Hanau, and returned to Northam's account for international sale and distribution.

The final refined products, which are transported to customers around the world, may take the form of refined metal sponge, ingots and powders. These are packaged and transported in accordance with international standards and each numbered lot of metal to consumers is accompanied by a unique Certificate of Assay as issued by the Heraeus refinery, with material safety data sheets made available to customers and transporters when appropriate.

Health and safety impacts

All health and safety impacts of the final product in the various stages of the life cycle have been assessed and efforts are made on a continual basis to address health and safety issues which relate to final product.

In terms of customer health and safety, there are no material health and safety complications related to the final products produced and marketed by Northam, apart from nickel sulphate which is labelled as a hazardous material and is accompanied by relevant safety and health documentation.

There were no incidents of non-compliance with voluntary codes concerning the health and safety impacts of products and services in F2010.

Product and service information and labelling

There are currently no safety, health or environmental labelling requirements for pure PGM metals. Labelling requirements do exist for the base metal by-products which enter Northam's marketing and sales stream. In particular, strict requirements exist for the transportation and distribution of nickel sulphate (NiSO₄). This substance is transported as a hazardous material and is accompanied by the appropriate coding and

labelling along with relevant safety data sheets for the information of transporters, handlers and customers.

Northam is a regulated agent, compliant with the South African Civil Aviation Authority's civil aviation regulations which dictate the terms on which the company's products are exported. All containers which hold the company's product during the exportation process from mine to market, are accompanied by the documentation which validates the content of each shipment vessel.

No incidents were reported in respect of non-compliance with regulations and voluntary codes concerning product and service information and labelling.

Our customers

Northam has long-standing relationships with its customer base. The well-staffed marketing department maintains regular weekly contact with its domestic and international customers, with bi-annual customer meetings and visits to customer facilities. Customer representatives make reciprocal visits to Northam's mining and metallurgical operations. Any issues relating to customer satisfaction are directly taken up with the marketing department. To date, Northam has received positive feedback from its customers relating to customer satisfaction.

Due to the nature of Northam's relationships and frequent face-to-face interaction with its client base, the company does not conduct annual surveys relating to customer satisfaction.

Because the sale of Northam's products is largely conducted on a business to business basis, no definitive codes are followed for the purposes of marketing communications, promotions and sponsorships. As a result, no incidents of non-compliance with regulations or voluntary codes concerning marketing communications, advertising, promotion or sponsorship were reported during F2010.

Customer privacy and confidentiality

Northam respects the privacy of its customers and to this end, confidentiality agreements and non-disclosure undertakings are standard in its customer contracts. No complaints, substantiated or otherwise, regarding breaches of customer privacy and losses of customer data occurred during the year under review.

During F2010, no fines were received in respect of non-compliances in the process of the provision and use of Northam's product.