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# Newsletter n° 6

February 2020

*Dear Customers, Dear Readers,*

*This newsletter has been created to keep you informed, every month, of the company's developments and the progress of the modernisation work at the Inertam site.*

## Monitoring of releases

Like any industrial facility, Inertam generates gaseous and aqueous releases during operation. The regulations set threshold limits for each category of substances.

In order to monitor these releases and so determine its compliance, the company has set up internal and external monitoring tools such as the following:

- Semi-continuous air samplers;
- Continuous stack gas analysers;
- Piezometers (groundwater analysers);
- Continuous water samplers and analysers;
- Samples (soil, Cofalit, filters, pine needles, corn, etc.).

The measurements are carried out and/or validated by accredited laboratories.



*Example of a semi-continuous sampler*

## Site day-to-day life

The Site Monitoring Commission met on Thursday 13 February in Morcenx. The meeting, which was attended by representatives of the Landes prefecture, the Morcenx-la-Nouvelle and Arjuzanx municipalities, State services, associations and civil society, provided an opportunity for the Group's management to present the new team, the strategy being implemented and the development of the sites.

Sandra Ipinazar, the Inertam site's Director, presented the various work in progress and reaffirmed the Group's aim of making the site a showcase for the technology used to destroy asbestos by vitrification.

Olivier Pla, the Group's Deputy CEO, then answered the various questions from Commission members, which mainly concerned the new strategy of the Group, the future of the Morcenx site and its location in the local infrastructure. The destruction of asbestos by vitrification is highly symbolic in this region strongly affected by the toxicity of this waste.



# Where do we stand?

## Focus on the vitrification furnace

Work is under way to replace the refractory furnace lining materials, flue gas pipes and afterburners. These materials are of two very different types:

- The core refractories, which are highly heat-resistant materials forming the enclosure containing the molten bath and the hot gases.
- The insulators, which are placed between the refractories and the metal casing of the equipment, are materials that transmit little heat and are intended to limit convective heat loss.

These products may be in the form of bricks installed or concrete cast on site. In the case of the insulators, a category of fibrous materials is added in the form of sheets or plates.

There is a wide variety of compositions and implementations, which must be adapted to the constraints of the process, the main ones being the following:

- the temperature level;
- the potential variations in these temperatures (thermal shocks);
- the chemical nature of the bath and the gases that can attack the materials;
- gas abrasion (speeds, particle load, etc.);
- the cost of the materials and their implementation.

The main distinguishing feature of the Inertam furnace is its use of high-power plasma torches, which sometimes generate very high energy levels as well as high gas speeds that cause considerable wall abrasion.

The development of good technical and economic compromises has taken several years, as this unique and innovative process does not benefit from feedback from similar facilities. The materials are derived from products used in a few other industries and gradually adapted to the specific characteristics of our process. In addition, in the areas most exposed to the plasma jet of the torches, cooling circuits have been installed at the rear of the refractories in order to lower their temperature to levels that the materials can stand, since their life would be drastically reduced otherwise.

The refractories wear at Inertam significantly more quickly than in more conventional processes. As a result, they are completely renewed after every sixteen months of operation. During this period, they are also repaired three times, after every four months of operation. For their complete renewal, known as initial shutdown, the furnace must normally be shut down for seven weeks, and the three intermediate repair shutdowns each require a four-week furnace shutdown.

Of course, Inertam's technical teams continue to develop the definition of materials and their implementation, drawing on more than 25 years' experience of the vitrification of asbestos waste — a level of experience unique in the world.



Réfractaires | Déconstruction du four Inertam

## Next steps

The old load preparation equipment's moving parts have been completely removed from the confined area, and its frames and the concrete elements will in turn be dismantled in the coming weeks.