Dredging and fluid/solid separation

Nexxo S.A. has the necessary technology to give this service

Many companies that send their industrial waste to lagoons suffer the threat of limiting their production when such lagoons suffer the silting of waste and mud, which leads to require dredging and removal of sludge and liquids, including in the process, deposit the first in places or containers suitable for reprocessing or final decanting and evacuate or return liquids to the lagoon, fulfilling in both situations the conditions provided in established environmental legislation and applicable regulations.

To give a solution according to the customer specifications, Nexxo S.A. has the necessary technology to give this service to decantation lagoons, captation lagoons, leaching systems, water captation systems, process pools, biological reactors, etc.
Dredging and fluid/solid separation

It must be considered an evaluation of which process is more effective. The evaluation will tell us if it is necessary to perform only one of the processes or both.

These processes are:
- Dredging.
- Dewatering and process of the dredged materials.

Dredging system

The dredging process (excavating materials underwater) creates spoils (excess material), which are conveyed to a location different from the dredged area for its final disposal.

In terms of searching for the right way to accomplish the task, Nexxo S.A. evaluates and designs the particular solution to satisfy the customer's need.

For that, Nexxo S.A. has pontoons with dredging equipment for accessing every corner of the lagoon and pump the material to trucks or any type of transference system.

Container dewatering system

In a special container with filtering walls the water is filtered and led by a drainage system to a specific place. The mud can be unloaded or transported to its final destination.

Dewatering of dredged material using geotextile tubes

The ability of geotextiles to retain solids while passing liquid has led to their use in dewatering fine-grained materials.

Fine-grained materials such as dredged material from waterways, lagoon sediment or industrial waste products tend to have long and inefficient dewatering periods when allowed to dry, by simply leaving the surface open to the atmosphere.

Dredged material-filled geotextile tubes can be filled with any material capable of being transported hydraulically. Clayey and muddy dredged materials have been used for containment dike applications, but naturally, beach or river sand is the best choice.

The geotextile tube works in an indirect form compared to most other dewatering methods because the high water content material is encapsulated by the filtration system.

Flocculant polymer dosification

To increase the dewatering speed we have to add a high molecular weight and high charge polymer that facilitates and accelerates the process.