

Alternate Fuel Trials at NPC Cimpor

Mid-August waste trials expected to be an environmental success

When their alternate fuel trials resumes in mid-August, the NPC-Cimpor cement plant at Simuma will be using less coal every hour than it would normally in the manufacture of cement. The test which will run for about two weeks will see at least ten tons of coal saved daily according to NPC-Cimpor Group Sustainability Manager Cluffy Naidoo.

Alternate fuel

Assuming the success of the trials, which are expected to result in government approval to use waste and reject tyres as an alternate fuel source, Naidoo says that NPC-Cimpor will be in a position to easily consume 2500 waste tyres per day. In addition, this important milestone paves the way for investigations into other waste streams from which energy can be recovered in a safe and environmentally friendly manner. At the higher temperatures at which cement is made, tyres convert to heat energy with neither the formation of any solid residue nor an overall increase of air emissions. The black smoke and smell one might expect from the disposing of tyres in a typical

waste fire is a completely different picture to the science of cement manufacture with alternative fuels.

Reducing landfill growth

NPC-Cimpor Plant Manager at Simuma Giovanni Lodetti says the controlled and regulated burning of waste has a number of important benefits for society as well as industry. "Landfills in South Africa are growing by about 2 to 3 percent annually. We're saying, 'rather than throwing valuable fuel sources into waste landfills where they become part of the problem, we can burn some of that waste.' Elsewhere in the world waste tyres have been used as alternate fuel for decades and based on experience elsewhere we know that these tests will show that the tyres will burn more cleanly than even A-Grade coal."

Gazette

The use of waste as an alternate fuel source in industry sectors such as cement is relatively new in South Africa, but a 2009 South African Government Gazette says,

"In the pursuit of establishing integrated waste management systems for the environmentally sustainable management of waste, international trends indicate a move away from single waste management solutions such as landfill, towards the integration of various technologies, which include thermal treatment options, with the ability to utilise



Looking forward: (from left) NPC-Cimpor Plant Manager at Simuma Giovanni Lodetti, NPC-Cimpor Production Manager at Simuma Carl Myers and NPC-Cimpor Group Sustainability Manager Cluffy Naidoo with limestone that is used in cement production.

waste as a resource.

"As recycling and thermal waste treatment with energy recovery are increasingly used, net GHG emissions (greenhouse gases) from municipal waste management in the EU (European Union) are expected to drop considerably by 2020."

What can we expect to happen in South Africa? "Government aims to accept and advance the implementation of an integrated waste management system for South Africa in line with the waste management hierarchy, by facilitating the move away from single waste management solutions towards the integration of thermal waste treatment technologies, including incineration

and cement kiln co-processing." (Gazette 24 July 2009)

Participation

The alternate fuel tests at the NPC-Cimpor plant at Simuma during the last two weeks of August will not only have government officials in attendance, but to contribute to the best practises of the exercise, NPC's parent company, the Cimpor Group from Portugal will have process and environmental specialists on hand. In line with NPC-Cimpor's commitment to sustainability and transparency, there will be an open day at the Simuma Plant during the testing. Interested and affected parties will be notified and sent an invitation to visit the Simuma plant.