

# **PUBLIC INFORMATION DOCUMENT**

## **SOCIAL AND ENVIRONMENTAL IMPACT ASSESSMENT**

### **SULPHUR HANDLING FACILITY IN THE PORT OF WALVIS BAY**

**February 2008**

#### **THE PURPOSE OF THIS DOCUMENT**

The purpose of this Public Information Document is to brief interested and affected parties and stakeholders about a Social and Environmental Impact Assessment being carried out for a proposed sulphur handling facility in the Port of Walvis Bay.

Besides supplying information about the proposed sulphur handling facility, this Public Information Document also provides an opportunity for people to register themselves as interested and affected parties in the public participation process and to submit any initial comments they may have. Such comments will ensure that all the issues of relevance to the proposed development are evaluated in the Social and Environmental Impact Assessment.

#### **BACKGROUND TO THE PROPOSED SULPHUR HANDLING FACILITY**

Rössing Uranium has embarked on a Social and Environmental Impact Assessment process that addresses the possible expansion of their mining and processing operations. Due to an increase in uranium prices on the international market, Rössing is able to consider the possible financial benefit from such an expansion. The anticipated closure date of the Rössing mine is thus being re-evaluated, not only from an economic perspective but also in terms of social and environmental considerations. Ninham Shand Consulting Services has been appointed by Rössing to undertake the Social and Environmental Impact Assessment process.

The maximum extent of the envisaged expansion would entail the mining of two new pits, with new disposal areas for waste rock, new or expanded processing plants, additional tailings dam capacity, and an increase in staff numbers and facilities. One of the proposed new processing plants is for the production of sulphuric acid for use in the metallurgical process on the mine. Such a plant requires sulphur for the manufacture of the sulphuric acid. This sulphur would need to be imported in bulk via the Port of Walvis Bay and a sulphur handling facility would thus be required in the port.

#### **THE ASSESSMENT PROCESS BEING UNDERTAKEN**

While undertaking the assessment of the acid plant and related sulphur handling during the Social and Environmental Impact Assessment process, it was necessary to exclude the activities related to sulphur handling in the port. This was due to Grindrod, the operators of the bulk handling terminal, already having initiated its



own assessment process for such a facility. However, Rössing has identified three additional locations for sulphur storage that it is considering and it is now necessary to initiate another assessment process for these alternatives. Grindrod will continue with the assessment for a similar facility within its lease area in the Port of Walvis Bay and Alexandra Speiser Environmental Consultants are presently undertaking the required process. Rössing's assessment of an alternative location for sulphur handling will be a parallel process to Grindrod's, since these represent different locations and different proponents. It is not the intention to develop two sulphur handling facilities in the port and the plan is for a single facility that meets the requirements of all stakeholders.

It is therefore intended to subject the additional sulphur handling alternatives in the Port of Walvis Bay to a parallel assessment process. Once input from the public has been received, a Social and Environmental Impact Assessment Report for the sulphur handling facility in the port as an individual component of Rössing's expansion project will be compiled. After public review, it will be submitted to the Directorate of Environmental Affairs at the Ministry of Environment and Tourism for its decision-making according to the regulatory requirements for assessment processes.

#### **A DESCRIPTION OF THE PROPOSED SULPHUR HANDLING FACILITY AND POSSIBLE ENVIRONMENTAL CONCERNS**

Bulk sulphur would be unloaded from the ship's hold by a Siwertell Continuous Ship Unloader with a rated capacity of 650 metric tonnes per hour. An installed Siwertell collector conveyor extending the length of the berth, parallel to the quayside, would be configured specifically to receive product transferred from the ship unloader. From the quayside collector conveyor sulphur would be conveyed, preferably a pipe conveyor, to a fully enclosed storage building. The pipe conveyor would discharge onto a shuttle conveyor that would extend throughout the length of a linear storage building above the stockpile. The closed storage shed should have a holding capacity of a minimum of 30 000 and a maximum of 40 000 metric tonnes.

The conveyor systems are envisaged to be of a design to have minimum transfer stations in order to achieve a zero spillage system. Stockpile management inside the storage shed would be done by rubber-tyred front-end loader. Sulphur reclaimed from the storage building would be loaded into railcars for transport to the mine. To maintain the required logistics, the railcar loading system should have the capability to load 25 railcars with 42 tonnes of product in two hours or less. The rail loading system in the storage shed that has been selected comprises of a radial conveyor extending from a feed chute at the pivot point to the railcar loading station. As each railcar is indexed into position, the loading conveyor is started and loading of the rail car commences. As the loading proceeds, the operator moves the discharge chute of the conveyor along the length of the railcar until the required loading is completed. Sulphur is to be loaded into specially designed railcars currently being investigated. A design for an indexing system is required for indexing of railcars during loading operation at the loading station in order not to tie up a locomotive during loading operations.

Although sulphur is essentially non-toxic, dust that may be generated in the handling process would be controlled by the use of fine water sprays. The sprays would be installed at transfer points in the materials handling system, such as in conveyor chutes and bins. As a safety precaution, infra-red monitors would be installed in the storage shed to immediately detect the

start of a potential sulphur fire. The fire fighting system that would be implemented would consist of water reticulation lines, hose reels and fog nozzles located at strategic places and used to extinguish a fire in the sulphur handling process and storage. The necessary environmental bunding, wash down and drainage collection systems would be installed throughout the facility.

**The illustrations below show a typical Siwertell ship unloader and a covered storage building as envisaged.**



The most important social and environmental concerns about the proposed handling of sulphur in the Port of Walvis Bay are related to dust and it being regarded as a dangerous substance. In the past, sulphur spillages resulted in concerns on the part of people in the area. Rössing is proposing a closed system of sulphur handling that will allow it to strive for zero spillage and the application of management procedures where this is not possible. Attention will specifically be given to issues of human health in the Social and Environmental Impact Assessment for the proposed sulphur handling facility. Other areas of specialisation that will be attended to in the assessment are the noise and visual impacts of the proposed facility.

#### **ALTERNATIVES BEING CONSIDERED**

In working towards a closed system of sulphur handling, Rössing would employ best practice in the important areas of health, safety and the environment. Conventional practice would be employed where this is believed to be adequate for the purpose.

However, the location of the sulphur storage building and the alignment of the pipe conveyor from the quayside are being subjected to the consideration of alternatives. Of importance in the selection of a preferred alternative is the need to reduce the number of bends in the conveyor alignment from the covered quayside conveyor to the storage building. The preferred pipe conveyor is unable to negotiate tight bends and if a covered conveyor were to be used instead, the risk of spillage at the transfer points would be greater.

As mentioned previously, Grindrod is assessing a site within its lease area and this may yet prove to serve Rössing's purpose as well (**Option A on the illustration overleaf**). Rössing is nevertheless also assessing three other possibilities (**Options B, C and D on the illustration overleaf**).



## **PUBLIC PARTICIPATION AND THE WAY FORWARD**

This Public Information Document is being made available to identified interested and affected parties and stakeholders. A focus group meeting is to be held at 17:30 on 7 February 2008 at the Pelican Bay Hotel in Walvis Bay. The proposed sulphur handling facility is also described in the Phase 2 draft Scoping Report for Rössing's expansion project due for release early in February 2008. **A comment period until 29 February 2008 is being provided and input from I&APs and stakeholders is encouraged.**

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A Social and Environmental Impact Assessment Report for the proposed facility will be compiled once the comment period closes. This report will include an evaluation of the alternatives mentioned previously, based also on the specialist studies relating to human health, noise and visual impact that will be available then. The report will outline the relevant legal and policy framework, describe the proposed sulphur handling facility and available alternatives, reflect on the public participation process, describe the assessment methodology applied, assess the significance and possible mitigation of potential impacts, and integrate the recommendations made into a management plan.

The Social and Environmental Impact Assessment Report will finally be submitted to the Directorate of Environmental Affairs for their decision on whether or not Rössing's proposed sulphur handling facility in the Port of Walvis Bay is acceptable from a social and environmental perspective.