

**ENVIRONMENTAL BASIC ASSESSMENT PROCESS FOR CHEMICAL STORAGE TANKS, METALLURGICAL PLANT  
UPGRADE & BACKFILL PLANT UPGRADE AT SOUTH DEEP GOLD MINE NEAR WESTONARIA, GAUTENG  
REF NUMBER: Gaut: 002/12-13/E0039**

## **Introduction**

South Deep Joint Venture, an unincorporated Joint venture (JV) between Gold Fields Limited and GFI Joint Venture Holdings (jointly referred to as South Deep), has embarked on a process for applying for environmental authorisation for relevant activities associated with the expansion of South Deep Gold Mine. These activities include the expansion of facilities for the storage and handling of dangerous goods as well as the amendment of the existing license from the National Nuclear regulator (NNR). The South Deep Gold Mine is located ~10 km north of the town of Westonaria, on Farm Modderfontein 345 IQ and Doornpoort 347 IQ. The mine falls within the Westonaria Local Municipality and Emfuleni Municipality, Gauteng Province.

## **Aim of this Background Information Document**

This document aims to provide you, as an interested and/or affected party (I&AP), with:

- » An overview of the activities at South Deep Gold Mine that require environmental authorisation;
- » An overview of the Basic Assessment Process and environmental assessment being undertaken to assess the potential impacts associated with the proposed expansion project at South Deep gold mine;
- » Details of how you can become involved in the BA process, receive information, or raise issues, which may concern and/or interest you.

## **Description of the Project**

The South Deep JV proposes to expand the existing South Deep Metallurgical Plant from 220 ktpm milling and treatment to 330 ktpm milling and 450 ktpm treatment. The additional 110 ktpm of material to be milled will be from the South Deep Twin Shaft system. An additional 120 ktpm will be pumped from the South Shaft milling and thickening plant to the leach feed tank at the South Deep Metallurgical Plant increasing the tonnage treated to 450 ktpm. As a result of selected activities associated with the Expansion Programme (refer to the section below), South Deep requires the necessary environmental approvals, in terms of the National Environmental Management Act 107 of 1998. This is essentially a brownfields project, that is, to be constructed on already impacted mine, with an existing mining right area.

## **Need for Environmental Authorisation**

The following activities trigger the need for an environmental authorisation and Basic Environmental Assessment Process due to the storage and handling, of dangerous goods / chemicals, as well as the need to amend the mines existing air emission permit:

- Metallurgical Plant Upgrade
- Backfill Plant Upgrade
- Diesel and Oil Storage at South Shaft and Twin Shaft
- Bulk Emulsion Storage Tanks at both Twins and South Shaft
- Assay lab at twin shaft

The following 'listed activities' as contained in the EIA Regulations of June 2010 will be triggered:

Activity	Trigger/reference to EIA Regulations	Comment
Metallurgical Plant Upgrade	<p>Could potentially trigger No 28 of Listing Notice 1 –</p> <p><i>The expansion of or changes to existing facilities for any process or activity where such expansion or changes to will result in the need for a permit or license in terms of national or provincial legislation governing the release of emissions or pollution, excluding where the facility, process or activity is included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case that Act will apply.</i></p>	<p>This upgrade would require the amendment of the National Nuclear Regulator (NNR) license (certificate of registration COR) for the mine. This license is related to the emission of radiation.</p> <p>Currently, South Deep holds no such authorisations for the Plants but the Met Plant would now require an atmospheric emissions licence in terms of the National Environmental Management Air Quality Act. Goldfields have advised that they have already embarked on a process of identifying the relevant scheduled process in order to apply for the appropriate licences.</p> <p>In terms of wastewater discharge, the Plants were included in the application for integrated water use licence(s) for South Deep this year.</p> <p>It is unclear from the authority consultation process whether the need to amend the NNR license (COR) triggers this activity. It has been agreed to include this activity in the EIA process in order to ensure compliance for South Deep this year.</p>
Diesel and Oil Storage at South Shaft	<p>No 13 of Listing Notice 1.</p> <p><i>The construction of facilities or infrastructure for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 but not exceeding 500 cubic metres.</i></p>	<p>Four (4) Storage tanks for fuel or other dangerous substances will exceed 80m<sup>3</sup>.</p> <p>The following fuel storing tanks is required:</p> <ul style="list-style-type: none"> <li>» One hydraulic oil tank (volume of 86m<sup>3</sup>) at the Twin shaft</li> <li>» One diesel tank (volume of 47 000L) at South shaft.</li> <li>» Two hydraulic oil. (volume of 23 000L) x 2</li> </ul>
Bulk Emulsion Storage Tanks at both Twins and South Shaft	<p>No 13 of Listing Notice 1. – As above</p>	<p>Emulsion Storage Tanks – A dangerous substance will exceed 80m<sup>3</sup>. Twin shaft</p>

Activity	Trigger/reference to EIA Regulations	Comment
		» 1 x 25 ton silo » 2 x 15 ton silos  South Shaft  » 1 x 15 ton silo
An Assay Laboratory at the Backfill Plant	No. 28 of Listing Notice 1  The expansion of or changes to existing facilities for any process or activity where such expansion or changes to will result in the need for a [new, or amendment of, an existing] permit or license in terms of national or provincial legislation governing the release of emissions or pollution, excluding where the facility, process or activity is included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case that Act will apply. [Corrected by "Correction Notice 1" of 30 July 2010, GN No. R. 660, and "Correction Notice 2" of 10 December 2010, GN No. R. 1159]	Quantities are less than 80m <sup>3</sup> . This activity is triggered by Section 28 of Listing Notice 1 same as the backfill plant & met plant upgrade.
Backfill plant upgrade	Same as above.	Section 28 of Listing Notice 1

In this regard, the EIA Regulations of June 2010 applies (i.e. Basic Assessment process and report to be undertaken). In order to obtain the environmental authorisation to construct the fuel & chemical storage tanks and amend the National Nuclear Regulator (NNR) license (certificate of registration COR) a basic assessment process and environmental authorisation is required, independent environmental studies must be undertaken in accordance with the EIA Regulations of June 2010. In this regard, Savannah Environmental (Pty) Ltd has been appointed by South Deep JV as the independent Environmental Assessment Practitioner (EAP). An application for environmental authorisation has been submitted to the Gauteng Department of Agriculture and Rural Development (GDARD). GDARD has accepted this application and has registered the project under application reference number **Gaut: 002/12-13/E0039**.

#### Public Participation Process

The sharing of information forms the basis of the public participation process and offers I&APs the opportunity to become actively involved from the outset. This aims to ensure that:

- » Information containing all relevant facts in respect of the proposed project and basic environmental assessment process is made available to interested and affected parties (I&APs) for review.

- » Participation by potential I&APs is facilitated in such a manner that I&APs are provided with a reasonable opportunity to comment on the application.
- » Adequate review periods are provided for I&APs to comment on the findings of the Draft Basic Assessment Report.

### Your Responsibilities as an I&AP

In terms of the EIA Regulations of June 2010, your attention is drawn to your responsibilities as an I&AP:

- » In order to participate, you must register yourself on the project database.
- » You must ensure that any comments regarding the proposed project are submitted within the stipulated timeframes.
- » You are required to disclose any direct business, financial, personal or other interest which that you may have in the approval or refusal of the application for the proposed project.
- » Once registered on the project database, your contact details MAY be included in public documentation.

### How to Become Involved

- » By responding (by phone, fax, or e-mail) to our invitation for your participation which has been advertised.
- » By returning the attached reply form to the relevant contact person.
- » By reviewing the draft basic assessment report that will be available for public review. As a registered I&AP you will automatically be informed on the availability of the draft BA report for public comment. Public review dates will also be advertised in local and regional newspapers.
- » By contacting the consultants with queries or comments.

If you consider yourself an I&AP for this proposed project, we urge you to make use of the opportunities created by the public participation process to provide comment, or raise those issues and concerns which affect and/or interest you, and about which you would like more information.

### Comments and queries

Direct all comments, queries, or responses to:

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To view project documentation, visit [www.savannahsa.com/projects](http://www.savannahsa.com/projects)

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