

Enquiries : LJA Bezuidenhout
Reference : OT11/27
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Sir

SHAFT AND WINDER EVALUATION REPORT

The recent winder accident indicated that there may be lack of adequate hazard identification and risk assessment and that the necessary control measures may not have been put in place by the employer of the mine.

In order to prevent further incidents of this nature, all employers that have shafts, winders and single drum winches on their mines, must review the related risk assessment and supply the Regional Principal Inspector with the information required on the attached shaft and winder report.

The information must reach this office before 30 June 2008.

Yours faithfully

**LJA BEZUIDENHOUT
PRINCIPAL INSPECTOR
MPUMALANGA REGION**

SHAFT AND WINDER EXAMINATION REPORT

Description:-

Name of Mine	
Shaft number	
Number of compartments	
Cross section of Shaft	
Type of Winder	
Winder Permit number	
Depth of shaft	m

Records

Machinery record book :-

Copies of last four pages for each identified section

Rope record book :-

Copies of the last four examinations for each Winder rope.

Rope test reports :-

Copies of the last two rope tests for each rope in the shaft for each coil number.

Rope attachment record book :-

Copies of the pages related to each attachment n use on all conveyances.

Magnetic rope test :-

Copies of the results for the last tests (if not conducted reason why not).

Third party examinations :-

Copies of all winders third party examinations for the previous three examinations per winder.

Driver's log book :-

Copies of the last three weeks' reports for each winder.

Shaft examination log book :-

Copies of the last four examinations for each compartment in the shaft.

Bell examinations records :-

Copies of the last four examinations for each compartment in the shaft.

Dynamic test results :-

Copies of the last three dynamic test reports.

Appointments

Copies of the following appointments :-

Engineering (name and certificate number), electrician, fitter, boilermaker, shaft timbermen, rigger ropeman, shaft manager and mine overseer (name and certificate number). Winder engine driver (name and certificate number).

Winder

Type of winder : AC/DC

Type of control :

Are there any bridges on the safety circuit, if so, why :-

Testing of overwind records:-

Copies of the engineer's daily check results for the last three weeks.

Signalling system recorder :-

Copies of 24 hours of signals.

Type of braking system :

Emergency procedures in case of winder failure - attach copy.

Record of the results of the engineer's annual examination for the last three years

Headgear

Sheave profile:-

Copies of all the sheave profiles.

Sheave bearing :-

When last checked and by whom.

Spectical plate location - correctly installed for the type of detaching hook used.

Condition of Headgear guides:-

Type of guide coupling devices:-

Alignment of guides:-

Distance between guides allowable tolerance

Condition of tipping path:

Type of conveyance:

Bin's condition:

Headgear final trip:-

Method of operation:

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Should the conveyance be caught in the jack catches, is there a method and procedure of removing the occupancy from the cage. Provide a copy of this procedure.

Banks and stations

Shaft protection device installed close to shaft:

Check of design:

Method of locking the device:

Type of bell system used:

Required notices available and legible:

(To be completed for each level, station and winder).

Shaft

Down or up-cast shaft:-

Wet Acidic

Guide alignmentTolerance

Shaft steelwork:- condition

Method of assuring integrity of the steelwork:-

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Services:-

Condition of pipes in the shaft

Method of assuring integrity of the pipes:-

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Method of assuring integrity of the support steelwork against the shaft:-

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Condition of electrical cables

Method of assuring integrity of the cables:-

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Method of assuring integrity of the support for the cables against the shaft or steelwork:-

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Handling of fissure water:-

Methods used and methods of cleaning the system to ensure correct operation.

Emergency procedure in case of complete shaft failure - attach copy.

Shaft bottom layout - provide a sketch of the shaft bottom layout and address the following:-

Shaft bottom de-watering, loading box access, spillage removal, access routes, corrosion and corrosion prevention monitoring systems.

Ropes

Methods of lubrication used:

Application method of application used:

Wear monitoring - method used:

Results of engineer's monthly rope examination:-

Copies of the last six months examination reports.

Results of non-destructive rope tests for past two years.

Conveyances

Condition of each conveyance:-

Method of assuring integrity and condition of the conveyance:-

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Attachments condition:-

Copies of the last two examination of the attachments.

Condition of wheels:

Condition of skid plates:

If trailers are used - factors of safety for attachments used.

Slack rope devices - type used:

Procedure available if device fails?

Incline shafts

Down or up-cast shaft:-

Wet acidic

Rail alignment tolerance.....

Condition of sills

Condition of shaft related to fissure water

Is the shaft provided with derailing device in case of runaway conveyances?

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How do these devices operate?

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How are these devices checked for correct operation?

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Marshall device operational:

Testing and functioning procedure available for marshall device:-

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Condition of drop rails at each station:

Shaft steelwork :-

Condition

Method of assuring integrity of the steelwork:-

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Services:-

Condition of pipes in the shaft

Method of assuring integrity of the pipes:-

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Method of assuring integrity of the support steelwork against the shaft:-

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Condition of electrical cables

Method of assuring integrity of the cables:-

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Method of assuring integrity of the support for the cables against the shaft or steelwork:-

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Handling of fissure water:-

Methods used and methods of cleaning the system to ensure correct operation.

Emergency procedure in case of complete shaft failure - attach copy.

Shaft bottom layout - provide a sketch of the shaft bottom layout and address the following:-

Shaft bottom de-watering, loading box access, spillage removal, access routes, corrosion and corrosion prevention monitoring systems.

Is the shaft provided with a shaft bottom crash beam:

If not, how are the shaft bottom personnel protected:-

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