

Shaft and winder management system

This system will govern the operation of a particular shaft as a single entity. This will include the workings of the Winder equipment.

It will log, record, and report the presence of all persons, material, explosives, and minerals in and around the shaft workings and operations.

Sally acts as a warning system, reporting in real-time the movement of all entities near the shaft and its underground workings. Sally communicates the movement of all products from the stores, timber yard, material yard explosives magazine. This includes the transportation of persons, it will prevent the overloading of the conveyance, indicate the validity of the persons traveling, and their destination.

Example:

Sally will notify the Banksman that the explosives are about to leave the magazine. It will indicate the contents and the destination of the individual explosives care, then prepare the report for all parties. The Banksman may clear the bank area, prepare to receive the explosives. Sally warns the Onsetter and the people underground that the explosives will be available. Report availability and time of availability. If explosives are not collected as per the shaft schedule, it will flag to the management line structure's cell phones the delay and the reason therefor.

The system will govern all Winder equipment movement and maintenance. It will replace all logbooks and is in compliance with all Sadek mining regulations in including the new regulation 16.

- A specific shaft and winder pairing.
- For specific shafts and winders, operations, and requirements.
- Instant access and availability of information by management and remote communication with shaft and winder operations.
- Limit access to different categories of personnel.
- No person can change or delete an instruction or directive sent or received from any device.
- All documents will be saved on the system on the Winding Engine Driver Footplate or Bank, the hard drive at the Engineers' office, and on the allocated server domain.
- Management can direct and give instructions to shaft and winder personnel remotely and in real-time.
- Promote better communication between shaft workers and winding operations.
- Decrease conflict between shaft workers and the winding operations.
- Assist with planning and execution of shaft and winding operations.
- Assist in planning and scheduling of shaft and Winder maintenance.
- Assist with personnel availability and timekeeping.
- Generating reports, daily, weekly, and monthly.
- Availability of work to be performed, documentation, risk assessment, SOP's COP's Regulations, manufacturers' specifications.

- Shaft and Winding Personnel can upload photos and video clips as a reference before and after.
- Instant indication of incidents to supervisors and management.
- Automatic, flag notifications to line supervisors and management of delays in scheduled activities, the progress, and/or completion of activities.

Example:

Sally will notify the artisans that the winders are available for Winder's daily examination in accordance with the shaft schedule. Artisans will only be able to log in to the system if the Winding Engine Driver log- in first with fingerprint recognition. The Winding Engine Driver will open the shaft examination function and log the time. All artisans log in to their discipline. If an artisan does not attend, Sally will flag the relevant Forman, then the Engineer, and then the Manager. Sally will open the property risk assessment, safe working procedure, regulations, and winder specifications. All manufacturing specifications will be loaded to Sally. The daily examination will be done in accordance with manufacturers' specifications, regulations applicable, and the requirements of the specific winder. If urgent repairs need to be performed, Sally will notify the stores to deliver the necessary components and tools to the winder. Notify the Engineer, the Shaft Froman, and management in regards to standing time. Repair time will be indicated from the manufacturer's technical specifications. The engineer will be able to log in to the system and communicate with the winding engine driver and artisans via his cell phone and indicate his availability to assess the winder after completion. After this, the Engineer, artisans, and winding engine driver will clear the daily examination. Sally will generate a report and forward it to the banksman and management. Sally will send a parts order to the procurement department to replace the critical spare parts in the store.