

**Order of 29 rabie El Aouel 1425 corresponding to 19 May 2004 fixing
The conditions and technical rules for specific mining parameters
linked to open cast working.**

The Minister for Energy and Mines,

Given Presidential Decree No. 04-138 of 6 Rabie El Aouel 1425 corresponding to 26 April 2004 concerning nomination of members of the Government;

Given Executive Decree No. 96-214 dated 28 Moharram 1417 corresponding to 15 June 1996 fixing the responsibilities of the Minister of Energy and Mines;

Given Executive Decree No. 02-65 of 23 Dhou El Kaada 1422 corresponding to 6 February 2002 defining procedures for award of mining permits

Given Executive Decree 02-66 of 23 Dhou El Kaada 1422 corresponding to 6 February on procedure of award of mining permits following Request for Bids

Given Executive Decree No 02-468 dated 23 Chaouel 1423 corresponding to 24 December 2002 establishing the procedures for gathering, collection and/or harvesting

Given Executive Decree 02-470 dated 20 Chaouel 1423 corresponding to 24 December 2002 establishing the procedures for application of provisions concerning operation of quarries and sandpits

Given Executive Decree 02-470 0495 of 11 Safar 1425 corresponding to 1 April 2004 establishing the rules for professional mining standards, notably article 5

Hereby orders:

Article 1: In application of the provisions in the executive decree n° 0495 of 11 Safar 1425 corresponding to 1 April 2004, this order fixes the conditions and technical rules for mining parameters specific to open cast mining.

Article 2: For conduct of mining activities, holders of mining permits are bound to carry out the works in conformity to the rules in this order.

Article 3: Without prejudice to regulations specific to certain categories of structures or buildings, the edges of open cast mines must be established and kept at a horizontal distance of at least ten (10) metres from roads or paths, watercourses, water pipes, and at least fifty (50) metres from any form of building or construction.

Article 4: Danger points located on the edges of any open cast mine in an unfenced area must be surrounded by a ditch; the earth removed must be stacked at the side of to form a levee, or any other means of fencing providing sufficient safety and strength must be erected.

Article 5: Mining must stop from the edge of the excavation, at a horizontal distance such that the stability of adjoining land is not compromised, taking into account the nature and thickness of the substance being worked and the overlying earth. This protection zone distance must be increased by half the distance between the level of the base of the mine and the ground level perpendicular to it, without exceeding in total sixty (69) metres. For the safety s of structures or other public buildings, the distances referred to above may be increased by decision of the Agence Nationale de la Géologie et du Contrôle Minier following a report by the mining police.

Article 6: In open cast mines the operator is bound to maintain a rampart or mound along the external edges, to protect ramps, access points located at less than twenty (20) metres from a dangerous operating wall in open cast mines, and from benches, in the case where moving equipment and drilling machines are used at less than eight (8) metres from the edge of the bench. The minimum height of the ramparts referred to above should not be less than the largest radius of the large wheel of the equipment used.

Article 7: Material such as earth, clay, sand, gravel, non-cemented blocks, trees and other vegetation must be removed so that the bedrock is exposed to a width of two (2) metres along the upper edge of the cutting fronts. Above this rock bench the covering earth must have a slope less than the angle of the natural wall, to avoid any collapse.

Article 8: Holing should not be used except by virtue of authorisation by the Agence Nationale de la Géologie et du Contrôle Minier, as part of the operations, and defined by instructions which specify notably, the safety measures to be adopted to ensure that at the time of extraction, the holed mass is solid.

Article 9: In units for extraction of sand, gravel or other low cohesion substances, where no mechanical equipment is used, no cutting front shall have a vertical height of more than three (3) metres.

If the thickness of the exploitable layer exceeds three (3) metres of vertical height, exploitation may be conducted in benches of three (3) metres maximum height with benches at the base of each terrace.

In the case of use of mechanical equipment for excavation and loading of products, no cutting front shall exceed one metre fifty (1.50) the summit of the boom or the bucket in the highest working position.

Article 10: When working substances constituting hard rock, the height of the front of the benches shall not exceed fifteen (15) metres; at the base of each bench, a horizontal bench of adequate width to allow working and circulation of personnel and machinery must be provided.

The front or the benches may be higher, subject to written authorisation of the Agence Nationale de la Géologie et du Contrôle Minier, after examination and possibly, approval of a report justifying the necessity to exceed this height and the equipment used, to be submitted by the operator.

Article 11: Mining must be conducted so that no part of the cutting front or walls overhangs, even in the case of extraction by explosives.

Article 12: The extraction front and the walls of the work sites must be regularly supervised by a qualified agent, appointed by the operator, and cleared at least once a day and following blasting, and/or as soon as the surveillance agent indicates this is necessary.

No person shall work close to the front before the front has been examined by the team leader.

Clearing operations must be entrusted to competent experienced personnel appointed by the team leader, operating under the surveillance of the agent referred to above; clearing must be conducted downwards.

During clearing operations, no person must be present or moving in the zone likely to be affected by loose blocks.

Operations for inspection and clearing of the cutting front must be defined in special instructions brought to the knowledge of the Agence Nationale de la Géologie et du Contrôle Minier. The latter may make modifications it considers appropriate for increased safety at work.

Article 13: If materials are unloaded from a vehicle in a rise heading or above a wall or bench, the operator is bound to supply and maintain buffers or earthworks which prevent the vehicle from sliding down or over the wall or bench. The necessary measures must be adopted to ensure drivers of trucks and other vehicles have a clear view of the rise heading, the wall or the bench, when approaching the unloading site.

Article 14: In the case of an electricity failure, the operators of equipment powered by electricity must ensure the controls of such equipment are switched off or in neutral, to avoid any danger following accidental start-up.

Article 15: Operators of mechanical diggers, loaders or digger loaders shall not operate these in such manner that a load passes over the head of unprotected people.

Article 16: Operators of trucks shall not start the truck during loading by mobile equipment unless there is a protective device.

Article 17: All controls for lifting gear which impacts on the safety of personnel must be examined by a qualified person at least once a month.

A register of these inspections will be kept available to the mining police.

Article 18: For each oversized vehicle, the operator will keep a register recording the defective elements which may impact on the safety of personnel, and of the repairs performed.

This register will be signed by the agent making the entry and may be verified at any time by the mining police.

Article 19: Operation of vehicles above an unprotected electricity cable is prohibited.

Article 20: Organisation of the use of plant for removal of extracted products must be performed to ensure that personnel can move without risk and rapidly escape in the case of rock fall or accidental movement of an extracted block.

Article 21: Vehicles used on inclined planes for normal circulation of personnel must be equipped with parachutes; these may be shimmed for extraction of products or transport of earth or equipment.

Article 22: Any person working at a cutting front with a serious risk of falling must wear a belt or a safety harness attached to a solid anchoring point above the working area, which is kept taut by another person or an appropriate device.

In this context, working on the front of an open cast mine within a radius of three and half metres (3.5 metres) of the upper edge of a front of a height of more than three (3) metres is prohibited unless the arrangements in the above sub-paragraph are respected.

Article 23: The operator must trace out tracks of adequate widths between the various working levels and maintain these in a good condition, even in the case where plant is not used.

Stairs or ladders must be installed when the circulation tracks have a slope of between 30° and 50° from the horizontal.

For circulation tracks with an incline of more than 50° from the horizontal, ladders must be installed. In the case of need, the mining police, during inspections may require ladders to be equipped with fixed landings.

Article 24: In the case of a two way track on a ramp, the width of the ramp shall not be less than twice the total width of the largest vehicle regularly using the ramp, increased by three (3) additional metres.

Article 25: Use of a device other than a towing bar to tow equipment down the ramp is prohibited.

Article 26: On tracks used for dragging by chain or cable, personnel shall not circulate during movements, unless there is a passageway of at least sixty (60) centimetres width and at all points on the track there is a signalling device for communicating with the operator, or a remote control to switch off the motor.

Article 27: The employers shall adopt necessary measures to ensure the conveyor belts installed underground or at any location in the mine where a fire could compromise the life of employees, on account of restricted access, are equipped with a device to prevent excessive sliding between the belt and the drive pulley, constructed in fire-proof material or equipped with an automatic fire extinguishing system throughout the entire width of the belt.

Article 28: Operatives shall not manually clean a conveyor belt, its rollers or pulleys while the belt is moving. Operatives shall not travel on conveyor belts.

Article 29: Maintenance of a moving conveyor belt or cleaning of an outlet close to a moving conveyor belt is possible only if the conveying system is designed so that such works can be performed in total safety, without removing safety devices.

Article 30: Any person at any point along the conveyor belt which is not protected must immediately be capable of stopping the motor, either using a direct remote control device or thanks to a signal device installed along the conveyor belt communicating with the person supervising the motor.

Article 31: The following must be installed and maintained on each conveyor belt:

- devices protecting the head pulleys, the relays, the drives or tension at least 1 m from the ingoing points at all places accessible along the conveyor belt, pull cords allowing stopping the conveyor in the case of danger, but not restarting it a warning device intended to warn persons along the conveyor of the start-up of the latter when the conveyor belt is not visible throughout its entire length from the control point.

Article 32: When rail transport is used, devices must be provided to ensure wagons parked on tracks do not suddenly set off and run away and that moving wagons cannot attain a dangerous speed.

Article 33: Pushing the front of wagons to increase speed is prohibited, as is leaving them abandoned on sloping tracks, except at convoy formation points; the approach of these points must be notified by a clear signal.

In low galleries, where they exist, wagon personnel must move wagons using devices protecting their hands against injury. Wagons in the same convoy must be firmly attached to each other.

Article 34: The operator must provide anti-dust masks for personnel working in dusty zones caused by drilling, loading, transport, crushing or other works which generate dust.

Article 35: Loading of explosives in mine holes and blasting holes shall not be possible until after the safety perimeter has been marked out within which solely personnel and mobile equipment necessary for the operations are admitted.

Any movement of mobile equipment necessary in this perimeter must be the subject of extreme vigilance.

Article 36: In the case of night working, appropriate lighting must be provided in work areas and annexes, notably:

- In zones where trucks are loaded
- In discharge locations
- In zones where loading of explosives is performed
- In other zones which may be designated by the mining police.
- Isolated agents and supervisors must be equipped with individual lighting devices.

Article 37: In the case of night working and in the case of transport by rail, all convoys must be equipped at the front with a white lighting with a red light at the back. The mining police may authorise replacing the red light by an appropriate catadioptric device.

Except on tracks with fixed lighting, locomotives must have a head light illuminating the track for a distance at least equal to the stopping distance of their convoy.

Article 38: Circulation of trains or vehicles with mechanical propulsion is regulated by appropriate instructions issued by the Agence Nationale de la Géologie et du Contrôle Minier defining notably, the essential guarantees for the equipment and installation.

These instructions also fix the conditions for walking along the same tracks.

Article 39: The mining police may, in case of need, request the appointment of a marshal in loading or unloading areas.

In this case, movement of trucks or other mobile equipment is only possible in the loading area after receiving the precise agreed signals from the marshalling operative.

The conventional signals will be set out in the instructions of the operator and approved by the mining police.

Article 40: The operator must appoint a qualified agent, previously duly informed, to manage the works and ensure application of the regulations. The name and position of this person must be notified to the Agence Nationale de la Géologie et du Contrôle.

In default, the operator will be deemed to be in charge of works and will be responsible for the application of the regulations.

Article 41: This order will be published in the Official Journal of the Democratic and Popular Republic of Algeria.

*Issued in Algiers, on 29 Rabie El Aouel 1425 corresponding to 19 May 2004.
M.Chakib KHELLIL*