

**§ 57.22603 Blasting from the surface (II-A mines).**

(a) All development, production, and bench rounds shall be initiated from the surface after all persons are out of the mine. Persons shall not enter the mine until the mine has been ventilated for at least 15 minutes and the ventilating air has passed over the blast area and through at least one atmospheric monitoring sensor.

(b) If the monitoring system indicates that methane in the mine is less than 0.5 percent, competent persons may enter the mine to test for methane in all blast areas.

(c) If the monitoring system indicates that methane in the mine is 0.5 percent or more, the mine shall be ventilated and persons shall not enter the mine until the monitoring system indicates that methane in the mine is less than 0.5 percent.

(d) If the monitoring system is inoperable or malfunctions, the mine shall be ventilated for at least 45 minutes and the mine power shall be deenergized before persons enter the mine. Only competent persons necessary to test for methane may enter the mine until the methane in the mine is less than 0.5 percent.

(e) Vehicles used for transportation when examining the mine shall be approved by MSHA under the applicable requirements of 30 CFR parts 18 through 36. Vehicles shall not be used to examine the mine if the monitoring system is inoperable or has malfunctioned.

**§ 57.22604 Blasting from the surface (II-B mines).**

All development, production, and bench rounds shall be initiated from the surface after all persons are out of the mine. Persons other than those designated by the mine operator to make methane tests shall not enter the mine until all blast areas have been tested for methane.

**§ 57.22605 Blasting from the surface (V-A mines).**

(a) All development and production blasting shall be initiated from the surface after all persons are out of the mine. Persons shall not enter the mine until ventilating air has passed over

the blast area and through at least one atmospheric monitoring sensor.

(b) If the monitoring system indicates that methane in the mine is less than 1.0 percent, persons may enter the mine, and all places blasted shall be tested for methane by a competent person before work is started.

(c) If the monitoring system indicates the presence of 1.0 percent or more methane, persons other than examiners shall not enter the mine until the mine has been examined by a competent person and the methane level is less than 1.0 percent.

(d) Vehicles used for transportation when examining the mine shall be approved by MSHA under the applicable requirements of 30 CFR parts 18 through 36.

(e) This standard applies only to mines blasting within an oil reservoir.

**§ 57.22606 Explosive materials and blasting units (III mines).**

(a) Mine operators shall notify the appropriate MSHA District Manager of all nonapproved explosive materials and blasting units to be used prior to their use. Explosive materials used for blasting shall be approved by MSHA under 30 CFR part 15, or nonapproved explosive materials shall be evaluated and determined by the District Manager to be safe for blasting in a potentially gassy environment. The notice shall also include the millisecond-delay interval between successive shots and between the first and last shot in a round.

(b) Faces shall be examined for proper placement of holes, possible breakthrough, and water. Ammonium nitrate blasting agents shall not be loaded into wet holes.

(c) Multiple-shot blasts shall be initiated with detonators encased in copper-based alloy shells. Aluminum and aluminum alloy-cased detonators, non-electric detonators, detonating cord, and safety fuses shall not be used. All detonators in a round shall be made by the same manufacturer.

(d) Nonapproved explosives shall be used only as primers with ammonium nitrate-fuel oil blasting agents. Such primers shall be placed at the back or bottom of the hole.