

shall sample the sealed atmosphere in accordance with the ventilation plan.

(4) The District Manager may approve in the ventilation plan the use of a continuous monitoring system in lieu of monitoring provisions in this section.

(b)(1) Except as provided in § 75.336(d), the atmosphere in the sealed area is considered inert when the oxygen concentration is less than 10.0 percent or the methane concentration is less than 3.0 percent or greater than 20.0 percent.

(2) Immediate action shall be taken by the mine operator to restore an inert sealed atmosphere behind seals with strengths less than 120 psi. Until the atmosphere in the sealed area is restored to an inert condition, the sealed atmosphere shall be monitored at each sampling pipe and approved location at least once every 24 hours.

(c) Except as provided in § 75.336(d), when a sample is taken from the sealed atmosphere with seals of less than 120 psi and the sample indicates that the oxygen concentration is 10 percent or greater and methane is between 4.5 percent and 17 percent, the mine operator shall immediately take an additional sample and then immediately notify the District Manager. When the additional sample indicates that the oxygen concentration is 10 percent or greater and methane is between 4.5 percent and 17 percent, persons shall be withdrawn from the affected area which is the entire mine or other affected area identified by the operator and approved by the District Manager in the ventilation plan, except those persons referred to in § 104(c) of the Act. The operator may identify areas in the ventilation plan to be approved by the District Manager where persons may be exempted from withdrawal. The operator's request shall address the location of seals in relation to: Areas where persons work and travel in the mine; escapeways and potential for damage to the escapeways; and ventilation systems and controls in areas where persons work or travel and where ventilation is used for escapeways. The operator's request shall also address the gas concentration of other sampling locations in the sealed area and other required information. Before miners reenter the mine,

the mine operator shall have a ventilation plan revision approved by the District Manager specifying the actions to be taken.

(d) In sealed areas with a demonstrated history of carbon dioxide or sealed areas where inert gases have been injected, the operator may request that the District Manager approve in the ventilation plan an alternative method to determine if the sealed atmosphere is inert and when miners have to be withdrawn. The mine operator shall address in the ventilation plan the specific levels of methane, carbon dioxide, nitrogen and oxygen; the sampling methods and equipment used; and the methods to evaluate these concentrations underground at the seal.

(e) *Recordkeeping.* (1) The certified person shall promptly record each sampling result including the location of the sampling points, whether ingassing or outgassing, and oxygen and methane concentrations. The results of oxygen and methane samples shall be recorded as the percentage of oxygen and methane measured by the certified person and any hazardous condition found in accordance with § 75.363.

(2) The mine operator shall retain sampling records at the mine for at least one year from the date of the sampling.

[73 FR 21207, Apr. 18, 2008; 73 FR 27730, May 14, 2008]

§ 75.337 Construction and repair of seals.

(a) The mine operator shall maintain and repair seals to protect miners from hazards of sealed areas.

(b) Prior to sealing, the mine operator shall—

(1) Remove insulated cables, batteries, and other potential electric ignition sources from the area to be sealed when constructing seals, unless it is not safe to do so. If ignition sources cannot safely be removed, seals must be constructed to at least 120 psi;

(2) Remove metallic objects through or across seals; and

(3) Breach or remove all stoppings in the first crosscut in by the seals immediately prior to sealing the area.

(c) A certified person designated by the mine operator shall directly supervise seal construction and repair and—

(1) Examine each seal site immediately prior to construction or repair to ensure that the site is in accordance with the approved ventilation plan;

(2) Examine each seal under construction or repair during each shift to ensure that the seal is being constructed or repaired in accordance with the approved ventilation plan;

(3) Examine each seal upon completion of construction or repair to ensure that construction or repair is in accordance with the approved ventilation plan;

(4) Certify by initials, date, and time that the examinations were made; and

(5) Make a record of the examination at the completion of any shift during which an examination was conducted. The record shall include each deficiency and the corrective action taken. The record shall be countersigned by the mine foreman or equivalent mine official by the end of the mine foreman's or equivalent mine official's next regularly scheduled working shift. The record shall be kept at the mine for one year.

(d) Upon completion of construction of each seal a senior mine management official, such as a mine manager or superintendent, shall certify that the construction, installation, and materials used were in accordance with the approved ventilation plan. The mine operator shall retain the certification for as long as the seal is needed to serve the purpose for which it was built.

(e) The mine operator shall—

(1) Notify the District Manager between two and fourteen days prior to commencement of seal construction;

(2) Notify the District Manager, in writing, within five days of completion of a set of seals and provide a copy of the certification required in paragraph (d) of this section; and

(3) Submit a copy of quality control results to the District Manager for seal material properties specified by § 75.335 within 30 days of completion of quality control tests.

(f) *Welding, cutting, and soldering.* Welding, cutting, and soldering with an arc or flame are prohibited within 150

feet of a seal. An operator may request a different location in the ventilation plan to be approved by the District Manager. The operator's request must address methods the mine operator will use to continuously monitor atmospheric conditions in the sealed area during welding or burning; the airflow conditions in and around the work area; the rock dust and water application methods; the availability of fire extinguishers on hand; the procedures to maintain safe conditions, and other relevant factors.

(g) *Sampling pipes.* (1) For seals constructed after April 18, 2008, one non-metallic sampling pipe shall be installed in each seal that shall extend into the center of the first connecting crosscut in by the seal. If an open crosscut does not exist, the sampling pipe shall extend one-half of the distance of the open entry in by the seal.

(2) Each sampling pipe shall be equipped with a shut-off valve and appropriate fittings for taking gas samples.

(3) The sampling pipes shall be labeled to indicate the location of the sampling point when more than one sampling pipe is installed through a seal.

(4) If a new seal is constructed to replace or reinforce an existing seal with a sampling pipe, the sampling pipe in the existing seal shall extend through the new seal. An additional sampling pipe shall be installed through each new seal to sample the area between seals, as specified in the approved ventilation plan.

(h) *Water drainage system.* For each set of seals constructed after April 18, 2008, the seal at the lowest elevation shall have a corrosion-resistant, non-metallic water drainage system. Seals shall not impound water or slurry. Water or slurry shall not accumulate within the sealed area to any depth that can adversely affect a seal.

[73 FR 21207, Apr. 18, 2008]

§ 75.338 Training.

(a) Certified persons conducting sampling shall be trained in the use of appropriate sampling equipment, procedures, location of sampling points, frequency of sampling, size and condition