§ 18.97 Inspection of machines; minimum requirements.

(a) Except as provided in §18.95, all machines approved under the provisions of this subpart E shall, where practicable, meet the minimum design and performance requirements set forth in subpart B of this part 18 and, where necessary, the requirements of §18.98.

(b) The inspection of each machine shall be conducted by an electrical representative and such inspection shall include:

(1) Examination of all electrical components for materials, workmanship, design, and construction;

(2) Examination of all components of the machine which have been approved or certified under Bureau of Mines Schedule 2D, 2E, 2F, or 2G to determine whether such components have been maintained in permissible conditions;

(3) Comparison of the location of components on the machine with the drawings or photographs submitted to determine that each of them is properly located, identified and marked;

(4) Pressure testing of explosion-proof compartments, when necessary, shall be conducted in accordance with §18.98; and:

(i) Where the results of pressure testing are acceptable, the applicant shall be advised;

(ii) Where the explosion-proof enclosure is found unacceptable, the applicant shall be so informed;

(iii) If the performance of the explosion-proof enclosure is questionable, the qualified electrical representative may, at the request of the applicant, conduct a further detailed examination of the enclosure after disassembly and record his additional findings on MSHA Form No. 6–1481 under Results of Field Inspections.


§ 18.98 Enclosures, joints, and fastenings; pressure testing.

(a) Cast or welded enclosures shall be designed to withstand a minimum internal pressure of 150 pounds per square inch (gage). Castings shall be free from blowholes.

(b) Pneumatic field testing of explosion-proof enclosures shall be conducted by determining:

(1) Leak performance with a peak dynamic or static pressure of 150 pounds per square inch (gage); or

(2) A pressure rise and rate of decay consistent with unyielding components during a pressure-time history as derived from a series of oscillograms.

(c) Welded joints forming an enclosure shall have continuous gastight welds.

§ 18.99 Notice of approval or disapproval; letters of approval and approval plates.

Upon completion of each inspection conducted in accordance with §18.97(b), the electrical representative conducting such inspection shall record his findings with respect to the machine examined on MSHA Form No. 6–1481 together with his recommendation of approval or disapproval of the machine.

(a) If the qualified electrical representative recommends field approval of the machine, the Coal Mine Health and Safety District Manager shall forward the completed application form together with all attached photographs, drawings, specifications, and descriptions to Approval and Certification Center. Approval and Certification Center shall record all pertinent data with respect to such machine, issue a letter of approval with a copy to the Coal Mine Health and Safety District Manager who authorized its issuance and send the field approval plate to the applicant. The approval plate shall be affixed to the machine by the applicant in such a manner so as not to impair its explosion-proof characteristics.

(b) If the electrical representative recommends disapproval of the machine, he shall record the reasons for such disapproval and the Coal Mine Health and Safety District Manager