

(d) When MSHA has determined that all applicable requirements of this part have been met, the applicant will be authorized to attach an approval plate to each machine that is built in strict accordance with the drawings and specifications filed with MSHA and listed with MSHA's formal approval. A design of the approval plate will accompany the notification of approval. (Refer to §§ 18.10 and 18.11.)

(e) Approvals are issued only by the U.S. Department of Labor, Mine Safety and Health Administration, Approval and Certification Center, 765 Technology Drive, Triadelphia, WV 26059.

[33 FR 4660, Mar. 19, 1968, as amended at 43 FR 12314, Mar. 24, 1978; 52 FR 17514, May 8, 1987; 73 FR 52211, Sept. 9, 2008]

**§ 18.81 Field modification of approved (permissible) equipment; application for approval of modification; approval of plans for modification before modification.**

(a) An owner of approved (permissible) equipment who desires to make modifications in such equipment shall apply in writing to make such modifications. The application, together with the plans of modifications, shall be filed with the U.S. Department of Labor, Mine Safety and Health Administration, Approval and Certification Center, 765 Technology Drive, Triadelphia, WV 26059.

(b) Proposed modifications shall conform with the applicable requirements of subpart B of this part, and shall not substantially alter the basic functional design that was originally approved for the equipment.

(c) Upon receipt of the application for modification, and after such examination and investigation as may be deemed necessary by MSHA, MSHA will notify the owner and the District office of the mine workers' organization having jurisdiction at the mine where such equipment is to be operated stating the modifications which are proposed to be made and MSHA's action thereon.

[33 FR 4660, Mar. 19, 1968, as amended at 43 FR 12314, Mar. 24, 1978; 60 FR 35693, July 11, 1995; 73 FR 52211, Sept. 9, 2008]

**§ 18.82 Permit to use experimental electric face equipment in a gassy mine or tunnel.**

(a) *Application for permit.* An application for a permit to use experimental electric face equipment in a gassy mine or tunnel will be considered only when submitted by the user of the equipment. The user shall submit a written application to the Assistant Secretary of Labor for Mine Safety and Health, 1100 Wilson Blvd., Room 2322, Arlington, Virginia 22209-3939, and send a copy to the U.S. Department of Labor, Mine Safety and Health Administration, Approval and Certification Center, 765 Technology Drive, Triadelphia, WV 26059.

(b) *Requirements—(1) Constructional.*  
 (i) Experimental equipment shall be so constructed that it will not constitute a fire or explosion hazard.

(ii) Enclosures designed as explosion-proof, unless already certified, or components of previously approved (permissible) machines, shall be submitted to MSHA for inspection and test and shall meet the applicable design requirements of subpart B of this part. Components designed as intrinsically safe also shall be submitted to MSHA for investigation.

(iii) MSHA may, at its discretion, waive the requirements for detailed drawings of component parts, inspections, and tests provided satisfactory evidence is submitted that an enclosure has been certified, or otherwise accepted by a reputable testing agency whose standards are substantially equivalent to those set forth in subpart B of this part.

(2) *Specifications.* The specifications for experimental equipment shall include a layout drawing (see Figure 1 in Appendix II) or photograph(s) with the components, including overcurrent-protective device(s) with setting(s) identified thereon or separately; a wiring diagram; and descriptive material necessary to insure safe operation of the equipment. Drawings already filed with MSHA need not be duplicated by the applicant, but shall be properly identified.

(c) *Final inspection.* Unless equipment is delivered to MSHA for investigation, the applicant shall notify the U.S. Department of Labor, Mine Safety and

Health Administration, Approval and Certification Center, 765 Technology Drive, Triadelphia, WV 26059, when and where the experimental equipment will be ready for inspection by a representative of MSHA before installing it on a trial basis. Such inspection shall be completed before a permit will be issued.

(d) *Issuance of permit.* When the inspection discloses full compliance with the applicable requirements of this subpart, the Assistant Secretary will issue a permit sanctioning the operation of a single unit in a gassy mine or tunnel, as designated in the application. If the applicant is not the assembler of the equipment, a copy of the permit also may be sent to the assembler.

(e) *Duration of permit.* A permit will be effective for a period of 6 months. For a valid reason, to be stated in a written application, the Administrator of MSHA may grant an extension of a permit for an additional period, not exceeding 6 months. Further extension will be granted only where, after investigation, the Assistant Secretary finds

that for reasons beyond the control of the user, it has not been possible to complete the experiment within the period covered by the extended permit.

(f) *Permit label.* With the notification granting a permit, the applicant will receive a photographic copy of a permit label bearing the following:

- (1) Emblem of the Mine Safety and Health Administration.
- (2) Permit number.
- (3) Expiration date of the permit.
- (4) Name of machine.
- (5) Name of the user and mine or tunnel.

The applicant shall attach the photographic copy of the permit label, or replica thereof, to the experimental equipment. If a photograph is used, a clear plastic covering shall be provided for it.

(g) *Withdrawal of permit.* The Assistant Secretary may rescind, for cause, any permit granted under this subpart.

[33 FR 4660, Mar. 19, 1968, as amended at 43 FR 12314, Mar. 24, 1978; 52 FR 17514, May 8, 1987; 60 FR 35693, July 11, 1995; 67 FR 38384, June 4, 2002; 73 FR 52211, Sept. 9, 2008]

APPENDIX I TO SUBPART D OF PART 18  
LIST OF TABLES

Table No.	Title
1	Portable power cable ampacities—600 volts.
2	Portable cord ampacities—600 volts.
3	Portable power cable ampacities—601 to 5,000 volts.
4	Normal diameter of round cables with tolerances in inches—600 volts.
5	Nominal dimension of flat cables with tolerances in inches—600 volts.
6	Nominal diameter of heavy jacketed cords with tolerances in inches—600 volts.
7	Nominal diameter of three-conductor portable power cables with tolerances in inches—601 to 5,000 volts.
8	Fuse ratings or instantaneous settings of circuit breakers for short-circuit protection of portable cables.
9	Specifications for portable cables longer than 500 feet.
10	High voltage trailing cable ampacities and outside diameters.

TABLE 1—PORTABLE POWER CABLE AMPACITIES—600 VOLTS (AMPERES PER CONDUCTOR BASED ON 60 °C. COPPER TEMPERATURE—40 °C. AMBIENT)

Conductor size—AWG or MCM	Single conductor	2-conductor, round or flat	3-conductor, round or flat	4-conductor	5-conductor	6-conductor
8 .....	45	40	35	30	25	20
6 .....	60	50	50	40	35	30
4 .....	85	70	65	55	45	35
3 .....	95	80	75	65	55	45
2 .....	110	95	90	75	65	55
1 .....	130	110	100	85	75	65
1/0 .....	150	130	120	100	90	80
2/0 .....	175	150	135	115	105	95
3/0 .....	205	175	155	130	120	110
4/0 .....	235	200	180	150	140	130
250 .....	275	220	200	160	.....	.....
300 .....	305	240	220	175	.....	.....