

## 1.0 PURPOSE

This Standard Operating Procedure (SOP) establishes procedures by which the Electrical Safety Division (ESD) conducts field modification investigations.

## 2.0 SCOPE

This SOP encompasses the administrative steps for processing a Part 18.81 Field Modification Investigation by the ESD.

## 3.0 REFERENCES

This SOP makes reference to the following documents:

- 3.1. ASOP2033, "Guidelines for Inspection of Electric Motor Driven Mine Equipment."
- 3.2. APOL1009 - "Application Cancellation Policy".

## 4.0 DEFINITIONS

- 4.1. A&CC – the Approval and Certification Center.
- 4.2. Applicant – A mine owner, or designate. The designate may be a mine superintendent, master mechanic, shop foreman, mine engineer, or other responsible mine official.
- 4.3. Approved (permissible) electric motor-driven mine equipment - As applied to electric face equipment, all equipment taken into or used in by the last open crosscut of an entry or room of any coal mine, or metal or non-metal mine designated as gassy by the Secretary, the parts, including, but not limited to, associated electrical equipment, components, and accessories, are designed, constructed, and installed in accordance with the requirements of 30 CFR, Part 18 and have been issued an approval by the A&CC.
- 4.4. Diesel Electric (DE) - A program of the A&CC for manufacturers of mobile diesel-powered transportation equipment approved under 30 CFR, Part 36, to gain approval of electrical lighting or control systems used on their machines. These systems are evaluated and accepted in accordance with the requirements of 30 CFR, Part 18.
- 4.5. Case File Activity Log – An electronic log assigned to all applications by Information Processing Service Office (IPSO). All major processing steps

(administrative, technical, and non-routine) are entered on this form by the persons performing the actions.

- 4.6. Fee Authorization Letter - A letter mailed to applicants that must be returned to the Approval and Certification Center (A&CC) either indicating whether the applicant wants their application processed for the fee estimated, or requesting that the application be canceled.
- 4.7. Fee Estimate Letter - A letter mailed to the applicant estimating the maximum fee for processing a field modification application.
- 4.8. Fee Estimate Work Sheet - An electronic work sheet used to estimate the maximum number of investigative hours necessary to process a field modification application.
- 4.9. Pre-Authorization Notice - A statement by the applicant authorizing MSHA to expend a stated amount of money in evaluating the applicant's request.
- 4.10. Project Analysis Report (PAR) - An electronic data base maintained by IPSO for tracking an application within A&CC. The PAR is used for tracking an application through various status levels.
- 4.11. Project Status Update Form - An electronic work sheet that the investigator enters all status code changes and dates on the PAR.
- 4.12. Data Sheets - A collection of factual information organized for rapid search and retrieval.

## 5.0 PROCEDURE

- 5.1. The application and PAR are received in the division office from IPSO. The application is forwarded to the Designated Division Person (DDP) by the Division Office Automation Assistant (DOAA).
  - 5.1.1. The DDP completes the following entries on the case file activity log: company name, address, PAR number, application code, and the first entry on the case file log.
  - 5.1.2. The DDP enters the following data on the PAR:
  - 5.1.3. "Div" - 20 denotes the ESD and is entered by IPSO.

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- 5.1.4. "Part" - A two digit code indicating the Part of 30 CFR under which the application will be evaluated. An 18 is entered for "Electric motor-driven mine equipment and accessories."
  - 5.1.5. "Act" - A two digit code indicating the type of action requested. A 21 is entered for "Field Modification."
  - 5.1.6. The application is reviewed by the DDP to determine the validity of the application.
  - 5.2. Invalid Applications - Applications for actions not permitted by applicable regulations are considered inappropriate and are voided. No time is charged to the PAR. The DDP prepares a letter to the applicant voiding the application.
    - 5.2.1. The DDP notifies the applicant about the invalid application.
    - 5.2.2. The DDP prepares the letter and returns it to the division designate for review.
    - 5.2.3. The division designate reviews the letter and forwards the letter to the division office for review and Division Chief concurrence.
    - 5.2.4. After Division Chief or designate concurrence, the DOAA forwards the letter to the center office to obtain the Center Chief signature.
    - 5.2.5. When the DOAA receives the signed letter, types in the date. Copies are made for IPSO, and ESD. The letter and voided application are mailed to the applicant.
    - 5.2.6. The DOAA voids the PAR by entering the date of the letter on the status code 8 on the PAR sheet. The case file activity log and entire PAR are forwarded to IPSO.
  - 5.3. Valid Applications - The DDP prepares a Fee Estimate Work Sheet, estimating the maximum fee that will be incurred to conduct the investigation. If a pre-authorization notice has been included in the application package, the application is assigned to the next available investigator in accordance with Section 5.6.
    - 5.3.1. The DDP prepares a Fee Estimate Letter to notify the applicant of the estimated maximum fee to conduct the investigation (from the Fee Estimate Work Sheet). Enclosed with the letter is a Fee Authorization

Letter that must be returned to the A&CC by the applicant either accepting or rejecting the fee estimate.

- 5.3.2. The DDP enters the date in the block titled "Int Rev/Est Prep" on the PAR.
- 5.3.3. The Fee Estimate Letter is sent to the Division Chief or designate for signature.
- 5.3.4. The Division Chief or designate reviews and signs the Fee Estimate Letter and sends the letter to the Division Office Automation Assistant.
- 5.3.5. The DOAA dates the letter and makes copies for the application file folder. The DOAA mails the Fee Estimate Letter and Fee Authorization Letter to the applicant. The applicant must respond within thirty (30) days of the date of the letter or the application is canceled in accordance with the procedures outlined in Section 5.5.
- 5.3.6. The deadline of the thirty (30) day response period for the applicant to return the Fee Authorization Letter is entered on the PAR log and tracked by the DDP.
- 5.3.7. The application information is entered in the PAR sheet by the DDP. The following information is entered:
  - 5.3.7.1. Application date
  - 5.3.7.2. Company application number
  - 5.3.7.3. PAR number
  - 5.3.7.4. Company name
  - 5.3.7.5. Mine identification number
  - 5.3.7.6. Mine name
  - 5.3.7.7. Type of equipment
  - 5.3.7.8. Date received in ESD
  - 5.3.7.9. Date assigned to investigator (entered later)
- 5.3.8. The application package is placed in a file folder and placed in a pending file until the fee authorization is received.

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- 5.4. Receive Fee Authorization Letter - Upon receipt, the fee authorization letter and all other correspondence from the applicant are placed in the application file folder and entry is made on the PAR form by the DDP that the fee authorization has been received.
  - 5.5. Cancel Investigation - If the applicant requests that the action be canceled, or if the Fee Authorization Letter has not been returned by the applicant within thirty (30) days of the date of the Fee Estimate Letter, the application is canceled.
    - 5.5.1. If the fee authorization has not been received, the DDP telephones the applicant to determine why the fee authorization has not been returned.
    - 5.5.2. The DDP prepares a cancellation letter.
    - 5.5.3. The Team Leader or designate reviews the letter and initials the surname block on the "copy" tag. The letter is forwarded to the division office for review and Division Chief or designate concurrence.
    - 5.5.4. After Division Chief or designate concurrence, the DOAA forwards the letter to the center office to obtain the Center Chief signature.
    - 5.5.5. When the DOAA receives the signed letter from the center office, types in the date. Copies are made for IPSO and ESD. The letter and application package are mailed to the applicant.
    - 5.5.6. The DOAA enters the date of the cancellation letter on the status code 7N line of the PAR. (Status code 7F is used only when hours have been charged to the PAR.) The PAR form is forwarded to IPSO. The DOAA updates the PAR log.
  - 5.6. Assign Application - If the fee is authorized by the applicant, the application is placed in the awaiting initial action file. The PAR is assigned to an investigator by the supervisor for technical evaluation.
    - 5.6.1. Applications are assigned in the order they are received with the following exceptions:
      - 5.6.1.1. A request is received from Coal Mine Safety and Health or Metal Non-Metal Safety and Health stating that, in the interest of safety or health, the field modification is needed on a priority basis, or;

- 5.6.1.2. A pre-authorization notice has been included in the application package by the applicant. In the interim, the investigator will provide an estimate of the total anticipated charges and continue with processing or cancel the action depending upon the applicant's response to the estimate letter. If the fee authorization has not been received within the 30 day period, the cancellation procedures in Section 5.5 are implemented.
- 5.6.2. The status code 3 line on the PAR is dated, the assigned employee number is entered in the "Empl" block, the space for "Equipment Description Verbal" is filled in with the model number and type of equipment, and a five digit equipment description code number, best describing the equipment, is entered in the "Description" space by the Team Leader or the DDP. The application is forwarded to the investigator.
- 5.7. Technical Evaluation - The application package is received by the investigator.
  - 5.7.1. The investigator begins evaluation of the application to determine compliance with established regulations, policies, and procedures. The investigator will ensure that the fees being charged do not exceed the fee authorization. The investigator will notify the Team Leader or designate before the fees being charged exceed the fee authorization. The Team Leader or designate will then arrange for a re-estimate to be prepared in accordance with Section 5.3. When the fee authorization letter is received, the investigation will proceed.
- 5.8. Prepare Discrepancy Letter - If discrepancies exist, the investigator prepares a discrepancy letter to the applicant and submits it to the Team Leader or designate for review. The Team Leader or designate reviews the draft letter. If questions arise concerning clarity or technical content, they are resolved with the investigator and the letter is returned to the investigator.
  - 5.8.1. The investigator notifies the applicant of the discrepancies listed in the discrepancy letter.
  - 5.8.2. The investigator reviews the discrepancy letter. The investigator signs the letter and forwards it to the DOAA.
  - 5.8.3. The DOAA enters the date on the letter and makes copies for the investigator, IPSO, and ESD. The DOAA mails the letter to the applicant. If requested, letters are sent to the applicant by other available methods.

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- 5.8.4. If the response to the discrepancies is received before the discrepancy letter is mailed, the letter is placed in the application file folder without mailing. The application then progresses to Section 5.9.
  - 5.8.5. The investigator places the PAR in status 4C - "Awaiting Company Action" by entering 4C and the date of the discrepancy letter on the Project Status Update Form under the "STATUS CHANGES CODE/DATE" block adjacent to the application PAR number.
  - 5.8.6. If the applicant has not responded to the discrepancy letter within six (6) months of the date of the discrepancy letter the application is canceled in accordance with Section 5. (Reference APOL1009, Application Cancellation Policy.)
  - 5.9. Receive Response to Discrepancy Letter - The investigator receives the applicant's response to the discrepancy letter.
    - 5.9.1. The investigator updates the status of the PAR on the Project Status Update Report to a status 4R when the investigator is working on other assignments, and a status 3 when the investigator returns to the application.
    - 5.9.2. The response is reviewed to determine whether each discrepancy has been adequately addressed. An additional discrepancy letter is written notifying the applicant of any items not addressed or items where the response was not adequate. Additional discrepancy letters are processed in accordance with the procedures outlined in Section 5.8.
    - 5.9.3. When the technical evaluation is completed and all discrepancies are corrected:
      - 5.9.3.1. A letter is sent to the applicant requesting the machine/system be made available for inspection.
      - 5.9.3.2. If the machine(s) is located at a repair facility, the team leader or designate of the Quality Assurance Division will be contacted to see if they can inspect the machine(s). In this case, the application will not be forwarded to the MSHA District Office until the Field Modification acceptance letter is sent to the district.
      - 5.9.3.3. If the inspection is at the mine site, a copy of the field modification request will be forwarded to the appropriate MSHA District Office. The

MSHA Office will assign an inspector to verify the information documented in the application. A&CC may also inspect the machine at the repair facility.

5.10. A&CC investigators can only verify approval documentation. They can not provide approval drawings or proprietary information about the approved machine or its components. If the applicant needs this type of information, it must be obtained from the original equipment manufacturer.

#### 5.11. Equipment Inspection Preparation

5.11.1. The machine(s) are to be made available for inspection within six (6) months after notification that the application has been evaluated. If, after the six (6) month period, the machine(s) has not been made available for inspection, the application will be cancelled.

5.11.2. The modified equipment can not be placed in service until permission is given by the MSHA District Office or a Field Modification Acceptance letter is signed by the A&CC Center Chief.

#### 5.12. Inspection

5.12.1. Inspect Machine/System - The machine/system is inspected in accordance with 30 CFR, 18.61, and ASOP2033, "Guidelines for Inspection of Electric Motor Driven Mine Equipment." Discrepancies found during the inspection are resolved in accordance with the procedures outlined in Section 5.8.

5.12.2. After completing the field inspection, the District Office will send a Field Modification Inspection Report to A&CC.

5.12.3. If the District Office determines that the modification will constitute a hazard due to the particular mine environment in which the machine(s) will operate, or the Field Modification Request is not in compliance with the applicable provisions of 30 CFR, Parts 57 or 75, the District Office will notify A&CC that the request should not be accepted. In this case, the cancellation procedures indicated in Section 5.5 are followed

#### 5.13. Acceptance

5.13.1. If the application is determined by the A&CC to meet all applicable requirements, a letter of Field Modification Acceptance will be sent to the

applicant. An invoice for the total cost of the investigation will then follow. Copies of the notification will also be sent to the District Office.

#### 5.14. Finalize Documentation for Approval/Evaluation

5.14.1. The investigator drafts the Field Modification Acceptance letter. The necessary drawings and other documents are assembled into a complete package and submitted to the Team Leader or designate for review.

5.14.1.1. The investigator prepares a Field Modification Information Sheet describing the modification (see Appendix) and labels all data sheets for entry into the MIMS system

5.14.1.1.1. Data Sheet (DS) designation:

04 - Field Inspection Report

05 - Application

09 - Field Modification Acceptance Letter

11 - Component photographs

MA - Important Misc. Admin Correspondence

MT - Misc. Tech (Drawings, technical vendor documentation, etc.)

5.14.2. The Team Leader or designate reviews the package. Questions concerning clarity or technical content are resolved with the investigator, at which time the package is returned to the investigator.

5.14.3. The field modification package is forwarded to the division office for review and Division Chief or designate concurrence.

5.14.4. Once the Division Chief or designate has concurred, the DOAA forwards the Field Modification Acceptance letter to the center office to obtain the Center Chief signature.

5.14.5. When the signed Field Modification Acceptance letter is received by the DOAA, the letter is dated, and copies of the letter are made for IPSO, and ESD. The letter is mailed to the applicant. If requested, letters are sent to the applicant by other available methods.

5.14.6. The DOAA enters the date of the Field Modification Acceptance letter on the status code 6F line of the PAR. The PAR is forwarded to IPSO.

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[Appendix]  
FMOD Information Sheet  
To accompany each Field Modification Application  
(This form is not scanned into the system)

MIMS Fields

File:

PAR:

Mining Company:

Mine Name:

Mine I.D.:

Equipment Description:

Equipment Manufacturer:

Approval No.:

Approval Ext.:

Model No.:

Serial No.:

Description of Modification: (limited to 50 characters)

List of Data Sheets

Data Sheets

Number submitted

Field Inspection - 04  
Application - 05  
Acceptance Letter - 09  
Photographs - 11  
Misc. Admin (Correspondence) - MA  
Misc. Tech (Drawings, etc.) - MT

Data Sheet Cover Letter

Sheet 1 of 1

MR:

Data Sheet Type:

(04, 05, 09, 11, MA, or MT)

Drawing Title:

Comment 1:

Comment 2:

Comment 3: