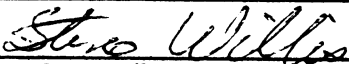
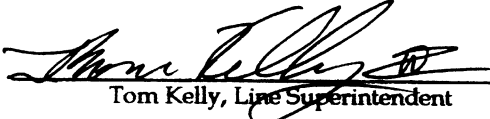




MATANUSKA ELECTRIC ASSOCIATION, INC.

SWITCHING, TAGGING & CLEARANCE PROCEDURES
FOR
TRANSMISSION & DISTRIBUTION SYSTEMS

January 3, 2001

APPROVED:	 _____ Steve Willis, Dispatch Manager	January 3, 2001 Date
	 _____ Tom Kelly, Line Superintendent	January 3, 2001 Date



MATANUSKA ELECTRIC ASSOCIATION, INC.

SWITCHING, TAGGING & CLEARANCE PROCEDURES FOR TRANSMISSION & DISTRIBUTION SYSTEMS

I. Introduction

- A. **PURPOSE:** The purpose of this Procedure is to:
1. Establish coordinated and consistent Switching, Tagging, and Clearance Procedures throughout the MEA Transmission and Distribution Systems.
 2. Comply with the OSHA Final Rule 1910.269, Paragraphs (d) and (m), as it applies to the MEA Transmission and Distribution Systems.
 3. Enhance personnel's knowledge of requirements and procedures as it applies to MEA's Transmission and Distribution Systems.
- B. **SCOPE:** This Procedure establishes guidelines and operating criteria that shall be adhered to by all MEA personnel working on or around the MEA Transmission and Distribution Systems.
- C. **REFERENCES:** References include Title 29 (Labor) of the Code of Federal Regulations, OSHA Final Rule 1910.269 (adopted by reference in Alaska DOSH Manual, Subchapter 01, General Safety Code, Article 15) and the APPA Safety Manual for an Electric Utility, 1994. More restrictive government codes, statutes and regulations take precedence over this Procedure when applicable.
- D. **REVIEW AND REVISION:** **Operations** will initiate and conduct a review of this Procedure annually from the effective date to ensure that the guidelines and criteria remain current for continued safe and reliable operation of the MEA power system.

Proposed revisions will be coordinated through **Operations**. A Revision Form, (Attachment #1) , is included for proposed changes. An employee may request a change to this Procedure for safety or other reasons at any time. The request shall be made in writing on the Revision Form and submitted to **Operations** for review.

E. **INTERPRETATIONS:** The stated interpretations for the following words shall be applied throughout this Procedure:

1. **“May”** Permissive choice
2. **“Must”** Mandatory
3. **“Shall”** Mandatory
4. **“Should”** Advisory
5. **“Will”** Mandatory, but allowing the responsible employee or party some discretion as to when, where, and how.
6. **“Identify”** The circuit and/or equipment being worked.
7. **“Isolate”** Open all known sources of energy.
8. **“Test”** Verify live or de-energized conditions.
9. **“Ground”** Application of protective grounding equipment for the protection of employees.
10. **“Check Phasing”** Check for difference of potential between switching points.

F. **NOTE:**
Gender specific words used in this Procedure such as He, She, His, Linemen, etc. are intended to be generic unless referring to a particular individual.

G. **PHILOSOPHY OF CLEARANCE PROCEDURES:** The following principles are considered basic to the safe operation of the MEA electric supply system:

1. Physical safety of employees and the public.
2. Integrity and reliability of the electric supply system.
3. Protection of equipment.
4. Service to the customer.
5. Qualified personnel.
 - a. Employee Training: Before undertaking tasks or duties under this procedure, each MEA employee shall demonstrate their

knowledge of relevant practices and procedures contained in MEA's Switching, Tagging, & Clearance Procedures for Transmission & Distribution Systems.

- b. Authorized Personnel will perform all Switching, Tagging, and Clearance Procedures, except as provided for in Section H "Emergencies."
- H. **EMERGENCIES:** In an emergency, Authorized Personnel may modify or suspend any of these guidelines temporarily as may be considered necessary to permit proper handling of the specific emergency. If emergency switching is required and Authorized Persons are not available, others may be used. They may be parties who are deemed qualified to do the switching by the Dispatcher or other employees of MEA authorized to direct switching.

In handling such emergencies, safety of personnel shall be given paramount consideration. Deviations from this Procedure will be documented and reported to the appropriate Authority as soon as possible, normally before the end of the shift.

- I. **VIOLATION OF PROCEDURE:**
 1. **Clearance Procedure Violation:** A Clearance Procedure Violation is defined as an error or omission that results in actual or potential danger to MEA personnel.
 2. **Disciplinary Action for Clearance Procedure Violation:** Alleged or perceived violations of the Clearance Procedure will be investigated by a party assigned by the Operations Manager. The supervisor(s) shall immediately notify the Operations Manager of the commencement of the investigation. They will document these investigations on a Clearance Violation Report (Attachment 2). This report will be sent to the MEA Safety Manager. If it is determined that a violation of the Clearance Procedure has occurred, disciplinary action against the involved persons(s), up to and including termination, may be taken.

II. Definitions

- A. **AFFECTED PERSON OR AFFECTED EMPLOYEE:** An " Affected Person" or " Affected Employee" under this procedure is anyone whose job requires

them to operate or use a machine or equipment on which servicing or maintenance is being performed under this Switching, Tagging, and Clearance Procedure or whose job requires them to work in an area in which such servicing or maintenance is being performed. This includes anyone who has access to transmission and distribution areas and may be required to enter areas where elements of this Switching, Tagging, and Clearance Procedure are in effect.

- B. **AUTHORIZED PERSON OR AUTHORIZED EMPLOYEE:** An "Authorized Person" or "Authorized Employee" is someone who has successfully completed MEA's *Switching, Tagging, and Clearance Procedures Training Program*, is designated as an Authorized Clearance Holder, and is authorized to perform switching and equipment isolation. Dispatchers shall meet the qualification standard of an "Authorized Person" or "Authorized Employee," with the exception of field switching qualification.
- C. **CLEARANCE:** A "Clearance" is a condition achieved when all known hazardous energy sources are isolated and properly red tagged. A Clearance ensures the isolation of all electrical energy sources and/or provides a mechanical block of all hydraulic, steam, mechanical, pneumatic, chemical, and other energy sources from personnel when equipment or systems are taken out of service for modification or repairs.
- D. **TERMINAL CLEARANCE:** A "Terminal Clearance" is a written or verbal statement, supported by documentation and issued by a Dispatcher to another utility's Dispatch Section, which declares that a specific terminal, under the jurisdiction of the Dispatcher issuing the Terminal Clearance, has been opened, verified open, blocked, and Red Tagged to the Dispatch Section of the utility or agency receiving the Terminal Clearance.
A Terminal Clearance is issued by one utility Dispatch Section to another utility Dispatch Section. It is never issued to a Workman. The receiving Dispatch Section may subsequently issue their own Clearance to their Workman using their Clearance Procedures.
- E. **CLEARANCE HOLDER:** The "Clearance Holder" is the individual who, after successfully completing MEA's *Switching, Tagging, and Clearance Procedures Training Program*, accepts and takes primary responsibility for Clearance and maintenance activities taking place under that Clearance.
- F. **DISPATCHER:** A "Dispatcher" is an MEA Authorized Employee with the overall responsibility for operating MEA's transmission and distribution systems and for directing Switching, Tagging, and Clearance Procedures within the transmission and distribution systems.

- G. **HOT LINE ORDER:** A Hot Line Order is a statement with documentation (Hot Line Tag) from a Dispatcher to a Job Supervisor that the automatic reclosing is turned off and that the equipment covered by the Hot Line Order will not be intentionally re-energized until contact has been made with the Job Supervisor holding the Hot Line Tag.
- H. **JOB SUPERVISOR:** A "Job Supervisor" is any person authorized to request, receive, and release Clearances and/or Hot Line Orders and who is charged with the responsibility of meeting the requirements of this Procedure during the job.
- I. **SWITCHMAN:** A "Switchman" is an Authorized Person to perform switching, tagging and clearance operations.
- J. **WORKMAN:** A "Workman" is any person authorized and qualified to inspect, service, repair or otherwise be in contact with equipment. Those qualified may include but are not limited to dispatchers, foremen, operators, linemen, electricians, technicians, mechanics, inspectors, metermen, supervisors, and engineers.

III. General Responsibility and Authority

- A. **DISPATCH CENTER:** *The MEA Dispatch Center shall be the sole source of authority for all switching on the MEA system. The Manager of Dispatch may delegate authority to qualified persons to issue switching orders and perform switching operations. This authority is delegated to the System Dispatchers in order that they may perform their assigned duties and responsibilities.*
- B. **OPERATIONS DIVISION:** The Operations Division is charged with the authority and responsibility for the construction and maintenance of MEA's electrical systems. The Operations Manager is responsible for providing protection of personnel within MEA's service areas.
- C. **MEA SUPERVISORS:** MEA Operations will ensure that the requirements of this Procedure are understood and strictly adhered to by all affected employees. Each division supervisor shall furnish Dispatch a list of their employees and contractor personnel who are authorized to receive Clearances and/or Hot Line Orders or perform switching on the transmission and distribution systems. Division supervisors shall keep their list current. These lists will be maintained in the Dispatch Center.

1. **Individual Authority:** It is the responsibility of each department supervisor to advise their personnel as to the extent of their individual authority . It is the responsibility of each employee to confine his activities within his authority .
- D. **COMMUNICATIONS:** When Switching Orders, Clearances, and instructions are implemented by radio, it is essential that personnel identify themselves to each other when beginning any radio communication.
1. Conversations must be clear, concise, and conducted in a business-like manner. Precise communication is critical to safety .
 2. Personnel must exchange information using proper line and equipment terminology so that all parties have a clear understanding of the work to be performed.
 3. Switching orders are to be repeated back as follows:
 - a. **Dispatcher orders operation to be performed.**
 - b. **Switchman repeats operation to be performed back to the Dispatcher.**
 - c. **Dispatcher verifies read back was correct.**
 - d. **Then and only then may the Switchman perform the operation.**
 - e. **Switchman reports operation accomplished.**
 - f. **Dispatcher repeats operation accomplished back to Switchman.**
 - g. **Switchman verifies read back correct.**
 4. **Radio Channels for Normal Operating Conditions:**
 - a. During normal operating conditions. the following radio channels will be used:
 - (1) Channel 1- Administration.
 - (2) Channel 2- OPS Operations and Dispatch. [Also see below * for *emergency* situations.]
 - (3) Channel 3- Talk 1.

- (4) Channel 4- Talk 2.
- (5) Channel 5- Clearing
- (6) Channel 6- Bonnie
- (7) Channel 7- Bonnie 2
- (8) Channel 9- Borough Emergency
- (9) Channel 10- State Emergency

* **During *emergency* operations, Channel 2 will be used for all communications.**

- 5. **In a lost communication condition, switching operations will cease until contact is made with Dispatch.**

Radio silence will be observed during switching operations to the extent this operation requires.

- 6. All Personnel Entering a Substation or Switchyard: Upon their arrival and departure, employees entering a substation or switchyard shall report to the Dispatcher having jurisdiction and advise him of the nature of their work.

IV. Materials for use with this procedure

- A. **MEA CLEARANCE REQUEST FORM:** This form is used to request switching operations on the MEA Distribution system. This form should be submitted to the Dispatcher a minimum of 48 hours, when practicable, prior to the start of switching. (See Attachment 3.)
- B. **MEA SWITCHING ORDER FORM:** The Switching Order form is used to formalize and document each step of the switching process and to establish Clearances and Special Conditions. Each Switching Order shall be given a unique, sequential Serial Number that shall be assigned and recorded in the Switching Order Log. When a Clearance is issued or released in conjunction with a Switching Order, the Clearance Number shall appear in the Switching Order. (See Attachment 4.)

- C. **SWITCHING ORDER LOG:** The Switching Order Log shall include the unique, sequential Serial Numbers assigned to the Switching Order. The first two digits of the sequential Serial Numbers shall designate the current year.
- D. **CLEARANCE/HOT LINE ORDER LOG:** All Clearances, Terminal Clearances and Hot Line Orders shall be numbered and logged in the Clearance Log. Information to be logged shall include: Clearance/Hot Line Order Number, Date/Time Issued and Released, To Whom Issued, and Crew Location.
- E. **DANGER MEN AT WORK TAG (RED TAG):** This tag is used for the protection of personnel and shall convey the warning "DO NOT OPERATE." (See Attachment 5.)
- F. **HOT LINE TAG:** This tag is placed on "Field" breaker controls or "Supervisory Points" to indicate that the automatic reclosing relay has been disabled and that the equipment is not to be re-energized until permission has been received from the person holding the Hot Line Tag. (See Attachment 6.)
- G. **SPECIAL CONDITION TAG:** This tag is used to indicate unusual conditions and/or special operating instructions on lines or equipment. (See Attachment 7.)
- H. **MIMIC BOARD:** The Mimic Board is a schematic representation of the system showing current connection status.

V. Transmission and Distribution Switching Procedure

- A. **CLEARANCES AND GENERAL SWITCHING:**
 - 1. **Purpose:** Clearances are used to establish, in a formal, coordinated and safe manner, a de-energized area within which Workmen can perform their assigned tasks in a safe manner. A Clearance is for the protection of personnel; equipment protected is incidental. A Clearance provides protection against accidental energization from known sources of energy. It does not provide protection against occurrences such as lightning strikes, induced electrical energy, or falling conductors from nearby circuits. Protection against such hazards is provided by proper personal grounding and is the responsibility of the Job Supervisor,

Foreman and Workman.

The objective in applying a Clearance is to isolate and Red Tag a line or piece of equipment to be worked on with a defined perimeter of protection by identifying, opening, tagging, and disabling all known sources of electrical energy.

2. **General Switching:** General Switching is performed for line sectionalizing or system rearrangement due to changes in system operating conditions. Such operations are not normally associated with Clearances, Hot Line Orders, or Special Conditions.

B. **RESPONSIBILITY AND AUTHORITY:**

1. **Dispatcher:** The Dispatcher is responsible for issuing Clearances on MEA lines and equipment, preparing Switching Orders, and directing switching operations. He is also responsible for coordinating switching and tagging of equipment affected by the Clearance with other users and with other known Work Requests and Clearances in effect.

The Dispatcher Shall:

- a. Plan a system configuration and prepare a Switching Order by which the loads can be carried safely within system limits.
 - b. Ensure that load break capabilities of equipment will not be exceeded.
 - c. Notify the Switchman of any significant load pickup or breaking of loads during switching operations.
 - d. Whenever possible notify the Job Supervisor of any energized equipment in close proximity to the equipment under the Clearance that is within Dispatcher jurisdiction.
 - e. Ensure that ground switches, where available, are closed and Red Tagged. When granting a Clearance on such equipment, the Dispatcher shall notify the Job Supervisor to whom the Clearance is granted that the equipment is tagged, and the ground switches are closed at the station end.
 - f. Update the Mimic Board.
2. **Job Supervisor:** The Job Supervisor is responsible for (1) requesting

Clearances from the Dispatch Center prior to performing any work and (2) ensuring that the protection provided by the Clearance is adequate to carry out the work in a safe manner.

When requesting a Clearance, the Job Supervisor will provide the Dispatcher with the following information:

- a. Specific line and/or equipment to be worked on.
- b. Date, time, and length of time the Clearance will be needed.
- c. Work proposed.
- d. Method of communication if other than normal radio channel.
- e. Arrangements made for any customer outages.
- f. Estimated time required to return the equipment to service in an emergency. Any additional information related to the planned work as requested by the Dispatcher.

Prior to the time of the planned work, the Job Supervisor shall contact the Dispatcher for final agreement on the time frame and conditions of the Clearance.

If restoration switching is required, the Job Supervisor will make every attempt to notify the Dispatcher by radio one hour in advance of completion of work.

3. **The Switchman:** The Switchman shall do all switching, tagging, and disabling of controls as directed by the Dispatcher and verify each step as it is completed. All switching and tagging orders issued by the Dispatcher shall be repeated back, and the following shall be accomplished:
 - a. **All** switches shall be visually checked prior to operation for proper identification and status.
 - b. **All** SF6 switches shall be checked for proper pressure before opening, if practical.
 - c. **All** switches shall be visually checked after operating to be sure the switch has operated properly and is secure.
4. **The Workman:** The Workman is responsible for understanding the Clearance limits and for obtaining permission from the Job

Supervisor holding the Clearance before working on equipment within the perimeter of the Clearance.

NO PERSON SHALL BE REQUIRED TO WORK ON A JOB OR PIECE OF EQUIPMENT THAT HE CONSIDERS UNSAFE.

An employee may request any additional protection he deems necessary.

5. **General:**

- a. All switching and tagging, and any work that may affect system integrity, shall be done with the knowledge of and under the direction of the Dispatcher having jurisdiction.
- b. Jumpers to be opened shall be identified by "Pole Number". The Dispatcher shall ensure that the Job Supervisor and Switchman are aware of the direction of energy feed at all jumpers. Job Supervisors and Workmen shall remain aware of any jumper curled back and assume that it is hot.
- c. Switching devices shall be identified by Equipment Number.
- d. All lines and equipment shall be considered energized until testing and grounding prove it to be de-energized.

e. **Identify, Isolate, Test & Ground.**

C. **PLACING A CLEARANCE**

The Job Supervisor shall request a Clearance from the Dispatcher as soon as practical or at least 48 hours in advance of the time required, except in emergencies, and shall give the required information and the perimeter needed for adequate protection.

Before switching is started, the Dispatcher, where possible, will prepare a Switching Order that shows the sequence of the required switching operations. All Switching Orders will be checked by a second qualified person when possible.

Every person involved in placing and issuing a Clearance shall review the Switching Order. If there are any questions as to its completeness or correctness, these questions shall be resolved before switching is started. If questions arise during the switching operation, they will be resolved before continuing with the Switching Order.

After verification by the Switchman that all operations called for in the Switching Order have been completed and all Tags placed, the Dispatcher shall state, to the Job Supervisor receiving the Clearance, the exact limits of the clearance.

All equipment must be correctly and positively identified.

The Job Supervisor receiving the Clearance shall repeat back to the Dispatcher the exact limits of the clearance.

After all the above requirements have been fulfilled, the Dispatcher shall issue the Clearance to the Job Supervisor.

The Dispatcher shall then log the information in the clearance log. The Clearance information shall include the time the Clearance was issued, the Clearance Number, and to whom the Clearance was issued and location of work (pole number and physical location.)

Once the Job Supervisor has accepted the Clearance, it is his responsibility to ensure all Workmen under his direction understand the Clearance limits and the personal protection provided. It is also the responsibility of the Job Supervisor to inform the Workmen of any energized lines or equipment in close proximity to the equipment under the Clearance.

D. CLEARANCE TAGGING POINTS:

Clearance Tagging Points are the visible opens with Red Tags placed to identify Clearance limits. Switches used as tagging points for Clearances shall be rendered inoperable and/or locked where required.

E. WORKING ON LINES AND EQUIPMENT UNDER CLEARANCE:

Within the limits of the Clearance, the Job Supervisor holding the Clearance may allow Workmen to operate any equipment for the purpose of tests or adjustments.

If, before the work is completed and for testing purposes, it is necessary for the equipment (that is under a Clearance) to be energized from a source other than test equipment, the Clearance shall be released in the usual manner and the test made. The Clearance shall be re-issued before any work continues.

F. Changing of Clearance limits.

1. When the work under a Clearance requires that the Clearance Limits be changed, the established Clearance will be released and a new Clearance issued following the procedures listed below:
 - a. The Job Supervisor shall inform the Dispatcher of all tagging points required for the new Clearance and shall inform all employees under his direction of his intent to release the existing Clearance and to establish new Clearance limits.
 - b. The Dispatcher shall document the request for the new Clearance and prepare a Switching Order to establish the new tagging points. The new tagging points, existing tagging points, and tagging points to be deleted will be defined.
 - c. The existing Clearance shall be released in accordance with Section #V, H. "Releasing a Clearance."
 - d. The new Clearance shall be placed in accordance with Section #V, C. "Placing A Clearance."

G. TRANSFER OF A CLEARANCE

The Clearance Holder may, after consultation with the Dispatcher and after notifying ALL employees working under the Clearance, request the transfer of responsibility for the Clearance to another authorized Clearance Holder. Thereafter, the successor, with full understanding of the details of the Clearance, becomes the Clearance Holder. This will be fully documented on the Switching Order Form and in the Clearance Log.

If, due to unforeseen circumstances, such as absence, injury or illness, it becomes impossible for a Clearance Holder to personally release his Clearance, that Clearance Holder's supervisor shall either take responsibility for the Clearance himself or appoint another authorized Clearance Holder to take responsibility for the Clearance. This will be fully documented on the Switching Order Form and in the Clearance Log.

H. RELEASING A CLEARANCE

The person releasing a Clearance shall be the same person that was issued the Clearance unless responsibility has been transferred under Section #V G "Transfer of a Clearance."

The Job Supervisor will notify ALL employees under his direction of his

intent to release the Clearance. He will ensure ALL men and equipment are in the clear, ALL personal grounds have been removed and ALL equipment covered under the Clearance is safe to operate and is returned to its pre Clearance status (unless otherwise agreed to with the Dispatcher). The Job Supervisor, after meeting ALL the requirements of this section and after informing the Dispatcher of the above, may then release his Clearance to the Dispatcher.

When a Clearance Holder releases a Clearance, he is releasing the Clearance and All Red Tags associated with the Clearance.

I. **RESTORING EQUIPMENT**

The Dispatcher shall notify the Switchman that the Clearance has been released. Responsibility for the Switching Operations that restore the equipment shall follow similar procedures as outlined in Section # V, C "Placing a Clearance."

J. **EMERGENCY SWITCHING:**

In emergencies, qualified personnel may immediately de-energize circuits in a life threatening situation or if requested by a Fire Department, Law Enforcement Officer, or other elected or appointed public official, and perform such switching that, in his opinion, is required. At that time, the Dispatcher shall be notified of switching performed. The circuits shall not be re-energized until information is received that the emergency is over and the Dispatcher is notified. If such switching has been requested by a public official, the name, phone number, address, and official position of the person requesting such switching shall be given in writing to the employee performing the switching as soon as possible.

VI. Hot Line Orders

- A. **PURPOSE:** A Hot Line Order is a formal agreement whereby if a line under a Hot Line Order becomes de-energized, it will not be re-energized automatically or manually without the permission of the Job Supervisor holding the Hot Line Order.
1. Automatic reclosers feeding a circuit under a Hot Line Order shall be disabled and tagged in the field with a yellow Hot Line Tag. SCADA control points will also be tagged. The Hot Line Tag shall also serve as notice to field personnel that the tagged breaker will not be closed without the permission of the Job Supervisor holding the Hot Line Order.

2. Switchman: The Switchman shall do all deactivating of automatic reclosing devices in the field and place the field Hot Line Tag.
3. Remote controls of circuit breakers under a Hot Line Order shall be inhibited and tagged on SCADA control to prevent remote, unauthorized closing.
4. No switching will be done on the tagged circuit without first notifying the Job Supervisor holding the Hot Line Order. He will also be notified prior to any switching on another circuit which will significantly effect the circuit under the Hot Line Order. No circuit under a Hot Line Order will be tied to another source of feed unless that circuit also has Hot Line protection in the same Supervisor's name.
5. Hot Line Orders shall NOT be issued on a circuit while any work or tests are in progress on protective relays or control circuits which would compromise the tripping of any breakers involved in the Hot Line Order .

B. RESPONSIBILITY AND AUTHORITY:

1. **Job Supervisor:** The Job Supervisor shall do the following:
 - a. Request a Hot Line Order from the Dispatcher and provide him with the specific line and/or equipment to be worked on and any additional information related to the planned work as requested by the Dispatcher.
 - b. Remain at the job site at all times while work is being performed on energized line under this Hot Line Order.
 - c. Inform the Dispatcher when work is complete and release his Hot Line Order.

2. **Dispatcher:** The Dispatcher shall do the following:
 - a. Identify the circuit to be worked on.
 - b. Issue Hot Line Order number and record in Clearance/Hot Line Order Log and Operations Log.

(Revision #2: paragraph removed from this location)

- c. Notify the Job Supervisor of any switching or work that is to be performed on the line or equipment which would compromise the Hot Line Order.
3. **Switchman:** The Switchman shall deactivate field automatic reclosing devices and place the Hot Line Tag.

C. **PLACING A HOT LINE ORDER**

1. The Job Supervisor shall request a Hot Line Order from the Dispatcher and provide him with the appropriate information.
2. The Dispatcher shall:
 - a. Identify the circuit to be worked on.
 - b. Issue Hot Line Order number and record in Clearance/Hot Line Order Log and Operations Log.
 - c. Allow the Switchman to deactivate the field automatic reclosing devices, or verify the automatic reclosing device is deactivated and place the Hot Line Tag on the breaker control. (Revision #3: reworded.)
3. After verifying the above steps are complete; the Dispatcher may issue the Hot Line Order to the Job Supervisor.

D. **RE-ENERGIZING A CIRCUIT WHICH HAS TRIPPED WHILE UNDER A HOT LINE ORDER**

1. NO ONE WILL RE-ENERGIZE A CIRCUIT TAGGED WITH A HOT LINE TAG WITHOUT EXPLICIT PERMISSION FROM THE JOB SUPERVISOR HOLDING THE HOT LINE ORDER.
2. When a circuit which is under a Hot Line Order becomes de-energized, the breaker shall not be closed until the Job Supervisor holding the Hot Line Order verifies it is safe to reenergize his portion of the circuit and releases his Hot Line Order to Dispatch.
3. When the Job Supervisor becomes aware that the line has become de-energized, he shall immediately order all personnel clear of the circuit,

ascertain whether the circuit within his work area can be safely re-energized, and contact the Dispatcher to inform him of the details.

4. Workers will remain clear of the line until the Dispatcher informs the Job Supervisor of the status of the line and whether or not work may resume.
5. Any worker who accidentally causes a line to trip (open) shall notify the Job Supervisor immediately. The Job Supervisor shall immediately contact the Dispatcher to inform him of the details.
6. Once the Job Supervisor holding the Hot Line Order verifies his men and equipment are clear and his portion of the line is safe to re-energize the Dispatcher shall in the following order:
 7. a. Uninhibit SCADA control and close the circuit breaker.
 - b. Re-inhibit SCADA control, if the Hot Line Order is to continue.
 - c. Notify the Job Supervisor that the circuit is energized, the Hot Line Order is in place. and work may resume.

E. **REMOVING A HOT LINE ORDER**

1. Upon completion of the work for which the Hot Line Order was issued, and when all men and equipment are clear, the Job Supervisor will release his Hot Line Order to the Dispatcher.
2. The Dispatcher will remove the inhibit tags from the SCADA system and return the reclosure to its normal configuration, or the Switchman will remove the Hot Line Tag and return the reclosure to its normal configuration.

VII. Tags

A. **RED TAG:**

1. **Purpose:** The Red Tag, colored red with black letters, is used to

convey the warning, "DO NOT OPERATE." The Red Tag on a switch or device shall convey to the observer that the switch or device so tagged is not to be operated, it is to be considered as inoperable as if it were mechanically locked. The Red Tag is shown in (Attachment 5).

2. **Placing Red Tags:**

- a. The Switchman/ Authorized Person will verify with the Dispatcher that all entries are the same with regard to Switch #, Equipment #, Date and Time. The unique Red Tag # shall be given to Dispatcher to be recorded on the Switch Log.
- b. A Red Tag shall be attached to the control device(s) of the switches/devices used to provide a visible opening for a section of line or piece of equipment. The Red Tag shall also be used to designate "closed" ground switches. A separate Red Tag shall be made out for each and every Clearance Point.

3. **Releasing Red Tags:**

When the Clearance Holder releases a Clearance, all associated Red Tags will then be considered released.

4. **Removing a Red Tag:**

No Red Tag will be removed until the associated Clearance is released. The Switchman/ Authorized Person will receive verification from the Dispatcher that the Clearance and all associated Red Tags have been released. The Switchman/ Authorized Person may then be given the order to remove the Red Tag(s). Once the Red Tag(s) are removed, the switching/isolating device may be operated. Red Tag(s) will be returned to the Dispatch Center.

B. **HOT LINE TAG:**

1. **Purpose:**

The Hot Line Tag, colored yellow with red letters, is used in connection with Hot Line Orders and is placed on circuit breaker controls to indicate that automatic reclosing has been disabled. The

Hot Line Tag is shown in Attachment 6.

2. **Placing a Hot Line Tag:**

When a Hot Line Order is requested, the Dispatcher shall complete a Hot Line Tag for each SCADA control to be tagged.

The Switchman/ Authorized person will verify with the Dispatcher that all entries are the same with regard to Hot Line Order #, Description, Work Location, Date and Time.

After the Dispatcher determines that all Hot Line Tags are in place for their respective circuit breakers, the Dispatcher may issue the Hot Line Order.

3. **Releasing a Hot Line Tag:**

Upon release of the Hot Line Order, the Dispatcher shall ensure the Hot Line Tags are removed and the breakers are returned to their normal configuration. Field Hot Line Tags shall be returned to the Dispatch Center as soon as is practicable.

Original Hot Line Tags shall remain posted until the Authorized Person releases the associated Hot Line Order.

C. **SPECIAL CONDITION TAG:**

1. **Purpose:** The Special Condition Tag, colored white with blue letters, is used to designate temporary special conditions affecting equipment. The Tag indicates unusual conditions, special operating instructions, and information on the condition of lines and equipment. The Special Condition Tag is shown in Attachment 7.
2. **THE SPECIAL CONDITION TAG IS NEVER USED TO PROTECT PERSONNEL.**
3. **RESPONSIBILITY AND AUTHORITY:** Any employee who observes equipment that is damaged or in a condition which may limit its operation shall report it to the Dispatcher or his Supervisor.
4. **PLACING SPECIAL CONDITION TAGS:** The Special Condition Tag shall be placed on the equipment by attaching it to the control device in a conspicuous location.
5. **Removing Special Condition Tags:** When conditions requiring the

Special Condition Tag no longer exist, as reported by the Workman responsible for the repair, the Dispatcher shall order the removal of the Special Condition Tag. At that time, it will be dated by the responsible Workman as "removed." Once removed, the signed off Tag shall be returned to Dispatch.

VIII. Training

A. PURPOSE:

The purpose of training in the use of our switching procedures is to promote awareness of the hazards inherent to these activities. While there is nothing new being presented here, our approach to training will be to simplify, clarify, and codify these procedures with an emphasis on compliance, and awareness of what is being accomplished during these activities.

B. SCOPE:

MEA Supervisors of affected personnel shall provide training to ensure that the purpose and function of the switching, tagging, and clearance procedures are understood and that the knowledge and skills required for safe application and usage of the procedures are acquired by all authorized and affected personnel.

C. REQUIREMENTS:

1. **Authorized person:** persons whose work requires them to hold or sign onto equipment clearances shall be trained prior to being qualified as an authorized person. This training shall be conducted and documented and filed with the Safety Manager, Line Superintendent, or Supervisor. Training of authorized persons will include the following:
 - a. Review of the purpose and function of MEA's switching, tagging, and clearance procedures.
 - b. The safe application, usage, and removal of equipment clearances.
 - c. Training specifically concerning red tags which shall include procedures for placement and removal of red tags to include the following:

- (1) Tags are not to be removed without proper authorization from the clearance holder in accordance with this procedure.
- (2) Tags are never to be bypassed., Ignored, or otherwise defeated.
- (3) Tags must be legible and understandable by all employees.
- (4) Tags and their means of attachment must be of a durability to withstand the environmental conditions encountered in the workplace.
- (5) Tags must be securely attached to isolation points so that they cannot be accidentally or inadvertently removed.

2. **Dispatchers:**

These employees shall be trained to the same proficiency as authorized person.

3. **Affected employees:**

Employees whose work operations may be in the area where energy control procedures may be used, are instructed about the procedures and about the prohibition relating to attempts to restart or re-energize equipment or machines that are tagged out.

D. **RECURRENT TRAINING:**

1. Recurrent training: recurrent training will be required on an annual basis for all authorized and affected employees as well as dispatchers. Recurrent training will re-establish employee proficiency and introduce new or revised clearance methods and procedures as necessary. The information outlined in this document must be included.
2. Additional training will be conducted under the following circumstances.
 - a. When an employee changes jobs as related to the equipment clearance procedure.
 - b. When there is a change in machines, equipment, or processes

that presents a new procedure.

- c. When there is a change in the clearance procedure, or any condition deemed necessary.

IX. Audits:

- A. Purpose: audits or inspections are required to inspect and verify the effectiveness of the MEA switching, tagging, and clearance procedures. These inspections are intended to ensure that the procedures are being properly implemented and to provide an essential and continuing check of these procedures under OSHA final rule 1910.269, paragraphs d, and m.
- B. Audits will be conducted at least annually by each section. Audits shall be documented on an annual clearance program audit report which shall include the name of the inspector, date, names of employees included in the inspection, deficiencies, and corrective action.
- C. Audits will be done by an authorized supervisor.
- D. Audits must address the following questions:
 - Do workers understand the MEA switching, tagging, and clearance procedures?
 - Are the proper forms, logs, and tags being used?
 - Are the MEA switching, tagging, and clearance procedures being followed?
- E. All audits will be documented on the MEA annual clearance program audit report form. Audits will remain on file in Dispatch for three years. See Attachment 8.

X. Attachments

- 1. MEA Clearance Procedure Revision Request Form
- 2. MEA Clearance Violation Report Form

3. MEA Clearance Request Form
4. MEA Switching Order Form.
5. Red Tag
6. Hot Line Tag
7. Special Condition Tag
8. MEA Clearance Program Audit Report Form
9. Example: Filled out "Switching Order Form" with new "Job Briefing" added to Switching Order Form
10. Example: DPA/SCADA sheet on Herning Substation

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