MUNICIPALITY OF ANCHORAGE
MUNICIPAL LIGHT & POWER

STANDARD OPERATING PROCEDURE

S-70

SWITCHING, TAGGING, AND CLEARANCE PROCEDURES FOR TRANSMISSION AND DISTRIBUTION SYSTEMS

This publication supersedes all previous policies, procedures or publications of this same subject

REVISION 1


**STANDARD OPERATING PROCEDURE**

**TRANSMITTAL SHEET**

**NUMBER S-70**

**SUBJECT:** SWITCHING, TAGGING, AND CLEARANCE PROCEDURES FOR TRANSMISSION AND DISTRIBUTION SYSTEMS

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**Area(s) Affected:** Transmission, Distribution, and Generation  
**Divisions Affected:** Operations, Generation, and Engineering

**Purpose:**

1) Establish coordinated and consistent switching, tagging, locking, and clearance procedures throughout the ML&P Transmission and Distribution Systems.

2) Comply with the OSHA Final Rule 1910.269, Paragraph (m), as it applies to the ML&P Transmission, Distribution Systems.

3) Define the boundaries between the ML&P Generation and Transmission Systems by defining the boundary devices at ML&P Plants 1 & 2 Switchyards (listed in Attachment 1).

**Attachments and Forms:** Attachments 1-7

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# SWITCHING, TAGGING, AND CLEARANCE PROCEDURES FOR TRANSMISSION AND DISTRIBUTION SYSTEMS

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SWITCHING, TAGGING, AND CLEARANCE PROCEDURES FOR TRANSMISSION, DISTRIBUTION SYSTEMS

I. INTRODUCTION

1.1 PURPOSE: The purpose of this Procedure is to: 1) Establish coordinated and consistent Switching, Locking, Tagging, and Clearance Procedures throughout the ML&P Transmission and Distribution Systems, 2) Comply with the OSHA Final Rule 1910.269, Paragraph (m), as it applies to the ML&P Transmission and Distribution Systems, and 3) Define the boundaries (point-of-separation) between the ML&P Generation and Transmission Systems by defining the boundary devices at ML&P Plants 1 & 2 Switchyards (listed in Attachment 1).

1.2 SCOPE: This Procedure establishes guidelines and operating criteria that shall be adhered to by all ML&P personnel, contractors and third party personnel working on or around the ML&P Transmission and Distribution Systems. Switching, tagging, and clearance operations specifically related to ML&P’s role as Southern Operator of the Alaska Intertie and as Project Dispatcher for Eklutna will be Supplements to this Procedure.


1.4 REVIEW AND REVISION: All proposed revisions or changes to the procedure must be documented and submitted on the Revision Form, Attachment 7. Proposed revisions must be sent to the Safety Director for consideration by the ML&P S-70 review committee.

1.4.1 Review will be accomplished at least annually by committee. The Operations Division Manager, will appoint at a minimum one primary and one alternate employee to serve on the ML&P S-70 review committee, the Safety Director will serve as committee chair.

1.4.2 The committee should meet quarterly to discuss any issues that have arisen during the quarter and to review any of the following:

- Procedure Violation reports submitted, with any investigation reports.
- Procedure Revision forms submitted.
- Training and testing associated with the procedure.
1.4.3 The committee will conduct a review of this procedure to ensure that the guidelines and criteria remain current for continued safe and reliable operation of the ML&P power system. The committee will decide what changes to initiate based on the above listed information, what timeline is appropriate for inclusion of the change, and how the changed or revised document will be distributed.

1.4.5 The Safety Office will make all appropriate revisions to the document as soon as they can be made. The revised document will be reviewed by the committee and division managers before publication.

1.5 INTERPRETATIONS: The stated interpretations for the following words shall be applied throughout this Procedure:

“May” = Permissive choice
“Must” = Mandatory
“Shall” = Mandatory
“Should” = Advisory
“Will” = Mandatory, but allowing the responsible employee or party some discretion as to when, where, and how.

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.

1.6 PHILOSOPHY OF CLEARANCE PROCEDURES: The following principles are considered basic to the safe operation of the ML&P electric supply system:

- Physical safety of employees and the public.
- Integrity and reliability of the electric supply system.
- Protection of equipment.
- Service to the customer.
- Employee Training: Before undertaking tasks or duties under this Procedure, each ML&P employee shall thoroughly understand the relevant practices and procedures in Title 29 (Labor) of the Code of Federal Regulation, OSHA Final Rule 1910.269, and the APPA Safety Manual.
- Authorized Personnel will perform all Switching, Tagging, and Clearance Procedures, except as provided for in Section 1.7 "Emergencies."

1.7 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 Power Dispatcher, Distribution Dispatcher or other employees of ML&P 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 Division Manager as soon as possible, normally before the end of the shift.
1.7.1 EMERGENCY SWITCHING: In emergencies, qualified personnel may immediately de-energize circuits in a life threatening situation or if requested by a Fire Department, or Law Enforcement Officer and perform such switching that, in his opinion, is required. At that time, the Dispatcher shall be notified of switching performed. The circuit(s) shall not be re-energized until information is received that the emergency is over and the Dispatcher is notified.

1.8 VIOLATION OF PROCEDURE:

1.8.1 Procedure Violation: A Procedure Violation is defined as an error or omission that results in actual or potential danger to any personnel.

1.8.2 Disciplinary Action for Procedure Violation: Alleged or perceived violations of the Clearance Procedure will be investigated by the supervisor(s) of the involved persons. The supervisor(s) shall immediately notify the Division Manager and Safety Director at the commencement of the investigation. The supervisor(s) will document these investigations on a Clearance Violation Report (Attachment 6). This report will be sent to the Division Manager and the ML&P Safety Director who may continue the investigation based upon the severity of the offense and the frequency of violation. 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

2.1 AFFECTED PERSON OR AFFECTED EMPLOYEE: An "Affected Person" or "Affected Employee" 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, Locking, 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 generation, transmission, and distribution areas and may be required to enter areas where elements of this Switching, Locking, Tagging, and Clearance Procedure are in effect.

2.2 AUTHORIZED PERSON OR AUTHORIZED EMPLOYEE: An "Authorized Person" or "Authorized Employee" is someone who has successfully completed ML&P's Switching, Locking, Tagging, and Clearance Procedures Training Program, is designated as an Authorized Clearance Holder, and is authorized to perform switching and equipment isolation. Dispatchers and Control Room Operators meet the qualification standard of an "Authorized Person" or "Authorized Employee."

2.3 CLEARANCE: A "Clearance" is a condition achieved when all known hazardous energy sources are isolated, a zero energy state is present, energy control points are locked or physical barriers are in place and the control points are properly red tagged. A Clearance ensures the isolation of all electrical energy sources and/or provides a mechanical block of other energy sources from personnel when equipment or systems are taken out of service for inspection, maintenance, modification or repairs. See also Section VI. "Point of Separation Clearance" and Section VII. "Terminal Clearance."
2.4 **DISPATCHER:** A "Dispatcher" is an ML&P Authorized Employee with the overall responsibility for operating ML&P’s transmission and distribution systems and for directing Switching, Tagging, and Clearance Procedures within the transmission and distribution systems.

2.5 **HOT LINE ORDER:** A Hot Line Order is a statement with documentation (Hot Line Tag) from a Dispatcher to a Job/Crew Supervisor that the automatic reclosing feature of a breaker has been disabled, and further, should the affected breaker open or the affected circuit become de-energized for any reason while the Hot Line Order is in effect, the line shall not be re-energized until contact has been made with the Job/Crew Supervisor holding the Hot Line Tag.

2.6 **JOB/CREW SUPERVISOR:** A "Job or Crew Supervisor" (Line Crew) 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.

2.7 **POINT OF SEPARATION:** The "Point of Separation" is an established boundary between Generations’ or Elmendorf AFB jurisdiction and Power Managements’ jurisdiction.

2.8 **POINT OF SEPARATION CLEARANCE:** This Clearance is used when a Dispatcher/Control Room Operator wishes to obtain a visible open at one or more of the boundary devices to enable work to be done on the Generation Plant or Elmendorf AFB jurisdiction side of the Point of Separation.

2.9 **SWITCHMAN:** A "Switchman" is an Authorized Person to perform switching, tagging, and clearance operations.

2.10 **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.

2.11 **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.

2.12 **EMERGENCY:** A bona fide emergency exists when imminent danger to life is threatened or significant and substantial damage to ML&P, Municipal, or personal property is imminent.
III. GENERAL RESPONSIBILITY AND AUTHORITY

3.1 POWER MANAGEMENT SECTION: The Power Management Section is charged with the authority and responsibility for the overall operation of the ML&P Transmission and Distribution Systems. The Power Management Section Supervisor is responsible for providing protection of personnel within the Power Dispatch and Distribution Dispatch jurisdictions as defined in Attachment 1.

3.2 GENERATION DIVISION: The Generation Division is charged with the authority and responsibility for the overall operation and maintenance of the ML&P Generation and Power Management facilities and systems. The Generation Division Manager is responsible for providing protection of personnel within the Power Generation jurisdictions as defined in Attachment 1.

3.3 OPERATIONS DIVISION: The Operations Division is charged with the authority and responsibility for the construction and maintenance of ML&P's transmission and distribution systems. The Operations Division Manager is responsible for providing protection of personnel within Operations Jurisdiction and ML&P's service area.

3.4 ML&P DIVISION MANAGERS: ML&P Generation and Operations Division Managers will ensure that the requirements of this Procedure are understood and strictly adhered to by all affected employees. Each Division Manager shall furnish the Power Management Section a list of their employees and contractor personnel who are authorized to receive Clearances and/or Hot Line Orders or perform switching on the generation, transmission, and distribution systems. Division Managers shall keep their list current. These lists will be maintained in the Plant Control Rooms and Dispatch Center.

3.5 COMMUNICATIONS: The primary mode of communications used during switching activities shall be via two-way radio. Cell phones may serve as an acceptable secondary form of communications when the primary system is inoperable or when an individual cannot be contacted by radio. When Switching Orders, Clearances, and instructions are implemented by radio, it is essential that personnel identify themselves to each other by call sign when beginning any radio communication.

3.5.1. Conversations must be clear, concise, and conducted in a business-like manner. Precise communication is critical to safety.

3.5.2. Personnel will exchange information using proper line and equipment terminology so that all parties have a clear understanding of the work to be performed.

3.5.3. Switching orders are to be repeated back as follows:

- Dispatcher orders operation to be performed.
- Switchman repeats operation to be performed back to the Dispatcher.
- Dispatcher verifies repeat back was correct.
- Then and only then may the Switchman perform the operation.
Switchman reports operation accomplished.
Dispatcher repeats operation accomplished back to Switchman.
Switchman verifies repeat back correct.

3.5.3 Radio Channels for Normal Operating Conditions:

3.5.3.1 During normal operating conditions, the following radio channels will be used:

- Channel A 1- OPS 1 Operations, Transmission Dispatch, and Distribution Dispatch. (This includes all switching done on the point of separation and outward on the T&D system)
- Channel A 2- OPS 2 Operations, Transmission Dispatch, and Distribution Dispatch alternate
- Channel A 3- Meter Shop
- Channel A 4- Generation.
- Channel A 5- Auxiliary 1
- Channel A 6- Auxiliary 2
- Channel A 7- Direct 1
- Channel A 8- Direct 2

3.5.3.2 During emergency operations: Channel 1 will be used for all emergency communications; channel 4 will be used for all non-emergency communications.

3.5.4 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 shall advise him of the nature of their work.

IV. MATERIALS FOR USE WITH THIS PROCEDURE

4.1 SWITCHING ORDER REQUEST FORM: This form is used to request switching operations on the ML&P Transmission and Distribution systems. This form should be submitted to the Dispatcher a minimum of 48 hours prior to the start of switching. See Attachment 2.

4.2 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.

4.3 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. The Switching Order Log shall also include the date written, the purpose of the Switching Order, the date completed and the individual requesting the switching order.
4.9 **CLEARANCE LOG:** All Clearances, including Point of Separation and Terminal Clearances, shall be numbered and logged in the Clearance Log. Information to be logged shall include: Clearance Number, Date/Time Issued, To Whom Issued, Switching Order Number, Tag Numbers, and Date/Time Released.

4.10 **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 3.

4.11 **HOT LINE TAG:** This tag is placed on breaker controls to indicate that the automatic reclosing feature has been disabled and that the equipment is not to be returned to its normal mode of operation or re-energized until permission has been received from the person holding the Hot Line Tag. See Attachment 4.

4.12 **SPECIAL CONDITION TAG:** This tag is used to indicate unusual conditions and/or special operating instructions on lines or equipment. See Attachment 5.

4.13 **MIMIC BOARD:** The Mimic Board is a schematic representation of the system showing current connection status.

V. **TRANSMISSION AND DISTRIBUTION SWITCHING PROCEDURES**

5.1 **CLEARANCES AND GENERAL SWITCHING:**

5.1.1 **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/Crew Supervisor.

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.

5.1.2 **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.
5.2 RESPONSIBILITY AND AUTHORITY:

5.2.1 Dispatcher: The Dispatcher is responsible for issuing Clearances on ML&P 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:

- Plan a system configuration and prepare a Switching Order by which the loads can be carried safely within system limits.
- Ensure that load break capabilities of equipment will not be exceeded.
- Notify the Switchman of any significant load pickup or breaking of loads during switching operations.
- Ensure, under normal operating conditions, all 34.5 KV elbows are opened or closed only when de-energized.
- Notify the Job/Crew Supervisor of any energized equipment in close proximity to the equipment under the Clearance that is within Distribution Dispatcher jurisdiction.
- Ensure that ground switches, where available, are closed and Red Tagged. When granting a Clearance on such equipment, the Dispatcher shall notify the Job/Crew Supervisor to whom the Clearance is granted that the equipment is tagged, and the ground switches are closed at the station end.
- Update the Mimic Board.

5.2.2 Job/Crew Supervisor: The Job/Crew 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.

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

- Specific line and/or equipment to be worked on.
- Date, time, and length of time the Clearance will be needed.
- Work proposed and Work Sketch and/or Shop Order Number.
- Method of communication if other than normal radio channel.
- Arrangements made for any customer outages.
- 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.

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

5.2.2.3 If restoration switching is required, the Job/Crew Supervisor will make every attempt to notify the Dispatcher by radio one hour in advance of completion of work.
5.2.3 **The Switchman:** The Switchman shall do all switching, tagging, and disabling of local controls as directed by the Dispatcher and verify each step as it is completed on the switching order. All switching and tagging orders issued by the Dispatcher shall be repeated back, and the following shall be accomplished:

- All switches shall be visually checked prior to operation for proper identification and status.
- All SF6 switches shall be checked for proper pressure before opening.
- All switches shall be visually checked after operating to be sure the switch has operated properly and is secure.

5.2.4 **The Workman:** The Workman is responsible for understanding the Clearance limits and for obtaining permission from the Job/Crew 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.

5.2.5 **General:**

5.2.5.1 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.

5.2.5.2 Jumpers to be opened shall be identified by grid point. The Dispatcher shall ensure that the Job/Crew Supervisor and Switchman are aware of the direction of energy feed at all jumpers. Job/Crew Supervisors and Workmen shall remain aware of any jumper curled back and assume that it is hot.

5.2.5.3 Switching devices shall be identified by Equipment Number.

5.2.5.4 All lines and equipment shall be considered energized until testing and grounding prove it to be de-energized.

5.3 **PLACING A CLEARANCE:**

5.3.1 The Job/Crew 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.

5.3.2 Before switching is started, the Dispatcher shall prepare a Switching Order that shows the sequence of the required switching operations. All Switching Orders shall be checked by a second qualified person when possible.
5.3.3 Every person involved in placing and issuing a Clearance shall review the Switching Order whenever practical. 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.

5.3.4 After verification by the Switchman that all operations called for in the Switching Order have been completed and all Safety Tags placed, the Dispatcher shall state, to the Job/Crew Supervisor receiving the Clearance, exactly what protection has been provided.

All switching equipment must be correctly and definitively identified.

The Job/Crew Supervisor receiving the Clearance shall repeat back to the Dispatcher the exact protection provided.

5.3.5 After all the above requirements have been fulfilled; the Dispatcher shall issue the Clearance to the Job/Crew 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.

5.3.6 Once the Job/Crew 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 by that clearance. It is also the responsibility of the Job/Crew Supervisor to inform the Workmen of any energized lines or equipment in close proximity to the equipment under the Clearance.

5.4 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.

5.5 WORKING ON LINES AND EQUIPMENT UNDER CLEARANCE: Within the perimeter of the Clearance, the Job/Crew Supervisor holding the Clearance may allow Workmen to operate equipment that is not Red Tagged, for the purpose of tests or adjustments.

5.5.1 If two or more separate crews are working within overlapping Clearance perimeters, the JOB/CREW SUPERVISORS SHALL ENSURE THAT THE USE OF ANY TEST EQUIPMENT THAT COULD INDUCE A VOLTAGE INTO THE CLEARANCE PERIMETERS OF THE OTHER CREW(S) WILL NOT BE USED WITHOUT AGREEMENT OF THE OTHER CLEARANCE HOLDER(S).

5.5.2 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.
5.5.3 If there are overlapping Clearances on the equipment, the line shall not be re-energized until all Clearances have been released.

5.6 CHANGING OF CLEARANCE LIMITS AND MULTIPLE CLEARANCES:

5.6.1. 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:

- The Job/Crew 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 a new Clearance with a new perimeter.
- 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.
- The existing Clearance shall be released in accordance with Section 5.8 "Releasing a Clearance."
- The new Clearance shall be placed in accordance with Section 5.3 "Placing a Clearance."

5.6.2 A tagging point that is common to multiple Clearances shall be tagged with a separate tag for each Clearance Holder at each common point.

5.7 TRANSFER OF A CLEARANCE:

5.7.1 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.

5.7.2 If the clearance holder becomes unavailable for an unacceptable period of time and cannot personally release the 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. Documentation shall include, at a minimum, the attempted contact of the original clearance holder via their listed work phone, home phone, pager and cell phone.
5.8 **RELEASING A CLEARANCE:**

5.8.1 The person releasing a Clearance shall be the same person that was issued the Clearance unless responsibility has been transferred under Section 5.7 "Transfer of a Clearance."

5.8.2 The Job/Crew 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/Crew 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.

5.9 **RESTORING EQUIPMENT:**

5.9.1 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 5.3 “Placing a Clearance.”

VI. **POINT OF SEPARATION CLEARANCE PROCEDURES**

6.1 **PURPOSE:** Since Tagging and Clearance Procedures for Transmission and Distribution systems are distinctly different than that of Generation, it is important to define the boundary between Transmission & Distribution and Generation Plant facilities at ML&P by identifying the boundary devices. It is also necessary to define how Switching, Tagging, and Clearance Procedures involving the boundary devices themselves shall be conducted.

6.2 **SCOPE:** The Power Dispatcher has jurisdiction and is the tagging authority for the Point of Separation and all line side equipment. The Control Room Operator has jurisdiction and is the Tagging Authority for all equipment on the Plant side of the Point of Separation. A "Plant Point of Separation Clearance" shall not be placed on the Point of Separation boundary device without first obtaining a "Power Dispatch Point of Separation Clearance." See Attachment 1, Section 2 for Points of Separation.

6.3 **POINT OF SEPARATION MAINTENANCE:** If actual work is required on the predetermined Point of Separation, a temporary Point of Separation will be mutually agreed to by the Power Dispatcher and the Generation Plant Control Room Operator. The temporary Point of Separation will be documented on the Switching Order form, the Power Dispatcher's Log, and the Control Room Operator's Log.

6.4 **POWER DISPATCHER:** Only the Power Dispatcher shall authorize the installation of a Red Tag at the Point of Separation. The Red Tag shall be issued to the Generation Plant Control Room Operator. When necessary, to provide a Plant Clearance on the Plant side of a Point of Separation that includes the Point of Separation, Plant personnel
will use the Plant Clearance and Tagging Procedures and will install a Plant Red Tag in addition to the Dispatcher Red Tag. Upon completion of the work, the Generation Plant Control Room Operator will release the Plant Clearance and remove the Plant Red Tag. The Generation Control Room Operator may then release the Dispatcher Red Tag issued to him. **Under no circumstances is a Plant Red Tag allowed to be installed or to remain without a properly authorized Dispatch Red Tag at the Point of Separation.**

The Generation Plant Control Room Operator/Plant Forman will be informed of any switching or tagging to be conducted within the Plant Switchyard and will receive a copy of the prepared Switching Order.

6.5 **REQUESTING A POINT OF SEPARATION CLEARANCE (P.O.S.):** When a Control Room Operator wishes to obtain a visible open at one or more of the boundary devices to enable work to be done within Plant jurisdiction, he shall do so by requesting from the Power Dispatcher a P.O.S. for the specific boundary device. This should normally be requested 24 hours in advance of the requested operation using a Request for Switching form (Attachment 2). Under “Purpose of Switching” on the form, the operator shall specify “Point of Separation Clearance Only.”

6.6 **PLACING A P.O.S.:** Once approved, the Power Dispatcher shall coordinate and direct the switching to create the visible opening(s) as specified in the P.O.S. request. The Switchman creating the visible opening(s) shall do the following at the direction of the Power Dispatcher: open, verify open, disable, and tag the boundary device with a Red Tag. The "For" section of the Red Tag shall read: “Point of Separation Clearance for Control Room Operator.”

6.6.1 In accordance with this Procedure, the Control Room Operator will maintain the Tag Board in the Control Room with the RED TAG Number and all required information on the tag. Once the switching is completed, the completion is verified between the Power Dispatcher and the Control Room Operator, and the Red Tag is posted, the Power Dispatcher shall then issue the P.O.S. Clearance. The Power Dispatcher shall log the P.O.S. Clearance in the Clearance Log, assigning it the next number in the Clearance Log and specifying it to be a “P.O.S. Clearance for Disconnect XXX-XX.”

6.7 **RELEASEING A P.O.S. CLEARANCE:** The Control Room Operator shall take the following actions prior to releasing a P.O.S. Clearance: 1) notify all Workmen involved of the intent to release the Clearance, 2) ensure all Workmen, Switchmen, and Authorized Persons are clear of all equipment, 3) ensure all personal grounds and their respective Red Tags have been removed, 4) ensure all internal (Generation) Clearances associated with the P.O.S. have been released and the corresponding RED TAG(s) removed, confirm that the boundary device(s) are in a safe operating condition with only the Red Tag associated with the Plant Operator’s P.O.S. Clearance still attached.

6.7.1 The Control Room Operator shall release his P.O.S. Clearance to the Power Dispatcher. When releasing the Clearance, the Control Operator shall state that all personnel are clear of the equipment and all grounds have been removed. No switching will take place without direction from the Power Dispatcher.
6.7.2 The Power Dispatcher will note the release in the Clearance Log, together with any condition that may affect operation of the line or equipment. The Power Dispatcher may then coordinate and direct the switching of the boundary device as appropriate. All switching at the point of separation will be conducted by a qualified switchman provided by the Operations Division.

VII. POINT OF SEPARATION CLEARANCE PROCEDURES FOR ELMENDORF AFB (EAFB)

7.1 PURPOSE: Since Tagging and Clearance Procedures for ML&P are distinctly different than that of EAFB, it is important to define the boundaries between ML&P and EAFB by identifying said boundary devices. It is also necessary to define how switching, tagging, and clearance procedures involving the boundary devices themselves shall be conducted.

7.2 SCOPE: The ML&P Power Dispatcher has jurisdiction and is the tagging authority for the Point of Separation (POS) and all line side equipment. EAFB Exterior Electric Shop has jurisdiction and is the Tagging Authority for all equipment on the EAFB side of the Point of Separation. EAFB shall not place a Red TAG on the Point of Separation boundary device without first obtaining a "ML&P Point of Separation Clearance." See ML&P's Standard Operating Procedure S-70, Attachment I, Section III for Points of Separation.

7.3 POINT OF SEPARATION MAINTENANCE: If work is required on the Point of Separation itself, a temporary Point of Separation will be mutually agreed to by the ML&P Power Dispatcher and the EAFB Exterior Electric Shop. The temporary Point of Separation will be documented on the Switching Order form, the ML&P Power Dispatcher's Log, and by EAFB Exterior Electric Shop personnel.

7.4 POWER DISPATCHER: Only the ML&P Power Dispatcher shall authorize the installation of a Red Tag at the Point of Separation. The Red Tag shall be issued to the EAFB Exterior Electric Shop’s Authorized Person. When necessary, to provide a EAFB Exterior Electric Shop Clearance on the EAFB side of a Point of Separation that includes the Point of Separation, EAFB Exterior Electric Shop personnel will use the EAFB Exterior Electric Shop Clearance and Tagging Procedures and will install a EAFB Red Tag in addition to the ML&P Red Tag. Upon completion of the work, the EAFB Exterior Electric Shop will release the EAFB Clearance and remove the EAFB Red Tag. EAFB Exterior Electric Shop’s Authorized Person may then release the ML&P Red Tag issued to him. Under no circumstances is a EAFB Red Tag allowed to be installed or to remain without a properly authorized ML&P Red Tag at the Point of Separation.

7.5 REQUESTING A POINT OF SEPARATION CLEARANCE (P.O.S.): When the EAFB Exterior Electric Shop wishes to obtain a visible open at one or more of the boundary devices to enable work to be done within EAFB jurisdiction, an EAFB Exterior Electric Shop Authorized Person shall do so by requesting from the ML&P Power Dispatcher a P.O.S. Clearance for the specific boundary device. This should
normally be requested 24 hours in advance of the requested operation using a Request for Switching form (Attachment 2). Under “Purpose of Switching” on the form, the operator shall specify “Point of Separation Clearance Only.” This form can be faxed to ML&P Dispatch at 276-2961, or 263-5441.

7.6 PLACING A P.O.S.: Once approved, the ML&P Power Dispatcher shall coordinate and direct the switching to create the visible opening(s) as specified in the P.O.S. Clearance request. The Switchman creating the visible opening(s) shall do the following at the direction of the Power Dispatcher: open, verify open, disable, and tag the boundary device with a Red Tag. The "For" section of the Red Tag shall read: “Point of Separation Clearance for (the name) of the EAFB Exterior Electric Shop’s Authorized Person.”

7.6.1 In accordance with this Procedure, the EAFB Exterior Electric Shop’s Authorized Person will maintain a copy of the Red Tag including the RED TAG Number and all required information on the tag. Once the switching is completed, and the completion is verified between the ML&P Power Dispatcher and the EAFB Exterior Electric Shop’s Authorized Person, and the Red Tag is posted, the ML&P Power Dispatcher shall then issue the P.O.S. Clearance to the EAFB Exterior Electric Shop’s Authorized Person. The ML&P Power Dispatcher shall log the P.O.S. Clearance in the Clearance Log, assigning it the next number in the Clearance Log and specifying it to be a “P.O.S. Clearance for EAFB at Disconnect XXX-XX.”

7.7 RELEASING A P.O.S. CLEARANCE: The EAFB Exterior Electric Shop’s Authorized Person shall take the following actions prior to releasing a P.O.S. Clearance: 1) notify all Workmen involved of the intent to release the Clearance, 2) ensure all Workmen, Switchmen, and Authorized Persons are clear of all equipment, 3) ensure all personal grounds have been removed, 4) ensure all internal EAFB Clearances associated with the P.O.S. Clearance have been released and the corresponding RED TAG(s) removed, confirm that the boundary device(s) are in a safe operating condition with only the Red Tag associated with the EAFB P.O.S. Clearance still attached.

7.7.1 The EAFB Exterior Electric Shop’s Authorized Person shall release their P.O.S. Clearance to the ML&P Power Dispatcher. When releasing the Clearance, the EAFB Exterior Electric Shop’s Authorized Person shall state that all personnel are clear of the equipment and all grounds have been removed. No switching will take place without direction from the ML&P Power Dispatcher.

7.7.2 The ML&P Power Dispatcher will note the release in the Clearance Log, together with any condition that may affect operation of the line or equipment. The ML&P Power Dispatcher may then coordinate and direct the switching of the boundary device as appropriate. All switching at the point of separation will be conducted by a qualified switchman provided by the ML&P Operations Division.

VIII. TERMINAL CLEARANCE
8.1 PURPOSE: The purpose of a Terminal Clearance is to establish a Clearance Point at interface devices between utilities.

8.2 ISSUING A TERMINAL CLEARANCE: When a utilities’ dispatch center requests a Terminal Clearance, the requesting dispatch center shall do so by coordinating his intentions with the issuing utilities’ dispatch center, normally 48 hours in advance of the desired switching time. The Switching Order Request form (Attachment 2) may be used. Under “Purpose of Switching” on the form, the Dispatcher shall specify “Terminal Clearance Only.” Interface devices used in Terminal Clearances shall be specifically identified by both utilities.

Once the coordination between utilities is complete and the Switching Order has been prepared, the issuing Dispatcher shall coordinate and direct the switching to create the visible opening(s) as specified in the Terminal Clearance Request. Once the issuing utility’s Dispatch Section issues the Terminal Clearance, the receiving utility’s Dispatch Section may accept it.

The utilities’ Dispatcher receiving a Clearance will ensure that the issuing utility’s Dispatcher provides the information for completing the Red Tag. The “For” section of the Red Tag shall read, “CEA Terminal Clearance for ML&P Dispatch.” A separate Tag shall be posted on the Dispatch Pin Board for each Authorized Person using the Terminal Clearance.

Tags shall be referenced by number in the Switching Order prepared by the ML&P Dispatcher. The Power Dispatcher shall log the acceptance/issue and release of a Terminal Clearance and all tag(s) associated with the Clearance in the Clearance Log, assigning it the next number in the Clearance Log and specifying it to be a “Terminal Clearance XXXXX.”

In the event that more than one ML&P Authorized Person needs to work under a Terminal Clearance which is already held by ML&P Dispatch, each Authorized Person shall be issued his own set of Red Tags with the Terminal Clearance.

8.3 RELEASING A TERMINAL CLEARANCE: The Dispatch Center holding a Terminal Clearance will inform the issuing Dispatch Center when the work under a Terminal Clearance is complete, all men and equipment are clear and the equipment, device, or line covered by the Terminal Clearance is ready to be returned to its pre-clearance status. The Dispatch Center holding the Terminal Clearance may then release the Terminal Clearance to the issuing Dispatch Center.

The ML&P Dispatcher shall not release a Terminal Clearance until all Authorized Persons for whom the Terminal Clearance Red Tags are posted have released their Clearances in accordance with Section 5.9 "Restoring Equipment to Normal." Then, the ML&P Dispatcher may release the Terminal Clearance to the issuing utility.

IX. HOT LINE ORDERS
9.1 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 by recloser relays, inadvertently via SCADA, or manually without the permission of the Job/Crew Supervisor holding the Hot Line Order.

9.1.1 The automatic reclosing feature of a circuit breaker feeding a circuit under a Hot Line Order shall be disabled and tagged with a yellow Hot Line Tag. 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/Crew Supervisor holding the Hot Line Order.

9.1.2 Remote controls of circuit breakers under a Hot Line Order shall be inhibited and tagged to prevent either remote or manual unauthorized closing.

9.1.3 No switching will be done on the tagged circuit without first notifying the Job/Crew 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.

9.1.4 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.

9.2 RESPONSIBILITY AND AUTHORITY:

9.2.1 Job/Crew Supervisor: The Job/Crew Supervisor shall do the following:

- 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.
- Remain at the job site at all times while work is being performed under his Hot Line Order.
- Inform the Dispatcher when work is complete and release his Hot Line Order.

9.2.2 Dispatcher: The Dispatcher shall do the following:

- Identify the circuit to be worked on.
- Prepare the Dispatch Hot Line Tag.
- Direct a Switchman to disable the breaker’s automatic reclosing feature or verify that the automatic reclosing feature is deactivated and place the Field Hot Line Tag on the breaker control panel.
- Inhibit and tag remote operation (SCADA Control) of the breaker.
- Notify the Job/Crew Supervisor of any switching or work that is to be performed on the line or equipment which would compromise the Hot Line Order.
9.2.3 **Switchman:** The Switchman shall disable the automatic reclosing feature of the breaker and place the field Hot Line Tag.

9.3 **PLACING A HOT LINE ORDER**

9.3.1 The Job/Crew Supervisor shall request a Hot Line Order from the Dispatcher and provide him with the appropriate information.

9.3.2 The Dispatcher shall:
- Identify the circuit to be worked on.
- Prepare the Dispatch Hot Line Tag.
- Direct the Switchman to 1) disable the breaker’s automatic reclosing feature or verify that the automatic reclosing feature is disabled and 2) place the Field Hot Line Tag on the breaker control panel.
- Inhibit and tag SCADA control.
- Place Dispatch Hot Line Tag on mimic board.
- Pin and tag feeder list board.

9.3.3 After verifying the above steps are complete, the Dispatcher may issue the Hot Line Order to the Job/Crew Supervisor.

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

9.4.1 **NO ONE WILL RE-ENERGIZE A CIRCUIT TAGGED WITH A HOT LINE TAG WITHOUT EXPLICIT PERMISSION FROM THE JOB/CREW SUPERVISOR HOLDING THE HOT LINE ORDER.**

9.4.2 When a circuit which is under a Hot Line Order becomes de-energized, the breaker shall not be closed until the Job/Crew Supervisor holding the Hot Line Order verifies it is safe to re-energize his portion of the circuit.

9.4.3 When the Job/Crew 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.

Workers will remain clear of the line until the Dispatcher informs the Job/Crew Supervisor of the status of the line and whether or not work may resume.

Any worker who accidentally causes a line to trip (open) shall notify the Job/Crew Supervisor immediately. The Job/Crew Supervisor shall immediately contact the Dispatcher to inform him of the details.

9.4.4 Once the Job/Crew 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:
- Uninhibit SCADA control and close the circuit breaker.
- Re-inhibit SCADA control, if the Hot Line Order is to continue.
- Notify the Job/Crew Supervisor that the circuit is energized, the Hot Line Order is in place, and work may resume.

9.5 **REMOVING A HOT LINE ORDER**

9.5.1 Upon completion of the work for which the Hot Line Order was issued, and when all men and equipment are clear, the Job/Crew Supervisor will release his Hot Line Order to the Dispatcher.

9.5.2 The Dispatcher will direct the Switchman to remove the field Hot Line Tag and return the recloser to its normal automatic reclosing configuration. Field Hot Line Tags will be returned to the Dispatch Center as soon as practicable.

9.5.3 The Dispatcher will remove the yellow and inhibit tags from the SCADA system, remove mimic board markings, and remove dispatch yellow tag from tag board.

9.6 **Loss of Potential to a Circuit with a Hot Line Tag not caused by the trip of the Tagged Circuit Breaker.**

9.6.1 When a system disturbance results in the loss of potential to a circuit with a Hot Line Tag and the Tagged Breaker has not opened, the following procedure will be followed:

- The Dispatcher shall notify the Tag Holder as soon as practical that the circuit which they are working on is now de-energized.
- The Dispatcher shall remotely trip the tagged breaker.
- The Dispatcher shall notify the Job/Crew Supervisor when the tagged breaker is ready to be closed in order for the workers to clear the circuit.
- The Dispatcher shall then close the tagged breaker energizing the circuit and notify the Job/Crew Supervisor when that action is complete.
X. TAGS

10.1 RED TAG:

10.1.1 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 3.

10.1.2 Placing Red Tags:

10.1.2.1 The Dispatcher/Control Room Operator issuing a Red Tag will verify with the Switchman/Authorized Person that the field Red Tag is filled out with the identical number as the pre-numbered Red Tag and that all other entries are the same as the pre-numbered Red Tag which is retained in the Dispatch Center and/or Control Room. The original will remain posted in a designated area until released by the Clearance Holder to whom it was issued.

10.1.2.2 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 and flange blanks. A separate Red Tag shall be made out for each and every Clearance Point.

10.1.3 Releasing a Red Tag: When the Clearance Holder releases a Clearance, all associated Red Tags will then be considered released. At that point, the Dispatcher/Control Room Operator may begin procedures to remove the Red Tags.

10.1.4 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/Control Room Operator 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.

10.2 HOT LINE TAG:

10.2.1 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 the automatic reclosing feature of a breaker has been disabled. The Hot Line Tag is shown in Attachment 4.
10.2.2 Placing a Hot Line Tag:

10.2.2.1 When a Hot Line Order is requested, the Dispatcher shall complete a Hot Line Tag for each control to be tagged. The originals shall be posted on the appropriate Dispatch Center mimic board.

10.2.2.2 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.

10.2.3 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 automatic reclosing configuration. Hot Line Tags shall be returned to the Dispatch Center as soon as practicable.

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

10.3 SPECIAL CONDITION TAG:

10.3.1 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. An original of each Special Condition Tag shall be retained by the Dispatcher/Control Room Operator in a designated area of the Dispatch Center/Control Room until the special condition is rectified. The Special Condition Tag is shown in Attachment 4.

THE SPECIAL CONDITION TAG IS NEVER USED TO PROTECT PERSONNEL.

10.3.1.1 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/Control Room Operator.

10.3.1.2 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.

10.3.2 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/Control Room Operator 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/Control Room.
XI. TRAINING

11.1 SCOPE: ML&P Division Managers 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 these Procedures are acquired by all Authorized and Affected Personnel.

11.2 REQUIREMENTS:

11.2.2 Authorized Employee: Persons who are fully qualified and whose work requires them to perform any operation or function outlined in this procedure shall be fully trained prior to being deemed an Authorized Employee. Training will include all areas of this procedure that could potentially affect the employee. This training shall be conducted and documented by the Safety Director or a fully qualified designee approved by the Safety Director.

11.3 Initial Training: will consist of academic training conducted by the Safety Office or designee using training materials provided by the safety office. This training will include a performance measurement test. Testing will be open book with a minimum grade of 90 required. If an employee fails the first test a second different test may be administered at the instructors discretion; however, if an employee fails the second test they must re-accomplish training. Training will address the following:

11.3.2.1 Review of the purpose and function of ML&P’s Switching, Tagging, and Clearance Procedures.

11.3.2.2 The safe application, usage, and removal of equipment clearances.

11.3.2.3 Training, specifically concerning Red Tags which shall include procedures for placement and removal of Red Tags to include the following:

- Tags are not to be removed without proper authorization from the Clearance Holder in accordance with this Procedure.
- Tags are never to be bypassed, ignored, or otherwise defeated.
- Tags must be legible and understandable by all employees.
- Tags and their means of attachment must be of a durability to withstand the environmental conditions encountered in the workplace.
- Tags must be securely attached to isolation points so that they cannot be accidentally or inadvertently removed.

11.4 DISPATCHERS: These employees shall be trained to the same proficiency as authorized persons.

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

11.6.1 Retraining will be provided on an annual basis for all Authorized employees as well as for Dispatchers. Testing will not be required during annual retraining. Retraining will be provided by the Safety Director or any approved, qualified designee.

11.6.2 Retraining will re-establish employee proficiency and introduce new or revised clearance methods and procedures as necessary. The information outlined in Section 11.2 must be included.

11.6.3 Additional training will be conducted under the following circumstances.

11.6.3.1 When an employee changes jobs as related to the equipment clearance procedure.

11.6.3.2 When there is a change in machines, equipment, or processes that presents a new hazard.

11.6.3.3 When there is a change in the clearance procedure.

XII. AUDITS

12.1 PURPOSE: Audits or inspections are required to inspect and verify the effectiveness of the ML&P 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, Paragraph (m).

12.2 SCOPE:

12.2.1 Audits will be conducted at least annually by each Division in conjunction with the ML&P Safety Director. 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.

12.2.2 Audits will be done by an Authorized Supervisor.

12.2.3 Audits must address the following questions:

- Do workers understand the ML&P Switching, Tagging, and Clearance Procedures?
- Are the proper forms, logs, and tags being used?
- Are the ML&P Switching, Tagging, and Clearance Procedures being followed?

12.2.4 All Audits will be documented on the ML&P Clearance Report Form and the ML&P Annual Clearance Program Audit Report Form. Audits will remain on file for three years.
ATTACHMENTS
XIII. ATTACHMENTS

ATTACHMENT 1

JURISDICTIONAL ZONES

I. Power Management Jurisdictions—Power and Distribution Dispatcher

The Power Management Supervisor is assigned the responsibility for all the lines and equipment within the Power Dispatcher and Distribution Dispatcher jurisdictions described below, also referred to as the ML&P Transmission and Distribution System. Normally, the appropriate Power or Distribution Dispatcher will approve and direct all switching and operating of the equipment and will issue all Clearances within the ML&P Transmission and Distribution System. The Dispatchers shall also keep the Generation and Operations Divisions informed of the status of equipment affecting those respective divisions.

POWER DISPATCHER JURISDICTION:

115 KV Transmission Lines

Plant II/Plant I .....................#1 -115 KV Line Via Sub 12 and Sub 20.
Plant II/Plant I .....................#2 -115 KV Line Via Sub 14 and Sub 10.
Plant II / APA Sub ..............Eklutna South – 115KV Line to APA Switchyard
Plant I ....................................#3 -115 KV Line Via Sub 6 to Sub 14 and up to and including all equipment in the APA Switchyard.

Switchyards

Plant II 115 KV Switchyard - All Breakers, Switches, and Equipment up to and including Disc. 115-60, 115-61, 115-62 and 115-66.
Plant I 115 KV Switchyard - All breakers, Switches, and Equipment.
CEA 230 KV Switchyard - 230/115 KV transformer TT-9, Disc. 115-78 and 115-78G.
Plant I 34.5 KV Switchyard - All switches associated with 34.5 KV Ring Bus up to and including Disc. 170, 270, 370, 470 and 570.

34.5 KV BKR 730, Disc. 710, 720 and 740 to Plant I 115 KV Switchyard.

34.5 KV BKR 1230, Disc. 1210,1220 and 1240 to Plant I 115 KV Switchyard.
34.5 KVBKR 1130, Disc. 1110, 1120 and 1140 up to and including ABS 233, ABS 231 and Sub21 but not including ABS 5E.

Ft. Richardson…………… Automatic switch cabinets SC352 and SC353, coordinated dispatch of breakers Tie 1(15), Tie 2(18), Tie Bkr 9 and Tie Bkr 21 (Ft. Richardson plant personnel will coordinate all distribution bus reconfigurations with ML&P Power Dispatcher)

POWER DISPATCHER JURISDICTION (CONTINUED):

Substations

Sub 6.................................All 115 KV equipment up to and including Main BKR 4 and Cap BKR 1.

Sub 7.................................All 115 KV equipment up to and including Main BKR 4 and Cap BKR 1.

Sub 8.................................All 115 KV Equipment up to and including Maim BKR 4.

Sub 10...............................All 115 KV Equipment up to and including Main BKR 4 and Cap BKR 1

Sub 12...............................All 115 KV equipment up to and including the transformer. All 34.5 equipment up to and including Disc. 12B

Sub 14...............................All 115 KV Equipment up to and including the station transformer.

Sub 15...............................All 115 KV Equipment up to and including Main BKR 4.

Sub 16...............................All 115 KV Equipment up to and including Main BKR 4.

Sub 20 ..............................All 115 KV Equipment up to and including Main BKR 4.

Sub 21...............................All 34.5 KV Equipment, switches and breakers

Intertie

Teeland Sub........................SVS BKR 1310, Motor Operated Switch 1315, SVS Main Disc. 1325 and all associated SVS equipment.
The 230/138 KV Intertie Transformer.

The 230 KV..........................Line from the Intertie Transformer up to an including Disc. 4717.

The 138 KV..........................Circuit from the Intertie Transformer up to and including BKR 538 and Disc’s 525, 515, and 517, but not including Disc. S5912.

138 KV Line..........................The 138 KV Circuit from Teeland Sub to Douglas Substation including line Disc. TD-100 and TD-101.

The 138 KV..........................Circuit from Douglas Sub North up to midpoint at tower # 382.

Douglas Sub..........................The 138 KV Bus up to and including M.O. Disc. 138-2S3, BKR 138-B1, Disc., 138-1S2, 138-1S3, 138-1S1, 138-T1S1 and 138-T2S1 up to but not including Circuit Switcher TD-200.

Steven's Sub..........................The 138 KV bus including M.O. Disc. TS100, Disc. TS211 and TS221, circuit switchers TS200 and TS201 up to, but not including the MEA distribution transformer.

DISTRIBUTION DISPATCHER JURISDICTION:

34.5 KV Circuits:

34.5 KV
FDR 6 From BKR 630, Disc. 610 and Disc. 640 out to the end of the feeder.

34.5 KV
FDR 8 From BKR 830, Disc. 810 and Disc. 840 out to the end of the feeder.

34.5 KV
FDR 9 From BKR 930, Disc. 910 and Disc. 940 out to the end of the feeder.

34.5 KV
FDR 10 From BKR 1030, Disc. 1010 and Disc. 1040 out to the end of the feeder.

All 34.5 KV Distribution Circuits and switches located in the Central Business District (CBD)

DISTRIBUTION DISPATCHER JURISDICTION (CONTINUED):

Substations:

All Equipment, Switches, and Breakers at the following substations which are 34.5 KV to 4.16 KV:

Sub 1
Sub 3
Sub 4
Sub 5
Sub 6
Sub 9
Sub 13
Sub 13A

All Equipment, Switches, and Breakers at the following substations which are 34.5 KV to 12.5 KV:

Sub 9A
Sub 17

All of the 12.5 KV Equipment, up to but not including Main BKR 4 in the following Substations:

Sub 6
Sub 7
Sub 8
Sub 10
Sub 14
Sub 15
Sub 16
Sub 20

**Distribution Lines**

All 34.5 KV Distribution Circuits, Equipment, and Devices up to and including the customer metering point.

All 12.5 KV Circuits, Equipment, and Devices up to and including the customer metering point.

All 4.16 KV Distribution Circuits, Equipment, and Devices up to and including the customer metering point.
II. The respective jurisdiction of Power Management and Generation meet at the following interface switches, which are under Power Dispatch jurisdiction.

**Points of Separation:**

**Plant I**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Disc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1</td>
<td>Disc. 170</td>
</tr>
<tr>
<td>Unit 2</td>
<td>Disc. 270</td>
</tr>
<tr>
<td>Unit 3</td>
<td>Disc. 370</td>
</tr>
<tr>
<td>Unit 4</td>
<td>Disc. 470</td>
</tr>
<tr>
<td>Diesel 1 and/or #2</td>
<td>Disc. 570</td>
</tr>
</tbody>
</table>

**Plant 2**

<table>
<thead>
<tr>
<th>Unit</th>
<th>Disc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 5</td>
<td>Disc. 115-62</td>
</tr>
<tr>
<td>Unit 6</td>
<td>Disc. 115-61</td>
</tr>
<tr>
<td>Unit 7</td>
<td>Disc. 115-60</td>
</tr>
<tr>
<td>Unit 8</td>
<td>Disc. 115-66</td>
</tr>
</tbody>
</table>

**NOTE:** Unit Breakers for the individual turbines and 34 KV unit transformer breakers although under the switching, tagging, and Clearance jurisdiction of the Generation Division, shall not be operated without prior notification to the Power Dispatcher on duty.

III. The respective jurisdiction of Power Management and the Elmendorf Military installation meet at the following interface switches, which are under Power Dispatch jurisdiction.

**Points of Separation:**

Elmendorf AFB

**Substation 21**

- Up to and including 34.5KV Riser 1034-22A Inline disconnects
- Up to but not including Disconnect SA-21-1 from Feeder 21
- Up to but not including Disconnect SA-22-1 from Feeder 22
- Up to but not including Disconnect SA-23-1 from Feeder 23
- Up to but not including Disconnect SA-24-1 from Feeder 24
- Up to but not including Disconnect SA-25-1 from Feeder 25
- Up to but not including Disconnect SA-31-1 from Feeder 31
- Up to but not including Disconnect SA-32-1 from Feeder 32
- Up to but not including Disconnect SA-33-1 from Feeder 33
- Up to but not including Disconnect SA-34-1 from Feeder 34

**Central Substation**

- Up to and including 34.5KV disconnect SA-141
- Up to and including Feeder BKR 41
- Up to and including Feeder BKR 42
Up to and including Feeder BKR 43
Up to and including Feeder BKR 44
Up to and including Feeder BKR 45
Up to and including Feeder BKR 46
Up to and including Station Service Disconnect

Hospital Substation

Up to and including 34.5KV disconnect SA-151
Up to and including 34.5KV disconnect SA-155
Up to and including 34.5KV Motor Operated SW 167
Up to and including Feeder BKR 51
Up to and including Feeder BKR 52
Up to and including Feeder BKR 53
Up to and including Feeder BKR 54

North Substation

Up to and including 34.5KV VCB 164 and 165
Up to and including Feeder BKR 61 and its by-pass switch
Up to and including Feeder BKR 62
Up to and including Feeder BKR 63
Up to and including Feeder BKR 64
Up to and including Feeder BKR 71
Up to and including Feeder BKR 72
Up to and including Feeder BKR 73
Up to and including Feeder BKR 74
Up to and including the transfer bus breaker

NOTE: The variations in jurisdiction between sub21, Central Sub, Hospital sub and North sub are due to our contractual maintenance responsibilities for the Air Force subs and our ownership of sub21
ATTACHMENT 2

ML&P SWITCHING ORDER REQUEST

NOTE: All switching should be requested a minimum of 48 hours in advance. Extensive switching or switching requiring a customer outage requires 72 hours notice.

DATE OF REQUEST: _______________  REQUESTED BY: _______________________
DATE REQUIRED: _______________  REQUESTED START TIME: _____________

PURPOSE OF SWITCHING: ________________________________________________

____________________________

IS CLEARANCE REQUESTED? (CIRCLE ONE)  YES  NO

IF YES, IDENTIFY CLEARANCE POINTS REQUESTED:
____________________________  ___________________  ___________________
____________________________  ___________________  ___________________

PERSON TO RECEIVE CLEARANCE: _________________________________________

ASSOCIATED WORK SKETCH/SHOP ORDER NUMBER: _________________________

DESCRIPTION OF WORK TO BE ACCOMPLISHED: _____________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________
ATTACHMENT 3

DO NOT OPERATE

RED TAG
ATTACHMENT 4

HOT LINE TAG

HOT LINE WORK

HOT LINE TAG NO.
BEFORE REENERGIZING
CONTACT DISPATCHER

ORDERED BY ___________ DATE ________ HR ________
INSTALLED BY ___________ DATE ________ HR ________
FOR ____________ DATE ________ HR ________
RELEASED BY ___________ DATE ________ HR ________
REMOVAL ORDER BY ___________ DATE ________ HR ________
REMOVED BY ___________ DATE ________ HR ________
ATTACHMENT 5

SPECIAL CONDITION TAG

ANCHORAGE MUNICIPAL LIGHT & POWER
SPECIAL CONDITION TAG NO.
SPECIAL CONDITION ORDER NO.
EQUIPMENT NO.
LOCATION
PLACED BY
DATE & TIME
REMOVED BY
DATE & TIME
REMARKS

SPECIAL CONDITION TAG
REMARKS (cont.)
ATTACHMENT 6

ML&P PROCEDURE VIOLATION REPORT

AFFECTED SUPERVISOR: ___________________________ DATE: __________________

CLEARANCE NUMBER: ___________ CLEARANCE HOLDER: __________________

EQUIPMENT CLEARED: __________________________________________

TIME/DATE VIOLATION OCCURRED: ________________________________

TIME/DATE VIOLATION DISCOVERED: ________________________________

HOW WAS VIOLATION DISCOVERED: __________________________________

_________________________________________________________________

PERSONS INVOLVED: ____________________________________________

_________________________________________________________________

DESCRIPTION OF VIOLATION: _____________________________________

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________

WHAT PROBLEMS OR HAZARDS RESULTED FROM THIS VIOLATION: ________

_________________________________________________________________

_________________________________________________________________

WAS THE VIOLATION CAUSED BY AN EMPLOYEE OR WAS THIS A PROCEDURAL PROBLEM: __________

_________________________________________________________________

_________________________________________________________________

WHAT CORRECTIVE ACTION WAS TAKEN: ________________________________

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________

Signatures ___________________________ Date ______________

AFFECTED SUPERVISOR COMPLETING REPORT:

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________

SAFETY DIRECTOR REVIEW:

_________________________________________________________________

_________________________________________________________________
ATTACHMENT 7

REVISION FORM

RECOMMENDED CHANGE(S):
___________________________________________________________________________________________
___________________________________________________________________________________________
___________________________________________________________________________________________
___________________________________________________________________________________________
___________________________________________________________________________________________
___________________________________________________________________________________________
___________________________________________________________________________________________

REASON FOR CHANGE:
___________________________________________________________________________________________
___________________________________________________________________________________________
___________________________________________________________________________________________
___________________________________________________________________________________________
___________________________________________________________________________________________

MAKE CHANGE:
During Annual Revision ______
As Soon As Practical_______
Now (Safety or other urgent reason)_____ Submitted by:___________________________
Date: ______________

Received by Safety Director:___________________________
Date: ____________