EVERSOURCE	**Electric System Operations** Operating Guide OG-3B Requirements for Work on the EMA Electric Distribution System

OG-3B Requirements for Work on the Eversource EMA Electric Distribution System

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I. SCOPE AND APPLICABILITY

Electric System Operations has the overall responsibility for the safe, reliable and economic operation of the Eversource Eastern Mass electric system.

This procedure outlines the requirements for performing planned work on Eversource Eastern Mass Electric Distribution System equipment, and specifically, the electric system under the jurisdiction of Electric System Operations and pertains to all stakeholders involved in the process of performing planned work.

All requests for work on equipment, the necessary switching, tagging, testing and grounding, the installation of leads, and the release of equipment after work, shall be done in accordance with NSTAR OP-54 Switching, Tagging, Clearances and Work Control for the Eversource Eastern Mass Sub-Transmission and Distribution Systems

In this procedure, electrical system equipment is defined as that portion of the system under the jurisdiction of the Distribution, System, and Transmission Dispatch Supervisor. In addition, the word “station(s)” includes all substations, primary network units, secondary and tertiary network vaults, MC and SC units, customer stations, and any other installations under the jurisdiction of the Station Operations Department unless specifically excluded or limited.

II. REFERENCES

Eversource Incident Prevention Manual, Section 9, Switching and Tagging
D5005: Requirements for Completion of the Distribution System Change Notice – Electrical
Eversource Eastern Mass OP-1 Operating Responsibility and Authority of the NSTAR LCC Electric Service Eversource Eastern Mass OP-3 Outage Scheduling on the NSTAR LCC Electric System
Eversource Eastern Mass OP-54 Switching, Tagging, Clearance and Work Control for the NSTAR Sub-Transmission and Distribution Systems

III. INTRODUCTION

The purpose of this document is to outline the requirements stakeholder must perform before commencing work on Eversource Eastern Mass Electric Distribution System to ensure proper planning, communication, documentation and records processes are complied with when working on electrical equipment under the jurisdiction of the Distribution and System Dispatch Control Centers.

To safely operate and maintain the electrical system in a reliable manner, it is imperative that Asset Registries and System Records, such as GIS, SCADA, PLA, OMS and associated record databases are kept up to date (see attachment 6). These System Records are used for monitoring and control of the distribution system, to establish a zone of protection for clearances and permissions as well as configuring control systems related to worker safety and proper reliable operation of protection schemes. In addition, accurate records tie to our Outage Management System and customer notification applications that allow us to communicate outage notifications and accurate ETRs which are a requirement to meet the highest expectations of our customers and regulators for delivering reliable energy and superior customer service. Lastly accurate System Records are fundamental to engineering design and system planning.

IV. PROCEDURE

The Electric Operations Planned Outage Schedule and Tracking (EOPOST) database is used to submit Permit Applications for planned work on the electric distribution system under the jurisdiction of the Distribution and System Dispatcher Supervisor (Attachment 1).

For planned transmission work under the jurisdiction of the Transmission System Supervisor, a System Work Request application must be made in accordance with Electric System Operations Operating Guide 3A “Transmission Outage Scheduling”.

The Electrical System Permit Application form (Attachment 1) is a control document. Its purpose is to provide formal advance notification that an asset needs to be taken out of service or reconfigured for NRA/HLT. All required fields must be filled out with specific attention to the Circuit/Line/Apparatus, Permit Work Description, Locations to be Tagged (zone of protection) and Points to Be Grounded if applicable. The EOPOST permit application, with associated

tracking fields and schedule, is a critical communication tool for all related stakeholder groups and triggers the preparation of switching and notification of customers by the SOC. It is imperative that all proponents of work ensure prior proper planning, field lookups, scheduling, preparation of required pick-up procedures, acceptance tests, training on new equipment, preparation of control and protection work plans, etc. be completed in time for the permit execution date. The Electrical System Permit Application cannot proceed to activation if these requirements are not fulfilled.

The completed Electrical System Permit Application close-out process provides the GIS Records group the necessary information to document changes to the electrical system so that essential records may be updated. It also prompts the Dispatch Supervisor to request updates to other critical asset registries as outlined in attachment 6. Changes to our electrical system records include load transfers, changes in operating schedules, additions, removals, relocations or changes of equipment which will affect the operation or capacity of a station or electric circuit, or any change which adds or modifies SCADA/PLA system data or SCADA/PLA screens.

The Distribution System Change Notice process provides for certain work on the distribution system that does not require a permit yet can result in configuration changes. These changes may affect the primary voltage, but do not require switching orders by the SOC nor impact SCADA / PLA data. It is a requirement, however, to document changes to Records at the end of each day without delay through the System Changes Notice process outlined in NSTAR Work Standard D5005 (Form 3325).

When is a Permit Application Required

Electrical System and Distribution Permit applications are required for planned work as follows:

Switching required to establish a zone of protection for maintenance or capital related work.

Energizing new apparatus:

- Stations, network units or vaults, SC or MC units or apparatus under the jurisdiction or responsibility of the Station Operations Department except for minor apparatus which does not affect the operation or capacity of the station or system.
- Distribution system supply lines, network feeders, distribution circuits.
- Distribution Automation Equipment which impacts SCADA system data, points, and/or SCADA screens.
- Padmounted switch

Work on existing distribution system supply lines, network feeders, and distribution circuits or work in existing stations which will result in a change of plant or require switching.

Work on existing distribution system supply lines, network feeders, distribution circuits or in stations which will result in a change of SCADA/PLA data, points or SCADA/PLA screens
All supporting documentation, such as SCADA Limit Change Forms, one-lines, etc., must forwarded to the SCADA Data Operation Support Group. New equipment that will be controllable through SCADA must be clearly identified on all work order sketches and/or tasks.

Work on distribution circuits, customer stations, secondary network vaults, tertiary network vaults, MC's or SC's, or other connected apparatus which will require customer outage.

Planned outages requested by customers which impact other customers. A "Customer Request for Outage" form (Attachment 2) is also required. A "NSTAR Customer Station Notification" form (Attachment 3) shall be completed as required.

When Not Required

An Electrical System Permit is not required for planned work to energize, remove or replace equipment where a switching order is not required to be given by Dispatch or a clearance granted by Dispatch. Changes to primary voltage distribution assets / plant not covered in OG-3B require a System Change Notice document to forward to the Records Group. Examples are as follows:

- Equipment replacement with the same capacity and connections that do not require switching.

- Interruptions of one OH/UG distribution transformer, providing no other switching is required, and only those customers being served by the transformer are interrupted. It is the responsibility of the "person responsible for the work" to notify the customers prior to initiating the outage. Distribution Dispatch must be notified prior to initiating the outage and is responsible to communicate the appropriate switching order to de-energize, then give clearance or permission (if applicable) to perform work and re-energize the transformer. Distribution Dispatch must be provided with the expected outage duration so a proper ETR can be established and the customer outage in the Outage Management System (OMS).

- Repairs subsequent to service failures (with approval of SOC).

- An Emergency Outage: The obvious failure of a piece of distribution equipment that comes out of service on its own or requires immediate operator intervention to remove it from service.

- Energizing new radial distribution loop cable to stand-off position and/or energizing new transformer, but only one switching operation allowed.

Origination and Approval of Permits

Permits Application shall be originated by the stakeholder group which is to perform the work. In the case of a customer request for outage, the Customer Care group originates the request, but the appropriate Station or Engineering group will provide additional support on isolation details.

Permit applications shall be properly documented with all required fields completed. Incomplete permit applications will be returned to the originator to correct the field information.

In addition to the Permit Application form, Electric System Operations also requires the following information prior to a permit being scheduled (see attachment 5).

A sketch that clearly outlines the following:

- Work to be performed within the zone of protection requested for isolation must be submitted for physical plant changes affecting the GIS
- Details of scope of work requested in the Permit Application and clearly reflect before and after conditions.
- Work locations, changes to plant showing equipment / cable / wire being removed and/or installed, sizes, lengths, and conduit duct numbers for cable installations (to and from locations).
- The date, permit number and originator must also be included on the sketch(es).
- Sketches must be clear, concise and not include future work to be done on subsequent permit applications.

If any preliminary work is to be done prior to the permit, that work should be clearly identified as preliminary work versus permit specific work.

The permit application must specify how phasing or phase markings will be maintained, along with locations to be grounded.

Pick up procedures for all new substations and relay equipment

Documented SCADA point/screen information changes.

A Relay Trip Mitigation Form must be submitted for permits requesting the testing, or removal of relays or communications to stations or equipment on the sub transmission, Network, and Distribution Systems. This includes RTU work where the control logic for the station resides within the RTU. (See attachment #4). This plan allows Dispatchers have a clear understanding of the testing Field Engineering will perform and of the potential impact. The document reconfirms that the proponent of the permit and associate stakeholders know what cutoffs need to be tagged; how the cutoffs are labeled; and what relays will be going out of service when the cutoff is off. This plan should also determine / highlight if the testing or disabling of relays / communications, are inputs or

affect other protection schemes. Lastly, while testing or disabling of relays or communications, we want to emphasize what relay system(s) will remain in service during the testing; what is the impact or actions if another relay system fails while testing; and what are the adverse affects of an error during testing; for example what equipment would trip in the event of an error.

Operating procedures for all new substations and substation equipment, relay and communications equipment and all distribution class equipment.

A "Customer Request for Outage" form (Attachment 2) is required for all customer requested outages and must be submitted five (5) days prior to the requested outage date.

An "Eversource Eastern Mass Customer Station Notification" form (Attachment 3) is required for permits impacting customer stations and confirmation of notification must be received by the Permit Work Coordinator three days prior to the permit's anticipated start.

Distribution and System permits involving customer outage should be submitted to the ES Permit Coordinator a minimum 20 business days prior to the planned outage date. Upon submittal the ES Permit Coordinator with Accept or Hold the permit application within 2 business days. Upon Acceptance of the permit application and other required documentation outlined in section 10, the Electric Service Permit Coordinator will have 5 business days to prepare switching, and return to the originator or designee for necessary lookups and customer notifications.

Distribution and System permits without customer outage should be submitted to the ESO Permit Coordinator a minimum 10 business days prior to the planned outage date. Upon submittal the ES Permit Coordinator with Accept or Hold the permit application within 2 business days. Upon acceptance of the permit application and other required documentation outlined in section 10, the Electric Service Permit Coordinator will have 5 business days to prepare switching and return to the originator for necessary lookups.

The permit originator will be required to "Activate" the permit or customer arranged outage with the Electric Service permit coordinator by 11 AM on the day before the permit is scheduled to be performed or on Friday by 11 AM in cases of weekend and/or Monday work. A permit cannot be activated unless all associated necessary documentation outlined in sect 10 has been submitted. In addition, all preliminary work and lookups must be completed prior to activation to ensure the permit execution is successful.

Requests for Non-Reclosing Assurance (NRA) or Hot Line Tag (HLT) requests shall be submitted via EOPOST no later than 24 hours prior to the "Required By" date/time. SOC personnel shall evaluate the upcoming weather for forecasts that could threaten the reliability of the system during the period where reclosing is to be disabled. A NRA / HLT request could be postponed if the risk on the system is deemed to be unacceptable by the SOC. If postponed, the requestor must be immediately notified of this decision. For NRA / HLT requests submitted without the required 24-hour notice, the Dispatch Supervisor must be immediately notified and each request will be evaluated and either approved or denied on a case-by-case basis.

Duration of Permit

The "life" of a permit normally shall be for not more than one month from date of final approval by the Electric Service permit coordinator. If at the end of that time the work has not been completed or is not in progress, a new permit must be issued unless the original permit is extended. Permits may be extended by the permit coordinator for work on distribution system supply lines, network feeders, station equipment or distribution circuits provided there is no customer outage.

Delegate

The name and contact numbers of the delegate responsible for the work must be inserted on the permit application. In the event of a change of delegate, the Distribution and/or System Dispatcher Supervisor must be notified of such change before work is started.

Customer Notification for Permit Work

Customers shall be notified for all planned outages. The preferred method of notification is via letter. In cases where letter notification is not feasible, customer notification will be via telephone / IVR. The permit originator will have responsibility for insuring the proper notifications to impacted customers are performed per the following guidelines:

- Eversource Eastern Mass will provide a single date with a minimum of 10 days written notification to customers who will be impacted by a planned outage. The permit originator shall notify the Electric Strategic Accounts on call AE electronically on all permits where Strategic Customers are involved. The Permit Web Tracking Application is the tool to track commitments made to customers via IVR or letter notifications. It is also the tool for internal stakeholder communication related to the status of planned outages on the distribution system. Note Strategic Customers are coded as KEY under the Acct Type field in the Permit Tracking Web Application.

- In cases when the 10 day written notification is not feasible due to system conditions, customers will be notified via the automated call out telephone system. When using the automated call system, one call will be placed as soon as the need for work is identified. The Electric Strategic Accounts on call AE and the Call Center shall also be notified by the permit originator.

- Upon completion of the 10 day written notification process, an IVR notification will be made 2 days prior to the permit execution date as a reminder.

- In the event that the duplicate supply of any customer is to be interrupted, which is not covered in section 19, the Electric Service Permit Coordinator shall notify the originating

- stakeholder group that has jurisdiction. The customer may be notified by the Customer Account Executive even though there will be no customer outage.

Multiple line customer stations, MC or SC units with automatic load transfer and certain network vault customers in Paragraph 19-1 may require notification by the Customer Account Executive if a line, network feeder or circuit to the installation is to be taken out of service even though there will be no customer outage. Notification is required when any of the following conditions apply:

- The customer is on record at the Electric System Operations requesting such notification or it is known that switching, load adjustment or other precautions by the customer are involved.
- For work on the Eversource Eastern Mass secondary network systems, where the work duration is greater than 4 hours, including all switching to restore the feeder to service.
- The service reliability record of the companion line(s) to an installation requires notification in the judgment of the Electric Service Permit Coordinator.

Customer Notification in an Emergency

Should any situation develop whereby a customer's service must be interrupted due to an emergency condition, as defined in Section 7-3-1, the Call Center shall be notified by the Dispatch Supervisor by telephone. Impacted customers will be notified via the established processes whenever possible.

Customer Generators Connected to Distribution Circuits or Lines

In the case of work to be done on a distribution circuit or line involving interruption of service to customers operating generators shown on the primary GIS print, the ES permit coordinator will state in the switching instructions for the permit, that the delegate in charge of the work must visit the customer in advance of any outside switching operations and make arrangements for access to tagging locations. The delegate in charge will instruct the customer and open and tag the circuit breaker and/or other devices to properly isolate the customer from the system and not to connect to the system until the tag(s) has been removed.

Notification before Starting Work: DSS Lines and Network Feeders

No work shall be started on any distribution system supply line or network feeder without first notifying and receiving clearance from the System Dispatcher.

Notification before Starting Permit Work: Distribution System

Distribution Dispatch shall be notified before any work is performed in the field on the distribution system which requires the operation of switches or other disconnecting devices. All switching shall be directed by the Distribution Dispatcher with oversight by the Dispatch Supervisor.

Postponed, Cancelled, Incomplete or Delayed Work

If permit work is postponed or cancelled by the Department which originated the permit, notification of such change must be given to the ES Permit Coordinator or the Distribution or System Dispatch Supervisor prior to the time originally specified for start of switching. It will be the responsibility of the permit originator to inform previously notified customers, the On-Call AE, and the Call Center of the postponement or cancellation. The permit originator is responsible to update the status of the permit in the Permit Web Tracking Application prior to the permit being activated and placed on the Distribution Desk for switching. Canceled Customer Outage Distribution permits must have a cancelation IVR sent to notify the customers and should be coordinated through the ES Permit Coordinator.

Permit work can be postponed or cancelled by the Distribution/System Dispatcher due to system conditions. In these cases, the Dispatch Supervisor will contact the pre-defined delegate in charge of the work to explain the reason for postponement or cancellation. It will be the responsibility of the Dispatch Supervisor to status the job in the Permit Web Tracking Application

Should any condition arise whereby it will be impossible to complete the permit or the work is delayed beyond the previously scheduled end time, the Distribution or System Dispatcher Supervisor shall be notified by the pre-defined delegate in charge of the work at the time the delay is determined. Notifications shall include the progress of the work and the expected time of restoration. It will be the responsibility of the Distribution or System Dispatcher Supervisor to update the OMS as to the cause of the delay and the estimated time of restoration (ETR).

Notification After Permit Work Is Completed

Upon completion of a permit, the person in charge of the work must notify the Distribution or System Dispatcher Supervisor regarding the status of work completion. If any changes in scope occurred during the permit work, the delegate must inform the Distribution or System Dispatch Supervisor and must document the scope of work change with an immediate System Change Notice (SCN) sent to the appropriate GIS Records group and the Distribution or System Dispatch Supervisor. The SOC will record the name of the person in charge of the work reporting the work complete, the date and time, and sign in the spaces provided on the permit application Post Activation Checks section. The Dispatcher must place a Note tag in the OMS to indicate a records change is in progress and the appropriate SOC one-line must be marked up for control room awareness. The permit application will remain on the desk with the affected circuit until the GIS Records group update the GIS system and the OMS model gets updated. Upon successful completion of the OMS model edits, the Note tag

will be removed from the OMS, one-line replaced and the Permit application will be removed from the SOC and filed.

Starting and Testing

Equipment may be energized for potential testing only in accordance with Eversource Safety Manual, Section 9.

Responsibility for Tests

Prior to connecting to the system, the delegate in charge of work will be responsible for testing to insure safe and correct conditions for satisfactory operation. For example: acceptance testing, kenetron, relay, new equipment, etc.

Responsibility for Phasing

The SOC Supervisor will be responsible for directing proper phasing of all lines, network feeders, circuits, and buses during the work and before they are put into operation.

Responsibility for Phase Designation

The delegate in charge of the station is responsible for phase designation before lines or apparatus are placed in service.

Condition for Return to Service

No equipment, line, feeder or circuit may be returned to service until the designated representative notifies the SOC Supervisor of their approval.

The designated representative will inspect station work before it is put into service and will advise the System Dispatcher Supervisor in advance of beginning tests or putting apparatus into service.

A distribution system supply line, network feeder or circuit must be tested and the phases must be checked before it is put into service.

New station apparatus or station apparatus that has been out of service for repairs or changes will be tested if necessary, before it is put into operation.

Documentation of Electric System Work

Electric permit work shall be documented and modeled appropriately in the OMS and EOSUM outage / non-outage database. Documentation shall include:

- Assets out of service
- Quantity of impacted customers
- Actual energize and de-energize times must be accurately captured.
- ETRs
- Delays greater than 30 minutes must be documented by the Dispatcher for both late start and late finishes.

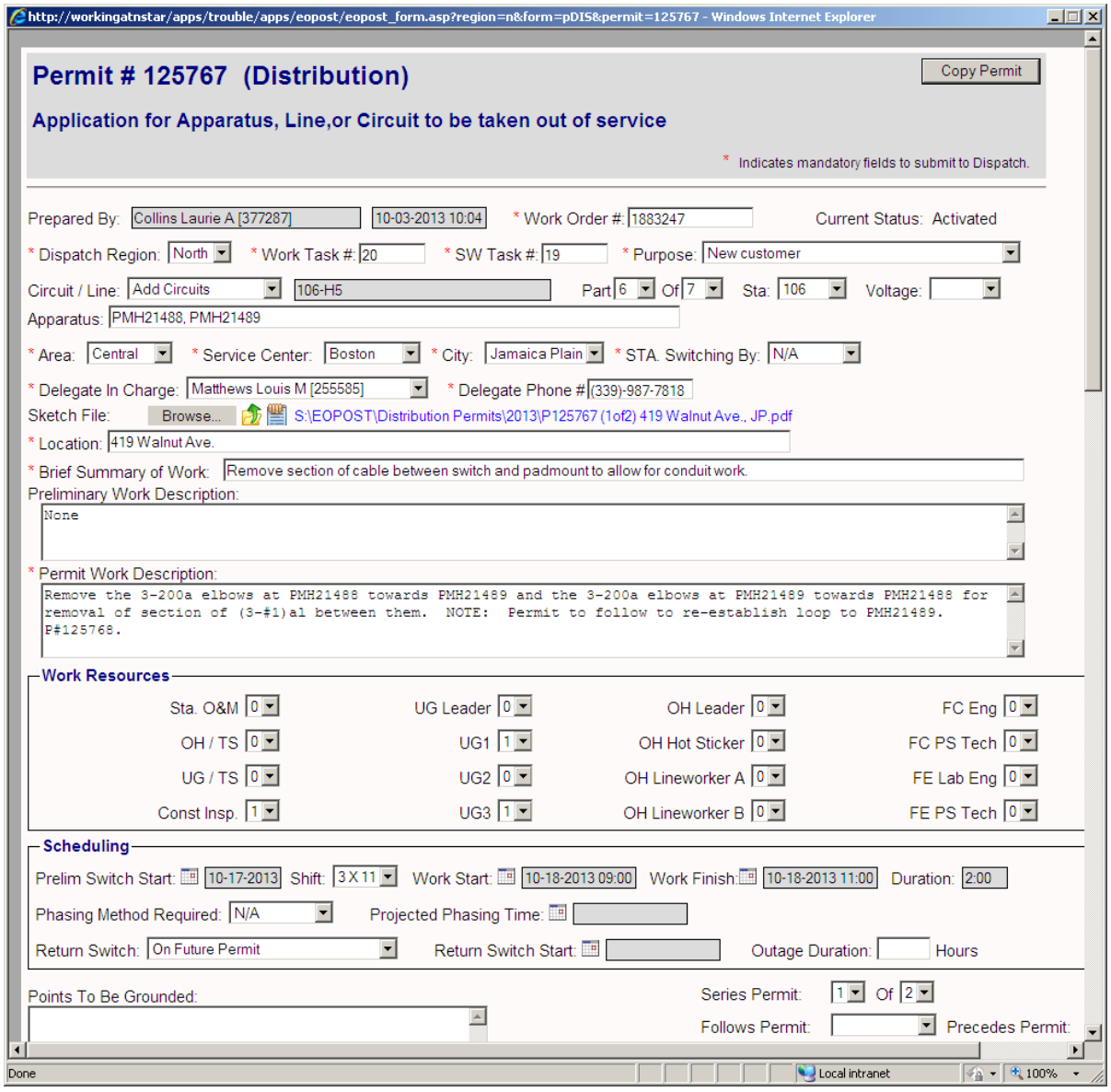
Authorized By:	Approved By:
Trevor Tessin Manager, Electric System Operations	Paul Dardinski Director, Electric System Operations

OG-3B Revision History

Rev. No.	Date	Reason
1	05/05/07	Original Issue
2	09/26/11	Review Update
3	10/18/12	Review Update, reformatted Att #2
4	10/25/13	Revised Att. 1, Annual Update
5	10/07/14	Revised to Biennial Review
6	12/19/16	Revised NSTAR to Eversource where applicable
7	09/18/18	Aligned System Change Notification process with D5005 Design Standard, Requirements for Completion of the Distribution System Change Notice. Clarified requirements for when a permit is required/not required. Updated requirements for permit submittal. Formatting changes to entire document.

V. ATTACHMENTS

Attachment #1: Electric System Permit Application Form



Attachment #2: Customer Request for Outage

Customer Information: Date of application
Name:
Street Address:
City, State, Zip
Telephone Numbers: Business: Cell / Pager:
Is this party responsible for bill associated with this work? ☐YES or☐ NO

Contact Information (customer representative)
Name:
Contact Type (check): ☐General Contractor ☐ Architect ☐ Owner ☐Engineer ☐Electrician
Electrician's License Number:
Business Name:
Street Address.
City, State, Zip
Telephone numbers: Business: Cell / Pager:
Is this party responsible for bill associated with this work? ☐YES or ☐NO
If not than who is? 5

Outage Information
Electrical Service Street Address:
Town/City
Date of Outage request S Time of Outage request
Estimated return time Sat.
Stand By Requested -- ☐YES or☐ NO Requested by whom .
Note: without standby personnel time cannot be guaranteed due to system conditions, which may cause a delay.
Description of work to be performed:

Is customer work to be performed by someone other than the contact name above? ☐YES or ☐NO
If yes, by who? Name Cell / Pager

Additional Information to be completed by Eversource
Work Order Number:

Existing Customer Account number
Electrical Service Address for Outage
(Pole#, SNV/TNV, Customer Station #)
Electrical Equipment to be operated: SC 134
(Fused Disconnects, Load break Elbows, Protectors etc)
Circuit/Line/Feeder Number:
Cost of work to be preformed: Payment received date
A Wiring Permit is required – ☐YES or ☐NO Reason for exception
Customer Account Representative

Notes:

- *Customer requests must be submitted to Eversource two weeks prior to the outage request date.*
- *Customer costs must be paid in advance of requested outage date to prevent delays.*
- *Power will be re-energized only after receiving approval from local Wire Inspector (when required).*
- *Please attach any correspondence that may provide pertinent or unique information.*
- *Account Reps name & Contact phone number must be supplied on outage form.*
- *Customer request must be activated prior day, similar to permit activations (see page 5, item 13)*

Attachment #3: NSTAR Customer Station Notification Form
NSTAR CUSTOMER STATION NOTIFICATION FORM

ACCT. EXEC.:	LINE#	PERMIT#

WORK DATE:	DURATION:	ALTERNATE DATE:

STA #	CUSTOMER NAME	CUSTOMER IMPACT	DATE & TIME NOTIFIED	CONTACT NAME AND PHONE #	COMMENTS/ SPECIAL INSTRUCTIONS

Electric Operations to fill out Line#, Permit#, Work Dates, Duration, Sta#, Customer Name, and Customer Impact areas
Sales to fill out Acct. Exec., Date/Time Notified, Contact Info and Comments areas

EXAMPLE - Attachment #3:
NSTAR CUSTOMER STATION NOTIFICATION FORM

Acct. Exec.: John Dear	LINE# 598-77H	PERMIT# 12345

WORK DATE: 1/26/08 switch at 1am	Duration: 12 hrs	ALTERNATE DATE: 1/27/06 at 1:00 am

STA #	CUSTOMER NAME	CUSTOMER IMPACT	DATE & TIME NOTIFIED	WHO NOTIFIED	COMMENTS
STA598	Roxbury Community College New Columbus Ave	1 of 2 Lines Momentary during switching	6/7/08 10:00 AM	John Doe 617-555-1212	Call John 1 hour before switching
TNV 6188	BU Medical 720 Albany	1 of 3 Lines	6/7/08 10:00 AM	John Ray 617-555-1212	
	26 Broad St	1-hour Outage	6/7/08 10:00 AM	John Mee 617-555-1212	
SC48	Northeastern Univ. 1135 Tremont St	On 1 of 2 Lines	6/7/08 10:00 AM	John Faa 617-555-1212	
SC50	Boston Police Headquarters 1199 Tremont St	Momentary Outage	6/7/08 10:00 AM	John Soo 617-555-1212	Call John for access – 24 hours prior

Electric Operations **to fill out Line#, Permit#, Work Dates, Duration, Sta#, Customer Name, and Customer Impact areas**
Sales **to fill out Acct. Exec., Date/Time Notified, Contact Info and Comments areas**

EXAMPLE - Attachment #4:
Relay Mitigation Form

EVERSOURCE Eastern, MA

Relay Mitigation Form

Line (element):				
Scope: *(system to be tested/repaired)*				
Substation #1				
Substation #2				
Substation #3				
Reason Mitigation is Required:	**Testing**		**Failure**	
Relay Protection Schemes that remain in service: *Dispatch to verify in service either prior to testing or post failure, prior to repairing: (Name/Type):*				
Primary P1 (BPS Relay):				
Secondary:				
Primary P2 (BPS Relay):				
Secondary:				
Secondary:				
Impact with system out of service: *(i.e. Stuck breaker defeated, no blocking on over trips, SPS will not function, no reclose on line trip)*				
Breakers that open if relay actuates during testing/repairs:				
Cutoffs Required and the Relays that they disable (As labeled at each Station)				
Station	**Cutoff as labeled at Station**	**Device Disabled**		
Schedule:				
FOR 345kV EQUIPMENT ONLY: Will the clearing times in the area *increase* for normal NPCC criteria faults as a result of the protection system element outage (protection system or associated communications)? (NPCC Criteria Faults: Three ∅, Single ∅ to ground, Bus faults, Stuck Breaker faults (w/BFTT as applicable)				
YES		**NO**		**If yes, provide details of the clearing time(s) below.**
Details of Increased Clearing Time(s)				
NOTE: ISO-NE may determine that the element must be switched OOS if the new clearing time does not meet the required stability criteria.				

Contact:		**Cell:**	

Attachment #5:
Permit Activation Checklist to Establish, Retire, Rename Circuit

These items need to be completed (if applicable) before submitting Permit to Electric Service

- O Create the Circuit in Circuit Master – Distribution Engineering
- O Preliminary work complete – Electric Ops, M&C
- O Construction Guideline 30 for Distribution Circuit Install/Modification/Station Cubicle Work
  Distribution Engineering request to Substation Engineering
  Walkdown and establish design criteria –
  Sign-off that cubicle work is complete and ready for permit activation
- O Permit sketch as specified in OG-3B – Distribution Engineering and Electric Ops, M&C
- O Kenotron Test; 3 sections or more – Electric Ops requests Field Engineering
- O Updated Station Print – Substation Design
- O Station Sign- off Sheet – Station Operations
- O Local/Remote Supervisory Cutoff Lists – System Performance and Reliability
- O Acceptance test and Pick Up Procedure – Substation Technical Engineering
- O Updated SCADA points and SCADA page – Field Engineering sends points to SCADA
- O Engineering Review / Relay Mitigation Form – Field Engineering
- O Relay Settings – System Control and Protection provides settings to Field Engineering
- O Bulk Power Permit – Required if Transmission element to be taken out of service
- O Correct permit type; System, Distribution, or both – System Dispatch to advise Planner

These items need to be completed (if applicable) before a Permit can be activated

- O Customer Notifications – Electric Ops, M&C Planner thru the Account Executives
- O Customer Request for Outage – Account Executives
- O Pi Loading Trends – System Dispatch
- O System Planning review for station loading – System Dispatch requests System Planning
- O Distribution Engineering switching recommendations – System Dispatch requests System Engineering

Attachment 6
Asset Registry Check List

- GIS
- Follow-sheet
- OMS
- SCADA
    - Displays
    - Code lock
    - Loadshed / Under frequency
    - Voltage Reduction
- PLA
- PI
- Network Map Board
- Pager Notification System
- System Map Board
- System Diagram Trueview
- Substation Technical Drawings