

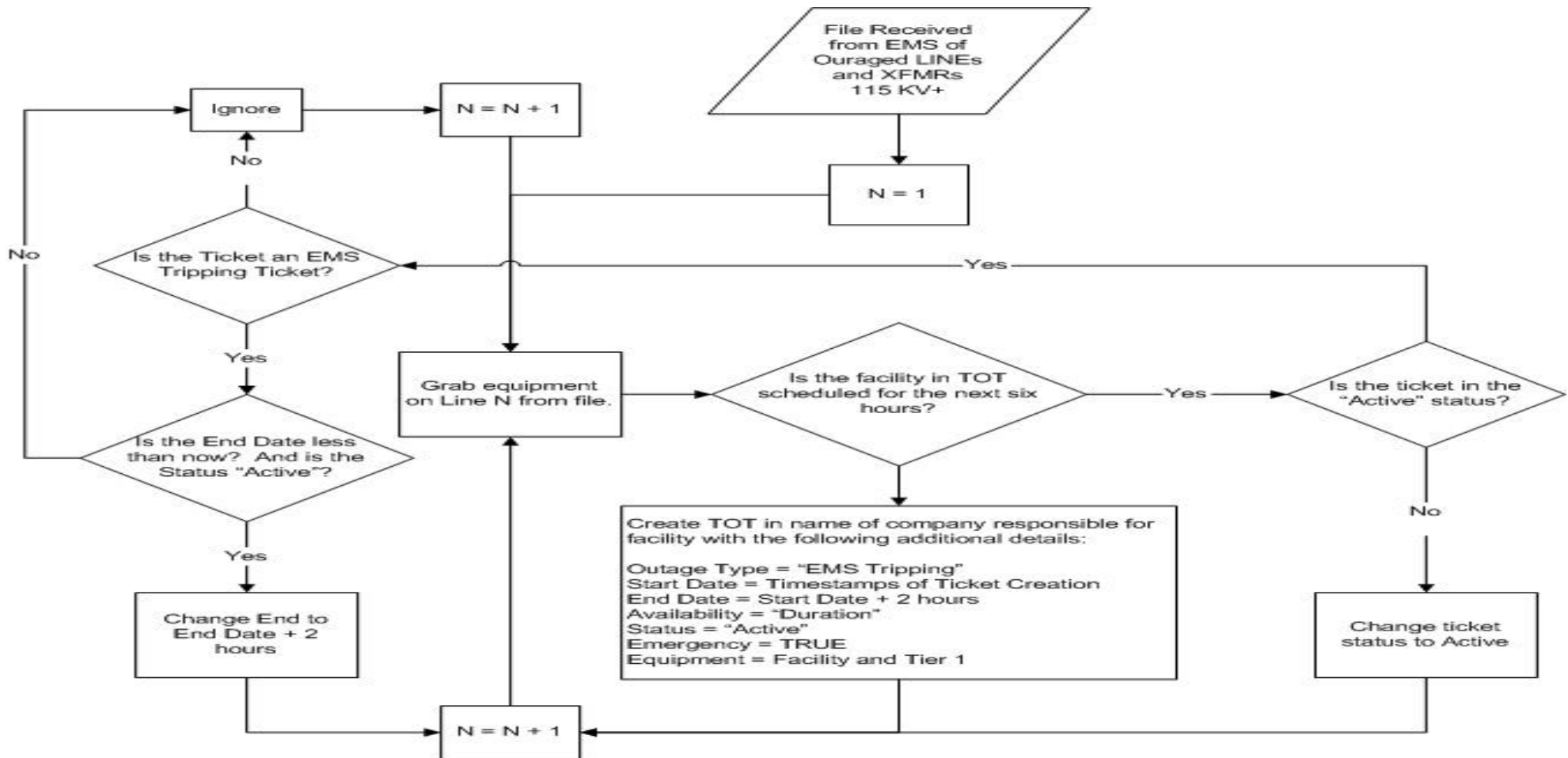


EMS Tripping Functionality Overview

- In cases of emergency tripping it was determined necessary to, as quickly as possible, generate a transmission outage ticket.
- In cases of emergency trips it may take some time for a transmission company (TO) to create a ticket since they are assessing the scope of the issue.
- The PJM EMS automatically receives a signal from the TO EMS notifying PJM of the outage.
- However this data is not immediately sent to NERC SDX.

- Also notifications not sent to other interested TO's within the PJM footprint or PJM neighbors having access to the eDART Transmission Outage Ticket application (TOT).
- To handle these issues the EMS Tripping Functionality was created.

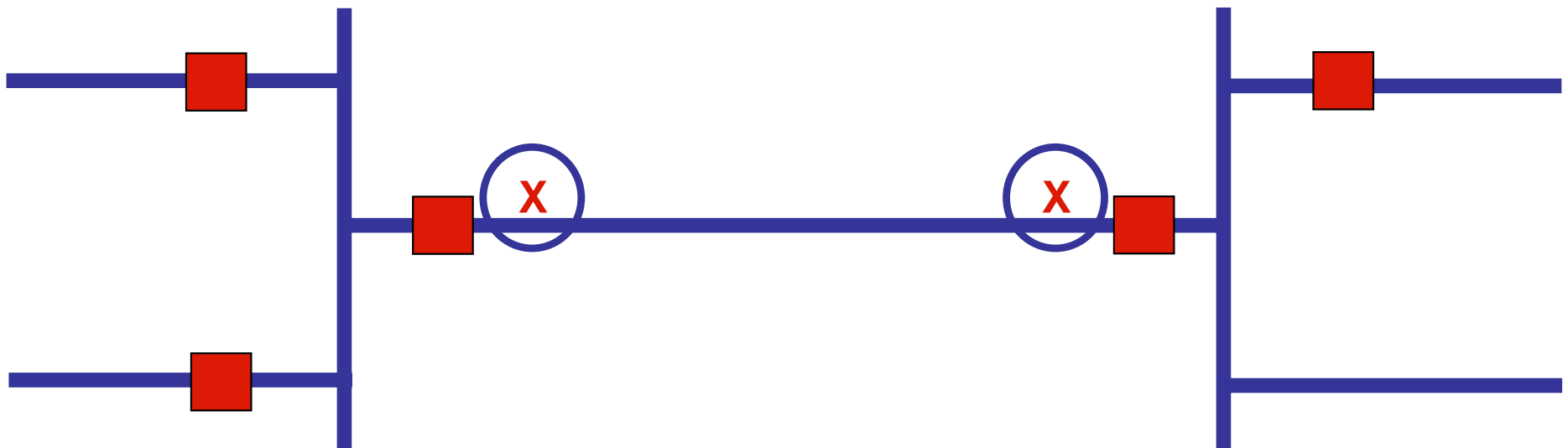
- The EMS Tripping Functionality takes advantage of the fact that the PJM EMS has been given a signal that the facility is out of service.
- Once every ten minutes it checks the TOT to see if a ticket had been created for the outage.
- If no ticket was created the functionality will automatically create one, assigning the ticket to the TO whose zone the facility is in.
 - For tie-lines one of the companies the line traverses arbitrarily will be assigned.
- If a ticket is found for the facility, which is scheduled to start within the next six hours, that is not in the status of “Active,” it will be changed to “Active.”



- In the example below, the line from Station A to Station B is designated as the primary equipment.
- The Tier 1 clearances are shown circled below.

Station A

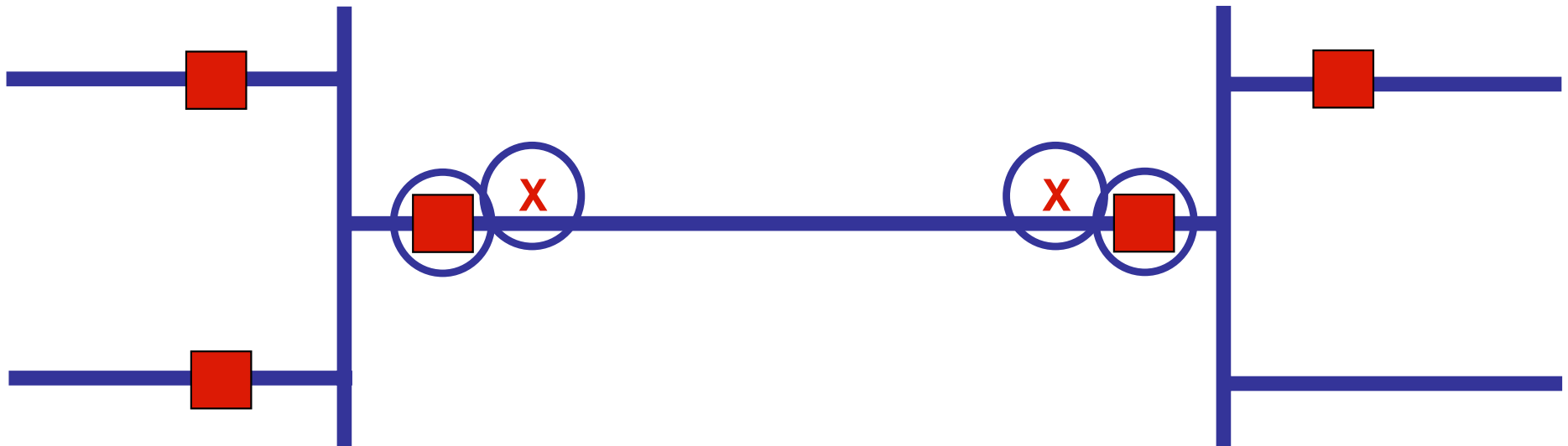
Station B



- The Tier 2 clearances are shown circled below.
- Note: Tier 2 equipment includes Tier 1.

Station A

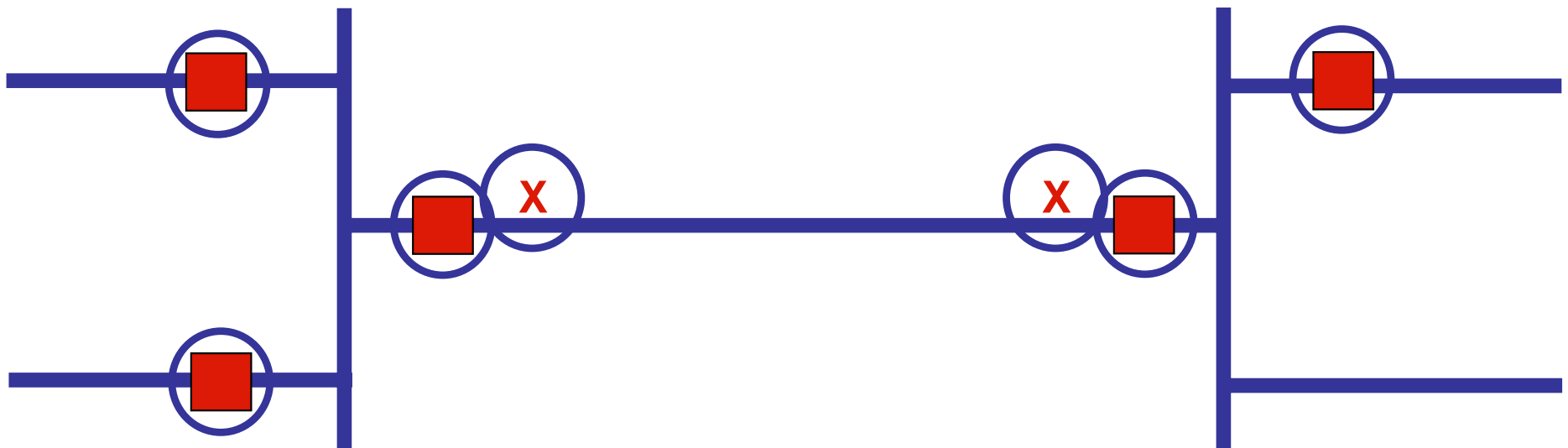
Station B



- The Tier 3 clearances are shown circled below.
- Note: Tier 3 equipment includes Tier 2 and Tier 1 equipment.

Station A

Station B



- Once the EMS Tripping Ticket is created, notifications are automatically sent to interested TOs.
 - As a result of the PJM-MISO JOA, MISO is also notified if the outage is to a LINE or XFMR for which MISO has requested notification within the guidelines of the JOA Outage Requirement Specification.
- If the facility is mapped to the MMWG case (NERC PSSE model) the outage is included in the Transmission Outages sent to NERC SDX with a status of Forced.
 - If the facility is 230 KV or above, NERC SDX automatically posts the outage on RCIS.
 - Since NERC SDX is updated every fifteen minutes it also receives updates as End Dates are extended.
 - Updates to the End Dates are posted to RCIS automatically via NERC SDX functionality.

- The EMS Tripping Ticket is only meant for quick postings and notifications.
 - EMS Tripping Tickets are available to the owning TO via the Review/Revise Report in TOT.
- The TO who owns the facility still must create a ticket giving full details – as per usual – on the outage.
 - For tie-lines, the company who owns the part of the line in issue would create the ticket.
 - Note: This may not be the company the EMS Tripping ticket was created under as the company selected to own the EMS Tripping Ticket is selected arbitrarily. In that case the company owning the part of the line in issue would have received notification of the EMS Tripping Ticket when it was initially created.

- If you have any questions, please feel free to call either Customer Support (610-666-8980) or the Helpdesk (610-666-8886).