

Response and Comments of Fitchburg Gas and Electric Light Company d/b/a Unitil (“Unitil”) concerning *Siemens (“PTI”)* December 9, 2005 Final Report Recommendations

PTI Recommendation 1: Definition of Manhole Events

PTI recommends the following definition for manhole events, which addresses smoking manholes, manhole fires, and manhole explosions:

Smoking Manhole – A manhole event in which smoke is visible, but no visible flame is escaping from the edge of the manhole cover or from holes in the cover.

Manhole Fire – A manhole event in which the cover remains seated in its frame and there is visible flame escaping from the cover’s edge or from holes in the cover.

Manhole Explosion – A manhole event in which a release of energy from the manhole occurs and the manhole cover is dislodged from its frame, or debris such as cement and dirt is projected into the air although the manhole cover remains seated.

Unitil Response: Unitil supports the concept of establishing uniform definitions of “manhole events” for the purpose of data tracking and monitoring activities. Unitil recognizes that the use of common terms by the Massachusetts electric companies will facilitate the Department’s efforts to ensure the public safety through informed oversight. Unitil proposes to work with the other Massachusetts electric companies through a Working Group (discussed in Recommendation 6, below) to develop these uniform definitions.

PTI Recommendation 2: Inspection and Maintenance Practices

PTI recommends implementation of a program designed to inspect all manholes over the five-year period beginning January 1, 2006 and create a database of manhole conditions and required repairs. The resulting data should be used to prioritize future manhole inspections and/or determine an appropriate periodic re-inspection cycle for each individual company.

Required repairs should be prioritized in accordance with a standardized repair priority schedule, and the resulting manhole inspection repair backlog should be monitored and tracked by priority level. (Abnormal conditions found during the manhole inspections should be recorded and reported per Recommendation 5, below.)

Unitil Response: Unitil is reviewing its current practice of annual inspections of manholes, and will advise the Department if, at the end of this review, the Company concludes that it would be reasonable to change the frequency of such inspections. In the meantime, the annual inspections of manholes and associated equipment will continue. Unitil will adopt suggested standardized repair priority schedule.

PTI Recommendation 3: Splicing Logs

PTI recommends that each company maintain a database of new and repair splices made by employees and contractor crews in order to determine possible workmanship issues and related splicing training needs.

Unitil Response: will work with the Utility Working Group to consider the development of a splice log or an alternative approach that would facilitate the identification of workmanship issues on spliced, underground cables. Unitil believes that the Utility Working Group will provide a forum for the consideration of alternative approaches that will coincide with the systems and operational practices of the companies

2.4 Recommendation 4: Failure Analysis and Trends

PTI recommends that each company train a sufficient number of employees in forensic failure analysis so that a field failure analysis is performed and a report generated for all manhole events in order to determine the root cause of the event. Additionally, the failure analyses reports should be compiled and assessed each year, and a report of annual trends prepared and submitted to the Department.

Unitil Response: Unitil proposes to train employees to record sufficient data and to take samples of cable/equipment that fails once the failure is discovered in order to have the failure analyzed by a qualified external laboratory. Reports of such failures will be provided to the Department.

2.5 Recommendation 5: Data Collection and Reporting

PTI recommends that the companies employ standardized manhole inspection and manhole event data collection forms that maximize checklists and minimize the need for free-form comments. Quarterly and annual manhole inspection and manhole event reports with a prescribed summary analysis should be prepared and submitted to the Department. Additionally, individual standardized reports on all events involving dislodged covers should be submitted to the Department as soon after the event as possible.

Unitil Response: Unitil proposes to collaborate with other utilities and the Department to formalize a standard reporting form and procedure that will be submitted to the Department on a quarterly basis.

2.6 Recommendation 6: Inter-Company Cooperation

PTI recommends the creation of a Working Group comprised of representatives from the four companies and Department Staff to meet quarterly for sharing information on

manhole event trends, root cause analyses, research studies, results of pilot programs, new technologies, and lessons learned. The Working Group could also address broader issues related to electric distribution reliability and safety, as appropriate.

Unitil Response: To date, NSTAR Electric, National Grid, Western Massachusetts Electric Company, and Unitil have had technical personnel teleconferencing in the development of plans to comply with Department's directives concerning these Recommendations. Technical personnel from each company are in the process of establishing a Working Group to meet these objectives. As the Working Group progresses, it will consider contacting other known organizations for interest in contributing to the Group. As part of this Working Group's agenda, a schedule for periodic conferences will be developed to discuss other issues related to distribution reliability and safety.

2.7 Recommendation 7: Outreach

PTI recommends a survey be taken of non-jurisdictional operators of underground electric distribution systems in Massachusetts. The survey should consist of questions regarding manhole events and manhole inspection practices, and determine the responding municipalities/organizations interest in participating in the Working Group (see Recommendation 6).

Unitil Response: Unitil will cooperate with the development and conduct of such survey.