

STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION

CASE 14-G-0212 - Proceeding on Motion of the Commission to Investigate the Practices of Qualifying Persons to Perform Plastic Fusions on Natural Gas Facilities.

ORDER ADOPTING FURTHER IMPROVEMENTS IN  
PLASTIC FUSION PRACTICES ON NATURAL GAS SYSTEMS

Issued and Effective: May 18, 2018

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STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION

At a session of the Public Service  
Commission held in the City of  
Albany on May 17, 2018

COMMISSIONERS PRESENT:

John B. Rhodes, Chair  
Gregg C. Sayre  
Diane X. Burman  
James S. Alesi

CASE 14-G-0212 - Proceeding on Motion of the Commission to  
Investigate the Practices of Qualifying Persons  
to Perform Plastic Fusions on Natural Gas  
Facilities.

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(Issued and Effective May 18, 2018)

BY THE COMMISSION:

INTRODUCTION

On May 15, 2015, an Order Requiring Local Distribution Companies to Follow and Complete Remediation Plans as Modified by this Order and to Implement New Inspection Protocols required that local distribution companies (LDCs) adopt new procedures that better ensure the safety of existing and new plastic fusions on natural gas facilities.<sup>1</sup> Since the May 15 Order, Department of Public Service Staff (DPS Staff) has observed implementation of the new practices. Moreover, some LDCs have

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<sup>1</sup> Case 14-G-0212 - Proceeding on Motion of the Commission to Investigate the Practices of Qualifying Persons to Perform Plastic Fusions on Natural Gas Facilities, Order Requiring Local Distribution Companies to Follow and Complete Remediation Plans as modified by this Order and to Implement New Inspection Protocols (issued May 15, 2015) (May 15 Order).

shared improvement opportunities, which, if implemented, will continue to improve natural gas safety in the installation of plastic fusions.

First, the May 15 Order required that all completed plastic fusions be inspected by a person other than the fuser before being placed into service. The Commission, in anticipation of this Order, proposed that the second person inspector of a plastic fusion, (a) may not be an equal or subordinate of the person completing the plastic fusion; (b) that the inspector has been qualified by appropriate training or experience in evaluating the acceptability of plastic pipe joints made under the applicable joining procedures; and (c) that the inspector's training and experience has been verified through documented evaluation.

Second, with respect to collaboration between the fuser and the inspector, the Commission considered authorizing such collaboration with two caveats: (a) collaboration should not be routinely used for all inspections; and (b) once a fuse is signed off on by the fuser, all collaboration should cease.

Third, the Commission considered adding the following specific requirements to Quality Assurance (QA/QC) programs: (a) that QA/QC programs must require that a statistically significant number of random checks be performed on work that has been deemed finally completed; (b) re-digging of completed jobs must occur to inspect the work sometime after the work was completed; (c) QA/QC inspectors must have been qualified by appropriate training or experience in evaluating the acceptability of plastic pipe joints made under the applicable joining procedures, as well as other required construction tasks including, but not limited to, installation of tracer wire, depth of cover, clearance from other underground structures,

etc., and that this training and experience be verified through documented evaluation(s).

Fourth, the Commission considered requiring that both positive and negative inspection results be recorded and reported. That is, the results of any plastic fusion that failed visual inspection, whether or not the fuse was placed into service, would be documented and reported to the Department of Public Service.

Fifth, the Commission proposed reducing the reporting requirements of fusions inspected in the normal course of business to include: (a) in any month in which an LDC finds zero fuses that failed visual inspection, no reporting is necessary; (b) LCDs' monthly reporting, required by the May 15 Order, would continue only for visually failed fuses found in the normal course of business; (c) monthly reporting on each fuse found to be visually defective would continue until the fuse is remediated or replaced; and (d) annual reporting summarizing the prior year's passes and fails of both fuses inspected during the regular course of business and during QA/QC inspections of completed projects and during construction projects be adopted in lieu of monthly reporting.

Sixth, the proposals included that it would remain in the LDC's discretion whether to remediate or replace a visually failed fuse found in the normal course of business based upon the fuse's location or the type of fuse but that (a) if a fuse is removed, it be destructively tested; (b) all destructive testing results would be reported in the new, annual, plastic fusion reporting being considered (see above); (c) if it is impossible to replace or remediate a visually failing fuse immediately, LDCs would have six months to replace or remediate the fuse; and (d) LDCs would need to keep the fuse whose

remediation or replacement is pending under regular surveillance until it was replaced or remediated.

Seventh, the Commission reviewed requiring each LDC to hold ratepayers harmless with respect to the costs incurred by LDCs for the assessment and remediation after having found improper plastic fusion qualifications or lapses.

Finally, it was proposed that NFG be ordered to comply with all plastic fusion requirements. This would be a prospective requirement.

In conformance with the State Administrative Procedure Act (SAPA) §202(1), a notice of the proposed modifications to the May 15 Order was published in the State Register on November 15, 2017 (14G0212SP4). The SAPA §202(1)(a) period for submitting comments in response to the notice expired on January 16, 2018.<sup>2</sup> Comments were received from National Fuel Gas Distribution Corporation (NFG), Orange & Rockland Utilities, Inc. and Consolidated Edison Company of New York, Inc. (in joint comments, Con Edison/O&R), Valley Energy, Central Hudson Gas & Electric (Central Hudson), The Brooklyn Union Gas Company d/b/a National Grid NY, KeySpan Gas East Corporation d/b/a National Grid, and Niagara Mohawk Power Corporation d/b/a National Grid (collectively, "National Grid"), New York State Electric and Gas and Rochester Gas & Electric (NYSEG/RG&E), Enbridge St. Lawrence Gas (St. Lawrence Gas), the Village of Hamilton Municipal

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<sup>2</sup> Two extensions to the comment period occurred. Due to enactment of new legislation, the initial 45-day comment period to December 26, 2017 was extended to January 16, 2018. Thereafter, since the Technical Conference the LDCs requested would further introduce more ideas into the record of this proceeding, comments were accepted until March 27, 2018, the date of the Technical Conference. The Technical Conference was announced via Secretary's Notices dated January 24, 2018 and March 7, 2018. All the large LDCs and most of the small LDCs attended.

Utilities Commission (Hamilton Municipal), and Northeast Gas Association (NGA), whose comments were supported by Central Hudson, National Grid, and Con Edison.<sup>3</sup>

A second State Administrative Procedure Act (SAPA) §202(1) notice was published with respect to National Fuel (14G0212SP5). National Fuel submitted comments on the second SAPA on December 26, 2017.

#### BACKGROUND

This proceeding was begun in response to a DPS investigation into the 2014 East Harlem gas incident in which a failed plastic fusion, completed and inspected by the same employee of a contractor, had failed. The failure contributed to a widespread explosion and many deaths. After learning that the person who had completed the fuse had lapsed plastic fusion qualifications, a further review revealed that the testing the person had received (and Con Edison had used for many years) had not included a vital component to show proficiency in completing plastic fusions - the destructive testing of the hands-on portion of plastic fusion qualification.

Thereafter, the Commission ordered each local distribution company (LDC) to conduct a review of possible requalification lapses and to perform risk assessments and remediation where problems with in-service plastic fusions installed by persons with lapsed qualifications.<sup>4</sup> Brooklyn Union

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<sup>3</sup> Pertinent comments from each LDC will be included under each subject heading.

<sup>4</sup> See Order Instituting Proceeding to Investigate Consolidated Edison Company Of New York, Inc.'s Practices and Obtain Information Concerning Plastic Fusions on Natural Gas Facilities (issued June 27, 2014) (CECONY Order) and Order Investigating the Practices and Obtaining Information Concerning Plastic Fusions on Natural Gas Facilities (issued June 27, 2014) (LDCs Order) (together, Risk and Remediation Orders).

Gas Company d/b/a National Grid NY, KeySpan Gas East Corporation d/b/a National Grid, Niagara Mohawk Power Corporation d/b/a National Grid, Corning Natural Gas Corporation, St. Lawrence Gas, Valley Energy, Bath Electric, Gas and Water Systems, Fillmore Gas Company, Reserve Gas Company, Woodhull Municipal Gas Company, and Hamilton Municipal found no problems associated with the qualification or requalification of workers.<sup>5</sup>

Six LDCs found time periods - some longer than others - in which plastic fusion qualification testing of either company employees or contractors, or both, was not in compliance with Commission rules. As such, on May 15, 2015, the Commission, among other things, ordered these LDCs to assess any impact the lapses may have had on their gas facilities. In addition to these assessments, the Commission required that all LDCs perform opportunistic inspections of fusions uncovered during the regular course of business.

Since the May 15 Order, the Department has opened three investigations after learning that the employees of two separate contractors who had completed work for Con Edison and National Grid had cheated on operator qualification exams for becoming qualified to perform covered tasks.<sup>6</sup> While these

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<sup>5</sup> National Grid found no non-compliances because it had requalified its entire workforce and contractors in the 1990's after discovering in its Massachusetts's service territory that operator qualifications were inconsistent.

<sup>6</sup> 16 NYCRR §255.285 contains requirements for qualifying persons to make plastic joints. In addition, 16 NYCRR §255.604 states that each operator shall have and follow a written qualification program for the qualification of individuals performing covered tasks on a pipeline facility. Plastic fusion has been defined as a covered task in these written plans and, therefore, require evaluation commensurate with both the requirements found in 16 NYCRR §255.285 and those under the written operator qualification program required under 16 NYCRR §255.604.



failures in contractor and construction project oversight are the responsibility of the LDCs that hired the two contracting companies and the investigations are yet not complete, the subsequent inspections of construction jobs completed by the two construction companies have revealed problems. Not only have some of the installed fusions failed visual inspection, but other work that was supposed to have been inspected by the LDCs showed problems that should have been found through required inspection (pursuant to 16 NYCRR §255.305) before being placed into service and before undergoing excavation and inspection (re-dig) in response to the cheating.

After publication in the State Register of the proposals in this Order, pursuant to SAPA §202(1)(a), many LDCs sought a stakeholder meeting to discuss the proposals directly with Staff. That meeting was held on March 27, 2018. In attendance were: National Grid, NFG, Central Hudson, Con Edison, NYSEG, RG&E, NGA, Hamilton Municipal, O&R, St. Lawrence Gas, Valley Energy, and one representative of a contractor.

In this Order, the Commission adopts revised plastic fusion requirements, based upon the comments received and further stakeholder discussions.

#### LEGAL AUTHORITY

Public Service Law (PSL) §66(2) assigns to the Commission the authority to investigate gas corporations and the methods employed by such corporations in the distribution of gas and to "protect those using such gas." In 2014, pursuant to PSL §66(11), the Commission authorized the Department of Public Service (DPS, Department) to investigate all LDC operator qualification programs and, where evaluations of qualifications to perform covered tasks were improper, the effect on plastic fusions, and to work with the LDCs to ensure the safety of plastic gas facilities. Public Service Law §65 mandates that

the Commission ensure safe and adequate gas service. Commission gas safety rules, 16 NYCRR Part 255 implement this requirement with detailed specifications for plastic fusion qualification and acceptable installed plastic fusion gas facilities.

DISCUSSION AND CONCLUSION

Notice

In its December 29, 2017 comments, NFG asserts that the Commission was required to have issued an order notifying the public of the proposed gas safety practice changes herein rather than issue a SAPA Notice, the purpose of which is to notify the public of proposed policy changes.<sup>7</sup> NFG cites to People v. Hurley Water Co. to support NFG's position.<sup>8</sup> Hurley, however, is not applicable to the present situation since it concerned a Commission-assessed penalty without a Commission Order. The gas safety proposals published in the State Register on November 15, 2017, were not legally binding and do not impact operations of any LDC until after this Order's issuance.<sup>9</sup>

NFG and Central Hudson also attack the sufficiency of the SAPA process followed in this case by confusing the requirements for SAPA §202's Rulemaking Procedure, SAPA §102(2)(a)(i) (hereafter "subpart (i)"), and the rules here, which fall under SAPA §102(2)(a)(ii) (hereafter "subpart (ii)").

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<sup>7</sup> For ease of reference, NFG's first set of comments, on "Requirements Pertaining to Inspections and Reporting on Plastic Fusions Installed in Gas Company Service Territories" will be called "NFG I" and its second set of comments, on "Compliance with Plastic Fusion Requirements," will be called "NFG II."

<sup>8</sup> People v. Hurley Water Co., 84 A.D.2d 615 (3<sup>rd</sup> Dept. 1981).

<sup>9</sup> NFG I at 2-4. NFG's argument in fact turns SAPA on its head, whereby Commission Orders, all of which must be Noticed under SAPA, would have to be preceded by another Commission Order with "precise text," which would also have needed a SAPA Notice.

The subpart (ii) rulemaking process applies to "the amendment, suspension, repeal, approval, or prescription for the future of . . . facilities . . . services or . . . practices bearing on any of the foregoing whether of general or particular applicability".<sup>10</sup> Subpart (ii) includes traditional utility ratemaking, but is not limited to the setting of rates for the provision of utility service. It also incorporates any "prescription for the future of . . . facilities, appliances, services or allowances therefor."<sup>11</sup> Furthermore, subpart (ii) adoption procedures also extend to "practices bearing on any of the foregoing."<sup>12</sup>

As this Order adopts prescriptions for future gas safety practices on gas facilities, it does not fall within the scope of, and need not follow the adoption requirements of, subpart (i). Therefore, the Commission is not required to provide the "proposal's specific text" of requirements adopted by Commission order, as Central Hudson claims (Central Hudson at 2). SAPA §202(1)(a)(ii) specifically states that publication of a full text of a rule (which NFG assumes must be an actual Commission order) "shall not be required for any rule defined in subparagraph (ii) of paragraph (a) of subdivision two of section one hundred two of this chapter." The plain language in the State Administrative Procedure Act distinguishes between subpart (i) and subpart (ii) rules. Moreover, a recent Supreme Court decision, Matter of Boundless Energy v. PSC, 57 Misc. 3d 610 (Sup. Ct. Albany County) has, without questioning its subpart (ii) rule status, treated a similar Commission "prescription"

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<sup>10</sup> Of note, NFG did not challenge a similar SAPA Notice that resulted in the May 15 Order requiring an initial set of practice requirements.

<sup>11</sup> SAPA §102(2)(a)(ii) (emphasis added).

<sup>12</sup> Id.

(for the future of delivery facilities) as falling within the scope of SAPA §102(a)(ii).<sup>13</sup>

Notably, despite NFG's procedural complaints, it commented substantively on each proposal published (reservations notwithstanding). NFG also participated in the Department's Technical Conference, at which each issue affecting all LDCs and proposed in the SAPA Notice was discussed, providing NFG another opportunity to be heard.

NFG also attacks the second Commission SAPA rulemaking notice, published in the State Register on November 15, 2017, which applied solely to NFG. The second SAPA Notice addressed the Commission's consideration of an order that would affirmatively require NFG to follow, and be held fully accountable for, gas safety procedures going forward. Here again, NFG is incorrect that the law required more notice than what was provided - a SAPA Notice explaining that the Commission would consider adopting a requirement in a Commission order that NFG follow gas safety regulations in the future due to NFG's past gas safety history. NFG claims that both cases it cites purportedly support NFG's claim that more process was required for adopting such a Commission Order. These cases are distinguishable, however. The cases NFG cites involved

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<sup>13</sup> Moreover, the PSC has wide discretion to determine utility requirements. See Rochester Gas & Electric v. PSC, 135 A.D.2d 4, at 8 (3<sup>rd</sup> Dept. 1987) ("The Legislature has granted to respondent [Public Service Commission] the very broadest of powers, and it is not too much to say that in this respect respondent is the alter ego of the Legislature"). Moreover, "substantial compliance" with SAPA is the standard for agency compliance, when not adopting a rule that "implements or applies law, or prescribes a fee charged by or paid to any agency or the procedure or practice requirements of any agency, including the amendment, suspension or repeal thereof specifically required to the agency." Therefore, the Commission may apply the subpart (ii) rulemaking procedures, which were appropriately followed in this instance.

inadequate notice of formal administrative enforcement adjudications under SAPA §301 *et. seq.*, and for which sanctions or penalties were imposed. The only effect of the adoption of the proposal in the SAPA Notice with respect to NFG issued in this case is the Commission ordering NFG to comply with existing gas safety regulations. If the Commission finds it necessary in the future to enforce this Order against NFG, the Commission will notify NFG directly of such enforcement in compliance with due process requirements. In that vein, NFG is also mistaken that it should have been personally served with the proposed changes published in the State Register. PSL §23 requires that orders, not proposed rulemakings, be served personally on affected parties.

National Grid noted that the SAPA Notice did not refer to any proposed Commission regulation changes, or subpart (i) rules.<sup>14</sup> While this case began under emergency circumstances, it has evolved since then, and has included the development of new gas safety practices that have informed the Commission and the LDCs not only on the condition of installed plastic fusions, but of the need for and success of other safety procedures. The flexibility that this Commission proceeding allows, including ending monthly reporting and allowing collaboration in the assessment of fuses by Commission order, clarifies the LDCs' obligations before they may be incorporated into Commission regulations.

In sum, the SAPA notices here complied with statutory requirements.

#### Second Person Inspections - Subordinates

The May 15 Order required all completed plastic fusions to be inspected by a person other than the fuser before

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<sup>14</sup> National Grid at 3.

the fuse may be placed into service. The intent of the proposal to require that inspectors not be subordinate to a fuser was to avoid a power imbalance between an inspector and a fuser whereby a subordinate inspector would be intimidated by "failing" a supervisor/fuser. This power imbalance could allow an otherwise unacceptable fuse to be placed into service if an inspector refused to reject their superior's work.

NFG, Con Edison/O&R, Central Hudson, NYSEG/RG&E, National Grid, Hamilton Municipal, and St. Lawrence Gas disagree that second person inspectors must hold an equal or superior position of the fuser.<sup>15</sup> Doing so, NFG argues, "could ultimately" require NFG to add another person to each plastic fusion crew and could require "100% inspection" of contractor projects, both of which would add to NFG's costs; Con Edison/O&R, NYSEG/RG&E, National Grid, and Central Hudson argue that the requirement would lead to higher costs and "restrict resources," deplete field forces, and increase established metrics and expenses adopted in rate cases for leak prone pipe replacement.<sup>16</sup> NFG, National Grid, Central Hudson, and NYSEG/RG&E state there is "no guarantee" that this requirement will improve safety or add value and believe the current inspection process is sufficient.<sup>17</sup> Con Edison/O&R posits that the requirement will prohibit employees from inspecting third-party contractor work (and vice versa) if both are working at the "same level."<sup>18</sup> Rather than adopt these requirements,

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<sup>15</sup> NFG I at 5; Con Edison/O&R at 2; Central Hudson at 3; NYSEG/RG&E at 1; St. Lawrence Gas at 1.

<sup>16</sup> Con Edison/O&R at 2; Central Hudson at 3. Central Hudson raises the concern that the added cost will add to the "price per mile" targets established in rate cases.

<sup>17</sup> NFG I at 6; Central Hudson at 3.

<sup>18</sup> Con Ed at 2.

NYSEG/RG&E suggest changes to Quality Assurance programs that include a "root cause process" to address any backlash between fuser and inspectors and believes its "Company culture" will avoid discriminatory treatment among fusers and inspectors.<sup>19</sup> Similarly, NFG suggests improvements to Quality Assurance programs and asked for a collaborative "to develop a cost-effective approach" to assessing the integrity of fusion inspections and LDCs' QA/QC programs.

Valley Energy and Hamilton Municipal, as small gas companies that use their "own workforce for the majority of all construction," and all of whose employees "meet the documentation and qualification requirements" state that a requirement that the inspector not be an equal or subordinate of the fuser will add significant costs, logistical problems, and possibly delay jobs.<sup>20</sup> For instance, Valley Energy's two-crew and Hamilton Municipal's three-crew structures would add the requirement that another person be added to each crew, adding to costs for all main and gas service repairs and replacements. Hamilton Municipal states doing so would be cost-prohibitive.<sup>21</sup> St. Lawrence Gas states it does not have the resources "to complete 100% of the inspections with non-equal, non-subordinate personnel."<sup>22</sup>

This issue was discussed at the March 27 Technical Conference. LDCs stated that they hold inspectors to the same consequence - de-qualification to perform plastic fusions - if a fuse has passed inspection and then later found that it should not have passed inspection. This, combined with the fact that

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<sup>19</sup> NYSEG/RG&E at 2.

<sup>20</sup> Valley Energy at 1.

<sup>21</sup> Hamilton Municipal at 3.

<sup>22</sup> St. Lawrence Gas at 1-2.

inspectors and fusers rotate their responsibilities on any given work site, makes the proposal that an inspector not be a subordinate unnecessary. Therefore, this proposal is rejected.

In its place, however, is adoption of a new requirement, which most LDCs state they already practice, that inspectors be appropriately qualified and then subject to the same consequence as fusers if the inspector approves a fuse that is later found to fail visual inspection or destructive testing, or that fails during service due to workmanship.<sup>23</sup> Like 16 NYCRR §255.285, which states,

(d) A person must be requalified under an applicable procedure once each calendar year at intervals not exceeding 15 months, or after any production joint is found unacceptable by testing under section 255.507 or 255.511 of this Part, by inspection by other than the joiner, or a combination of both (emphasis added),

inspectors of plastic fusions must be requalified after signing off on a joint that is later found to be unacceptable.<sup>24</sup>

#### Second Person Inspections - Inspector Qualification

Another concern that Staff has raised is that plastic fusion inspectors be fully qualified to perform plastic fusions.

In comments, NFG, NYSEG/RG&E, and St. Lawrence support the requirement that inspectors be qualified in evaluating the acceptability of plastic joints; NFG notes it already follows this practice.<sup>25</sup> Similarly, Con Edison/O&R supports plastic fusion inspectors being qualified to evaluate plastic pipe and that the qualifications be documented but notes the Commission

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<sup>23</sup> While we are not making third-party inspectors a requirement, we do consider the employ of third party inspectors a best practice.

<sup>24</sup> Once a joint has been inspected and deemed "passed," it must be signed first by the fuser, then by the inspector. At this point, the joint is considered "final."

<sup>25</sup> NFG I at 5.



already included this requirement in the May 15 Order.<sup>26</sup> Central Hudson seeks further clarification of this requirement since, in its company, the individual that inspects fusions as a third-party non-crew member is required to complete a knowledge exam but is not required to pass a practical (i.e. hands-on) exam to be operator qualified for inspection purposes. Only persons who are operator qualified complete fusions at Central Hudson; Central Hudson reads state and regulatory rules as requiring that persons performing new construction tasks do not need to be operator qualified. National Grid reports that its inspectors are "qualified in evaluating plastic pipe joints, and inspector training and experience is verified through documented evaluation(s). Inspectors, whether they be National Grid or contractor personnel, are trained and qualified via classroom sessions, written examinations, and field training to be able to visually accept fusion joints."<sup>27</sup>

Central Hudson is partially correct in its assertion that, since plastic fusion is a construction task, plastic fusion is not covered by Commission operator qualification regulations. Under this premise, all persons performing plastic fusions need to be qualified annually, at intervals not exceeding 15 months.<sup>28</sup> However, Central Hudson overlooked two points. First, while partially correct in its statement that plastic fusion is not a "covered task," all fusions are not exempt from the operator qualification rules. Specifically,

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<sup>26</sup> Con Edison/O&R at 3. The May 15 Order implicitly mandated that inspectors of plastic fusions be qualified. This Order affirmatively requires that all inspectors be operator qualified to inspect the task they are inspecting, with training that each LDC shall determine, and that such training be documented.

<sup>27</sup> National Grid at 4.

<sup>28</sup> 16 NYCRR §255.285.

tie-in joints for replacement facilities are considered an "operations" task requiring operator qualification credentials. Therefore, an LDC that does not identify plastic fusion as a covered task would nonetheless need to clearly define and monitor which fusions are or are not required to be completed by operator qualified personnel. Moreover, Central Hudson, like most New York LDCs, uses the Northeast Gas Association's (NGA) Operator Qualification plan. This plan very clearly identifies plastic fusion - in all cases - as a covered task. Furthermore, 16 NYCRR §255.604 states that all operators "shall have and follow a written qualification program." Therefore, even though Part 255 does not define plastic fusion as a covered task, the operator qualification plan that Central Hudson has adopted does identify fusion as a covered task and the safety regulations require Central Hudson to "have and follow" its written plan.<sup>29</sup> Therefore, under Central Hudson's Operator Qualification Plan (and most New York LDC Plans), plastic fusions performed during construction projects are, in fact, a covered task.

Further, 16 NYCRR §255.287 states that "No person may carry out the inspection of joints in plastic pipes required by sections 255.273(c) and 255.285(b) of this Part unless that person has been qualified by appropriate training or experience in evaluating the acceptability of plastic pipe joints made under the applicable joining procedure." While this requirement does not explicitly define how to determine whether a person possesses "appropriate training or experience in evaluating the acceptability of plastic pipe joints made under the applicable joining procedure," an LDC must define (and appropriately document) how it would determine appropriate training and experience of persons inspecting plastic fusion joints. As

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<sup>29</sup> 16 NYCRR §255.604(a) (1).

such, written and hands-on evaluations may be appropriate means to determine technical competence. As with plastic fusion itself, if an LDC's written Operator Qualification plan defines the evaluation process for inspection of joints made by plastic fusion, that evaluation process would be used. If a plan does not define the evaluation process for inspection of joints as a covered task, each individual LDC would need to define how it determines whether the training and experience possessed by any individual inspecting plastic joints is 'appropriate' for correctly assessing whether each joint inspected is found to have the same appearance as a joint or photographs of a joint deemed acceptable under the procedure used and whether the fusion procedure itself was followed.<sup>30</sup> Ultimately, these inspections are to determine the acceptability of each fuse made. For these reasons, LDCs must provide appropriate attention to how inspectors are qualified.

In sum, while inspectors are now subject to the requirements enunciated in §255.285(d), LDCs are obligated to determine what level of training and experience each inspector must have. The LDCs shall submit such requirements as required by this Order.

#### Inspection Collaboration

Commission regulation, 16 NYCRR §255.285(d) requires that anyone completing plastic fusions must be requalified if, within any 12-month period, a fuse they complete fails inspection. In speaking with the LDCs, Staff has learned that it has become a common practice since the May 15 Order that plastic fusion workers and inspectors collaborate on whether fuses are acceptable before signing off on the fuses so they can be placed into service. If an inspector decides a fuse would

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<sup>30</sup> See 16 NYCRR §255.287.

fail visual inspection, the fuser does not complete installation of the fuse and the fuse is removed and replaced.<sup>31</sup> The concern upon which the proposal to discourage routine collaboration was based was that constant collaboration would allow fusers who complete repeatedly failed fuses to not be identified for requalification.

In comments on this proposal, NYSEG/RG&E does not support the routine use of collaboration "for all fusion inspections" because "a fuser that routinely must rely on a peer or a person performing the inspection to determine an acceptable fusion should not be considered qualified."<sup>32</sup> Rather, NYSEG/RG&E support random, unannounced inspections as used in its QA/QC program, and NYSEG/RG&E's own requirement that fusers be requalified annually.<sup>33</sup> NFG advises that the Commission, in its Memorandum and Adoption adopting recent revisions to 16 NYCRR 255.285(d), which clarified when a fuser's requalification requirements are triggered by a failed fuse, has already condoned the practice of collaboration. Con Edison/O&R supports a procedure whereby once a fuse is signed off on by a fuser, collaboration should cease.<sup>34</sup> NFG, Con Edison/O&R, and National Grid state opposition to placing limits on the routine use of collaboration between fusers and inspectors.<sup>35</sup> Con Edison/O&R states that compliance would be difficult to monitor and the term "routine" would need to be defined. Without stating that

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<sup>31</sup> Section 255.281(c) of 16 NYCRR states that the quality of the joints shall be checked visually. If there is any reason to believe the joint is defective, it shall be removed and replaced.

<sup>32</sup> While some LDCs refer to the second inspection as a "peer inspection," this is a misnomer.

<sup>33</sup> NYSEG/RG&E at 2.

<sup>34</sup> Con Edison/O&R at 3.

<sup>35</sup> NFG I at 6; Con Edison/O&R at 3.

it does not routinely use collaboration beforehand, National Grid finds its current practice of collaboration to be "a prudent framework" in that an inspector may only inspect joints "after the fusion is complete."<sup>36</sup> Hamilton Municipal states that discouraging collaboration "appears redundant and costly."<sup>37</sup>

At the Technical Conference, the benefits of collaboration became clearer. Sufficient checks are in place - e.g., that with collaboration, each fuse is checked by two people before it is placed into service and LDCs have a monetary incentive not to retain a fuser who must consistently repeat completion of fuses - that address the concern that collaboration allows poor fusers to continue to complete bad fuses. Moreover, the new requirement that inspectors be disqualified if a fuse they approve is later found to be a visual failure, adds to the incentive that fusion collaboration furthers the goal of properly completed plastic fusions.<sup>38</sup> That said, this Order requires that installers not come to rely solely on second person inspections to correct fuser deficiencies.

#### Quality Assurance/Quality Control Programs

The importance of robust plastic fusion Quality Assurance/Quality Control Programs (QA/QC Programs) at each LDC cannot be overstated. In Staff's observation, changes are necessary to make the QA/QC programs of the major gas companies more effective. To that end, the Commission sought comments on the proposed requirement that every QA/QC program include a practice of randomly inspecting a statistically significant number of locations on work that has been deemed finally

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<sup>36</sup> National Grid at 4.

<sup>37</sup> Hamilton Municipal at 4.

<sup>38</sup> The process of collaborating can also assist subordinates who can avoid outright failing a supervisor's fuse.

completed. That is, QA/QC inspectors would return to completed sites after a construction project has been completed and re-dig a statistically significant number of completed jobs for inspection to determine if trends, good or bad, can be recognized and corrected or remediated.

Most of the LDCs oppose a blanket re-dig requirement for completed construction projects.<sup>39</sup> NYSEG/RG&E do support inspection of "an adequate number of random checks on completed work" based on a Distribution Integrity Management Program (DIMP) methodology, which increases or decreases inspections based upon actual data. At the Technical Conference, the LDCs explained that such data would be based upon the QA/QC inspections conducted during any given project. That is, a project during which problems were routinely found would be re-inspected with more re-digs than one that experienced fewer spot-check problems. NYSEG/RG&E believes that a requirement to re-dig at all completed jobs fails to consider the use of opportunistic inspections to moderate impacts that re-digs have on customers and municipalities (e.g. disturbed roadways).

NFG states it does not support randomly re-digging completed jobs because doing so could damage the facilities due to the excavation necessary to perform the inspections. NFG and Central Hudson add that re-digs would inconvenience customers. However, NFG would support re-digging if a random sampling of completed work first revealed improper workmanship. Further, NFG believes the existing requirement that LDCs inspect fuses uncovered during the regular course of business will achieve the same results as post-construction re-digs and "satisf[ies] the intent of post-construction re-digs."<sup>40</sup> Con Edison/O&R states a

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<sup>39</sup> See e.g., NYSEG/RG&E at 3.

<sup>40</sup> NFG II at 8.

requirement of randomly testing a "statistically significant" number of locations would be a "rigid" and potentially costly requirement and prefers a company-specific establishment of "an appropriate number of random checks" on work "deemed completed."<sup>41</sup> Central Hudson states its "experienced crew chiefs, and a team of 12 third party inspectors" inspect "nearly 100%" of Central Hudson's contractor work during installation.<sup>42</sup> National Grid performs "real time" and post-fusion inspections each day while "re-dig inspections are randomly selected from completed work over the previous 30-45 days." When recurring problems are found, a further statistically valid sample of work is inspected. National Grid believes each LDC should be able to propose its own QA/QC program.<sup>43</sup>

In opposing the inclusion of re-digs for all LDC QA/QC programs, Con Ed states that "alternatives to re-digs that are equally as effective" be adopted. Central Hudson states that what would be "deemed finally completed" and "statistically significant sampling" would both need to be defined and a "level of confidence dictated."<sup>44</sup>

Valley Energy and St. Lawrence Gas agree that re-digging of completed jobs would increase the risk of excavator damage to existing pipes, inconvenience property owners, and increase paving costs. Valley Energy offers generally, "if issues were found with a particular fuser, Valley Energy would initiate a statistical sampling to determine the extent and remediate as necessary."<sup>45</sup> Similarly, Hamilton Municipal

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<sup>41</sup> Con Edison/O&R at 4.

<sup>42</sup> Central Hudson at 5.

<sup>43</sup> National Grid at 7.

<sup>44</sup> Central Hudson at 4.

<sup>45</sup> Valley Energy at 2.

maintains that requiring re-digs "amounts to a second inspection of an [already] inspected fuse." Moreover, re-digging of completed jobs would be "disastrous" for Hamilton Municipal; given its size, such re-digs would mean that streets would be "perpetually" open.<sup>46</sup> St. Lawrence Gas believes re-digs are not necessary given the current inspection requirements.<sup>47</sup>

NGA states it is developing an "inter-company fusion data sharing" program as part of a "broader" quality assurance process. NGA asks that no new requirements be adopted until NGA can complete its endeavor to achieve "continuous improvement" that will lead to "more sustainable improvements . . . for improving gas safety." Part of this approach, NGA states, includes "company specific programs" and "fit-for purpose" programs" that "address operating variables" and provide alternatives to re-dig programs.<sup>48</sup> National Grid, Central Hudson, and Con Edison support NGA's data-sharing proposal.<sup>49</sup>

Relatedly, the Commission also sought comments on requiring that QA/QC inspectors, like the workers who performed the construction, be qualified by appropriate training or experience in evaluating the completed work they are inspecting.

NFG supports that QA/QC inspectors be qualified in "applicable joining procedures" but opposes Commission adoption of "an open-ended list of construction tasks" for which inspectors must also be trained.<sup>50</sup> Arguing that "most tasks are procedural and not skills-based," NFG maintains that QA/QC personnel are able "to monitor compliance with written

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<sup>46</sup> Hamilton Municipal at 4.

<sup>47</sup> St. Lawrence Gas at 2.

<sup>48</sup> NGA at 2; NYSEG/RG&E at 4.

<sup>49</sup> National Grid at 7;

<sup>50</sup> NFG I at 7.



procedures." Con Edison/O&R and NYSEG/RG&E agree that inspectors be qualified in plastic fusion but maintain that inspectors should not need to be qualified "in other construction tasks to be effective in their roles" nor in an "open-ended list of construction tasks."<sup>51</sup> Con Edison/O&R thinks the extent of further construction training of inspectors should be up to the discretion of each LDC, based upon "costs and benefits of the inspections to be performed."<sup>52</sup> NYSEG/RG&E maintain that inspectors on-site, "similar to Staff's inspectors," can monitor construction standards.

The Department identified the possibility that LDC inspectors had not been properly qualified while investigating construction sites after problems were found in recent re-digs of two LDC projects completed by two contracting companies whose workers had not been qualified. Because 16 NYCRR §255.305 requires that "(a) Each transmission line and main must be inspected during construction" and "(b) Inspections shall be made at sufficiently frequent intervals to assure the required quality of workmanship," it was incumbent on the LDCs to ensure these projects were completed in compliance with Commission gas safety rules. While no incidents occurred due to the problems found at the sites (both with respect to plastic fusion and other construction non-compliances), LDCs are either not inspecting them in compliance with §255.305 or the LDC inspectors were not properly qualified to be inspectors.<sup>53</sup>

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<sup>51</sup> Con Edison/O&R at 4; NYSEG/RG&E at 3.

<sup>52</sup> Con Edison/O&R at 5.

<sup>53</sup> LDCs are on notice that this requirement is a performance-based mandate. That is, when follow-up inspections find that the quality of workmanship is below safety standards, the LDC may be found to have not complied with the requirement of sufficiently frequent LDC inspections.

Therefore, within 45 days of the date of this Order, the major LDCs shall submit QA/QC programs that explain in detail the qualification, training, and experience requirements for company QA/QC inspectors. Specific attention shall be paid to plastic fusion QA/QC inspector qualifications. Further, to clarify, a "completed project" is one that has been back-filled; it need not be one that has been permanently paved over. Moreover, the section being inspected should be energized prior to the QA/QC inspection process.

Additionally, virtually all the LDCs mentioned cost considerations as a basis to limit the scope of QA/QC inspections or foregoing these inspections altogether. Keeping costs in mind, it is not reasonable to go through the expense of excavating an in-service pipeline only to look at the quality of the fuse and not use the opportunity to check the quality of other construction requirements (tracer wire, depth of cover, clearance, etc.). QA/QC plastic fusion inspectors, therefore, must be qualified with appropriate training or experience not only in evaluating the acceptability of plastic pipe joints made under the applicable joining procedures but also for other required construction tasks that the QA/QC inspectors will be reviewing. As such, QA/QC inspectors must be fully trained in areas including, but not limited to, identifying whether the installation of tracer wire exists, knowing the correct depth of cover, and the required clearance from other underground structures. The training and experience of QA/QC inspectors shall be verified through documented evaluation(s). At the Technical Conference, the LDCs commented that QA/QC inspectors have many years' experience such that full operator qualification (annual hands-on and knowledge-based testing for every task) is not necessary. That said, QA/QC inspectors need not be "operator qualified" unless the LDC's Operator

Qualification Plan identifies these inspections as a covered task. Each QA/QC program, therefore, will show the exact requirements each LDC requires for a QA/QC inspector to serve in the position. QA/QC programs will be subject to Department review and approval.

Moreover, all LDC QA/QC programs must detail the specific process whereby plastic fusion work completed by both a plastic fuser and second person inspector that later fails visual inspection, is re-inspected. As mentioned previously, gas safety rule, 16 NYCRR §255.285, requires that "(d) A person must be requalified under an applicable procedure once each calendar year at intervals not exceeding 15 months, or after any production joint is found unacceptable by testing under section 255.507 or 255.511 of this Part, by inspection by other than the joiner, or a combination of both." Therefore, from the date an unacceptable joint was completed, all subsequent joints completed and, under today's new requirement that plastic fusion inspectors be disqualified if a fuse they inspected fails a later inspection, all jobs subsequently inspected, must be re-inspected. QA/QC programs must include a re-inspection process for these fusers and disqualified inspectors.

Finally, the QA/QC program submissions shall include the qualifications each LDC requires for all QA/QC inspectors, broken down by work inspected.

#### Reporting Inspections

In the May 15 Order, the Commission ordered that inspections of plastic fusions uncovered during the normal course of business be made and that the results be recorded. Since that time, LDCs have reported only visually failed fuses and have reported them monthly. This practice, however, has not allowed the Department to monitor sufficiently the total number of inspected fuses nor the progress being made by the recent

inspection and remediation of installed plastic fusions. The Commission, therefore, sought comment on a requirement that LDCs report both visually failed and visually passed fusion inspections found during the regular course of business and that such reporting be made on an annual basis.

NFG and NYSEG/RG&E unequivocally oppose an "ongoing systemic reporting of fusion inspection results."<sup>54</sup> Hamilton Municipal has no objection to this proposed reporting and states that reporting both visual passes and failures would not be a burden.<sup>55</sup> NFG, NYSEG/RG&E and Central Hudson state they invested in GIS mapping and a record-keeping system to "allow Staff to duplicate the locations for audit purposes" and to "electronically capture the location, via GPS coordinates, of "existing heat fuses," the inspector and the "result of the visual inspection."<sup>56</sup>

NFG states it did not plan to document plastic fusions that failed visual inspection during construction and were never placed into service. This reporting of "hundreds or thousands" of fusions annually, NFG believes, would offer no added safety benefit. Central Hudson agrees with NFG, stating that "it is not clear what positive safety effect would be gained" by reporting failed fuses not placed into service because "the individual that installed the fuse is required to be requalified for the task," (presumably when the fuse fails inspection) and this fact is recorded in Central Hudson's database.<sup>57</sup> Con Edison/O&R does not oppose a requirement to record both positive and negative inspection results. NYSEG/RG&E state that the gas

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<sup>54</sup> NFG I at 8.

<sup>55</sup> Hamilton Municipal at 5.

<sup>56</sup> Central Hudson at 4.

<sup>57</sup> Central Hudson at 5.

companies maintain records that Staff routinely audits and, therefore, there is no need for another reporting requirement.

NFG, Con Edison/O&R, NYSEG/RG&E, and National Grid support the proposed change to the May 15 Order that would allow LDCs to only submit a monthly report if an LDC finds a visually failed fuse and to submit an annual summary from each LDC.<sup>58</sup> National Grid asks for further discussion on reporting plastic fusion findings to develop a cost-effective approach to them. Hamilton Municipal supports all the proposed new reporting requirements.

While National Grid believes that failed inspections should be properly documented, and that failed joints "trigger appropriate retraining/requalification," National Grid states "appropriate cost-effective action" be taken to do so.<sup>59</sup> National Grid seeks further discussion on this issue.

It is important to keep in mind that 16 NYCRR §255.281(c) requires that "plastic fusions not passing a visual inspection be removed and replaced." The Commission, however, is interpreting this requirement to allow that visually failed fusions be remediated, at the LDC's discretion. The requirement that visually failed fusions that are never placed into service be reported to the Commission is a circuitous way to monitor fusers whose work is sub-par and in need of retraining/requalification. Sufficient safeguards exist - collaboration among them - to ensure that fusers obtain sufficient oversight and experience. Therefore, visually failed fuses that are never placed into service need not be reported. While LDCs need not report fuses that were deemed a failure during construction that were not placed into service, fuses

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<sup>58</sup> NFG I at 9.

<sup>59</sup> National Grid at 5.

that both the fuser and the second inspector passed that then fail QC/QA inspection at construction sites (whether or not they were placed into service) and those fuses that QA/QC inspections failed after they were placed into service shall be reported. LDCs shall review their company practices to ensure company and contractor compliance with 16 NYCRR §255.285(d).

Reporting of failed and passing fusions inspected after being found in the normal course of business is important, however, because it allows a long-term assessment of plastic fusion advancements and provides the Department and the LDCs valuable information, including the effectiveness of LDC inspection programs.<sup>60</sup> Since the new reporting will be an annual requirement, LDCs have until December 31, 2018 to implement the reporting of both visually passing and visually failed fuses found during the regular course of business for 2015, 2016, and 2017. That is, the results of any plastic fusion inspection, whether it failed or passed visual inspection shall be documented and reported to the Commission on an annual basis. For each fuse found to be visually defective, the LDC shall report monthly on that fuse until the fuse is remediated or replaced.

Restated, the reporting requirements as stated in this Order will now be that, first, in any month in which an LDC finds zero fuses that failed visual inspection, no reporting for that month is necessary. LDCs' monthly reporting, required by the May 15 Order, would continue only for visually failed fuses uncovered during normal business. Included in the monthly reports shall be fusions that are waiting to be remediated or for any fuses associated with any DPS investigation of other company inspection failures. Such reporting shall commence for

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<sup>60</sup> Further, certain fuse types, like butt-fusions, appear to show more visual failures than other types of fuses.

the first full month following the date of this Order. Each LDC's first annual report of the total 2015-2017 fusions inspected (passes and failures) shall be filed by December 31, 2018. Inspection results for 2018 shall be filed on January 31, 2019 and by January 31 of each year thereafter for the previous year. Each LDC shall include in its annual reporting the passes and failures for the previous year's results; such annual reporting shall continue until further notice.

Remediation of Failed Fuses

The May 15 Order allowed LDCs discovering a fuse during the regular course of business, which fails a visual inspection, to either remediate the fuse or replace it.<sup>61</sup> The Commission sought comments on a requirement that any fuse that is removed be destructively tested and that fuses awaiting remediation be monitored for leaks and reported to the Commission monthly until remediated. NFG and NYSEG/RG&E support this proposal. Hamilton Municipal has no objection to the proposal and sees as reasonable destructive testing of all visually failed fuses that are removed. Con Edison/O&R disagrees that all visually failed fuses that are removed should be destructively tested, stating that not all removed fuses can be destructively tested because sometimes the "position of the fuse on the section of cut out main" prohibits it.<sup>62</sup>

Con Edison/O&R also seeks flexibility in defining what "regular surveillance" means, suggesting that monthly leak surveys be sufficient.<sup>63</sup> National Grid generally supports the

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<sup>61</sup> May 15 Order, Ordering Clause 3.

<sup>62</sup> Con Edison at 5.

<sup>63</sup> Con Edison/O&R at 6.

replace and remediate proposal; however, National Grid also seeks further discussion of the matter.<sup>64</sup>

In the future, the discretion of whether to repair or replace the fuse would remain with the LDC. Moreover, when a fuse is removed, and it cannot be destructively tested due to the position of the fuse on the gas facility cut out, it need not be destructively tested. However, the results of fuses destructively tested shall be reported in the monthly reports of visually failed fuses adopted by this Order.

In some instances, either replacement or remediation is not immediately possible. In these cases, LDCs will have six months from the date of discovery to schedule replacement or remediation of the fuse.<sup>65</sup> Until corrective action is taken, LDCs must report the fuse's status to the PSC and keep the fuse for which the repair or remediation is pending under regular surveillance until it is replaced or remediated. Regular surveillance should include routine leakage surveys whose frequency are determined by local conditions. When determining the frequency of surveillance, factors such as (but not limited to) the fuse's distance from structures, continuously paved areas, and frost cap shall be considered and documented.

#### Normalizing Inspection Costs

In the May 15 Order, the Commission required that the LDCs continue oversight of fuses exposed during the regular course of business and that they continue visual inspection of plastic fusions currently in service as "necessary to reinforce the statistical sampling process" required after initial reassessments showed problems due to lack of proper qualifying

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<sup>64</sup> National Grid at 6.

<sup>65</sup> "Discovery" is the date the fuse fails visual inspection.



modules.<sup>66</sup> Further, the Commission determined that "inspections of PE fusions made during routine work provide important information to the LDC [and] it will also provide the opportunity to remediate fusions that should not have passed inspection had a second person inspected it initially." The intent of the May 15 Order, therefore, was not only to locate visually questionable fuses after non-compliant plastic fusion qualification, it was also to perform an ongoing safety inspection of gas systems.

With respect to the proposal to disallow rate recovery when LDCs locate failed fuses, NFG explains that in Case 16-G-0257, NFG agreed with the Staff Panel's testimony that ratepayers should not bear the burden of identifying and correcting plastic fusion deficiencies resulting from NFG's inadequate fusion qualification program, which had omitted destructive testing from mid-2011 to mid-2014.<sup>67</sup> As such, NFG agreed to remove these costs from rates. NFG posits, however, that such cost removal from rates should only apply to the costs incurred during the limited time period during which NFG had lapses in its fusion qualification program. That is, NFG believes ratepayers should shoulder the costs of LDC inspections made during the regular course of business, arguing these are ongoing and systematic inspection expenses. NFG argues that "[t]o disallow the costs of replacing decades old fusions having

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<sup>66</sup> In a September 29, 2015 letter to LDCs, the Department directed all LDCs to keep track of all costs associated with risk assessments if they had found that their operator qualification practices were not in full compliance with Commission rules. After that letter, six LDCs reported inspections of fuses that should have failed visual inspections after at least some period of lapsed plastic fusion qualifications.

<sup>67</sup> NFG I, II at 10.

visual characteristics that were not inspected to today's standards is both unwarranted and may have a chilling effect on the industry's willingness to embrace or evaluate enhancing process improvements due to concerns that it may lead to disallowance of costs."<sup>68</sup> Such unfairness, NFG states, would impair LDC improvements.<sup>69</sup>

Con Edison/O&R believes this proposal is "overly broad" and not defined well enough to fully comment but also states that any rate impact should not be decided in this proceeding but should be decided on a case-by-case basis for each utility.<sup>70</sup> Con Edison/O&R raises the concern that to disallow all plastic fusion inspection costs "could include improper plastic fusions performed before the Companies implemented" the May 15 Order's requirements.

NYSEG/RG&E do not support a disallowance for the development of the records tracking system, the ongoing inspections or remediation of visually questionable fuses.<sup>71</sup> Quality standards for plastic fusion joints have "incrementally" improved to today's "rigorous standards;" therefore, NYSEG/RG&E say, the "[o]pportunistic inspections and remediation of fusions having questionable visual characteristics should be considered a normal course of business expense." National Grid opposes a rate disallowance of costs for assessment and remediation even after having found lapses in fusion qualification and believes such costs should be addressed on a case-by-case basis based on

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<sup>68</sup> NFG I at 11.

<sup>69</sup> NFG II at 14.

<sup>70</sup> Con Edison/O&R at 6.

<sup>71</sup> NYSEG/RG&E at 5.

underlying facts.<sup>72</sup> Hamilton Municipal, whose customers own the gas system, say this requirement is meaningless to it.<sup>73</sup>

First, Con Edison's comment that it is not appropriate to disallow costs for "improper plastic fusions" completed before the May 15 Order's requirements went into effect is misplaced. Inspection of all fuses was required before the May 15 Order; the May 15 Order simply added that the inspection be made by a second person. That said, the costs associated with Con Edison's lapses in compliant operator qualification that affected plastic fusions is unique and requires individual treatment consistent with the February 16, 2017 Order Approving Settlement Agreement in this Case and Case 14-G-0201.<sup>74</sup>

The risk assessment work to identify fuses that should have failed visual inspection during periods of non-compliant operator qualifications are the only costs LDCs shall ensure are not borne by ratepayers. As such, each LDC shall hold ratepayers harmless with respect to all the costs incurred for the assessment and remediation of fusions that were completed by non-qualified workers. This includes the cost to assess and remediate any future periods of non-compliance (which shall be reported immediately to the Commission) and includes the periods in which contractors completed work when out of compliance with operator qualification requirements.

Moreover, the proposal to disallow the cost to remediate visually failed fuses is overly broad. NFG and Con Edison sufficiently showed that the standard for an acceptable

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<sup>72</sup> National Grid at 7.

<sup>73</sup> Hamilton Municipal at 6.

<sup>74</sup> Specific elements of Con Edison's remediation costs were addressed in the settlement approved by the Commission under Case 14-G-0201 and this case on February 16, 2017. Moreover, Con Edison's problems affect its entire pre-2014 plastic fusion inventory.

visual inspection of the various types of plastic fusions has changed over the years.<sup>75</sup> The standard for a rate (i.e. prudence) disallowance is whether the utility acted reasonably under the circumstances at the time the work was performed. Specifically, the question is whether the LDC should have known its decision was faulty at the time the decision was made.<sup>76</sup> Therefore, there need be no tracking of costs for the remediation of failed fuses made by properly operator qualified workers and discovered during the regular course of business merely because it is an older fuse that fails inspection by today's standards. However, the costs incurred to remediate all visually failing fuses completed on or after October 1, 2015, uncovered during the regular course of business, while required to be tracked separately, should be absorbed by LDCs, and are prohibited from being recovered in base rates from ratepayers. The costs should be charged to earnings, excluded from computation in the earnings sharing calculation, and normalized out of any historical test period that is used in a future rate filing.

LDCs shall continue to track costs associated with plastic fusion risk assessments and remediation for fusions installed during any period of fuser or inspector operator qualification non-compliance whether by LDC employees or contractors completing work for the LDC so that these costs may be reviewed by the Department.<sup>77</sup> All LDCs shall submit such

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<sup>75</sup> NFG II at 11, fn.6. Con Edison shared the recent notice on inspections on the Technical Conference.

<sup>76</sup> Matter of Long Island Lighting Co. v. Public Serv. Comm'n of State of N.Y., 134 A.D.2d 135 (3d Dept. 1987) [wherein the court held, the Commission must determine whether "the utility acted reasonably, under the circumstances at the time . . ."]

<sup>77</sup> Rate treatment of these costs will be determined on a case-by-case basis.

separately recorded costs in their annual reporting of plastic fusion inspections completed in the regular course of business.

The reasonable costs for ongoing inspections and remediation of all other plastic fusions uncovered and inspected in the regular course of business may be recoverable in rates subject to rate case audit.

National Fuel Gas Distribution

In its second set of comments, NFG acknowledges that, after the Commission issued its Risk and Remediation Orders, NFG "learned that, for a limited period of time, its plastic fusions training evaluations did not comply with applicable regulations to the extent that such regulations require destructive testing to evaluate specimen fuses for qualification."<sup>78</sup> NFG states, and DPS has no information otherwise, that NFG has since complied fully with all the Commission's plastic fusion Orders. NFG has cooperated with Department Staff and remains cognizant of NFG's safety obligations since the 2014 plastic fusion qualification problems came to light. NFG believes that what it sees as "punitive treatment" directed solely at NFG is unwarranted.<sup>79</sup>

NFG explains that after an August 1, 2004, butt fusion joint failed in NFG's Pennsylvania service territory, which caused a natural gas explosion that killed two people, the National Transportation Safety Board (NTSB) recommended that NFG revise its butt-fusion procedures and revise its qualification and requalification procedures for plastic pipe "to ensure fusers test joints made from coiled pipe with characteristics

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<sup>78</sup> NFG II at 4.

<sup>79</sup> NFG II at 7. NFG notes that the breaches of its operator qualification program in New York came to light after the 2014 Plastic Fusion Order, not after the May 15, 2015 Order, as the SAPA Notice states.

similar to those experienced in the field.”<sup>80</sup> NFG states, however, that the NTSB’s recommendation was not an NFG-specific recommendation and that in 2004, NFG was complying with the then-effective industry standards.

Because of the 2004 Pennsylvania incident, NFG states it implemented in both New York State and its Pennsylvania service territories the location and joiner identification of all plastic fusions; NFG also began to inspect butt fusions by a second qualified individual. NFG began inspecting plastic fusions discovered during the normal course of business and NFG re-trained and tested its Pennsylvania plastic fusion work crew members.<sup>81</sup> At the time, NFG stated it spent (“or will expend”) \$63,000 for re-qualifying its Pennsylvania plastic work crews, a cost that NFG was allowed to recover in rates.<sup>82</sup> Further, NFG implemented “an advanced training program for installers of fusions,” but only in its Pennsylvania service territory. In this way, NFG states, its operations were ahead of even the May 15 Order requirements.

Citing the Notice in this case, which stated that NFG has had the second-highest number of failed visual inspections since the 2014 Plastic Fusion and May 15 Orders were issued, NFG asks why the LDC with the highest number is not being subjected to the “punitive treatment” NFG proposes it is receiving.<sup>83</sup>

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<sup>80</sup> NFG II at 8. To clarify, a destructive testing problem was not discovered in 2014; it was a plastic fusion qualification problem.

<sup>81</sup> NFG II at 9. See Pennsylvania Public Utility Commission Law Bureau Prosecutory Staff v. National Fuel Gas Distribution Corporation, M-2008-2013013, Tentative Opinion and Order May 1, 2008) at 4.

<sup>82</sup> Id. at 7.

<sup>83</sup> NFG II at 12.

First, there is no dispute that NFG has complied with the letter of the May 15 Order's requirements. While ratepayers have benefited from NFG's commencement of location, identification, second inspector, and inspection program of fuses uncovered during the regular course of business, NFG inexplicably failed to initiate a full-scale self-assessment of its plastic fusion qualification practices in New York after the 2004 Pennsylvania incident and resulting recommendations. Instead, it appears that NFG retrained only its Pennsylvania workforce. The lapses NFG discovered after the Risk and Remediation Orders were issued show NFG failed to implement a program to ensure its New York workforce, including its contractors, remained compliant with plastic fusion qualification requirements. The NTSB's recommendation did not limit its recommendation to NFG - to revise its initial qualification and requalification procedures - to NFG's Pennsylvania service territory.<sup>84</sup>

In its investigation report, the NTSB determined, upon visual inspection, that the beads of the plastic fusion that failed, causing the explosion, were not uniform, as they would have been had the fuse been completed properly.<sup>85</sup> Therefore, long before this Commission's Risk and Remediation Orders and May 15 Order were issued, NFG had been directly advised by the NTSB that NFG should requalify its workforce.<sup>86</sup>

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<sup>84</sup> NTSB Report at 12.

<sup>85</sup> National transportation Safety Board Pipeline Accident Brief, Accident No. DCA-04-MP-006 NTSB, May 31, 2006 (NTSB Report), at 4.

<sup>86</sup> The NTSB Recommended that NFG "Revise your initial qualification and requalification procedures for plastic gas pipe to ensure fusers produce test joints made from coiled pipe with characteristics similar to those experienced in the field." This directive was solely to NFG, not to the entire gas industry, as NFG asserts.

In this case, after the Commission ordered LDCs to assess the safety of plastic fusions in their service territory, NFG identified a three-year period (2011-2014) during which plastic fusions were performed by non-qualified New York workers. Moreover, after the Commission ordered LDCs to inspect all plastic fusions uncovered during the regular course of business, NFG has since recorded the second highest number of visual failures among all LDCs in conducting these assessments. Specifically, since 2015, NFG has reported that 382 fusions have been evaluated and 63 have failed visual inspection, a 16% failure rate.

Moreover, in some locations, NFG has found a high percentage of visual failures in discrete projects. For instance, in a 2015 targeted inspection, NFG reviewed 261 butt fusions at the Talcott Street project in Dunkirk, NY and found 50 visual failures, a 19% failure rate. Nonetheless, in April 2016, NFG asked DPS that NFG's self-assessment be completed. It is simply inappropriate for NFG to end its inspections of plastic fusions uncovered in the regular course of business because, as recently as February 2018, NFG reported that of another 22 inspections, 11 fusions from four different locations failed visual inspection; 2 of those failing visual inspection also failed destructive testing.<sup>87</sup>

The 2004 incident in NFG's Pennsylvania service territory should have been a wake-up call for NFG; after 2004, NFG should have performed a thorough assessment and quality review of all its plastic fusions qualification programs, including those in NFG's New York State service territory.

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<sup>87</sup> While it is true that the May 15 Order's opportunistic inspections include old fusions as well as new fusions, this is the case for all LDCs, not only NFG. Nonetheless, NFG's failure rate stands out among the LDCs.



Rather than taking affirmative steps after the 2004 gas explosion to bring its workforce into full compliance in New York State, NFG opposes the proposed order directing NFG to fundamentally comply with gas safety regulations. The requirement that NFG comply with all 16 NYCRR Part 255 plastic fusion requirements will be subject to prospective enforcement only and only if NFG violates the plastic fusion regulations in the future. For these reasons, NFG's opposition to a requirement that it comply with plastic fusion inspection and requalification requirements is rejected.

The Commission orders:

1. Consistent with 16 NYCRR §255.287, inspectors of plastic fusions shall be subject to the requirements of 16 NYCRR §255.285(d).

2. Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Central Hudson Gas and Electric Corporation, National Fuel Gas Distribution Corporation, Orange and Rockland Utilities, Inc., Rochester and Gas Electric Corporation, Brooklyn Union Gas Company d/b/a National Grid NY, KeySpan Gas East Corporation d/b/a National Grid, Niagara Mohawk Power Corporation d/b/a National Grid, Corning Natural Gas Corporation, and St. Lawrence Gas Company, Inc. shall submit, within 45 days of the date of this Order, a Quality Assurance/Quality Control Program that:

- a. Details the qualification, training, evaluation, and experience each company requires of all plastic fusion inspectors as well as inspectors of all company work related to the installation of gas facilities. All persons acting as Quality Assurance/Quality Control inspectors must be qualified with appropriate training or experience in

evaluating the acceptability of plastic pipe joints made under the applicable joining procedures and for all other required construction tasks that the Quality Assurance/Quality Control inspector will be assessing;

- b. Details the assessment and remediation plan for both the plastic fuser and plastic fusion inspector after their work is found to have failed visual inspection. Such assessment and remediation shall apply to all fusions completed since the date of the failed fusion was completed.
- c. Includes the procedure to be followed, including a data-supported plan to randomly test discrete locations on construction work that has been deemed completed as defined in this Order.
- d. Shall be submitted for approval by the Department of Public Service.

3. Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Central Hudson Gas and Electric Corporation, National Fuel Gas Distribution Corporation, Orange and Rockland Utilities, Inc., Rochester and Gas Electric Corporation, Brooklyn Union Gas Company d/b/a National Grid NY, KeySpan Gas East Corporation d/b/a National Grid, Niagara Mohawk Power Corporation d/b/a National Grid, Corning Natural Gas Corporation, St. Lawrence Gas Company, Inc., Valley Energy, Inc., Bath Electric, Gas Water Systems, Fillmore Gas Company, Reserve Gas Company, Woodhull Municipal Gas Company, Chautauqua Utilities, Inc., N.E.A. Cross of New York, Inc., and the Village of Hamilton Municipal Utility Commission must either remove or remediate, at their discretion, visually failed fusions found during the normal course of business. Removed and remediated visually failed fusions and

visually failed fusions that have not been immediately removed or remediated shall be reported each month to the Department of Public Service. Until a fusion is remediated or replaced, the fusion shall remain under surveillance until replaced or remediated. All removed fusions, when feasible, shall be destructively tested and the results of such destructive testing shall be reported in the monthly reports of failed fuses made to the Department of Public Service.

4. Once the person completes and signs a plastic fuse, any collaboration with respect to a plastic fusion and its inspection is ended and the inspector must either pass or fail the fuse.

5. Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Central Hudson Gas and Electric Corporation, National Fuel Gas Distribution Corporation, Orange and Rockland Utilities, Inc., Rochester and Gas Electric Corporation, Brooklyn Union Gas Company d/b/a National Grid NY, KeySpan Gas East Corporation d/b/a National Grid, Niagara Mohawk Power Corporation d/b/a National Grid, Corning Natural Gas Corporation, St. Lawrence Gas Company, Inc., Valley Energy, Inc., Bath Electric, Gas Water Systems, Fillmore Gas Company, Reserve Gas Company, Woodhull Municipal Gas Company, Chautauqua Utilities, Inc., N.E.A. Cross of New York, Inc., and the Village of Hamilton Municipal Utility Commission shall report to the Commission immediately upon discovering any work performed during any period of fusion or operator qualification failures related to the fusion or fusion inspection process, including periods of non-compliance due to disqualification pursuant to 16 NYCRR §255.285(d) and this Order. All costs associated with any such risk assessments and inspections that occur after finding any work performed by or on behalf of the company during any period of lapsed fusion

qualification or operator qualifications related to the fusion or fusion inspection process from disqualification pursuant to 16 NYCRR §255.285(d) shall be tracked for future audit.

6. Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Central Hudson Gas and Electric Corporation, National Fuel Gas Distribution Corporation, Orange and Rockland Utilities, Inc., Rochester and Gas Electric Corporation, Brooklyn Union Gas Company d/b/a National Grid NY, KeySpan Gas East Corporation d/b/a National Grid, Niagara Mohawk Power Corporation d/b/a National Grid, Corning Natural Gas Corporation, St. Lawrence Gas Company, Inc., Valley Energy, Inc., Bath Electric, Gas Water Systems, Fillmore Gas Company, Reserve Gas Company, Woodhull Municipal Gas Company, Chautauqua Utilities, Inc., N.E.A. Cross of New York, Inc., and the Village of Hamilton Municipal Utility Commission shall, until further notice, file a report annually, beginning on January 31, 2019, providing the previous year's complete list of all visually failed and visually passed plastic fuses revealed and inspected during the normal course of business, during QA/QC inspections of completed work, and during LDC inspections of construction sites. The filing for 2015, 2016, and 2017 shall be made by December 31, 2018, for 2018 on January 31, 2019 and by January 31 for each preceding calendar year thereafter. Filings shall include any costs incurred to remediate or replace plastic fusions inspected in the regular course of business that are associated with fusions installed during any period of fusion qualification or operator qualification non-compliance and fusion disqualification pursuant to 16 NYCRR §255.285(d), whether by LDC employees or contractors completing work for the LDC, and for fuses completed on or after October 1, 2015, which fail visual inspection.

7. Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Central Hudson Gas and Electric Corporation, National Fuel Gas Distribution Corporation, Orange and Rockland Utilities, Inc., Rochester and Gas Electric Corporation, Brooklyn Union Gas Company d/b/a National Grid NY, KeySpan Gas East Corporation d/b/a National Grid, Niagara Mohawk Power Corporation d/b/a National Grid, Corning Natural Gas Corporation, St. Lawrence Gas Company, Inc., Valley Energy, Inc., Bath Electric, Gas Water Systems, Fillmore Gas Company, Reserve Gas Company, Woodhull Municipal Gas Company, Chautauqua Utilities, Inc., N.E.A. Cross of New York, Inc., and the Village of Hamilton Municipal Utility Commission are ordered to comply with all 16 NYCRR Part 255 requirements that refer to or apply directly to the completion and inspection of plastic fuses, as well as qualification of all plastic fusers and inspectors working on behalf of each company.

8. In the Secretary's sole discretion, the deadlines set forth in this order may be extended. Any request for an extension must be in writing, must include a justification for the extension, and must be filed at least one day prior to the affected deadline.

9. This proceeding is continued.

By the Commission,

(SIGNED)

KATHLEEN H. BURGESS  
Secretary