



U.S. Department
of Transportation
**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue SE
Washington DC 20590

2017 Gas State Program Evaluation

for

MA DEPT. OF PUBLIC UTILITIES

Document Legend

PART:

- O -- Representative Date and Title Information
- A -- Progress Report and Program Documentation Review
- B -- Program Inspection Procedures
- C -- Program Performance
- D -- Compliance Activities
- E -- Incident Investigations
- F -- Damage Prevention
- G -- Field Inspections
- H -- Interstate Agent State (If Applicable)
- I -- 60106 Agreement State (If Applicable)



2017 Gas State Program Evaluation -- CY 2017

Gas

State Agency: Massachusetts

Rating:

Agency Status:

60105(a): Yes **60106(a):** No **Interstate Agent:** No

Date of Visit: 08/27/2018 - 08/30/2018

Agency Representative: Richard Wallace, Director, Pipeline Engineering and Safety Division

Phillip Denton, Senior Engineer, Pipeline Engineering and Safety Division

PHMSA Representative: David Lykken, Transportation Specialist

Commission Chairman to whom follow up letter is to be sent:

Name/Title: Angela M. O'Connor, Chairman

Agency: Massachusetts Department of Public Utilities

Address: One South Street

City/State/Zip: Boston, MA 02110

INSTRUCTIONS:

Complete this evaluation in accordance with the Procedures for Evaluating State Pipeline Safety Program. The evaluation should generally reflect state program performance during CY 2017 (not the status of performance at the time of the evaluation). All items for which criteria have not been established should be answered based on the PHMSA representative's judgment. A deficiency in any one part of a multiple part question should be scored as needs improvement. Determine the answer to the question then select the appropriate point value. If a state receives less than the maximum points, include a brief explanation in the space provided for general comments/regional observations. If a question is not applicable to a state, select NA. Please ensure all responses are COMPLETE and ACCURATE, and OBJECTIVELY reflect state program performance. Increasing emphasis is being placed on performance. This evaluation together with selected factors reported in the state's annual progress report attachments provide the basis for determining the state's pipeline safety grant allocation.

Field Inspection (PART G):

The field inspection form used will allow different areas of emphasis to be considered for each question. Question 13 is provided for scoring field observation areas. In completing PART G, the PHMSA representative should include a written summary which thoroughly documents the inspection.

Scoring Summary

PARTS	Possible Points	Points Scored
A Progress Report and Program Documentation Review	10	9
B Program Inspection Procedures	13	13
C Program Performance	48	46
D Compliance Activities	15	15
E Incident Investigations	9	9
F Damage Prevention	8	8
G Field Inspections	12	12
H Interstate Agent State (If Applicable)	0	0
I 60106 Agreement State (If Applicable)	0	0
TOTALS	115	112
State Rating		97.4

PART A - Progress Report and Program Documentation Review

Points(MAX) Score

- | | | | |
|---|---|---|---|
| 1 | Accuracy of Jurisdictional Authority and Operator/Inspection Units Data - Progress Report Attachment 1
Yes = 1 No = 0 Needs Improvement = .5 | 1 | 1 |
|---|---|---|---|

Evaluator Notes:

No issues noted. Operator/unit information aligns with data provided under attachment three of the PR.

- | | | | |
|---|--|---|---|
| 2 | Review of Inspection Days for accuracy - Progress Report Attachment 2
Yes = 1 No = 0 Needs Improvement = .5 | 1 | 1 |
|---|--|---|---|

Evaluator Notes:

Field days appear to correspond with inspection reports reviewed. Total number of inspection days in CY2017 were 1065.65.

- | | | | |
|---|--|---|---|
| 3 | Accuracy verification of Operators and Operators Inspection Units in State - Progress Report Attachment 3
Yes = 1 No = 0 Needs Improvement = .5 | 1 | 1 |
|---|--|---|---|

Evaluator Notes:

Appears to be accurate. Corresponds with information located in PDM. No issues noted.

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|---|--|---|---|
| 4 | Were all federally reportable incident reports listed and information correct? - Progress Report Attachment 4
Yes = 1 No = 0 Needs Improvement = .5 | 1 | 1 |
|---|--|---|---|

Evaluator Notes:

One reportable in CY2017 (NRC#1200871). Incident date 12/31/2017. Not listed in Attachment 4 of Progress Report. The program may show it as the following year per the Evaluator Guidance.

- | | | | |
|---|--|---|---|
| 5 | Accuracy verification of Compliance Activities - Progress Report Attachment 5
Yes = 1 No = 0 Needs Improvement = .5 | 1 | 1 |
|---|--|---|---|

Evaluator Notes:

Numbers appear to match the program's inspection database information.

- | | | | |
|---|---|---|---|
| 6 | Were pipeline program files well-organized and accessible? - Progress Report Attachment 6
Yes = 2 No = 0 Needs Improvement = 1 | 2 | 2 |
|---|---|---|---|

Evaluator Notes:

Yes. The program has fully implemented it's new Pipeline Data Management System. Inspection records prior to CY2016 primarily paper files.

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|---|--|---|---|
| 7 | Was employee listing and completed training accurate and complete? - Progress Report Attachment 7
Yes = 1 No = 0 Needs Improvement = .5 | 1 | 0 |
|---|--|---|---|

Evaluator Notes:

No. One point deducted for inaccurate Inspector Qualification Category entries. Revised PR submitted on 5/30/2018. Corrected PR posted on 6/11/2018.

- | | | | |
|---|---|---|---|
| 8 | Verification of Part 192,193,198,199 Rules and Amendments - Progress Report Attachment 8
Yes = 1 No = 0 Needs Improvement = .5 | 1 | 1 |
|---|---|---|---|

Evaluator Notes:

Automatic adoption of CFR 49, Part 192.00 via MA Statute 220 CMR 69.00 upon their effective dates.



9 List of Planned Performance - Did state describe accomplishments on Progress Report in detail - Progress Report Attachment 10 1 1
Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:

Yes. The program was successful in hiring a full time Division Auditor to conduct risk analysis, develop meaningful metrics and statistical reports using pipeline data. Information gathered is incorporated into the program's Risk Based Prioritization Model noted below. 2. Finalized and issued an enhanced set of general inspection procedures to support inspection activities and inspector training. 3. Developed and "calibrated" the risk-based models for both distribution and transmission systems. 4. Issued a risk-based inspection work plan targeting both federal and state mandated programs, as well as other field and compliance follow-up inspections/audits.

10 General Comments:

Info Only Info Only

Info Only = No Points

Evaluator Notes:

Question A7. One point deducted for inaccurate Inspector Qualification Category entry. Revised PR submitted on 5/30/2018. Corrected PR posted on 6/11/2018.

Total points scored for this section: 9
Total possible points for this section: 10



PART B - Program Inspection Procedures

Points(MAX) Score

- | | | | |
|---|--|---|---|
| 1 | Standard Inspection procedures should give guidance to state inspectors that insure consistency in all inspections conducted by the state? The following elements should be addressed at a minimum - pre-inspection activities, inspection activities, post-inspection activities. | 2 | 2 |
|---|--|---|---|

Yes = 2 No = 0 Needs Improvement = 1

Evaluator Notes:

General Inspection Procedures covered in MADPU's General Inspection, Enforcement & Incident Investigation Procedures Manual. Revision 3 dated 3/26/2018. Sections 7.0 Inspection Responsibilities and Planning Requirements; Section 8.0 Annual Inspection Work plans; Section 9.0 Conducting Pipeline Inspections; 9.21 Standard Inspections.

- | | | | |
|---|--|---|---|
| 2 | IMP and DIMP Inspection procedures should give guidance to state inspectors that insure consistency in all inspections conducted by the state? The following elements should be addressed at a minimum - pre-inspection activities, inspection activities, post-inspection activities. | 1 | 1 |
|---|--|---|---|

Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:

Section 9.28 "Integrity Management for Intrastate Gas Transmission Inspections" and Section 9.29 "DIMP Inspections".

- | | | | |
|---|--|---|---|
| 3 | OQ Inspection procedures should give guidance to state inspectors that insure consistency in all inspections conducted by the state? The following elements should be addressed at a minimum - pre-inspection activities, inspection activities, post-inspection activities. | 1 | 1 |
|---|--|---|---|

Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:

No changes. Section 9.25 Operator Qualification Inspections.

- | | | | |
|---|---|---|---|
| 4 | Damage Prevention Inspection procedures should give guidance to state inspectors that insure consistency in all inspections conducted by the state? The following elements should be addressed at a minimum - pre-inspection activities, inspection activities, post-inspection activities. | 1 | 1 |
|---|---|---|---|

Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:

Section 9.27 Damage Prevention Activities: Inspection and Enforcement. All elements addressed. Frequencies covered under 7.5.1 Compliance Inspections.

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|---|--|---|---|
| 5 | Any operator training conducted should be outlined and appropriately documented as needed. | 1 | 1 |
|---|--|---|---|

Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:

Section 9.26 - On-Site Operator Training. No issues noted.

- | | | | |
|---|--|---|---|
| 6 | Construction Inspection procedures should give guidance to state inspectors that insure consistency in all inspections conducted by the state? The following elements should be addressed at a minimum - pre-inspection activities, inspection activities, post-inspection activities. | 1 | 1 |
|---|--|---|---|

Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:

No issues. Section 9.24 of the procedures manual.

- | | | | |
|---|---|---|---|
| 7 | Does inspection plan address inspection priorities of each operator, and if necessary each unit, based on the following elements? | 6 | 6 |
|---|---|---|---|

Yes = 6 No = 0 Needs Improvement = 1-5

- a. Length of time since last inspection (Within five year interval)

Yes No Needs Improvement



- b. Operating history of operator/unit and/or location (includes leakage, incident and compliance activities) Yes No Needs Improvement
- c. Type of activity being undertaken by operators (i.e. construction) Yes No Needs Improvement
- d. Locations of operators inspection units being inspected - (HCA's, Geographic areas, Population Density, etc) Yes No Needs Improvement
- e. Process to identify high-risk inspection units that includes all threats - (Excavation Damage, Corrosion, Natural Forces, Outside Forces, Material and Welds, Equipment, Operators and any Other Factors) Yes No Needs Improvement
- f. Are inspection units broken down appropriately? Yes No Needs Improvement

Evaluator Notes:

Yes. a thru f covered under Sections 7.6 of the written procedures.

As noted during last year evaluation the program chose to develop two separate risk models (Transmission and Distribution) in order to ensure that the risk data/factors were properly validated for each model. The models have since been merged successfully into one that covers both types of systems.

8 General Comments:

Info Only Info Only

Info Only = No Points

Evaluator Notes:

No point deductions identified for Part B.

Total points scored for this section: 13
 Total possible points for this section: 13



PART C - Program Performance

Points(MAX) Score

- 1** Was ratio of Total Inspection person-days to total person days acceptable? (Director of State Programs may modify with just cause) Chapter 4.3 5 5
 Yes = 5 No = 0
 A. Total Inspection Person Days (Attachment 2):
 1065.65
 B. Total Inspection Person Days Charged to the Program (220 X Inspection Person Years) (Attachment 7):
 220 X 7.72 = 1697.67
 Ratio: A / B
 1065.65 / 1697.67 = 0.63
 If Ratio >= 0.38 Then Points = 5, If Ratio < 0.38 Then Points = 0
 Points = 5

Evaluator Notes:

Yes. No issues noted. The total number of inspection days exceeded the minimum number required for CY2017.

- 2** Has each inspector and program manager fulfilled the T Q Training Requirements? (See Guidelines Appendix C for requirements) Chapter 4.4 5 4
 Yes = 5 No = 0 Needs Improvement = 1-4
- a. Completion of Required OQ Training before conducting inspection as lead? Yes No Needs Improvement
 - b. Completion of Required DIMP*/IMP Training before conducting inspection as lead? *Effective Evaluation CY2013 Yes No Needs Improvement
 - c. Root Cause Training by at least one inspector/program manager Yes No Needs Improvement
 - d. Note any outside training completed Yes No Needs Improvement
 - e. Verify inspector has obtained minimum qualifications to lead any applicable standard inspection as the lead inspector. Yes No Needs Improvement

Evaluator Notes:

No MADPU inspectors have fully completed the training requirements for leading TIMP inspections. The Senior Engineer has completed Root Cause training. Suggested that other inspectors be registered for future root cause training.

- 3** Did state records and discussions with state pipeline safety program manager indicate adequate knowledge of PHMSA program and regulations? Chapter 4.1,8.1 2 2
 Yes = 2 No = 0 Needs Improvement = 1

Evaluator Notes:

Yes. No issues noted. The PM has over 35 years of experience in pipeline safety as a Inspector and Program Manager.

- 4** Did state respond to Chairman's letter on previous evaluation within 60 days and correct or address any noted deficiencies? (If necessary) Chapter 8.1 2 2
 Yes = 2 No = 0 Needs Improvement = 1

Evaluator Notes:

Yes. Evaluation letter sent 9/19/2017. Chairman's response received on 11/08/2017. Concerns addressed.

- 5** Did State conduct or participate in pipeline safety training session or seminar in Past 3 Years? Chapter 8.5 1 1
 Yes = 1 No = 0

Evaluator Notes:

Yes. Last multi-state seminar held in Oct 2016. Agenda reviewed. Next scheduled for Oct 8-9, 2018.

- 6** Did state inspect all types of operators and inspection units in accordance with time intervals established in written procedures? Chapter 5.1 5 5
 Yes = 5 No = 0 Needs Improvement = 1-4

Evaluator Notes:

Yes. Concerns noted. A comprehensive Inspection Work Plan and Progress Report tracker was implemented in 2016 to ensure adequate coverage and meet established time intervals, however due to attrition of inspection staff in 2017/18, the program is now at risk of not meeting certain time intervals going forward. The program will likely have to make some risk based decisions causing some operator/units to slip past their established time intervals. At the time of this evaluation only two inspectors are available to perform inspections. The program is taking steps to fill vacant positions.

7	Did inspection form(s) cover all applicable code requirements addressed on Federal Inspection form(s)? Did State complete all applicable portions of inspection forms? Chapter 5.1 Yes = 2 No = 0 Needs Improvement = 1	2	2
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Evaluator Notes:

Yes, as noted during last years evaluation, PHMSA form questions are uploaded into the MA pipeline safety database where inspection staff then complete inspection results. Program Assistant Director and Admin staff responsible for ensuring that inspection form content is kept up to date. Form Directory created to track form and form sub-section content inventory. The program is looking to possibly move to the IA for conducting future inspections.

8	Did the state review operator procedures for determining if exposed cast iron pipe was examined for evidence of graphitization and if necessary remedial action was taken? (NTSB) Chapter 5.1 Yes = 1 No = 0	1	1
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Evaluator Notes:

Yes. MA-DPU Form - Standard Comprehensive Cast Iron inspection form.

9	Did the state review operator procedures for surveillance of cast iron pipelines, including appropriate action resulting from tracking circumferential cracking failures, study of leakage history, or other unusual operating maintenance condition? (Note: See GPTC Appendix G-18 for guidance) (NTSB) Chapter 5.1 Yes = 1 No = 0	1	1
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Evaluator Notes:

Yes. Operators required to conduct "Winter Surveys, provide regular operator updates and submit quarterly leak and status reports to the MA-DPU. Data Analyst position reviews and monitor reports, identify trends and incorporate results into new risk model.

10	Did the state review operator emergency response procedures for leaks caused by excavation damage near buildings and determine whether the procedures adequately address the possibility of multiple leaks and underground migration of gas into nearby buildings Refer to 4/12/01 letter from PHMSA in response to NTSB recommendation P-00-20 and P-00-21? (NTSB) Chapter 5.1 Yes = 1 No = 0	1	1
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Evaluator Notes:

Yes. Inspection Form Type: Standard Comprehensive Sub-Type: Operation and Maintenance

11	Did the state review operator records of previous accidents and failures including reported third party damage and leak response to ensure appropriate operator response as required by 192.617? Chapter 5.1 Yes = 1 No = 0	1	1
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Evaluator Notes:

Yes. Operators are to submit Incident analysis of accidents which are reviewed. Operators are also required to submit damage reports which are also reviewed and acted on when necessary. All gas operators are required to submit various leak reports detailing their activities. Results factored into program's risk management analysis.

12	Has the state reviewed Operator Annual reports, along with Incident/Accident reports, for accuracy and analyzed data for trends and operator issues? Yes = 2 No = 0 Needs Improvement = 1	2	2
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Evaluator Notes:

Yes. In addition, operators must file annually a "MA-DPU Addendum to Form PHMSA F7100.1-1". Tracker used to confirm "DPU Filings" for the reporting year. Operators must provide copies of DOT Annual Reports, "Gate Box" (Valve



inspections), CI Replacement, Inactive/Abandoned Facilities, Mechanical Fitting Failures, LNG Annual Fire Prevention, Emergency Response Plans, NMPS information. The Data Analyst is responsible for reviewing submitted information and providing analysis.

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- | | | | |
|-----------|---|---|---|
| 13 | Has state confirmed intrastate transmission operators have submitted information into NPMS database along with changes made after original submission?
Yes = 1 No = 0 Needs Improvement = .5 | 1 | 1 |
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Evaluator Notes:

Yes. Reviewed correspondence sent out to transmission pipeline operators in CY2017 reminding them of the reporting requirements.

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| 14 | Is the state verifying operators are conducting drug and alcohol tests as required by regulations? This should include verifying positive tests are responded to in accordance with program. 49 CFR 199
Yes = 2 No = 0 Needs Improvement = 1 | 2 | 2 |
|-----------|---|---|---|

Evaluator Notes:

Yes. 20 D&A inspections conducted in CY2017.

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|-----------|---|---|---|
| 15 | Is state verifying operators OQ programs are up to date? This should include verification of any plan updates and that persons performing covered tasks (including contractors) are properly qualified and requalified at intervals determined in the operators plan. 49 CFR 192 Part N
Yes = 2 No = 0 Needs Improvement = 1 | 2 | 2 |
|-----------|---|---|---|

Evaluator Notes:

Yes. OQ inspections conducted in 2017 were a combination of written plan reviews and field verification. Inspectors also observed actual operator qualification training of their workforce.

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|-----------|---|---|---|
| 16 | Is state verifying operator's gas transmission integrity management programs (IMP) are up to date? This should include a previous review of IMP plan, along with monitoring progress on operator tests and remedial actions. In addition, the review should take in to account program review and updates of operators plan(s). (Are the State's largest operators programs being contacted or reviewed annually? Are replies to Operator IM notifications addressed? (formerly part of Question C-13)). 49 CFR 192 Subpart 0
Yes = 2 No = 0 Needs Improvement = 1 | 2 | 1 |
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Evaluator Notes:

Repeat from last year. One-point deduction. The program does not currently have a qualified inspector to perform TIMP inspections. Unable to complete next round of IM plan reviews.

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| 17 | Is state verifying operator's gas distribution integrity management Programs (DIMP)? This should include a review of DIMP plans, along with monitoring progress. In addition, the review should take in to account program review and updates of operators plan(s). (Are the State's largest operators programs being contacted or reviewed annually?). 49 CFR 192 Subpart P
Yes = 2 No = 0 Needs Improvement = 1 | 2 | 2 |
|-----------|--|---|---|

Evaluator Notes:

Yes. Conduct field verification of operator remediation activities. A lot of this conducted under construction inspections with an emphasis on Cast Iron and Bare Steel replacement programs.

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|-----------|---|---|---|
| 18 | Is state verifying operators Public Awareness programs are up to date and being followed. State should also verify operators have evaluated Public Awareness programs for effectiveness as described in RP1162. PAPEI Effectiveness Inspections should be conducted every four years by operators. 49 CFR 192.616
Yes = 2 No = 0 Needs Improvement = 1 | 2 | 2 |
|-----------|---|---|---|

Evaluator Notes:

Yes. A combination of written plan reviews and effectiveness inspection conducted in CY2017.

19 Does the state have a mechanism for communicating with stakeholders - other than state pipeline safety seminar? (This should include making enforcement cases available to public). 1 1
 Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:

Pipeline safety information posted on MA-DPU web site. Information regarding Gas Safety, Jurisdictional Authority, Pipeline Safety regulations, Incident Reports, Enforcement Data, Dig Safe information, and "Enhancement Plans/Orders" detailing approved Cast Iron/Bare Steel Replacement plans. Division Director also conducts regular meetings with pipeline operators to discuss issues and concerns.

The Pipeline Safety Trust was invited to conduct a courtesy evaluation of the MADPU's web site with recommendations for improvements provided.

20 Did state execute appropriate follow-up actions to Safety Related Condition (SRC) Reports? Chapter 6.3 1 1
 Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:

One SRC reported on 6/01/2017. Report ID 20170069. Closed in 2017.

21 Did the State ask Operators to identify any plastic pipe and components that has shown a record of defects/leaks and what those operators are doing to mitigate the safety concerns? 1 1
 Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:

Inquired during monthly/Quarterly meeting with operators and as part of meetings with the MA Gas Advisory Council which include operator regulatory compliance officials. Mandatory reporting required by operators.

22 Did the state participate in/respond to surveys or information requests from NAPSRS or PHMSA? 1 1
 Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:

Yes. Reviewed email response to NAPSRS and PHMSA requested surveys.

23 If the State has issued any waivers/special permits for any operator, has the state verified conditions of those waivers/special permits are being met? This should include having the operator amend procedures where appropriate. 1 1
 No = 0 Needs Improvement = .5 Yes = 1

Evaluator Notes:

Last new issued back in 2006. Closed the same year. Several active waivers primarily related with PE inserted into steel casings on bridge crossings. Waiver process detailed under Section 5.2 of the division's General Inspection Procedures manual.

24 Did the state attend the National NAPSRS Board of Directors Meeting in CY being evaluated? 1 1
 No = 0 Needs Improvement = .5 Yes = 1

Evaluator Notes:

Yes. National Meeting held 9/25-29/2017 in Columbus, OH

25 Discussion on State Program Performance Metrics found on Stakeholder Communication site - <http://primis.phmsa.dot.gov/comm/states.htm> 2 2
 No = 0 Needs Improvement = 1 Yes = 2

- a. Discussion of Potential Accelerated Actions (AA's) based on any negative trends Yes No Needs Improvement
- b. NTSB P-11-20 Meaningful Metrics Yes No Needs Improvement

Evaluator Notes:

Discussed performance metrics. The MA-DPU metrics appeared to be at reasonable performance levels. Excavation damages

per 1000 tickets have trended down since 2010. Currently averaging approximately 2.25. Inspection days per 1000 miles trending up since 2014 averaging 28 days. Inspector core training percentage for CY2017 at 90%. The high number of leaks repaired and #of Hazardous leaks repaired per 1000 miles are results of the ongoing CI and Bare Steel replacement programs. The average number of outstanding leaks remains low as a result.

26 Discussion with State on accuracy of inspection day information submitted into State Inspection Day Calculation Tool (SICT) Has the State updated SICT data? 1 1
 No = 0 Yes = 1

Evaluator Notes:

The PM satisfied with current data submission. SICT data has been updated. The target is 10 positions. Tool last update July 2018. Does not anticipate making any changes. Due to recent inspector attrition only three qualified inspectors on staff. The program has hired two recently with a third offered a position during this program evaluation.

27 Did the State verify Operators took appropriate action regarding Pipeline Flow Reversals, Product Changes and Conversions to Service? See ADP-2014-04 1 NA
 Needs Improvement = .5 No = 0 Yes = 1

Evaluator Notes:

N/A no flow reversal, product changes, and/or conversion to service.

28 General Comments: Info Only Info Only
 Info Only = No Points

Evaluator Notes:

C2(b) - One point deduction (repeat) for not having a fully qualified inspector to perform TIMP inspections.

C6 - Item of Concern for Chair and PM letters. Due to attrition of inspection staff in 2017/18, the program is now at risk of not meeting certain time intervals going forward. They will likely have to make some risk based decisions resulting in some operator/units to slip past their established time intervals. At the time of this evaluation only two inspectors are available to perform inspections. The program is taking steps to fill vacant positions.

C16 - Repeat from last year. One-point deduction. The program does not currently have a qualified inspector to perform TIMP inspections. Unable to complete next round of IM plan reviews.

Total points scored for this section: 46
 Total possible points for this section: 48



PART D - Compliance Activities

Points(MAX) Score

- | | | | |
|----------|--|--------------------------------------|--|
| 1 | Does the state have written procedures to identify steps to be taken from the discovery to resolution of a probable violation? Chapter 5.1
Yes = 4 No = 0 Needs Improvement = 1-3 | 4 | 4 |
| a. | Procedures to notify an operator (company officer) when a noncompliance is identified | Yes <input checked="" type="radio"/> | No <input type="radio"/> Needs Improvement <input type="radio"/> |
| b. | Procedures to routinely review progress of compliance actions to prevent delays or breakdowns | Yes <input checked="" type="radio"/> | No <input type="radio"/> Needs Improvement <input type="radio"/> |
| c. | Procedures regarding closing outstanding probable violations | Yes <input checked="" type="radio"/> | No <input type="radio"/> Needs Improvement <input type="radio"/> |

Evaluator Notes:

Yes. Procedure for Enforcement & Compliance found under Section 10.0 of the Division's General Inspection Procedure manual.

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|----------|--|--------------------------------------|--|
| 2 | Did the state follow compliance procedures (from discovery to resolution) and adequately document all probable violations, including what resolution or further course of action is needed to gain compliance? Chapter 5.1
Yes = 4 No = 0 Needs Improvement = 1-3 | 4 | 4 |
| a. | Were compliance actions sent to company officer or manager/board member if municipal/government system? | Yes <input checked="" type="radio"/> | No <input type="radio"/> Needs Improvement <input type="radio"/> |
| b. | Document probable violations | Yes <input checked="" type="radio"/> | No <input type="radio"/> Needs Improvement <input type="radio"/> |
| c. | Resolve probable violations | Yes <input checked="" type="radio"/> | No <input type="radio"/> Needs Improvement <input type="radio"/> |
| d. | Routinely review progress of probable violations | Yes <input checked="" type="radio"/> | No <input type="radio"/> Needs Improvement <input type="radio"/> |
| e. | Within 30 days, conduct a post-inspection briefing with the owner or operator of the gas or hazardous liquid pipeline facility inspected outlining any concerns; and | Yes <input checked="" type="radio"/> | No <input type="radio"/> Needs Improvement <input type="radio"/> |
| f. | Within 90 days, to the extent practicable, provide the owner or operator with written preliminary findings of the inspection. | Yes <input checked="" type="radio"/> | No <input type="radio"/> Needs Improvement <input type="radio"/> |

Evaluator Notes:

Issues well documented. Correspondence addressed to company or local government official. Remedial actions taken by operator to resolve non-compliance follow-up on. Correspondence makes reference to state specific civil penalty amounts.

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|----------|--|---|---|
| 3 | Did the state issue compliance actions for all probable violations discovered?
Yes = 2 No = 0 Needs Improvement = 1 | 2 | 2 |
|----------|--|---|---|

Evaluator Notes:

Yes. Reviewed inspection documentation and associated correspondence. Compliance actions correlate with numbers submitted under Attachment 3 of the Progress Report.

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|----------|---|---|---|
| 4 | Did compliance actions give reasonable due process to all parties? Including "show cause" hearing if necessary.
Yes = 2 No = 0 | 2 | 2 |
|----------|---|---|---|

Evaluator Notes:

Yes. Correspondence to operators outline procedures for challenging where a penalty or corrective action has been recommended.

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|----------|---|---|---|
| 5 | Is the program manager familiar with state process for imposing civil penalties? Were civil penalties considered for repeat violations (with severity consideration) or violations resulting in incidents/accidents? (describe any actions taken)
Yes = 2 No = 0 Needs Improvement = 1 | 2 | 2 |
|----------|---|---|---|

Evaluator Notes:

Yes. The PM is familiar with the civil penalty process and has the authority to issue penalties without commission approval. Civil penalties are considered for repeat violations and several civil penalties have been assessed in prior years. Civil penalties in the amount of \$250,000.00 assessed in CY2017.



6 Can the State demonstrate it is using their enforcement fining authority for pipeline safety violations? 1 1

Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:

Yes as previously noted in past evaluations. Several civil penalties assessed & collected in 2017 totaling \$250K.

7 General Comments:

Info Only Info Only

Info Only = No Points

Evaluator Notes:

Total points scored for this section: 15
Total possible points for this section: 15



PART E - Incident Investigations

Points(MAX) Score

- 1 Does the state have written procedures to address state actions in the event of an incident/accident? 2 2
 Yes = 2 No = 0 Needs Improvement = 1

Evaluator Notes:

Yes. Section 12.0 (Investigation of Incidents), Appendices "J" (Telephonic Incident) Notification, "K" (Memorandum of Understanding Between DOT and NTSB), and "L" (Incident Investigation Form)

- 2 Does state have adequate mechanism to receive and respond to operator reports of incidents, including after-hours reports? And did state keep adequate records of Incident/Accident notifications received? Chapter 6 2 2
 Yes = 2 No = 0 Needs Improvement = 1

- a. Acknowledgement of MOU between NTSB and PHMSA (Appendix D) Yes No Needs Improvement
 b. Acknowledgement of Federal/State Cooperation in case of incident/accident (Appendix E) Yes No Needs Improvement

Evaluator Notes:

Yes. Section 12 of manual and Appendix "J". 24Hr Telephonic Incident Notification number for receiving and responding to reports. Records of all notifications appear complete. Also Section 12.10 and Appendix "K" which note the MOU between the NTSB and PHMSA.

- 3 If onsite investigation was not made, did state obtain sufficient information from the operator and/or by other means to determine the facts to support the decision to not go on-site? Chapter 6 1 NA
 Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:

N/A. Onsite visit for the one reportable incident in CY2017.

- 4 Were all incidents investigated, thoroughly documented, and with conclusions and recommendations? 3 3
 Yes = 3 No = 0 Needs Improvement = 1-2

- a. Observations and document review Yes No Needs Improvement
 b. Contributing Factors Yes No Needs Improvement
 c. Recommendations to prevent recurrences when appropriate Yes No Needs Improvement

Evaluator Notes:

Incidents investigations are well documented. Inspection staff make excellent use of photographs as part of the incident investigation reports. Reports are thorough and complete.

- 5 Did the state initiate compliance action for violations found during any incident/accident investigation? 1 NA
 Yes = 1 No = 0

Evaluator Notes:

N/A. No PV's identified as part of incident investigation.

- 6 Did the state assist Region Office or Accident Investigation Division (AID) by taking appropriate follow-up actions related to the operator incident reports to ensure accuracy and final report has been received by PHMSA? (validate report data from operators concerning incidents/accidents and investigate discrepancies) Chapter 6 1 1
 Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:

Yes, as necessary. Per their procedures, the DPU review any 30 day incident reports filed by local distribution companies with PHMSA. The DPU will also monitors to see if companies have filed supplemental reports to PHMSA to reflect changes and updated information. The program maintains communications with AID and region office during reportable events.



- 7 Does state share lessons learned from incidents/accidents? (sharing information, such as: 1 1
at NAPSР Region meetings, state seminars, etc)
Yes = 1 No = 0

Evaluator Notes:

Yes as part of the NAPSР Eastern Region - State of the State presentation and during the annual NAPSР National meeting.

- 8 General Comments:
Info Only = No Points

Info Only Info Only

Evaluator Notes:

Total points scored for this section: 9
Total possible points for this section: 9



PART F - Damage Prevention

Points(MAX) Score

-
- | | | | |
|----------|--|---|---|
| 1 | Has the state reviewed directional drilling/boring procedures of each pipeline operator or its contractor to determine if they include actions to protect their facilities from the dangers posed by drilling and other trench less technologies? NTSB
Yes = 2 No = 0 Needs Improvement = 1 | 2 | 2 |
|----------|--|---|---|

Evaluator Notes:

Yes, reviewed as part of a overall review of the operator's written O&M plan.

- | | | | |
|----------|--|---|---|
| 2 | Did the state inspector verify pipeline operators are following their written procedures pertaining to notification of excavation, marking, positive response and the availability and use of the one call system?
Yes = 2 No = 0 Needs Improvement = 1 | 2 | 2 |
|----------|--|---|---|

Evaluator Notes:

Yes. Covered during standard inspections. Also, Dig Safe violation reports submitted to the agency are reviewed to identify probable violations and possible enforcement action as needed.

- | | | | |
|----------|--|---|---|
| 3 | Did the state encourage and promote practices for reducing damages to all underground facilities to its regulated companies? (i.e. such as promoting/adopting the CGA Best Practices encouraging adoption of the 9 Elements, etc.)
Yes = 2 No = 0 Needs Improvement = 1 | 2 | 2 |
|----------|--|---|---|

Evaluator Notes:

Yes. Dig Safe training provided annually by the agency for excavator community. Information also posted on the MA-DPU web site.

- | | | | |
|----------|--|---|---|
| 4 | Has the agency or another organization within the state collected data and evaluated trends on the number of pipeline damages per 1,000 locate requests? (This can include DIRT and other data shared and reviewed by the pipeline safety program)
Yes = 2 No = 0 Needs Improvement = 1 | 2 | 2 |
|----------|--|---|---|

Evaluator Notes:

Yes. Monthly data tracker reviewed. Dig Safe Activity Reports required to be submitted by pipeline operators on a quarterly bases. State averaged 2.5 damages per 1000 miles of pipe for CY2017

- | | | | |
|----------|--|-----------|-----------|
| 5 | General Comments:
Info Only = No Points | Info Only | Info Only |
|----------|--|-----------|-----------|

Evaluator Notes:

Total points scored for this section: 8
Total possible points for this section: 8



PART G - Field Inspections

Points(MAX) Score

1 Operator, Inspector, Location, Date and PHMSA Representative Info OnlyInfo Only
 Info Only = No Points
 Name of Operator Inspected:
 1. Eversource 2. National Grid
 Name of State Inspector(s) Observed:
 Angela Motley, Terrence Townsend
 Location of Inspection:
 1.Fairhaven, MA 2. Yarmouth, MA
 Date of Inspection:
 1. 7/30/2018 2. 7/31-8/01/2018
 Name of PHMSA Representative:
 David Lykken

Evaluator Notes:

Observed MA-DPU staff performing the following inspections.
 1. Residential service line extension replacement. OQ records, MAOP validation, Pipe material inspection, installation and joining procedure review, backfill material, MSA assembly and riser location, CGI instrument check.
 2. Replacement of 20-inch STW high pressure supply pipeline. Welding procedures reviewed, Visual check of completed butt and branch connections. Review of non-destructive testing records; Material and fittings inspection; MAOP validation; Coating inspection of pipe, joints and irregular fittings; and other general pipeline construction elements.

2 Was the operator or operator's representative notified and/or given the opportunity to be present during inspection? 1 1
 Yes = 1 No = 0

Evaluator Notes:

Because these were considered "unannounced" construction inspections, the operator was not notified ahead of time. The operator was present during both inspections

3 Did the inspector use an appropriate inspection form/checklist and was the form/checklist used as a guide for the inspection? (New regulations shall be incorporated) 2 2
 Yes = 2 No = 0 Needs Improvement = 1

Evaluator Notes:

Yes. MA-DPU inspections forms utilized. No issues with content.

4 Did the inspector thoroughly document results of the inspection? 2 2
 Yes = 2 No = 0 Needs Improvement = 1

Evaluator Notes:

Yes. Inspector(s) observations were well documented. Recorded findings noted and presented to the operator during exit interviews.

5 Did the inspector check to see if the operator had necessary equipment during inspection to conduct tasks viewed? (Maps,pyrometer,soap spray,CGI,etc.) 1 1
 Yes = 1 No = 0

Evaluator Notes:

Yes. 1. Inspectors observed fusion, mechanical compression type fitting, and pressure testing equipment. Fire extinguishers checked. Inspectors took photos of material specifications on fittings being used.
 2. Inspectors observed welding equipment, welding inspector multimeter equipment, non-destructive testing equipment, Fire extinguishers checked. Inspectors took photos of material specifications on pipeline fittings and valves.

6 Did the inspector adequately review the following during the field portion of the state evaluation? (check all that apply on list) 2 2
 Yes = 2 No = 0 Needs Improvement = 1



- a. Procedures
- b. Records
- c. Field Activities
- d. Other (please comment)

Evaluator Notes:

Yes. No issues noted. Inspector asked good questions during field observations. Communicated with operator each time an issue was identified instead of waiting until exit interviews.

7 Did the inspector have adequate knowledge of the pipeline safety program and regulations? (Evaluator will document reasons if unacceptable) 2 2
 Yes = 2 No = 0 Needs Improvement = 1

Evaluator Notes:

Yes. Inspector demonstrated adequate knowledge.

8 Did the inspector conduct an exit interview? (If inspection is not totally complete the interview should be based on areas covered during time of field evaluation) 1 1
 Yes = 1 No = 0

Evaluator Notes:

Yes. As noted prior exit interviews expressed both verbally on site and via correspondence to operators.

9 During the exit interview, did the inspector identify probable violations found during the inspections? (if applicable) 1 1
 Yes = 1 No = 0

Evaluator Notes:

Several PV's and areas of concern identified. Welding procedures not consistent with requirements of 192.225; Weld inspection and Testing (192.241); Individual not qualified to perform covered task (Application of heat shrink sleeves), OQ records not current, Potential issues not identified by headquarters inspection process and corrected at operational level (All 192.801(a) & 809(a); Main Construction (192.303); Main Construction Inspection (192.305); Meter/Regulator Protection (192.355); EFV Installation (192.383); Purging (192.629).

10 General Comments: 1) What did the inspector observe in the field? (Narrative description of field observations and how inspector performed) 2) Best Practices to Share with Other States - (Field - could be from operator visited or state inspector practices) 3) Other. Info Only Info Only

Info Only = No Points

- a. Abandonment
- b. Abnormal Operations
- c. Break-Out Tanks
- d. Compressor or Pump Stations
- e. Change in Class Location
- f. Casings
- g. Cathodic Protection
- h. Cast-iron Replacement
- i. Damage Prevention
- j. Deactivation
- k. Emergency Procedures
- l. Inspection of Right-of-Way
- m. Line Markers
- n. Liaison with Public Officials
- o. Leak Surveys
- p. MOP
- q. MAOP
- r. Moving Pipe
- s. New Construction



- | | | |
|----|-----------------------------------|-------------------------------------|
| t. | Navigable Waterway Crossings | <input type="checkbox"/> |
| u. | Odorization | <input type="checkbox"/> |
| v. | Overpressure Safety Devices | <input type="checkbox"/> |
| w. | Plastic Pipe Installation | <input checked="" type="checkbox"/> |
| x. | Public Education | <input type="checkbox"/> |
| y. | Purging | <input checked="" type="checkbox"/> |
| z. | Prevention of Accidental Ignition | <input type="checkbox"/> |
| A. | Repairs | <input type="checkbox"/> |
| B. | Signs | <input type="checkbox"/> |
| C. | Tapping | <input type="checkbox"/> |
| D. | Valve Maintenance | <input type="checkbox"/> |
| E. | Vault Maintenance | <input type="checkbox"/> |
| F. | Welding | <input checked="" type="checkbox"/> |
| G. | OQ - Operator Qualification | <input checked="" type="checkbox"/> |
| H. | Compliance Follow-up | <input type="checkbox"/> |
| I. | Atmospheric Corrosion | <input type="checkbox"/> |
| J. | Other | <input type="checkbox"/> |

Evaluator Notes:

Inspectors did good job of noting observations during site visits and observed a number of questionable construction practices. Staff checked condition of crew equipment such as fusion gear, welding equipment, pressure testing devices, trench safety. Recorded pipe materials and fittings used at various sites. Checked accuracy of underground utility marks and requested dig tickets from contractor on site. Made good use of photographs as part of inspection documentation.

On job site #2 MADPU staff were persistent in continuing their inspection when after arriving on the job-site had been informed by the operator that the job had been shut down because the construction crew's CGI equipment had been identified as being past due on its next calibration test.

Total points scored for this section: 12
Total possible points for this section: 12



PART H - Interstate Agent State (If Applicable)

Points(MAX) Score

1 Did the state use the current federal inspection form(s)? 1 NA
Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:
N/A. Not a interstate agent

2 Are results documented demonstrating inspection units were reviewed in accordance with "PHMSA directed inspection plan"? 1 NA
Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:
N/A. Not a interstate agent

3 Did the state submit documentation of the inspections within 60 days as stated in its latest Interstate Agent Agreement form? 1 NA
Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:
N/A. Not a interstate agent

4 Were probable violations identified by state referred to PHMSA for compliance? (NOTE: PHMSA representative has discretion to delete question or adjust points, as appropriate, based on number of probable violations; any change requires written explanation.) 1 NA
Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:
N/A. Not a interstate agent

5 Did the state immediately report to PHMSA conditions which may pose an imminent safety hazard to the public or to the environment? 1 NA
Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:
N/A. Not a interstate agent

6 Did the state give written notice to PHMSA within 60 days of all probable violations found? 1 NA
Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:
N/A. Not a interstate agent

7 Did the state initially submit documentation to support compliance action by PHMSA on probable violations? 1 NA
Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:
N/A. Not a interstate agent

8 General Comments: Info OnlyInfo Only
Info Only = No Points

Evaluator Notes:
Not a interstate agent

Total points scored for this section: 0
Total possible points for this section: 0



PART I - 60106 Agreement State (If Applicable)

Points(MAX) Score

1 Did the state use the current federal inspection form(s)? 1 NA
Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:
N/A. Is not a 60106 agreement state.

2 Are results documented demonstrating inspection units were reviewed in accordance with state inspection plan? 1 NA
Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:
N/A. Is not a 60106 agreement state.

3 Were any probable violations identified by state referred to PHMSA for compliance? 1 NA
(NOTE: PHMSA representative has discretion to delete question or adjust points, as appropriate, based on number of probable violations; any change requires written explanation.)
Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:
N/A. Is not a 60106 agreement state.

4 Did the state immediately report to PHMSA conditions which may pose an imminent safety hazard to the public or to the environment? 1 NA
Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:
N/A. Is not a 60106 agreement state.

5 Did the state give written notice to PHMSA within 60 days of all probable violations found? 1 NA
Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:
N/A. Is not a 60106 agreement state.

6 Did the state initially submit adequate documentation to support compliance action by PHMSA on probable violations? 1 NA
Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:
N/A. Is not a 60106 agreement state.

7 General Comments: Info Only Info Only
Info Only = No Points

Evaluator Notes:
Not a 60106 agreement state.

Total points scored for this section: 0
Total possible points for this section: 0

