

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

2016 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)



2016 Gas State Program Evaluation -- CY 2016

Gas

State Agency: Massachusetts

Agency Status:

Date of Visit: 09/11/2017 - 09/14/2017

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

Rating:

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

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 2016 (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

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)

Possible Points Points Scored

10	10
13	13
49	47
15	14
11	11
8	8
12	10
0	0
0	0

TOTALS

118 113

State Rating

95.8

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.

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

Evaluator Notes:
Days appear to be accurate. 4 field days taken for On-Site Operator Training by Division Director facilitating the quarterly MA Gas Advisory Committee. The committee is represented by state gas pipeline operators and is held at various operator facilities. Explained that this was not an allowable field activity since participation involved the Division Director only. No impacts to inspection person-day/total person-day ratio.

- | | | | |
|----------|--|---|---|
| 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:
Count appears to be accurate. Minor adjustments to be submitted as part of the CY2017 Progress Report to reflect changes due to company acquisitions.

- | | | | |
|----------|--|---|---|
| 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:
Yes. No issues. 2 reportable incidents listed in CY2016 match PDM.

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

Evaluator Notes:
No issues noted. Information entered match program records.

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

Evaluator Notes:
No issues. All information was readily available.

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

Evaluator Notes:
Yes. The information listed in PR matches the files kept by the state program and verified with the training information in SABA.

- | | | | |
|----------|---|---|---|
| 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 by reference. A couple of adoption date entries show adoption dates prior to regulation effective dates. Resubmitted prior to program evaluation for correction in Progress Report.

- 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. Continuous improvements made to program written procedures to reflect administrative goals. The program implemented a five-year Inspection Work Plan (TWP) used to prioritize and monitor mandated inspection activity, staff training, enforcement. The requires inspection staff to obtain 100 standard field inspection days per individual, with emphasis devoted to oversight of pipeline operator contractor work. Damage Prevention staff conducted education and training for various stakeholder groups including pipeline operators, excavators, and the general public.

10 General Comments:

Info OnlyInfo Only

Info Only = No Points

Evaluator Notes:

Total points scored for this section: 10
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:

No issues noted. Sections 7.5 and 9.0-9.22 of the General Inspection, Enforcement, and Incident Investigation Procedures Manual. Rev: Aug 2017.

- | | | | |
|---|--|---|---|
| 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:

No issues. Covered under Section 9.28 TIMP & 9.29 DIMP of procedures manual.

- | | | | |
|---|--|---|---|
| 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:

OQ inspection procedures addressed under Section 9.25-9.25.9 of procedures manual.

- | | | | |
|---|---|---|---|
| 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:

No issues. DP inspection procedures addressed under Section 9.27-9.25.9 of manual.

- | | | | |
|---|--|---|---|
| 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" of procedures manual.

- | | | | |
|---|--|---|---|
| 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. Covered under Section 9.24 of 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 <input checked="" type="radio"/> | No <input type="radio"/> | Needs Improvement <input type="radio"/> |
| c. Type of activity being undertaken by operators (i.e. construction) | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Needs Improvement <input type="radio"/> |
| d. Locations of operators inspection units being inspected - (HCA's, Geographic areas, Population Density, etc) | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Needs Improvement <input type="radio"/> |
| 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 <input checked="" type="radio"/> | No <input type="radio"/> | Needs Improvement <input type="radio"/> |
| f. Are inspection units broken down appropriately? | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Needs Improvement <input type="radio"/> |

Evaluator Notes:

Yes. a thru f covered under Sections 7 & 8 of the written procedures.

Risk model developed based on PHMSA's risk model provided as part of Appendix S in the written guidelines. The program chose initially to develop two separate spreadsheets for the risk models (Transmission and Distribution) in order to ensure that the risk data/factors were properly validated for each model. Going forward, the plan is to merge these two models into a single model that covers both distribution and transmission systems.

8 General Comments:

Info Only = No Points

Info Only Info Only

Evaluator Notes:

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):
880.46

B. Total Inspection Person Days Charged to the Program (220 X Inspection Person Years) (Attachment 7):
220 X 8.07 = 1776.50

Ratio: A / B
880.46 / 1776.50 = 0.50

If Ratio >= 0.38 Then Points = 5, If Ratio < 0.38 Then Points = 0
Points = 5

Evaluator Notes:

Yes. No issues.

- 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 <input checked="" type="radio"/> | No <input type="radio"/> | Needs Improvement <input type="radio"/> |
| b. | Completion of Required DIMP*/IMP Training before conducting inspection as lead? *Effective Evaluation CY2013 | Yes <input type="radio"/> | No <input checked="" type="radio"/> | Needs Improvement <input type="radio"/> |
| c. | Root Cause Training by at least one inspector/program manager | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Needs Improvement <input type="radio"/> |
| d. | Note any outside training completed | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Needs Improvement <input type="radio"/> |
| e. | Verify inspector has obtained minimum qualifications to lead any applicable standard inspection as the lead inspector. | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Needs Improvement <input type="radio"/> |

Evaluator Notes:

Staff inspector responsible for leading TIMP inspections has not completed all required courses. Needs PL3291 (SCADA), PL3292 (ILI/Pigging), and PL3306 (ECDA). Inspector on waitlist for these courses.

Root Cause: 2 Supervisors have completed.

- 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 were found with the PM's knowledge of PHMSA Pipeline Safety Program or regulations. The Program Manager has over 35 years of experience in pipeline safety as a Inspector and PM.

- 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 07/29/2016. Chairman's response received on 09/21/2016. Chairman did address all concerns.

- 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:

Multi State T&Q seminar conducted in Portland, MA the week of Oct 28, 2016.

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

Evaluator Notes:

Yes. No issues noted. The pipeline safety program has developed a five-year strategic work plan which in part incorporates a comprehensive Inspection Work Plan and Progress Report tracker to ensure adequate coverage and meet established time intervals.

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|---|--|---|---|
| 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 |
|---|--|---|---|

Evaluator Notes:

Yes. 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.

- | | | | |
|---|---|---|---|
| 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 |
|---|---|---|---|

Evaluator Notes:

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

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|---|--|---|---|
| 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 |
|---|--|---|---|

Evaluator Notes:

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

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|----|---|---|---|
| 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 |
|----|---|---|---|

Evaluator Notes:

Yes. Question contained in MA-DPU form Standard Comprehensive O&M Procedures Review form.

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|----|--|---|---|
| 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 |
|----|--|---|---|

Evaluator Notes:

Yes. 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 |
|----|--|---|---|

Evaluator Notes:

Yes. 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 annual report submittals. Data Analyst responsible for reviewing submitted information and providing analysis for incorporation into risk model and annual work plan.

- 13 Did state input all applicable OQ, DIMP/IMP inspection results into federal database in a timely manner? This includes replies to Operator notifications into IMDB database. Chapter 5.1
Yes = 2 No = 0 Needs Improvement = 1

Evaluator Notes:

Yes. No issues noted.

- 14 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

Evaluator Notes:

Yes. Reviewed copies of letters sent annually requesting copies of operator submittals.

- 15 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

Evaluator Notes:

Yes. 15 D&A inspections conducted in CY2016.

- 16 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

Evaluator Notes:

Yes. Next round of program plan reviews to be done in the 2017/18 work plan to meet programs 5-year inspection interval for reviewing operator plans.

- 17 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?). 49 CFR 192 Subpart 0
Yes = 2 No = 0 Needs Improvement = 1

Evaluator Notes:

Needs improvement. Only one (2014) of the four transmission operator's plans reviewed and documented within the last five years. Program plans on conducting remaining reviews by the end of CY2017.

- 18 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 DIMP ? First round of program inspections should have been complete by December 2014
Yes = 2 No = 0 Needs Improvement = 1

Evaluator Notes:

Yes. Last plan reviews conducted in CY2014.

- 19 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 have been completed by December 2013. PAPEI Effectiveness Inspections should be conducted every four years by operators. 49 CFR 192.616
Yes = 2 No = 0 Needs Improvement = 1

Evaluator Notes:

Yes. Last plan reviews conducted in 2013. Next round incorporated into 2017/2018 work plan.

- 20 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. Division Director also conducts quarterly meetings with pipeline operators MA Gas Advisory Committee to discuss issues and concerns.

- 21 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:

Yes. Reviewed investigation file. One SRC reported 7/19/2-16. Crack identified on 16" pipeline. Pipeline taken out of service and 241' segment replaced. Closed 10/27/2016.

- 22 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:

Yes, as part of meetings with the MA Gas Advisory Council. Past agendas reviewed.

- 23 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 list of 2016 survey requests responded to.

- 24 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:

Verifications ongoing. No issues noted.

- 25 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 in Indianapolis, IN the week of Sep 26, 2016.

- 26 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:

Reviewed and discussed measures. Since 2013 damages per 1000 tickets maintaining between 2.4 - 2.5 per. Inspection day numbers trending up every year since 2013. Should reach same levels in CY 2017 not seen since 2011. MMO/LPG inspection days should maintain current levels based on work plan which stipulates that 20% of these operators will be inspected every year with 100% covered over 5 years. Staff training will be an area of emphasis due to employee turnover over the past 2 years and the need to send staff to additional training for conducting integrity management inspections.

-
- 27** Discussion with State on accuracy of inspection day information submitted into State Inspection Day Calculation Tool. (No points) Info OnlyInfo Only
Info Only = No Points

Evaluator Notes:

PM re-evaluating inspection day estimates and staffing needs. 1136 inspection person-days required in CY 2017. Projected to achieve days at current staffing levels.

- 28** Did the State verify Operators took appropriate action regarding Pipeline Flow Reversals, Info OnlyInfo Only
Product Changes and Conversions to Service? See ADP-2014-04 (No Points)
Info Only = No Points

Evaluator Notes:

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

- 29** General Comments: Info OnlyInfo Only
Info Only = No Points

Evaluator Notes:

C-2: Inspector leading integrity management inspections has not attended and successfully completed all required courses. 1 Pt deduction for needing improvement.

C-17: Only one (in 2014) of the four transmission operator's plans reviewed and documented within the time interval established (five years). One point deducted for needing improvement.

Total points scored for this section: 47
Total possible points for this section: 49



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. Section 10.0 of the Division's General Inspection Procedure manual.

- | | | | |
|----------|--|--------------------------------------|---|
| 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 | 3 |
| 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 type="radio"/> | No <input type="radio"/> Needs Improvement <input checked="" type="radio"/> |
| d. | Routinely review progress of probable violations | Yes <input checked="" type="radio"/> | No <input type="radio"/> Needs Improvement <input type="radio"/> |
| e. | Were applicable civil penalties outlined in correspondence with operator(s) | Yes <input checked="" type="radio"/> | No <input type="radio"/> Needs Improvement <input type="radio"/> |

Evaluator Notes:

Inspection reports sent to appropriate company officer. Detailed notes in reports to operators to support PV's.

Needs improvement on timeliness to resolution of PV's. Program averages 7 to 12 months to get NOPV correspondence out to operators. Expect that this will be a repeat point deduction for the CY2017 evaluation. Violation tracker created should alleviate this issue going forward.

- | | | | |
|----------|--|----------|----------|
| 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.

- | | | | |
|----------|---|----------|----------|
| 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. No issues noted. Covered under Section 10.0 of procedures manual.

- | | | | |
|----------|---|----------|----------|
| 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 Program Director and Assistant Director are familiar with the process for issuing civil penalties. Civil penalties are considered anytime a probable violation is identified as demonstrated by the civil penalty amounts historically levied by the MA-DPU

- | | | | |
|----------|---|----------|----------|
| 6 | Can the State demonstrate it is using their enforcement fining authority for pipeline safety violations?
Yes = 1 No = 0 Needs Improvement = .5 | 1 | 1 |
|----------|---|----------|----------|

Evaluator Notes:

Yes. Civil penalties assessed in CY2016 totaled \$780,000. Penalties collected in CY2016 totaled \$2,006,000.00

7 General Comments:

Info OnlyInfo Only

Info Only = No Points

Evaluator Notes:

D-2: Issue with timeliness to resolution of PV's. Program averages 7 to 12 months to get NOPV correspondence out to operators. 1 pt. deducted for needing improvement.

Total points scored for this section: 14
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?
Yes = 2 No = 0 Needs Improvement = 1 | 2 | 2 |
|---|---|---|---|

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
Yes = 2 No = 0 Needs Improvement = 1 | 2 | 2 |
|---|---|---|---|

- | | | | | |
|----|--|--------------------------------------|--------------------------|---|
| a. | Acknowledgement of MOU between NTSB and PHMSA (Appendix D) | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Needs Improvement <input type="radio"/> |
| b. | Acknowledgement of Federal/State Cooperation in case of incident/accident (Appendix E) | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Needs Improvement <input type="radio"/> |

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
Yes = 1 No = 0 Needs Improvement = .5 | 1 | 1 |
|---|--|---|---|

Evaluator Notes:

Yes. Reviewed Telephonic Incident Notification reports. The inspector reviews each written report and investigate as required ensuring that the operator has responded properly and met all reporting requirements.

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

- | | | | | |
|----|---|--------------------------------------|--------------------------|---|
| a. | Observations and document review | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Needs Improvement <input type="radio"/> |
| b. | Contributing Factors | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Needs Improvement <input type="radio"/> |
| c. | Recommendations to prevent recurrences when appropriate | Yes <input checked="" type="radio"/> | No <input type="radio"/> | Needs Improvement <input type="radio"/> |

Evaluator Notes:

Yes. Reports are thorough and complete. No issues noted.

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

Evaluator Notes:

Yes. Two NRC reportable third party damages reported in CY2016. Both investigations identified probable violations against one pipeline operator for not properly marking their facilities and one excavator for working outside of the scope of the marked project. Both have been issued civil penalties.

- | | | | |
|---|---|---|---|
| 6 | Did the state assist region office 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
Yes = 1 No = 0 Needs Improvement = .5 | 1 | 1 |
|---|---|---|---|

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.

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

Evaluator Notes:

Yes. At the 2016 NAPS Eastern Region Meeting May 23-27, Dover, DE and the NEPS T&Q Seminar in Portland, ME in Oct 2016.

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

Evaluator Notes:

Total points scored for this section: 11
Total possible points for this section: 11



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. Addressed in the summary of their standard operations and maintenance plan review inspections.

- | | | | |
|---|---|---|---|
| 2 | Did the state inspector check to assure the pipeline operator is following its 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 O&M inspections. Dig Safe violation reports 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. As in past years 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 has averaged 2.4 to 2.5 damages per 1000 miles of pipe for calendar years 2013 thru 2016.

- | | | | |
|---|--|-----------|-----------|
| 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 Only Info Only
Info Only = No Points

Name of Operator Inspected:

1. Westfield Gas & Electric 2 & 3. Columbia Gas of Massachusetts 4. National Grid

Name of State Inspector(s) Observed:

1. Robert Hagmaier 2. Terrence Townsend 3. Kevin Melroy 4. Brendon Duffy

Location of Inspection:

1. City of Westfield 2. Springfield, MA 3. Ludlow, MA 4. Hull, MA

Date of Inspection:

1 - 3. June 6-8, 2017 4. August 3, 2014

Name of PHMSA Representative:

David Lykken 4. Jim Anderson

Evaluator Notes:

Observed inspectors performing the following inspections.

1. Public Awareness Effectiveness
2. TIMP - System transmission pipeline over pressure investigation
3. LNG Facility Security inspection
4. New Construction

-
- 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:

- 1-3. Yes. Both companies were notified prior to visits and company officials were present each day.
4. Company was notified prior to visit and company officials were present.

-
- 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 1
Yes = 2 No = 0 Needs Improvement = 1

Evaluator Notes:

- 1 & 2. Forms used for PA Effectiveness (IA Form 21 Rev date 6/5/17) and MAOP investigation (MA-DPU Form) addressed all applicable code requirements.
3. Form used for LNG facility inspection missing key components for conducting field facility check i.e. Security Communications, Adequate Lighting, Warning Signs, Security Monitoring, Security System Alternate Power Source.
4. Inspector used DPU construction inspection form.

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

Evaluator Notes:

- 1 & 2. Yes. Substantive comments provided on inspection checklists to support the inspector's determination of operator compliance.
3. Yes. Checklist was filled out in it's entirety with explanations provided.
4. Yes. Reviewed form during the inspection.

-
- 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:

No testing equipment required during these inspections 1. PA Effectiveness 2. MAOP Overpressure investigation 3. LNG

6	Did the inspector adequately review the following during the field portion of the state evaluation? (check all that apply on list) Yes = 2 No = 0 Needs Improvement = 1	2	1
a.	Procedures	<input checked="" type="checkbox"/>	
b.	Records	<input checked="" type="checkbox"/>	
c.	Field Activities	<input checked="" type="checkbox"/>	
d.	Other (please comment)	<input type="checkbox"/>	

Evaluator Notes:

1. Yes. Operator's plan was reviewed prior to site visit. A list of additional questions and record requests prepared in advance. Several issues identified as a result of the field review.

2. Yes. Review included but no limited to operating history; Reviewed written procedures for uprating and service tee installations; Discussed timeline of identification, investigation, and remediation of service tee installation. Discussed operator plan to execute verification and remedial action plan to locate other questionable service tee installations including prioritization of identified sites.

3. Needs Improvement. Ludlow LNG - At the time of the inspection, key components for conducting field facility check i.e. Security Communications, Adequate Lighting, Warning Signs, Security Monitoring, Security System Alternate Power Source were missing from checklist provided to the PHMSA program evaluator. The inspector did not adequately cover these elements during the inspection.

4. Inspector reviewed procedures, pipe specifications and joining procedures during the field inspection.

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

1,2, & 3. Yes. First solo LNG inspection. 4. This was the first solo inspection by the inspector. He has been shadowing another inspector since his hiring 8 months ago.

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) Yes = 1 No = 0	1	1
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Evaluator Notes:

1. Yes. Several NOPV's and AOC's identified during the inspection and were communicated to the operator at the end of the inspection. A "Exit Letter" was sent to the operator on 6/15/2017.
2. A final exit was not conducted since the MAOP overpressure investigation was only in its initial stages.
3. Yes. An exit interview was conducted. Several NOPV's and AOC's identified and communicated to the operator.
4. Inspector covered with the contractor and operator personnel what he looked at during the inspection.

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

Yes to all inspections. NOPV's and AOC's identified related to operator written procedures (none or insufficient detail), not following procedures, insufficient records, employee training, facility security and communications.

4. No probable violations found during the inspection.

- 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 = No Points

- | | | |
|----|-----------------------------------|-------------------------------------|
| a. | Abandonment | <input type="checkbox"/> |
| b. | Abnormal Operations | <input type="checkbox"/> |
| c. | Break-Out Tanks | <input type="checkbox"/> |
| d. | Compressor or Pump Stations | <input type="checkbox"/> |
| e. | Change in Class Location | <input type="checkbox"/> |
| f. | Casings | <input type="checkbox"/> |
| g. | Cathodic Protection | <input type="checkbox"/> |
| h. | Cast-iron Replacement | <input type="checkbox"/> |
| i. | Damage Prevention | <input type="checkbox"/> |
| j. | Deactivation | <input type="checkbox"/> |
| k. | Emergency Procedures | <input type="checkbox"/> |
| l. | Inspection of Right-of-Way | <input type="checkbox"/> |
| m. | Line Markers | <input type="checkbox"/> |
| n. | Liaison with Public Officials | <input checked="" type="checkbox"/> |
| o. | Leak Surveys | <input type="checkbox"/> |
| p. | MOP | <input type="checkbox"/> |
| q. | MAOP | <input checked="" type="checkbox"/> |
| r. | Moving Pipe | <input type="checkbox"/> |
| s. | New Construction | <input type="checkbox"/> |
| t. | Navigable Waterway Crossings | <input type="checkbox"/> |
| u. | Odorization | <input type="checkbox"/> |
| v. | Overpressure Safety Devices | <input checked="" type="checkbox"/> |
| w. | Plastic Pipe Installation | <input checked="" type="checkbox"/> |
| x. | Public Education | <input checked="" type="checkbox"/> |
| y. | Purging | <input type="checkbox"/> |
| z. | Prevention of Accidental Ignition | <input type="checkbox"/> |
| A. | Repairs | <input type="checkbox"/> |
| B. | Signs | <input checked="" type="checkbox"/> |
| C. | Tapping | <input type="checkbox"/> |
| D. | Valve Maintenance | <input type="checkbox"/> |
| E. | Vault Maintenance | <input type="checkbox"/> |
| F. | Welding | <input type="checkbox"/> |
| G. | OQ - Operator Qualification | <input type="checkbox"/> |
| H. | Compliance Follow-up | <input type="checkbox"/> |
| I. | Atmospheric Corrosion | <input type="checkbox"/> |
| J. | Other | <input checked="" type="checkbox"/> |

Evaluator Notes:

Question G3 - 1 Pt. deduction for needing improvement. #3 Ludlow LNG. Elements of the agency's pipeline database form and the PHMSA IA equivalent form parsed together for this inspection. Checklist provided to evaluator missing key field components for conducting field facility check i.e. Security Communications, Adequate Lighting, Warning Signs, Security Monitoring, Security System Alternate Power Source.

Question G-6 - Ludlow LNG - At the time of the inspection, key components for conducting field facility check i.e. Security Communications, Adequate Lighting, Warning Signs, Security Monitoring, Security System Alternate Power Source were missing from checklist provided to the PHMSA program evaluator. The inspector did not adequately cover these elements during the inspection. 1 Pt. deduction for needing improvement.

Total points scored for this section: 10
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)?
Yes = 1 No = 0 Needs Improvement = .5 | 1 | NA |
|----------|--|---|----|

Evaluator Notes:

Not a interstate agent

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

Evaluator Notes:

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?
Yes = 1 No = 0 Needs Improvement = .5 | 1 | NA |
|----------|--|---|----|

Evaluator Notes:

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.)
Yes = 1 No = 0 Needs Improvement = .5 | 1 | NA |
|----------|---|---|----|

Evaluator Notes:

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?
Yes = 1 No = 0 Needs Improvement = .5 | 1 | NA |
|----------|---|---|----|

Evaluator Notes:

Not a interstate agent

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

Evaluator Notes:

Not a interstate agent

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

Evaluator Notes:

Not a interstate agent

- | | | | |
|----------|--|-----------|-----------|
| 8 | General Comments:
Info Only = No Points | Info Only | Info Only |
|----------|--|-----------|-----------|

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**

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

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?
Yes = 1 No = 0 Needs Improvement = .5 | 1 | NA |
|----------|--|---|----|

Evaluator Notes:

N/A. Is not a 60106 agreement state

- | | | | |
|----------|---|---|----|
| 3 | Were any 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.)
Yes = 1 No = 0 Needs Improvement = .5 | 1 | NA |
|----------|---|---|----|

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?
Yes = 1 No = 0 Needs Improvement = .5 | 1 | NA |
|----------|---|---|----|

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?
Yes = 1 No = 0 Needs Improvement = .5 | 1 | NA |
|----------|--|---|----|

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?
Yes = 1 No = 0 Needs Improvement = .5 | 1 | NA |
|----------|--|---|----|

Evaluator Notes:

N/A. Is not a 60106 agreement state

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

Evaluator Notes:

Is not a 60106 agreement state.

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