



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

1200 New Jersey Avenue SE
Washington DC 20590

2019 Gas State Program Evaluation

for

MA DEPT. OF PUBLIC UTILITIES

Document Legend

PART:

- O -- Representative, Dates and Title Information
- A -- Progress Report and Program Documentation Review
- B -- Program Inspection Procedures
- C -- State Qualifications
- D -- Program Performance
- E -- Field Inspections
- F -- Damage prevention and Annual report analysis
- G -- Interstate Agent/Agreement States



2019 Gas State Program Evaluation -- CY 2019

Gas

State Agency: Massachusetts

Agency Status:

Date of Visit: 09/21/2020 - 09/25/2020

Agency Representative: Richard Enright, Director Pipeline Safety Division

PHMSA Representative: David Appelbaum

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

Name/Title: Matthew H. Nelson, Chairman

Agency: Massachusetts Department of Public Utilities

Address: One South Station

City/State/Zip: Boston, MA 02110

Rating:

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

INSTRUCTIONS:

Complete this evaluation in accordance with the Evaluator Guidance for conducting state pipeline safety program evaluations. The evaluation should generally reflect state program performance during CY 2019 (not the status of performance at the time of the evaluation). 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 appropriate notes/comments section. If a question is not applicable to a state, select NA. Please ensure all responses are COMPLETE and ACCURATE, and they OBJECTIVELY reflect the state's program performance for the question being evaluated. Increasing emphasis is being placed on how the state pipeline safety programs conduct and execute their pipeline safety responsibilities (their 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.

Scoring Summary

PARTS

Possible Points Points Scored

- A Progress Report and Program Documentation Review
- B Program Inspection Procedures
- C State Qualifications
- D Program Performance
- E Field Inspections
- F Damage prevention and Annual report analysis
- G Interstate Agent/Agreement States

0
15
10
50
15
4
0

0
15
10
48
15
4
0

TOTALS

94 92

State Rating 97.9

PART A - Progress Report and Program Documentation Review

Points(MAX) Score

1 Were the following Progress Report Items accurate?

Info Only Info Only

Info Only = No Points

- a. Stats On Operators Data - Progress Report Attachment 1
- b. State Inspection Activity Data - Progress Report Attachment 2
- c. List of Operators Data - Progress Report Attachment 3*
- d. Incidents/Accidents Data - Progress Report Attachment 4*
- e. Stats of Compliance Actions Data - Progress Report Attachment 5*
- f. List of Records Kept Data - Progress Report Attachment 6 *
- g. Staff and TQ Training Data - Progress Report Attachment 7
- h. Compliance with Federal Regulations Data - Progress Report Attachment 8
- i. Performance and Damage Prevention Question Data - Progress Report Attachment 10*

Evaluator Notes:

- a. Reviewed progress report with Pipeline Datamart. DPU is a 60105-certificated state and has total jurisdictional authority on all Intrastate natural gas and LNG systems. Discrepancies in Attachment 1 were as follows: PR reflects 13 Distribution operators, PDM shows 15; PR reflects 8 LNG operators, PDM shows 11; PR reflects 6 Transmission operators, PDM shows 9. Program Manager reconciled Attachment 1 and made a supplemental submission to PHMSA.
- b. Inspection History list from Program Manager (PM) confirm inspection days for each type of inspection matched attachment 2.
- c. Compared operators listed in Attachment 3 to Pipeline Datamart (PDM). Information on operator names and ID numbers seems correct.
- d. Three incidents occurred in CY2019. A review of PDM confirm this information is correct with dates, causes and property damages.
- e. Minor discrepancies were found on attachment 5 involving carry-over compliance actions. Program Manager reconciled Attachment and made a supplemental submission to PHMSA.
- f. No issues. Records listed in previous year match current year filing.
- g. Attachment 7 appeared accurate. DPU added 8 inspectors and other staff in CY 2019
- h. Attachment 8 no Issues, State has automatic adoption
- i. Attachment 10 appears appropriate and thorough.

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



PART B - Program Inspection Procedures

Points(MAX) Score

- | | | | |
|---|---|---|---|
| 1 | Do written procedures address pre-inspection, inspection and post inspection activities for each of the following inspection types: Chapter 5.1
Yes = 5 No = 0 Needs Improvement = 1-4 | 5 | 5 |
| | <ul style="list-style-type: none">a. Standard Inspections, which include Drug/Alcohol, CRM and Public Awareness Effectiveness Inspectionsb. TIMP and DIMP Inspections (reviewing largest operator(s) plans annually)c. OQ Inspectionsd. Damage Prevention Inspectionse. On-Site Operator Trainingf. Construction Inspections (annual efforts)g. LNG Inspections | | |

Evaluator Notes:

The written inspection procedures are in the Massachusetts Department of Public Utilities' (DPU) General Inspection, Enforcement & Incident Investigation Procedures Manual dated March 3, 2020. Sections 7.0 Inspection Responsibilities and Planning Requirements; Section 8.0 Annual Inspection Work plans; Section 9.0 Conducting Pipeline Inspections (9.21 contains the Pre-Inspection, Inspection and Post-Inspection elements) that meets the requirements of this question.

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|---|---|---|---|
| 2 | Do written procedures address inspection priorities of each operator, and if necessary each unit, based on the following elements and time frames established in its procedures? Chapter 5.1
Yes = 4 No = 0 Needs Improvement = 1-3 | 4 | 4 |
| | <ul style="list-style-type: none">a. Length of time since last inspectionb. Operating history of operator/unit and/or location (includes leakage, incident and compliance activities)c. Type of activity being undertaken by operators (i.e. construction)d. Locations of operator's inspection units being inspected - (HCA's, Geographic area, Population Centers, etc.)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)f. Are inspection units broken down appropriately? | | |

Evaluator Notes:

Inspection Procedures are covered in the MADPU's General Inspection, Enforcement & Incident Investigation Procedures Manual. The latest revision, Version 3.2 dated 3/3/2020, was reviewed. Section 7.6 covers the elements of length of time since last inspection, operating history, operator activities and operator inspection unit locations. Section 7.5 provides the maximum inspection intervals for operator and inspection types. Appendix A describes the risk assessment model utilized by the MADPU to identify high-risk inspection units.

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|---|---|---|---|
| 3 | (Compliance Procedures) 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 = 3 No = 0 Needs Improvement = 1-2 | 3 | 3 |
| | <ul style="list-style-type: none">a. Procedures to notify an operator (company officer) when a noncompliance is identifiedb. Procedures to routinely review progress of compliance actions to prevent delays or breakdownsc. Procedures regarding closing outstanding probable violations | | |

Evaluator Notes:

Yes. Section 10.0 of the Division's General Inspection Procedure manual provides process and procedures for enforcement of non-compliance. Previous year's observations noted a considerable amount of time was being spent on information requests to the operator following the inspection exit letter, which slowed down the process of driving compliance. It was clear that this process is getting better with the recent increase in staff and delegation of responsibilities.

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|---|--|---|---|
| 4 | (Incident/Accident Investigations) Does the state have written procedures to address state actions in the event of an incident/accident? | 3 | 3 |
|---|--|---|---|

Yes = 3 No = 0 Needs Improvement = 1-2

- a. Mechanism to receive, record, and respond to operator reports of incidents, including after-hours reports
- b. If onsite investigation was not made, do procedures require on-call staff to obtain sufficient information to determine the facts to support the decision not to go on-site.

Evaluator Notes:

Yes. Section 12.0 (Investigation of Incidents) of the DPU's General Inspection, Enforcement & Incident Investigation Procedures Manual provides the procedures along with Appendix "L" (Incident Investigation Form).

PHMSA discovered a discrepancy between Section 12.6 and Section 12.8. In Section 12.6 an inspector [may] complete the Incident investigation Form, while in Section 12.8, it states, "The DPU [will] conduct incident investigations and [prepare] incident investigation reports.

In CY 2019, the DPU responded to three reportable incidents, none of which led to the completion of Incident investigation Form. The DPU will amend their procedures align with State Guidelines 6.4 and mandate an Incident investigation Form be completed for DOT reportable incidents. See question D.8 for further.

5 General Comments:

Info Only Info Only

Info Only = No Points

Evaluator Notes:

No issues were found that required a loss of points during the evaluation visit.

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



PART C - State Qualifications

Points(MAX) Score

- | | | | |
|---|---|---|---|
| 1 | Has each inspector and program manager fulfilled training requirements? (See Guidelines Appendix C for requirements) Chapter 4.4
Yes = 5 No = 0 Needs Improvement = 1-4 | 5 | 5 |
| | <ul style="list-style-type: none">a. Completion of Required OQ Training before conducting inspection as leadb. Completion of Required DIMP/IMP Training before conducting inspection as leadc. Completion of Required LNG Training before conducting inspection as leadd. Root Cause Training by at least one inspector/program managere. Note any outside training completedf. Verify inspector has obtained minimum qualifications to lead any applicable standard inspection as the lead inspector (Reference State Guidelines Section 4.3.1) | | |

Evaluator Notes:

Phillip Denton, Angela Motley, Terrence Townsend and Kevin Callahan have met the requirements to lead Standard, OQ and DIMP inspections for pipeline facilities. Phillip Denton is the DPU's only qualified IM inspector, and he did complete 14 inspection days in 2019 for IM. Additionally, Mike Conkley has completed the requisite classes to conduct Standard inspections. Phillip Denton and Angela Motley have required training for LNG facilities. The remaining inspectors are on schedule to complete the core requirements for pipeline inspections.
The Root Cause training requirement has been met.

- | | | | |
|---|--|---|---|
| 2 | Did state records and discussions with state pipeline safety program manager indicate adequate knowledge of PHMSA program and regulations? Chapter 4.1,8.1
Yes = 5 No = 0 Needs Improvement = 1-4 | 5 | 5 |
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Evaluator Notes:

At the time of inspection, Rick Enright completed one year in the PM position. He has extensive pipeline operator experience and demonstrated a solid knowledge of pipeline regulations and Program responsibilities.

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| 3 | General Comments:
Info Only = No Points | Info Only | Info Only |
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Evaluator Notes:

The DPU has increased its staff by approximated 10 inspectors since last year's Program Evaluation. They are aggressively pursuing the requisite TQ courses, notwithstanding the present COVID restrictions.

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



PART D - Program Performance

Points(MAX) Score

- | | | | |
|---|---|---|---|
| 1 | 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 | 4 |
| | <ul style="list-style-type: none">a. Standard (General Code Compliance)b. Public Awareness Effectiveness Reviewsc. Drug and Alcohold. Control Room Managemente. Part 193 LNG Inspectionsf. Construction (did state achieve 20% of total inspection person-days?)g. OQ (see Question 3 for additional requirements)h. IMP/DIMP (see Question 4 for additional requirements) | | |

Evaluator Notes:

All inspections were not completed within 60 days of established dates. A review of the records found that the DPU missed the inspection intervals as follows: (The following are overdue)

LNG - 3 inspections

DIMP - 15 inspections

IM - 5 inspections

CRM - 6 inspections

Between 2018 and 2019 significant resources had been dedicated to the reconstruction and restoration of the Merrimack Valley. Throughout this time, 40% of available inspectors were utilized to focus on reconstruction efforts that have resulted in the determination of over 1,500 compliance issues.

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| 2 | 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. Do inspection records indicate that adequate reviews of procedures, records and field activities, including notes and the appropriate level of inspection person-days for each inspection, were performed?
Yes = 10 No = 0 Needs Improvement = 1-9 | 10 | 10 |
| | <ul style="list-style-type: none">a. Standard (General Code Compliance)b. Public Awareness Effectiveness Reviewsc. Drug and Alcohold. Control Room Managemente. Part 193 LNG Inspectionsf. Constructiong. OQ (see Question 3 for additional requirements)h. IMP/DIMP (see Question 4 for additional requirements) | | |

Evaluator Notes:

The DPU uses an equivalent to the federal inspection forms for its inspections. Upon a review of randomly selected 2019 inspection files all applicable portions of the forms were completed appropriately.

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|---|---|---|---|
| 3 | 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 established in the operator's plan. 49 CFR 192 Part N
Yes = 2 No = 0 Needs Improvement = 1 | 2 | 2 |
|---|---|---|---|

Evaluator Notes:

The DPU spent 27.36 inspection person-days conducting OQ inspections. OQ plans were reviewed and field inspections conducted.

- 4 Is state verifying operator's integrity management Programs (IMP and DIMP)? This should include a review of plans, along with monitoring progress. In addition, the review should take in to account program review and updates of operator's plan(s). 49 CFR 192 Subpart P 2 2

Yes = 2 No = 0 Needs Improvement = 1

- a. Are the state's largest operator(s) plans being reviewed annually?
- b. Are states verifying with operators any plastic pipe and components that have shown a record of defects/leaks and mitigating those through DIMP plan?
- c. Are the states verifying operators are including low pressure distribution systems in their threat analysis?

Evaluator Notes:

The DPU spent 13.8 inspection person-days conducting IMP inspections, and 0.4 inspection person-days on DIMP. They were overdue on 21 IM inspections. See D.1

- 5 Did the state review the following (these items are NTSB recommendations to PHMSA that have been deemed acceptable response based on PHMSA reviewing these items during the evaluation process): Chapter 5.1 2 2

Yes = 2 No = 0 Needs Improvement = 1

- a. Operator procedures for determining if exposed cast iron pipe was examined for evidence of graphitization and if necessary remedial action was taken;
- b. 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);
- c. 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;
- d. 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;
- e. 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;
- f. Operator procedures for considering low pressure distribution systems in threat analysis?
- g. Operator compliance with state and federal regulations for regulators located inside buildings?

Evaluator Notes:

- a. The MA-DPU utilized its Standard Comprehensive Cast Iron inspection form which addresses this requirement. Upon a review of randomly selected inspection reports, this requirement was reviewed during inspections.
- b. Operators are 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.
- c. From the database, there is Inspection Form Type: Standard Comprehensive Sub-Type: Operation and Maintenance. Upon a review of randomly selected inspection forms, this requirement was covered.
- d. 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 are factored into program's risk management analysis.
- e. DPU verifies that an operator has directional drilling/boring procedures as part of an overall review of the operator's written Operation and Maintenance Procedures.
- f. DPU covers this in their inspection forms, but will be amending their procedures manual as well.
- g. Upon a review of randomly selected inspection forms, this requirement was covered.

- 6 Did the State verify Operators took appropriate action regarding advisory bulletins issued since the last evaluation? (Advisory Bulletins Current Year) 1 1

Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:

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| 7 | <p>(Compliance Activities) 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</p> <p>Yes = 10 No = 0 Needs Improvement = 1-9</p> <ol style="list-style-type: none"> a. Were compliance actions sent to company officer or manager/board member if municipal/government system? b. Were probable violations documented properly? c. Resolve probable violations d. Routinely review progress of probable violations e. Did state issue compliance actions for all probable violations discovered? f. Can state demonstrate fining authority for pipeline safety violations? g. Does Program Manager review, approve and monitor all compliance actions? (note: Program Manager or Senior Official should sign any NOPV or related enforcement action) h. Did state compliance actions give reasonable due process to all parties? Including "show cause" hearing, if necessary. i. Within 30 days, conduct a post-inspection briefing with the owner or operator outlining any concerns j. Within 90 days, to the extent practicable, provide the owner or operator with written preliminary findings of the inspection. (Incident investigations do not need to meet 30/90-day requirement) | 10 | 9 |
|---|---|----|---|

Evaluator Notes:

DPU has a number of compliance actions that exceeded the 30/90-day communication requirement. All other aspects of the compliance procedure requirements were satisfactory.

With the change in management in late 2019 / early 2020, the DPU has made every effort to ensure all enforcement actions are being thoroughly documented, reviewed, and finalized. Significant efforts have been directed towards revising the enforcement tracking system, closing out cases that are non-compliant with 30/90 day communication requirement, and developing an inspector-owned process to ensure all compliance follow up actions are being reviewed in a timely manner. The Division's goal is to move towards 'real time' enforcement tracking as soon as practicable. This will ensure proper documentation at the time of the inspection as well as notification of upcoming due dates and dates for review of operator responses.

1. Number of cases (dockets) open/pending as of 9/1/2019 = 135
2. Number of cases closed since 9/1/2019 = 146
3. Number of cases opened since 9/1/2019 = 92
4. Number of cases currently pending as of 9/28/2020 = 81

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|---|---|----|----|
| 8 | <p>(Incident Investigations) Were all incidents investigated, thoroughly documented, with conclusions and recommendations?</p> <p>Yes = 10 No = 0 Needs Improvement = 1-9</p> <ol style="list-style-type: none"> a. Does state have adequate mechanism to receive and respond to operator reports of incidents, including after-hours reports? b. Did state keep adequate records of Incident/Accident notifications received? c. If onsite investigation was not made, did the state obtain sufficient information from the operator and/or by means to determine the facts to support the decision not to go on site? d. Were onsite observations documented? e. Were contributing factors documented? f. Were recommendations to prevent recurrences, where appropriate, documented? g. Did state initiate compliance action for any violations found during any incident/accident investigation? h. Did 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? i. Does state share any lessons learned from incidents/accidents? | 10 | 10 |
|---|---|----|----|

Evaluator Notes:



In CY 2019, the DPU responded to three reportable incidents, none of which led to the completion of an Incident Investigation Form. These incidents were partly documented by way of memorandum and other media, but is in conflict with DPU's General Inspection, Enforcement & Incident Investigation Procedures Manual, Section 12, which requires "the DPU [to] will conduct incident investigations and prepare incident investigation reports." As described in question B.4, the DPU will amend their procedures to eliminate any ambiguity and align with State Guidelines 6.4 to require an Incident Investigation Form be completed for all DOT-reportable incidents. All other aspects of this question were satisfied. One point deduction

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| 9 | 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
Yes = 1 No = 0 Needs Improvement = .5 | 1 | 1 |
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Evaluator Notes:

Yes, Chairman Nelson's response letter to Zach Barrett was drafted on August 20, 2019. PHMSA's outbound letter was sent June 18, 2019, and received on June 20th, right at 60 days. Thus the State responded within the 60-day time requirement.

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| 10 | Did State conduct or participate in pipeline safety training session or seminar in Past 3 Years? Chapter 8.5
Info Only = No Points | Info Only | Info Only |
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Evaluator Notes:

Yes, the DPU participated in the pipeline safety seminar in October, 2016 and in October, 2018.

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| 11 | Has state confirmed transmission operators have submitted information into NPMS database along with changes made after original submission?
Info Only = No Points | Info Only | Info Only |
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Evaluator Notes:

Yes, DPU asks operators during inspections if they have submitted information into the NPMS database. A review of the of PDM was done and NPMS and AR data was consistent.

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| 12 | 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).
Yes = 1 No = 0 Needs Improvement = .5 | 1 | 1 |
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Evaluator Notes:

Pipeline safety information is posted on the DPU's 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. The Pipeline Safety Division Director also conducted meetings with pipeline operators to discuss issues and concerns.

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|-----------|---|---|---|
| 13 | Did state execute appropriate follow-up actions to Safety Related Condition (SRC) Reports? Chapter 6.3
Yes = 1 No = 0 Needs Improvement = .5 | 1 | 1 |
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Evaluator Notes:

No issues were found.

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| 14 | Was the State responsive to:
Yes = 1 No = 0 Needs Improvement = .5
a. Surveys or information requests from NAPS or PHMSA;
b. Operator IM notifications; and
c. PHMSA Work Management system tasks? | 1 | 1 |
|-----------|--|---|---|

Evaluator Notes:

No issues found with regard to these questions.

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| 15 | 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 |
|-----------|---|---|---|

Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:

The DPU has many waivers/special permits listed on PHMSA's Website. Most of these waivers are related to above ground plastic pipe installed in metal conduit suspended under bridges. This installation of plastic pipe is now allowed in the pipeline safety regulations. The DPU is in the process of contacting PHMSA's Regulations Division to request these waivers be pulled down from PHMSA's web site.

16 Were pipeline program files well-organized and accessible?

Info Only Info Only

Info Only = No Points

Evaluator Notes:

Files were accessible from the inspection database.

17 Discussion with State on accuracy of inspection day information submitted into State Inspection Day Calculation Tool (SICT). Has the state updated SICT data?

3

3

Yes = 3 No = 0 Needs Improvement = 1-2

Evaluator Notes:

The DPU utilizes the current years work plan, paired with availability of qualified inspectors, to determine the allocation of inspection days utilizing the SICT. For the determination of 2020 numbers (estimated 1629), the Division utilized the actual inspection days from 2019, factored in additional inspector availability, and work plan focus. The workplan for 2020 has focused on the following inspection types: DIMP, CRM, OQ, Drug and Alcohol, Master Meter Operators, Construction (20%), as well as a heightened attention to district regulator station maintenance.

For future reference, last year's evaluation reflected the following:

"No issues requiring a loss of points. However, the following recommendations are made:

1. The large LDC's and other operators should be broken down by individual operator for risk considerations.
2. Although it appears construction days are adequately done in Massachusetts, there should be more recognition of this in the operator breakdown of days.
3. LNG needs to be broken down more.
4. Verify propane operator count.
5. Verify total days devoted to Master Meter systems are correct.
6. Total days appears acceptable, but work needs to be done on how days are broken down and allocated."

18 Discussion on State Program Performance Metrics found on Stakeholder Communication site.\ <http://primis.phmsa.dot.gov/comm/states.htm?nocache=4805>

Info Only = No Points

Evaluator Notes:

There were no relevant reversals during 2019.

19 Did the state encourage and promote operator implementation of Pipeline Safety Management Systems (PSMS), or API RP 1173? This holistic approach to improving pipeline safety includes the identification, prevention and remediation of safety hazards.

Info Only Info Only

Info Only = No Points

- a. <https://pipelinesms.org/>
- b. Reference AGA recommendation to members May 20, 2019

Evaluator Notes:

No issues

20 General Comments:

Info Only Info Only

Info Only = No Points

Evaluator Notes:

Total points scored for this section: 48
Total possible points for this section: 50

PART E - Field Inspections

Points(MAX) Score

- 1 Operator, Inspector, Location, Date and PHMSA Representative (enter specifics into the comments box below) Info Only Info Only

Info Only = No Points

- What type of inspection(s) did the state inspector conduct during the field portion of the state evaluation? (i.e. Standard, Construction, IMP, etc)
- When was the unit inspected last?
- Was pipeline operator or representative present during inspection?
- Effort should be made to observe newest state inspector with least experience

Evaluator Notes:

On September 21st, Phil Denton led the inspection of the Berkshire Gas Company in Whately, MA.

On September 22nd, Kevin Callahan and Matt Cyr conducted a construction inspection (installation of a service and meter) on Wakefield Municipal Gas and Light in Wakefield, MA.

On September 24th, Will Downs and Mike Conkey conducted a LP regulator station inspection on Eversource Energy in Framingham, MA

- 2 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, the inspector used an internal program for taking notes that was developed off of the relevant PHMSA forms. PHMSA encouraged the DPU to keep a copy of the PHMSA form with each inspector to use as a guide during the inspection.

- 3 Did the inspector adequately review the following during the inspection 10 10

Yes = 10 No = 0 Needs Improvement = 1-9

- Procedures (were the inspector's questions of the operator adequate to determine compliance?)
- Records (did the inspector adequately review trends and ask in-depth questions?)
- Field Activities/Facilities (did inspector ensure that procedures were being followed, including ensuring that properly calibrated equipment was used and OQ's were acceptable?)
- Other (please comment)
- Was the inspection of adequate length to properly perform the inspection?

Evaluator Notes:

All inspectors were very thorough in all aspects of these audits. They were observed asking multiple questions about the operator's records and recording their response on the inspection (notes) form. An in-depth records review was performed on all operators including the name of the person(s) performing the work and their OQ tasks.

- 4 From your observation 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:

All inspector were very competent with the pipeline safety regulations and inspection protocols. They conducted the inspections in a professional manner. Additionally, they all asked excellent questions and insured the operator's records, procedures, and alike, reflected compliance with the pipeline safety regulations.

- 5 Did the inspector conduct an exit interview, including identifying probable violations? (If inspection is not totally completed the interview should be based on areas covered during time of field evaluation) 1 1

Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:

All inspectors provided an exit interview to the operator and sufficiently articulated areas of concern and/or recommendations for improvement.

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- 6** Was inspection performed in a safe, positive, and constructive manner ? Info Only Info Only
Info Only = No Points
- a. No unsafe acts should be performed during inspection by the state inspector
 - b. What did the inspector observe in the field? (Narrative description of field observations and how inspector performed)
 - c. Best Practices to Share with Other States - (Field - could be from operator visited or state inspector practices)
 - d. Other

Evaluator Notes:

Yes, office and field inspections were conducted safely and following the COVID Guidelines and State of Massachusetts requirements on maintaining a safe distance between individuals. At all times, face masks were worn in the office and out in the field. All other aspects of these inspections were done in a safe manner.

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

Evaluator Notes:

No issues requiring a loss of points were found during the evaluation visit.

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



PART F - Damage prevention and Annual report analysis**Points(MAX) Score**

- | | | | |
|----------|--|---|---|
| 1 | 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, the DPU demonstrated a good understanding of their operator's annual reports and did challenging their operators on root cause data entered in Part D of the AR.

- | | | | |
|----------|--|---|----|
| 2 | Has the state verified that the operators analyze excavation damages for the purpose of determining root causes and minimizing the possibility of a recurrence? (? 192.617)
Has the state verified that the operators have appropriately identified excavators who have repeatedly violated one-call laws and damaged their facilities. Have the operators taken steps to mitigate that risks? (? 192.1007)
Yes = 2 No = 0 Needs Improvement = 1 | 2 | NA |
|----------|--|---|----|

Evaluator Notes:

Program maintained some high level damage data. PHMSA encouraged PM to dive deeper into the specific root causes of operator's excavation damages and challenge the accuracy of that data, and what the operators is doing to comply with other regulatory requirements.

- | | | | |
|----------|---|---|----|
| 3 | Has the state reviewed the operator's annual report pertaining to Part D ? Excavation Damage?
Yes = 4 No = 0 Needs Improvement = 1-3 <ol style="list-style-type: none">a. Is the information complete and accurate with root cause numbers?b. Has the state evaluated the causes for the damages listed under "One-Call Notification Practices Not Sufficient" (Part D.1.a)?c. Has the state evaluated the causes for the damages listed under "Locating Practices Not Sufficient" (Part D.1.b)? For each operator, does the state review the following?d. Is the operator or its locating contractor(s) qualified and following written procedures for locating and marking facilities?e. Is the operator appropriately requalifying locators to address performance deficiencies?f. What is the number of damages resulting from mismarks?g. What is the number of damages resulting from not locating within time requirements (no-shows)?h. Is the operator appropriately addressing discovered mapping errors resulting in excavation damages?i. Are mapping corrections timely and according to written procedures?j. Has the state evaluated the causes for the damages listed under "Excavation Practices Not Sufficient" (Part D.1.c)? | 4 | NA |
|----------|---|---|----|

Evaluator Notes:

Program had a high level understanding of their excavation damage data. The DPU and PHMSA conducted a call with a large Distribution operator and assessed the operator's excavation damage data (specific to the questions above) and ensured damages were properly categorized based on apparent root cause. The operator made several corrections to their AR and submitted a supplement to PHMSA. The DPU did a good job establishing expectations with this operator, and is requiring them to reconcile their AR's back to CY 2015.

- | | | | |
|----------|---|---|---|
| 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?
Yes = 2 No = 0 Needs Improvement = 1 <ol style="list-style-type: none">a. What stakeholder group is causing the highest number of damages to the pipelines? Operator, contractor, locating company or public.b. Has the state verified the operator is appropriately focusing damage prevention education and training to stakeholders causing the most damages? | 2 | 2 |
|----------|---|---|---|

- c. Has the state evaluated which of the following best describes the reason for the excavation damages; i.e., operator or contractor not following written procedures, failure to maintain marks, failure to support exposed facilities, failure to use hand tools were required, failure to test-hole (pot hole), improper backfilling practices, failure to maintain clearance or insufficient excavation practices.
- d. Has the state verified the operator is appropriately focusing damage prevention education and training to address the causes of excavation damages?

Evaluator Notes:

Program has collected sufficient data to understand causes of excavation damage. Massachusetts' 2019 damages per 1000 locates was below the National Average of 2.6. State has been trending down (in the right direction) over the last several years, with a steady increase in the number of one-call tickets generated.

5 General Comments:

Info Only Info Only

Info Only = No Points

Evaluator Notes:

No issues requiring a loss of points were found during the evaluation visit.

Total points scored for this section: 4
Total possible points for this section: 4



PART G - Interstate Agent/Agreement States

Points(MAX) Score

- 1 Were all inspections of interstate pipelines conducted using the Inspection Assistant program for documenting inspections. Info Only Info Only
Info Only = No Points

Evaluator Notes:

The MADPU is not an interstate agent and does not have a 60106 agreement with PHMSA.

- 2 If inspections were conducted independent of a PHMSA team inspection was notice of all identified probable violations provided to PHMSA within 60 days. Info Only Info Only
Info Only = No Points

Evaluator Notes:

The MADPU is not an interstate agent and does not have a 60106 agreement with PHMSA.

- 3 If inspections were conducted independent of a PHMSA team inspection was PHMSA immediately notified of conditions which may pose an immediate safety hazard to the public or environment? Info Only Info Only
Info Only = No Points

Evaluator Notes:

The MADPU is not an interstate agent and does not have a 60106 agreement with PHMSA.

- 4 If inspections were conducted independent of a PHMSA team inspection did the state coordinate with PHMSA if inspections not were not included in the PHMSA Inspection Work Plan? Info Only Info Only
Info Only = No Points

Evaluator Notes:

The MADPU is not an interstate agent and does not have a 60106 agreement with PHMSA.

- 5 Did the state take direction from and cooperate with PHMSA for all incident investigations conducted on interstate pipelines? Info Only Info Only
Info Only = No Points

Evaluator Notes:

The MADPU is not an interstate agent and does not have a 60106 agreement with PHMSA.

- 6 General Comments: Info Only Info Only
Info Only = No Points

Evaluator Notes:

The MADPU is not an interstate agent and does not have a 60106 agreement with PHMSA.

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