



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

MISSOURI PUBLIC SERVICE COMMISSION

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: Missouri

Agency Status:

Date of Visit: 04/28/2020 - 04/30/2020

Agency Representative: Kathleen McNelis, Pipeline Safety Program Manager, MOPSC

PHMSA Representative: David Lykken, Transportation Specialist, PHMSA State Programs

Rex Evans, Supervisor, Grants Management Specialist, PHMSA State Programs

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

Name/Title: Ryan Silvey, Chairman

Agency: Missouri Public Service Commission

Address: 200 Madison, Suite 200

City/State/Zip: Jefferson City, MO 65101

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
50
15
4
0

TOTALS

94 94

State Rating **100.0**

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:

Operator/Inspection Unit totals on Attachment 1 are consistent with totals on Attachment 3 and as found in the PDM. No jurisdiction over LPG operators. PDM shows 5 GD and 1 GT incidents reported. Matches PR under Attachment 4. information verified through T&Q Blackboard training site. Training for personnel found to be complete and accurate. Attachment 8 - Plastic Pipe amendment. Docket GX-2020-0112.

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:

No issues.

- a. Standard inspection procedure - Section 4.3.1 of MO Pipeline Safety Program Plan (Rev 2/20/2019). Pre-inspection activities for each inspection type addressed under Section 5.2. Post Inspection under Section 5.6.
- b. Section 4.3.5. Pre-inspection activities for all inspection types addressed under Section 5 "Conducting Inspections. Post Inspection activities under Section 5.6
- c. Section 4.3.4. Pre-inspection activities for all inspection types addressed under Section 5 "Conducting Inspections. Post Inspection activities under Section 5.6
- d. Section 10 Damage Prevention Program and One-Call Notification
- e. Section 5.5.16 Onsite Operator Training Provided by MO PSC.
- f. Pipeline Safety Program Plan (Rev 3/05/2020) Section 4.3.9.
- g. Section 4.3.11. Denotes requirement to conduct Std insps within a 3-year time interval. Also Section 5.5.11 for "Temporary/Mobile" facilities.

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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:

Pipeline Safety Program Plan (Rev 3/05/2020) Section 4 - Inspection Planning. Inspection Priorities - Section 4.2 identifies riskier and problematic aspects for each operator for determining inspection priorities. Time Intervals for Inspections under Section 4.3. The program's Priority List accounts for large operators with multiple units to insure an adequate rotation is performed. Unit breakdown for Spire East & West broken down by Inspection Checklist Parts 1 thru 4. Not consistent with considerations noted in State Program Guidelines but program staff do a good job of documenting facility location site visits during standard inspections.

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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:

- a. Procedure to notify company officer contained in section 2.5.5
- b. Section 5.6.1 contains process for reviewing progress of and documenting of compliance actions (POV's and AOC's).
- c. Sections 5.6.2, 5.6.3, 5.6.4 contain process regarding closing outstanding probable violations.

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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?
Yes = 3 No = 0 Needs Improvement = 1-2 | 3 | 3 |
| | <ol style="list-style-type: none">a. Mechanism to receive, record, and respond to operator reports of incidents, including after-hours reportsb. 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:

- a. Section 6 - Failure Investigation and Safety Related Conditions. Appendix G - MOPSC Staff Notification Procedures for NG Incidents.
- b. Section 6 - Failure Investigation and Safety Related Conditions.

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| 5 | General Comments:
Info Only = No Points | Info Only | Info Only |
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Evaluator Notes:

No point deduction. No issues identified.

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



PART C - State Qualifications

Points(MAX) Score

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

Inspectors have completed the PL-3622 OQ training necessary for conducting OQ inspections. B. Inspection staff who have conducted DIMP/IM inspections as lead have completed all necessary T&Q training. Only two qualify to lead TIMP inspections. C. Four inspectors including PM have completed LNG training. D. PM and four Inspection staff have completed the Root Cause training.

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| 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:

Yes. The PM has adequate knowledge having started with the pipeline safety program in 2008.

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

No point deductions. No issues identified.

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



PART D - Program Performance**Points(MAX) Score**

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| 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 <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) | 5 | 5 |
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Evaluator Notes:

Points deducted in 2016 for the CY2015 evaluation period for not meeting intervals for PAPEI, MM, and adequate construction inspection activity. In the Chair's response letter the program committed to completing all outstanding inspection types by the end of CY2017 which has been verified. Next inspection intervals will need to be completed within established time intervals to avoid further point deductions.

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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 <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) | 10 | 10 |
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Evaluator Notes:

Yes. TIMP Plan Review form Rev 8/2013 needs updating. Timp Implementation form Rev 5/23/2018. Appendix E of procedures show two DIMP Implementation forms. IA Equivalent PHMSA Form 24 (Rev 4/2019) and PHMSA Form 22 (Rev 6/11/2014). Construction - One form for Plastic and one for Steel installations. Inspection staff do a good job of providing notes in checklists to support inspection results.

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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 |
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Evaluator Notes:

Points deducted in 2016 for the CY2015 evaluation period for not conducting full OQ plan reviews. In the Chair's response letter the program committed to completing all outstanding OQ inspections by the end of CY2017 which has been verified. Next inspection intervals will need to be completed within established time intervals to avoid further point deductions. Also suggested increasing Protocol 9 inspections as part of increased construction inspection activities.

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

Inspection history shows either a plan review or implementation inspection was conducted but no prior intervals on record. Points deducted in 2016 for the CY2015 evaluation period for not conducting full TIMP plan reviews. In the Chair's response letter the program committed to completing all outstanding TIMP inspections by the end of CY2017 which has been verified. Next inspection intervals will need to be completed within established time intervals to avoid further point deductions.

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 Yes = 2 No = 0 Needs Improvement = 1	2	2
	<ol style="list-style-type: none"> 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:

Yes to all. Covered under O&M Procedures Review, Standard Inspection, O&M & Emergency Plan inspection forms. The program has a checklists for both Distribution & Transmission operators for reviewing operator annual reports accuracy and for analyzing that data for trends and operator issues.

6	Did the State verify Operators took appropriate action regarding advisory bulletins issued since the last evaluation? (Advisory Bulletins Current Year) Yes = 1 No = 0 Needs Improvement = .5	1	1
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Evaluator Notes:

Yes. Verified during the operator's O&M & Emergency Plan review.

7	(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 Yes = 10 No = 0 Needs Improvement = 1-9	10	10
	<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)

Evaluator Notes:

Yes. No issues noted. Correspondence sent to appropriate company official well within the 90 day requirement. Civil penalties in the amount of \$33,000 were assessed and collected in CY2019. 30.12 days devoted to compliance follow-up inspections.

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| 8 | (Incident Investigations) Were all incidents investigated, thoroughly documented, with conclusions and recommendations? | 10 | 10 |
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- Yes = 10 No = 0 Needs Improvement = 1-9
- 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?

Evaluator Notes:

a. 800 Number or use Telephone Notice of Gas Incidents (staff contact list). b. Yes. Gas Incident Notification Form utilized to document notifications. c. Responded to all in CY2019. d. Yes. Reviewed Spire Incident NRC 1240527 and Spire Incident NRC 1248099 & 1248257 (48Hr). Detailed reports including photographs. e. Yes. One incident investigation identified inadequate protection of pressure regulating station. f. The program has demonstrated maintaining good communications with both AID and CR. g. State of the State presentation at NBPASR Regional meeting and annual state operator seminar. Also letter to operator on occasions when issue comes up that should be communicated.

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

Evaluator Notes:

Yes. Letter to Chair sent 6/17/2019. Response from Chair received on 7/16/2019. The agency continues to pursue legislative change to increase maximum civil penalty amounts and to obtain jurisdiction over LPG systems. Use of civil penalties evaluated on a case-by-case basis.

- 10** Did State conduct or participate in pipeline safety training session or seminar in Past 3 Years? Chapter 8.5 Info Only Info Only
Info Only = No Points

Evaluator Notes:

Held annually in June. Reviewed agendas for the 6/27-29/2018 and 6/26-28/2019 MO Association of Natural Gas Operators (MANGO) seminars. MOPSC and PHMSA staff presented at seminars.

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

Evaluator Notes:

Confirmed under MOPSC Reporting Procedures of the O&M and Emergency Procedures Inspection checklist and MOPSC Gas Safety Standard Inspection Checklist. Verified annually via email request from Program Manager.

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

Evaluator Notes:

MOPSC website. All Operators Letter (email). Open and closed cases accessed through the public website Electronic Filing and Information System.

- 13** 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:

No Safety Related Conditions reported in CY2019.

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

Evaluator Notes:

Participated and responded to 8 NAPSR surveys in CY2019 per NAPSR Administrative Manager. One IM notification task in CY2019 was completed. No SRC reports in CY2019.

- 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:

Waivers for electrofusion and mechanical fittings noted in MOPSC Gas Safety Inspection Checklist for certain LDC's and municipalities. (6)(H) waiver per GE-2000-543. Another state waiver not applicable to federal oversight.

- 16** Were pipeline program files well-organized and accessible? Info Only Info Only
Info Only = No Points

Evaluator Notes:

No issues. Most inspection files are paper copies. Moving to keep electronic records going forward.

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| 17 | Discussion with State on accuracy of inspection day information submitted into State Inspection Day Calculation Tool (SICT). Has the state updated SICT data?
Yes = 3 No = 0 Needs Improvement = 1-2 | 3 | 3 |
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Evaluator Notes:

Field day requirement in CY 2019 was 450. 766.5 achieved. Good with estimates in SICT. Tool was updated in CY2019.

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| 18 | Discussion on State Program Performance Metrics found on Stakeholder Communication Info Only Info Only
site.\ http://primis.phmsa.dot.gov/comm/states.htm?nocache=4805
Info Only = No Points |
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Evaluator Notes:

Discussed. Hits continue trending downward since 2011. Inspection days per 1K miles trending up since 2015. MMO Insp Days significantly up from 2018. Insp Qualification Core training at 90%. 5-year retention approximately 58%.

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| 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 = No Points | Info Only Info Only |
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a. <https://pipelinesms.org/>

b. Reference AGA recommendation to members May 20, 2019

Evaluator Notes:

Yes. Has been discussed at past MANGO seminars.

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| 20 | General Comments:
Info Only = No Points | Info Only Info Only |
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Evaluator Notes:

No point deductions under Part D.

Total points scored for this section: 50
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:

- This was a main/service line construction, replacement with Spire East in St. Charles County Missouri.
- N/A
- Pipeline operator was present
- Brian Buchanan was inspector observed, he has been with MOPSC about 3 years

- 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, Inspector used and provided us completed construction checklists.

- 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:

- Yes, company procedures were on site and reviewed.
- N/A
- Yes, field activities were adequately reviewed along with equipment validation. No issues.
- N/A
- Yes this individual inspection received appropriate attention.

- 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:

Yes, Brian had adequate knowledge.

- 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:

No issues. No violations were observed and all items viewed appeared good.

- 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:

- a. No issues
- b. This was main and service line construction for Spire East (formerly Laclede Gas) at three separate locations. 1. Everest Avenue, O'Fallon, MO. Line Extension with joining and pressure test. 2. Tamarack Drive - St. Charles, MO - 4" PE Main from new industrial location with tie-in to existing main from Little Hills Expressway up to Tamarack Drive/Hawk Drive. Tie in to 6" Steel. 3. Service line repair at 1877 Summit View in St. Charles, MO.
- c. N/A
- d. N/A

7 General Comments:

Info Only Info Only

Info Only = No Points

Evaluator Notes:

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



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|---|--|---|---|
| 1 | Has the state reviewed Operator Annual reports, along with Incident/Accident reports, for accuracy and analyzed data for trends and operator issues. | 2 | 2 |
| | Yes = 2 No = 0 Needs Improvement = 1 | | |

Evaluator Notes:

Operator annual reports reviewed each year (Section 4.3.1 of written procedures. The program reviews trends in data each individual operator reports in PHMSA annual reports, using a spreadsheet that is populated with annual report data from 2010 through most recent PHMSA annual report data. Staff reviews trends in data reported by each operator, including but not limited to excavation damages by root cause (data reporting began in 2016 for CY 2015 for excavation damage by root cause data). Review of this data is part of pre-inspection review for DIMP inspection (section 5.2.1 of PSC program plan). The results of these reviews are discussed with operators during DIMP inspections. Beginning in Calendar year 2020 (for annual report year 2019), Staff developed a new form to further document these reviews. Staff performs a similar evaluation for trends in mechanical fittings failures reported by operators.

Incident Reports ? PSC Staff reviews incident reports for accuracy as part of incident investigation. Review of recent incidents is also part of pre-inspection preparation for IM inspections (both distribution and transmission, section 5.2.1 of PSC program plan). Operator incident reports are discussed with operators during IM inspections to verify that the operator has considered the incidents as part of threat and risk evaluations. Staff does not perform routine trend analysis of incidents, but does consider past incidents and references past recommendations when applicable in its recommendations to operators regarding current incident investigations and in IM inspections.

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| 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:

No point question for CY2019.

Part of this verification is done with trend analysis of annual reports (See response to question F.1), and additional detail is verified either during integrity management inspections (for damages that do not result in reportable incidents) or in incident investigations and integrity management inspections (for damages resulting in reportable incidents).

- ? In DIMP inspections - PSC Staff reviews damage prevention performance for each operator.
- o If operators have experienced excavation damages, the data must be included in evaluation of threats and risk ranking (192.1007(b) and (c)). Staff verifies during DIMP inspections.
 - o PSC Staff verifies operator threat identification and measures operators are taking to address risks, including risks resulting from excavation damages (192.1007(d)).
 - o Because DIMP required each operator to develop and monitor performance measures from an established baseline to evaluate effectiveness (192.1007(e)1.), during our initial DIMP program inspections PSC Staff required each operator to develop baselines for each threat category, and to establish thresholds for when additional actions would be considered.
 - o PSC Staff verifies operator's monitoring of effectiveness of risks reduction measures, including excavation damage (192.1007(e)).
- ? In the event there are excavation damages to transmission lines, these would be discussed/verified during transmission IM inspections.
- ? PSC investigates each federally reportable incident. Part of Staff incident investigation is verification of operator identified apparent cause as well as actions being performed to minimize probability of a recurrence. Following incident investigation, Staff may recommend additional actions to the operator and may make recommendations to other operators as appropriate.

Each operator must include consideration of the primary threat category excavation damage as a potential threat in DIMP (49 CFR 192.1007(b)). For operators that routinely experience excavation damages (see Notes on Missouri excavation damage statistics below), PSC Staff recommends further analysis of the primary threat of excavation damages according to the sub-threats of one-call notification practices not sufficient, locating practices not sufficient, excavation practices not sufficient and other. PSC Staff recommend that operators analyze the root causes of these damages and address the identified causes in their DIMP plans. PSC Staff discuss these root causes and action plans with these operators during DIMP inspections.

Some Missouri operators have identified repeat violators (or similar category) as a specific threat in their DIMP plans, and

have action plans to mitigate the risk. However, the majority of operators in Missouri (see Notes on Missouri excavation damage statistics) do not routinely have excavation damages caused by excavator violations. During DIMP inspections, PSC Staff reviews the specific measures operators have identified to reduce risks, as well as operator decisions that no risk reduction measures are necessary (PHMSA Form 24, question 18). The inspection process ensures that the operator was able to demonstrate to PSC Staff that the basis for decisions related to risk reduction measures were adequate and appropriate for their systems.

Additionally, PSC Staff recommend to operators that violations of one-call laws be reported to the Attorney General's Office One Call Unit <https://ago.mo.gov/civil-division/governmental-affairs/pipeline-safety>. Information regarding this program and the penalties has been provided to PHMSA by the Attorney General's office during annual damage prevention evaluations.

3	Has the state reviewed the operator's annual report pertaining to Part D ? Excavation Damage? Yes = 4 No = 0 Needs Improvement = 1-3	4	NA
	<ul 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.)? 		

Evaluator Notes:

No Point question for CY2019.

- a. PSC Staff reviews PHMSA annual report data using attached checklists and also reviews trends from 2010 through most recent reporting year. Additional information is provided in response to question F.1. Additionally, PSC Staff occasionally discover instances where the information reported is not "correct" during DIMP inspections (due to operator misunderstanding of reporting requirements). In all instances, they request operators to file supplemental reports correcting information.
- b. During DIMP inspections, if operator has reported damages due to one-call notification not sufficient PSC Staff discuss causes with operators. See response to question F.2.
- c. During DIMP inspections, if operator has reported damages due to locating practices not sufficient PSC Staff discuss causes with operators. See response to question F.2.
- d. Missouri PSC Staff consider locating to be a covered task. PSC Staff reviews covered task list and qualification requirements during OQ program inspections. PSC Staff reviews qualification/requalification documentation for locating personnel (including contract locators) during standard records inspections.
- e. Operators either re-train/re-qualify or terminate employment to address performance deficiencies.
- f. Missouri PSC requests operators to report number of damages when locate markings were not within the "approximate location" in a "Missouri Annual Report" (copy attached as "Copy of Missouri-Annual-Report").
- g. Missouri PSC requests operators to report number of third-party excavation damages when MO One Call was notified, but no locate markings were provided in a "Missouri Annual Report" (copy attached).
- h. Yes- when mapping errors are identified as a cause or contributing factor to incidents, pipeline safety or pipeline integrity issues (including excavation damages), MO PSC requires that operators address as a knowledge of system data gap (49 CFR 102.1007(a)).
- i. Yes, when applicable.
- j. Some individual operators evaluate causes of excavation practices not sufficient. MO PSC Staff have discussed with these operators from the perspective that this information is used by operators when planning which types of excavations the operators monitor most closely, and as a basis for targeted damage prevention messaging. MO PSC is not the enforcement

authority for the state damage prevention statute (Missouri Revised Statute 319), and has no jurisdiction over third-party excavators.

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- | | | | |
|----------|--|---|---|
| 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? | 2 | 2 |
|----------|--|---|---|

Yes = 2 No = 0 Needs Improvement = 1

- 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?
- 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:

MO PSC presents aggregated damages/1,000 locate request trend data to PHMSA annually during NASPR Central Region meetings. The program discusses results and trends for individual operators during IM/DIMP inspections.

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

Evaluator Notes:

No point deductions. No issues noted.

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:

Not an interstate agent. Does not have a 60106 agreement.

- 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:

Not an interstate agent. Does not have a 60106 agreement.

- 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:

Not an interstate agent. Does not have a 60106 agreement.

- 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:

Not an interstate agent. Does not have a 60106 agreement.

- 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:

Not an interstate agent. Does not have a 60106 agreement.

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

Evaluator Notes:

Not an interstate agent. Does not have a 60106 agreement.

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