



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

1200 New Jersey Avenue SE
Washington DC 20590

2021 Gas State Program Evaluation

for

NORTH CAROLINA UTILITIES 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



2021 Gas State Program Evaluation -- CY 2021

Gas

State Agency: North Carolina

Agency Status:

Date of Visit: 05/17/2022 - 05/19/2022

Agency Representative: Steve Wood, Gas Pipeline Safety Manager

PHMSA Representative: Don Martin

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

Name/Title: Charlotte A. Mitchell, Chair

Agency: North Carolina Utilities Commission

Address: 430 North Salisbury Street, Dobbs Building

City/State/Zip: Raleigh, North Carolina 27603

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 2021 (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
10
0

0
15
10
50
15
10
0

TOTALS

100 100

State Rating

100.0

PART A - Progress Report and Program Documentation Review

Points(MAX) Score

- 1 Were the following Progress Report Items accurate? (*items not scored on progress report) 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. No inaccuracies found in comparison to list in NC Procedures document.
- b. The NCUC provided information in spreadsheets that supported the information entered into Attachment 2.
- c. Listing is maintained in the NCUC's Procedures document. No discrepancies were found.
- d. Attachment 4 information matches the incidents listed in the Pipeline Data Mart.
- e. The NCU provided a spreadsheet titled "Insp Units NonCompliances". The spreadsheet provided the information that supported the entries on Attachment 5. No issues.
- f. No issues.
- g. Training information in Attachment 7 was imported from Training and Qualification Division's (TQ) training database.
- h. No issues found. The NCUC has automatic adoption authority.
- i. No issues found.

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



PART B - Program Inspection Procedures

Points(MAX) Score

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

There were no changes to the procedures reviewed during CY2020 program evaluation.

- a. Procedures for conducting Standard Inspections are described on Pages 13 and 14. No issues.
- b. Procedures for Transmission Integrity Management Program and Distribution Integrity Management Program Inspections on Pages 18 and 19. No issues.
- c. Procedures for conducting Operator Qualification Inspections are described on Pages 13 and 14.
- d. Procedures for conducting Damage Prevention Inspections are described on Page 18. No issues.
- e. Procedures for conducting on site operator training are described on Page 18. No issues.
- f. Procedures for conducting Design, Testing and Construction Inspections are described on Pages 14 through 17. No issues.
- g. Procedures for conducting Standard Inspections are described on Pages 13 and 14.

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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:

There were no changes to the procedures reviewed in the CY2020 Program Evaluation.

- a. - e. Section 4. B. describes the NCUC's inspection priorities. The inspection priorities meet PHMSA's requirements.
- f. There were no issues found with 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:

There were no changes to the procedures reviewed in the CY2020 Program Evaluation.

- a. The second paragraph of Section 5 R states letter to be addressed to the appropriate operator contact (which should be a company officer, system owner, mayor or other responsible party).
- b. Section 5. T. on Pages 21 and 22 meets the requirements.
- c. Section 5. U. on Pages 22 and 23 meets the requirements.

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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:

There were no changes to the procedures reviewed in the CY2020 Program Evaluation.

- a. Sections VI. B., E. and H contain procedures that meets these requirements.
- b. Section VI. B. meets these requirements.

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

Evaluator Notes:

There were no issues that resulted in a loss of points in Part B of this evaluation.

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 4.3
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:

- a. Steve Wood, Harry Bryant, Michelle Flowers, Hillary King, Brooks Tate, and Anna Williams have completed the training requirements for leading a Operator Qualification inspection.
- b. Steve Wood, Harry Bryant, Michelle Flowers, Hillary King, Brooks Tate, and Anna Williams has completed the required training to lead a Transmission Integrity Management Program inspection. Steve Wood, Harry Bryant, Michelle Flowers, Hillary King, Brooks Tate, and Anna Williams have completed the required training to lead a Distribution Integrity Management Program inspection.
- c. Harry Bryant, Michelle Flowers, Hillary King, Brooks Tate, Anna Williams and Steve Wood have completed the training requirements for leading a Standard Inspection of a LNG facility.
- d. All but one inspector have completed Root Cause training.
- e. No outside training.
- f. Harry Bryant, Michelle Flowers, John Hall, Hillary King, Brooks Tate, Anna Williams and Steve Wood have completed the training requirements for leading a Standard Inspection of gas pipeines.

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

The program manager has work experience in gas distribution systems operations, twenty one years as a gas program inspector and state program manager. He has completed all of the required courses to lead Standard Inspections of gas pipelines and LNG facility.

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

There were np issues identified that resulted in a loss of points in Part C of this evaluation.

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 | 5 | 5 |
| | <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:

a. through h. - Inspection dates were reviewed for a random sample of operators and inspection units. There were no instances where the NCUC failed to complete Standard Inspections annually (per NCUC inspection procedures) for Pipeline and LNG operators. Two distribution operators are due for DIMP inspections in 2022. One transmission operator is due for a TIMP inspection in 2022. The intervals were met for OQ, Public Awareness and Drug and Alcohol. Design and Construction inspection person days were 24% of total inspection person days. One operator had control room facilities which was inspected within the interval requirements.

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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:

a. through h. - Inspection files were reviewed for a random sample of operators and inspection units. Files for CY2021 inspections of the operators on the randomly selected list were reviewed. The inspection forms appeared to cover all applicable code requirements. All questions were documented as satisfactory, unsatisfactory, not covered or not applicable. Comments were provided for any questions that were marked unsatisfactory, not covered or not applicable.

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| 3 | Is state verifying monitoring (Protocol 9/Form15) of operators OQ programs? 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:

Protocol 9 requirements are covered during Standard Inspections. Inspection dates were reviewed for a random sample of operators and inspection units. The NCUC inspections met the intervals required for Standard Inspections.

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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 Subparts O and P
Yes = 2 No = 0 Needs Improvement = 1 | 2 | 2 |
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- a. Are the implementation plans of the state's large/largest operators(s) being reviewed annually to ensure they are completing full cycle of the IMP process?
- 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 dates were reviewed for a random sample of operators and inspection units. The NCUC inspections met the intervals required for inspecting operator's IMP and DIMP programs. Two distribution operators are due for DIMP inspections in 2022. One transmission operator is due for a TIMP inspection in 2022.

- a. No issues found.
- b. Covered in Standard Inspections.
- c. Covered during DIMP inspections.

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:

NTSB recommendations in (a. - (e. covered in inspection forms. NTSB recommendation in (f. and (g. covered on DIMP inspection form when covering threats.

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:

The NCUC provided the Advisory Bulletin page that is included in the inspection checklist for Standard Inspections. Advisory Bulletins issued since the last inspection are discussed with the operator.

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:

There were seven probable violations found during 2021. Probable violations carried over from 2020 were corrected and closed per procedures. There were no probable violations carried over into 2022.

- a. through e. - No issues found.
- f. - No civil penalties were assessed in CY2021 for theseven probable violations found. Civil penalties were assessed during CY2017.
- g. Yes, the Program Manager reviews, signs non-compliance letters and follows up until corrective actions are documented by the operators.
- h. Yes.
- i. and j. - No issues found.

8	(Incident Investigations) Were all federally reportable 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:

There were four reportable incidents during 2021. Two were on distribution systems and two were on transmission systems.

- a. The NCUC has an adequate mechanism to receive and respond to incidents.
- b. The NCUC listing of incidents in a MSWord document matched the incidents in the PDM and the 2021 Progress Report.
- c. The NCUC investigated all four incidents on site.
- d. No issues.
- e. The NCUC agreed with contributing factors contained in operators' written reports.
- f. Recommendations were not appropriate in these incidents.
- g. Non-compliance was not identified in any of the incidents investigated.
- h. No issues were identified.
- i. Yes, at the NAPS regional meeting annually.

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
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Yes = 1 No = 0 Needs Improvement = .5

Evaluator Notes:

There was no response required for the CY2020 Program Evaluation.

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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:

The last seminar was held in 2018, Due to Covid-19, the next pipeline seminar is scheduled in October, 2022.

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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:

No issues.

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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:

The NCUC website provides pipeline safety information that is accessible by all stakeholders. Also pipeline safety related cases can be reviewed by use of docket numbers.

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| 13 | Did state execute appropriate follow-up actions to Safety Related Condition (SRC) Reports? Chapter 6.7
Yes = 1 No = 0 Needs Improvement = .5 | 1 | 1 |
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Evaluator Notes:

There were three SRC reports during 2021. Two are closed. PSNC report received on 6/7/2021 is still open. Repair work is still in progress due to the nature of the external corrosion locations.

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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; and
b. PHMSA Work Management system tasks? | 1 | 1 |
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Evaluator Notes:

- a. There were no known instances where the NCUC did not respond to surveys or information requests.
- b. No issues requiring a loss of points were found with IM notifications.
- c. There is one Safety Related Condition report that is still open due to the scope of the remediation activities. The NCUC continually monitors the operators progress. Updates are provided when appropriate.

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

There are no open Waivers/Special Permits that have conditions requiring follow up.

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| 16 | Were pipeline program files well-organized and accessible?
Info Only = No Points | Info Only | Info Only |
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Evaluator Notes:

All information requests made as a part of this evaluation were responded to with well organized files and documents in a relatively short time frame.

- 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 SICT files in the PDM was reviewed along with feedback from the Peer Review. No deficiencies were noted that required improvement by the NCUC.

- 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

Evaluator Notes:

The performance metrics in PRISMIS were reviewed. Excavation damages have trended downward to approximately 1.9 damages per 1000 tickets in CY2020. The NCUC continues to identify opportunities to reduce damages to pipelines. Inspection days per 1000 has trended in a positive direction with 14 inspection person days per 1000 miles achieved in CY2020. Inspection person days per Master Meter/LPG operator has remained constant as approximately 1 inspection person day per Master Meter/LPG operator. The percentage of staff completing required qualification training has averaged approximately 85% during CY2017 to CY2020. Leak repairs per 1000 miles has trended up over the last ten year period but has trended downward in the most recent four years. Hazardous leaks which require immediate repair has trended downward in the most recent four years. Also notable is that the inventory of leaks scheduled for repair at the end of each year has trended slightly downward in the most recent four years with an uptick in 2020. Enforcement and Incident Investigation has achieved 100% over the last ten years except for a drop in 2016.

- 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:

The NCUC has actively discussed PSMS with operators in North Carolina. The three large gas distribution operators and one large municipal have taken steps to implement PSMS into their operations. The NCUC is monitoring their efforts. The NCUC is currently promoting PSMS to the remainder of the municipal operators in the state.

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

Evaluator Notes:

There no issues found that resulted in the loss of points in Part D of this evaluation.

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:

Inspection 1:

The NCUC conducted a construction inspection of a Dominion Energy, OPID 15938, distribution construction project in Concord, NC on March 14, 2022. The operator was represented by David Brown. The NCUC inspectors were Ronnie Davis, new inspector, and Brooks Tate.

Inspection 2:

The NCUC conducted a construction inspection of Duke Energy, OPID 15518, transmission pipeline construction project in Charlotte, NC on March 15, 2022. The operator was represented by Randall Suttles. The NCUC were Ronnie Davis, new inspector, and Brooks Tate.

- 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:

Inspection 1:

Yes, the proper construction inspection form was utilized. The form was used as a guide while conducting the inspection.

Inspection 2:

Yes, the proper construction inspection form was utilized. The form was used as a guide while conducting 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:

Inspection 1:

- The Operator's procedures were reviewed prior to and during the inspection. There were no issues with the inspector's questions. All questions were determined to be appropriate for determining compliance with regulations and procedures.
- All records for materials used in construction and qualifications for joining materials were reviewed and found compliant.
- Since this was a construction inspection, the focus was on construction activities. Calibration on equipment for joining of materials were verified.
- No other items during this construction.
- Yes, the length was appropriate for the activities being performed on this day.

Inspection 2:

- The Operator's procedures were reviewed prior to and during the inspection. There were no issues with the inspector's questions. All questions were determined to be appropriate for determining compliance with regulations and procedures.
- All records for materials used in construction and qualifications for welding of materials were reviewed and found compliant.
- Since this was a construction inspection, the focus was on construction activities. Calibration on equipment for joining of

- materials were verified.
- d. No other items during this construction.
- e. Yes, the length was appropriate for the activities being performed on this day.

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| 4 | From your observation 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:

Inspection 1:

Ronnie Davis is a new inspector with the NCUC. He has considerable experience from working for a gas pipeline operator but has not received all of the training courses at PHMSA's Training and Qualifications Facility. He was assisted and mentored by Brooks Tate who does have more than adequate knowledge of the regulations.

Inspection 2:

Ronnie Davis is a new inspector with the NCUC. He has considerable experience from working for a gas pipeline operator but has not received all of the training courses at PHMSA's Training and Qualifications Facility. He was assisted and mentored by Brooks Tate who does have more than adequate knowledge of the regulations.

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

Inspection 1:

The NCUC conducted an exit interview on 3/24/2022 by way of Microsoft Teams meeting. PHMSA's evaluator was present during the exit interview. There were no probable violations found for the activities inspected on March 14, 2022.

Inspection 2:

The NCUC conducted an exit interview on 3/30/2022 by way of Microsoft Teams meeting. PHMSA's evaluator was present during the exit interview. There were no probable violations found for the activities inspected on March 15, 2022.

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| 6 | Was inspection performed in a safe, positive, and constructive manner ?
Info Only = No Points | Info Only | Info Only |
|---|--|-----------|-----------|
- 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:

Inspection 1:

- a. The inspectors wore all necessary personal protection equipment, attended a safety presentation with the operator at the beginning of the inspection and potential hazards were avoided.
- b. Pipe specifications were noted, joining processes were observed, excavation and facility locating was observed.
- c. No best practices were noted that warranted sharing.
- d. None

Inspection 2:

- a. The inspectors wore all necessary personal protection equipment, attended a safety presentation with the operator at the beginning of the inspection and potential hazards were avoided.
- b. Pipe specifications were noted, welding processes were observed, excavation and facility locating was observed.
- c. No best practices were noted that warranted sharing.
- d. None

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

Evaluator Notes:

There were no identified issues that resulted in the loss of points for Part E of this evaluation.

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:

The NCUC provided a spreadsheet that summarized the its review during CY2020. The results included trend analysis of excavation damage and leaks. Additionally, federal reportable excavation damages of operators were evaluated in the excel file titled "2018-2021 by operator NRC failure investigation activity report" issues (tab named Excavation). No issues.

- | | | | |
|----------|--|---|---|
| 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 | 2 |
|----------|--|---|---|

Evaluator Notes:

During Damage Prevention Plan inspections in 2021, this was checked. In 2021 some operators were analyzing data. Reducing the possibility of recurrence is addressed in their TIMP/DIMP plans, if operator has analyzed data. Most operators had a repeat offender list during the 2021 DP Plan inspection. Those who did not have this list were encouraged to create one. Most operators are mitigating risks through their TIMP/DIMP and PA outreach plans. More involved operators are conducting on-site meetings with contractors prior to beginning work with repeat offenders. It was suggested during the 2021 DP plan inspection by the NCUC DP Inspector more outreach be done by all operators directed specifically to the repeat offender excavator stakeholder group. The larger operators conduct monthly meetings (through committees) that review monthly excavation damages. A NCUC inspector interacts with a company's damage prevention committee representative. The committee analyzes root causes of the monthly damages. Approximately once each three months, the NCUC Program Manager interacts with the operators individually to discuss what actions the operators are taking as a result of the monthly meetings.

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|----------|---|---|---|
| 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 | 4 |
|----------|---|---|---|

Evaluator Notes:

a. - d. - The NCUC provided an excel file named "2010-2021 EXCVTR Annual Operator Reports" (tab named Damage Class & Op Issues Graphs). On a periodic basis discussions and evaluation of damage data occurs with an operator.
e. - j. - The NCUC has assigned damage prevention to one of its inspectors. The NCUC inspector's time is spent focusing on the damage prevention activities of the operators in North Carolina. Qualified Locators are inspected by NCUC DP Inspector on a random basis similar to construction site visits since Fall of 2020. The correct use of the operator's procedures are verified by observed field locator practices (both operator locators and contract locators). NC General Statute requirements are evaluated, but non-jurisdictional to NCUC Pipeline Safety. If General Statute issues are identified, it is mentioned as part of the exit interview held with each operator upon completion of Field Locator inspections but is non-enforceable.

Requalifying locators: The PHMSA document "Strengthening State Damage Prevention Plans" (2008) was referenced during the 2021 DP plan inspections with Operators, specifically the items for locator performance matrices. Few NC Operators are using this tool. They are requalifying according to their OQ plans. Mismarks were evaluated in operator specific data during the 2021 DP Plan inspections when the operator had such data available. Operator's were encouraged to develop & analyze this type of data. Locates time constraints data partially evaluated by NC811 in the 3-hr ticket information. Operator specific data was not available wide-spread during the 2021 DP plan inspections. Operators were encouraged to develop this type of data. Mapping errors were evaluated in the 2021 DP Plan inspections of Operators. Mapping errors and the procedures each operator uses to address this issue varies as not all NC operators have GIS capabilities. Damages resulting in mapping errors is not tracked by all operators. Methods to develop this data type were discussed with the operators in the 2021 DP Plan inspections. Operators were evaluated for mapping corrections timelines during the 2021 DP Plan inspection and the Locator Field inspections. Some operators update 2 times a year, others annually, others as the issues are presented by locators. Excavation practices not sufficient were provided in an excel file named "2010-2021 EXCVTR Annual Operator Reports" (tab named Damage Class & Op Issues Graphs). Theses definitions in Part D were reviewed during the DP Plan inspections in 2021 of Operators. Additionally, federal reportable excavation damages were evaluated in the excel file titled "2018-2021 by operator NRC failure investigation activity report" issues (tab named Excavation). The type of excavation damages were discussed during the DP plan inspection in 2021.

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

- a. NCDOT, Google (and other companys installing fiber) has caused the most damages in NC in recent history. Stakeholder group data is compiled by each operator and varies by operator. These types of data were discussed with the operators during the 2021 DP Plan inspections. Although the NC General Statute requires damages to be reported by the excavator, this is not always the case. As such, NC811 (typically used by gas operators for this purpose) is not complete and not reliable. The natural gas operators are leading by example in this category and as such report damages more frequently than other excavators.
 - b. The operators and NC811 are both providing training for all excavators and put more effort in covering contractors for NCDOT and fiber companies. Utilities Coordinating Committee meetings communicate with representatives of the excavating community including NCDOT and fiber companies. Operator's focus on education and training with stakeholders causing most damage was addressed during the 2021 DP Plan inspection with operators. The list of excavators working in the area of a pipeline was reviewed for each operator. Improvement suggestions were provided for each operator. Most operators are using the Public Awareness notification list as the list for excavators. The issues with this practice were discussed with operators and NCUC DP Inspector encouraged improved practices.
 - c. The NCUC program manager reviews all damages that result in repairs exceeding \$5000. A lot of information is gained from these reviews. The reasons for excavation damages were addressed during the 2021 DP Plan inspection with individual operators. Operators have this information. NCUC DP inspector requested this type of information be evaluated during discussions with each operator. Operators are performing root cause analysis to determine these specific areas of damages.
 - d. The operators provide education and training for the locating cause. NC811 super mega spreadsheet that captures reported damages to underground facilities and the contractors causing the damage. The causes of excavation damages were addressed during the 2021 DP Plan inspection with operators. Improvements to the education and training component and participation in the Utilities Coordinating Committee (UCC)(outreach) were encouraged. As a result of focused efforts of NCUC DP Inspector on this topic, some gas operators now share damages with root causes during the UCC Meetings. This practice was not done during the past 5-6 years of meetings.
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- 5 General Comments:
Info Only = No Points

Info Only Info Only

Evaluator Notes:

There were no issues found that resulted in the loss of points for Part F of this evaluation.

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



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 NCUC is not an interstate agent.

- 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 NCUC is not an interstate agent.

- 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 NCUC is not an interstate agent.

- 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 NCUC is not an interstate agent.

- 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 NCUC is not an interstate agent.

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

Evaluator Notes:

The NCUC is not an interstate agent.

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