



Transmission Service Provider (TSP) Winter Inspection Checklists

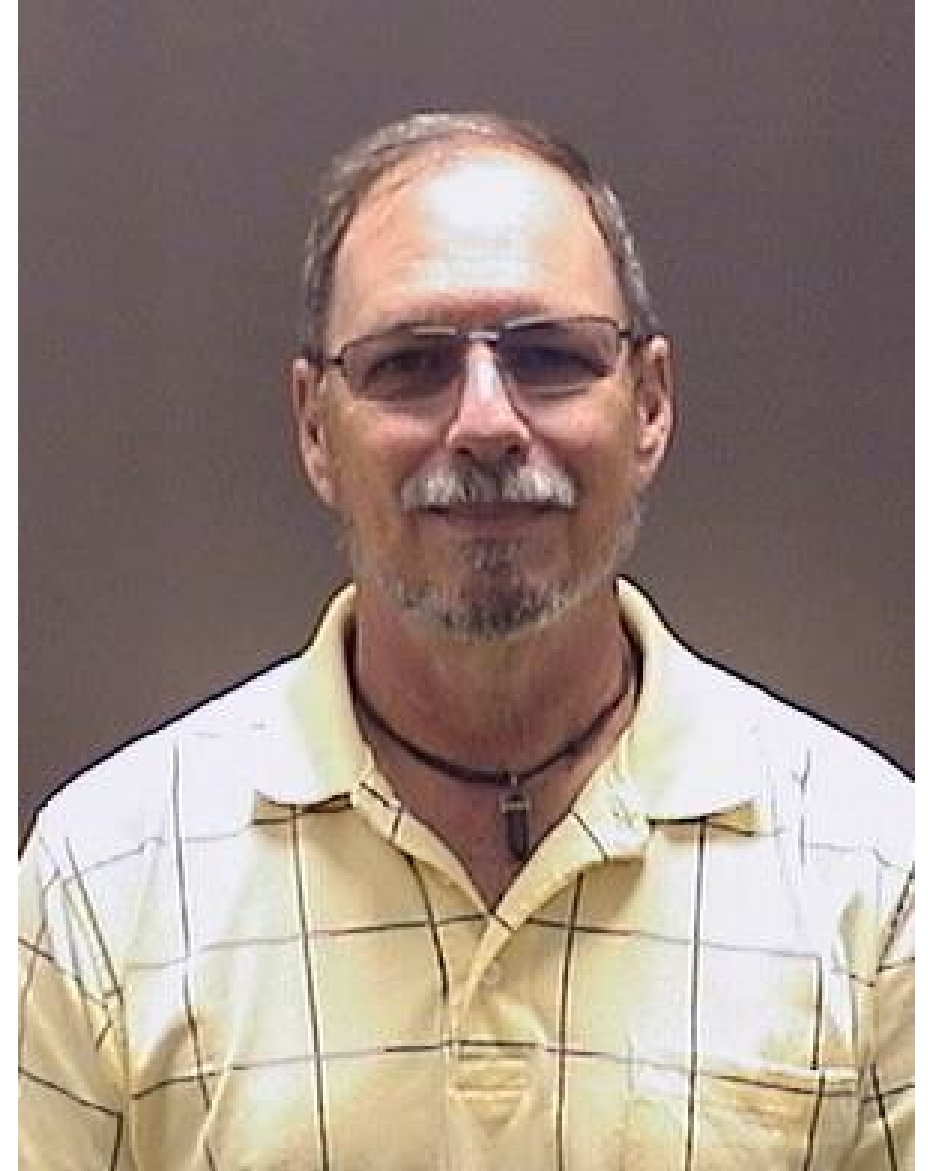
Weatherization and Inspection Team

October 28, 2024

Dennis Horton

Weatherization Inspector, Lead

- Joined ERCOT in August of 2024
- Located out of Lubbock, TX
- Pre-ERCOT Experiences
 - Worked 20 years in electrical generation
 - 6 years in the field in as a plant (auxiliary) operator
 - 14 years as a Licensed Control Room Operator
- Veteran of the US Marine Corps
 - 4 years Troop Leadership, Gulf War Veteran
- Far West Weather Region



Godswill Peter

Program Analyst II

- Joined ERCOT in November 2023
- Located out of College Station, Texas
- Pre-ERCOT Experiences
 - 2 Years as a project development Analyst in the Renewable Energy Industry
 - 1 year in the Telecom Industry as a Project Planner/Analyst
- Education
 - Bachelor of Engineering in Civil and Geophysical Engineering
 - Masters Of Science and Engineering in Renewable Energy



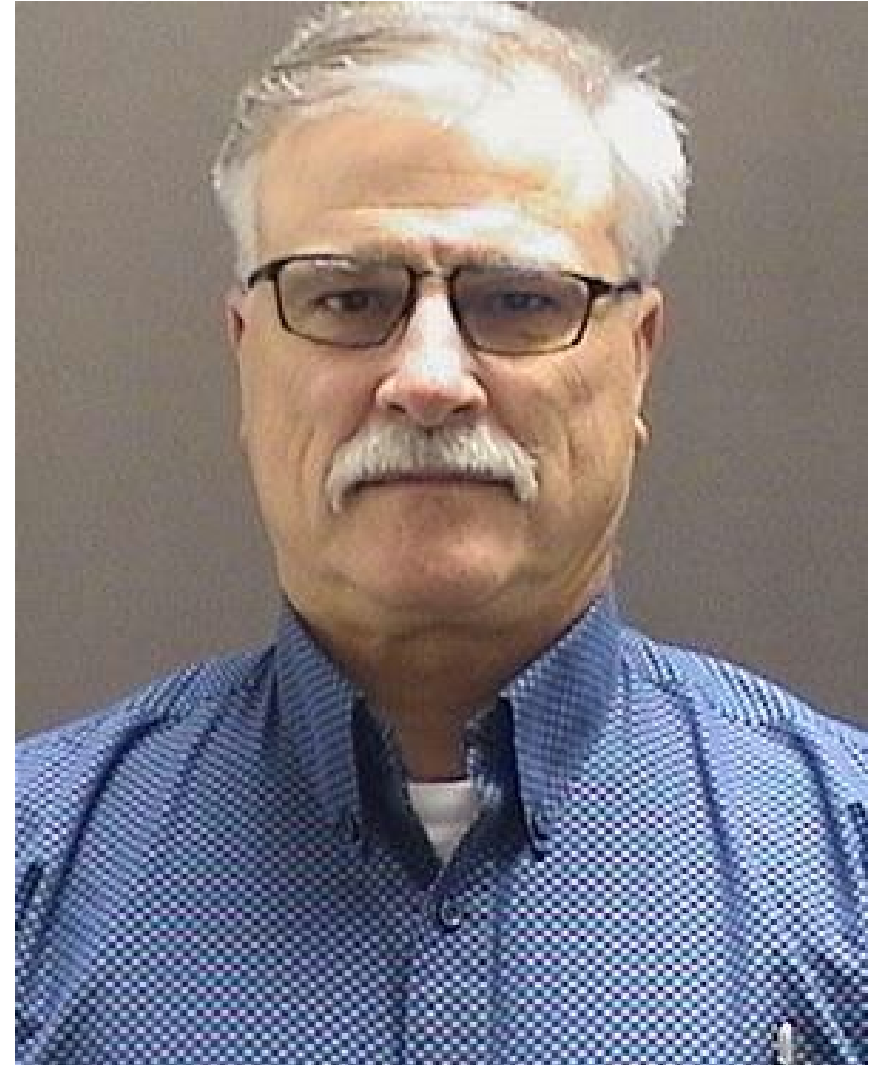
Introduction

- Weatherization Checklist developed in accordance with PUCT 16 TAC §25.55 Weather Emergency Preparedness: predominantly per subsection (f)(1).
- Weatherization and Inspection Team does not provide a legal interpretation of §25.55 Weather Emergency Preparedness.
- Inspection schedule is confidential, access limited to ERCOT and PUCT.
- Inspection scheduling period: December 2, 2024, to February 28, 2025.
- Inspection exclusions:
 - Tuesday, December 24th - Christmas Eve
 - Wednesday, December 25th - Christmas Day
 - Thursday, December 26th - Day after Christmas
 - Wednesday, January 1st - New Year's Day
 - Monday, January 20th - Martin Luther King Jr. Day
 - Monday, February 17th - Presidents' Day

Kevin Harris

Weatherization Inspector Lead

- Joined ERCOT in November of 2022
- Located out of Bay City area
- Prior to ERCOT, worked in Electrical Generation for 31 years:
 - 22 years as a Field Operator
 - 7 years as a Control Room Operator exclusively
 - 2 years as a Work Week Coordinator
- Veteran of the US Air Force
 - Worked as an Aircraft Mechanic, specializing in Flight Control, Landing, and Canopy Systems.
- Coastal Weather Zone



TSP Checklist

- The Rule:
 - 16 TAC § 25.55 (f) (1) (E): Beginning in 2023, create a list of all cold weather critical components, review the list at least annually prior to the beginning of the winter season, and update the list as necessary.
- The Checklist:
 - List of cold weather critical components (CWCCs)
 - *Review list at least annually before winter season and update list as necessary*

Yes	No	N/A
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TSP Checklist

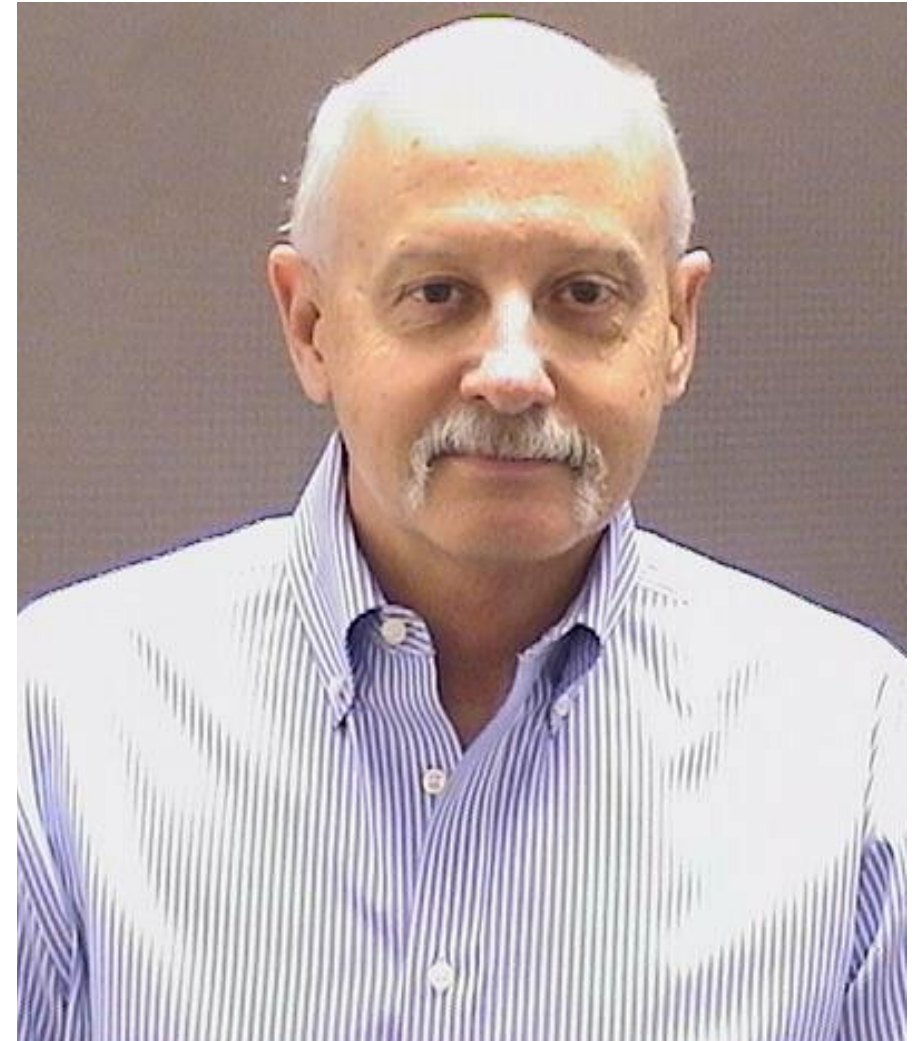
- The Rule:
 - 16 TAC § 25.55 (f) (1) (A) (i): Confirmation of the operability of all systems and subsystems containing all cold weather critical components;
- The Checklist:
 - Records confirming the operability of all systems and subsystems containing all CWCCs prior to winter season
 - Records confirming operability throughout the winter season and completion of any ongoing requirements at the appropriate time

Yes	No	N/A
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0	0	0

Darryl Nitschke

(Weatherization Inspector Lead)

- Joined ERCOT in October 2023
- Located out of DFW area
- Worked in Power Generation for 37 years
 - 17 years as Plant Manager of Combined Cycle Plants
 - 4 years as a Plant Operations Manager
 - 5 years as a Plant Operations Supervisor
- North Central Weather Zone



TSP Checklist

- The Rule:
 - 16 TAC § 25.55 (f) (1) (A) (ii): Confirmation that the sulfur hexafluoride gas in breakers and metering and other electrical equipment is at the correct pressure and temperature to operate safely during winter weather emergencies, and perform annual maintenance that tests sulfur hexafluoride breaker heaters and supporting circuitry to assure that they are functional;

- The Checklist:

- Records confirming that the sulfur hexafluoride (SF6) gas in breakers and metering and other electrical equipment is at the correct pressure and temperature prior to winter season
- Records confirming that above equipment is at the correct pressure and temperature throughout the winter season
- Records of performing annual maintenance that tests SF6 breaker heaters and supporting circuitry to assure that they are functional prior to winter season

Yes	No	N/A
0	0	0
0	0	0
0	0	0

TSP Checklist

- The Rule:
 - 16 TAC § 25.55 (f) (1) (A) (iii) (I): Confirmation of the operability of power transformers and auto transformers in winter weather emergencies by:
 - Inspecting heaters in the control cabinets;
- The Checklist:
 - Prior to winter season, records to confirm the operability of power transformers and auto transformers in winter weather emergencies by:
 - Inspecting heaters in the control cabinets;
 - Records to confirm the operability of power transformers and auto transformers throughout the winter season by:
 - Inspecting heaters in the control cabinets;

Yes	No	N/A
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TSP Checklist

- The Rule:
 - 16 TAC § 25.55 (f) (1) (A) (iii) (II): Confirmation of the operability of power transformers and auto transformers in winter weather emergencies by:
 - Verification that main tank oil levels are appropriate for actual oil temperature;

- The Checklist:

- Prior to winter season, records to confirm the operability of power transformers and auto transformers in winter weather emergencies by:
 - Verification that main tank oil levels are appropriate for actual oil temperature;
- Records to confirm the operability of power transformers and auto transformers throughout the winter season by:
 - Verification that main tank oil levels are appropriate for actual oil temperature;

Yes	No	N/A
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Jake Jacobs

Weatherization Inspector, Sr

- Transitioned within ERCOT in November of 2022
- Located out of McDade, TX
- ERCOT Experiences
 - 2 years as a Market Analyst, helped implement Zonal to Nodal market, assisted in Black-Start testing
 - 10 years as an ERCOT System Operator, Real-Time, Day-Ahead, and Transmission Desks
- Pre-ERCOT Experiences
 - Worked 3 years as a Substation Electrician
 - 3 years as a System Operator.
- Veteran of the US Marine Corps
 - 6 years as an aircraft avionics technician
- South Central Weather Region



TSP Checklist

- The Rule:
 - 16 TAC § 25.55 (f) (1) (A) (iii) (III): Confirmation of the operability of power transformers and auto transformers in winter weather emergencies by:
 - Inspecting bushing oil levels;
- The Checklist:
 - Prior to winter season, records to confirm the operability of power transformers and auto transformers in winter weather emergencies by:
 - Inspecting bushing oil levels;
 - Records to confirm the operability of power transformers and auto transformers throughout the winter season by:
 - Inspecting bushing oil levels;

Yes	No	N/A
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TSP Checklist

- The Rule:
 - 16 TAC § 25.55 (f) (1) (A) (iii) (IV): Confirmation of the operability of power transformers and auto transformers in winter weather emergencies by:
 - Inspecting the nitrogen pressure, if necessary;
- The Checklist:
 - Prior to winter season, records to confirm the operability of power transformers and auto transformers in winter weather emergencies by:
 - Inspecting the nitrogen pressure, if necessary;
 - Records to confirm the operability of power transformers and auto transformers throughout the winter season by:
 - Inspecting the nitrogen pressure, if necessary;

Yes	No	N/A
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Neil Quast

Weatherization Inspector, Sr

- Joined ERCOT in November of 2022
- Located out of College Station, TX
- Pre-ERCOT Experiences
 - Worked in Electrical Generation for 11 years
 - 2 years Licensed Reactor Operator
 - 5 years field operator
 - 4 years Ops Training Instructor
- Veteran of the US Navy Nuclear Program
 - 10 years as an operator and Electronics Technician
- East Weather Region



TSP Checklist

- The Rule:
 - 16 TAC § 25.55 (f) (1) (A) (iii) (V): Confirmation of the operability of power transformers and auto transformers in winter weather emergencies by:
 - Verification of proper oil quality such that moisture and dissolved gases are within acceptable ranges for winter weather conditions;
- The Checklist:
 - Prior to winter season, records to confirm the operability of power transformers and auto transformers in winter weather emergencies by:
 - Verification of proper oil quality such that moisture **and** dissolved gases are within acceptable ranges for winter weather conditions;

Yes	No	N/A
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TSP Checklist

- The Rule:
 - 16 TAC § 25.55 (f) (1) (A): Implement weather emergency preparation measures that could reasonably be expected to ensure the sustained operation of all cold weather critical components during winter weather conditions. Where appropriate, such measures may be implemented using either personnel or automated systems. Such measures include, as appropriate for the facility:
- The Checklist:
 - Does the TSP have records it implemented weather emergency preparation measures that could reasonably be expected to ensure the sustained operation of all CWCCs during winter weather conditions using either personnel or automated systems where appropriate?

Yes	No	N/A
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Audie Proctor

Weatherization Inspector Lead

- Joined ERCOT in October 2022
- Located out of Nocona, TX
- Pre-ERCOT Experiences
 - Worked in electrical generation for 24 years:
 - 10 years as a field operator
 - 9 years as a control room operator
 - 2 years as a control room supervisor
 - 3 years in work control/planning.
- Building trades installing commercial and industrial insulation for 8 years
- North Weather Region



TSP Checklist

- The Rule:

- 16 TAC § 25.55 (f) (1) (B): Beginning in 2023, implement weather emergency preparation measures by December 1 each year, in addition to the weather emergency preparation measures required by subparagraph (A) of this paragraph, that could reasonably be expected to ensure the sustained operation of the TSP’s transmission facilities at the 95th percentile minimum average 72-hour wind chill temperature reported in ERCOT’s historical weather study, required under subsection (i) of this section, for the weather zone in which the facility is located.

- The Checklist:

- Records demonstrating that the TSP’s existing weather emergency preparation measures are adequate to meet (f)(1)(B). (Method of demonstration may be 1) a wind chill value calculated from the design basis cold temperature and the design basis wind speed, 2) historical operational data, or 3) other. If other, confer with W&I management after inspection.)

Yes	No	N/A
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- (Second question only applies if answer to first question was “No”) Records demonstrating TSP implemented additional weather emergency preparation measures to meet (f)(1)(B).

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TSP Checklist

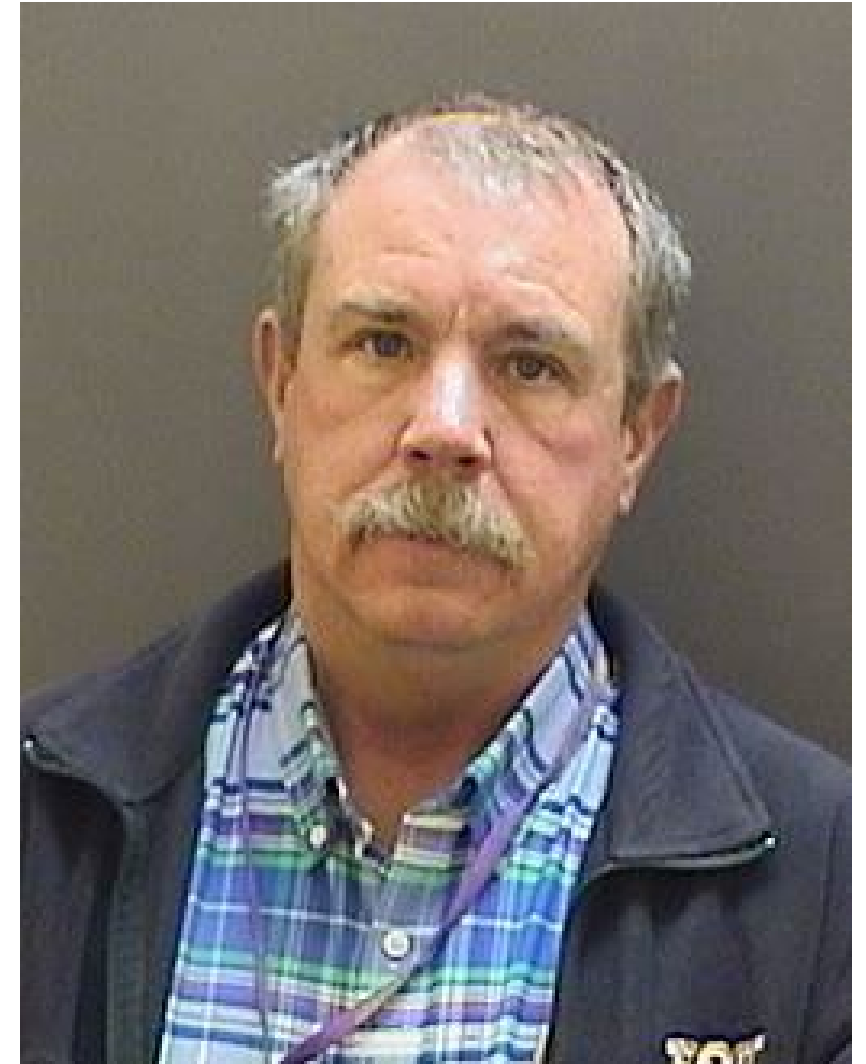
- The Rule:
 - 16 TAC § 25.55 (f) (1) (C): Review the adequacy of staffing plans to be used during a winter weather emergency and revise the staffing plans, as appropriate.
- The Checklist:
 - Records of reviewing adequacy of staffing plans for a winter weather emergency
 - If appropriate, revised staffing plans

Yes	No
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Greg Schwierking

Weatherization Inspector Lead

- Transitioned within ERCOT in December of 2022
- Located out of Corpus Christi, TX
- ERCOT Experience:
 - System Operations at ERCOT
- Pre-ERCOT Experiences
 - 12 years in QSE Day Ahead and Real Time Operation
 - 26 years in Power Plant Operations/Maintenance.
- Southern Weather region



TSP Checklist

- The Rule:
 - 16 TAC § 25.55 (f) (1) (D): Train relevant operational personnel on winter weather preparations and operations.
- The Checklist:
 - Records of training personnel on winter weather preparations and operations

Yes	No
0	0

Any relevant personnel directly responsible for implementing, maintaining, or overseeing the weather preparations and operations measures, or taking action as part of the weather response in accordance with the provisions of 16 TAC §25.55 - Weather Emergency Preparedness.”

TSP Checklist

- The Rule:
 - 16 TAC § 25.55 (g) (2) (B) (i): The cure period determined by ERCOT must consider what weather emergency preparation measures the TSP may be reasonably expected to have taken before ERCOT’s inspection, the reliability risk of the resource’s noncompliance, and the complexity of the measures needed to cure the deficiency.

- The Checklist:

- If the TSP has not complied with any part of 25.55(f)(1), confer with the TSP on a cure period to address identified deficiencies and document accordingly.

The weatherization team will discuss the factors, determine an appropriate cure period, and inform the TSP of the cure period.

Yes	No
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Best Inspection Preparation Practices

- All inspections-related communication must be routed via W&I Market Participant Portal. User Guide: [Weatherization & Inspection Market Participant Portal User Guide](#)
- Creating and maintaining systematic and logical records of items relevant to PUCT 16 TAC § 25.55 Weather Emergency Preparedness regulations will facilitate the inspection process.
- Records can also be uploaded in WOTs prior to the inspection for review to facilitate inspections.
- Effective communication and collaboration between the Market Participant's personnel and the Weatherization and Inspection Team will support successful completion of winter inspections.
- For ALL other inquiries, contact your ERCOT Account Manager or ERCOT Client Services at (512) 248-3900 or clientservices@ercot.com.



THANK YOU