



2023 Wildfire Mitigation Plan

Revision Notice Response
October 11, 2023



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1. EXECUTIVE SUMMARY

On September 11th, 2023, PacifiCorp received the Office of Energy Infrastructure Safety's Revision Notice for PacifiCorp's 2023-2025 Wildfire Mitigation Plan (WMP). Within that notice, Energy Safety identified 6 critical issues which PacifiCorp has addressed in three documents - this revision notice response, a revised base REDLINE WMP and a revised base CLEAN WMP. PacifiCorp's general response and revisions are outlined in the table below and further described in this document.

Item	Subitem	WMP Section Revised	Summary of Update
RN-PC-23-01	PC-22-01	Appendix D	Revised to include responses to 21 areas identified in Energy Safety's 2022 Decision, for continued improvement.
RN-PC-23-02	n/a	Section 7.1.4.2	Revised schematic to include required criteria.
RN-PC-23-03	PC-23-03-01	Section 7.1.4.1	Revised narrative to further describe 3 sub-parts identified in RN-PC-23-03.
RN-PC-23-04	PC-23-04-01	Section 8.1.6, Section 8.1.5, Section 8.1.7	Revised narrative to further describe 9 sub-parts identified in RN-PC-23-04.
RN-PC-23-05	N/A	Section 8.2.1	Revised objectives tables.
RN-PC-23-06	N/A	Section 8.2.5	Revised targets in table.

2. CRITICAL ISSUES, REQUIRED REMEDIES AND RESPONSES

RN-PC-23-01: PACIFICORP DOES NOT PROVIDE THE STATUS OF ITS 2022 AREAS FOR CONTINUED IMPROVEMENT

The technical Guidelines require electrical corporations to provide responses to their areas for continued improvement as identified in Energy Safety's Decisions on the 2022 WMP Updates.⁶ In Appendix D of its WMP, PacifiCorp does not provide the status of its 2022 areas for continued improvement. Instead, PacifiCorp states that as it identifies areas for continued improvement, an update will be provided.⁷ The Technical Guidelines do not require electrical corporations to identify their own areas for continued improvement. Appendix D is intended for responses to Energy Safety's areas for continued improvement, as stated above and in the Technical Guidelines. Furthermore, this is not a new requirement; in its 2022 WMP Update,⁸ PacifiCorp was required to address "key areas for improvement" as identified in Energy Safety's Action Statement on PacifiCorp's 2021 WMP Update.⁹

Required Remedies

PacifiCorp must provide a complete Appendix D as directed by the Technical Guidelines. The appendix must list all 2022 areas for continued improvement identified by Energy Safety's Decision on PacifiCorp's 2022 WMP Update.¹⁰ PacifiCorp must provide a response to each of the 2022 areas for continued improvement in the format required by the Technical Guidelines.

PacifiCorp's Response

Areas for continued improvement as identified in Energy Safety's decision on PacifiCorp's 2022 WMP update were addressed within the 2023 WMP itself. To supplement this content and summarize where the changes were implemented, PacifiCorp has updated the 2023 WMP to include Appendix D as required in the Technical Guidelines.

RN-PC-23-02: PACIFICORP'S MITIGATION INITIATIVE PRIORITIZATION SCHEMATIC IS MISSING REQUIRED DETAILS

In its WMP Section 7.1.4.2, Mitigation Initiative Prioritization, PacifiCorp provides a schematic (Figure 7-8 "Current Mitigation Selection Considerations")¹¹ that does not meet the minimum requirements outlined in the Technical Guidelines.¹² At a minimum, the schematic must demonstrate the roles of the following procedures and evaluation criteria used to evaluate and prioritize potential mitigation initiatives:

- Quantitative risk assessment.
- Resource allocation.
- Evaluation of other performance objectives (e.g., cost, timing).
- Subject matter expert judgement.
- Any local factors considered in the decision-making process, if applicable, including details as to why these local conditions are part of the decision process.

PacifiCorp's graphic provides factors PacifiCorp considers when prioritizing mitigation initiatives. However, the graphic is too high level and does not include the minimum details required. The current graphic does not demonstrate what roles the procedures and evaluation criteria listed above play, if any, in this mitigation prioritization process. The graphic simply lists considerations (e.g., "In HFTD," "Mitigate PSPS Impacts") under "Lower Priority" and "Higher Priority" headings without demonstrating any process used to determine these criteria.

Required Remedies

PacifiCorp must revise its schematic (Figure 7-8) to include the necessary details to meet the minimum requirements as outlined in the Technical Guidelines.

PacifiCorp's Response

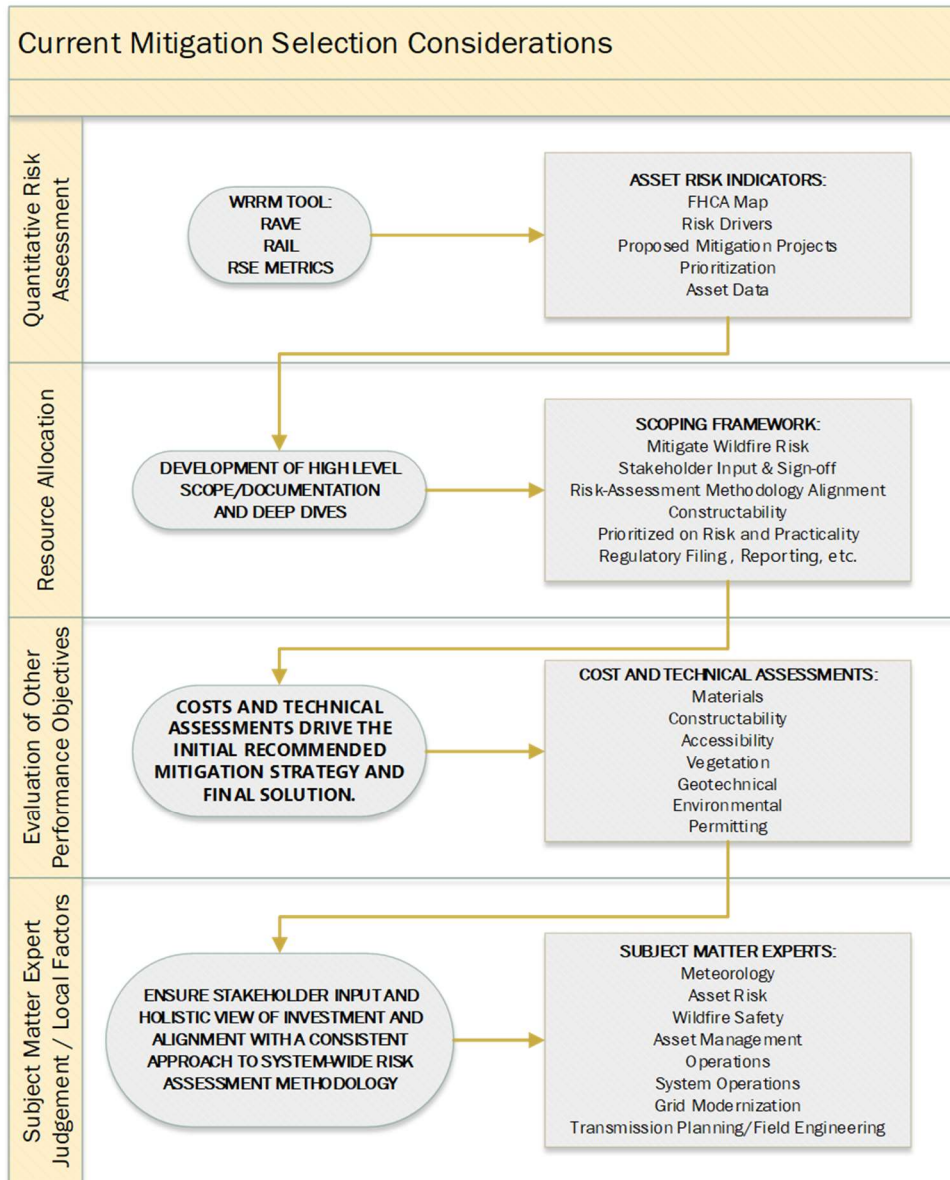
In Section 7.1.4.2, PacifiCorp previously provided this graphic:



In the updated WMP submitted, PacifiCorp has provided the following updated

graphic which includes demonstration of the roles of the following procedures and evaluation criteria used to evaluate and prioritize potential mitigation initiatives:

- Quantitative risk assessment.
- Resource allocation.
- Evaluation of other performance objectives (e.g., cost, timing).
- Subject matter expert judgement.
- Any local factors considered in the decision-making process, if applicable, including details as to why these local conditions are part of the decision process.



RN-PC-23-03: PACIFICORP DOES NOT CLEARLY DESCRIBE ITS CURRENT OR FUTURE MITIGATION IDENTIFICATION AND EVALUATION PROCEDURES

In its WMP Section 7.1.4.1, Identifying and Evaluating Mitigation Initiatives, PacifiCorp does not provide the detail required by the Technical Guidelines¹³ regarding its procedures for identifying and evaluating mitigation initiatives. PacifiCorp is currently developing its risk-spend efficiency (RSE) process and does not yet have RSE calculations.¹⁴ PacifiCorp indicates that it evaluates cost effectiveness when selecting mitigations in the meantime.¹⁵ However, PacifiCorp does not describe its process for performing this interim evaluation. Though PacifiCorp provides examples of how RSE values may be calculated for certain mitigations, it is not clear which of those examples PacifiCorp currently uses, which it intends to adopt in the future, or if these examples are part of how PacifiCorp is currently evaluating cost effectiveness.

Furthermore, PacifiCorp lists criteria that it evaluates when selecting mitigations (e.g., regulatory requirements, customer, and other stakeholder input, etc.),¹⁶ but does not provide information on how those criteria are factored into its decision-making process. PacifiCorp also does not describe its approach for characterizing uncertainties and how its decision-making process incorporates these uncertainties.

Required Remedies

PacifiCorp must fully respond to the requirements in Section 7.1.4.1 of the Technical Guidelines. Specifically, PacifiCorp must:

- 1. Clearly describe the procedures PacifiCorp is currently using for identifying and evaluating mitigation initiatives that will be in place until its RSE process is established. This description must include how PacifiCorp considers the criteria listed in its WMP, how those criteria are prioritized and/or combined to inform PacifiCorp's decision-making process, and any procedures currently employed to determine cost effectiveness relative to risk reduction.*
- 2. Clearly describe the procedures PacifiCorp is considering for future implementation for identifying and evaluating mitigation initiatives once its RSE process is established, including any procedures to determine cost effectiveness relative to risk reduction. PacifiCorp must adapt the illustrative examples it provides in its WMP¹⁸ to make clear the approaches it is exploring implementing or has decided against and why.*
- 3. Clearly list the uncertainties PacifiCorp faces in its risk model or mitigation evaluation, and how it accounts for these uncertainties in its decision-making process.*

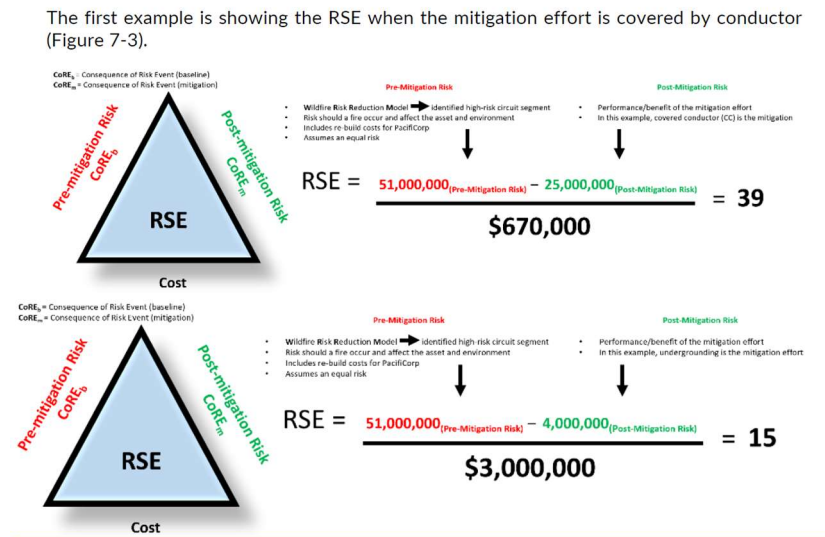
PacifiCorp's Response

The following responses are updated in Section 7.1.4.1 and in response to part 1 of the required remedies: until the RSE process is established, the initial mitigation line rebuild technique for any project is replacing bare conductor with covered conductor. Constructability techniques are reviewed as depicted in the flow diagram in section 1.4.3. Alternative construction techniques, such as converting overhead facilities to underground, are also reviewed concurrently. The final mitigation technique chosen for each specific project depends on the factors outlined below:

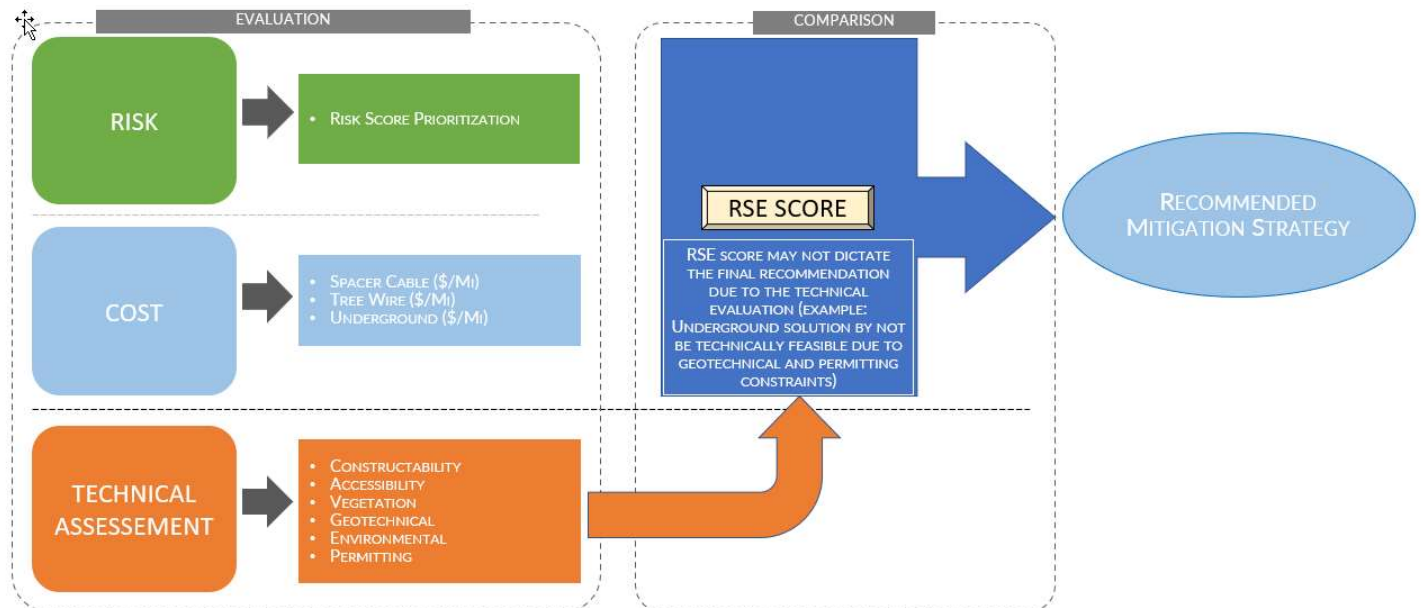
- Regulatory requirements – PacifiCorp considers regulatory requirements when identifying and prioritizing WMP initiatives to ensure alignment and compliance. For example, PacifiCorp considers the inspection requirements within the HFTD outlined in Figure 5-4 when planning and completing the company's asset inspection programs.
- Stakeholder and customer input – Initiative identification and evaluation is coordinated with various stakeholder groups within the company and departments that participate in the development and selection of initiatives that align with WMP risk reduction goals. Outside of internal stakeholders, PacifiCorp works with customer input through hosting of webinars that engages local communities and Public Safety Partners on wildfire safety.
- Wildfire risk impact – Mitigation initiatives are evaluated to align with industry practices and programs in place at other utilities that have shown to reduce wildfire risk. Mitigation initiatives are prioritized along with known historical causes of risk.
- Customer impact – The evaluation and identification of initiatives takes into account customer impact in elevated risk areas and its location or overlapping of local communities to determine prioritization and urgency of initiative selection. Customer impact may include an example such as re-routing an existing line that may interfere with the customers' ability in the future to construct a facility (barn, shed, etc.).
- Ease of implementation/Constructability – Ease of implementation and constructability is a factor in selecting the final mitigation technique. For example, commercially available solutions such as covered conductor may be widely implemented as a mitigation technique while new and emerging technologies, such as DFA (Distribution Fault Anticipation) may be implemented as pilot projects with limited application. Additionally, potential barriers to implementation are considered. For example, a covered conductor project may be selected over undergrounding in certain circumstances because permitting and construction can be completed more quickly with fewer barriers. Conversely, undergrounding may be moved forward where alignment with other utilities, such a telecom, present an opportunity for cost sharing and joint location to a new trench or underground infrastructure.
- Project costs – In conjunction with the above factors, PacifiCorp also considers project costs when planning, evaluating, and selecting initiatives.

For example, Pacific Power evaluates the potential to convert overhead lines to underground lines for rebuild projects on a project-by-project basis. Through the design process, each individual project is assessed to determine whether sections of the rebuild should be completed with underground construction. PacifiCorp has experience that, in a more remote, heavily forested location with few customer connections, underground can be a cost-effective solution when compared to covered conductor.

PacifiCorp previously provided the following images as Figure 7-5 in Section 7.1.4.1 of the 2023 WMP as an illustrative example of the future framework for RSE:



These images represent a planned approach to evaluation; however, PacifiCorp is still in the process of developing the RSE. Future implementation and procedures when the RSE process is established will closely resemble the implementation process outlined below. Until the RSE is fully established, PacifiCorp will perform the steps described in the 'EVALUATION' portion of the diagram below where work is prioritized based on risk area, costs are summarized, and a technical assessment is performed:



In response to part 3 of the required remedies, a list of WRRM risk model limitations and uncertainties are listed in **Error! Reference source not found.** Table 6-2 of the WMP. The limitation of the current process is that it is primarily qualitative, however, it accounts for this limitation by consulting internal and customer stakeholders to assess impacts of the proposed mitigations.

RN-PC-23-04: PACIFICORP HAS NOT ASSIGNED IMMINENT THREAT STATUS TO ANY LEVEL 1 CONDITIONS FOUND DURING INSPECTIONS FROM 2020 TO 2022 AND HAS NOT MAINTAINED COMPLIANCE WITH ITS EXISTING LEVEL 1 WORK ORDERS

PacifiCorp has not provided sufficient information for the evaluation of its asset management policy for Level 1 priority work orders.¹⁹ PacifiCorp's asset management policy states that Level 1²⁰ conditions must be remedied within 30 days unless they are classified as imminent threats, in which case the conditions must be addressed immediately.²¹ From the start of 2020 to the end of 2022, PacifiCorp created 1,075 Level 1 work orders. None of these work orders were categorized as an imminent threat by the inspector.²² Some of these work order findings included damaged or frayed conductor, General Order (GO) 95 clearance conditions, transformer issues, and missing hardware.²³ Such conditions as well as others identified by PacifiCorp as Level 1 priority, could pose wildfire risk and require further evaluation to ensure proper classification. The statistical improbability of encountering no imminent threats over a three-year span suggests a procedural failure to appropriately classify Level 1 conditions.

Additionally, PacifiCorp has not been able to maintain compliance with its existing Level 1 timeline. As of June 12, 2023, PacifiCorp had 16 overdue Level 1 work orders.²⁴ From 2020 to 2022, PacifiCorp had a total of 274 Level 1 priority work orders that were completed after 30 days, with 47 being in the CPUC's high fire threat district (HFTD) Tier 2 or Tier 3 lands.²⁵ Overall, PacifiCorp needs to evaluate its current procedures and protocols for Level 1 priority work orders to ensure it is maximizing wildfire risk reduction in a timely manner.

PacifiCorp must update its WMP Section 8.2.5, Quality Assurance and Quality Control, to include an outline of an investigative framework to validate that inspections are correctly assigning imminent threat status to Level 1 condition findings. At minimum, this framework and the corresponding outline must include:

- A plan to determine which failure modes can result in imminent threats, particularly relating to wildfire risk, including an evaluation of PacifiCorp's current list of possible nonconformance criteria²⁶ and associated priority level determination.*
- A strategy to perform internal and external audits on statistically relevant sample sizes of inspections that resulted in the selected failure modes. This should include evaluation of the inspectors' accuracy for determining imminent threat status.*
- An evaluation of all Level 1 work orders from 2020 to 2023 to consider whether any could have posed imminent threats and should have been prioritized. This should also include a process to evaluate root cause issues and perform needed*

solutions to address such issues.

- *A description of PacifiCorp’s procedures and capability to perform and track when temporary corrective actions or interim measures have taken place to decrease imminent threats.*
- *A process to update associated procedures, inspection practices, and training materials to correctly identify imminent threats.*

PacifiCorp must also update its WMP Section 8.1.7, Open Work Orders, to include a plan on how it intends to address Level 1 priority work orders in a timely manner. At minimum, this must include:

- *Resourcing allocation plans to obtain and/or maintain workforce and equipment needs, including considerations of any supply chain issues.*
- *How PacifiCorp intends to address and prioritize Level 1 priority work orders based on wildfire risk in the future*
- *An update on PacifiCorp’s open Level 1 priority work orders as of the publication of this Revision Notice*
- *A plan to perform root cause analysis on the delays PacifiCorp faced resolving Level 1 priority work orders in a timely fashion from 2020 to 2023.*

PacifiCorp’s Response

While RN-PC-23-04 references Section 8.2.5, PacifiCorp has provided expanded discussion to investigative QA/QC in section 8.1.6. PacifiCorp understands the importance of the processes to identify and record imminent threats. PacifiCorp already has policies and procedures in place for conditions that can be deemed imminent threats. These policies and procedures are reviewed on an annual basis to ensure any condition that is found in the field that could be an imminent threat is captured so that it can be identified during the company’s inspection programs.

Currently, PacifiCorp’s Procedure 069 provides a list of condition codes that describes possible nonconformance criteria and associated priority level based on the severity of the condition. The company utilizes A priority code to identify conditions that could present a high potential impact to safety or reliability; the A priority code aligns with General Order (GO) 95 level 1 work order priorities, meaning that “Priority A” and “Level 1” are synonymous. An A priority condition which poses a significant present threat to human life or property is considered an imminent threat A priority condition. PacifiCorp policy requires immediate corrective action of an imminent threat A priority condition. Most A priority conditions do not pose a significant present threat to human life or property and are, therefore not considered imminent. If there is not imminent threat, the company allows 30 days for the correction of A priority conditions. No work orders were “categorized” as imminent threat, because the company does not maintain a separate records category for “imminent” A priority conditions. In other words, the imminence of the condition is addressed through the immediacy of the response. If using the available records to identify imminent A priority

conditions, a very short duration (e.g. one day) between identification of a condition and correction of that condition would likely be indicative that the condition was imminent.

In 2022, the company performed a detailed review of all conditions to determine which conditions could be related to wildfire risk. Through this process, the company identified condition types reflecting an energy release risk which could result in the ignition of a fire. If a condition has an energy release risk, the company reasonably assumes that an A priority condition has greater wildfire risk than a B priority condition. Likewise, an imminent A priority condition has greater risk than a non-imminent A priority condition (and required correction timeframes reflect this conclusion). But it is the condition type which correlates to the energy release risk, so the company believes that this focus is the best approach for identifying failure modes which might result in an imminent condition.

PacifiCorp's strategy for performing internal and external audits is already being implemented with evaluation of inspector's accuracy in identifying and prioritizing conditions. As described in Section 8.1.6 of the WMP, internal audits are performed on 5% of total inspections. In addition to PacifiCorp's internal audit processes, the company is externally audited by California Public Utilities Commission (CPUC) Energy Safety and Reliability Branch (ESRB) for General Order 95 (GO 95) compliance. From 2021 to 2023, PacifiCorp participated in six audits which included a review of PacifiCorp's policies, procedures, records over the last 5 years, and 344 facilities in the field. Through these audits, there has been no findings regarding non-compliance with GO 95 level 1 priority work order imminent threat conditions.

PacifiCorp performed an evaluation on all Level 1 work orders from 2020 to 2023 to consider if any should have been classified as an imminent threat (and, consequently, should have been corrected immediately). There were no conditions on any of these work orders that should have been reclassified as imminent threats.

In certain, limited circumstances PacifiCorp may use temporary corrective actions or interim measures to decrease imminent threat conditions. The company tracks such actions in its Facility Point Inspection (FPI) system. If it is decided that temporary corrective actions or interim measures are to be implemented on an imminent threat condition, the company captures the temporary or interim measure in the comments for the imminent condition. The condition is then removed from the system and readded to the system with the same condition code but a lower priority (level 2 or level 3) in compliance with GO 95.

PacifiCorp already has processes in place to update associated procedures, inspection practices, and training materials to correctly identify imminent threats. Generally, this review is performed on an annual basis to ensure compliance with national, state, regulatory, including general order requirements. In some instances, the policies and procedures may be updated if there are issues identified during

internal and external audit activities, company policy changes, or improvements that are discovered from implementation of the company's existing programs.

PacifiCorp's timelines for correction of Level 1 priority work imminent threat conditions (A priority imminent conditions) is immediate correction. There are currently no open level 1 priority imminent threat conditions in the company's FPI system.

The remaining outstanding Level 1 priority work orders that were included in WMP Section 8.1.7 are non-imminent threats and are to be corrected within 30 days. These conditions exceeded the 30-day correction timeframe due to material lead time and permitting requirements. To address this in the future, the company has already implemented processes such as ordering extra material. To assist with prioritization of work orders based on wildfire risk, the conditions are reviewed with the local offices to determine prioritization based on the type of condition and condition priority.

There are currently 5 open Level 1 non-imminent threat conditions identified since the publication of this Revision Notice. Root cause analysis from review of the conditions that exceeded the 30-day correction timeframe is due to access, material, permitting, and resource constraints. The company is currently developing new tools and implementing changes into its existing processes to mitigate delays associated with these items.

RN-PC-23-05: PACIFICORP'S 3-YEAR AND 10-YEAR VEGETATION MANAGEMENT OBJECTIVES DO NOT MEET ENERGY SAFETY REQUIREMENTS AS OUTLINED IN THE TECHNICAL GUIDELINES

*PacifiCorp's 3-year and 10-year initiative objectives (objectives) for vegetation management do not adequately demonstrate "a clear action plan to continue reducing utility-related ignitions and the scale, scope, and frequency of Public Safety Power Shutoff (PSPS) events" nor do the objectives "[focus] sufficiently on long-term strategies."*²⁷

*In its WMP Section 8.2, Vegetation Management and Inspections, PacifiCorp describes how it will implement and improve its vegetation management program(s) but does not commit to these improvements through its summarization of objectives. Per the Technical Guidelines, objectives must be: "Specific, measurable, achievable, realistic, and timely"*²⁸

*PacifiCorp provides 3-year and 10-year objectives for vegetation management, the objectives do not meet the stated requirements. Instead, PacifiCorp uses equivocating language such as "continue progressing programs" and "continue to improve."*²⁹ These objectives are neither specific nor measurable.

Required Remedies

PacifiCorp must revise its 3-year and 10-year vegetation management objectives to address the issues that Energy Safety identifies above. PacifiCorp may add, modify, and/or remove objectives, as needed, in order to strengthen its 3-year and 10-year objectives to be specific, measurable, achievable, realistic, and timely.

PacifiCorp's Response:

In response to this revision notice, PacifiCorp has updated and provided expanded details of objectives in Section 8.2.1.

RN-PC-23-06: PACIFICORP DOES NOT PROVIDE TARGET PASS RATES FOR VEGETATION MANAGEMENT QUALITY ASSURANCE AND CONTROL PROGRAM AS REQUIRED BY THE TECHNICAL GUIDELINES

PacifiCorp has not provided yearly target pass rates for the current WMP cycle for its vegetation management and inspections quality assurance (QA) and quality control (QC) activities, as required by the Technical Guidelines.³⁰

In Section 8.2.5 of its WMP, Table 8-19 “Vegetation Management QA/QC Program,” PacifiCorp does not provide target pass rates. Instead, PacifiCorp only noted, “N/A,” without any explanation.³¹

Required Remedies

PacifiCorp must define yearly target pass rates for 2023 through 2025 for its vegetation management and inspections QA/QC program in Table 8-19.

PacifiCorp’s Response:

PacifiCorp has provided an updated table within Section 8.2.5 which includes target pass rates.

