

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET UE-190882

REBUTTAL TESTIMONY OF

THOMAS C. DEMPSEY

REPRESENTING AVISTA CORPORATION

1 **I. INTRODUCTION**

2 **Q. Please state your name, business address and present position with Avista**  
3 **Corporation?**

4 A. My name is Thomas C. Dempsey. My business address is 1411 East Mission  
5 Avenue, Spokane, Washington. I am employed by the Company in the Generation Production  
6 and Substation Support Department. My title is Manager, Thermal Operations and  
7 Maintenance.

8 **Q. Have you filed direct testimony in this proceeding?**

9 A. Not in this docket, but I did file testimony in Docket UE-190222 (Washington  
10 Annual ERM Filing). My Direct testimony in that Docket UE-190222 described the Mercury  
11 & Air Toxics Standards (MATS) emission exceedance that led to outages that occurred at the  
12 Colstrip Generating Station, specifically Colstrip Units 3 and 4 (sometimes referred to herein  
13 collective as the “Plant”). In that testimony, I provided a letter to Montana Department of  
14 Environmental Quality (MDEQ) which summarized the actions taken to bring Colstrip Units 3  
15 and 4 back into compliance following an outage precipitated by the exceedance of MATS  
16 levels. I asserted that the outage that occurred was not the result of imprudent actions on the  
17 part of Avista, the other Plant owners, nor the operator of the Plant (Talen Montana, LLC is the  
18 operator and is referred to herein as “Talen” or “Operator”).

19 **Q. What is the scope of your rebuttal testimony in this proceeding (UE-**  
20 **190882)?**

21 A. First, I address Staff’s assertion that the Company was not forthcoming with  
22 information in its original filing in Docket UE-190222 or during the discovery process. I also  
23 respond to testimony that suggests that burning Area A coal at the Plant was problematic. In

1 addition, I address Staff and Public Counsel’s assertion that the Company did not provide the  
 2 appropriate level of oversight for actions taken by the Operator. Finally, I address the  
 3 foreseeability of the outage and the reasons for tracking of “alternative indicators”.

4 A table of contents for my testimony is as follows:

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13  
 14 **Q. Please summarize the Company’s position regarding the 2018 Colstrip**

15 **Outage.**

16 A. The owners and operator of Colstrip Units 3 and 4 acted prudently in the  
 17 handling of the June 2018 Colstrip MATS violation, including actions taken during the period  
 18 of time preceding the outage. Therefore, the Company’s replacement power supply costs were  
 19 prudently incurred. In my testimony I will demonstrate the following:

- 20 1. That the Company provided detailed information to the Commission and interested  
 21 parties both through the Company’s original filing in Docket UE-190222 as well as  
 22 through the almost nine-month-long discovery process.
  - 23 2. That Talen’s actions, as the Operator of Colstrip Units 3 and 4, in operating the Plant  
 24 and monitoring and troubleshooting the elevated test results were reasonable and  
 25 prudent in the February – June 2018 timeframe (sometimes referred to herein as the  
 26 “relevant time period”).
  - 27 3. That the use of Area A coal was a reasonable troubleshooting measure, among  
 28 others, to ascertain the cause of elevated test results.
- 29  
 30

1  
2 4. That there was no reason to know that the standardized alternative indicators that  
3 were monitored during the relevant time period were not sufficiently correlated with  
4 actual PM emissions.

5  
6 5. That the failure of the Q2 MATS tests was not foreseeable.

7  
8 6. That the Company's oversight of the Plant operations was reasonable and  
9 appropriate during the relevant period.  
10

11 **Q. Are any other Avista employees sponsoring testimony in this proceeding?**

12 A. Yes. Company witness Mr. Johnson addresses the recommendations of Staff  
13 witness Mr. Gomez and Public Counsel witness Mr. Allison, who both propose Avista should  
14 absorb the additional power supply expense caused by the June 2018 Colstrip emissions outage  
15 at Units 3 and 4. Mr. Gomez recommends the Commission disallow \$3.5 million and Mr.  
16 Allison recommends the Commission disallow \$3.3 million<sup>1</sup> in power supply costs for Avista  
17 (both values representing Washington's share). Mr. Johnson at Exh. WGJ-1T and WGJ-2  
18 shows that, even assuming (without in any way conceding) that Staff and Public Counsel's  
19 arguments that the Company should absorb the increased power supply expense caused by the  
20 Colstrip emissions outage is correct, their recommended disallowances is overstated.

21  
22 **Q. Please briefly describe the Direct Testimony provided in Docket UE-190222**  
23 **filed with this Commission on March 31, 2019.**

24 A. The original filing in Docket UE-190222 included testimony of Company

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<sup>1</sup> The estimate of \$3.5 million was provided in direct testimony of William G. Johnson, page 12. In response to Public Counsel Data Request No. 134 the Company provided a worksheet (Attachment A) that included a correction and results in a Washington allocation of \$3.3 million increased expense. The remainder of testimony uses this corrected calculation.

1 witnesses Mr. Ehrbar, Mr. Johnson, and myself. Mr. Johnson's testimony provided an overview  
2 of the history of the Energy Recovery Mechanism (ERM) and provided a summary of the  
3 factors contributing to the power cost deferrals during the 2018 calendar year. Mr. Johnson's  
4 testimony also provided the estimate of power supply costs, which were verified and accepted  
5 by Staff. Mr. Ehrbar's testimony provided an overview of the accounting related to the 2018  
6 ERM calculation. My direct testimony explained the factors contributing to outages at Colstrip  
7 Units 3 and 4. The testimony and analysis provided by the Company, followed guidance for  
8 documentation as described in Docket UE-030751. Finally, the Company provided information  
9 to support the prudence of the incremental costs associated with the outage.

10 **Q. Did your direct testimony that was filed on March 31, 2019 discuss the root**  
11 **cause of the outage at the Plant?**

12 A. No. At the time my direct testimony was filed on March 31, 2019, no  
13 determination had been made as to the cause of the outage at Colstrip Units 3 and 4. The Root  
14 Cause Analysis was still being performed by Sologic.<sup>2</sup> The Company, however, provided a  
15 letter written to MDEQ<sup>3</sup> which contained the best explanation and information available to the  
16 Company at that time.

17 **Q. Did the Company provide the Sologic Root Cause Analysis Report to the**  
18 **Parties during Discovery?**

19 A. Yes. The Company later provided the Root Cause Analysis when available in  
20 response to Staff\_DR\_068.<sup>4</sup>

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<sup>2</sup> Sologic provides root cause analysis (RCA) training, software, and services to help investigate incidents, solve problems, and reduce risk. With offices in seven countries and offerings in seven languages, their RCA solutions are built on over 20 years of field experience with clients worldwide.

<sup>3</sup> Exh. TCD-3 in UE-190222.

<sup>4</sup> PacifiCorp witness Chuck Tack, CLT-10.

1           **Q. Did the Company originally understand that Staff was focused on Talen’s**  
2 **actions or the Company’s oversight of the Operator during the period from February**  
3 **2018 to the time of the 2018 outage?**

4           A. No. The Company received guidance from Staff in the form of an email, prior  
5 to filing, indicating Staff’s interest in analysis of the outage including:<sup>5</sup>

6           1. The cause of the outage;

7           2. The cost of replacement power; and

8           3. The prudence of the incremental costs associated with the outage.

9 Therefore, the Company understood that the focus was on the cause of the outage and the  
10 activities that occurred as a result of the outage. At no time, prior to the establishment of this  
11 proceeding in Docket UE-190882, did Staff indicate that discovery efforts were focused on the  
12 time leading up to the outage. Furthermore, it was simply not possible to anticipate the direction  
13 Staff or other parties may go in this annual review, and is the very purpose of an extended 90  
14 day review process.

15           After the Company made its ERM filing, through the time that the Commission  
16 established the stand-alone Colstrip Docket, the Company answered over 30 data requests (with  
17 125 subparts) and provided over 600 documents in response to these requests. The Company  
18 expended hundreds of employee hours gathering documents and responding to Staff’s data  
19 requests. During this time, only approximately five questions were directly related to events  
20 specific to the first quarter (Q1) of 2018. The Company had no reason to believe that Staff was  
21 focusing its efforts on the period of time leading up to the outage.

22           **Q. Beyond responding to data requests, did the Company take any other steps**

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<sup>5</sup> Exh DCG-1CCT, p.4 ln. 23 - p.5 ln. 2.

1 **to assist Staff in developing the record?**

2 A. Yes. Given the number of data requests that continued to cover much of the  
3 same ground, the Company began to realize there was a potential disconnect between the  
4 Company's understanding of the data requested, and the information that Staff was attempting  
5 to obtain. In an attempt to resolve this disconnect, the Company reached out to Mr. Gomez on  
6 multiple occasions to discuss certain data requests and suggest the use of telephone calls or  
7 email exchanges to aid in obtaining a better understanding of the focus of the data requests. Mr.  
8 Gomez was not receptive to that outreach, preferring the form of formal discovery requests.  
9 Through this process, however, the Company made every reasonable effort to fully respond to  
10 Staff's requests.

11 The Company understands PacifiCorp was able to meet with Staff in a workshop setting  
12 in September 2019, and again in November 2019. It was through informal feedback after this  
13 workshop process that Avista had the first indications that the focus of Staff's discovery efforts  
14 may be prior to the outage. PacifiCorp witness Mr. Tack communicated this to Avista and  
15 indicated he would be providing supplemental testimony to address the period of time leading  
16 up to the June 2018 outage. Mr. Tack's supplemental testimony was ultimately filed in the  
17 newly consolidated proceeding in Docket UE-190882. It was not until the establishment of this  
18 Docket that it was clear to the Company that the focus was on the period of time leading up to  
19 the outage. This was almost seven months after the Company made its first filing.

20 **Q. Have the issues regarding the Colstrip outage been reviewed by other**  
21 **regulatory bodies?**

22 A. Yes. The Idaho Public Utilities Commission (IPUC) reviewed many of the same  
23 issues regarding the Colstrip outage in the 2019 Purchase Cost Adjustment annual review, Case

1 No. AVU-E-19-09.

2 **Q. Did the Company meet with the IPUC Staff in its review of Power Supply**  
3 **Costs?**

4 A. Yes. The Company had multiple telephone conversations, several email  
5 exchanges, and in-person meetings with IPUC Staff. IPUC Staff also performed a week-long  
6 on-site audit to review the Company's power supply costs, which included the Company's  
7 power supply costs due to the 2018 Colstrip outage. Through this interaction with IPUC Staff,  
8 the Company was able to efficiently and effectively address any concerns IPUC Staff may have  
9 had and was able to significantly reduce discovery time.

10 **Q. What conclusions did the IPUC reach in the 2019 Annual Purchase Cost**  
11 **Adjustment (PCA) Filing regarding the Colstrip Outage?**

12 A. IPUC Staff was satisfied with the circumstances of the outage, stating: "Staff  
13 believes that the Company adequately worked through the issues with Talen Energy, the owner-  
14 operator of the facility, and has come to full resolution of the causes of downtime".<sup>6</sup>

15  
16

**II. OPERATOR'S ACTIONS WERE REASONABLE AND PRUDENT**

17 **Q. Will you summarize the primary issues that Staff and Public Counsel raise**  
18 **with regard to the Operator's actions during the period from February through June**  
19 **2018?**

20 A. Yes. Generally, Staff and Public Counsel appear to (1) imply that burning Area  
21 A coal was problematic, and (2) take issue with the fact that the Operator relied on alternate

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<sup>6</sup>Case No. AVU-E-19-09 Comments of Commission Staff, p.10, ¶ 2.



1 indicators rather than performing preliminary Particulate Matter Mercury and Air Toxic  
2 Standard (PM MATS) tests.

3 **Q. Before you get into the substance of those issues, do you have any general**  
4 **comments regarding Staff's and Public Counsel's testimony on these issues?**

5 A. Yes. There are two general concerns regarding their testimony. First, Staff and  
6 Public Counsel both argue that the operator should not have relied on alternative indicators  
7 because they did not correlate with Q1 or Q2 MATS results. With respect to Q1 this is factually  
8 incorrect as discussed below. With respect to Q2, it is true that the alternative indicators did  
9 not correlate with the MATS testing; however, that was not known to the Operator until the Q2  
10 test.

11

12 **A. BURNING "AREA A" COAL WAS REASONABLE**

13 **Q. Commission Staff suggests that burning Area A coal was problematic and**  
14 **was a "gamble".<sup>7</sup> Do you agree?**

15 A. No, Avista does not agree that burning Area A coal was problematic and does  
16 not agree with Staff's characterization of burning Area A coal as a "gamble". Avista had no  
17 concerns with burning Area A coal:

- 18
- 19 • The "Areas" of the mine are arbitrary contractual boundaries that have  
20 nothing whatsoever to do with the chemical constituents of the coal. All of  
21 the coal is part of the same Rosebud seam.
  - 22 • Area A coal conformed to the coal specifications dictated in the Amended  
23 Restated Coal Supply Agreement (ARCSA).
  - 24
  - 25 • Area A has been burned for many years in Units 1 and 2. Units 1 and 2 have  
26 a similarly designed scrubbing system as Units 3 and 4.

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<sup>7</sup> Exh. DCG-1CCT, p. 50, ll. 8-17.

1

2 As more fully discussed below, shifting back to Area C coal did not resolve the issue, so there  
3 is no assurance that the Units would have passed the Q2 PM MATS tests if Area C coal had  
4 been burned for those tests rather than Area A coal. While the tests performed when Area A  
5 coal was burned did have high PM MATS level results, there is no way to know what those test  
6 results would have been if Area C coal had been burned instead of Area A coal. Thus, Staff's  
7 conclusory statement that the "gamble backfired"<sup>8</sup> is conjecture and is not supported by any  
8 actual evidence. Staff and Public Counsel characterize the burning of Area A coal as a "last  
9 ditch effort"<sup>9</sup>. Avista disagrees with that characterization; rather, burning Area A coal was a  
10 prudent course of action to help determine if fuel might be a contributing factor to PM levels.

11 **Q. Please expand on bullet 3 above which States Area A coal has been burned**  
12 **for many years in Units 1 and 2.**

13 A. Area A coal is one of the primary sources for Colstrip Units 1 and 2 and has  
14 been burned in those units for years. Colstrip facility staff is very familiar with Area A coal,  
15 and they have years of experience with it. The characteristics and properties of the coal are well  
16 known to them. Area A coal has burned in Units 1 and 2 for many years. Contract specifications  
17 for Area A coal have better characteristics for delivered quality for maximum ash and sulfur  
18 content, and the same specifications for maximum moisture and minimum heat content as Area  
19 C coal.

20 **Q. Staff contends that the decision to burn Area A coal produced the worst PM**  
21 **MATS level results of any of the remedial actions attempted by the Operator between**

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<sup>8</sup> Exh. DCG-1CCT, p. 50, ll. 8-17.

<sup>9</sup> Exh. DCG-1CCT, p. 52, ln. 9.

1 **May 30 and June 20, 2018.<sup>10</sup> Does this support a conclusion that burning Area A coal was**  
2 **not reasonable or prudent?**

3 A. No. After switching back to Area C after the failed PM MATS tests, the PM  
4 emissions remained high. Switching back to Area C coal did not fix the problem. The Plant  
5 did not return to compliance until a number of measures, unrelated to coal quality, were  
6 implemented. As previously noted, burning Area A coal during the June tests was a reasonable  
7 and prudent step to take regardless of the PM MATS test results.

8 **Q. Does the Sologic Root Cause Analysis report support Staff's argument that**  
9 **burning Area A coal was not prudent?**

10 A. No. In fact, the excerpt quoted by Staff indicates that Sologic understood that  
11 all fuel burned was from the same fuel source, and states that coal data in general was  
12 inconclusive. Specifically, Staff quotes the following from the Sologic Root Cause Analysis  
13 report:

14 While fuel chemistry variations are a possible contributing cause, the available data was  
15 not conclusive. No changes have been made to the fuel source as a result of the 2018  
16 elevated PM levels. The fuel chemistry variations are difficult to control because the  
17 coal comes from a single source and it is quickly consumed after arriving on site.<sup>11</sup>  
18 (emphasis added)  
19

20 **Q. You implied in the above questions that Area A is essentially the same coal**  
21 **as Area C coal. If this is true, why attempt to troubleshoot with it at all?**

22 A. While all of the coal at issue is Rosebud seam coal, we could have expected a  
23 marginal difference between a specific Area A pit and a specific Area C pit due to slightly  
24 different chemical characteristics specific to each pit. Coal chemical constituents vary pit to pit

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<sup>10</sup> Exh. DCG-1CCT, p. 34, ll. 4-5

<sup>11</sup> Staff Testimony at 42:5-9 (quoting Tack, Exh., CLT 10, at 4 (Company Confidential)) (emphasis added).

1 and delivery to delivery regardless of the contractually-defined areas they come from. Certain  
2 pits can contain higher ash, certain contain higher BTU's, some higher sodium, some higher  
3 moisture, etc.

4 By mid-June, Talen had tried a number of troubleshooting tactics. Using Area A coal as  
5 a measure to rule out the unlikely possibility that specific Area C coal was a key contributor to  
6 increased PM levels was a reasonable and prudent course of action. In summary, Talen had to  
7 that point, considered a number of operational variables as previously discussed; burning Area  
8 A coal during the June tests allowed them to specifically evaluate fuel as a variable.

9

10 **B. ALTERNATIVE INDICATORS**

11 **Q. Public Counsel states that the June 2018 emissions exceedance was a**  
12 **foreseeable consequence of rising PM emissions.<sup>12</sup> Do you concur?**

13 A. No. This assertion is based on calculated emissions rate for Unit 3, Unit 4, and  
14 the site-wide calculated average from September 2016 through November of 2018, included in  
15 Public Counsel's testimony Exh. AA-1CT as "Figure 1".<sup>13</sup> Public Counsel is relying on the  
16 data including the June 2018 PM MATS test to establish a trend.<sup>14</sup> However, relying on the  
17 June 2018 PM MATS test results, which were not known prior to the PM MATS test (during  
18 the February to early-June 2018) is not appropriate and any reliance on this purported trend to

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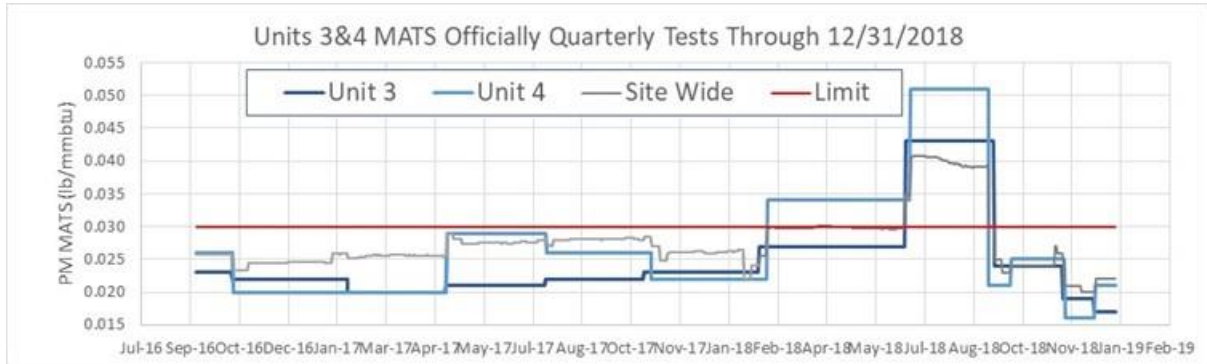
<sup>12</sup> Exh. AA-1CT, p. 8, ll. 3:9

<sup>13</sup> Ibid.

<sup>14</sup> It is worth noting Figure 1's representation of a site-wide calculated average (gray line) is a calculated value and is not actual test results. The only actual test results that appear on Graph 3 from February through June 2018 are the February and June 2018 PM MATS test results. Also the grey line represents a site-wide calculated value that includes all four units. The grey line, therefore, cannot be used to establish a Unit 3&4 trend.

1 establish foreseeability is therefore also not appropriate. For ease of reference, this chart has  
 2 been recreated as Illustration No. 1 below.

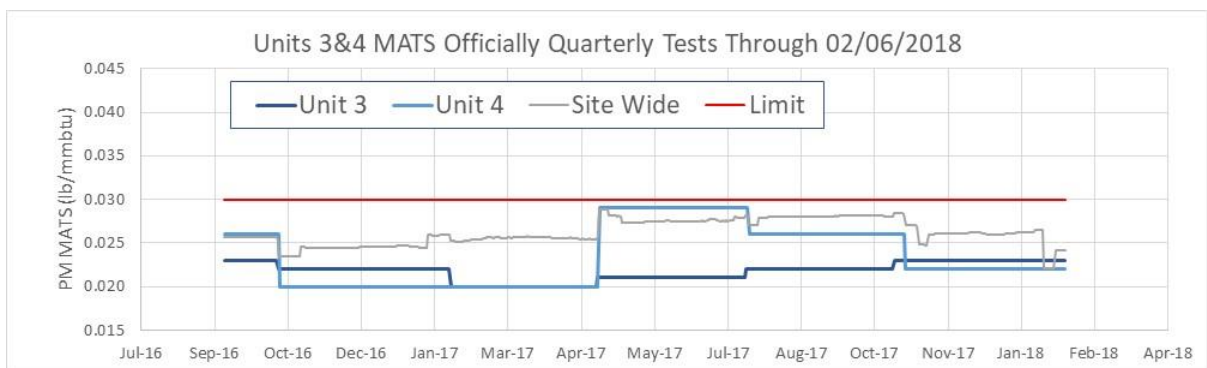
3 **Illustration No. 1**



9 In order to fully understand the relevance of PM MATS results, one must look at what  
 10 was known at various time periods. As such, I have broken Illustration No. 1 (as calculated by  
 11 Mr. Allison) into two time periods: Illustration No. 2 represents the period leading up to the  
 12 February PM MATS tests on February 6, 2018 and Illustration No. 3 represents the period  
 13 between the February and June 2018 MATS tests.

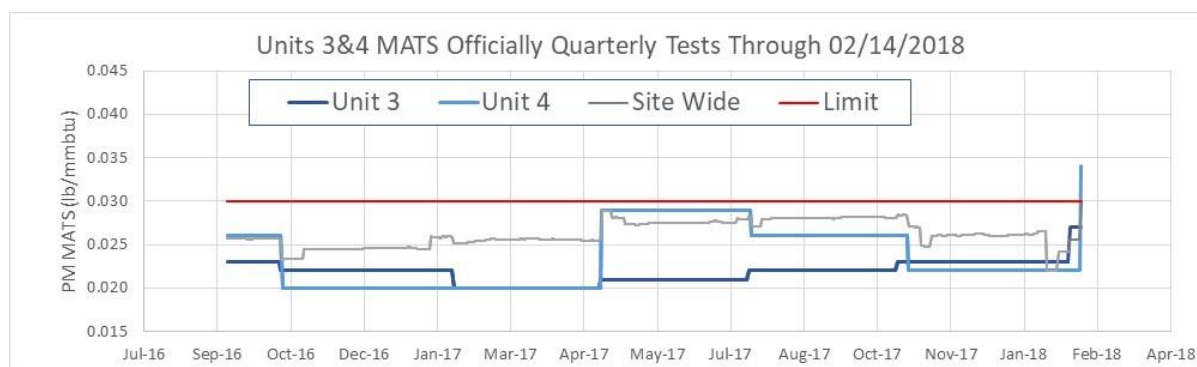
14 Illustration No. 2 shows the Quarterly MATS PM levels at the facility up to February 6,  
 15 2018. It does not include the February MATS tests. Unit 3 was relatively flat over the period;  
 16 Unit 4 had had two consecutive declining quarterly test results; and the site wide MATS PM  
 17 levels were flat. It is not reasonable to infer an upward trend from this data.

18 **Illustration No. 2**



1 Illustration No. 3 shows the same MATS quarterly results as Illustration 2 and adds the  
 2 results of the Q1 MATS test. These Q1 test results indicated higher PM emission levels, but,  
 3 nevertheless, the Plant remained in compliance. The Q1 2018 MATS result represented in  
 4 Illustration 3 is a single data point in time that was not consistent with the data for the previous  
 5 three quarters. In short, the time period leading up to the Q1 2018 MATS test did not show any  
 6 upward trend—Unit 3 data was essentially flat and Unit 4 data showed decreasing emission  
 7 results in each of the last two tests. In February 2018, as Illustration 3 shows, the results showed  
 8 higher emission levels, but this was a single data point, not a trend. Because the PM emission  
 9 levels were higher than expected in February 2018, the plant undertook a number of  
 10 troubleshooting measures<sup>15</sup> while monitoring other indicative parameters that are reliable  
 11 indicators of PM emissions even though the Plant was in compliance with the MATS  
 12 regulations.

### 13 **Illustration No. 3**



19

20 **Q. Given the step change in February 2018, did Talen take action after**  
 21 **receiving the results of the February 2018 tests?**

<sup>15</sup> As described in the Supplemental testimony of PacifiCorp witness Charles L Tack Exh. CLT-9, p. 2.

1           A.     Yes. Talen placed heightened focus on other generally reliable indicators and  
 2 monitoring systems, as well as the associated pollution control equipment (sometimes referred  
 3 to herein as “alternative indicators”). These indicators were discussed more fully in PacifiCorp  
 4 witness Charles L Tack’s supplemental testimony Exh. CLT-1T and Exh. CLT-6, Docket UE-  
 5 190882.

6           **Q.     Staff and Public Counsel both assert that it was not reasonable for Talen to**  
 7 **rely on alternative indicators. Public Counsel states that the “alternative indicators were**  
 8 **not in fact sufficiently correlated with official PM levels to be relied upon to determine**  
 9 **compliance”<sup>16</sup> and characterizes the alternative indicators as “unreliable”.<sup>17</sup> Do you**  
 10 **agree?**

11           A.     No. As a threshold matter, it is normal for MATS PM emission test results to  
 12 vary. For example, in the past, individual unit results have ranged from .022 to .034 for Unit 3  
 13 and .019 to .035 for Unit 4.<sup>18</sup> Table No. 1 below illustrates the variation between MATS PM  
 14 emission tests:

15           **Table 1**

Year	PM Annual Average Emissions (#/MMBTU)	PM Annual Emissions (Tons)
2010	0.022 (Unit 3); .019 (Unit 4)	565 (Unit 3); 497 (Unit 4)
2009	0.018 (Unit 3); .022 (Unit 4)	572 (Unit 3); 310 (Unit 4)
2008	0.020 (Unit 3); .035 (Unit 4)	639 (Unit 3); 1105 (Unit 4)
2007	0.024 (Unit 3); .032 (Unit 4)	667 (Unit 3); 999 (Unit 4)
2006	0.034 (Unit 3); .030 (Unit 4)	999 (Unit 3); 814 (Unit 4)

<sup>16</sup> Exh. AA-1CT, p. 14, ll. 1:2

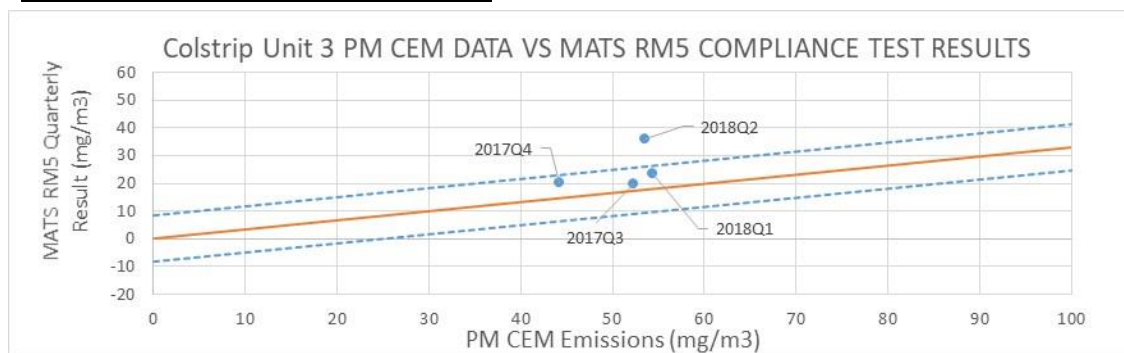
<sup>17</sup> Ibid.

<sup>18</sup> <http://deq.mt.gov/Portals/112/Air/AirQuality/Documents/ARMpermits/OP0513-14.pdf>

1 The February 2018 PM MATS emissions test results were within the range of the historical  
 2 variability.

3 The alternative indicators were not relied on to determine compliance, only to monitor  
 4 and troubleshoot. The Title V Air Quality Operating Permit lays out in Appendix I the  
 5 guidelines for assuring PM emissions compliance between official MATS tests. In particular,  
 6 it describes alternative indicators that are to be used for this purpose. The permit further  
 7 requires that the correlation between these indicators, and the official MATS RM5 test method  
 8 results be tracked, and subsequently adjusted if the parameters do not correlate within a  
 9 prescribed tolerance. The Q1 2018 MATS RM5 test results correlated well within the  
 10 prescribed tolerance bands such that no adjustment to the correlation curve was required. In  
 11 other words, the February 2018 MATS PM emissions test results were within the prescribed  
 12 tolerance of the then-effective MDEQ Title V Operating Permit PM CAM Plan correlation  
 13 curve. As shown in Illustration Nos. 4 and 5 below, the three quarters that preceded the Q2  
 14 2018 test fell within the Title V permit prescribed tolerance band (blue dotted lines) for PM  
 15 CEMS. In other words, the PM CEMS were well correlated with the MATS RM5 tests and  
 16 thus it was reasonable and prudent to use PM CEMS to evaluate emissions subsequent to the  
 17 Q1 2018 tests.

18 **Illustration No. 4 – Colstrip Unit 3**





**Illustration No. 5 – Colstrip Unit 4**

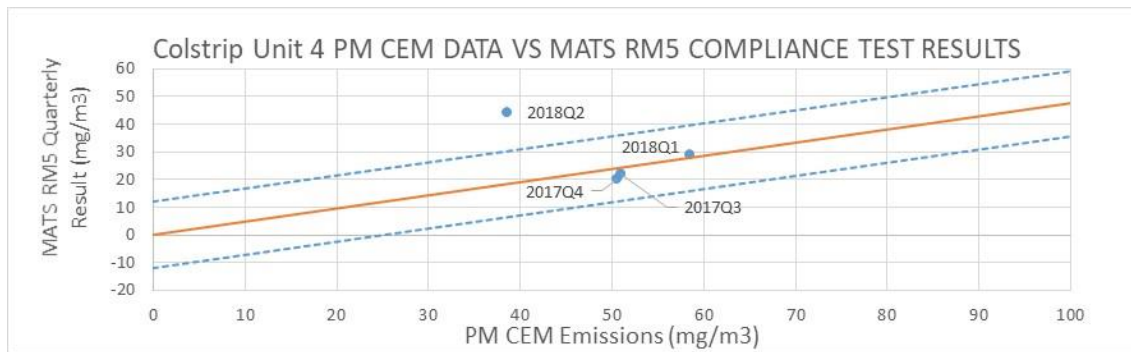
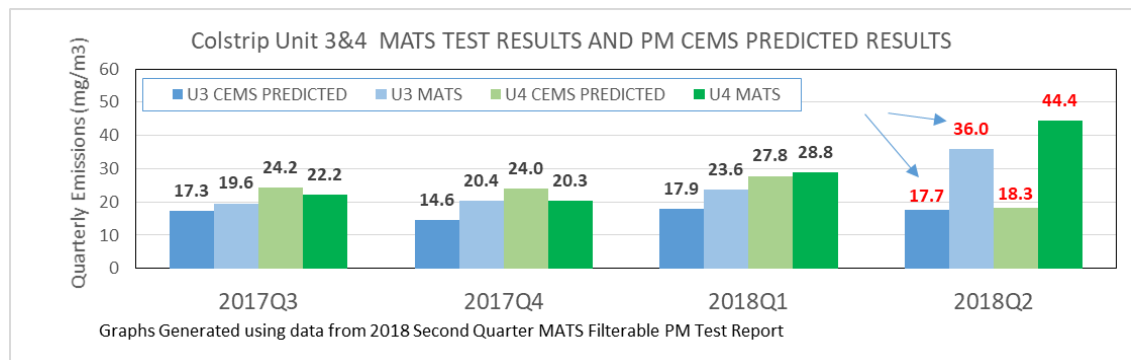


Illustration No. 6 shows the quarterly PM CEMS correlation curve *predicted* MATS test results (alternative indicator) alongside the *actual* PM MATS quarterly results. Note that each of the three quarters that preceded 2018Q2 indicated good correlation between PM CEMS and the MATS RM5 (PM MATS) compliance tests. Material deviation was only apparent in the 2<sup>nd</sup> quarter of 2018; after the relevant time period. It is also worth noting that the PM CEMS predicted results for 2018Q2 fell well within the MATS emission limits prior to and concurrent with the 2018Q2 testing. Accordingly, Talen had a good faith and justifiable expectation that those tests would pass.

**Illustration No. 6 – Colstrip Unit 3 Results Deviation**



In its testimony, Public Counsel appears to be referring to the lack of correlation between the alternative indicators and the June 2018 official PM emission test (2018Q2 Illustration No. 1). The Company acknowledges that the Q2 2018 MATS test results deviated

1 substantially from the concurrent PM CAM plan indicators; however, the Q2 2018 MATS test  
2 results, and thus any indicated lack of correlation between such results and the alternative  
3 indicators and those test results, were not known during the period from February to Q2 2018.  
4 Accordingly, given that Talen did not have the benefit of foresight, they acted prudently (and  
5 in accordance with the PM CAM plan outlined in the Title V permit).

6           Simply stated, there was no reason for Talen to know that the alternative indicators were  
7 not correlated with PM emissions. It was reasonable for Talen to rely on these indicators and  
8 to use them to troubleshoot the higher than expected Q1 MATS results. Neither Staff nor  
9 Public Counsel provide any evidence that, under the circumstances known to Talen at the time,  
10 a reasonable prudent operator would not have relied on the alternative indicators during the  
11 relevant time period.

12           **Q. Is Talen, as the Operator, required to monitor performance and**  
13 **operational indicators to help ensure compliance with the MATS particulate limitation?**

14           A. Yes. The Final Operating Permit #OP0513-14, Appendix I Compliance  
15 Assurance Monitoring Plan (CAM Plan),<sup>19</sup> requires the Operator to monitor compliance of the  
16 MATS particulate limitation and sets out the specifications for doing so.

17           **Q. During the February through June 2018 time period, did the operator**  
18 **monitor performance in accordance with requirements of the CAM Plan?**

19           A. Yes. Talen operated in accordance with the requirements of the CAM Plan.

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<sup>19</sup> <http://deq.mt.gov/Portals/112/Air/AirQuality/Documents/ARMpermits/OP0513-14.pdf>

1           **Q. Staff takes issue with the fact that unofficial MATS-type testing was not**  
2 **done, and Public Counsel also notes that no PM testing was done. Why weren't these**  
3 **“unofficial” preliminary tests performed between February and May 30, 2018?**

4           A. First, Talen was operating in accordance with the Title V permit CAM plan  
5 which specifically lists the procedures that are to be undertaken to help ensure MATS  
6 compliance between official Quarterly MATS tests. Second, there was no reason to suspect  
7 that the alternative indicators that Talen was monitoring were not providing an accurate picture  
8 regarding actual emissions—as noted above, the February MATS results fell within the  
9 correlation tolerance specifications of the CAM plan, and any subsequent lack of correlation  
10 could not have been known until after the June 2018 PM MATS tests.

11           Furthermore, MATS RM5 testing requires specific operational conditions be met, such  
12 as loads greater than 90%, steady state operation, test crew mobilization, and physical manual  
13 sampling. These tests further require that all companies release dispatch control to Talen for  
14 the entire test duration (> 6 hours) which can lead to excess power supply expense. The Plant  
15 was in compliance following the February test and the PM CAM plan indicators correlated with  
16 the February results. As such there was no reason to anticipate a deviation between the PM  
17 CAM plan indicators and results that might be obtained from the future MATS RM5 official  
18 test methods. There was no justification for performing additional PM MATS RM5 type  
19 testing.<sup>20</sup>

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<sup>20</sup> It is also worth noting that Public Counsel states that “none of the Colstrip co-owners conducted any preliminary versions of the PM MATS test” during the period between the February and June 2018 MATS tests. That is incorrect. Unofficial MATS tests were performed on Units 3 and 4 on May 30, 2018, as illustrated in PacifiCorp witness Chuck Tack Exh. CLT-7.

1           **Q. The three MATS tests immediately preceding the Q2 2018 MATS test**  
2 **correlated well with the PM CEMS indicator. Does the Sologic Root Cause Analysis**  
3 **Report<sup>21</sup> offer any explanation as to why the Q2 results might have deviated so**  
4 **significantly?**

5           A. The Root Cause Analysis (RCA) lists four potential causes for elevated PM  
6 including: Fuel Chemistry Variation, Boiler Combustion Conditions, Scrubber Solids Carry-  
7 Over, and over reactive Fiberglass PM Filters. The RCA determined, in particular, that the over  
8 reactive fiberglass filter used during the Q2 MATS RM5 testing may have indicated falsely  
9 high PM levels. This would have caused the PM CEMS data and the MATS test results to  
10 deviate from one another. The RCA offers another potential explanation for the deviation: “It  
11 is possible that the fine fly ash present in the summer of 2018 had a smaller particle size  
12 distribution, relative to the 2017 fine fly ash, which may have allowed more of the fine fly ash  
13 particles to form agglomerates. This increased formation of agglomerates may explain why the  
14 opacity/PM CEMS did not detect the increase in PM emissions.”<sup>22</sup>

15           **Q. Staff asserts that the Q2 2018 PM MATS issue was foreseeable, and the**  
16 **actions of the Operator, coupled with the Companies’ lack of Operator oversight were not**  
17 **reasonable or prudent in the time period leading up to the Q2 2018 test.<sup>23</sup> Do you agree?**

18           A. No. As previously discussed, there was no reason to believe that the alternative  
19 indicators did not correlate with actual PM emissions during the February to June 2018 period.  
20 Therefore, there was no ability to foresee that the Plant would not pass the Q2 PM MATS tests.

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<sup>21</sup> Exh. TCD-2 p. 4.

<sup>22</sup> Exh. TCD-2 page 9.

<sup>23</sup> Exh. DCG-1CT, p. 47, ll. 15:18.

1 In fact, as Staff states in its testimony,<sup>24</sup> the Operator offered repeated assurance—even as late  
2 as June 20, 2018—that the Plant would pass the Q2 MATS test.<sup>25</sup> Finally, Staff’s testimony  
3 inappropriately relies on draft and final MDEQ penalty calculations to support its conclusion  
4 that the violation was foreseeable.

5 **Q. Explain your statement that Staff inappropriately relied on draft and final**  
6 **MDEQ penalty calculations to supports its conclusion that the violation was foreseeable.**<sup>26</sup>

7 A. Even though Staff states that it did not put much weight in MDEQ’s draft and  
8 final penalty calculation worksheets, it discusses those calculation worksheets at length in its  
9 testimony. Specifically, Staff notes that MDEQ’s final penalty calculation worksheet increased  
10 the base penalty by eight percent “due to circumstances of the violation.”<sup>27</sup> Staff asserts that  
11 these circumstances included the foreseeability of the violation.<sup>28</sup> Public Counsel also appears  
12 to make the same assertion.<sup>29</sup> However, the quoted portion of the penalty assessment does not  
13 state that the violation was foreseeable; only that the weighted average PM emission rate had a  
14 slight upward trend. This “trend” was established based on one single data point – the Q1 PM  
15 MATS test. As discussed above, using a single data point to establish any trend is inappropriate.  
16 While a single data point with higher than expected PM emission levels may warrant further  
17 investigation, it does not in any way indicate that a violation of the PM emissions limit was  
18 foreseeable. It is important to note, as discussed above, that emissions vary over time, and it is

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<sup>24</sup> Exh. DCG-1CCT, pp. 29-30.

<sup>25</sup> Exh. DCG-1CCT p. 30; p. 33 ll. 10-12.

<sup>26</sup> Exh. DCG-1CCT pp. 9:13.

<sup>27</sup> Exh. DCG-1CCT p. 12, ln. 11.

<sup>28</sup> Exh. DCG-1CCT p. 12, ll. 11:13.

<sup>29</sup> Exh. AA-1CT, p. 16 ll. 7-10.

1 reasonable to expect some variances from time to time. Thus, simply drawing a straight trend  
2 line to assert that any future result was foreseeable is inappropriate.

3 **Q. Is there any other reason why Staff's reliance on the draft and final MDEQ**  
4 **penalty calculations is inappropriate?**

5 A. Yes. Staff bases its determination that the violation was foreseeable because of  
6 a draft MDEQ worksheet. Importantly, the final version of the MDEQ worksheet does not  
7 contain this language. Staff's inference that the removal was nefarious is incorrect. As a  
8 threshold matter, this change was made in the context, and course, of settlement discussions  
9 and, therefore, any changes to draft language should not be considered. Staff states that it does  
10 not give much weight to the draft and final penalty calculation worksheets.<sup>30</sup> However, it is  
11 completely inappropriate to give any weight to the absence of language in the final version—  
12 especially when Staff itself admits it does not know why the language was omitted from the  
13 final penalty calculation worksheet.<sup>31</sup>

14 **Q. Will you summarize your testimony regarding the foreseeability of the**  
15 **results of the Q2 PM MATS tests?**

16 A. Yes. In sum, there is no evidence that a reasonably prudent operator of the Plant  
17 could have foreseen that the Plant would fail the Q2 PM MATS test based on the circumstances  
18 that existed during the relevant period. As discussed above, the alternate indicators correlated  
19 with actual PM emissions in accordance with the PM CAM Plan Title V permit during the  
20 February to June 2018 period, and as Staff's testimony acknowledges, the Operator indicated,  
21 based on its expertise and experience, that the Plant would pass the Q2 PM MATS tests.<sup>32</sup>

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<sup>30</sup> Exh. DCG-1CCT, p. 11, ll. 6-8.

<sup>31</sup> Exh. DCG-1CCT, p. 13, footnote 42.

<sup>32</sup> Exh. DCG-1CCT p. 30; p. 33 ll. 10-12.

1 Although both Staff and Public Counsel opine that it was foreseeable that the Plant would not  
2 pass the Q2 PM MATS test, neither Staff nor Public Counsel provide any evidence to support  
3 their assertions.

### 4 **III. OPERATOR OVERSIGHT**

5 **Q. Commission Staff takes issue with the Owners', including Avista's,**  
6 **oversight of the operation of the Units and states that effective communication between**  
7 **the Owners and the Operator in this case "have been non-existent and dysfunctional."<sup>33</sup>**  
8 **Do you agree with Staff?**

9 A. No. It is worth reiterating the ownership and operation structure of the Plant.  
10 Avista is one of six owners of the Units 3 and 4, owning 15 percent of each unit. Talen is both  
11 an owner and the operator of the Units. Avista's participation in day-to-day operations is  
12 dictated by the Ownership and Operating Agreement ("O&O Agreement") between and  
13 amongst the Owners and Operator. Under that O&O Agreement, the operator is charged with  
14 operating and maintaining the Units in accordance with, among other things, Prudent Utility  
15 Practice and applicable laws, permits, and licenses.<sup>34</sup>

16 Avista's participation in the operation of the Units is generally through its participation  
17 in the Project Committee.<sup>35</sup> The Operator is required to use its best efforts to keep all members  
18 of the Project Committee informed of all significant matters with respect to the operation and  
19 maintenance of the Units.<sup>36</sup> To the extent action is to be taken, it is generally through a vote of  
20 the Project Committee. Avista participated in the Operation of the Plants in accordance with

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<sup>33</sup> Exh. DCG-1CCT, p. 47, ln. 26.

<sup>34</sup> O&O Agreement at Section 3(b).

<sup>35</sup> O&O Agreement at Section 17.

<sup>36</sup> O&O Agreement at Section 17(e).

1 the terms of the O&O Agreement. There is no evidence that Avista did not provide appropriate  
2 oversight of the Operation of the Plant.

3 From February through June 2018, the Operator communicated with the owners about  
4 the elevated PM levels and its investigation into the cause of those elevated PM levels. Staff's  
5 testimony itself does not support Staff's pejorative characterization of effective  
6 communications between the Operator and the Owners as "non-existent and dysfunctional."<sup>37</sup>  
7 Specifically, Staff acknowledges in its testimony the following communications:

- 8 • February 21, 2018—Operator informed the Project Committee that it was  
9 conducting an investigation into the elevated PM levels;<sup>38</sup>
- 10 • March 21, 2018—the Operator told the Companies that it had not identified any  
11 items that were causing the elevated PM levels;<sup>39</sup>
- 12 • March through May, 2018—the Operator expressed confidence that the Units would  
13 pass their Q2 emission test and not go into forced outage based on Operator's  
14 evaluation of alternative indicators;<sup>40</sup>
- 15 • June 20, 2018—Operator informs the Companies that Units 3 and 4 would be in PM  
16 compliance for the upcoming test;<sup>41</sup> and
- 17 • June 27, 2018—the Operator called an emergency meeting of the Owners to inform  
18 them that both Units 3 and 4 failed the official Q2 emission test.<sup>42</sup>
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<sup>37</sup> Exh. DCG-1CCT p. 47, ll. 26

<sup>38</sup> Exh. DCG-1CCT p. 29; 56:19-20.

<sup>39</sup> Exh. DCG-1CCT p. 48, ll 4-6. Staff Testimony incorrectly states that this communication occurred on March 21, **2019** (Emphasis added).

<sup>40</sup> Exh. DCG-1CCT, p. 30; 56:23-57:3. Notably, Staff indicates that this confidence was based on evaluation of alternative indicators and not measurement of unofficial PM levels. See also Staff Testimony at 49:3-11 (citing Exhibit CLT-9 at 2 stating that, during the March-May 2018 period, Talen continued to discuss the elevated PM levels, monitoring of alternative indicators and evaluation efforts were ongoing, Talen saw positive/stable trends in many alternative indicators, Talen felt confident in plant performance, Talen did not believe there were any concerns, and Talen believed that the Units would pass their Q2 emissions test).

<sup>41</sup> Staff Testimony at 30; 33:10-12.

<sup>42</sup> Staff Testimony at 34:9-11.



1 Staff's own testimony demonstrates that communications were far from being non-existent and  
2 dysfunctional. Staff's testimony acknowledges that the Operator told the owners that there  
3 were elevated PM levels and that it was conducting an investigation into the elevated PM levels  
4 and that the Operator communicated that the Units would pass their Q2 emission test. After  
5 Units failed their Q2 PM Emission test, the Operator called an emergency meeting.

6 Staff also had in its possession additional evidence that the communications between  
7 the Operator and the owners was far from non-existent or dysfunctional. Avista provided to  
8 Staff in response to Data Request No. 062 the monthly reports that Talen provided the owners,  
9 including those monthly reports prepared during the relevant February through June 2018 time  
10 period. These monthly reports include voluminous information about the Plant, including  
11 detailed information regarding Plant performance and environmental performance (including  
12 the 30 day CEMS). These reports were discussed in detail at the monthly ownership and  
13 operations meetings.

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#### 15 **IV.REPLACEMENT POWER SUPPLY COSTS**

16 **Q. Staff recommends a disallowance in replacement power supply costs in the**  
17 **amount of \$3.5 million, and Public Counsel recommends \$3.3 million. What is the**  
18 **Company's response?**

19 A. There should be no disallowance. As previously discussed, Avista, the other  
20 owners, and the Operator acted prudently, based on contemporaneous information available  
21 during February – June 2018. Using after-the-fact information to craft a perfect hindsight  
22 review is not appropriate.

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**V. CONCLUSION**

**Q. Please summarize your testimony.**

A. As I have previously discussed, Avista, the other owners, and the Operator acted prudently given the information known in the February – June timeframe. As discussed more fully above:

1. The Company provided detailed information to the Commission and interested parties both through our original filing in Docket UE-190222, as well as through the almost nine month long discovery process.
2. Talen’s actions, as the Operator of Colstrip Units 3 and 4, with regard to troubleshooting the cause of elevated test results, were reasonable and prudent during the February – June 2018 timeframe.
3. The use of Area A coal was not problematic and was a reasonable troubleshooting measure, among others, to ascertain the cause of elevated test results.
4. Talen use of standardized alternative indicators during the relevant time period was reasonable.
5. The elevated test results were not foreseeable.
6. The Company’s oversight of the operation of the Plant was appropriate during the relevant time period.

**Q. Does this conclude your testimony?**

A. Yes, it does.