ENVIRONMENTAL APPEALS BOARD
U.S. ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

In the Matter of:	)	
Four Corners Power Plant	)	**NPDES Appeal No. 19-06**
NPDES Renewal Permit: NN0000019	)	
Arizona Public Service Company	)	

PETITIONERS' CONSOLIDATED REPLY BRIEF TO EPA AND APS' RESPONSE BRIEFS AND TO NTEC's AMICUS BRIEF

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I. REPLY TO RESPONDENTS' PROCEDURAL ARGUMENTS

A. Repeated statement of clearly erroneous findings of fact, conclusions of law and important policy considerations

The Responses both assert that Petitioners have failed to identify a contested permit condition or response and show that such Permit condition or response is based on a clearly erroneous finding of fact or conclusion of law or involves an important policy consideration that the Board should review. Petitioners disagree because their Petition for Review clearly identifies such issues. However, in an abundance of caution, Petitioners provide the following list identifying the issue, the location in the administrative record for the contested permit condition, and EPA's Response to Comment ("RTC"):

1. EPA's finding that Morgan Lake is ***not*** a "water of the United States" is both a clearly erroneous finding or fact and conclusion of law.[1]

2. EPA's finding that the cooling system at FCPP is a "closed cycle" system is both a clearly erroneous finding of fact and conclusion of law.[2]

3. An important policy consideration by this Board is the application, interpretation, and weight (if any) given to the Perciasepe Memo upon which Respondents heavily rely and which has never been addressed by the EAB.[3]

4. An important policy consideration for this Board is whether the EPA may reach findings that water quality standards will not be violated, or there is no reasonable potential for a violation of water quality standards, despite the fact that EPA has neglected to establish water quality standards for Morgan Lake and No Name Wash despite having nearly twenty years to do so.[4]

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[1] Petition for Review Exhibit (hereinafter "Exhibit") 4 (AR#26 d.), pp. 6-10 and 31-45 Comment #4, #7D and #8 and Response to Comment ("RTC") #4, #7D and #8.
[2] Exhibit 4, pp. 48-48, Comment #9, RTC #9.
[3] Exhibit 4, p. 44, RTC # 8 (EPA's reliance on the Perciasepe Memo was raised for the first time in its Response to Comments on the Draft Permit thus preventing Petitioners from previously commenting on EPA's position. This is the first time in the long history of the Four Corners Power Plant ("FCPP") that EPA has relied on the Perciasepe Memo in support of its findings).
[4] Exhibit 4, pp. 6-10

5. EPA's failure to analyze whether there is a reasonable potential for violations of the Navajo Nation temperature water quality standard is clearly erroneous.[5]

6. An important policy consideration is EPA's application of the "uplands" exemption for Morgan Lake despite its previous finding that the lake was built in a wash with important ecological features and without any evidence of hydric soils.[6]

Petitioners' specific arguments explaining why these contested permit conditions are clearly erroneous and/or present an important policy consideration for review by the Board are further developed in their Petition for Review and in this Reply.

B. <u>This appeal challenges a permit, not water quality standards.</u>

Respondents also argue that Petitioners are illegally challenging water quality standards and classifications for No Name Wash and Morgan Lake. EPA Response at pp. 25-27; APS Response at pp. 21-23. This is a mischaracterization of Petitioners' claims. Petitioners are not challenging specific water quality standards or classifications for the simple reason that EPA has completely failed to promulgate such standards despite having sole authority and nearly 20 years to do so. Instead, Petitioners are challenging as clearly erroneous findings made by EPA in issuance of the ***Final Permit***. Because this is a challenge to an EPA-issued NPDES permit and not to specific water quality standards, Petitioners' claims are appropriate.[7]

II. REPLY TO SUBSTANTIVE ARGUMENTS

A. <u>EPA's finding that Morgan Lake is *not* a "water of the United States" is clearly erroneous.</u>

[5] Exhibit 4, pp. 49-54 (Comment #10, RTC #10).
[6] Exhibit 4, pp. 41-43 (Comment 7, RTC # 8).
[7] Unlike *In Re: Teck Cominco Alaska Incorporated, Red Dog Mine,* 11 E.A.D. 457 (2004), this is ***not*** a case where Petitioners are arguing that water quality standards are "not adequately protective" of designated uses. In this case, there are ***no*** water quality standards thus rendering EPA's findings in support of the Final Permit clearly erroneous.

Perhaps the most central question in this appeal is whether Morgan Lake is a "water of the United States." Claims of exemption from the jurisdiction or permitting requirements of the Clean Water Act's ("CWA") broad pollution prevention mandate must be narrowly construed to achieve the purposes of the CWA. See *United States v. Akers*, 785 F.2d 814, 819 (9th Cir.1986). Neither EPA's Response to Comments nor the Responses identify any significant physical changes to Morgan Lake since it was first constructed nearly 60 years ago. Instead, the only thing that has changed is EPA's ongoing arbitrary regulation of Morgan Lake.

For years, both EPA and the APS acknowledged that Morgan Lake is a "water of the United States" requiring the protections of the federal Clean Water Act ("CWA").[8] EPA's prior permits recognize that Morgan Lake is a "receiving water" and thus a water of the United States.[9] EPA previously required the adjacent Navajo coal mine to obtain an NPDES permit for discharges ***into*** Morgan Lake, thus concluding that the lake was a "water of the United States."[10] APS has also admitted that Morgan Lake is "a water of the U.S."[11]

i. **EPA's newest theory that Morgan Lake qualifies for the "waste treatment system" exclusion is clearly erroneous.**

In its 2018 Response to Comments, EPA stated it "is ***not*** relying on the regulatory definition of 'waste treatment systems' nor on exclusions therefrom in continuing its practice of regulating the discharge at the point of discharge from Morgan Lake."[12] A year later, EPA now arbitrarily invokes that very exclusion, which is found at 40 C.F.R. § 122.2.[13] EPA's

[8] Exhibit 18, Exhibit 40, Exhibit 46, Exhibit 47, and Exhibit 48.
[9] Exhibits 46, 47, & 48.
[10] Exhibit 18, cover page and p. 3.
[11] Exhibit 40 hereto.
[12] Exhibit 65, p. 18, Comment #13 and RTC #13, emphasis added.
[13] Exhibit 4, pp. 40-45 (Comment #7 and RTC #8).

sudden and inadequately explained change in position is arbitrary and undeserving of deference. *Smiley v. Citibank (South Dakota) N.A.,* 517 U.S. 735, 742 (1996).

EPA's new theory is also clearly erroneous, both factually and legally. First, the "waste treatment system" exemption does not apply to "manmade bodies of water which …resulted from the impoundment of waters of the United States." 40 C.F.R. §122.2. Morgan Lake resulted (and still results) from impoundment of waters of the United States, namely the San Juan River.[14] EPA admits this fact by stating, "Morgan Lake was created by pumping water from the San Juan River and is maintained by pumping an average of 14.3 million gallons per day from the San Juan River. Morgan Lake would dry up and cease to exist if APS ceased replenishing it with water from the San Juan River."[15] By EPA's own admission, Morgan Lake does not qualify for the "waste treatment system" exemption.

Second, the "waste treatment system" only applies to "treatment ponds or lagoons designed to meet the requirements of the CWA (***other than cooling ponds***…)…" 40 C.F.R. 122.2 (2011)(emphasis added). Both Responses argue that because the definition of term "cooling pond" was deleted from EPA's regulations, "cooling ponds" are somehow now included within the "waste treatment system" exemption. This argument ignores the fact that all parties agree that Morgan Lake is a "cooling pond" and thus reference to a regulatory definition is unnecessary. EPA admits that Morgan Lake is "cooling pond located adjacent to the Plant that draws water from the San Juan River…".[16] APS also admits that Morgan Lake is a "cooling pond." APS Response at p. 2. Because there is no factual dispute that Morgan Lake is a "cooling pond," it is specifically excluded from the plain language of the "waste

[14] Exhibit 4, p. 41 (Comment #7).
[15] Exhibit 4, p. 43 (RTC #8).
[16] Exhibit 3, p. 2.

treatment system" exemption. Because the definition of "waste treatment system" in 40 C.F.R. § 122.2 is not ambiguous and clearly excludes "cooling ponds", EPA's "interpretation" of the regulation is not entitled to deference. *In Re: Lazarus*, 7 E.A.D. 318 (1997); *Chevron U.S.A., Inc. v. Natural Resources Defense Council,* 467 U.S. 837, 843-44 (1984); *Thomas Jefferson Univ. v. Shalala,* 512 U.S. 504, 512 (1994)(an agency interpretation of a regulation that is plainly erroneous or inconsistent with the regulation is not entitled to deference). The Board must apply the plain language of the regulation ***as written***, not as EPA wishes it to be written.

EPA's reliance on the 1993 EPA "Perciasepe" Memo is also clearly erroneous. The Perciasepe Memo is an un-promulgated memorandum addressing a fact specific issue of whether a proposed cooling pond in Polk County, Florida would be a "water of the United States."[17] In contrast, the "cooling pond" exclusion to the "water treatment system" exemption found in 40 C.F.R. §122.2 is a binding regulation promulgated after public notice and comment. As such, the Board must apply the plain meaning of the regulation and give no deference to the Perciasepe Memo. *In re: Lazarus,* 7 E.A.D. 318; *Martin v. Occupational Safety and Health Review Comm.,* 499 U.S. 144, 157 (1991) (informal interpretations are not entitled to deference when compared to regulations promulgated after public notice and comment). In its Response to Comment 12, EPA admits that an agency "[m]emo cannot alter the regulations."[18] However, that is precisely what EPA is attempting to do with the Perciasepe Memo. EPA's arbitrary use of an informal memo to override the plain language of a binding regulation is clearly erroneous. Neither EPA, nor this Board, has the discretion to ignore the plain language of its own regulations or to interpret its regulations contrary to

[17] Exhibit 71, p. 2 (Perciasepe Memo).
[18] Exhibit 4, p. 59, RTC 12.

that plain language.[19] *In Re: District of Columbia Water and Sewer Authority,* 13 E.A.D. 714 *15 (2008).

If EPA wants to include "cooling ponds" within the "waste treatment system" exemption to "waters of the United States," its remedy is to properly promulgate an amended regulation-- not to ignore the plain language of the current regulation. At a minimum, the parties' disagreement regarding the application of the Perciasepe Memo to cooling ponds raises an important policy issue requiring review by the Board.[20]

ii. EPA's finding that Morgan Lake was "designed to meet the requirements of the Clean Water Act" is clearly erroneous.

EPA then argues that Morgan Lake falls within the definition of "waste treatment system" because it was designed to meet the requirements of the Clean Water Act.[21] The evidence in the administrative record proves that Morgan Lake is not a waste treatment system "designed" to meet the requirements of the Clean Water Act.

First, in its 2005 permit application for the 2019 Final Permit, APS admits ***under oath*** that the Morgan Lake "cooling pond" provides ***no treatment.***[22] Second, EPA admits

[19] APS's reliance on *In re Borden, Inc./Colonial Sugars*, 1 E.A.D. 895, 910-11 (EAB 1984) is misplaced. That EAB decision does not involve cooling ponds. Further, the decision undercuts APS's argument by stating, "[t]he exemption was not intended to transform 'waters of the United States' into waste treatment systems without at least the protection afforded by a physical barrier separating the discharge from navigable waters." Morgan Lake does not have a physical barrier. Further, Morgan Lake actually discharges into navigable waters (the San Juan River). APS's reliance on *Northern California River Watch v. City of Healdsburg,* 496 F.3d 993 (9th Cir. 2007) is likewise misplaced because Morgan Lake is "neither a self-contained pond nor is it incorporated in an NPDES permit as part of a treatment system" and thus does not qualify a "waste treatment system" exemption.

[20] Petitioners' search was unable to locate any EAB decision discussing application of the Perciasepe Memo as it relates to cooling ponds and 40 C.F.R. §122.2 ("waste treatment system" exemption).

[21] Exhibit 4, pp. 44-45 (RTC #8).

[22] Exhibit 73, p. 5 of pdf (EPA Form 2C, when asked to describe the "Treatment" (column 3) provided by the "cooling pond" (column 2.a.) APS states **"None"**.

that there is no evidence that Morgan Lake was "designed to meet the requirements of the Clean Water Act." EPA states that it "conducted a review between 2014 and 2017 to ascertain more information regarding how Morgan Lake was constructed and should be addressed under the CWA."[23] EPA then admits, "the only known historical information available" were "maps and aerial photographs of the Morgan Lake site before and during construction."[24] There is no evidence in the administrative record that Morgan Lake was "designed to meet the requirements of the Clean Water Act." Instead, the sworn evidence in the record is that Morgan Lake provides ***no treatment*** and thus was ***not*** designed to meet any treatment requirements of the Clean Water Act.

EPA then relies on a 2006 letter from APS.[25] First, the purpose of the 2006 letter from APS is to determine "whether APS is subject to Phase II of 316(b) of the Clean Water Act", ***not*** whether Morgan Lake falls within "waste treatment system" exemption of 40 C.F.R. §122.2. In fact, neither 40 C.F.R. §122.2 nor the "waste treatment system" exemption were ever mentioned in the 2006 letter. *Id.* EPA's reliance on the statement that "Morgan Lake was designed and constructed to serve as part of the plant's re-circulating cooling water system, providing a reliable supply of cooling water and waste heat treatment" is also misplaced. This statement says that Morgan Lake provides reliable "waste treatment" ***to the Four Corners power plant*** and ***not to the receiving streams***. This is made clear because the purpose of the pond is to "reject waste heat so that it can be re-circulated," and ***not*** so it can be discharged to receiving streams in compliance with water quality standards.[26] In other words, the pond was designed to serve ***the plant*** and not to meet the requirements of the

[23] Exhibit 4, p. 43 (RTC #8).
[24] *Id.*
[25] Exhibit 27 to EPA's Response Brief, AR #1.1.g.
[26] AR #1.1.g at p. 10 of the pdf.

Clean Water Act. The 2006 letter does not contain any analysis of whether Morgan Lake was designed to meet downstream water quality standards for heat, TDS, or any other pollutant. In fact, the administrative record is completely devoid of any evidence that Morgan Lake was "designed to meet the requirements of the Clean Water Act," namely protection of downstream beneficial uses and downstream water quality standards. The reason for this void in the administrative record is obvious—there is no evidence that Morgan Lake was designed to meet the requirements of the Clean Water Act because APS admits that Morgan Lake provides ***no treatment*** designed to protect downstream receiving waters.[27] APS's sworn statement in its 2005 NPDES application ***for this permit*** that the Morgan Lake cooling pond provides ***no treatment*** protecting downstream receiving waters is conclusive when compared to APS's 2006 letter addressing an entirely different regulatory provision and failing to even reference the "waste treatment system" exemption in 40 C.F.R. 122.2.

EPA then argues that Morgan Lake "is properly serving its treatment purposes" because there have been no recent exceedances of temperature limits in No Name Wash." EPA Response p. 21. First, EPA provides no evidence to support this claim and instead simply provides a link to EPA's ECHO website, expecting the Board and Petitioners to do EPA's work. Second this argument ignores that, despite Petitioners repeated requests, EPA has failed to establish water quality standards for temperature or any other parameter in the receiving water No Name Wash. With no water quality standards in the receiving stream, there can be no exceedence of a non-existent standard. Further, as will be discussed more fully below, there is also no factual support for EPA's finding because it has completely

[27]Exhibit 73, p. 5 of pdf (EPA Form 2C, when asked to describe the "Treatment" (column 3) provided by the "cooling pond" (column 2.a.) APS states **"None"**.

failed to conduct a "reasonable potential" analysis of whether the Navajo Nation's 3° Celcius temperature increase limitation is being exceeded in No Name Wash.

iii. EPA's conclusive reliance on its finding that Morgan Lake was purportedly constructed in "uplands" is clearly erroneous.[28]

EPA then argues that Morgan Lake is not a "water of the United States" because it was constructed wholly in "uplands."[29] This new theory is belied by EPA's previous 2005 finding that a "dry wash" containing "valuable ecosystem functions" was "impounded" to create Morgan Lake.[30] This 2005 finding infers that EPA previously found that Morgan Lake was built in hydric soils. EPA's "upland" finding directly contradicts its 2005 finding without any reasoned explanation. The Board should require EPA to submit into the administrative record and evaluate the evidentiary support for its prior 2005 finding that Morgan Lake was constructed in a tributary with valuable ecosystem functions.[31]

The "waste treatment system" exclusion specifically requires an analysis of whether the cooling pond "also meet[s] the criteria of this definition" of "waters of the United States." 40 C.F.R. 122.2 (2011). In other words, cooling ponds that also meet the criteria as a "water of the United States" are not included in the "waste treatment system" exemption. As such, EPA's assertion that Morgan Lake was constructed "wholly in uplands" is not conclusive

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[28] Exhibit 4, pp. 41-43 (Comment 7, RTC # 8).

[29] Neither the Responses nor EPA's RTC provide a definition of "uplands." In other cases, this Board has required evidence of the presence or absence of hydric soil. *In the matter of the Hoffman Group,* 3 E.A.D. 408 *11 (1990). No such evidence has been submitted into the administrative record despite EPA's 2005 tacit acknowledgement of the existence of such soils. See footnote 30 below.

[30] Exhibit 79 hereto (EPA's July 6, 2005 letter to APS, Exhibit 51 to Petitioners' 2019 comment letter); Exhibit 4, p. 43 (Comment #8; RTC #8).

[31] EPA's new invocation of the "uplands" exemption raises an important policy issue which should be reviewed by the EAB because Morgan Lake is hydrologically connected to a water of the United States, was constructed in a tributary with "valuable ecosystem functions", and EPA's finding did not follow an accepted methodology (lack of hydric soil investigation).

because it is not "isolated" and instead has a significant hydrological connection to other "waters of the United States" including No Name Wash, the Chaco River, and the San Juan River and thus "also meet[s] the criteria of this definition" of "waters of the United States." 40 C.F.R. 122.2 (2011). EPA's failure to undertake a jurisdictional determination using the approved methodology renders arbitrary its finding that Morgan Lake was built in "uplands" and does not otherwise meet the criteria of this definition of "waters of the United States."

iv. EPA's finding that Morgan Lake is not a "water of the United States" is clearly erroneous.[32]

The Petition for Review makes clear that Morgan Lake is a water of the United States. Petition, pp. 21-30. EPA's Response attempts to sidestep the issue by arguing that such an inquiry is "irrelevant" relying solely on the position that the lake was built in "uplands." EPA Response p. 28. However, having proved that the "waste treatment system" is inapplicable, an inquiry into whether Morgan Lake is a "water of the United States" is very relevant. A summary of the undisputed evidence shows that EPA's finding is clearly erroneous:

- EPA and APS do not contest that EPA has failed to conduct a proper jurisdictional determination for Morgan Lake.[33] 33 C.F.R. §331.2. EPA has failed to adequately explain why no such jurisdictional determination has been conducted.

- EPA's Response to Comments admits that "[t]he 1983 and 1988 permits, issued by the Region VI office of EPA, permitted discharges from the FCPP into Morgan Lake…"[34]

- EPA's previous NPDES permits for the FCPP also treated Morgan Lake as a "receiving water" and not a "waste treatment system" exempt as a "water of the United States."[35]

[32] Exhibit 4, pp. 31-45, Comments #7D and #8 and RTC #7D and #8.
[33] Exhibit 4, p. 41 (Comment #8 and RTC #8).
[34] Exhibit 65, p. 44 (2018 Response to Comments).
[35] Exhibit 10, p. 1.

- In 2008 EPA issued a final permit for the adjacent Navajo Mine which regulates discharges into Morgan Lake from the Navajo coal mine and imposes effluent limitations based on water quality standards for the Lake.[36]

- APS has previously admitted that Morgan Lake is "a water of the U.S."[37]

- Primary contact recreation is allowed on the lake, including windsurfing, waterskiing, boating, fishing, and other activities which can result in ingestion, inhalation, and direct contact with the waters of Morgan Lake.[38]

- EPA and APS admit that Morgan Lake has a direct surface water hydrologic connection to the San Juan River, No Name Wash, and the Chaco River. EPA's currently effective 2001 Permit states that "Morgan Lake, [is] a tributary to the No Name Wash, a tributary to the Chaco River, and then to Segment 2-401 of the San Juan River basin…"[39]

- There is extensive interstate commerce on Morgan Lake, thus qualifying as a "water of the United States" as defined in 40 C.F.R. 122.2.[40]

- Morgan Lake is a tributary to a water of the United States under 40 C.F.R. §122.2 because it contributes flow to a traditional navigable water, namely the San Juan River.[41]

In summary, Morgan Lake meets all of the criteria for a "water of the United States" and EPA's finding to the contrary is clearly erroneous.

B. EPA's finding that the "discharges do not present a 'reasonable potential' to cause or contribute to an exceedance of water quality standards" for temperature is clearly erroneous.[42]

EPA fails to provide a reasoned analysis or explanation for its' finding that the

[36] Exhibit 18.
[37] Exhibit 40, p. 1.
[38] Exhibit 65, p. 103. EPA previously determined that these uses of the lake do not indicate the presence of "interstate commerce."' In a tacit admission that Morgan Lake is used in interstate comments, EPA now claims that it is "not relevant" whether Morgan Lake is used in interstate commence. Exhibit 4, p. 42. EPA's "irrelevance" argument is contrary to law.
[39] Exhibit 10, p. 1. APS admits that the San Juan River is a "water of the United States." APS Response, p. 38.
[40] See Exhibits 32-39.
[41] Exhibit 3, p. 2 ("Outfall No. 001 discharges from Morgan Lake to the No Name Wash which is a tributary to the Chaco River, which in turn drains to Segment 2-401 of the San Juan River").
[42] Exhibit 4, pp. 49-54 (Comment #10, RTC #10).

discharges from the FCPP do not present a reasonable potential to cause or contribute to an exceedance of water quality standards for ***temperature*** in No Name Wash, Chaco Creek, or the San Juan River.[43] As such, EPA's finding is clearly erroneous.[44]

For this Final Permit, "the permit writer has relied on the Navajo Nation water quality standards for the 'downstream' Chaco River as a reference tool for defining the likely best targets for numeric and narrative goals that should be used in determining impacts to Morgan Lake and the upper No Name Wash."[45] The Navajo Nation has the following water quality standard governing temperature discharges:[46]

> F. **Temperature:** The maximum allowable increases in ambient water temperature, expressed in degrees Celcius, due to a thermal discharge are as follows:
>
> | A&WHbt (warm water) | A&WHbt (cold water) |
> |---|---|
> | 3.0 | 1.0 |
>
> This does not apply to a stormwater discharge.

Assuming conservatively that Chaco Creek is classified as a "warm water" stream,[47] the discharge from Morgan Lake can not increase temperature in Chaco Creek more than 3° Celsius. EPA admits that it is using the Navajo Nation's 3° maximum Celsius water quality standard as the "best target for numeric…goals that should be used in determining impacts to …the upper No Name Wash."[48] EPA goes onto to admit that "[u]sing these standards…is a conclusion by the permit writer that these…water quality standards are a legitimate adjacent

[43] EPA also fails to provide a reasoned explanation for temperature in Chaco Creek.
[44] Petitioners reserve, and do not waive, the other arguments made in its Petition for Review identifying additional deficiencies with EPA's reasonable potential analysis.
[45] Exhibit 4, p. 9 (RTC #4).
[46] Exhibit 30, Section 206 (F); p. 15.
[47] In addition to EPA's failure to establish water quality standards for No Name Wash, EPA has also failed to establish water quality classification and beneficial uses for the watershed.
[48] Exhibit 4, p. 9 (RTC #4).

jurisdictional assessment of scientifically-based measures that would protect the uses in …No Name Wash."[49] In summary, EPA is using the 3° Celsius maximum temperature increase standard to assess whether discharges of heat from Morgan Lake into No Name Wash have a reasonable potential to violate the standard.

The Final Permit is defective because it fails to include any reasoned analysis or explanation for EPA's finding that there is no reasonable potential for the discharges of heat from Morgan Lake Outfall 001 to cause or contribute to an increase greater than 3° Celsius in No Name Wash, the Chaco River, or the San Juan River.[50] To determine whether the discharge of heat from Morgan Lake Outfall 001 has a reasonable potential to cause or contribute to a violation of this 3° Celsius standard, EPA would need to evaluate both background ***ambient*** temperature data for No Name Wash ***without*** the discharge from Outfall 001, as well as ***ambient*** temperature water quality data from No Name Wash ***with*** a discharge.[51] APS discharges an average of four days per week "throughout the course of a year…".[52] Further, water quality data during the winter months would be most relevant because No Name Wash would be at its coldest annual temperature. "Water discharged into Morgan Lake is typically around 40.5ºC (105º F)."[53] The temperature in Morgan Lake ranges "between 32 and 33º C [90-91º F] at the surface with little change with depth" and the data

[49] *Id.* Again, since EPA has failed to identify, establish, or promulgate the "uses" of No Name Wash (or Morgan Lake) any conclusion by EPA that the "uses" are protected by the discharge is arbitrary and capricious.
[50] EPA's failure to conduct a meaningful reasonable potential analysis for temperature also undercuts its argument above that there have been no violations of water quality standards for any parameter resulting from Morgan Lake Outfall 001.
[51] This same analysis would apply to Chaco Creek and the San Juan River.
[52] Exhibit 74 hereto, p. 3 (APS July 1, 2019 comment letter, AR #20.1.b).
[53] Exhibit 17, p. 4.5-38.

for all years collected was similar.[54] The FEIS admits that, "[w]ithout the warm discharge from Morgan Lake, water temperature in San Juan River and Chaco Wash would be reduced."[55]

There is no evidence in the administrative record for the Final Permit that EPA evaluated ***any ambient water quality temperature data*** for No Name Wash—either without a discharge or with a discharge.[56] Instead, EPA states that it only "analyzed the existing data on pollutants from discharge monitoring reports (DMRs)".[57] However, the DMRs only provide information on the temperature of the ***discharge*** from Outfall 001, not the ***ambient temperature*** of ***No Name Wash*** during and without a discharge.[58] EPA's current 2001 NPDES permit for the FCPP does ***not*** require APS to submit ambient water quality data for temperature in No Name Wash.[59] Further, EPA even admits that its "reasonable potential" analysis relies on "***no data for the ambient levels*** of various priority and nonpriority pollutants ***in the receiving waters downstream of the discharge location***."[60]

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[54] Exhibit 17, p. 4.5-37.
[55] Exhibit 17, p. 4.5-68. The same would obviously be true of No Name Wash.
[56] Nor did EPA conduct an analysis for the Chaco River or the San Juan River.
[57] EPA also states, "NNEPA data was obtained…for parameters monitored and was collected from 23 separate sampling locations…in the vicinity of FCPP." Exhibit 4, p. 53 (Response to Comment 10). This data is found at AR #27.b. (data). The data includes a list of sampling stations. However, the Navajo Nation's data did not include any sampling stations in No Name Wash. See, Exhibit 75 hereto, AR #27.b., "Stations" tab, excerpt). Therefore, EPA did not consider ***any*** temperature or water quality data for No Name Wash in reaching its conclusion that there is no reasonable potential for the discharge of heat from Morgan Lake to exceed the Navajo Nation's 3° Celsius water quality standard in No Name Wash. There is also no EPA analysis in the administrative record for the conclusion that there is no reasonable potential for a violation of the Navajo Nation's 3° Celsius water quality standard in Chaco Wash or the San Juan River.
[58] As noted above, the Navajo Nation's 3 degree Celsius standard requires an analysis of the "maximum allowable increases in **ambient water temperature**…due to a thermal discharge" (emphasis added).
[59] Exhibit 10, p. 2.
[60] Exhibit 53, p. 2 (emphasis added).

Further, USGS data for monitoring site #09367938 on the Chaco River was readily available to EPA.[61] This monitoring site had been previously determined by the federal government "to be representative of baseline conditions within the Chaco River" upstream of the Navajo Tribal Coal Lease and Morgan Lake.[62] The temperature data from July 1977-August 1982 shows a range from 1.5-27.5 degrees Celsius (34.7- 81.5 degrees F). Even at the warmest temperature, it is clear that a consistent discharge from Morgan Lake at 91º F has a reasonable potential of exceeding the Navajo Nation's 3° Celsius maximum increase standard allowed by a thermal discharge during virtually all times of the year.

In summary, the Navajo Nation 3° Celsius maximum temperature increase water quality standard requires an evaluation of ambient water quality data for No Name Wash, the Chaco River, and the San Juan River both with and without the discharge of heat from Morgan Lake Outfall 001. EPA admits that it failed to review such ambient water quality data. Further neither the RTC nor the Responses provide a reasoned explanation for EPA's failure to obtain, review, and analyze such temperature data. Without such data, EPA's finding that the discharge of heat from Morgan Lake Outfall 001 does not have a reasonable potential to violate the Navajo Nation 3° Celsius temperature standard in No Name Wash, the Chaco River, and the San Juan River is clearly erroneous.

C. <u>EPA committed clear error in setting BAT limits.</u>

i. The Respondents have still not identified any record evidence showing that EPA—rather than APS—selected a date for complying with the

[61] https://nwis.waterdata.usgs.gov/nwis/qwdata/?site_no=09367938&agency_cd=USGS&inventory_output=0&rdb_inventory_output=file&TZoutput=0&pm_cd_compare=Greater%20than&radio_parm_cds=all_parm_cds&format=html_table&qw_attributes=0&qw_sample_wide=wide&rdb_qw_attributes=0&date_format=YYYY-MM-DD&rdb_compression=file&submitted_form=brief_list

[62] Exhibit 54, p. 77.

bottom ash BAT standards after considering all applicable regulatory factors.

In defending the compliance date for meeting the best available technology economically achievable ("BAT") limits required by 33 U.S.C. § 1311(b)(2)(A) and 40 C.F.R. § 423.13(k)(1)(i), EPA has still failed to identify any place in the record where the agency considered the required regulatory factors and independently determined the appropriate compliance deadline. Tellingly, even in its brief, EPA cannot point to a place in the record containing an independent EPA evaluation of the appropriate compliance deadline. Instead, EPA repeats the unsupported assertion that "EPA considered the information submitted by the Permittee and applied it to the factors in 40 C.F.R. § 423.11(t) and independently determined that the appropriate 'as soon as possible' date is December 31, 2023." EPA Response, p. 32. But this sentence contains no citation to the record.

Similarly, the agency claims that "EPA evaluated the information provided by the Permittee and determined that it is appropriate to sequence the construction in this manner." *Id.* Here, too, EPA fails to cite any place in the record where the agency made this evaluation, much less made an independent determination. Continuing the theme, EPA asserts that "[a]fter evaluating all of the technical information submitted by APS pursuant to the factors in 40 C.F.R. § 423.11(t), EPA determined that December 31, 2023, is the appropriate 'as soon as possible' date." EPA Response, p. 33. Yet again, EPA's naked assertion is unaccompanied by a citation to the record.

It is black-letter law that an agency must do more than make bald assertions to support its decisions. "One of the basic procedural requirements of administrative rulemaking is that an agency must give adequate reasons for its decisions." *Encino Motorcars, LLC v. Navarro*, 136 S. Ct. 2117, 2125, (2016). EPA "must examine the relevant

data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made." *Motor Vehicle Mfrs. Assn. of United States, Inc. v. State Farm Mut. Automobile Ins. Co.*, 463 U.S. 29, 43 (1983). EPA must identify a place in the record in which the agency explained the basis for its decision. Here, EPA's Response Brief consists of nothing more than naked assertions and conclusory statements. This is the hallmark of arbitrary and capricious action. *See, e.g.*, *Pac. Marine Conservation Council, Inc. v. Evans*, 200 F. Supp. 2d 1194, 1199 (N.D. Cal. 2002) ("[A]n agency may not rely on mere conclusory statements to explain its decision.") (citing *Chemical Mfrs. Ass'n. v. EPA*, 28 F.3d 1259, 1266 (D.C. Cir. 1994)).

APS attempts to rescue EPA's decision by claiming that the Response to Comments supports EPA's decision. But the Response to Comments document highlights the fatal flaw in EPA's decision because there is no explanation of how EPA evaluated the evidence and independently determined the compliance date for discharges of bottom ash transport water to satisfy the BAT standards. Indeed, the Response to Comments document concedes that "EPA did not prepare a formal memorandum or detailed explanation in the fact sheet explaining how the criteria in 40 CFR Section 423.11(t) are met." Exhibit 4, RTC at 16. EPA attempts to remedy this omission by making the same conclusory assertion made in its Response Brief: "EPA considered the information and applied it to the factors in the regulation and independently determined that the appropriate 'as soon as possible' date is December 31, 2023." *Id.*

40 C.F.R. § 423.11(t) establishes November 1, 2020 as the default compliance date for BAT for bottom ash transport water:

> unless the permitting authority establishes a later date, after receiving information from the discharger, which reflects a consideration of the following factors:
> (1) Time to expeditiously plan (including to raise capital), design, procure, and install equipment to comply with the requirements of this part.
> (2) Changes being made or planned at the plant in response to:
>
> > (i) New source performance standards for greenhouse gases from new fossil fuel-fired electric generating units, under sections 111, 301, 302, and 307(d)(1)(C) of the Clean Air Act, as amended, 42 U.S.C. 7411, 7601, 7602, 7607(d)(1)(C);
> > (ii) Emission guidelines for greenhouse gases from existing fossil fuel-fired electric generating units, under sections 111, 301, 302, and 307(d) of the Clean Air Act, as amended, 42 U.S.C. 7411, 7601, 7602, 7607(d); or
> >
> > (iii) Regulations that address the disposal of coal combustion residuals as solid waste, under sections 1006(b), 1008(a), 2002(a), 3001, 4004, and 4005(a) of the Solid Waste Disposal Act of 1970, as amended by the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. 6906(b), 6907(a), 6912(a), 6944, and 6945(a).

There is no place in the record showing that EPA has considered whether the December 2023 deadline in the permit reflects a consideration of "[t]ime to expeditiously plan (including to raise capital), design, procure, and install equipment to comply with the requirements of this part," as required by 40 C.F.R. § 423.11(t). Instead, EPA simply regurgitates APS' submittal to EPA and rubberstamps it as compliant with 40 C.F.R. § 423.11(t). This violates the regulation, which requires the permitting authority—not the regulated entity—to determine the compliance date and ensure the date reflects a consideration of relevant factors. 40 C.F.R. § 423.11(t).

In sum, EPA's unsupported and conclusory statements are insufficient to show that EPA independently selected a compliance deadline after evaluating the evidence against each of the factors in 40 C.F.R. § 423.11(t). *Chem. Mfrs. Ass'n v. EPA*, 28 F.3d 1259, 1266 (D.C.

Cir. 1994) (vacating EPA action that was based on "unsupported and conclusory" statements that failed to explain the agency's decision).

ii. EPA has unlawfully failed to set BAT standards for legacy bottom ash transport water.

The final permit violates the CWA by failing to make a determination of what the plant must do to satisfy BAT for legacy wastewater. As explained in the Petition, the 2015 Effluent Limitations Guidelines ("ELG") Rule issued separate BAT standards for legacy and non-legacy wastewater. 80 Fed. Reg. 67,838 (Nov. 3, 2015), codified at 40 C.F.R. § 423.13(k)(1)(i), (ii). In this context, "legacy" wastewater refers to wastewater generated prior to the compliance date selected for the new, more stringent BAT standards. 80 Fed. Reg. at 67,854. For legacy wastewater, EPA established BAT standards "equal to the previously promulgated BPT limitations," *id.*, which are based on the use of surface impoundments and have limits on only total dissolved solids, oil, and grease.

In 2019, the Fifth Circuit Court of Appeals vacated the nationwide BAT standards for legacy wastewater, including the nationwide BAT standards for legacy bottom ash transport water. *Sw. Elec. Power Co. v. EPA*, 920 F.3d 999, 1033 (5th Cir. 2019). The Fifth Circuit found that given the evidence that there are more effective systems available for treating legacy wastewater than surface impoundments, it was arbitrary and capricious for EPA to declare impoundments to be the best available technology. *Id.* at 1019 ("[I]mpoundments are ineffective at removing toxic pollutants from the various wastewater streams because the agency's own rule tells us so, repeatedly, based on over three decades of observation and analysis."). Of relevance here, the Court found that even if EPA did not have the data to set nationwide BAT standards for legacy wastewater, EPA could have "defer[ed] a nationwide effluent guideline and allow[ed] case-by-case determination of BAT by permitting

authorities," but instead "EPA unaccountably defaulted to impoundments—again, which its own rule recognizes as an out-of-date and ineffective pollution control technology." *Id.* at 1021-22.

Here, it is undisputed that EPA did not use its best professional judgment to determine what BAT requires for legacy bottom ash transport water. EPA offers three defenses of this failure to set BAT limits on a case-specific basis for the Four Corners permit, but none of these defenses withstands scrutiny. First, EPA contends that the permit includes best practicable technology ("BPT") limits on the amount of oil and grease in legacy bottom ash transport water. EPA Response, p. 34. But the Clean Water Act requires both BPT and BAT limits. 33 U.S.C. § 1311(b)(1)(A), (b)(2)(A). The fact that the permit includes BPT limits for legacy bottom ash transport water does not excuse the permit's failure to include terms meeting the separate BAT requirements.

Moreover, the Fifth Circuit expressly found that it was unlawful for EPA to set the nationwide BAT limits equal to the BPT limits for legacy wastewater, including legacy bottom ash transport water:

> Far from demonstrating that impoundments are the "best available technology economically achievable" for treating legacy wastewater, the evidence recounted in the final rule shows that impoundments are demonstrably ineffective at doing so and demonstrably inferior to other available technologies. In light of this record, we cannot accept that an outdated, ineffective and inferior technology is BAT when applied to legacy wastewater.

Sw. Elec. Power Co., 920 F.3d at 1019; *see also id*. at 1019-22, 1033. To the extent that EPA is claiming here that it was lawful to use the BPT limits as BAT limits for legacy bottom ash transport water, the Fifth Circuit has already rejected that argument, finding that the BPT limits cannot satisfy the separate BAT requirements for legacy bottom ash transport water, *Sw. Elec. Power Co.*, 920 F.3d at 1019-22, 1033.

Second, EPA contends that it need not make a BPJ determination for this permit and instead can wait until it promulgates nationwide BAT standards for legacy wastewater. EPA Response, p. 34. In support of this proposition, EPA cites only a single case that is more than 30 years old, *Nat. Res. Def. Council, Inc. v. EPA*, 863 F.2d 1420 (9th Cir. 1988). But this case undermines EPA's argument, and in fact shows why it was unlawful for EPA to fail to make a BPJ determination of what BAT requires for legacy bottom ash transport water.

In *Nat. Res. Def. Council, Inc. v. EPA*, various parties challenged a NPDES permit EPA had issued for discharges produced from offshore oil and gas operations in the Gulf of Mexico. Certain groups argued that the BAT limits in this specific NPDES permit were inconsistent with BAT standards that EPA had proposed in a nationwide rule for the entire offshore oil and gas industry. *Nat. Res. Def. Council, Inc.*, 863 F.2d at 1423-24.

Nat. Res. Def. Council, Inc. contradicts EPA's position in this case for two reasons. To begin, in *Nat. Res. Def. Council, Inc.*, EPA had in fact made a BPJ determination of BAT limits, and included those BAT limits in the permit at issue—which is precisely why the Court states that "in issuing permits on a case-by-case basis using its 'Best Professional Judgment,' EPA does not have unlimited discretion in establishing permit effluent limitations," and enumerates the legal requirements for BPJ determinations. *Nat. Res. Def. Council, Inc.*, 863 F.2d at 1425. But here, EPA failed to make a BPJ determination at all for legacy bottom ash transport water.

The Court in *Nat. Res. Def. Council, Inc.* ultimately upheld EPA's BPJ determination, even though it was more lenient than the proposed nationwide BAT standards, because EPA claimed it needed to gather more information as part of the nationwide rulemaking. *Id.* at

1428. However, the Court stressed that this was an "unusual case" and it was "not announcing" a general principle for future cases:

> We are by no means announcing a general willingness to condone failures by the EPA to make estimates of the economic effect of establishing pollution limitations as BAT when these limitations are technologically available. Nor will we generally approve EPA delays in adopting or implementing limitations solely to obtain more economic data. Such devices frustrate congressional intent to stimulate the use of innovative technology to reduce water pollution. We do, however, conclude in this unusual case that there is a justifiable concern on EPA's part to have this permit conform to national standards based upon a broader economic data base. Accordingly, we hold that the EPA was not arbitrary or capricious in declining to make an assessment of the costs of requiring reinjection as BAT on this record.

Nat. Res. Def. Council, Inc., 863 F.2d at 1427–28. Unlike the situation in *Nat. Res. Def. Council, Inc.*, EPA has not even proposed nationwide BAT standards for legacy bottom ash transport water, nor has EPA explained how or why it needs additional information on a nationwide basis. Thus, *Nat. Res. Def. Council, Inc.*, is distinguishable, and that "unusual case" does not support EPA's action here.

Third, EPA argues that even if it were required to make a BPJ determination, it would not necessarily require anything more than what the final permit for Four Corners already requires. EPA Response, pp. 33-34 (citing the RTC at 22, which states that "even if EPA were to conduct a BPJ analysis for discharges of legacy BATW in this Permit, it is likely that analysis would result in limitations equal to those in the final permit."). But the case EPA cites, *Nat. Res. Def. Council, Inc.*, holds that in making a site-specific determination of BAT, EPA must consider the same statutory factors in 33 U.S.C. § 1314(b)(2)(B) that EPA must consider when determining BAT on a nationwide basis. *Nat. Res. Def. Council, Inc.*, 863 F.2d at 1425 ("[C]ourts reviewing permits issued on a BPJ basis hold EPA to the same factors that must be considered in establishing the national effluent limitations.").

Here, there is no place in the record in which EPA considers the five factors that the CWA requires EPA to consider when setting BAT limits. *See* 33 U.S.C. § 1314(b)(2)(B) ("Factors relating to the assessment of best available technology shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate.").

Instead of complying with the CWA and considering the mandatory BAT factors in 33 U.S.C. § 1314(b)(2)(B), EPA simply hazards a guess about what it *likely* would have done if it had actually followed the law. Exhibit 4, RTC at 22. This half-baked speculation about what EPA would *likely* do if it followed the law does not excuse EPA from following the law and considering the mandatory BAT factors in 33 U.S.C. § 1314(b)(2)(B) on a site-specific basis.

APS makes the meritless argument that after the Fifth Circuit vacated EPA's nationwide BAT determination for legacy wastewater in *Sw. Elec. Power Co. v. EPA*, 920 F.3d 999 (5th Cir. 2019), EPA's 1982 determination that there was not enough information to set BAT standards for bottom ash transport water was automatically reinstated. APS Response, pp. 31-32. This argument borders on the absurd.

In the 2015 ELG Rule, EPA revoked its 1982 determination that there was insufficient information to set BAT standards for bottom ash transport water:

> The steam electric ELGs that EPA promulgated and revised in 1974, 1977, and 1982 are out of date. They do not adequately control the pollutants (toxic metals and other) discharged by this industry, nor do they reflect relevant process and technology advances that have occurred in the last 30-plus years.

80 Fed. Reg. at 67,840. In the 2015 ELG Rule, EPA concluded that there are many technologies available for treating bottom ash transport water that are more effective than surface impoundments, and EPA based the BAT standards for non-legacy bottom ash transport water on various technologies capable of achieving zero discharge. *See* 40 C.F.R. § 423.13(k)(1)(i) (setting a zero-discharge BAT limit for non-legacy bottom ash transport water).

APS does not point to any place in *Sw. Elec. Power Co. v. EPA* in which the Fifth Circuit invalidated EPA's 2015 finding that more stringent regulation of bottom ash transport water is appropriate—because no such holding exists. Moreover, the Fifth Circuit vacated the BAT standards for legacy bottom ash transport water precisely because the rulemaking record showed that impoundments are not the best available technology for treating legacy bottom ash transport water, and EPA could have allowed permit writers to set BAT standards for such wastewater on a site-specific basis:

> Instead of deferring a nationwide effluent guideline and allowing case-by-case determination of BAT by permitting authorities, EPA unaccountably defaulted to impoundments—again, which its own rule recognizes as an out-of-date and ineffective pollution control technology. This is further indication that the rule respecting legacy wastewater is arbitrary and capricious.

Sw. Elec. Power Co., 920 F.3d at 1021–22. The Fifth Circuit's holding that EPA acted unlawfully by not allowing permit writers to set site-specific BAT standards for legacy bottom ash transport water cannot possibly be used to justify a permit writer failing to set site-specific BAT standards for legacy bottom ash transport water, as is the case here.

Finally, APS argues that it would be impossible to construct any system for treating the legacy bottom ash transport water. APS Response, p. 33. As a factual matter, this is

simply untrue, as noted in the expert report of Dr. Ron Sahu.[63] As a legal matter, this argument cannot be considered by the Board because it was not a basis for EPA's decision and EPA's action can be upheld only on the basis of explanations EPA provided in the administrative record.

D. EPA's finding that the FCPP currently operates a "closed-cycle" cooling system is clearly erroneous.[64]

APS submitted its renewal permit application for the Final Permit in 2005.[65] APS's own renewal application ***for this renewal permit*** repeatedly admits that FCPP operates a "once through cooling system."[66] APS's 2005 renewal permit application was submitted by the FCPP Plant Manager and was sworn "under penalty of law" to be "true, accurate, and complete."[67] EPA and APS have also acknowledged for years that the FCPP utilizes a "once through cooling system."[68]

Instead of conducting any independent scientific inquiry, EPA relies solely on the conclusory and self-serving comments by APS that "[a]pproximately 99% of the water that is pumped from the San Juan River to Morgan Lake is used for cooling purposes and is reused multiple times." EPA Response at p. 42; APS Response at p. 38. There is little explanation for how the 99% figure was calculated or how it was determined that water "is reused

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[63] See Exhibit 76, p. 2, ftn 3 hereto. Exhibit 76 hereto was Exhibit 14 to Petitioners' July 1, 2019 comment letter to EPA's draft permit. EPA's administrative record for this proceeding is deficient because EPA has failed to include the 77 exhibits to Petitioners' July 1, 2019 comment letter. By email dated 1/10/2020, EPA agreed to correct the administrative record by adding these 77 exhibits. *See,* Exhibit 77 hereto.
[64] Exhibit 4, pp. 56-60, Comment #12 and Response to Comment #12.
[65] Exhibit 73.
[66] Exhibit 73, pp. 5, 10, 51, 56, 91, 92, 93, & 94.
[67] *Id.* at p. 10.
[68] Exhibit 20, pp. 2-4; Exhibit 42, pp. 2-3. Exhibit 10, pp. 2-3. Since EPA has arbitrarily taken conflicting positions without a reasoned explanation, its new position is not entitled to deference. *In Re: Lazarus,* 7 E.A.D. 318, *22 (1997); *Smiley*, 116 S.Ct. at 1734.

multiple times." Instead, EPA and APS simply refer to Attachment D of the Final Permit and APS's comments on the draft permit (AR # 20.1.b. at 9-11; AR # 26.d. at 46-48 as cited in EPA's Response at p. 43), neither of which provides evidentiary support.

Further, evidence in the administrative record proves that FCPP does not operate a "closed" cooling system. The average diverted flow rate from the San Juan River is reported to be 14.3 MGD. This is the equivalent of 22 cubic feet per second (cfs), or 43 acre-feet (AF) per day. The annual volume diverted would equate to 15,739 AF/year of consumptive water use. Morgan Lake has a surface area of 1200 acres. The volume of 15,739 AF/yr is the equivalent of a water depth of 13.1 ft over 1200 acres.

There is no evidence in the record that evaporation from Morgan Lake accounts for the equivalent of 13 feet of water loss each year from the lake.[69] In fact, the administrative record completely fails to quantify the amount of water lost to the system by evaporation, blowdown, drift, and other incidental process losses. Only 20-30% of the total diverted water is likely to be accounted for by evaporative losses at the Four Corners facility. The majority of total diverted water must be lost to causes other than evaporation.

In 2018 APS represented the following:

"APS measures and monitors 100 percent of water discharge volumes by destination."
"APS measures and monitors 100 percent of our water discharge volumes by treatment method…This information is provided to management in monthly progress and metric target reports. This information is also reported on annual basis to the appropriate agencies for compliance purposes. APS treatment methods are identified in procedures at each power plant in order to optimize and encourage recycling when possible. Discharge volume, water quality, discharge locations, and impacts to the watershed are accurately recorded."[70]

[69] By means of example, Elephant Butte Reservoir near Truth or Consequences New Mexico has an estimated annual evaporation rate of 3.6 ft/year, not 13 feet/year. Eichinger, W.E., et. al. 2003. Lake Evaporation Estimation in Arid Environments. IIHR Hydroscience and Engineering/U.S. Bureau of Reclamation. Report 430. p. 21, which can be found at: https://www.iihr.uiowa.edu/wp-content/uploads/2013/06/IIHR430.pdf.
[70] Exhibit 66, p. 5 of pdf.

This information is not in the administrative record and does not appear to have been evaluated by EPA. Flow information, if it exists, should be made available and reviewed to verify the Four Corners facility water balance and to insure it meets the criteria of a "closed" system. Neither flow measurements nor facility-wide water balance calculations have been presented in sufficient detail by APS or EPA to demonstrate that the facility is a "closed" system. Further, the above statement is directly contradicted by APS's representation to EPA that there is a "lack of water flow meters throughout the system of water use at FCPP" and that its' "water balance calculations are not precise…"[71] Despite these inconsistent statements and lack of data, EPA adopts APS's representations without any independent scientific verification.

Instead, the facts in the administrative record suggests that the water balance for the Four Corners facility loses the majority of the diverted water to destinations other than blowdown, drift, and evaporation. This indicates the Four Corners facility is not a "closed" system, either in a hydrologic or statutory sense. Leakage from Morgan Lake and the surface water discharges from Morgan Lake are likely to account for much of the discrepancy. APS and EPA have not provided sufficient information on the source, transport, and fate of diverted process water to demonstrate that Four Corners is a "closed" system. In fact, the existing information suggests exactly the opposite, that the majority of diverted water is lost from the system each year.

EPA may not simply rely on self-serving statements from the applicant to support its findings. Instead, EPA must disclose the data, scientific methodology, and analysis in its draft permit fact sheet for public scrutiny. 40 C.F.R. §124.8(a); *In Re: Energy Answers*

[71] Exhibit 78 hereto, p. 6 of pdf (AR#21.a.).

Arecibo, LLC, 16 E.A.D. 294, *35 (2014). "[I]t is the underlying data, assumptions, methodology and analyses that actually provide verification, corroboration, and substantiation" to a conclusion). *In Re: Elementis Chromium, Inc.,* 16 E.A.D. 649, *26 (2015). Here, EPA failed to provide the requisite data, methodology, and analysis supporting its finding that FCPP uses a "closed" cooling system.

EPA's administrative record also fails to prove the following elements of 40 C.F.R. §125.92(c):

i) failure to prove the system is designed and properly operated using minimized make-up and blowdown flows withdrawn from a water of the United States;

ii) failure to prove that make-up water withdrawals attributed specifically to the cooling portion of the cooling system have been minimized. The term "minimize" means "to reduce to the smallest amount, extent, or degree reasonably possible." 40 C.F.R. §125.92(r);

iii) reduces actual intake flows (AIF) by 97.5 percent as compared to a once-through cooling system. . .[72] Nowhere in the administrative record does EPA calculate the "actual intake flow"[73] and compare it to a once-through cooling system.

III. CONCLUSION

For the reasons discussed herein, we ask the Board to find that EPA committed clear error in issuing the Final Permit.

STATEMENT OF COMPLIANCE WITH WORD LIMITATION

This single consolidated Reply Brief addresses three briefs: 1) EPA's 50-page Response Brief, 2) APS's 43-page Response Brief; and, 3) NTEC's 8-page Amicus Brief.[74] These three briefs total over 100 pages in length. This single consolidated Reply Brief complies with the page length limitations found in 40 C.F.R. §124.19(d)(3) which imposes a 15-page limits for "***replies***" [plurar](emphasis added). Thus, EAB's rules clearly contemplate

[72] EPA Response Brief, ftn. 18, pp. 42-43.
[73] The definition of which is found at 40 C.F.R. §125.92(a).
[74] The EAB rules do not specifically identify a page limitation for a reply to an amicus brief.

that petitioners may file a separate 15-page reply to each response brief. In this case, Petitioners' single consolidated Reply Brief complies with the rule because there are three separate briefs being addressed and the length of the Reply Brief (26.5 pages after deducting the pages allowed to be excluded in 40 C.F.R. §124.19(d)(3)) is less than the 30-page limit for replying to two response briefs (15 pages x 2 = 30 pages). Petitioners' Reply Brief does not add any additional pages for replying to the Amicus Brief. Further, 40 C.F.R. §124.19(d)(3) contemplates that the reply briefs should be 50% of the page length of response briefs (30 page limits for response briefs and 15 page limit for reply briefs). Petitioners' single consolidated Reply Brief is approximately 25% of the total page length of the Response and Amicus Briefs. As such, Petitioners single consolidated Reply Brief complies with the page limitations found in 40 C.F.R. §124.19(d)(3) and Petitioners are not required to file a motion for leave to exceed the page limitations found therein.

1/13/2020

Respectfully submitted,

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SUPPLEMENTAL TABLE OF EXHIBITS

EXHIBIT #	DOCUMENT
74	AR#20.1.b APS 7/1/19 email.
75	AR#27.b. Navajo Nation surface water data, stations tab.
76*	Sahu Report, Exhibit 14 to Petitioners' 7/1/19 comment letter (by email in Exhibit 77 hereto, EPA will be correcting the

	administrative record to include this Exhibit).
77	EPA email committing to correct the administrative record by adding 77 missing exhibits from Petitioners' 7/1/19 comment letter.
78	AR #21.a APS 4/4/19 email to EPA.
79*	EPA's July 6, 2005 letter to APS, Exhibit 51 to Petitioners' 2019 comment letter (by email in Exhibit 77 hereto, EPA will be correcting the administrative record to include this Exhibit).

*Petitioners are unable to provide an administrative record citation in this Reply Brief for documents EPA failed to include in the administrative record. See Exhibit 77 hereto. At the Board's request, Petitioners would be happy to provide an Amended Reply Brief containing all administrative record citations after EPA corrects the record.

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Petitioners' Reply to EPA and APS Response Briefs and to NTEC Amicus Brief and Exhibits in the matter of In Re: Four Corners Power Plant NPDES Permit No. NN0000019 NPDES Appeal No. 19-06 were served, by the method indicated, on the following persons this 13th day of January 2020:

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