



Alcoa USA Corp.
 Energy Division
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June 21, 2021

Via email and USPS Mail

Mr. Gary Westbrook, General Manager
 Post Oak Savannah Groundwater Conservation District
 P. O. Box 92
 Milano, Texas 76556

RE: Alcoa USA Corp.
 Application to Amend Alcoa’s Existing 25,000 af/yr Simsboro Drilling and Operating Permit No. 0148; and associated Application for Transport Permit

Dear Mr. Westbrook:

As agreed in our discussions and other communications on June 18 and June 8, 2021, set forth below are Alcoa’s responses to comments by Steve Young and Barbara Boulware-Wells relating to administrative completeness of Alcoa’s two pending applications.

It is my understanding that, by Alcoa providing these written responses to you, you will now declare Alcoa’s two applications administratively complete and process them accordingly.

Alcoa’s Responses to Steve Young’s Comments

Alcoa’s response (in italics) to each part of Steve Young’s draft letter to you dated June 5, 2021 immediately follows the verbatim recitation of that part set forth below. Alcoa’s responses are in accordance with the clarifications by all participants discussed among you, Steve Young, and Alcoa representatives on June 8, 2021. I previously provided these responses to you by email dated June 10, 2021.

Steve Young Comments #1	<p><u>Deficiency 1. Lack of Proper Documentation of Well Screen Information.</u> INTERA included the assumptions and deliverables required to be included in Alcoa’s application for permits in Table 1 of their February 18, 2020 memo to POSGCD. On page 42 of the PDF copy of Alcoa’s permit application includes INTERA’s Table 1 which lists required deliverables. Reproduced below is the part of INTERA’s Table 1 that lists Deliverable D-1 and D-2.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2" style="text-align: center;">List of Deliverables for Groundwater Model Runs</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">D-1</td> <td>A table that contains the following information for the 32 historical wells: (1) latitude; (2) longitude; (3) current ground elevation; (4) depth of top of well screen below current ground elevation; and (5) depth of bottom of screen below current ground elevation. Similar information for the 24 approved wells to be drilled.</td> </tr> <tr> <td style="text-align: center;">D-2</td> <td>Documentation, as available, that the well screen information in Item D-1 is valid for the historical wells (e.g. driller report, geophysical log, and/or well setting report).</td> </tr> </tbody> </table>	List of Deliverables for Groundwater Model Runs		D-1	A table that contains the following information for the 32 historical wells: (1) latitude; (2) longitude; (3) current ground elevation; (4) depth of top of well screen below current ground elevation; and (5) depth of bottom of screen below current ground elevation. Similar information for the 24 approved wells to be drilled.	D-2	Documentation, as available, that the well screen information in Item D-1 is valid for the historical wells (e.g. driller report, geophysical log, and/or well setting report).
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D-2	Documentation, as available, that the well screen information in Item D-1 is valid for the historical wells (e.g. driller report, geophysical log, and/or well setting report).						
<p>In Alcoa’s application, Table 1-2 “Construction Summary for Operating Permit Wells” (on PDF pages 28 & 29) provides the ground level, top of screen, and bottom of screen data. However, INTERA cannot locate the documentation that validates the tabulated values. Of most importance is the documentation for the screen information. Our review of the Appendix A “Existing Operating Permit Wells Construction Documentation” (page 80 to 294) does not contain the documentation to validate the tabulated screen intervals for following 11 wells: AT-1/AX(10)5, DP-S-A-3, DP-S-A-4, DP-S-A-5, DP-S-A-6, DP-S-A-7, F15 Sims, F2 Sims, F4 Sims, F9 Sims, and P-5.</p>							

	<p>Pending a submission of an administratively complete permit application, INTERA will use the screen data in conjunction of other relevant information to determine which aquifers the wells intersect based on the aquifer boundaries used by POSGCD to assign wells to aquifers.</p>
<p>Alcoa Response</p>	<p><i>The draft attachment raises the fundamental issue of whether any “documentation to validate the tabulated screen intervals” for the 32 existing wells is needed in order for the applications to be administratively complete and, if so, whether the documentation submitted by Alcoa is sufficient. As we discussed in our telephone call, Alcoa believes no documentation is needed for administrative completeness because all 32 wells are currently permitted wells. In other words, the wells are authorized as they exist and any request by the District for documentation or investigation of the wells should be separate and apart from the issue of administrative completeness of these applications. Additionally, the following paragraph included in the amendment application under Alcoa’s response to Rule 7.4.k makes it clear that all downhole aspects of the 32 existing wells will be investigated at the appropriate time in the future:</i></p> <p style="padding-left: 40px;"><i>Each of the 32 existing wells will undergo investigation and well testing prior to being used for municipal use. These investigations may include pulling pumping equipment for inspection and TV survey to inspect the condition of the well. Additional work may also be conducted including well cleaning and rehabilitation, and other work required to obtain approval from TCEQ for municipal use of the well. Results of all work conducted and copies of TCEQ submittals will be provided to POSGCD.</i></p> <p><i>Nevertheless, in response to the District’s request, Alcoa did submit as part of the application existing construction records for existing wells. As we discussed, Alcoa believes the documentation submitted is sufficient to validate the tabulated screen intervals.</i></p> <p><i>Finally, in our conversation I also agreed, out of an abundance of caution for both Alcoa and the District, that Alcoa would do a TV survey of the 11 existing wells specifically noted by Steve Young within a reasonable time, so long as this agreement does not result in any delay in the District’s processing of or action on our applications. Alcoa’s goal for completion of the TV surveys was 45 days.</i></p>
<p>Steve Young Comments #2</p>	<p><u>Deficiency 2. Improper Assumption Regarding the Historical Permit for 15,000 AFY.</u> The modeling scenarios provided in the permit have incorrectly assumed that Alcoa will be able to produce 40,000 after 2038. As stated in the aforementioned INTERA memo, the historical permit for 15,000 AFY ends in 2038. Consequently, the correct production amount after 2038 is 25,000 AFY unless Alcoa obtains an additional 15,000 AFY production permit in the Simsboro after the historical permits for 15,000 terminates in 2038.</p>
<p>Alcoa Response</p>	<p><i>The draft attachment raises the question of whether it was appropriate for Alcoa to run the hydrologic modeling assuming Alcoa’s pumping through the 50-year modeling period (through 2070) will be the total amount that Alcoa is currently authorized to produce under its two permits (40,000 af/yr). The question focused on the fact that the current term of Alcoa’s 15,000 af/yr historic use permit runs through the end of 2038, yet Alcoa did not explicitly say in the application that it intends to apply for a renewal of that permit.</i></p> <p><i>As we discussed in our telephone call, Alcoa definitely intends to request at some point in the future that the 15,000 af/yr production currently authorized under the Historic Use Permit continue in some form beyond 2038 (just as all current permit holders intend that their production authorizations will continue past the end-of-term dates in their permits, and just as Alcoa assumed in the modeling that its 25,000 af/yr production authorization would continue beyond the requested end-of-term of 2061). This is a modeling assumption, not anything else, and if for no other reason it is reasonable because Alcoa owns nearly 25,000 acres in Milam County. In fact, as you know Alcoa intends to apply for additional production authorization</i></p>

	<i>beyond the currently authorized 40,000 af/yr at some point in the future.</i>
Steve Young Comments #3	<p><u>Deficiency 3. Incomplete Information Regarding Description of Flow Measurements.</u> The description of how metering would be performed to account for flow from the 32-dual use wells is incomplete. The additional information that is needed to complete the description are figures showing the location of all flow meters that will be used to measure production in each well and to measure flow for each permit. With regard to the metering, INTERA recommends that production is metered for each well, for the historical permit, and for the operating permit.</p> <p>Alcoa is proposing to not meter all production but rather meter only some production and then use algebra to calculate the production that is not metered.</p>
Alcoa Response	<p><i>The draft attachment suggests that the description in the amendment application of how metering would be performed to account for flow from the 32 dual-use wells is incomplete because there are no figures and because Alcoa is proposing not to meter production from each well or flow under each permit. To the contrary, as we discussed, the detailed description included as part of the amendment application is clear that Alcoa does and will continue to meter the production from each producing well, and it is proposing to meter the flow under each permit. Figures are not needed for metering production because the written description in Alcoa's application explains that all production from each well will be metered by at least one meter for that well, and in some cases two. At the point where each production meter for a well is located, there is either no upstream take-off point for flow from that well (which means that only that one production meter is needed for that well), or there may be one upstream take-off point but the flow of that upstream take-off point is also metered (which means there will be two production meters for that well). Likewise, figures are not needed for metering flow under each permit because the description explains that all water used for industrial use within the boundaries of Alcoa's Milam County property will be metered and reported under the Historic Use Permit; all water used for municipal use, or for industrial use outside Alcoa's Milam County property, will be metered and reported under the amended Operating Permit; and the portion of the water produced under the amended Operating Permit that is transported for use outside the District will also be metered and reported under the Transport Permit. For each of those amounts, the amount may be determined by the addition of two or more metered amounts, or the subtraction of metered amounts from other metered amounts; the math involved is basic addition and subtraction, all amounts used are quantified by metering and there is no estimation, and Alcoa therefore considers the resulting amounts to be metered.</i></p>

Alcoa's Responses to Barbara Boulware-Well's Comments

Alcoa's primary response (in italics) to each excerpt of Barbara Boulware-Wells' letter to you dated June 15, 2021 immediately follows the verbatim recitation of that excerpt set forth below; however, to the extent the comments contained within an excerpt touch on issues that are addressed by Alcoa in responses to other Barbara Boulware-Wells' comments or in response to Steve Young's comments, those other responses by Alcoa should also be considered to be responses to the comments contained within the excerpt. Alcoa's responses to Barbara Boulware-Wells' comments are in accordance with the clarifications by all participants that were discussed among you, Barbara Boulware-Wells, Michael Irlbeck with EPCOR, and Alcoa Representatives on June 18, 2021.

Barbara Boulware- Wells	<p>1. <u>Amendment - Application to Amend Alcoa's Existing 25,000 af/yr Simsboro Operating Permit No. POS-D&O-0148.</u> From General Counsel's perspective, this Application is NOT administratively complete.</p>
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<p>Comments #1</p>	<p>a. Pursuant to Rule 7.4(c), Applicant fails to both note each use desired and explain the amount of groundwater to be used for each purpose. Applicant appears to have some additional uses in mind that are not clearly stated in the Application.</p> <p style="text-align: center;">***</p> <p>e. Section 3, Water Conservation. There is reference in the second paragraph to industrial use "including both commercial and manufacturing." While the District's rules certainly set out in the definitions for "Beneficial use" that it means the use of groundwater for: "1. agricultural, gardening, domestic (including lawn watering), stock raising, municipal, mining, manufacturing, industrial, commercial, or recreational purposes, and uses listed as having priority of use in Section 11.024, Texas Water Code." However, nowhere else in the actual Application does it state that you desire the Amendment to be for industrial AND municipal, commercial and manufacturing. Applicant should clearly let the District know what uses are intended or anticipated under this Application, as well as the anticipated amounts for each use and specifically and definitively where the groundwater will be used.</p>
<p>Alcoa Response</p>	<p><i>As discussed, Alcoa requests authorization to use the water for four named purposes of use: municipal, industrial, manufacturing, and commercial. In all or most cases that are currently anticipated, it is likely to be appropriate to consider the commitment or use of treated water to be municipal use even if the use also could fall under one or more other named purposes, but having the explicit authorization to use the water for all four named purposes of use is the most conservative approach and provides the most flexibility.</i></p> <p><i>With respect to amounts, it is impossible to know with certainty at this point how much water will be committed for use by purpose or purposes of use in each year, or actually used by purpose of use in each year. It is also impossible to know with certainty at this point the exact location of use, other than saying use will be within Milam, Williamson, Lee, Travis and Bell Counties. As water reservation or supply contracts are entered into, the total amount of water committed per year, the amounts committed by purpose or purposes of use, and the delivery points and areas of use, will become known and continually be adjusted. A copy of each contract with municipalities, other water utilities, end users, etc. will be provided to the District as they are entered into, subject to maintaining confidentiality as required.</i></p>
<p>Barbara Boulware Wells Comments #2</p>	<p>1. <u>Amendment - Application to Amend Alcoa's Existing 25,000 af/yr Simsboro Operating Permit No. POS-D&O-0148.</u> From General Counsel's perspective, this Application is NOT administratively complete.</p> <p style="text-align: center;">***</p> <p>b. While a Letter of Intent ("LOI") is provided, General Counsel does not believe that such LOI provides the details necessary to ascertain with specificity the different uses and amounts provided to each.</p> <p>c. As you have noted, the LOI is with EPCOR. The District's present understanding is that EPCOR is not the end user of the water, but merely a pipeline operator; please explain how the LOI provides clarity as to the end use of the water: Are they a local water utility, a special utility district, or any other entity included in the definition of "retail public utility" under Section 13.002, Texas Water Code.</p> <p>d. On page 3 of the Execution Draft of the LOI, the LOI addresses Phase 1, which will include initially 11,200 AFY of the groundwater from the 130 Project.... Phase 2 would include an additional supply of up to 33,600 AFY from Sandow Lakes Ranch groundwater delivered by a new pipeline project. Phase 1 does not appear to be applicable to this application as there is no direct link that shows that water from the Sandow Lakes Ranch will be part of the Phase 1 and in what amounts, if any. There is discussion about interconnection between the 130 Project and the</p>

	<p>new pipeline project for Phase 2, there is no definitive discussion about how such use of either municipal or industrial will be ensured, nor approximations of amounts intended to be used by each.</p>
<p>Alcoa Response</p>	<p><i>As explained by Michael Irlbeck, EPCOR is much more than a pipeline operator; it is a wholesale water provider that supplies finished water to municipalities, other water utilities, end users, etc. Pursuant to contracts, EPCOR typically acquires the right to produce groundwater and ownership of the water once the water enters the well screen. The facilities that will be used to treat, transport, and deliver the water that is the subject of Alcoa's applications are not yet defined with certainty and there is much information known by EPCOR that must be kept strictly confidential at this point, but the information provided in the LOI and Alcoa's applications is by far more comprehensive and detailed than any previous application to the District involving transport of a significant amount of water for use outside the District. The phased project described in the LOI that involves the 130 Project is generally EPCOR's and Alcoa's current vision of the project to treat, transport, and deliver the water; the final project may be different.</i></p>
<p>Barbara Boulware-Wells Comments #3</p>	<p>1. <u>Amendment - Application to Amend Alcoa's Existing 25,000 af/yr Simsboro Operating Permit No. POS-D&O-0148.</u> From General Counsel's perspective, this Application is NOT administratively complete.</p> <p style="text-align: center;">***</p> <p>f. The Application should not in any way act as though these are amendments to the Historic Use Permit No. 0330.</p> <ol style="list-style-type: none"> 1. Throughout the Application for Operating Permit Amendment there are numerous references to the Historic Use Permit and/or the 61 existing wells, of which 32 were became a part of Operating Permit No. 0148. 2. Clarity is imperative to ensure a clear understanding that the Historic Use Permit No. 0330, which has a defined term that ends in December 2038, is not impacted and NOT EXTENDED. 3. Further, it is necessary to understand that any dually permitted wells shall become singly permitted wells continuing to operate under Operating Permit No. 0148 after the term of the Historic Use Permit ends. 4. Page 1 of 9 of the Summary begins this mixing of permits and terms and even states that as part of the permit amendment, Alcoa is requesting the term of the "permit be extended to a date 40 years from the date of issuance of the amendment." The Operating Permit currently has a term that ends November 13, 2052. 5. Finally, clarification of the water from these dually permitted wells needs to be separated because the historic use permit allows only use on the property and only for industrial use.
<p>Alcoa Response</p>	<p><i>As discussed, Alcoa is not seeking any modification to its Historic Use Permit by these applications.</i></p>
<p>Barbara Boulware-Wells Comments #4</p>	<p>2. <u>Application (Transport Permit for 25,000 af/yr produced from the Simsboro Formation.</u> From General Counsel's perspective, this Application is NOT administratively complete.</p> <ol style="list-style-type: none"> a. Rule 8.2(d) and (e) requires that the application needs to be fleshed out with more details relating to how and where the water will be transported, as well as the nature and purposes of the proposed use and the anticipated amount of groundwater to be used for each purpose - Applicant's Section IV, Plans, as well as the Summary of the Transport Permit Application and Responses, as well as the Section 3, Water Conservation information does not give pertinent and logistical details but speaks in very generalized terms about the current Project 130 (which does not appear to

Mr. Gary Westbrook, General Manager
Post Oak Savannah Groundwater Conservation District
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	include water from the Sandow Lakes Ranch together with a Phase 2 - another pipeline route that is being evaluated and will provide supply and redundancy. Due to the lack of detail on where the water is going, Applicant finds it virtually impossible to give such detail - it may be within District and it may be outside the District. In fact, Section IV states the Applicant may not know anything for transportation for 1-4 years.
Alcoa Response	<i>As discussed, Alcoa seeks authorization to transport 25,000 af/yr for use outside the District within Williamson County and three counties that are adjacent to Williamson County: Lee, Travis and Bell Counties. Less than 25,000 af/yr will be transported for use outside the District if a portion of the 25,000 af/yr is committed for use and actually used in Milam County. However, Alcoa intends to keep the full 25,000 af/yr transport authorization in place to provide flexibility to, among other things, over time provide alternative supplies for any commitment made for use of a portion of the 25,000 af/yr within Milam County.</i>

Please call me at (512) 430-0669 if you have any questions or need any additional clarifications from Alcoa.

Respectfully,



Tommy E. Hodges, P.E.
Authorized Representative,
Alcoa USA Corp.

Attachment

cc: Steve Young
Barbara Boulware
Michael Irlbeck
Alan Gardenhire
Bob Harden
Roger Nevola