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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

February 27, 2012

Mr. Thomas Funderburg
President
Post Oak Clean Green, Inc.
P.O. Box 1270
Seguin, TX 78155

Re: Post Oak Municipal Solid Waste Landfill – Guadalupe County
Municipal Solid Waste (MSW) – Permit Application No. 2378
Permit Modification – First Notice of Deficiency (NOD)
Tracking No. 15134774; CN604018655/RN106314990

Dear Mr. Funderburg:

The MSW Permits Section Team has completed the administrative and technical review of the land use compatibility portions (Parts I and II) of your Post Oak Municipal Solid Waste Landfill MSW Permit Application No. 2378. The referenced application was prepared by James Blackwell, P.E. with Blackwell Environmental, LLC, on behalf of Post Oak Clean Green, Inc. In order for us to proceed with further review, please address and submit a response to the following comments. Comments are mine except comments 58 through 68 which are provided by David Dippel, P.G.

Part I

- 1) Part I of the application indicates that the permit applicant is Post Oak Clean Green, Inc. and that the land owner (and owner of all property within 1/4 mile of the permit boundary) is K-4 Ranches. You have signed on behalf of the applicant as President of Post Oak Clean Green, Inc., and as property owner. Please explain your relationship to K-4 Ranches and how you are authorized to sign on behalf of K-4 Ranches.
- 2) The Part I form must include the maps listed in Part C, beginning on page 5. References to these maps are allowed, but in response to a requirement for a map illustrating the general character of the areas adjacent to the facility, you have indicated "The surrounding area is predominantly undeveloped agricultural use, native rangeland." Presumably this should indicate "rangeland" but regardless this is not adequate. Please provide a reference to the figure that provides the required information.
- 3) This application has been assigned MSW Permit Application No. 2378. Please update all title pages, and elsewhere as appropriate, with this number.
- 4) Please provide the nature of the applicant's business in accordance with 30 Texas Administrative Code (30 TAC) Section (§)305.45(a)(4).
- 5) As required by §305.45(a)(5), please identify all activities performed by the applicant that require a permit.
- 6) In accordance with §305.45(a)(6), please illustrate the proposed facility, including intake and discharge structures and other associated structures, on a new or existing figure.

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- 7) Please include all known springs on Figure 1 in Part I, Appendix 1. If all known springs are illustrated, please provide a note to this effect.
- 8) As required by §305.45(a)(6)(B), the application should include a figure that illustrates the character of adjacent land and development within one mile of the permit boundary as residential, commercial, agricultural, recreational, undeveloped, oil and gas exploration, etc. This is typically provided with hatching defined in a legend with a percentage breakdown for each land use (e.g., 85% undeveloped, 10 residential and 5% industrial). This figure should be referenced in the Part I form, as noted above. The figure should include significant features identified in the application, such as those provided in accordance with §330.61(c)(2) through (12). While Figure 1 in Part II, Appendix 4 addresses some of these requirements, it does not illustrate the character of adjacent land within one mile of the permit boundary. Please provide a figure to meet this requirement and reference the figure on page 5 of the Part I form.
- 9) Please note the locations of on-site waste disposal activities not included in the application on an appropriate site figure or, if there are none, add a note to an existing figure to indicate that there are none.
- 10) A survey plat is provided as Part I, Appendix 2. Please provide a copy without punched holes, as these holes remove text. The figure may be included in a pocket to remove the need for hole-punching. Please use a thicker line to define the permit boundary and define this line in the legend. Explain the extent, relative to the permit boundary, of the 80-foot right of way abutting the permit boundary along FM 1150. There appear to be three symbols used to designate pins, or some other distinction on various boundaries illustrated on the figure. A smaller open circle is not defined in the legend; please do so and explain the differences between these uses.
- 11) Please provide text in the application to completely describe all easements and rights of way on or adjacent to the property, including but not limited to the three buffer easements, the access easement, utility easements, drainage easements and pipeline easements.
- 12) Please provide copies of all easement agreements with a figure to define each area.
- 13) In accordance with §330.59(e), provide a list of persons with 20% ownership in the facility. If, as indicated by the Part I form, the sole owner and operator of the proposed facility is Post Oak Clean Green, Inc., provide a list of all individuals that own 20% or more of the corporation.
- 14) In accordance with §330.59(f)(4), please provide the names of principals and supervisors of Post Oak Clean Green, Inc.
- 15) In accordance with §330.59(f)(5), please provide the number and size of each type of equipment to be dedicated to the facility operation.
- 16) To address the requirements of §305.45(a)(7)(C), a table following the Part I form indicates that a Notice of Intent (NOI) to comply with the Texas Pollutant Discharge Elimination System General Permit TXR050000 will be submitted before beginning operations. This table should indicate that a Storm Water Pollution Prevention Plan (SWPPP) will be prepared and an NOI will be submitted before waste is accepted. Please include this provision.
- 17) In accordance with §305.45(a)(7)(I) and (J), please explain whether the facility will require licenses under the Texas Radioactive Control Act and whether any environmental permits not already addressed in Part I will be required.

Part II

- 18) Please provide an appendix list with the table of contents and provide tabbed or colored dividers to assist staff in locating these appendices within the application. The first 5 pages of

Part II do not include footers providing the date of the page and the page number. Please ensure that all pages have appropriate footers.

- 19) A Waste Acceptance Plan (WAP) is provided to address the requirements of §330.61(b). Please clarify any and all processing that will occur at the facility. For each processing activity, specify the maximum and average daily acceptance rates, the annual waste acceptance rate projected for five years beyond permit issuance, the maximum and average storage times, and intended destinations for processed materials in accordance with §330.61(b)(1)(B).
- 20) In accordance with §330.61(b)(1)(C), page 6 provides estimated annual waste acceptance rates for waste disposal, projected through 2023. The initial value, 300,000 tons per year, should be used, with the conversion factor of 5 pounds per person per year to determine the population served, as required by §330.61(b)(1)(A).
- 21) The WAP indicates that the only special waste that will be accepted for disposal is dead animals. Please clarify if this is your intention. Please be sure to identify and describe all special waste that will be accepted. Addition of a new waste stream after permit issuance will require a permit amendment.
- 22) The WAP does not discuss Class 1 non-hazardous industrial waste. Unless the landfill will have an area lined for this material (to be confirmed at the time that Part III, Site Development Plan, is submitted), these wastes would be prohibited. Please address this concern.
- 23) The WAP does not discuss Class 2 and Class 3 industrial wastes. Please clarify whether these wastes will be accepted or prohibited for disposal.
- 24) To meet the requirements of §330.61(b)(1), the WAP must discuss all applicable limiting parameters for waste. The statement on page 3 that the site "will not accept any waste for disposal that contributes a constituent or characteristic that could be a limiting parameter ..." is not adequate to address this rule. Please provide a description of all appropriate limiting parameters for wastes to be accepted or prohibited at the facility. These would include, but are not limited to: parameters indicating that industrial wastes are characteristically hazardous, parameters indicating that industrial wastes are Class 1 for appropriate constituents and for total petroleum hydrocarbons, and the presence of free liquids.
- 25) The first paragraph of the WAP includes a reference to "§330.S." Please correct this typographical error.
- 26) The WAP indicates that items that contained chlorinated fluorocarbons (CFC) may be accepted if the CFC has been "properly managed and disposed of." Please add text to indicate that CFC must be handled in accordance with 40 Code of Federal Regulations §82.156(f).
- 27) In accordance with §330.61(c)(3), the application must describe all structures and inhabitable buildings within 500 feet of the proposed permit boundary. While page 7 indicates that there are "no known structures within 500 feet of the permit boundary," Appendix 1, Figure 4 indicates that there are "no enclosed [emphasis added] structures within 500 feet." The cited rule does not require that structures be enclosed. Please delete "enclosed" from Figure 4 and clarify that the conclusion on page 7 (that there are no known structures within 500 feet of the permit boundary) is correct.
- 28) In accordance with §330.61(c)(4), the application must describe all residential areas within one mile of the proposed facility. This information is illustrated on Appendix 1, Figure 4. A review of aerial photographs available online identifies some additional structures that are possibly residential. Please review current aerial photographs, add residential structures, as appropriate, and explain the methodology utilized to create Figure 4.

- 29) Part II includes a section beginning on page 6 to address “§330.61(c) – (g) Maps.” This discussion appears to end with §330.61(c)(4). While the majority of the requirements of §330.61(c)(5) through (g) are ostensibly addressed on Figures in Appendices 1 and 2, their discussion in this section would be beneficial for clarity and would likely reduce possible misunderstandings discussed below for these rules. Please consider expanding this section to address all the rules that the section title indicates are included.
- 30) In accordance with §330.61(c)(5), the application must provide the location and surface type of roads within one mile of the proposed facility that will normally be used as access. This information is largely provided on Appendix 1, Figure 5. A note on this figure indicates that traffic will be from IH-10, south on FM 1104, and east on FM 1150 to the facility entrance. The WAP indicates that the landfill will serve Seguin and San Antonio, for which the expected traffic pattern is consistent; however, the WAP also indicates that the landfill will serve the Austin Metropolitan Area and numerous counties that are or include areas north or west of the landfill. Transportation to and from these areas could conceivably come from the west, including but not limited to FM 1150 (from State Highway 80 to the east) or Darst Field Road (CR 217, from IH-10 east of the property). Please explain why traffic patterns were limited to the one specified, or extend it to all reasonably anticipated paths.
- 31) In accordance with §330.61(c)(8), the application must illustrate all airports within six miles of the proposed facility. A note on Appendix 1, Figure 5 indicates that there are none; however, Appendix 1, Figure 1 provides a five-mile radius from the facility, but no six-mile radius. The figure further indicates that an airport near the Glen Becker Ranch is located approximately 5½ miles southwest of the proposed permit boundary. Please explain.
- 32) Paragraph §330.61(c)(10) requires that drainage, pipeline, and utility easements within and adjacent to the facility be illustrated on a general location map. As noted in Part I review, there are roughly 200,000 square feet of easements that appear to lie immediately adjacent to permit boundary in three areas. Please provide a site location or layout figure that clearly illustrates all easements.
- 33) As required by §330.61(c)(11), please *illustrate* facility access control features. The note on Appendix 1, Figure 5 is not adequate to address the requirements of this rule.
- 34) A facility layout map is provided as Appendix 2, Figure 1. Please consider expanding the permit boundary to include the gate house and scales, detention ponds, and stockpile storage areas located outside the proposed permit boundary.
- 35) The facility layout map provided as Appendix 2, Figure 1. New Type I landfills must have a buffer zone of at least 125 feet, as required under §330.543(b)(2)(A). Storage tanks for leachate/contaminated water are illustrated within the buffer zone between the Southwest Sediment Pond and Pond 4. A mulch, compost and “CD” processing area is located within the buffer east of Pond 2. The “Initial Load Screening Area” is located within the buffer east of the mulch process area. These storage and processing activities are prohibited by §330.543(a). Please provide a 125-foot buffer that is free of waste storage and processing. Correct all appropriate figures with these corrections.
- 36) The facility layout map provided as Appendix 2, Figure 1 illustrates storm water detention ponds located outside the permit boundary. It is not clear that drainage easements are provided for storm water detention ponds located outside the permit boundary. Please explain. Please clarify if storm water detention areas have been determined through modeling of the 25-year/24-hour storm event and how the apparent use of these areas as wetlands mitigation will affect these calculations.

- 37) The facility layout map provided as Appendix 2, Figure 1 includes symbols and line types that are not defined in the legend. The apparent boring locations (P-1 through P-4) and the numbers at each location are not defined. Each pond has two line types. The outer line is shown on the figure to be the limit of maximum water surface elevation while the inner line is undefined. Please review the legends of all figures to ensure that all symbols and line types are defined.
- 38) Appendix 2, Figure 2 is provided to illustrate the locations of monitor wells, as required by §330.61(d)(4). While the details of the groundwater monitoring system, including where the Point of Compliance is located, which wells are compliance wells and which wells are upgradient wells, will be provided in Part III of the application, some concerns must be noted based on this figure. Groundwater monitoring wells are located outside the permit boundary but no apparent access easement has been provided. Groundwater Monitoring Wells #1A, #2A and #4 appear to be more than 500 feet from the waste unit. As defined by §330.3(106), the point of compliance is located *no more than* 500 feet from the hydraulically downgradient limit of the waste management boundary. Also, in accordance with §330.403(a)(2), the well spacing for the point of compliance monitoring system shall not exceed 600 feet. The four wells illustrated appear to average about 4,000 feet apart. Actual distances must be measured along the point of compliance, and would significantly increase these point-to-point distances. While complete design information will be provided with submittal of Part III of the application, please provide an illustration that could meet the cited requirements.
- 39) Appendix 2, Figures 2 and 5 include a green -x- line pattern to illustrate the fence line *and* the permit boundary. These features, the fence line and the permit boundary, are only in the same place along the permit boundary and so it is inappropriate to define them this way in the legend. Please address this concern.
- 40) In accordance with §330.61(d)(9)(C), please illustrate fill directions on Figure 3 in Part II, Appendix 2.
- 41) Part II, Appendix 2, Figure 4 illustrates the Landfill Completion Plan for the proposed facility. The highest contour line is at an elevation of 690 feet above mean sea level (ft msl). The figure indicates that the top dome has a slope of between 3% and 6%. Since the top contour line is a strip that is up to roughly 100 feet wide, the maximum elevation of the final cover would be between 691.5 ft msl and 693 ft msl and maximum waste elevation would be between 689.5 ft msl and 691 ft msl. Thicknesses are measured perpendicular to slope, so these values are approximate, but differences on 3% to 6% slopes would be minimal. The figure indicates that the maximum elevation of the final cover is 690 ft msl and the maximum waste elevation is 688 ft msl. Please correct or explain.
- 42) As required by §330.61(g), the application should include a figure that illustrates the character of adjacent land and development within one mile of the permit boundary as residential, commercial, agricultural, recreational, undeveloped, oil and gas exploration, etc. This is typically provided with hatching defined in a legend with a percentage breakdown for each land use (e.g., 85% undeveloped, 10 residential and 5% industrial). This figure should be referenced in the Part I form, as noted above. The figure should include significant features identified in the application, such as those provided in accordance with §330.61(c)(2) through (12). Please revise accordingly.
- 43) In accordance with §330.61(h) and (h)(1), please clarify on page 8 of the application whether any area within two miles of the proposed facility is zoned.
- 44) As discussed previously, the statement that "the area within one mile of the proposed landfill is primarily characterized as native rangeland containing native grasses, brush and shrubs" is not

adequate to address the requirements of §330.61(h)(2). There appear to be extensive areas that were used or are being used for oil and/or gas exploration to the northwest and southwest of the proposed facility. There are residential areas that are not discussed. This discussion should include a percentage breakdown of the areas within one mile of the permit boundary based on land use. Please address these concerns.

- 45) In accordance with §330.61(h)(3), the application must include a description of growth trends within five miles of the permit boundary and directions of development. On page 8 the application includes a statement that the surrounding area is not expected to increase in population. This is based on Alamo Area Council of Governments Guadalupe County TAZ Map for TAZ 968 which reportedly includes the proposed facility. "TAZ" is not defined and no figure is provided to define the area. It is not clear if the area extends five miles from the permit boundary. And please note that the requirement is to address *current* growth trends. Please provide a description of any growth trends within five miles of the permit boundary and directions of development to meet the requirements of this rule.
- 46) To meet the requirements of §330.61(h)(4), please provide a discussion of the proximity to residences and other uses (e.g., schools, churches, cemeteries, historic structures and sites, archaeologically significant sites, sites having exceptional aesthetic quality, etc.) within one mile of the facility. The application must include the approximate number of residences and commercial establishments within one mile of the proposed facility including the distances and directions to the nearest residences and commercial establishments.
- 47) As noted above, it is unclear why IH-10 to FM 1104 to FM 1150 to the facility entrance is the only evaluated travel path for vehicles coming to or leaving from the facility. Unless there is an explanation for limiting these discussions to this path, the discussion of transportation beginning on page 9 (and elsewhere, as appropriate) must be expanded to address all reasonably anticipated paths to meet the requirements of §330.61(i).
- 48) Please explain how the value of 340 vehicles per day for facility-associated traffic was calculated.
- 49) According to the information on page 9, the proposed facility would roughly triple (from 170 to 510 and 180 to 520 vehicles per day on FM 1104 and FM 1150, respectively, based on 2010 data), additional information is needed to demonstrate availability and adequacy of landfill access roads. Please provide information, such as a Traffic Study, to support the claim that the capacities of roads to be used by the proposed landfill over the lifetime of the facility will not be exceeded.
- 50) The transportation discussion provides existing traffic counts on the specified paths based on 2010 data and the estimated volume of traffic for the proposed landfill, but does not provide the values expected at the end of the lifetime of the facility. Please provide these values for all access roads within one mile of the proposed facility to meet the requirements of §330.61(i)(2) and (3).
- 51) A letter to the Texas Department of Transportation (TxDOT) is provided in Part II, Appendix 5. The letter does not appear to include expected traffic counts for the proposed facility. Please re-coordinate with TxDOT to provide anticipated landfill-associated traffic counts and provide their response to demonstrate coordination in accordance with §330.61(i)(4). Please note that unless there is an explanation for limiting traffic discussions to the single path assessed, coordination should address all reasonably anticipated paths.

- 52) An airport appears to be located less than six miles from the proposed facility. Please notify the Federal Aviation Administration (FAA) as well as the particular airport and provide their response in accordance with §330.545(a).
- 53) Please provide a critical evaluation of bird hazards to the airport located less than six miles from the facility, following the guidelines found in FAA Administration Order 5200.5(A), January 31, 1990.
- 54) Page 11 discusses surface water to address the requirements of §330.61(k)(2). The first paragraph indicates that "the direction of groundwater flow and surface runoff would appear to be southwest, down slope, to Nash Creek." Based on USGS quad maps and paths of rivers in the vicinity of the proposed landfill, surface water on the property would flow to the south or southeast and regionally to the southeast. While flows would briefly travel to the southwest in the unnamed tributary of Nash Creek, the characterizations of surface flow and groundwater flow, based on the assumption that it roughly parallels surface flow, appear to be misleading. Please correct or explain. Also, please explain whether storm water discharges from the facility would reach the M O Neasloney Wildlife Management Area, located approximately three miles southeast of the proposed facility.
- 55) To meet the requirements of §330.61(k)(3)(A), please expand the discussion of storm water permitting on page 11 to indicate that *an SWPPP will be prepared and an NOI will be submitted before waste is accepted at the facility.*
- 56) Wetlands documentation is provided in Appendix 6 to address the requirements of §330.61(m)(2). Please provide response correspondence from the United States Army Corps of Engineers to demonstrate their approval of proposed wetlands mitigation activities. The permit may not be issued without this approval or must include a Special Permit Provision that approval must be issued before waste may be accepted.
- 57) An Intensive Cultural Resource Survey is provided in Appendix 8. Please provide any easement that is associated with the pipeline noted in the Intensive Cultural Resource Survey and explain how the proposed waste footprint meets the location restrictions for easements under §330.543(a).
- 58) In accordance with 330.61(j)(2) through (4), the applicant must identify and provide data on fault areas, seismic impact zones, and unstable areas located within the proposed site. Please provide this information, or if this information is provided, please provide references regarding the location of this information.
- 59) Please provide a detailed figure that shows the location of the proposed site location on the Texas Geologic Atlas, Seguin Sheet. Please ensure that this figure shows predominant geologic features (formations, faults, topography, etc.) within 1-mile of the proposed site.
- 60) On Part II, page 10, the application does not provide an adequate description regarding area hydrogeology. Please provide more detailed information regarding the Wilcox Formation and the Carrizo-Wilcox aquifer, specifically, depth(s) to groundwater, aquifer thicknesses, hydrogeologic barriers (aquatards) above and below the Carrizo-Wilcox aquifer, and other pertinent information. Also provide information regarding any minor aquifers that may be encountered at the proposed site location, if present. Please provide reference(s) for the information cited regarding the Wilcox Formation and the Carrizo-Wilcox aquifer.
- 61) On page 10, the application indicates that only one water well was documented within 500 feet of the proposed permit boundary. Please provide additional information regarding this water well, specifically screened interval, any noted groundwater elevations and productivity capacities, and aquifer characteristics.

- 62) On page 10, the application does not identify 3 abandoned water wells and one monitoring well identified within the proposed permitted boundary during the Intensive Cultural Resource Survey, which is provided in Part II, Appendix 8. Please include a discussion of all documented and undocumented water wells and monitoring wells identified within 500 ft of the proposed permitted boundary and indicate their locations on appropriate figures.
- 63) On page 11, the application states that there are no notable natural drainage features on the site or within 500 feet of the property. A review of Appendix 1, Figure 3 indicates several natural drainage features that transect the permitted area. Please explain this discrepancy or consider revising the information provided in the surface water discussion.
- 64) On page 11, the application does not address the area(s) of ponded surface water as shown on Part II, Appendix 3, Figure 1, and as identified in the Wetland Delineation report by the Median Consulting Group. Please provide a discussion of identified onsite surface water features in accordance with 330.61(k)(2).
- 65) Many of the figures provided in Part II, Appendices 6, 7, and 8 show the project boundary and/or project area, but do not show the proposed permitted boundary in relation to project areas or project boundaries. Please revise all applicable maps to include the proposed permitted boundary.
- 66) In Appendix 8, the Intensive Cultural Resource Survey conducted by SWCA Environmental Consultants identified an existing gas line that transects the proposed permitted boundary; however, this feature is not provided on any of the maps provided in Part II, Appendices 1 and 4. Please include the existing pipeline in all applicable figures and a discussion of this existing pipeline within the application where applicable.
- 67) In Appendix 10, the application states that the proposed permitted boundary is not located within 200 feet of any active or inactive faults. In accordance with 330.555 and 330.559, areas experiencing withdrawal of crude oil must be investigated in detail for the possibility of differential subsidence or faulting that could adversely affect the integrity of the landfill liner system. Please provide a detailed study of differential subsidence or faulting conducted under the supervision of licensed professional engineer experienced in geotechnical engineering or a licensed professional geoscientist qualified to evaluate conditions of differential subsidence or faulting, or provide substantial evidence that crude oil depletion of the Darst Creek oil field located in the northeastern portion of the permitted boundary will not, or has not, created fault areas at the proposed site.
- 68) The figure used to demonstrate proximity of known faults to the proposed permitted boundary is not appropriately scaled. Please provide a revised figure that shows the permitted boundary, predominate identifying features (roadways, oil wells, faults, etc.), and is scaled no larger than 1' = 500'.

The identified items of concern must be addressed prior to our determining the permit application technically complete. Paragraph, figure, and page number citations are from your MSW Permit Application No. 2378. It is recommended that the response to this First NOD be in the following format to ensure that the response to each and every item of concern is identified.

- 1) A dated cover letter transmitting the revised permit application should accompany the revised application.
- 2) Each item of concern should be addressed in the transmittal letter and the applicant's response to the item should be immediately following the item of concern.

Mr. Thomas Funderburg
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- 3) The applicant should indicate where in the revised permit application the revisions have been made by reference to part, section, and page number.
- 4) Please include an original certification statement with the revision, in accordance with 30 TAC Section (§)305.44. The certification statement should indicate the name, title, and address of the responsible official.

Please submit an original and three (3) copies of your application revisions within 54 days of the date of this letter. Your response must be in a form that allows for the replacement of application pages with the revised pages. According to 30 TAC §330.57(g)(6), revisions must have a revision date and note that the sheet is revised in the header or footer of each revised sheet or page and the revised text must be marked to highlight the revision. Failure to submit a satisfactory response to each of the noted deficiencies may result in the application being returned due to technical deficiencies.

Please note we do not anticipate granting an extension of time to fulfill this request. In addition, please be aware a third technical notice of deficiency will not be issued.

If you have any questions, please contact me at (512) 239-4568. When addressing written correspondence, please use mail code MC 124.

Sincerely,



Steve Odil, P.E.
Municipal Solid Waste Permits Section
Waste Permits Division
Texas Commission on Environmental Quality

SPO/sdm