

DOCKETED

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California
ENERGY COMMISSION



March 20, 2026

Daniel Padilla
California Resources Corporation
9600 Ming Avenue
Bakersfield, CA 93311

Data Requests Set 1 for Elk Hills Power Project (99-AFC-01C)

Dear Daniel Padilla:

The California Energy Commission (CEC) staff is asking for the information specified in the enclosed Data Requests Set 1, which is necessary for the staff analysis of the [Elk Hills Power Project](#) (EHPP) petition to amend ([TN 266900](#)). The proposed project changes include the construction of the "Cal Capture" carbon capture unit and ancillary equipment including but not limited to new carbon dioxide (CO₂) and water pipelines, a new substation and switching equipment, transmission lines and tubular poles and a perimeter road.

These Data Requests seek further information in the areas of air quality, public health, greenhouse gas emissions, biological resources, cultural and tribal cultural resources, and land use and agriculture, based on the contents of the petition to amend.

To assist CEC staff in timely completing its environmental review and to meet the requirements of CEQA (see Cal. Code Regs., tit. 14, §§ 15108, 15109), CEC staff is requesting responses to the data requests within 30 days. If you are unable to provide the information requested or need to revise the timeline, please let me know within 10 days of receipt of this letter.

If you have any questions, please email me at Ashley.Gutierrez@energy.ca.gov.

Ashley Gutierrez
Compliance Project Manager

Enclosure: Data Requests Set 1

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AIR QUALITY, PUBLIC HEALTH AND GREENHOUSE GAS EMISSIONS

Authors: Andres Perez, Tianyi Wang

BACKGROUND

Page 145 of the petition to amend (PTA [[TN 266437](#)]) states that the project would be subject to the requirements of the California Air Resources Board (CARB)'s Carbon Capture and Sequestration (CCS) protocol under the Low Carbon Fuel Standard (LCFS), which was issued by CARB on August 13, 2018. These requirements are currently being updated by CARB in response to the passing of Senate Bill 905 (SB 905) (Caballero, Chapter 359, Statutes of 2022).

Though the PTA mentions that the project would be subject to these requirements, it does not elaborate on how the project would meet the requirements of the CCS protocol (either current or updated), nor does it propose any changes to the facility's conditions of certification (COCs) to incorporate these requirements. These requirements include project surface emissions monitoring and the monitoring, measurement, and verification of reservoir containment.

For example, page 44 of the PTA states that the project would implement above ground leak detection using "Ultrasonic Point Detectors, closed circuit television (CCTV) video camera detection, CCTV infrared cameras or alternative CO₂ monitor technology" but does not describe how these design features would comply with the "Monitoring of Wellheads and Valves" (page 90, Section 4.3.1.6) or "Surface and Near-Surface Monitoring" (page 94, Section 4.3.2.2.) requirements of the CCS protocol. The PTA also does not propose any changes to the facility's COCs that would incorporate the requirements of Section 4.3.1.6 or Section 4.3.2.2 of the CCS protocol.

Staff need clarification on whether or not the project would be subject to CARB's CCS Protocol. If so, staff need to know how the applicant would comply with CARB's CCS protocol and how the applicant plans to amend the facility's COCs to incorporate the requirements of the CCS protocol. Staff also need to know how the applicant plans to comply with the updated CCS protocol that CARB intends to issue as part of a rulemaking package in the second quarter of 2026.

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1. Please clarify whether the proposed project would participate in the LCFS program and whether the proposed project would be subject to the CCS Protocol under the LCFS program.
2. If the project is subject to CARB's CCS protocol, please clarify how the applicant plans to implement the updated CCS protocol that CARB intends to issue as part of a rulemaking package in the second quarter of 2026.
3. If the project is subject to CARB's CCS protocol, please describe how the applicant's proposed monitoring of wellheads and valves would comply with the requirements

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of Section 4.3.1.6 of CARB's CCS Protocol? Please propose new COCs that would incorporate the monitoring of wellheads and valves requirements of the CCS protocol.

4. If the project is subject to CARB's CCS protocol, please describe how the applicant's proposed surface and near-surface monitoring would comply with the requirements of Section 4.3.2.2 of CARB's CCS Protocol? Please propose new COCs that would incorporate the surface and near-surface monitoring requirements of the CCS protocol.

BACKGROUND

In Appendix E Air Quality and Greenhouse Gas Technical Study, Table 19 shows that project operational emissions are 0.66 tons per year of reactive organic gases (ROG), 0.09 tons per year of nitrogen oxides (Nox), 0.51 tons per year of carbon monoxide (CO), and 0.18 tons per year of particulate matter (PM10). However, Table 12 shows that the total annual operational emissions are 4.52 tons of ROG, 4.37 tons of NOx, 13.7 tons of CO, and 5.5 tons of PM10, mainly due to net increase in emissions associated with the combustion of natural gas at the EHPP required to meet the energy demand from the proposed modifications. Staff needs to understand whether the permitted emissions at EHPP would increase.

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5. Please clarify why stationary source emissions associated with the project were not included in the basin-wide comparison in Table 19.
6. Please provide the reference source for Table 19 ("Kern County 2004"), as it is not included in the reference list.
7. Please clarify whether the emission limits for EHPP specified in the San Joaquin Valley Air Pollution Control District (SJVAPCD) permit and CEC conditions of certification would increase.
8. If the emission limits for EHPP would increase, please demonstrate that the modified project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard or expose sensitive receptors to substantial pollutant concentrations or result in other public health impacts. Please demonstrate how the EHPP would comply with SJVAPCD rules and regulations, such as those related to air dispersion modeling and offsets requirements, etc.

BACKGROUND

In Appendix E Air Quality and Greenhouse Gas Technical Study, above Table 13, the applicant states that the localized CO emissions would exceed SJVAPCD screening levels

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during operation. However, Table 13 shows that maximum daily operational CO emissions would be 75.7 lbs/day, which is below the 100 lbs/day screening level.

DATA REQUEST

9. Please clarify whether daily operational CO emissions would exceed the SJVAPCD screening level.

BACKGROUND

The proposed project will utilize amine based post-combustion CO₂ capture technology, which involves solvent absorption, regeneration, maintenance, and chemical handling. This technology is known to potentially emit process-related constituents such as amines, ammonia and aldehydes. These potential emissions are not identified in the current analysis.

DATA REQUESTS

10. Please identify any potential process-related emissions with the proposed technology. Please evaluate whether any such constituents are toxic air contaminants (TACs) or odorous compounds and whether potential emissions of these constituents would increase the permitted levels of TACs or volatile organic compounds emissions at EHPP.

11. Please provide appropriate screening-level or refined health risk assessment of potential TAC emissions.

BIOLOGICAL RESOURCES

Authors: Leane Dunn, Chris Huntley

BACKGROUND

The applicant provided Biological Resources information in Section 4.2 of the Corrected Cal Capture Petition to Amend (PTA) ([TN 266900](#)), Appendix G Biological Resources Technical Report (BRTR) ([TN 266440](#) Part A), and Appendix C to Appendix G Aquatic Resources Delineation Report (ARDR) ([TN 266448](#) Part B). Section 3.2.1 of the BRTR lists the applicant's biologists and states they are all experienced biologists; however, there is not enough information provided to determine the biologists' qualifications to conduct surveys.

California Code of Regulations, title 20, section 1704 (a) (3) (C) requires that the PTA include a list of all literature relied upon or referenced in the document. Section 3.1 of the BRTR lists sources where data regarding the potential for occurrence of special-

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status species were gathered from. However, these references and database searches were not provided.

As stated on page 1 of the BRTR, the Biological Study Area (BSA) for the project includes the project footprint and a 500-foot buffer, which includes the area of potential direct and indirect project impacts on plant and wildlife species from the construction activity. However, the BRTR states that a more limited 50-foot buffer was used for assessing the presence of rare plants and potentially jurisdictional waters. If the area of potential project impacts may extend out to 500-feet, the aquatic resources survey and rare plant surveys should include these areas. California Code of Regulations, Appendix B (g) (13) (B) requires a list of species and habitats observed and those with potential to occur within 1 mile of project site and from 1,000 feet from the outer edge of linear facility corridors (including powerlines and pipelines). California Code of Regulations, Appendix B (g) (13) (B) (iii) requires an aerial photograph showing any potential jurisdictional features delineated out to 250 feet from the edge of disturbance.

The PTA does not include a figure identifying the location of temporary and permanent impacts. This data is necessary to determine the type and level of impact the project would have upon biological resources.

Table 9, Known and Potential Occurrences of Special-Status Plant Taxa within the BSA, and Table 10, Known and Potential Occurrences of Special-Status Wildlife within the BSA, provide descriptions of the Potential to Occur for special status species. The Potential to Occur includes the nearest recorded occurrence from the BSA but does not stipulate if they are referring to distances from the EHPP BSA or the temporary parking, office, and staging areas BSA, which are separated by over 6 miles.

Page 97 of the PTA and Table 9 (page 33-35) of the BRTR show four plant species with a high potential to occur (Lost Hills crownscale, Kern mallow, Tejon poppy, and oil neststraw) and determined heardscale to have a moderate potential to occur. Figure 4-1, 2-mile California Natural Diversity Database (CNDDDB) Results – Plants, shows numerous CNDDDB records for oil neststraw in the vicinity of the EHPP, and records overlapping the temporary parking, office, and staging areas BSA. A CNDDDB record for Tejon poppy is adjacent to, and heardscale appears to overlap, the temporary parking, office, and staging areas BSA. Table 9 states the nearest occurrence for heardscale is 6.48 miles from the BSA; Tejon poppy is 0.96 mile from the BSA; and oil neststraw is 0.10 mile from the BSA. This appears to be inconsistent with Figure 4-1. In addition, the BRTR does not state whether reference populations were visited to verify the plant species with potential to occur were blooming during the botanical surveys.

California Code of Regulations, Appendix B (g) (13) (D) requires a description and results of all field studies and specialized surveys (e.g., focused and protocol) used to provide biological baseline information about the project site and associated facilities. Page 95 of the PTA and page 12 of the BRTR states a habitat assessment for Temblor legless lizard (*Anniella alexanderæ*) was conducted by Stantec sub-consultant Dr. Ted Papenfuss on February 28, 2025. Page 98 of the PTA states, "*Suitable habitat for TLL*

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[Temblor legless lizard] was not identified within the Project site during the site assessment conducted by Dr. Ted Papenfuss. While suitable or marginally suitable habitat for TLL may be present in adjacent buffer areas, these areas are not anticipated to be directly affected by the Project (Papenfuss 2025)." Page 58 of the BRTR states that, "There is no suitable habitat anywhere on the California Resources Corporation (CRC) Cal Capture Project site, per Dr. Papenfuss (email dated May 30, 2025)." The citation for Papenfuss 2025 is a personal communication, and simply states "Lack of suitable habitat for TLL in Project are." No habitat assessment is provided in the PTA or BRTR.

Similarly, page 95 of the PTA and page 12 of the BRTR states that a total of three focused surveys for Crotch's bumble bee (*Bombus crotchii*) were conducted by Stantec subconsultant biologist Donna Noce in May and June. Page 25 of the BRTR states that no Crotch's bumble bee were observed during the focused surveys. Page 39 of the BRTR states that the Project area has suitable foraging and nesting habitat, and potential food plants, but the potential of this species to occur is considered "low" because they were not observed during the focused survey. However, the PTA and the BRTR did not provide an assessment of potential habitat, including potential foraging, nesting, and overwintering resources. Survey results for Crotch's bumble bee only last for one year, and suitable habitat could be used by Crotch's bumble bee in the future. The citation for Noce 2025 simply states that Noce is a qualified bee biologist who provided personal communication regarding survey results via email. The citation also states that the survey report is in preparation. However, no habitat assessment or survey report is provided in the PTA or BRTR.

Page 98 of the PTA and page 36 of the BRTR states that low-density small mammal burrows were observed within the BSA, some of which exhibited sign of kangaroo rat (*Dipodomys* spp.) activity. The BRTR further states that burrow size and characteristics (described as size, vertical entrances, haystacking, etc., on page 58 of the BRTR) were not consistent with use by giant kangaroo rat (*D. ingens*). Giant kangaroo rat, short-nosed kangaroo rat, and Tulare grasshopper mouse were determined to have a low to moderate potential to occur, though page 40 of the BRTR states suitable habitat for these species is present. However, details on these small mammal burrows, and why they do not provide habitat for giant kangaroo rat, short-nosed kangaroo rat, and Tulare grasshopper mouse, was not provided.

Page 98 of the PTA and 37 of the BRTR states that the potential for nesting or transient burrowing owl to occur at the site is high; and page 37 of the BRTR states that suitable nesting and foraging habitat is present. The PTA and the BRTR do not provide details on any habitat assessment for burrowing owls or if burrows that could provide habitat for burrowing owls were observed. Similarly, page 98 of the PTA and page 42 of the BRTR states that the potential for blunt-nosed leopard lizard to occur at the project site is moderate; and page 42 of the BRTR states that suitable habitat is present for this species, but the habitat is fragmented and surrounded by disturbance. The PTA and the BRTR do not provide details on areas that could support blunt-nosed leopard lizard and

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habitat characteristics that are present. Page 10 of the BRTR states that for other species such as blunt-nosed leopard lizard and burrowing owl, additional protocol surveys may be necessary. It is not clear whether the whether protocol level surveys for blunt-nosed leopard lizard and burrow owl surveys are planned, and the schedule for completing those surveys.

The project would connect to the Carbon Terra Vault I (CTVI) project approved by Kern County in 2025. CDFW provided a comment letter on the CTVI Draft EIR, dated March 1, 2024, in which CDFW identified that the CTVI project is known to support high densities of several special-status species. CDFW further commented that there is an abundance of biological survey information and related modeling about the biological resources present throughout the Elk Hills Oil Field (EHOF), due to its history as the Navel Petroleum Reserve 1 (NPR1) which was sold to Occidental Petroleum (OXY), and the subsequent CDFW Memorandum of Understandings and Incidental Take Permits associated with oilfield exploration and operation. Information from these previous surveys and modeling data was not included in the literature review or impact analysis. Instead, the analysis relied on CNDDDB records, reconnaissance surveys, a reduced botanical survey buffer, and focused habitat assessments.

Section 8.1.1 of the BRTR provides General Avoidance and Minimization Measures for the Project. GEN-2: Focused/Protocol Surveys, states that based on information gathered from the biological reconnaissance survey, any required focused/protocol surveys shall be conducted to confirm the presence or absence of any special-status species. The applicant has completed reconnaissance level surveys for wildlife species; however, no recommendations for the additional protocol surveys needed have been made. As part of the CTVI EIR, mitigation measure 4.4-1 also requires focused/protocol surveys to be conducted. However, it is unclear if any focused/protocol surveys have been conducted for CTVI. In order to accurately determine presence or absence of species and habitat, analyze impacts to special-status species, and determine if take authorization is needed, additional information is needed.

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12. Per California Code of Regulations, Appendix B (g) (13) (D), please provide the resumes that include the names and qualifications of the biologists conducting the biological resources, focused, and aquatic resources surveys in support of the application. The resumes should indicate years of experience, education, projects or training performing species-specific surveys or monitoring, representative projects, and any certifications or handling permits.
13. Per California Code of Regulations, section 1704, (a) (3) (C), please provide the following data results and additional data that were cited in the BRTR: the California Natural Diversity Database (CNDDDB) (CDFW, 2025a), Consortium of California Herbaria (CCH, 2025), United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) Resource List (USFWS, 2025a),

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and Carbon Terra Vault 1 – Carbon Capture and Sequestration Project Biological Analysis Report (QK, 2024).

14. Per California Code of Regulations, Appendix B (g) (13) (B), please provide detailed maps and GIS data delineating species and habitats observed and those with potential to occur within 1 mile of the project and 1,000 feet from the outer edge of linear facility corridors (including power lines and pipelines). Please conduct surveys for the presence of rare plants and potentially jurisdictional waters within the area of potential direct and indirect project impacts, identified as a 500-foot buffer around project activities in the BRTR, and provide associated figures and GIS data. Per California Code of Regulations, Appendix B (g) (13) (D) (i), surveys for special-status plants should be conducted during the blooming period. Per California Code of Regulations, Appendix B (g) (13) (B) (iii), please provide an aerial photo depicting state and federal jurisdictional aquatic features delineated out to 250 feet from the edge of disturbance.
15. Please provide a map and GIS data showing the maximal extent of both permanent and temporary impacts associated with construction of the project, including but not limited to all project features, electrical lines, pipelines, and temporary parking, office, and staging areas.
16. In Table 9 and Table 10 of the BRTR, please clarify the nearest known records of special status species from both the EHPP BSA and the temporary parking, office, and staging areas BSA.
17. Please clarify whether reference populations were visited for special-status plant species with moderate or high potential to occur within the BSA, or at known CNDDDB occurrences that are adjacent to or overlap the BSA. Please clarify the distances of the known CNDDDB records to the BSA, including the EHPP and the temporary parking, office, and staging areas. Any CNDDDB record that overlaps the BSA should be discussed in greater detail when determining the potential for these species to be present.
18. Per California Code of Regulations, Appendix B (g) (13) (D), please provide the habitat assessment prepared by Dr. Papenfuss that was used to evaluate the potential for Temblor legless lizard to occur in the project area and BSA. The assessment should identify the date(s) the survey was completed, methods used to complete the surveys, name(s) and qualifications of the biologists conducting the surveys, and identification of appropriate field survey protocols. The habitat assessment should include a figure depicting habitat types within the project site and BSA and the suitability of such habitat.

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19. Per California Code of Regulations, Appendix B (g) (13) (D), please provide the Crotch's bumble bee survey results and habitat assessment results conducted by Donna Noce to evaluate the potential for Crotch's bumble bee to occur in the project area and the BSA. The survey results and habitat assessment should identify the date(s) the surveys were completed, methods used to complete the surveys, name(s) and qualifications of the biologists conducting the surveys, and identification of appropriate field survey protocols. Field protocols should follow CDFW's 2023 *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species*. The habitat assessment should quantify which plant species are in bloom and what their percent cover is; general plant diversity; flowering plants (including non-natives and invasives); nesting resources such as bare ground, rodent burrows, and other potential nest sites; available overwintering habitat; and if surveys were conducted during the Colony Active Season. The survey results should describe the methods used to conduct the survey, including the range of dates to account for variability in floral resource phenology within the site, timing of the surveys, temperatures, and methods of species identification (capture, photography, etc.). The report should include a figure depicting habitat types within the project area and BSA and the suitability of such habitat.

20. Please provide details on the type of suitable habitat present in the project site and BSA for giant kangaroo rat, short-nosed kangaroo rat, and Tulare grasshopper mouse. These details should include habitat and/or life history characteristics that could be used by these species and site characteristics that may preclude them from occurring at the site. The details should include an assessment of potential habitat of the small mammal burrows for the three species, as well as whether there are other small mammal burrows elsewhere in the project site or BSA. Please also provide details on soil and habitat suitability in the BSA where small mammal burrows could become established in the future.

21. Please provide the following information for the western burrowing owl (*Athene cunicularia hypugaea*) in consideration of the current listing status as a candidate species under the CESA and the fact that the site has a high potential for burrowing owl to occur.
 - a. Please provide a habitat assessment, survey field notes, breeding surveys, and over-wintering survey results per the Staff Report on Burrowing Owl Mitigation (CDFG 2012) guidance. Please provide a schedule for conducting any additional surveys to meet the CDFW guidance and the results of those surveys once completed.

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- b. Please provide a figure showing the location(s) where burrowing owls are observed. In addition, please delineate the buffer surveyed on the figure and identify any areas that were inaccessible during focused surveys.
 - c. Please include a list of proposed avoidance and minimization measures for western burrowing owl based on the survey results.
 - d. Please provide resumes for staff conducting the protocol level surveys.
 - e. If the project area and surrounding lands support suitable nesting or overwintering habitat and burrowing owls are detected within the project area or within 1,600 feet during protocol level surveys, please clarify if the applicant will be requesting take for burrowing owls. If take authorization for western burrowing owl is requested, staff will provide further guidance.
22. Please provide details of blunt-nosed leopard lizard habitat suitability in the project site and BSA, including the biological requirements of the species and a description of potential blunt-nosed leopard lizard habitat. Please clarify whether the applicant will be conducting protocol level surveys for blunt-nosed leopard lizard in accordance with the CDFW 2019 (Revised) *Approved Survey Methodology for the Blunt-Nosed Leopard Lizard*, and the schedule for completion of that survey.
23. Please provide historical information on biological surveys and related monitoring contained within the EHO in proximity to the project. The survey results and habitat assessment should identify the date(s) the survey was completed, methods used to complete the surveys, name(s) and qualifications of the biologists conducting the surveys, identification of appropriate field survey protocols, and survey results. The information should include negative survey results (e.g., protocol surveys were conducted but the species were not found) to understand the nuances of habitat use in the area. Please include any associated GIS of previous surveys results and modeling data.
24. Based on the results of the reconnaissance surveys and CNDDDB records in the area, please provide information on required focused/protocol surveys in accordance with Kern County's CTV1 EIR mitigation measure 4.4-1 and the recommended GEN-2 mitigation measure in the BRTR, to confirm the presence or absence of special status species within the project area and BSA. The protocol/focused surveys should include, at a minimum, all special-status species with a moderate or higher potential to occur or are known to be present, based on Table 10 in the BRTR, and any species that are federally or state listed or proposed or a candidate for listing. Please provide a schedule for conducting the

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surveys during appropriate survey windows as outlined in species survey protocols. Upon completion, please provide the survey results that include the date(s) the survey was completed, methods used to complete the surveys, name(s) and qualifications of the biologists conducting the surveys, identification of appropriate field survey protocols, survey results, and associated figures and GIS data. The results should identify appropriate mitigation measures to protect, avoid, or minimize impacts to the species, if additional mitigation is necessary, and a USFWS Biological Opinion or CDFW Incidental Take Permit or Amendment is required. Please note, that for CDFW Fully Protected species, including blunt-nosed leopard lizard, full avoidance is required.

CULTURAL AND TRIBAL CULTURAL RESOURCES

Author: William Larson

BACKGROUND: Appendix H-Cultural Resources Study Appendix B

The cultural resources survey identified two new cultural resources (CRC Site-AV-1 and CRC Site-AV-2), in the text of the report it states that Department of Parks and Recreation (DPR) 523 Forms were filled out for the resources and provided in Appendix B of the report. All DPR Forms were provided except for the two newly recorded sites.

DATA REQUEST

25. Please provide DPR Forms for the two newly recorded sites, CRC Site-AV-1 and CRC Site-AV-2.

BACKGROUND: Appendix H-Cultural Resources Study

The Cultural Resources Study does not indicate that a historic architecture field survey was conducted inclusive of the project site and the project linear facility routes, extending no less than 0.5 miles out from the proposed plant site and from the routes of all above-ground linear facilities consistent with Cal. Code Regs., tit. 20, Appendix B(g)(2)(C).

DATA REQUEST

26. Please provide the results of a historic architecture field survey. New historic architecture field surveys in urban and suburban areas shall be conducted inclusive of the project site, extending no less than one parcel's distance from all proposed plant site boundaries. New historic architecture field reconnaissance ("windshield survey") in urban and suburban areas shall be conducted along the routes of all linear facilities to identify, inventory, and characterize structures and districts that appear to be older than 45 years or that are exceptionally significant, whatever their age.

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BACKGROUND: Appendix H-Cultural Resources Study

The report indicates that the literature search only extended a 0.5-mile radius around the project area. Consistent with Cal. Code Regs., tit. 20, Appendix B(g)(2)(B) the literature search should be within an area not less than a 1-mile radius around the project site and not less than one-quarter (0.25) mile on each side of the linear facilities.

DATA REQUEST

27. Please submit a supplemental literature search from the California Historical Information System that extends not less than a 1-mile radius around the project site and not less than one-quarter (0.25) mile on each side of the linear facilities.

BACKGROUND: Appendix H-Cultural Resources Study

The cultural resources report does not indicate whether there was an archaeological survey buffer no less than 200 feet around the project site, substations and staging areas, and no less than 50 feet to either side of the right-of-way of project linear facilities consistent with Cal. Code Regs., tit. 20, Appendix B(g)(2)(C).

DATA REQUEST

28. Please indicate whether there was an archaeological survey buffer no less than 200 feet around the project site, substations and staging areas and no less than 50 feet to either side of the right-of-way of project linear facilities. If not, please submit the results of an archaeological survey of the buffer or indicate why surveying the buffer was and is unfeasible.

LAND USE, AGRICULTURE AND FORESTRY RESOURCES

Author: Jeanine Hinde

BACKGROUND

It is noteworthy that the Land Use section of the PTA does not evaluate whether the project would conflict with any applicable plan, policy, or regulation adopted to avoid or mitigate an environmental effect (Land Use criterion "b").

In the Land Use section, subsection "4.7.1.3 Existing Development Standards," it states that the project site lies within an area of military airspace use, and that consultation with the U.S. Department of Defense (DOD) is required for any structure taller than 200 feet above ground surface. Section 19.08.160 of the Kern County Zoning Ordinance is referenced, which specifies requirements for ensuring that a proposed structure or building "would create no significant military mission impacts."

In the Introduction section of the PTA, subsection "2.3.1 Federal Agencies," heights of some of the proposed structures are listed, including the "absorber" with a height of 271 feet. It is also stated that CRC will consult with the DOD to determine whether the

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proposed structures would interfere with military airspace operations. Subsection "2.3.5 Agencies Contacted" includes the DOD Military Aviation and Installation Assurance Siting Clearinghouse among those contacted by CRC during preparation of the application with Dan Townes named as the contact person.

DATA REQUEST

29. Please provide information documenting consultation with the DOD, including details on project notification packages that have been or will be submitted to the DOD and the anticipated response date.

BACKGROUND

In the Introduction section, subsection "2.2.2 Surrounding Land Uses," it states that the nearest public airports are the Elk Hills-Buttonwillow Airport (5 miles north of the project site) and the Taft-Kern County Airport (9.6 miles south of the project site). Also in the Introduction, subsection "2.3.1 Federal Agencies," the Federal Aviation Administration (FAA) is listed, and it is stated that CRC would be required to prepare and submit a Part 77 notice to the FAA, Form 7460-1 Notice of Proposed Construction or Alteration. It is also stated that illumination of the proposed absorber column might be required for aircraft safety, to comply with the FAA's Obstruction Marking and Lighting standards.

DATA REQUESTS

30. Please provide detailed information documenting consultation with the FAA on required notifications, including completion and submittal of Form 7460-1. Please provide anticipated dates of future submittals or a determination letter from the FAA.
31. Please provide detailed information on plans to comply with the FAA's Obstruction Marking and Lighting standards.

BACKGROUND

In the Land Use section, subsection "4.7.1.3 Existing Development Standards," it states that "Kern County has approved the Kern County Zoning Ordinance for the regulation of oil and gas development within the portions of Kern County within County jurisdiction."

DATA REQUEST

32. Please explain the zoning ordinance for the regulation of oil and gas development, including a citation and discussion of its applicability to the proposed project. Please describe the project's consistency with the ordinance.

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VISUAL RESOURCES-VISIBLE PLUME

Author: Gerry Bemis

BACKGROUND

The applicant states in Table 63 of Section 4.14 (Visual Resources) of their Petition to Amend (TN 266900) that no visible plume analysis is necessary because the proposed facility modifications would be fully within the boundaries of an existing power plant (page 296). The applicant provided a visual impact analysis in Appendix S ([TN 266461](#)), but made no mention of visible plumes.

Appendix B, Section (g)(6)(E) of 20 CCR Div. 2, Ch. 5 (Information Requirements for an Application for Certification [AFC] or Small Power Plant Exemption [SPPE]) specifically calls for an assessment of the visual impacts of a proposed project if it has a wet cooling tower. Staff reviewed Appendix B and did not find language that would exempt proposed projects that would be located within an existing power plant from conducting a visible plume analysis.

DATA REQUESTS

33. Would the proposed amendment change the cooling load requirements for the existing facility and thus change the frequency of generating visible plumes from the existing cooling tower?
34. If the amendment request would change the cooling load requirements, please conduct a visible plume analysis to document the difference taking into consideration local ambient meteorology and expected operating conditions, using guidance from Appendix B. Please provide the cooling tower exhaust parameters, including exhaust height, exhaust diameter, exhaust temperature, moisture content, mass flow, and average molecular weight before and after the proposed modifications. The applicant may provide these exhaust parameters, in tabular form (example shown below), for the range of ambient conditions (i.e. ambient temperature [cold, average, and hot] and relative humidity) and operating scenarios that can be reasonably expected to occur at the project site location.

ELK HILLS POWER PROJECT (99-AFC-01) DATA REQUESTS SET 1

Data Request, Set 1 Exhaust Parameters Table

Parameters	Unit Name		
Stack Height			
Stack Diameter			
Ambient Temperature			
Relative Humidity			
Operating Scenarios			
Full Load Exhaust Temperature (°F)			
Full Load Exhaust Moisture Content (wt %)			
Full Load Exhaust Flow Rate (1000 lbs/hr)			
Full Load Exhaust Average Molecular Weight (lbs/mole)			

35. When Appendix B was written, power plants were not proposed to be built with carbon capture equipment and thus, Appendix B did not include language that would be appropriate to use today, with carbon capture equipment now being considered for power plants. Staff need to understand the degree to which this new equipment may cause visible plume formation. Please provide the expected stack exit height, stack diameter, exhaust temperature, moisture content, mass flow, and average molecular weight of the proposed carbon capture equipment, in tabular form as shown above, for the range of ambient conditions and operating scenarios that can be reasonably expected to occur at the project site location. Please provide a visible plume analysis of the carbon capture equipment or fully justify why such an analysis is not needed.
36. The existing heat recovery steam generator stack exit is 120 feet above ground level and 18 feet in diameter. What is the expected stack exit height and diameter of the proposed carbon capture equipment? What is the exit temperature and water content of the current stack, and what would be the exit temperature of the new stack exit and the water content of the revised plume?

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DATA REQUESTS SET 1

REFERENCES

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