

BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

_____)	
In re:)	
)	
Palmdale Energy, LLC)	
Palmdale Energy Project)	Appeal No. PSD 18-01
)	
PSD Permit No. SE 17-01)	
_____)	

CERTIFIED INDEX TO THE ADMINISTRATIVE RECORD

I, Elizabeth Adams, am the Acting Director of the Air Division for EPA Region 9 (“Region 9”). I certify that the attached index lists the documents constituting the administrative record required by 40 C.F.R. 124.18 for Region 9’s final Prevention of Significant Deterioration permit issued to Palmdale Energy, LLL for the Palmdale Energy Project, which is the subject of the above-captioned petition for review.

In witness whereof, I have signed my name this 13th day of June, 2018 at San Francisco, California.



Elizabeth Adams
Air Division
U.S. Environmental Protection Agency, Region 9

United States Environmental Protection Agency
Administrative Record Index – Final Permit Decision
Palmdale Energy Project – PSD Permit No. SE-17
[Docket No. EPA-R09-OAR-2017-0473](https://www.epa.gov/cao-permitting/palmdale-energy-project-prevention-significant-deterioration-psd-permit)

Notes: (1) Copyrighted materials that are not already publicly available are not posted in the online docket. Such materials are labeled “*Copyrighted*” in this index. A copy of all such materials has been retained as part of the EPA’s record for this action. (2) Certain electronic documents are not compatible with the online docket system and have been posted to the EPA’s webpage for this project here: <https://www.epa.gov/cao-permitting/palmdale-energy-project-prevention-significant-deterioration-psd-permit>. Such documents are labeled “*Available on EPA’s website*” and includes the above hyperlink to the material. (3) Other documents that are not or may not be appropriate for public release, such as documents including (a) information claimed as confidential business information, (b) personal identifying information when the particular person was not or may not have been notified that his or her information may become public, and (c) sensitive resources information, have been redacted or not posted on the online docket for this action. All such documents are listed in this index and labeled accordingly. The original version of these documents is retained as part of the EPA’s record for this action, and only the redacted version, where applicable, is posted to the online docket.

Index #	Record Section or Item	Date of Item
Section 1 - PSD Permit Application Documents		
1.1	PSD Permit Application for Palmdale Energy Project - Main Application Document	Oct 2015
1.1.1	PSD Permit Application - Appendix A - Calculation of Maximum Hourly, Daily, and Annual Emissions	Oct 2015
1.1.2	PSD Permit Application - Appendix B - Modeling Protocol	Oct 2015
1.1.3	PSD Permit Application - Appendix C - Modeling Support Data	Oct 2015
1.1.4	PSD Permit Application - Appendix D - Best Available Control Technology Support Data	Oct 2015
1.1.5	PSD Permit Application - Appendix E - Socioeconomic Support Data	Oct 2015
1.1.6	PSD Permit Application - Modeling Files *Available on EPA’s website*	Oct 2015
1.2	EPA Receipt and Preliminary Review of PSD Permit Application for Palmdale Energy Project - Letter to Applicant from G. Rios to T. Johns	12/14/2015
1.2.1	Email Transmittal to T. Cameron from L. Beckham of Preliminary Review Letter	12/14/2015
1.3	Applicant Response to PSD Permit Completeness Review - Letter from G. Darwin to L. Beckham	4/15/2016
1.3.1	Attachment to Response - California Energy Commission - Final Decision - Palmdale Hybrid Power Plant - Cultural Resources	Aug 2011
1.3.2	Attachment to Response - California Energy Commissions - Preliminary Staff Assessment - Palmdale Energy Project - Cultural Resources	Mar 2016
1.3.3	Attachment to Response - Draft Biological Assessment - Palmdale Hybrid Power Project - AMEC Earth & Environmental	3/1/2009

United States Environmental Protection Agency
 Administrative Record Index – Final Permit Decision
 Palmdale Energy Project – PSD Permit No. SE-17
[Docket No. EPA-R09-OAR-2017-0473](#)

1.3.4	Attachment to Response - Addendum to Biological Assessment - Palmdale Hybrid Power Project - AECOM	Jul 2011
1.3.5	Attachment to Response - U.S. Fish & Wildlife Service Concurrence that Palmdale Hybrid Power Project Not Likely to Adversely Affect the Desert Tortoise or Arroyo Toad - letter from C. Benz to G. Rios	9/14/2011
1.3.6	Attachment to Response - PM Emissions Determination Data	Apr 2016
1.3.7	Attachment to Response - Additional Modeling Files * Available on EPA's website *	Apr 2016
1.4	EPA Request for Additional Information - CO and GHG BACT - Email to G. Darwin from L. Beckham	12/5/2016
1.5	EPA Request for Additional Information - Communication with U.S. Forest Service - Email to G. Darwin from L. Beckham	12/15/2016
1.6	Applicant Response Re: Communications with the U.S. Forest Service - Email to L. Beckham from G. Darwin	1/10/2017
1.7	Applicant Response to Dec. 2016 Request for Additional Information - Letter and Attachment from G. Darwin to L. Beckham	5/12/17
1.7.1	Email transmittal from G. Darwin to L. Beckham of Response to Dec. 2016 Request for Additional Information	5/12/2017
1.8	EPA Request for Additional Information - GHG BACT Analysis - Email from L. Beckham to G. Darwin	7/18/2017
1.9	Applicant Response to Request for Additional information on GHG BACT Analysis - Letter to L. Beckham from G. Darwin	7/27/2017
1.9.1	Email Transmittal of Additional Information on GHG BACT Analysis to L. Beckham from G. Darwin	7/27/2017
1.10	Additional Information Re: Secondary PM2.5 Formation	8/14/2017
1.11	PSD Permit Application Complete, Letter to T. John from G. Rios	8/16/2017
1.11.1	Transmittal Email for PSD Permit Application Complete Letter to T. John from L. Beckham	8/16/2017
1.12	Letter from R. Burkhardt to L. Beckham - Palmdale Energy Project PSD Permit Application Cultural Resources Addendum	11/1/2017
1.12.1	Email Transmittal of Letter Re Palmdale Energy Project PSD Permit Application Cultural Resources Addendum	11/1/2017
1.13	Email from G. Darwin to L. Beckham with the Applicant's Response on the Treatment of Natural Gas Leaks at the PEP	1/9/2018
1.13.1	Email Attachment - Applicant Response on the Treatment of Natural Gas Leaks	1/9/2018
1.14	Email from G. Darwin to L. Beckham Providing Calculations Related to Equipment Leaks	2/14/2018
1.14.1	Email Attachment - Summary of Calculations Related to Equipment Leaks	2/14/2018

United States Environmental Protection Agency
 Administrative Record Index – Final Permit Decision
 Palmdale Energy Project – PSD Permit No. SE-17
[Docket No. EPA-R09-OAR-2017-0473](#)

1.14.2	Email Attachment - Excel Sheet Showing Detailed Calculations	2/14/2018
1.15	Email from G. Darvin to L. Beckham Providing Calculations Related to Equipment Leaks - Corrected	2/19/2018
1.15.1	Email Attachment - Corrected Summary of Calculations Related to Equipment Leaks	2/19/2018
1.15.2	Email Attachment - Corrected Excel Sheet Showing Detailed Calculations	2/19/2018
Section 2 - Proposed Permit and Related Documents		
2.1	Proposed PSD Permit for the Palmdale Energy Project, PSD Permit No. SE-17	Aug 2017
2.2	Fact Sheet for the Palmdale Energy Project Proposed PSD Permit	Aug 2017
2.3	Cover Letter to Applicant from G. Rios to T. Johns	8/17/2017
2.4	Public Notice for the Palmdale Energy Project Proposed PSD Permit - English	Aug 2017
2.5	Public Notice for the Palmdale Energy Project Proposed PSD Permit - Spanish	Aug 2017
2.6	Public Information Sheet for Palmdale Energy Project Proposed PSD Permit - English	Aug 2017
2.7	Public Information Sheet for Palmdale Energy Project Proposed PSD Permit - Spanish	Aug 2017
Section 3 - Endangered Species Act Section 7 Consultation		
3.1	Email to R. Bransfield from L. Beckham Re: Section 7 Consultation for ESA	7/25/2016
3.2	Email to L. Beckham from R. Bransfield Regarding Desert Tortoise, Arroyo Toad and Southwestern Willow Flycatcher	7/26/2016
3.3	Email to G. Darvin from L. Beckham Regarding ESA Obligations for Desert Tortoise, Arroyo Toad, and Southwestern Willow Flycatcher	8/4/2016
3.4	Biological Assessment on Southwestern Willow Flycatcher - Palmdale Energy Project - AMEC Foster Wheeler	12/5/2016
3.4.1	Email to L. Beckham from G. Darvin - Transmittal of Biological Assessment on Southwestern Willow Flycatcher	1/10/2017
3.5	Email to R. Bransfield from L. Beckham - Transmittal of Biological Assessment on Southwestern Willow Flycatcher	1/10/2017
3.6	Email to L. Beckham from R. Bransfield - Initial Thoughts on Biological Assessment	1/11/2017
3.7	Calendar Event - Call between EPA and USFWS on ESA Issues	1/13/2017
3.8	Email to L. Beckham from R. Bransfield Recommending EPA Formally Consult with the FWS on the Southwestern Willow Flycatcher	1/13/2017
3.9	Email to T. Johns from L. Beckham - Notifying Applicant that FWS Recommends Formal Consultation on Southwestern Willow Flycatcher	1/13/2017
3.10	Email Discussions and Teleconferences between EPA, FWS, and Applicant - Discussions on Impacts to the Southwestern Willow Flycatcher	Various

United States Environmental Protection Agency
 Administrative Record Index – Final Permit Decision
 Palmdale Energy Project – PSD Permit No. SE-17
[Docket No. EPA-R09-OAR-2017-0473](#)

3.11	Emails and Teleconference -with Attachments - Discussions between EPA, FWS, CDFW on Southwestern Willow Flycatcher and Palmdale Energy Project	Various
3.11.1	Email Attachment - Appendix H Conservation and Management Actions Documentation	Aug 2014
3.11.2	CNDDB Online Field Survey Form Report, California Department of Fish and Wildlife	6/4/2015
3.11.3	CBI CLAIMED - Not publicly available: Email Attachment - EDM International 2016 Sunrise Collision Study	Apr 2016
3.12	Email to L. Beckham from R. Bransfield Notifying EPA that the FWS No Longer Recommends Formal Consultation	8/3/2017
Section 4 - National Historic Preservation Act		
4.1	Draft Cultural Resources Report with Attachments	Aug 2017
4.1.1	California Energy Commission, Final Staff Assessment for the Palmdale Hybrid Power Project, Cultural Resources	Dec 2010
4.1.2	California Energy Commission, Final Staff Assessment for the Palmdale Energy Project, Cultural Resources	Sept 2016
4.1.3	California Energy Commission, Presiding Member's Proposed Decision, Palmdale Energy Project - Cultural Resources	7/3/2017
4.1.4	California Energy Commission, Errata to Presiding Member's Proposed Decision, Palmdale Energy Project	8/3/2017
4.1.5	California Energy Commission, Adoption Order, Palmdale Energy Project	8/9/2017
4.2	Letter and Attachments from G. Rios to L. Valbuena - Inviting San Manuel Tribe to NHPA Consultation	7/11/2017
4.2.1	Email to L. Clauss from L. Beckham - Transmitting Copy of Letter to San Manuel Tribe	7/11/2017
4.3	Email to L. Beckham from L. Clauss - Notification that San Manuel Tribe Would Like to Consult under Section 106	8/9/2017
4.4	Email to L. Clauss from L. Beckham - Transmitting Copy of Letter with Attachments	8/9/2017
4.5	Emails between L. Clauss and L. Beckham - Draft Cultural Resources Report - Palmdale Energy Project	8/18/2017 - 9/1/2017
4.6	Email from L. Beckham to T. Cameron - Notifying Applicant of Consultation with San Manuel Tribe with Attachment	9/14/2017
4.7	Emails between L. Beckham and T. Cameron Re: Tribal Consultation	9/20/2017- 10/3/2017
4.8	Redacted Meeting Invitation from T. Cameron - Palmdale Energy Call re Cultural Comments	10/12/2017

United States Environmental Protection Agency
 Administrative Record Index – Final Permit Decision
 Palmdale Energy Project – PSD Permit No. SE-17
[Docket No. EPA-R09-OAR-2017-0473](#)

4.8.1	Meeting Invitation from T. Cameron - Palmdale Energy Call re Cultural Comments (Original – not publicly available)	10/12/2017
4.9	Email from L. Beckham to T. Cameron Re: Sample Application Addendum with Attachment	10/12/2017
4.10	Emails between EPA, California Energy Commission, and State Historic Preservation Office Staff Re: NHPA Tribal Consultation with Attachment	9/14/2017-10/4/2017
4.11	Letter from G. Rios to J. Polanco, California State Historic Preservation Officer (SHPO), Requesting Initiation of NHPA Section 106 Consultation, with Attachment	9/15/2017
4.11.1	Transmittal Email for Initiation of Consultation w/SHPO	9/15/2017
4.12	EPA's Cultural Resources Report for the Palmdale Energy Project with Attachments	Dec 17
4.13	Letter from G. Rios to J. Polanco Requesting Consulting Party Review, excluding Attachment. Attachment is included as Item 4.12 in the Index.	12/21/2017
4.13.1	Email Transmittal of Request for Consulting Party Review	12/21/2017
4.14	Letter from J. Polanco to G. Rios Re: Section 106 Consultation - Request for Information	1/19/2018
4.14.1	Email Transmittal Re: Section 106 Consultation - Request for Information	1/19/2018
4.15	Emails between EPA, CEC, and SHPO Staff Re: SHPO Information Request	1/19/2018-2/16/2018
4.16	Letter from J. Polanco to G. Rios Re: Section 106 Consultation - No Objection to Finding of No Adverse Effect	2/22/2018
4.17	Memorandum from G. Rios to PEP PSD Permit File Re: Summary of Section 106 Process	3/7/2018
Section 5 - Federal Land Managers - Class I Areas		
5.1	Email to G. Darvin from D. Shepherd - Confirmation from National Park Service that an AQRV Analysis is Not Required	8/24/2015
5.2	Email to L. Beckham from A. Nick - U.S. Forest Service Confirmed Receipt of Copy of Application	10/30/2015
5.3	Email to L. Beckham from G. Darvin - Copy of Confirmation from U.S. Forest Service that No Further AQRV Analysis is Required	1/10/2017
Section 6 - Environmental Justice Analysis		
6.1	EPA's Environmental Justice Analysis for the Palmdale Energy Project	Aug 2017
Section 7 - Materials Cited in Fact Sheet		
7.1	Letter to S. Williams from D. Jordan - RE: PSD Appeal No. 11-07, City of Palmdale, PSD Permit No. SE 09-01 Final Permit Decision	9/25/2012
7.2	Final Determination of Compliance, Palmdale Energy Project, Antelope Valley Air Quality Management District	8/22/2016

United States Environmental Protection Agency
 Administrative Record Index – Final Permit Decision
 Palmdale Energy Project – PSD Permit No. SE-17
[Docket No. EPA-R09-OAR-2017-0473](#)

7.3	Revisions to the Prevention of Significant Deterioration (PSD) and Title V Greenhouse Gas (GHG) Permitting Regulations and Establishment of a Significant Emissions Rate (SER) for GHG Emissions Under the PSD Program (81 FR 68110)	10/3/2016
7.4	Next Steps and Preliminary Views on the Application of Clean Air Act Permitting Programs to Greenhouse Gases Following the Supreme Court's Decision in Utility Air Regulatory Group v. Environmental Protection Agency	7/24/2014
7.5	Press Release: "Kawasaki Gas Turbines Cogeneration System Helps Bridgewater Correctional Facility"	1/25/2010
7.6	Modern Power Systems Feature: "Xonon Goes Commercial"	1/22/1998
7.7	Emerachem Power: "EMx for NOx, CO, VOC and PM Reduction"	2009
7.8	Title V Operating permit for Elk Hills Power – S-1152677	8/12/2016
7.9	Letter from the Shasta County Air Quality Management District to the Redding Electric Utility	6/23/2005
7.10	EPA's Air Pollution Control Technology Fact Sheet for SNCR	7/15/2003
7.11	Public Health Statement for Ammonia, ATSDR	Sept 2004
7.12	CEC Final Staff Assessment HAZMAT Conditions of Certification - HAZ 1 through HAZ 6	Sept 2016
7.13	Email regarding "Measuring CO from Gas-Fired Turbines – Using CEMS," from K. Garnett in EPA's Office of Air Quality Planning and Standards, Measurement Technology Group to L. Beckham, EPA Region 9, Air Permits Office	7/11/2017
7.14	Fluor Corporation: Dominion Virginia Greensville County Power Station	Accessed 8/16/2017
7.15	CPV: Towantic Energy Center	Accessed 8/16/2017
7.16	Final Determination of Compliance for the Huntington Beach Energy Project, South Coast Air Quality Management District - Pages 252-253	Nov 2016
7.17	Clean Air Technology Center Fact Sheets for Cyclones, Wet Scrubbers, ESPs, and Baghouses	2003
7.18	Comment and Response 40 in the Responses to Public Comments on the Proposed Prevention of Significant Deterioration Permit for the Palmdale Hybrid Power Plant, pages 39-40	10/18/2011
7.19	75-MW CSP Plant to be Built in Florida, <i>Renewable Energy World</i>	3/27/2009
7.20	Integrated solar combined cycle (ISCC), Wikipedia	Accessed 8/16/2017
7.21	Final Determination of Compliance for the Huntington Beach Energy Project, South Coast Air Quality Management District - Pages 10, 265, footnote 1	Nov 2016

United States Environmental Protection Agency
 Administrative Record Index – Final Permit Decision
 Palmdale Energy Project – PSD Permit No. SE-17
[Docket No. EPA-R09-OAR-2017-0473](#)

7.22	Final Determination of Compliance, AES Alamos, South Coast Air Quality Management District, page 268	Nov 2016
7.23	The End of the Era of Baseload Power Plants, <i>Green Tech Media</i>	6/29/2016
7.24	As Solar Pushes Electricity Prices Negative, 3 Solutions for California's Power Grid, <i>Inside Climate News</i>	6/14/2017
7.25	BACT Determinations, FPL Martin Power Plant, Unit 8 Combined Cycle Project, Florida Department of Environmental Protection, page 4	4/10/2003
7.26	EPA Technical Support Document for Docket EPA-HQ-OAR-2013-0495, Literature Survey of Carbon Capture Technology	7/10/2015
7.27	EPA's NSR Workshop Manual, DRAFT at B.7	Oct 1990
7.28	GE Unveils World's First Battery Storage & Gas Turbine Hybrid with Southern California Edison, <i>Current</i>	10/4/2016
7.29	Taking Charge: GE Bundles Batteries with Largest Steam and Gas Turbines, <i>GE Reports</i>	6/12/2017
7.30	Enhancing gas turbine power generation with battery storage, <i>Siemens</i>	undated
7.31	Memo to File, Re: PSD Permit Freeport LNG, L. Beckham EPA Region 9	3/30/2017
7.32	EPA's NSR Workshop Manual, DRAFT at B.37	Oct 1990
7.33	EPA's SCR Cost Control Manual, Spreadsheet, Data Inputs Tab	2016
7.34	How Does an Oxidation Catalyst Work?, <i>NETT Technologies</i>	2017
7.35	Low-Temperature Oxidation/ Reduction Catalysts, Technology Transfer Program, NASA	Accessed 8/16/2017
7.36	EPA's Alternative Control Techniques Document: Stationary Diesel Engines, Tables 5-2, 5-3, 5-4	Mar 2010
7.37	SF6 Emission Reduction Partnership for Electric Power Systems	6/6/2017
7.38	EPA's 2017 Workshop for SF6 Emission Reduction Strategies	Jan 2017
7.39	3M™ Novec™ Dielectric Fluids SF6 Alternatives for Power Utilities	Jan 2017
7.40	SF6 Free HV GIS and Breakers, PG&E	Jan 2017
7.41	Revisions to the Guideline on Air Quality Models: Enhancements to the AERMOD Dispersion Modeling System and Incorporation of Approaches to Address Ozone and Fine Particulate Matter, Final Rule, 82 FR 5182	1/17/2017
7.42	Delay of Effective Date for 30 Final Regulations Published by the Environmental Protection Agency Between October 28, 2016 and January 17, 2017, Final Rule, 82 FR 8499	1/26/2017
7.43	Further Delay of Effective Dates for Five Final Regulations Published by the Environmental Protection Agency Between December 12, 2016 and January 17, 2017, Final Rule, 82 FR 14324	3/20/2017
7.44	NAAQS Table on EPA's Website	12/20/2016

United States Environmental Protection Agency
 Administrative Record Index – Final Permit Decision
 Palmdale Energy Project – PSD Permit No. SE-17
[Docket No. EPA-R09-OAR-2017-0473](#)

7.45	Applicability of Appendix W Modeling Guidance for the 1-hour NO ₂ National Ambient Air Quality Standard, with attachment, Tyler Fox, Air Quality Modeling Group, EPA	6/28/2010
7.46	Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO ₂ National Ambient Air Quality Standard, Tyler Fox, Air Quality Modeling Group, EPA	3/1/2011
7.47	Draft Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program, Stephen D, Page Director, OAQPS, EPA	8/18/2016
7.48	Draft Technical Basis for the EPA's Development of Significant Impact Thresholds for PM _{2.5} and Ozone	8/1/2016
7.49	Draft Technical Basis for the EPA's Development of Significant Impact Levels for PM _{2.5} and Ozone, Appendices	8/1/2016
7.50	Draft Legal Support Memorandum: Application of Significant Impact Levels in the Air Quality Demonstration for Prevention of Significant Deterioration Permitting under the Clean Air Act	8/1/2016
7.51	Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR), Proposed Rule, 61 FR 38250	7/23/1996
7.52	Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier 1 Demonstration Tool for Ozone and PM _{2.5} under the PSD Permitting Program	12/2/2016
7.53	Federal Land Manager's Air Quality Related Values Workbook (FLAG), Phase 1 Report-Revised 2010	Oct 2010
7.54	A Screening Procedure for the Impacts of Air Pollution Sources on Plants, Soils, and Animals, EPA 450/2-81-078	1/12/1980
7.55	Workbook for Plume Visual Impact Screening and Analysis (Revised), EPA, EPA-454/R-92-023	1992
7.56	A Look at the New Battery Storage Facility in California Built with Tesla Powerpacks, <i>ARS Technica</i>	1/31/2017
7.57	5 Battery Energy Storage Projects to Watch in 2016, <i>Utility Dive</i>	11/30/2015
7.58	The Texas Energy Storage Market: A Four-Part Examination, <i>Emerging Energy Insights Blog</i> , <i>lexology.com</i>	10/18/2016
7.59	NEC Energy Solutions Provides First Utility-Scale Battery Energy Storage Project in Massachusetts, <i>Energy Storage News</i>	10/17/2016
7.60	CAISO Battery Storage Trial, <i>The Grid Optimization Blog</i> , <i>T&D World</i>	11/21/2016
7.61	Battery Storage Technologies, Applications and Trend in Renewable Energy, 2016 IEEE International Conference on Sustainable Energy Technologies	2016

United States Environmental Protection Agency
 Administrative Record Index – Final Permit Decision
 Palmdale Energy Project – PSD Permit No. SE-17
[Docket No. EPA-R09-OAR-2017-0473](#)

7.62	List of energy storage projects, <i>Wikipedia</i>	Accessed 8/16/2017
7.63	A Look at the Biggest Energy Storage Projects Built Around the World in the Last Year, <i>Energy Storage</i> , Greentechmedia.com	2/3/2016
7.64	World's Largest Storage Battery Will Power Los Angeles, <i>E&E News - Energy</i> , ScientificAmerica.com	7/7/2016
7.65	GE Unveils World's First Battery Storage & Gas Turbine Hybrid with Southern California Edison, <i>Business Wire</i>	10/4/2016
Section 8 - Other Supporting Material		
8.1	Announcement of Public Information Meeting Held Prior to Proposed Permit Decision - English	Jul 2017
8.1.1	General Email Announcing a Public Information Meeting Held Prior to Proposed Permit - English (Original – not publicly available)	7/7/2017
8.1.2	Redacted General Email Announcing a Public Information Meeting Held Prior to Proposed Permit	7/7/2017
8.1.3	Community Members Email Announcing a Public Information Meeting Held Prior to Proposed Permit - English	7/7/2017
8.2	Announcement of Public Information Meeting Held Prior to Proposed Permit Decision - Spanish	Jul 2017
8.2.1	General Email Announcing a Public Information Meeting Held Prior to Proposed Permit – Spanish (Original – not publicly available)	7/7/2017
8.2.2	Redacted General Email Announcing a Public Information Meeting Held Prior to Proposed Permit	7/7/2017
8.2.3	Community Members Email Announcing a Public Information Meeting Held Prior to Proposed Permit - Spanish	7/7/2017
8.3	Letter to Community Members Announcing a Public Information Meeting - English and Spanish	7/7/2017
8.4	USPS Mailing List of Announcement of Public Information Meeting Held Prior to Proposed Permit Decision (Original – not publicly available)	Jul 2017
8.4.1	Redacted USPS Mailing List of Announcement of Public Information Meeting Held Prior to Proposed Permit Decision	Jul 2017
8.5	Presentation at Public Information Meeting - English	8/5/2017
8.6	Presentation at Public Information Meeting - Spanish	8/5/2017
8.7	Public Information Meeting Handout - English	8/5/2017
8.8	Public Information Meeting Handout - Spanish	8/5/2017
8.9	Email from J. Cagle to E. Veerkamp Regarding Air Force Plant 42, California Energy Commission Docket for Palmdale Energy Project	2/24/2017
8.10	Palmdale Energy Project - Modeling Protocol and Cover Letter	8/19/2015

United States Environmental Protection Agency
 Administrative Record Index – Final Permit Decision
 Palmdale Energy Project – PSD Permit No. SE-17
[Docket No. EPA-R09-OAR-2017-0473](#)

8.10.1	Email to C. Holladay and L. Beckham from G. Darvin Transmitting Modeling Protocol for Palmdale Energy Project	8/19/2015
8.11	Email and Attachment from G. Darvin to C. Holladay Related to Downwash Receptor Grid	5/16/2017
8.12	Email Communications between C. Holladay and G. Darvin Regarding Status of Review of the Modeling Protocol	8/31/2015
8.13	Email Communications between L. Beckham and G. Darvin Regarding Battery Storage Information	6/26/2017
8.14	Email and Attachment from G. Darvin to C. Holladay Related to Cumulative Impacts	5/22/2017
8.15	Email from G. Darvin to C. Holladay Related to Ambient Air Memo	7/26/2017
8.16	Email and Attachment from G. Darvin to C. Holladay Related to Ambient Air Memo	7/27/2017
8.17	Email Communications with J. Ayer Providing Follow-up Information to the August 5, 2017 Public Information Meeting	8/5/2017 - 8/11/2017
8.17.1	Imperial County 2013 State Implementation Plan for the 2006 24-hour PM _{2.5} Moderate Nonattainment Area	12/2/2014
8.17.1	Key Indicators of Health, Los Angeles County Department of Public Health	Jan 2017
8.18	Memo to File, RE: Public Information Meeting Held on August 5, 2017 Regarding PSD Permit Application, L. Beckham EPA Region 9	8/15/2017
8.19	GIS SHP Files for Maps Used in EPA's Fact Sheet * Available on EPA's website *	Aug 2017
8.20	Emails between J. Ayers and L. Beckham Re: J. Ayers' Request That Email Sent Prior to Comment Period Be Included as Comment on the Proposed Permit	8/17/2017- 8/21/2017
8.21	Emails between J. Felton and L. Beckham Concerning CO CEMS Data in ppmvd with Attachments (click links for Attachments)	12/5/2017- 12/7/2017
8.22	Emails between J. Felton and L. Beckham Concerning CO CEMS Data in lb/hr with Attachments (click links for Attachments)	12/5/2017- 12/7/2017
8.23	GIS SHP Files for Map Used in Response to Comments * Available on EPA's website *	2/27/2018
Section 9 - Notifications During Public Comment Period		
9.1	Email from L. Beckham to T. Johns Providing Notice to the Applicant of the Proposed Permit Decision	8/17/2017
9.2	Redacted General Email to Electronic Public Notice Distribution List Providing Notice of the Proposed Permit and a Public Hearing	8/17/2017
9.2.1	General Email to Electronic Public Notice Distribution List Providing Notice of the Proposed Permit and a Public Hearing (Original – not publicly available)	8/17/2017

United States Environmental Protection Agency
 Administrative Record Index – Final Permit Decision
 Palmdale Energy Project – PSD Permit No. SE-17
[Docket No. EPA-R09-OAR-2017-0473](#)

9.3	Redacted General Email to Electronic Public Notice Distribution List Providing Notice of the Proposed Permit and a Public Hearing – Spanish	8/17/2017
9.3.1	General Email to Electronic Public Notice Distribution List Providing Notice of the Proposed Permit and a Public Hearing – Spanish (Original – not publicly available)	8/17/2017
9.4	Names on EPA's Electronic Public Notice Distribution List Announcing the Proposed Permit and a Public Hearing (does not include contact information, or individuals that do not provide their name when requesting notification)	8/17/2017
9.5	Redacted USPS Mailing List Providing Notice of Proposed Permit Decision and a Public Hearing	8/17/2017
9.5.1	USPS Mailing List Providing Notice of Proposed Permit Decision and a Public Hearing (Original – not publicly available)	8/17/2017
9.6	EPA's Public Notice Announcing a Webinar on the Proposed Permit -English and Spanish	8/23/2017
9.7	Redacted General Email to Electronic Public Notice Distribution List Providing Notice of a Webinar on the Proposed Permit	8/23/2017
9.7.1	General Email to Electronic Public Notice Distribution List Providing Notice of a Webinar on the Proposed Permit (Original – not publicly available)	8/23/2017
9.8	Redacted General Email to Electronic Public Notice Distribution List Providing Notice of a Webinar on the Proposed Permit - Spanish	8/23/2017
9.8.1	General Email to Electronic Public Notice Distribution List Providing Notice of a Webinar on the Proposed Permit – Spanish (Original – not publicly available)	8/23/2017
9.9	Names on EPA's Electronic Public Notice Distribution List for the Webinar (does not include contact information, or individuals that do not provide their name when requesting notification)	8/23/2017 and 8/30/2017
9.10	Redacted USPS Mailing List Providing Notice of a Webinar on the Proposed Permit	8/23/2017
9.10.1	USPS Mailing List Providing Notice of a Webinar on the Proposed Permit (Original - not publicly available)	8/23/2017
9.11	Redacted General Email to Electronic Public Notice Distribution List Providing a Reminder of a Webinar on the Proposed Permit	8/30/2017
9.11.1	General Email to Electronic Public Notice Distribution List Providing a Reminder of a Webinar on the Proposed Permit (Original – not publicly available)	8/30/2017
9.12	Redacted General Email to Electronic Public Notice Distribution List Providing a Reminder of a Webinar on the Proposed Permit - Spanish	8/30/2017

United States Environmental Protection Agency
 Administrative Record Index – Final Permit Decision
 Palmdale Energy Project – PSD Permit No. SE-17
[Docket No. EPA-R09-OAR-2017-0473](#)

9.12.1	General Email to Electronic Public Notice Distribution List Providing a Reminder of a Webinar on the Proposed Permit – Spanish (Original – not publicly available)	8/30/2017
Section 10 - Public Hearing and Webinar Material		
10.1	EPA's Webinar Presentation Slides	8/30/2017
10.2	Public Hearing Handout - Providing a Summary of the Proposed Action	9/21/2017
10.2.1	Public Hearing Handout - Providing a Summary of the Proposed Action - Spanish	9/21/2017
10.3	Redacted Public Hearing Sign-in Sheet	9/21/2017
10.3.1	Public Hearing Sign-in Sheet (Original – not publicly available)	9/21/2017
10.4	Public Hearing Speaker Request Card	9/21/2017
Section 11 - Comments Received on the EPA's Proposed Permit Decision		
11.1	Comments from Jackie Ayer via Email, including Attachments	8/17/2017
11.2	Additional Comments from Jackie Ayer, including Attachments	8/5/2017
11.3	Comment Letter from Linda Sheppard	8/30/2017
11.4	Written Comments from Jack Ehernberger Submitted at the Public Hearing	9/21/2017
11.5	Comments from G. Darvin, Atmospheric Dynamics, on behalf of the Applicant	10/6/2017
11.5.1	Email from G. Darvin to L. Beckham Transmitting Comments	10/6/2017
11.6	Comments from L. Belenky and R. Ukeiley, Center for Biological Diversity, on behalf of several conservation groups, including exhibits and transmittal email	10/6/2017
11.7	Comments from Jack Ehernberger submitted via email	10/7/2017
11.8	Public Hearing Transcript for Proposed Permit	9/21/2017
11.9	Comments from Lee Clauss, Director Cultural Resources Management, San Manuel Band of Mission Indians	8/30/2017
Section 12 - Material Cited in Response to Comments		
12.1	Annual Network Plan Covering Monitoring Operations in 25 California Air Districts, California Air Resources Board (Appendices omitted)	Jul 2017
12.2	NAAQS Table, U.S EPA Website Publication	12/20/2016
12.3	Excerpt from Final Commission Decision, California Energy Commission, Palmdale Energy Project Amendment, including Section VI.D Noise and Vibration	Aug 2017
12.4	Etherington, Darrell, Tesla will build world's largest battery storage facility for Australian wind farm, TechCrunch	7/7/2017
12.5	Memorandum from L. Beckham to PEP PSD Permit File, Summary of Air Permits Office Trip to Southern California Agencies and Industrial Facilities	3/6/2018

United States Environmental Protection Agency
 Administrative Record Index – Final Permit Decision
 Palmdale Energy Project – PSD Permit No. SE-17
[Docket No. EPA-R09-OAR-2017-0473](#)

12.6	Application of Life-Cycle Assessment to Nanoscale Technology: Lithium-ion Batteries for Electric Vehicles, Design for the Environment Program, EPA's Office of Pollution Prevention and Toxics, National Risk Management Research Laboratory, EPA's Office of Research and Development, EPA 744-R-12-001	4/24/2013
12.7	Price, Emily, Elon Musk's New Battery Just Won Him a \$50 Million Bet, Fortune	11/23/2017
12.8	Electric Power Monthly, Table 5.6.A. Average Price of Electricity to Ultimate Customers by End-Use Section, U.S. Energy Information Administration	2/27/2018
12.9	California Natural Gas Price Sold to Electric Power Customers, U.S. Energy Information Administration	2/28/2018
12.10	EIA Publishes Construction Cost Information for Electric Power Generators, U.S. Energy Information Administration	6/6/2016
12.11	Hawaii Energy Facts & Figures, State of Hawaii Department of Business, Economic Development and Tourism and Hawaii State Energy Office	Nov 2014
12.12	Siemens Website Publication for SGT6-6000G: High Power Density, High Efficiency	Accessed 3/8/2018
12.13	Siemens Website Publication for SGT6-8000H Heavy Duty Gas Turbine	Accessed 3/8/2018
12.14	PSD Permit for La Paloma Energy Center, PSD Permit Number PSD-TX-1288-GHG, U.S. EPA Region 6	11/6/2013
12.15	Website Publication for The Isle magazine, Freeport LNG Marks Three Years of Liquefaction Project Construction	Dec 2017
12.16	How to License NASA Technology, NASA Technology Transfer Program Website	Accessed 3/8/2018
12.17	Diesel Emission Control Products, AirFlow Catalyst Systems™ Website	Accessed 3/8/2018
12.18	Burton, C.S., T.E. Stoeckenius and J.P. Nordin, 1983. Final Report: The Temporal Representativeness of Short-Term Meteorological Data Sets: Implications for Air Quality Impact Assessments. Systems Applications, Inc., San Rafael, CA	5/9/1983
12.19	Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program, Peter Tsirigotis, Director, OAQPS, EPA	4/17/2018
12.20	Technical Basis for the EPA's Development of the Significant Impact Thresholds for PM _{2.5} and Ozone	April 2018

United States Environmental Protection Agency
 Administrative Record Index – Final Permit Decision
 Palmdale Energy Project – PSD Permit No. SE-17
[Docket No. EPA-R09-OAR-2017-0473](#)

12.21	Appendix: Technical Basis for the EPA's Development of the Significant Impact Thresholds for PM _{2.5} and Ozone	April 2018
12.22	Legal Memorandum, Application of Significant Impact Levels in the Air Quality Demonstration for Prevention of Significant Deterioration Permitting under the Clean Air Act	4/17/2018
12.23	Air Trends, Carbon Monoxide Trends, U.S. EPA Website	Accessed 3/8/2018
12.24	Carbon Monoxide (1971) Designated Area/State Information, Green Book, U.S. EPA Website	Accessed 3/12/2018
12.25	The Influence of Engine Start and Stop on Total Emission from Natural Gas Fired CHP Engines, Torben Kvist Jensen, Danish Gas Technology Centre, Denmark	2008
12.26	Air Force Plant 42 Air Installation Compatible Use Zone Study, Air Force Plant 42 California, introductory pages and pages 2-7 through 2-9 and 2-13 through 2-15.	2012
12.27	Palmdale Regional Airport Article, Wikipedia	Accessed 3/8/2018
12.28	Memorandum Re: Ambient Air from G.T. Helms, Chief, Control Programs Operations Branch, EPA Office of Air Quality Planning and Standards, to Steve Rothblatt, Chief, Air Branch, EPA Region V	4/30/1987
12.29	Memorandum Re: Ambient Air from Robert D. Bauman, Chief, SO ₂ /Particulate Matter Programs Branch, EPA Office of Air Quality Planning and Standards, to Gerald Fontenot, Chief, Air Programs Branch, EPA Region VI	10/17/1989
12.30	Letter from Douglas M. Costle, EPA Administrator to Senator Jennings Randolph, Chairman, Committee on Environment and Public Works, United States Senate, Re: Ambient Air Definition	12/19/1980
12.31	Email exchange between G. Darvin, Atmospheric Dynamics, C. Anderson, Mojave Desert Air Quality Management District, and L. Beckham, EPA, Re: Confirmation of Plant 42 Fenceline/Receptors for PEP Modeling	3/8/2018
12.32	Email from V. Rausch, AVAQMD to L. Beckham, EPA Re: CO Emissions from Plant 42 sources	1/30/2018
12.33	Near Roadway Air Pollution and Health: Frequently Asked Questions, EPA Office of Transportation and Air Quality, EPA-420-F-14-044	Aug 2014
12.34	Hsiao-Hsien Hsu et al., Contributions of Aircraft Arrivals and Departures to Ultrafine Particle Counts near Los Angeles International Airport. Science of the Total Environment, 444 (2013), pp 347-355 *Copyrighted*	2013

United States Environmental Protection Agency
 Administrative Record Index – Final Permit Decision
 Palmdale Energy Project – PSD Permit No. SE-17
[Docket No. EPA-R09-OAR-2017-0473](#)

12.35	Los Angeles Intl Airport (Los Angeles, CA) LAX Overview, FlightAware Website	Accessed 3/12/2018
12.36	Gabrio Valotto and Critiano Varin, Characterization of Hourly NOx Atmospheric Concentrations near the Venice International Airport with Additive Semi-Parametric Statistical Models. Atmospheric Research, 167 (2016), 216-223 *Copyrighted*	2016
12.37	N. Hudda et al., Aviation Emissions Impact Ambient Ultrafine Particle Concentrations in the Greater Boston Area, Environ. Sci. Technol., 2016, 50 (2016), pp 8514–8521 *Copyrighted*	2016
12.38	The EPA's Review of CO CEMS Emissions Data for a Siemens SGT6-5000F, Lisa Beckham, EPA Region 9	1/11/2018
12.39	National Ambient Air Quality Standards for Particulate Matter, 78 FR 3086, Final Rule, EPA	1/15/2013
12.40	Air Quality Designations for the 2012 Primary Annual Final Particle (PM _{2.5}) National Ambient Air Quality Standards (NAAQS), 80 FR 2206, Final Rule, EPA	1/15/2015
12.41	Air Quality Designations for the 2006 24-Hour Fine Particle (PM _{2.5}) National Ambient Air Quality Standards, 74 FR 58688, Final Rule, EPA	11/13/2009
12.42	Fine Particulate Matter National Ambient Air Quality Standards: State Implementation Plan Requirements, 81 FR 58010, Final Rule, EPA	8/24/2016
12.43	Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units, 80 FR 64510, Final Rule, EPA	10/23/2015
12.44	40 CFR Part 51 - Requirements for Preparation, Adoption, and Submittal of Implementation Plans, Prevention of Significant Air Quality Deterioration, 43 FR 26380, Final Rule, EPA	6/19/1978
12.45	Credible Evidence Revisions, 62 FR 8314, Final Rule, EPA	2/24/1997
Section 13 - Final Permit Documents and Notifications		
13.1	Final PSD Permit, PSD Permit: SE 17-01, Permittee: Palmdale Energy, LLC, Source Name: Palmdale Energy Project	4/25/2018
13.2	Response to Public Comments on Proposed Prevention of Significant Deterioration Permit, Palmdale Energy Project	April 2018
13.2.1	Unofficial Redline-Strikeout Version of the Palmdale Energy Project Final PSD Permit Decision Showing Changes from the Proposal	April 2018
13.3	Letter to Applicant, Re: Final Permit Decision for Palmdale Energy Project, PSD Permit SE 17-01	4/25/2018
13.3.1	Email transmittal from L. Beckham to T. Johns of the Final PSD Permit	4/26/2018
13.4	Announcement of Final Permit Decision for the Palmdale Energy Project PSD Permit - English and Spanish	4/26/2018

United States Environmental Protection Agency
 Administrative Record Index – Final Permit Decision
 Palmdale Energy Project – PSD Permit No. SE-17
[Docket No. EPA-R09-OAR-2017-0473](#)

13.5	Redacted General Email to Electronic Public Notice Distribution List Providing Notice of the Final Permit Decision - English	4/26/2018
13.5.1	General Email to Electronic Public Notice Distribution List Providing Notice of the Final Permit Decision (Original – not publicly available)	4/26/2018
13.6	Redacted General Email to Electronic Public Notice Distribution List Providing Notice of the Final Permit Decision - Spanish	4/26/2018
13.6.1	General Email to Electronic Public Notice Distribution List Providing Notice of the Final Permit Decision – Spanish (Original – not publicly available)	4/26/2018
13.7	Names on EPA's Electronic Public Notice Distribution List Announcing the Final Permit Decision (does not include contact information, or individuals that do not provide their name when requesting notification)	4/26/2018
13.8	Redacted USPS Mailing List Providing Notice of Final Permit Decision	4/26/2018
13.8.1	USPS Mailing List Providing Notice of Final Permit Decision and a Public Hearing (Original - not publicly available)	4/26/2018