

From: Solorio, Eric@Energy
Sent: Friday, May 04, 2012 9:01 AM
To: stoppuc@yahoo.com
Subject: QBGP_Q/A Regarding Air Quality

Importance: High

DOCKET

11-AFC-3

DATE MAY 04 2012

RECD. MAY 04 2012

Mike,

It was nice talking with you again. As a follow up to our phone call Tuesday morning, I'm providing you with the attached responses to your questions. At some point in the near future, Energy Commission staff will hold a workshop to discuss the "air quality" topic with the applicant and of course interveners will be invited to participate. During that workshop the public will also be offered an opportunity to ask questions and comment on the topic. The workshop is the best forum to thoroughly vet this topic when all the technical experts are present.

Staff plans to incorporate the attached responses into a FAQs doc that we will develop and post to the project web site, at a later date. I hope this address your questions. Thanks for your inquiry.

Respectfully,
Eric Solorio, *Project Manager*

California Energy Commission
Siting, Transmission and Environmental Protection Division
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Responses to Mike
Walker_5-4-1...

PROOF OF SERVICE (REVISED 4/12/12) FILED WITH
ORIGINAL MAILED FROM SACRAMENTO ON 5/4/12
DLS

MODELING

How is the Plume impact shown with respect to surrounding topography?

The U.S. EPA regulatory approved air quality modeling program, AERMOD, was used to quantify pollutant impacts on the surrounding environment. AERMOD is a dispersion model that calculates air pollution concentrations at defined receptors (normally at ground level) within the modeling domain. The concentrations at each receptor depend on the plume height, receptor height, downwind distance, wind speed, turbulence levels, atmospheric stability, etc. AERMOD utilizes a terrain processor (AERMAP Executable) to calculate the height of each receptor. The terrain map type was developed by the United States Geological Survey (USGS DEM) to provide a raster-based digital elevation model. The modeled concentration outputs can be exported into a 3-D view map projection that shows the air pollution concentrations at each receptor within the topographical region.

ERCs

What are they?

Emission Reduction Credits (ERCs) are an actual emission reduction at a stationary source which is banked pursuant to the local air district's rules and regulations, registered with the district, and for which an ERC certificate is issued. Any person wanting to bank emission reductions shall submit an application to the Air Pollution Control Officer. Upon approval of the application by the Air Pollution Control Officer, the district shall record such reductions in an ERC registry and shall issue a certificate evidencing ownership of such banked reductions to the owner(s) of the ERC. The Air Pollution Control Officer shall be responsible for including banked ERCs in the emissions inventory so that the credits are considered for air quality planning purposes, if necessary. (SDAPCD Regulation 2, Rule 26)

When are they required?

Air Pollution Control Districts (APCDs) such as the San Diego Air Pollution Control District (SDAPCD) require ERCs for specific criteria pollutants when a major source or major modification is planned in a nonattainment area for that pollutant. Nonattainment areas are areas of the state where air pollution levels persistently exceed the national or state ambient air quality standards for a given pollutant. Districts have different definitions/thresholds for major source or major modifications. Thresholds depend on that district's current ambient air

quality and its State Implementation Plan (SIP). The major source thresholds and attainment statuses for the SDAPCD are listed in the table below.

Attainment Status of San Diego Air Pollution Control District

Pollutants	State Classification	Federal Classification
Ozone (1-hr)	Nonattainment	No Federal Standard
Ozone (8-hr)	Nonattainment	Nonattainment
PM10	Nonattainment	Unclassified ^a
PM2.5	Nonattainment	Attainment
CO	Attainment	Attainment
NO ₂	Attainment	Attainment
SO ₂	Attainment	Attainment

a. At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated unclassified. Unclassified areas are treated the same as attainment designations.

SDAPCD Offset Trigger Thresholds

Pollutant	Tons/Year
PM10	100
NOx	50
CO	100
SOx	100
VOC	50

The California Energy Commission generally requires California Environmental Quality Act (CEQA) mitigation for all nonattainment pollutants and nonattainment precursor pollutants whether or not the local district's offset threshold is triggered. Mitigation is usually in the form of ERCs or use of non-traditional emission reduction programs; these are programs that

generate reductions ineligible for use in an air district's traditional ERC banking program and are often called "emission offsets."

PARTICULATE MATTER (PM10/PM2.5)

What is particulate matter?

Particulate matter is a complex mixture of extremely small particles and liquid droplets with varying diameters. Particulate matter is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles.

The size of particles is directly linked to their potential for causing health problems. EPA is concerned about particles that are 10 micrometers in diameter or smaller (PM10) because those are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. EPA groups particle pollution into two categories:

- Inhalable coarse particles, with diameters larger than 2.5 micrometers and smaller than 10 micrometers (PM10) and;
- Fine particles, with diameters that are 2.5 micrometers and smaller (PM2.5).

Some PM10 particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye. Others are so small they can only be detected using an electron microscope.

Fine particles, such as those found in smoke and haze, are PM2.5. These particles can be directly emitted from sources such as forest fires, or they can form when gases emitted from power plants, industries and automobiles react in the air. The average human hair is about 70 micrometers in diameter – making it 30 times larger than the largest fine particle.

<http://www.epa.gov/pm/>

Assembly Bill 32

How does it work?

In 2006, the Legislature passed and Governor Schwarzenegger signed AB 32, the Global Warming Solutions Act of 2006, which set the 2020 greenhouse gas emissions reduction goal into law. It directed the California Air Resources Board (ARB or Board) to begin developing discrete early actions to reduce greenhouse gases while also preparing a scoping plan to identify how best to reach the 2020 limit.

The scoping plan reduction measures address a wide range of options pertaining to different sources or sectors. For stationary combustion sources the cap-and-trade program was established and it will include approximately 85 percent of all greenhouse gas emissions attributable to California once fully implemented in 2016. The regulation includes an enforceable GHG cap that will decline over time. ARB will distribute allowances, which are tradable permits, equal to the emission allowed under the cap. The applicability threshold for a facility is 25,000 metric tons or more of CO₂E per data year. Compliance begins in 2013 but GHG emissions can be averaged over a 3-year period.

<http://www.arb.ca.gov/cc/ab32/ab32.htm>

Please read the final regulation order for more information.

<http://www.arb.ca.gov/regact/2010/capandtrade10/finalrevfro.pdf>



BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
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**APPLICATION FOR CERTIFICATION
FOR THE *QUAIL BRUSH GENERATION PROJECT***

DOCKET NO. 11-AFC-03
PROOF OF SERVICE
(Revised 4/12/2012)

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DECLARATION OF SERVICE

I, Diane Scott, declare that on May 04, 2012, I served and filed a copy of the **QUAIL BRUSH GENERATION PROJECT(11-AFC-03) _ QUESTIONS/ANSWERS REGARDING AIR QUALITY, DATED MAY 04, 2012**. This document is accompanied by the most recent Proof of Service list, located on the web page for this project at:

<http://www.energy.ca.gov/sitingcases/quailbrush/index.html>.

The document has been sent to the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit or Chief Counsel, as appropriate, in the following manner:

(Check all that Apply)

For service to all other parties:

- Served electronically to all e-mail addresses on the Proof of Service list;
- Served by delivering on this date, either personally, or for mailing with the U.S. Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses **NOT** marked "e-mail preferred."

AND

For filing with the Docket Unit at the Energy Commission:

- by sending an electronic copy to the e-mail address below (preferred method); **OR**
- by depositing an original and 12 paper copies in the mail with the U.S. Postal Service with first class postage thereon fully prepaid, as follows:

CALIFORNIA ENERGY COMMISSION – DOCKET UNIT
Attn: Docket No. 11-AFC-3
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.ca.gov

OR, if filing a Petition for Reconsideration of Decision or Order pursuant to Title 20, § 1720:

- Served by delivering on this date one electronic copy by e-mail, and an original paper copy to the Chief Counsel at the following address, either personally, or for mailing with the U.S. Postal Service with first class postage thereon fully prepaid:

California Energy Commission
Michael J. Levy, Chief Counsel
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I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

Original Signed By:
Diane Scott
Siting, Transmission and Environmental Protection Division