

**FAX**

To: Mr. McKenzie, Ms. Newman and Mrs. Florence      Fax #: \_\_\_\_\_  
From: Melissa Guise-APCD      Date: 7/29/2008  
Re: DRC2006-00222 Mankins  
Page 9 incl. cover page  
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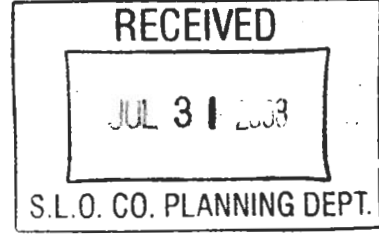
**AIR POLLUTION  
CONTROL DISTRICT**  
COUNTY OF SAN LUIS OBISPO

July 29<sup>th</sup>, 2008

Enclosed you will find you copy of the comment letter for the Mankins-Excelaron Oil Well Project. Your hard copy will be delivered via U.S. Mail, however, we have faxed it to you for your convenience. Please let us know if you have any questions or concerns.



**AIR POLLUTION  
CONTROL DISTRICT**  
COUNTY OF SAN LUIS OBISPO



July 28, 2008

John McKenzie  
Environmental Division  
County Planning and Building Department  
County Government Center, RM 310  
San Luis Obispo, CA 93401

**SUBJECT:** APCD Comments Regarding Emission Calculations for DRC2006-00222/Mankins – Excelaron, LLC Exploration Oil Well Project on Huasna Road

Dear Mr. McKenzie,

On July 23, 2008, we received a copy of the air emission calculations prepared by Rincon which evaluate air emissions associated with the initial site preparation, exploration, and operation for an oil field in Huasna Valley. The project includes the re-opening of two oil wells and drilling of two new wells. The following comments are provided following our review of the emission calculations.

**District Review Background**

On June 12, 2008, the San Luis Obispo County Air Pollution Control District (APCD or District) met with representatives from Excelaron and Oasis Associated to discuss the material needed to finalize the emission calculations for the proposed project and permitting issues. At that time District staff reiterated the need to calculate all emissions including those from the drilling and operation of the facility. On July 7, 2008, the applicant submitted a report that calculated emissions from the transportation of product from the facility but did not address other emissions (ie. drilling rig, construction equipment, heater, generator etc). In a letter dated July 10, 2008, the APCD again reiterated the need to have the applicant account for all emissions from the project as required by California Environmental Quality Act (CEQA). APCD indicated that the calculations should include but not be limited to the following information.

- Pad Grading – Off road and on road equipment required to do site clearing and grading;
- Road Improvements – Off road and on road equipment;
- Well drilling, installation and workovers – draw works, mud pumps, generators, mud cleaner, backhoes, etc;
- Piping installation and modification - welders, crane, backhoe; and,
- Motor vehicles material deliveries and worker transportation to the job site.

While the report submitted on July 23, 2008, is more detailed than the previous report, there is still information and details about the project that have not been provided. These items are addressed below.

### **Construction Phase Emissions**

APCD staff has reviewed the construction phase emissions and have the following comments.

On page 3 of the report, the APCD's ROG and NO<sub>x</sub> quarterly emission threshold is listed as 60 tons/quarter. The threshold is 6.0 tons/quarter, **this factor should be corrected.**

APCD staff completed a review of the emissions from the drilling phase of this project and agrees that the emissions from the drill phase of the project will be below the APCD CEQA threshold of 185 lb/day and 2.5 ton/quarter. This conclusion is based on the assumption that drilling will be limited to no more than 12 days. Should the drilling operation take longer than anticipated or if more wells are drilled these calculations will need to be revised and appropriate mitigation implemented. To monitor drilling activities fuel usage logs should be maintained by the applicant and made available to the APCD upon request.

There was no discussion in the drilling and testing phase of the project about temporary tanks to be utilized for handling and storage of drilling fluids or other materials, the emissions from temporary tanks, and any measures to control emission from temporary tanks. **This should be addressed in the report.**

As indicated in the APCD's previous letter dated May 14, 2008, the following measures should be implemented to address special conditions and state requirements for construction activities.

### **Hydrocarbon Contaminated Soil**

**Should hydrocarbon contaminated soil be encountered during construction activities, the APCD must be notified as soon as possible and no later than 48 hours after affected material is discovered to determine if an APCD Permit will be required. In addition, the following measures shall be implemented immediately after contaminated soil is discovered:**

- Covers on storage piles shall be maintained in place at all times in areas not actively involved in soil addition or removal;
- Contaminated soil shall be covered with at least six inches of packed uncontaminated soil or other TPH –non-permeable barrier such as plastic tarp. No headspace shall be allowed where vapors could accumulate;
- Covered piles shall be designed in such a way to eliminate erosion due to wind or

water. No openings in the covers are permitted;

- During soil excavation, odors shall not be evident to such a degree as to cause a public nuisance; and,
- Clean soil must be segregated from contaminated soil.

**The notification and permitting determination requirements shall be directed to the APCD Enforcement Division at 781-5912.**

#### Naturally Occurring Asbestos

The project site is located in a candidate area for Naturally Occurring Asbestos (NOA), which has been identified as a toxic air contaminant by the California Air Resources Board (ARB). Under the ARB Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations, **prior to any grading activities at the site, the project proponent shall ensure that a geologic evaluation is conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request must be filed with the District (see Attachment 1). If NOA is found at the site the applicant must comply with all requirements outlined in the Asbestos ATCM.** This may include development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by the APCD. Please refer to the APCD web page at <http://www.slocleanair.org/business/asbestos.asp> for more information or contact the Enforcement Division at 781-5912.

#### Developmental Burning

Effective February 25, 2000, **the APCD prohibited developmental burning of vegetative material within San Luis Obispo County.** Under certain circumstances where no technically feasible alternatives are available, limited developmental burning under restrictions may be allowed. This requires prior application, payment of fee based on the size of the project, APCD approval, and issuance of a burn permit by the APCD and the local fire department authority. The applicant is required to furnish the APCD with the study of technical feasibility (which includes costs and other constraints) at the time of application. If you have any questions regarding these requirements, contact the Enforcement Division at 781-5912.

#### Dust Control Measures

The project as described in the referral will not likely exceed the APCD's CEQA significance threshold for construction phase emissions. However, construction activities can generate fugitive dust, which could be a nuisance to local residents and businesses in close proximity to the proposed construction site. Dust complaints could result in a violation of the District's 402 "Nuisance" Rule. **APCD staff recommend the following measures be incorporated into the project to control dust:**

- Reduce the amount of the disturbed area where possible;
- Use water trucks or sprinkler systems in sufficient quantities to prevent airborne

dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible;

- All dirt stock-pile areas should be sprayed daily as needed; and,
- All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible, and building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

### Construction Permit Requirements

Based on the information provided, we are unsure of the types of equipment that may be present during the project's construction phase. Portable equipment, 50 horsepower (hp) or greater, used during construction activities will require California statewide portable equipment registration (issued by the California Air Resources Board) or an APCD permit. The following list is provided as a guide to equipment and operations that may have permitting requirements, but should not be viewed as exclusive. For a more detailed listing, refer to page A-5 in the District's CEQA Handbook.

- Drilling Rig
- Power screens, conveyors, diesel engines, and/or crushers;
- Portable generators and equipment with engines that are 50 hp or greater;
- IC engines;
- Concrete batch plants;
- Rock and pavement crushing;
- Tub grinders; and
- Trommel screens.

**To minimize potential delays, prior to the start of the project, please contact the Engineering Division at (805) 781-5912 for specific information regarding permitting requirements.**

### Operational emissions

APCD staff has reviewed the operational phase emissions and has the following comments.

As previously indicated all operational phase stationary equipment will need to get a permit from the Air Pollution Control District before the start of construction of that equipment. However for the CEQA process all the emissions from both the operational phase stationary equipment and mobile equipment need to be calculated to determine the full air quality impacts from the project.

### Propane Fuel Usage

On the last page of calculations (page 7 of the report), propane gas assumptions were made for “injection, stock tanks, pumps etc”. This is all the detail that is given regarding the equipment which was included in the calculation. It is not clear from this description that all the operational equipment has been accounted for. **The applicant should list out what equipment is included in this description to ensure all equipment is included.**

Also in order to verify the fuel usage assumptions more detailed information on the equipment size (i.e., heat input rating etc.) should be provided.

On page 5 of the report, the annual emissions in tons/year are listed. No information has been given as to the number of days the oil field will operate per year. This information is needed to be able to calculate tons per year.

### Hydrocarbon Losses from Tanks

Likewise, to determine working losses from the HC tanks, the type of the tanks and control technology needs to be provided (i.e., floating roof tanks or fixed roof tanks with vapor recovery).

### Loading Emissions

The report does not indicate the method of product loading to be used (ie splash loading, submerged fill pipe, or bottom loading). The foot note on page 7 of the report (last page of calculations) indicates that a submerged bottom load was used for calculation and references Table 5.2- 5 of the USEPA AP-42. It is not clear from the calculation if the loading calculation includes losses occurring during transit and unloading or just loading at the facility. **This should be clarified. Loading, unloading and transit emissions should be calculated.** A control efficiency of 94% was assumed for this source however, there was no discussion on the type of control technology that would be use. **This information should be provided.**

In the project emission summary on page 5 of the report it is not clear that the emissions from loading and tanks are included in the operational phase emissions totals. On page 7 of the report calculations were completed that show loading emissions and hydrocarbon emissions from the tanks but it doesn't appear these were included in the totals. Even though these sources will need an APCD permit to operate and appropriate control technologies these emissions should also be included in the totals. **These emissions should be added to the totals.**

### Produced Gas

Gas produced along with the oil from this project was not discussed in the report. The applicant needs to determine the composition and estimated quantities of produced gas

and discuss how it will be handled. Emissions from produced gas have not been addressed in the applicant's calculations. If the intent is to burn the gas as fuel then the emissions presented could be vastly different depending on the composition of the gas. If the gas is going to be flared then those emission will need to be calculated. **The handling of produce gas needs to be addressed and emission calculations provided.**

#### Fugitive Dust Particulate matter

San Luis Obispo County is designated nonattainment for particulate matter, 10 microns or less in diameter (PM<sub>10</sub>). Areas designated nonattainment for PM<sub>10</sub>, must implement measures to achieve and maintain the standards. It is not clear from the data provided what portion of the haul route will be unpaved road. PM emissions from routine hauling on unpaved road could be significant. **In the APCD letter dated May 14, 2008, it was noted that road dust was not included in their air quality evaluation and was needed.**

Calculations on the last page of the report include dust generated from the bull dozer during site preparation but do not quantify the fugitive dust that will be generated from the product hauling and deliveries on unpaved roads. Fugitive dust emissions can also be an issue on paved roads. The segments of the road that are paved versus unpaved should be specified and the dust emissions associated with the hauling activities should be quantified and appropriate mitigation implemented. **Particulate matter for the paved and unpaved road should be quantified and appropriate mitigation implemented.**

Possible mitigation measures include

- Pave and maintain this roadway
- For the life of the project, maintain the unpaved roadway with a dust suppressant such that fugitive dust emissions do not exceed the 20% opacity limit identified in APCD's 401 "Visible Emissions" rule and such that offsite dust emissions from the site do not occur.
- To improve the dust suppressant's long-term efficacy, the applicant shall also implement and maintain design standards to ensure vehicles that use the unpaved road and or driveway from to the project location are physically limited to a posted speed limit of 15 mph.

#### Greenhouse gases

For the greenhouse gas analysis carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>) were calculated for the propane usage but not for the product hauling. Nitrous oxides (NO<sub>2</sub>) which has a high global warming potential (GWP) of 310 was not included in the calculation at all. Therefore, the totals presented in this report are not representative of the actual GHG emissions that will be emitted.

The applicant tried to dismiss the importance of this by representing the overall total as a percentage of the annual California GHG inventory. While individual project emissions may appear low, cumulatively they can be quite significant.

Pursuant to SB 97 the Office of California State Office of Planning and Research in conjunction with the Air Resources Board (ARB) are working on CEQA guidelines for GHGs and a threshold. On June 19, 2008, the California Office of Planning and Research (OPR) released a Technical Advisory titled CEQA and Climate Change: Addressing Climate Change Through CEQA Review (<http://opr.ca.gov/index.php?a=ceqa/index.html>). In this document OPR verifies that GHG emissions are appropriate subjects for CEQA analysis that should be evaluated even without the presence of established thresholds. Further OPR establishes that lead agencies must assess whether emissions are individually or cumulative significant. **APCD recommends the implementation of feasible mitigation measures that minimize project related GHG impacts.** Examples of potential measures for this development include:

- Improving the energy efficiency of the production equipment;
- Replacing support equipment and vehicles that have internal combustion engines with their electric equivalents;
- Implementing solar systems to reduce energy needs;
- Increase the building energy efficiency rating by 10% above what is required by Title 24 requirements. This can be accomplished in a number of ways (increasing attic, wall, or floor insulation, installing high efficiency windows, using efficient interior lighting and energy star roofs and appliances, etc.).

#### Diesel Emissions from Product Hauling

The destination for hauling the crude oil was not given in the document. On page 2 of the report, a traffic analysis was referenced; however, this document was not made available for APCD review nor were relevant sections of this report included for reference. The statement was made that the trip length was based on movement from Arroyo Grant to the site as calculated using the TOPO software, however, the destination or distance was not given. On page 6, the mobile source emission calculations, it appears 17 miles was used to calculate mobile emissions. In earlier correspondence with the applicant, APCD staff was told the product could be taken to Santa Maria or the refinery on the Nipomo Mesa. The haul distance and the haul route is an important portion of the evaluation. If material is hauled to Santa Maria the 17 mile distance used in this report will under estimate the emissions, thus not representing the worse case scenario for this project proposal. An increase in hauling emission could result in an exceedance of the APCD's Operational Phase Tier 2 threshold (25 lbs/day).

**APCD staff does not feel that the PM emissions or the diesel emission from the on road haul truck have been adequately quantified. As indicated above Fugitive Dust PM emissions should be calculated and if the applicant is unsure of the final**

**destination of the product at this time then the worst case scenario should be utilized and 17 miles would not be a worst case scenario for hauling to Santa Maria.**

At this point in time it is clear that the operations of this facility will exceed the APCD's Tier I threshold (10 lbs/day of ROG, NO<sub>x</sub> or PM<sub>10</sub>). However, sufficient information is still unavailable and is prohibiting the APCD from accurately determining if this project will also exceed the APCD's Tier II threshold (25lb/day). The applicant needs to address the issues outlined in this letter before the appropriated operational phase mitigation measure can be adequately assessed. Realizing County Planning is pushing to finalize the environmental review documents for this project, APCD recommends that a condition be included that resembles the following:

To bring this project to a level of insignificance, prior to the grading permit issuance, the project applicant shall work with the APCD to fully quantify the operational emission of this project. If the operational emissions from this project exceed the APCD thresholds, the project applicant shall submit a mitigation plan for APCD's approval that reduces the project's air quality impacts below the level of significant. Mitigation strategies may include: 1) use 2006 or newer hauling trucks; 2) reducing the number of truck trips per day; and/or 3) off-site mitigation projects (e.g., agriculture engine electrification)

**The applicant will also need to prepare and submit to the APCD a Nuisance and Odor Control Plan for the oil field.**

If you have question regarding this matter I can be reached at (805) 781-4667.

Sincerely,



Melissa Guise  
Air Quality Specialist

MAG/arr

cc. Carol Florence, Oasis Associates  
Kit Matlick, Excelaron LLC  
Erin Newman, Excelaron LLC