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San Joaquin Valley Air Pollution Control District
California Air Resources Board
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Re: AB 617 Shafter Emission Inventory Requests

As AB 617 Committee Members for the Shafter area, we have been discussing the need for better inventory numbers. Several other Shafter committee members have been part of this discussion. There has not been time at recent meetings to bring up requests for more information so we are making this request via email at this time and hope for a positive response from the San Joaquin Valley Air Pollution Control District and the California Air Resources Board before the next meeting on April 2, 2019.

The Air District initially provided some individual permitted facility emissions within the Shafter boundary and they have now provided some information within the Shafter 7 mile radius. The emissions provided are for NOx, PM2.5 and VOC. Information about all sources in the area should be provided in order to understand fully local air pollution. This information is needed before a detailed monitoring plan and other project planning can be discussed. What follows are specific questions and requests for more information.

Let's start off with cooking emissions. These are listed as emitting 6.9 tpy of PM2.5, is the total from restaurants only or a combination of home cooking and restaurant cooking? What proportion is from each category?

Missing information from the 7 mile radius area are factory dairy related emissions. NOx, Ammonia and VOC emissions should be given for each dairy. All ten dairies in the cluster west of Shafter should be included because, if they influence air pollution in Shafter in any way, then all ten of them are important, even though 3 of them may be slightly outside the 7 mile radius. The air district has mentioned only five dairies so far with no emission information from any of them. The furthest of the ten is only 8.5 miles from Shafter. Also, these ten dairies are all within 5 miles of Maple School which has a very large number of pupils who reside within the City of Shafter. Please note, when determining the distance of a dairy, the crop land directly around a dairy, where manure and lagoon water are spread, is part of the dairy.

Ammonia from these ten dairies should be included as a toxic air contaminant. The same for hydrogen sulfide and methanol. An estimate of these emissions from these ten dairies should be made and included as TAC emissions as well as listing ammonia as a criteria air pollutant and precursor to PM2.5. There is also a cattle feedlot on Burbank and Scaroni which should be included for all these types of emissions.

What is the total heavy truck traffic associated with these ten dairies? Include milk trucks, harvest trucks, and feed trucks. What percent of this truck traffic goes through the Shafter city limits on Lerdo Hwy or Hwy 43?

The Shafter Wasco Almond Huller, also called Shafter Wasco Ginning, receives how many truckloads from almond harvesting in an average year? They send out how many truckloads of hulled almonds, hulls and shells in an average year? How many hours do yard tractors move trailer loads around the huller property in an average year? What about forklifts? What are the emissions from all this traffic both on and off-road in the Shafter area?

The quantity of secondary PM2.5 (ammonium nitrate and ammonium sulfate) in the Shafter area, over the winter months, needs to be estimated. In order to see the relative importance of each precursor emission of PM2.5, what is the ratio of NH3 to NOx or SOx when forming ammonium nitrate or ammonium sulfate?

Some emissions are steady throughout the year and others are very seasonal. Giving emissions in tons per year is not as useful as seeing the same information in tons per month. This is especially important for the peak ozone season of June through October, the peak PM2.5 season of October through February, and the peak PM10 season of August through November. For the top ten sources of all pollutants and precursors, NOx, VOC, PM2.5, SOx, PM10, and Ammonia, please give monthly totals.

The emissions of permitted sources do not include JP Oil located on the south side of Shafter and within the 7 mile boundary. This information needs to be included. For JP Oil, flaring emissions per year for the past five years should be included. CRC emissions from flaring should also be a separate category by year and type of emission for the past five years.

Stationary internal combustion (IC) engines used in agriculture and oil production are required to be permitted so provide a separate list of these engines with locations and the associated quantity of emissions. CRC has several IC engines pumping oil. JP Oil has many more. Many farmers in the 7 miles also use IC engines for pumping water. Also include all other stationary IC engines in the area. What are the emissions associated with drilling and possibly fracking a new oil well, similar to existing ones, by either of these oil companies in the Shafter 7-mile radius? How many permits do they currently hold for drilling new wells in this area?

Please provide the acres of open field burning of almond trees, vineyards, and other orchards, and the associated PM2.5, NOx and VOC emissions during the past five years within the 7 mile radius.

Please provide an estimate of all predicted and actual emissions from the construction of High Speed Rail between Shafter and Wasco for 2018 and for the next five years.

Plains LPG, on the south side of Shafter, has had numerous violations enforced by the air district for unpermitted leaks during the past several years. Please detail those violations since 2013 with information on dates, estimated quantity of emissions leaked, fines assessed and fines paid.

The district presented some figures on total areawide emissions for the City of Shafter. These numbers need to be provided for the 7 mile radius. Basically, all the chart data in the attached photo below need to be updated to reflect the 7 mile radius.

Include wood smoke from fireplaces and wood stoves as a separate category in the areawide emissions. Please give the number of violations and warnings cited in Shafter the past five years for fireplace and wood stove burning on no-burn days. How many fines have been paid? How much are the fines? Have any fines been assessed and not collected?

Give more detail on what farming practices make the 9.9 tpy of PM2.5 in the areawide source list. How much NOx and PM2.5 come directly from agricultural equipment in the fields?

What are the levels of PM10 in Shafter during the harvest season from August 1 through October 31? 24 hour averages for this season need to be measured in Shafter. How much of PM10 from dust is PM2.5? We request that PM10 levels should be monitored along with the new PM2.5 monitor at the Shafter DMV location.

Please give an estimate for the currently estimated level of NOx emissions from agricultural soils in the area. What do recent studies say these emissions might be? What are the estimated NOx emissions from dairy manure in the area?

The Frito Lay plant is just outside the 7 mile radius. Please give its emissions of criteria air pollutants and indirect trucking emissions. There is also a new facility immediately east of Plains LPG and immediately south of Simplot. It is called Patriot Wastewater on Creek Road. Do they have any significant emissions either directly or indirectly from trucking?

At the Rosedale Rio Bravo Water District ponding basins, a couple miles southeast of the center of Shafter, where oil field produced water is percolated into the ground together with canal water, please give an estimate of the VOC emissions from this practice for the past several years.

For the Wonderful Logistics/Industrial Park please list the current and proposed facilities and all the direct and indirect (mobile source) associated emissions. Don't just say these facilities are from the City of Shafter as the map currently shows but give the name of each one. Also, give the details on how each facility has complied with the air district's ISR regulation since the regulation was first passed.

Finally, please give a synopsis of wind direction data for Shafter. What percent or fraction of each day does the wind come from each quadrant on the windrose? How does windrose data vary by season?

Sincerely,

Tom Frantz
Shafter AB 617 Committee Member

Gustavo Aguirre, Jr
Shafter AB 617 Committee Member

Shafter Emissions Summary

Source Category	Emissions (tons/year)			Source Category	Emissions (% of total by pollutant)		
	NOx	PM2.5	VOC		NOx	PM2.5	VOC
Stationary Source	3.2	5.7	11.9	Stationary Source	2.3%	19.6%	9.8%
Mobile - On Road	94.9	1.7	20.9	Mobile - On Road	69.0%	5.8%	17.2%
Mobile - Off Road	24.1	1.1	3.1	Mobile - Off Road	17.5%	3.8%	2.6%
Areawide	15.4	20.6	85.4	Areawide	11.2%	70.8%	70.4%
Total	137.6	29.1	121.3	Total	100%	100%	100%

- District stationary source air toxics emissions are 0.62 tons/year

Stationary Source Emissions in Shafter

Facility Name	NOx (tpy)	Facility Name	PM2.5 (tpy)	Facility Name	VOC (tpy)
CA Resources Production	2.99	Global Fabricators	2.86	CA Resources Production	4.21
Con-Fab CA	0.03	Shar Craft	1.17	Global Fabricators	2.10
City of Shafter-Cen Valley Hwy	0.03	CA Resources Production	0.81	Fox Petroleum	1.72
City of Shafter-Shafter Ave	0.03	Shafter-Wasco Ginning	0.51	Jaco Hill	1.31
Omni Family Health	0.02	Con-Fab CA	0.30	Shar Craft	0.71

Facility Name	Toxic Name	Air Toxics (tpy)
Fox Petroleum	Toluene	0.14
Jaco Hill	Toluene	0.11
Shafter-Wasco Ginning	Aluminum	0.08
Greg's Petroleum	Toluene	0.05
Fox Petroleum	Xylenes	0.04

Areawide Emissions in Shafter

Categories (Top 5 Contributors)	NOx (tpy)	Categories (Top 5 Contributors)	VOC (tpy)	Categories (Top 5 Contributors)	PM2.5 (tpy)
Residential Fuel Combustion	9.1	Consumer Products	30.6	Farming	9.9
Food and Ag Processing	3.4	Architectural Coatings and Solvents	13.1	Cooking	6.9
Service and Commercial	2.0	Pesticides / Fertilizer	11.2	Windblown Dust	1.8
Manufacturing and Industrial	0.6	Printing	6.8	Residential Fuel Combustion	0.8
Other Fuel Combustion	0.2	Petroleum Marketing	6.1	Unpaved Road Dust	0.6