

Comments in favor of the proposed BAAQMD Refinery Emissions Limits Rule 12-16 and advocacy for a dedicated EIR.

From: Charles Davidson, Hercules CA.

1 DEC 2016

To: Gregory Nudd, BAAQMD AQP Mgr. Rule Development. CC: Victor Douglas

I. **CA law explicitly allows the Air Districts to implement GHG reduction policies for stationary sources, such as for refineries. Yet, the refinery emission caps Rule 12-16 is not even a GHG reduction rule, in contrast to some common misconceptions.** BAAQMD Refinery Rule 12-16 even allows refineries to exceed recent historical averages in GHG emissions by 7%, in order to accommodate an outage at another CA refinery.

In contrast to staff assertions, the proposed refinery emission caps Rule 12-16 would allow Bay Area refineries to process more crude than they processed during the 2015 Torrance outage. Importantly, Rule 12-16 would allow CA refineries to use **more** of their short-to-mid-term production capacity during an outage than they can reliably use for much more extended periods. In fact, during such an outage, CA refineries could collectively, produce roughly 12 % **more** gasoline and diesel than the domestic fuel market demands from them [CBE. 2016]. Moreover, out of state gasoline could easily be reformulated, by in-state refineries, in order to supplement any amount of in-state need during a major refinery outage.

II. Historically, CA's existing refinery capabilities and infrastructure are geared best for processing predominantly heavy crudes, but need additional heavy crude refining infrastructure to accommodate an influx of tar sands (and other very heavy crude types). Thus, as it would stand, **Rule 12-16 would still accommodate any particular Bay Area refinery's need for processing heavier crude, generally, to a degree beyond that of any other U.S. refinery region** (as a percentage of total refinery capacity; i.e., Bay Area ~ 60% vs. TX/LA ~ 40%. EPA 2012).

Rule 12-16 would also allow for the lower-GHG processing of heavier crudes, up to a degree, if 1) significant amounts of lighter crudes were to be substituted in other units, 2) if more energy efficiency measures were instituted at a refinery and/or 3) if large amounts of process heat was made using renewably-generated non-fossil fuel electricity, instead of exclusively using fossil fuel combustion.

I agree with CBE that instead of falsely blaming speculative gas price spikes on air quality rules, the staff's draft report should have evaluated the local and global emission impacts of refinery production for out-of-state export.

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III. The Air District legal capability to regulate greenhouse gases (GHGs) is very important for at least nine public health reasons, notwithstanding climate change arguments.

- First, there is a planned and expected 8-fold increase in deliveries of tar sands crude or DilBit to Bay Area refineries by 2030, according to both NRDC's Borealis Centre 2014 study and industry analysis.
- Second, tar sands DilBit, short for solvent-diluted bitumen, which is a mined coal-like solid, produces 2-to-3 times the GHGs to produce gasoline, compared to refining traditional, average U.S. crudes (according to multiple peer-reviewed literatures).
- Third, as opposed to various levels of reductions in some refinery pollutants in recent years, both GHGs and particulate matter (PM2.5) levels have generally increased steadily for the past several decades.
- Fourth, PM2.5 is well documented as being responsible for increasing an impacted-persons susceptibility to both respiratory diseases, such as asthma, cardiovascular diseases and cancers, including breast cancer.
- Fifth, besides GHGs, PM2.5 would also increase with increased tar sands processing and carry within it, the markedly elevated levels of toxic heavy metals present in tar sands (such as 21-times more vanadium, 11-times more nickel and 5-times more lead, compared to traditional crudes).
- Sixth, refinery PM2.5 production always increases with the atmospheric burning of asphalt-like solid residues called petroleum coke or PetCoke, which occurs locally at each-and-every Bay Area refinery.
- Seventh, local PetCoke burning will invariably increase significantly with the processing of tar sands, which has a higher proportion of PetCoke than any other heavy crude, worldwide.
- Eighth, the persons most impacted from tar sands processing are typically living in poor communities, with high proportions of persons of color, whom are exactly the people with the least political power and the least economic options.
- And lastly, tar sands refining is far more likely to catastrophically corrode or plug refinery equipment, resulting in worker injury, fires or flaring (which was recently determined by the EPA to be four times more pollutant emitting than previous thought).