Key findings of the Public Health Advisory Panel, ESA, and Zoe Chafe: A comparison

Finding	PHAP	ESA	ZC
Adjacent OBOT neighbors include the designated "disadvantaged communities" of West Oakland, southern Emeryville and portions of San Leandro.[i] Several sensitive receptors are within .5 mile are subject to direct impacts: 2 schools, a daycare center and parks. West Oakland has particular vulnerability due to baseline high air pollution and morbidity, high poverty, high racial minority populations, multiple stressors and low access to healthcare.	x	x	x
Adverse health impacts are expected for workers, neighbors, broader Oakland, surrounding cities, recreationalists and athletes at nearby parks, students and children at nearby schools and childcare facilities. Those at highest risk are those in disadvantaged communities, infants, youth, elderly, the poor, those with chronic illnesses, pregnant women and fetuses.	x	(x)	x
At baseline, Oakland is in non-attainment status for several critical air pollutants including PM10, PM2.5 and ozone; additional pollution from coal dust will move Oakland farther into non-attainment status, also exceeding World Health Organization guidelines.	x	x	x
Coal dust will be emitted from moving trains into Oakland per prevailing winds at a level of approximately 80 – 90 tons per year[ii] and will degrade local air quality.	x	x	x
Coal dust will be emitted from waiting rail cars into Oakland per prevailing wind at a level of 23 – 156 tons per year[iii] and will degrade local air quality.	x	x	x
The quantity of re-suspended dust along the rail line is expected to be significant in terms of additional contributions to local concentrations of PM10 and PM2.5.[iv]	N/A	x	x
The handling and storage of petcoke may reduce air quality due to fugitive dust, leading to adverse health and amenity impacts.	N/A	x	N/A
Coal dust includes fine particulate matter (PM2.5). There is clear causality between acute (hours to days) and chronic (months to years) PM2.5 exposure and adverse health outcomes, such as death, cancer, respiratory illness, cardiovascular disease, premature birth, infant mortality, lower life expectancy, hospitalization, school and work loss. There is no safe level of PM2.5; any increased exposure will likely lead to death and illness.[v]	x	x	x
Coal dust and products of coal combustion include toxic trace elements that are harmful to health and have no clear safe levels of exposure.[vi] Post combustion toxics and PM can be expected to return to Oakland from Asia through trans-pacific atmospheric transport.	x	x	x
There is no such thing as "clean" coal. Even "EPA compliant" coal contains silica and emits PM2.5, toxic pollutants and greenhouse gases.	x	N/A	x
Rail covers are unused in the U.S. and unproven in terms of safety, efficacy, and reliability, and the ability of Oakland to enforce their use is uncertain.	x	x	x
Sprays to coal in rail cars are unlikely to effectively suppress dust and present health and environmental hazards;[vii] coal dust emissions will still occur in and near Oakland.[viii]	x	x	x
Covers and sprays will not reduce emissions from the bottom hopper.	x	x	x
There are not likely to be alternative ports for the proposed coal.[ix]	x	x	N/A
Workers at the terminal will be exposed to coal dust. There is evidence current workplace safety standards for combustible dust are inadequate to protect workers, implying terminal workers (and neighbors) will be at risk even if current occupational standards are met. Work conditions may be similar to mining conditions[x]	(x)	(x)	x
Coal is prone to combustion and there is risk of dust explosions in confined spaces from coal and petcoke. Extra and specialized oversight and emergency response is required. Smoke from coal fires releases toxic metals such as lead and mercury and is very dangerous to fire-fighters, workers and residents. Measures to suppress dust and clean equipment may cause water contamination. With proximity to high population centers and key infrastructure, the adverse consequences of fire or explosion may be severe.[xi]	(x)	x	x
End uses of coal handled in OBOT would produce GHGs on order of 15 – 23 million metric tons(MMT) of CO_2/ yr, as well as producing black carbon. Cumulatively over 66 years of lease, the GHG contribution could reach 1.5 billion MMT, or .6% of the total amount of CO_2 that can be emitted by humans over the next millennia; emissions beyond this amount lead to more severe and irreversible climate impacts.[xii] (Petcoke even more so.)	x	(x)	(x)
GHG from coal handled in Oakland will have an attributable contribution to local climate change impacts, including sea-level rise (affecting thousands of residents), flooding, water shortages, extreme heat, fires. West Oakland will be more vulnerable.	x	x	x
Coal handling in Oakland counters state, regional, local climate policy and goals.	x	x	x

PHAP = Public Health Advisory Panel; ESA = Environmental Science Associates; ZC = Zöe Chafe

N/A – Not Applicable, meaning it was beyond the scope of this report; (x) notes that this source covers part of the statement.

A review and comparison of findings from the Public Health Advisory Panel on Coal, ESA, and Zoe Chafe, produced by Public Health Advisory Panel on Coal. June, 2016