

Ann, some emissions data below from the Draft EIS. Basically, this merger is going to increase the amount of toxic chemicals in the air in huge amounts. Also, carcinogens, as I listed below.

Table K.5-1. Study Area Wide Emissions Analysis Summary

Source	Acquisition-Related Criteria Emissions (tons/year)							Acquisition-Related HAP Emissions (tons/year)							
	NOX	VO C	PM 10	PM 2.5	S O 2	CO	CO2 e	Acetaldehyde	Acrolein	Benzene	1,3-Butadiene	Ethyl Benzene	Formaldehyde	Naphthalene	Polym
Rail Segment	5,702.5	239.7	152.3	147.7	3.8	1,083.2	416,787	18.769	3.835	5.393	0.446	0.920	53.455	0.654	0.670
Rail Yard	7.8	0.5	0.2	0.2	0.0	1.1	420	0.040	0.008	0.011	0.001	0.002	0.113	0.001	0.001
Intermodal Facility	14.4	0.7	0.3	0.3	0.0	3.9	5,752	0.031	0.005	0.007	0.001	0.004	0.059	0.002	0.000
Grade Crossing	0.1	0.0	0.0	0.0	0.0	0.6	123	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
Emissions Subtotal	5,724.9	240.9	152.8	148.2	3.8	1,088.8	423,083	18.840	3.848	5.412	0.448	0.927	53.627	0.658	0.673

423,083 tons CO₂equivalent/year =

- The annual emissions of 100,000 automobiles (actually 100,734)
- 7 weeks of emissions from a large (500MW) subbituminous coal-fired power plant
- 4 months of emissions from a large (500MW) natural gas combined cycle plant

3.8 tons SO₂/year =

- Nearly 7 weeks (0.131 years) of emissions from an average large (500 MW) subbituminous coal plant.
- There aren't many other significant human sources of SO₂—trace amounts in natural gas, and a decent amount in petroleum products but car emission systems get rid of it. The only other big source is volcanic emissions, and those numbers are huge if there is an actual eruption.

5,725 tons NO_x/year =

- Roughly 6.5 weeks (0.124 years) of emissions from an average large (500 MW) subbituminous coal plant.
- 173 trillion miles driven under current EPA fleet standards of 0.03 grams NO_x emissions/mile driven)

Acquisition Related Hazardous Air Pollutants (HAP) Emissions

- **Formaldehyde-** Draft EIS estimated 53.627 tons emitted per year from the merger.- [The NJ Department of Health](#) describes formaldehyde as a known human carcinogen, with “no safe level of exposure” existing. Adding that “immediately or shortly after exposure to

Formaldehyde: Contact can severely irritate and burn the skin and eyes with possible eye damage. The burns may be delayed for hours after contact. Exposure can irritate the nose, mouth and throat. Inhaling Formaldehyde can irritate the lungs causing coughing and/or shortness of breath. Higher exposures may cause a build-up of fluid in the lungs (pulmonary edema), a medical emergency, with severe shortness of breath. The following chronic, (long-term) health effects can occur at some time after exposure to Formaldehyde and can last for months or years.. As a known CARCINOGEN in humans, It has been shown to cause cancer of the nasopharynx and leukemia. Additionally there is limited evidence that Formaldehyde may damage the developing fetus and affect female fertility."

- **Acetaldehyde-** Draft EIS estimated **18.840 tons emitted per year from the merger.-** [NJ Dept. of Health describes](#) it as "potentially being a carcinogen and teratogen in humans." Further adding, "There may be no safe level of exposure to a carcinogen, so all contact should be reduced to the lowest possible level." They add that that the clear, colorless liquid that turns to gas above 69degrees Fahrenheit has been "shown to cause cancer of the nose and larynx in animals"
- **Benzene-** Draft EIS estimated **5.412 tons emitted per year from the merger.-** The [NJ Department of Health](#) describes Benzene as a known carcinogen in humans known to cause leukemia and should be handled with "extreme caution." Additionally they note that "the following acute (short-term) health effects may occur immediately or shortly after exposure to Benzene: Contact can irritate the skin and eyes, Inhaling Benzene can irritate the nose and throat causing, coughing and wheezing. Benzene can cause headache, dizziness, lightheadedness, nausea and vomiting. And "Convulsions and coma, or sudden death from irregular heartbeat, may follow high exposure." Repeated exposure can also "cause damage to the blood cells (aplastic anemia)."
- **Acrolein-** Draft EIS estimated **3.848 tons emitted per year from the merger.-** The [NJ Department of Health describes](#) "Acrolein as a flammable and reactive liquid." Additionally they outline several potential chronic/long-term health impacts from exposure to Acrolein, including: Cancer Hazard, Reproductive Hazard, and the potential for "permanent lung damage" that may occur after a high exposure or repeated lower exposures."
- **Ethyl Benzene-** Draft EIS estimated **nearly a ton (0.927) emitted per year from the merger.-** [The NJ Department of Health](#) describes Ethyl Benzene as a probable carcinogen in humans. Further adding, "There may be no safe level of exposure to a carcinogen, so all contact should be reduced to the lowest possible level." They outline the following acute (short-term) health effects may occur immediately or shortly after exposure to Ethyl Benzene: Contact can irritate the skin and eyes. Inhaling Ethyl Benzene can irritate the nose and throat. Exposure to high concentration can cause headache, dizziness, lightheadedness, loss of coordination and passing out. Very high levels can cause trouble breathing and even death. The following chronic (long-term) health effects can occur at some time after exposure to Ethyl Benzene and can last for months or years: Ethyl Benzene may be a CARCINOGEN in humans since it has been shown to cause cancer of the kidney, testes, lung, and liver in animals. There is limited evidence that Ethyl Benzene may damage the developing fetus and may affect male and female fertility. Ethyl Benzene may damage the liver. This chemical has not been adequately evaluated to determine whether repeated exposure can cause brain or other nerve damage. However, many solvents and other petroleum-based chemicals have been shown to cause such damage. Effects may include reduced memory and concentration, personality changes (withdrawal, irritability), fatigue, sleep disturbances, reduced coordination, and/or effects on nerves supplying internal organs (autonomic nerves) and/or nerves to the arms and legs (weakness, "pins and needles")."

- Naphthalene-** Draft EIS estimated more than half a ton (**0.658**) emitted per year from the merger.- [The NJ Department of Health](#) describes Naphthalene as a probable carcinogen in humans. Further adding, “There may be no safe level of exposure to a carcinogen, so all contact should be reduced to the lowest possible level.” They additionally outline the following acute (short-term) health effects may occur immediately or shortly after exposure to Naphthalene: Contact can irritate and burn the skin and eyes. Inhaling Naphthalene can irritate the nose and throat causing coughing and wheezing. High exposure to Naphthalene can cause headache, fatigue, confusion, tremor, nausea and vomiting. The following chronic (long-term) health effects can occur at some time after exposure to Naphthalene and can last for months or years: Naphthalene is a PROBABLE CARCINOGEN in humans. There is evidence that it causes cancer of the larynx and intestines in humans and it has been shown to cause nasal and lung cancer in animals. There is limited evidence that Naphthalene may damage the developing fetus. High or repeated exposure can cause clouding of the eye lens (cataract), which may damage vision. Naphthalene may damage the liver and kidneys. Repeated high exposure may cause anemia (low blood count).
- 1,3-Butadiene-** Draft EIS estimated nearly half a ton (**0.448**) emitted per year from the merger.- [The NJ Department of Health](#) describes 1,3-Butadiene as a colorless gas and as being a possible carcinogen in humans. Further adding, “There may be no safe level of exposure to a carcinogen, so all contact should be reduced to the lowest possible level.” They also outline the following acute (short-term) health effects may occur immediately or shortly after exposure to 1,3-Butadiene: Contact with the liquid can irritate the skin and cause frostbite. Inhaling 1,3-Butadiene can irritate the eyes, nose, mouth and throat causing coughing and wheezing. Exposure can cause headache, dizziness, lightheadedness and passing out. Higher levels can cause coma and death. The following chronic (long-term) health effects can occur at some time after exposure to 1,3-Butadiene and can last for months or years: 1,3-Butadiene is a PROBABLE CARCINOGEN in humans. There is some evidence that it causes lymph and blood cancer in humans and it has been shown to cause lymph, breast, uterine, lung, heart, and skin cancer in animals.”