

## Risk Analysis Summary

	Process	Risk/10 <sup>6</sup>	Comment	Risk Driver
1	Printer	2	Cleaning material, not ink solvent	Naphthalene
2	Body shop	2.4	Metals in primer and coating solids	Chromium
3.1	Perchloroethylene dry cleaner	338	Fan vent on side of building	Perchloroethylene
3.2	Perchloroethylene dry cleaner	155	Volume source - doors, windows, etc.	Perchloroethylene
3.3	Perchloroethylene dry cleaner	169	Fan vent on side of building, w/ EPA-required leak detection and repair (LDAR)	Perchloroethylene
3.4	Perchloroethylene dry cleaner	78	Volume source - doors, windows, etc., w/ EPA-required LDAR	Perchloroethylene
3.5	Perchloroethylene dry cleaner	43	Partial enclosure w/ 80% capture efficiency, stack w/ sufficient height	Perchloroethylene
3.6	Perchloroethylene dry cleaner	22	Partial enclosure w/ 80% capture efficiency, stack w/ sufficient height, EPA-required LDAR	Perchloroethylene
3.7	Perchloroethylene dry cleaner	11	Total enclosure, stack w/ sufficient height, EPA-required LDAR,	Perchloroethylene
4.2	Gas station	9	Modeled as 3-dimensional volume source	Benzene, ethylbenzene
5.1	Waste oil furnace	2 to 11	Actual stack 4', 20' building height (B.H.), with or without rain cap on stack	Waste oil emissions <sup>1</sup>
5.2	Waste oil furnace	0.9 to 5	Minimum acceptable stack height (1.5 x B.H.), with rain cap on stack	Waste oil emissions <sup>1</sup>
5.3	Waste oil furnace	0.3 to 1.5	Minimum acceptable stack height (1.5 x B.H.), without rain cap on stack	Waste oil emissions <sup>1</sup>
6.1	Hurstbourne/Shelbyville Rd	52	All carcinogens except diesel particulate	Mobile source emissions <sup>2</sup>

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6.2	Hurstbourne/Shelbyville Rd	748	Diesel particulate	Diesel particulate
7.1	Outer Loop/Preston	30	All carcinogens except diesel particulate	Mobile source emissions <sup>2</sup>
7.2	Outer Loop/Preston	430	Diesel particulate	Diesel particulate
8.1	Outer Loop/Briarcliff	11	All carcinogens except diesel particulate	Mobile source emissions <sup>2</sup>
8.2	Outer Loop/Briarcliff	165	Diesel particulate	Diesel particulate
9.1	Watterson (I-264) segment	41	All carcinogens except diesel particulate	Mobile source emissions <sup>2</sup>
9.2	Watterson (I-264) segment	621	Diesel particulate	Diesel particulate
10.1	Diesel truck idling (2.77 g/hr) <sup>3</sup>	> 100 10	At 150 meters from distribution center At 700 meters from distribution center	Diesel particulate
10.2	Diesel truck idling (0.3 g/hr) <sup>3</sup>	10	At 250 meters from distribution center	Diesel particulate
10.3	Idling school buses <sup>3</sup>	up to 90	20 buses//30 min/day//180 days/year	Diesel particulate
10.4	Emergency/standby engine <sup>3</sup>	up to 90	From CARB document	Diesel particulate
10.5	Prime engine <sup>3</sup>	up to 725	From CARB document	Diesel particulate
10.6	Low-volume freeway <sup>3</sup>	200 30	Residence located 20 meters away Residence located 500 meters away	Diesel particulate
10.7	Construction site <sup>3</sup>	50-134 36-102 30-97 25-77	Older equipment, 5 meter release height Older equipment, 10 meter release height Mix w/ newer equipment, 5 m release height Mix w/ newer equipment, 10 m release height 20 meters from fence, range due to different meteorological conditions	Diesel particulate

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10.8	Excursion/ferry vessel <sup>3</sup>	169-886 14-76 4-21	100 meters downwind 400 meters (0.25 mile) downwind 800 meters (0.5 mile) downwind	Diesel particulate
10.9	Short-haul locomotive <sup>3</sup>	2-14 2-12 1-6	60 meters downwind 200 meters (0.125 mile) downwind 400 meters (0.25 mile) downwind	Diesel particulate
10.10	Transport refrigeration unit (TRU) and TRU generator set <sup>3</sup>	> 100 10-100 < 10	250 meters downwind 250 to 1,000 meters downwind 1,100 meters downwind	Diesel particulate
11	Backyard charcoal grill	0.02	1 hour/day, 5 days/week, 30 weeks/year	Formaldehyde, acetaldehyde

<sup>1</sup> Waste oil emissions: hexavalent chromium, arsenic, nickel, cadmium, and beryllium (listed in order of decreasing contribution to the waste oil furnace risk). Risk is expressed as range, based upon different emission factors.

<sup>2</sup> Mobile source emissions: benzene, formaldehyde, 1,3-butadiene, hexavalent chromium, naphthalene, acetaldehyde, and, ethylbenzene (listed in order of decreasing contribution to the mobile source risk)

<sup>3</sup> Modeling/risk results from a California Air Resources Board document