PORT TOWNSEND PAPER AIR POLLUTION REPORT 2008-2011-2014

NEI, GHG and for reference, the corresponding TRI AIR

FACILITY ID 110000490326
Source: ECHO - EPA Enforcement and Compliance History Online database
https://echo.epa.gov/air-pollutant-report?fid=110000490326#datasources
search and compilation as of 2018-01-02 by PT AirWatchers
ECHO also provides emissions to water and on- or off-site landfills
Weighting by toxicity is available through other EPA online resources.

NATIONAL EMISSIONS INVENTORY "NEI", triennial air emissions report

NEI reflects a fairly extensive list of hazardous air pollutants identified by EPA, that facilities of a certain size or toxicity report on once every three years.

TRI or Toxic Release Inventory -- a subset of these that are reported annually, which allows tracking of a facility's pollution trends. The TRI also includes emissions to land, water and air.

NEI pollutants include:

* Criteria Air Pollutants -- common pollutants that were identified early in the 1970's as broad indicators of air health that contribute to smog and environmental degradation

• HAPs - Hazardous Air Pollutants. EPA listed as hazardous in relatively small quantities.

VOCs/volatile organic compounds, a class of HAPs like solvents and paint thinners that attack nerves and organs

• Some of these chemicals are ozone precursors and PBTs/persistent bioaccumulative toxins. Weighting by toxicity is available through other EPA online resources.

GREENHOUSE GASES "GHG", annual report starting in 2010

• Carbon dioxide, methane, and nitrous oxide, adjusted for equivalent climate warming potential (carbon dioxide equivalents or "CO2e").

TOTALS - POUNDS

acrn	pollutant_name	2008	2011	2014	nei_ty	nei_hap_voc_flag
NEI	**REPORTED POLLUTANTS - TOTAL POUNDS**	**3,641,434**	**3,883,581**	**3,973,553**		
	Criteria Air Pollutants	3,266,076	3,504,110	3,574,100		
	HAPs & VOCs-Hazardous Air Pollutants	375,358	379,471	399,453		
GHGs	**greenhouse gases in Pounds**	**N/R**	**1,219,160,320**	**1,125,925,968**		

SUBSET:

TRI Air Toxics - Toxic Release Inventory, Pounds	430,090	428,557	481,995

* (Tagged in NEI report; broken out here for cross-reference with PTPC's annual TRI reports)

DETAIL - POUNDS

Colu	pollutant_name	2008	2011	2014	nei_ty	nei_hap_voc_flag
	CRITERIA AIR POLLUTANTS, SUBTOTAL=>	**3,266,076**	**3,504,110**	**3,574,100**	**CRITERIA AIR POLLUTANTS**	
	Ammonia	62,000	72,000	78,000	CAP	
	Carbon monoxide	1,390,000	1,470,000	1,696,000	CAP	
	Lead	76	110	100	CAP	
	Nitrogen oxides	1,038,000	946,000	988,000	CAP	
	Primary PM10 (filterables and condensibles)	584,000	628,000	550,000	CAP	NOTE: PM10 f&c, INCLU
	Primary PM10, filterable portion only	424,610	474,424	477,110	CAP	ALL SMALLER SIZES

acrn	pollutant_name	2008	2011	2014	nei_ty	nei_hap_voc_flag
	Primary PM2.5 (filterables and condensibles)	492,282	474,000	420,000	CAP	|
	Primary PM2.5, filterable portion only	332,892	320,424	347,110	CAP	|
	Primary PM condensible portion, less than 1 ı	159,389	153,576	72,891	CAP	|
	Sulfur dioxide	100,000	300,000	158,000	CAP	
	Volatile organic compounds	92,000	88,000	104,000	CAP	
	HAPS-HAZARDOUS AIR POLLUTANTS, SUBTOTAL=>	**375,358**	**379,471**	**399,453**	**HAZARDOUS AIR POLLUTANTS**	
	1,1,1-Trichloroethane	51	40	69	HAP	EXEMPT-NONPHOTOCHE
	Methylene chloride	474	500	643	HAP	EXEMPT-NONPHOTOCHE
	Tetrachloroethylene	62	60	84	HAP	EXEMPT-NONPHOTOCHE
	1,2-Dichloroethane	47	40	64	HAP	HAP-VOC
	1,2-Dichloropropane	54	40	73	HAP	HAP-VOC
	2-Chloronaphthalene	0.001			HAP	HAP-VOC
	2-Methylnaphthalene	0.076			HAP	HAP-VOC
	2,4-Dinitrophenol	0.294	0.315	0.399	HAP	HAP-VOC
	Acenaphthene	0.429			HAP	HAP-VOC
	Acenaphthylene	2.360			HAP	HAP-VOC
	Acetaldehyde	24,800	21,000	30,000	HAP	HAP-VOC
	Acetophenone	0.005	0.006	0.008	HAP	HAP-VOC
	Acrolein	6,539	7,000	8,874	HAP	HAP-VOC
	Anthracene	1.4159			HAP	HAP-VOC
	Benz[a]anthracene	0.031			HAP	HAP-VOC
	Benzene	6,866	7,340	9,318	HAP	HAP-VOC
	Benzo(b)fluoranthene	0.047			HAP	HAP-VOC
	Benzo[a]pyrene	1.2271			HAP	HAP-VOC
	Benzo[e]pyrene	0.001			HAP	HAP-VOC
	Benzo[ghi]perylene	0.044			HAP	HAP-VOC
	Benzo[k]fluoranthene	0.017			HAP	HAP-VOC
	Carbon tetrachloride	74	60	100	HAP	HAP-VOC
	Chlorobenzene	54	40	73	HAP	HAP-VOC
	Chloroform	46	40	62	HAP	HAP-VOC
	Chloromethane	38	40	51	HAP	HAP-VOC
	Chrysene	0.038			HAP	HAP-VOC
	Di(2-ethylhexyl) phthalate	0.077	0.082	0.103	HAP	HAP-VOC
	Dibenz[a,h]anthracene	0.004			HAP	HAP-VOC
	Ethylbenzene	51	40	69	HAP	HAP-VOC
	Fluoranthene	0.076			HAP	HAP-VOC
	Fluorene	1.605			HAP	HAP-VOC
	Formaldehyde	15,000	16,029	10,026	HAP	HAP-VOC
	Indeno[1,2,3-cd]pyrene	0.041			HAP	HAP-VOC
	Methanol	280,000	290,000	300,000	HAP	HAP-VOC
	Methyl bromide	25	20	33	HAP	HAP-VOC
	Naphthalene	706	160	215	HAP	HAP-VOC
	o-Xylene	41	40	55	HAP	HAP-VOC
	p-Nitrophenol	0.180	0.193	0.243	HAP	HAP-VOC
	PAH/POM - Unspecified	53			HAP	HAP-VOC
	Pentachlorophenol	0.083	0.089	0.114	HAP	HAP-VOC
	Perylene	0.0002			HAP	HAP-VOC
	Phenanthrene	3			HAP	HAP-VOC

acrn	pollutant_name	2008	2011	2014	nei_ty	nei_hap_voc_flag
	Phenol	10,102	9,007	10,007	HAP	HAP-VOC
	Polycyclic aromatic hydrocarbons	53	18	18	HAP	HAP-VOC
	Propionaldehyde	100	100	135	HAP	HAP-VOC
	Pyrene	1.7462			HAP	HAP-VOC
	Styrene	3,106	3,320	4,215	HAP	HAP-VOC
	Toluene	1,504	1,600	2,041	HAP	HAP-VOC
	Trichloroethylene	49	40	67	HAP	HAP-VOC
	Vinyl chloride	29	20	40	HAP	HAP-VOC
	Antimony	3.73	1.86	3.55	HAP	
	Arsenic	10	5	10	HAP	
	Beryllium	0.541	0.310	0.525	HAP	
	Cadmium	1.941	0.981	1.848	HAP	
	Chlorine	1,264	2,700	2,465	HAP	
	Chromium(III)	5.5	6.9	9.6	HAP	
	Chromium(VI)	1.8	1.1	1.8	HAP	
	Cobalt	3.1	1.5	2.9	HAP	
	Hydrochloric acid	24,000	20,000	20,000	HAP	
	Manganese	97	140	590	HAP	
	Mercury	5.5	3.2	4.1	HAP	
	Nickel	16	9	15	HAP	
	Phosphorus	13	6	12	HAP	
	Selenium	1.32	0.66	1.26	HAP	
	TRI Air (annually reported subset of NEI), POUNDS ->	**430,090**	**428,557**	**481,995**	**TOXIC RELEASE INVENTORY**	
	Acetaldehyde	24,800	21,000	30,000		
	Ammonia	75,250	72,250	78,250		
	Dioxin and dioxin-like compounds -- TRI	0.0008612	0.000815	0.0007709		
	Formaldehyde	15,000	16,029	10,026		
	Hydrochloric acid	24,000	20,000	20,000		
	Hydrogen sulfide			33,000		
	Lead compounds	76	110	100		
	Manganese compounds	97	140	590		
	Mercury	5.51	3.2	4.1		
	Methanol	280,000	290,000	300,000		
	Naphthalene	706				
	Phenol	10,102	9,007	10,007		
	Polycyclic aromatic compounds -- TRI	53	18	18		
	Zinc compounds					
	GREENHOUSE GAS SUBTOTAL, POUNDS - CO2e => N/R		**1,219,160,320**	**1,125,925,968**	**Greenhouse gases**	
	Carbon dioxide		1,195,579,800	1,119,156,600		
	Methane		8,311,000	1,192,000		
	Nitrous oxide		15,269,520	5,577,368		
	GHGs in METRIC TONS - MTCO2e -> N/R		609,580	562,963	GREENHOUSE GASES, TONS	
	Carbon dioxide		597,790	559,578		
	Methane		4,156	596		
	Nitrous oxide		7,635	2,789		