

**Arclin Surfaces - Dillon Plant
Construction Permit Application
Potential Emission Calculations**

Criteria Pollutant Summary

Pollutant	CA-1		D-1		CA-2		D-2		CA-3		D-3		HB-1		HB-2		TO-1		CA-4		D-4		CA-5		D-5		CA-6		D-6		TO-2		MX-1 (Revised)		SC-1		SC-2		Tanks		Total	
	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)		
Total PM ₁₀	--	--	0.01	0.03	--	--	0.01	0.03	--	--	0.005	0.02	--	--	--	--	0.01	0.02	--	--	0.01	0.04	--	--	0.01	0.02	--	--	0.005	0.02	0.005	0.02	--	--	--	--	--	--	--	0.047	0.20	
Total PM _{2.5}	--	--	0.01	0.03	--	--	0.01	0.03	--	--	0.005	0.02	--	--	--	--	0.01	0.02	--	--	0.01	0.04	--	--	0.01	0.02	--	--	0.005	0.02	0.005	0.02	--	--	--	--	--	--	--	0.047	0.20	
Total PM ₁₀	--	--	0.01	0.03	--	--	0.005	0.02	--	--	0.004	0.02	--	--	0.01	0.03	0.004	0.02	--	--	0.004	0.02	--	--	0.004	0.02	--	--	0.002	0.02	0.002	0.02	--	--	--	--	--	--	--	0.04	0.17	
VOC	32.10	140.59	0.07	0.32	1.20	5.26	0.06	0.26	2.02	8.85	0.05	0.23	0.36	1.59	0.13	0.55	0.06	0.26	33.80	148.04	0.09	0.38	1.26	5.54	0.05	0.23	2.13	9.32	0.05	0.23	0.05	0.23	0.44	1.92	0.38	1.67	0.38	1.67	0.99	2.17	75.69	329.34
SO ₂	--	--	0.01	0.04	--	--	0.01	0.03	--	--	0.006	0.03	--	--	--	--	0.01	0.03	--	--	0.01	0.04	--	--	0.01	0.03	--	--	0.006	0.03	0.01	0.03	--	--	--	--	--	--	--	0.05	0.24	
NO _x	--	--	0.94	4.12	--	--	1.10	4.81	--	--	0.96	4.21	--	--	--	--	1.29	4.77	--	--	1.12	4.90	--	--	0.97	4.25	--	--	0.90	4.21	0.67	2.96	--	--	--	--	--	--	--	7.81	34.21	
CO	--	--	1.13	4.94	--	--	1.13	4.94	--	--	0.92	4.04	--	--	0.81	3.59	0.81	3.59	--	--	0.91	3.94	--	--	0.81	3.59	--	--	0.81	3.59	0.81	3.59	--	--	--	--	--	--	--	7.54	33.04	
CO ₂	--	--	1,804.24	7,026.58	--	--	1,311.50	5,244.36	--	--	1,147.56	5,026.31	--	--	--	--	1,694.24	7,026.58	--	--	1,311.50	5,244.36	--	--	1,147.56	5,026.31	--	--	1,147.56	5,026.31	1,147.56	5,026.31	--	--	--	--	--	--	--	10,573.94	46,318.88	

HAP/TAP Pollutant Summary

[illegible]

Legacy MDO

Criteria Pollutant Summary

Pollutant	CA-1		D-1		CA-2		D-2		CA-3		D-3		HB-1		HB-2		TO-1		CA-4		D-4		CA-5		D-5		CA-6		D-6		TO-2		MX-1 Legacy MDO		SC-1		SC-2		Tanks		Total	
	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)		
Total PM	--	--	0.01	0.03	--	--	0.01	0.03	--	--	0.005	0.02	--	--	--	--	0.01	0.02	--	--	0.01	0.04	--	--	0.01	0.02	--	--	0.005	0.02	0.005	0.02	0.02	--	--	--	--	--	--	--	0.047	0.20
Total PM ₁₀	--	--	0.01	0.03	--	--	0.01	0.03	--	--	0.005	0.02	--	--	--	--	0.01	0.02	--	--	0.01	0.04	--	--	0.01	0.02	--	--	0.005	0.02	0.005	0.02	0.02	--	--	--	--	--	--	--	0.047	0.20
Total PM _{2.5}	--	--	0.01	0.03	--	--	0.005	0.02	--	--	0.004	0.02	--	--	--	--	0.00	0.02	--	--	0.01	0.03	--	--	0.004	0.02	--	--	0.004	0.02	0.00	0.02	0.02	--	--	--	--	--	--	0.04	0.17	
VOC	53.28	233.34	0.07	0.32	2.42	10.60	0.06	0.26	12.76	55.88	0.05	0.23	0.13	0.55	0.13	0.55	0.06	0.26	54.66	239.41	0.09	0.38	2.48	10.87	0.05	0.23	13.09	57.33	0.05	0.23	0.05	0.23	0.55	2.39	0.38	1.67	0.38	1.67	1.02	2.23	141.75	618.94
SO ₂	--	--	0.01	0.04	--	--	0.01	0.03	--	--	0.006	0.03	--	--	--	--	0.01	0.04	--	--	0.01	0.04	--	--	0.01	0.03	0.01	0.03	--	--	0.006	0.03	0.01	0.03	--	--	--	--	--	0.05	0.24	
NO _x	--	--	0.94	4.12	--	--	1.10	4.81	--	--	0.96	4.21	--	--	--	--	1.09	4.77	--	--	1.12	4.90	--	--	0.96	4.21	0.67	2.95	--	--	0.96	4.21	0.67	2.95	--	--	--	--	--	65.58	287.25	
CO	--	--	1.13	4.94	--	--	0.92	4.04	--	--	0.81	3.53	--	--	--	--	0.91	3.53	--	--	1.34	5.88	--	--	0.82	3.57	--	--	0.81	3.53	0.81	3.53	--	--	--	--	--	7.54	33.04			
CO ₂	--	--	1,604.24	7,026.58	--	--	--	1,311.50	5,744.36	--	--	1,147.56	5,026.31	--	--	--	1,299.79	5,693.07	--	--	1,604.24	7,026.58	--	--	1,311.50	5,744.36	--	--	1,147.56	5,026.31	1,147.56	5,026.31	--	--	--	--	--	--	10,573.94	46,315.88		

HAP/TAP Pollutant Summary

Pollutant	CA-1		D-1		CA-2		D-2		CA-3		D-3		HB-1		HB-2		TO-1		CA-4		D-4		CA-5		D-5		CA-6		D-6		TO-2		MX-1 Legacy MDO		SC-1		SC-2		Tanks		Total	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)		
Acetaldehyde (H,T)	--	--	2.04E-07	1.79E-03	--	--	1.67E-07	1.46E-03	--	--	1.46E-07	1.28E-03	--	--	--	--	1.65E-07	1.45E-03	--	--	2.43E-07	2.13E-03	--	--	1.49E-07	1.29E-03	--	--	1.49E-07	1.29E-03	1.46E-07	1.28E-03	1.46E-07	1.28E-03	--	--	--	--	0.00E+00	0.00E+00	1.37E-06	1.20E-02
Acrolein (H,T)	--	--	2.42E-07	2.12E-03	--	--	1.98E-07	1.73E-03	--	--	1.73E-07	1.51E-03	--	--	--	--	1.96E-07	1.72E-03	--	--	2.86E-07	2.52E-03	--	--	1.75E-07	1.53E-03	--	--	1.73E-07	1.51E-03	1.73E-07	1.51E-03	1.51E-03	--	--	--	--	0.00E+00	0.00E+00	1.62E-06	1.42E-02	
Formaldehyde (H,T)	2.61E+00	2.29E+04	1.01E-03	8.82E+00	--	--	8.24E-04	7.21E+00	8.62E-02	7.55E+02	7.21E-04	6.31E+00	2.43E-03	2.13E+01	2.43E-03	2.13E+01	8.16E-04	7.19E+00	2.68E+00	2.35E+04	1.20E-03	1.05E+01	--	--	7.28E-04	6.39E+00	8.85E-02	7.75E+02	7.21E-04	6.31E+00	7.21E-04	6.31E+00	8.16E-04	7.14E+00	--	--	--	--	3.54E-02	1.54E+02	5.52E+00	4.82E+04
Benzo[a]pyrene (H,T)	--	--	1.61E-08	1.41E-04	--	--	1.32E-08	1.15E-04	--	--	1.19E-08	1.01E-04	--	--	--	--	1.31E-08	1.14E-04	--	--	1.92E-08	1.69E-04	--	--	1.19E-08	1.02E-04	--	--	1.19E-08	1.01E-04	1.19E-08	1.01E-04	1.01E-04	--	--	--	--	0.00E+00	0.00E+00	1.08E-07	9.44E-04	
Cobalt Compounds (H,T)	--	--	1.13E-08	9.98E-03	--	--	9.22E-07	8.09E-03	--	--	8.07E-07	7.07E-03	--	--	--	--	9.14E-07	8.01E-03	--	--	1.34E-06	1.18E-02	--	--	8.15E-07	7.14E-03	--	--	8.07E-07	7.07E-03	8.07E-07	7.07E-03	7.07E-03	--	--	--	--	0.00E+00	0.00E+00	7.54E-06	6.61E-02	
n-Hexane (H,T)	--	--	2.42E-02	2.12E+02	--	--	1.98E-02	1.73E+02	--	--	1.73E-02	1.51E+02	--	--	--	--	1.98E-02	1.72E+02	--	--	2.88E-02	2.52E+02	--	--	1.75E-02	1.53E+02	--	--	1.73E-02	1.51E+02	1.73E-02	1.51E+02	1.51E+02	--	--	--	--	0.00E+00	0.00E+00	1.62E-01	1.42E+03	
Naphthalene (H,T)	--	--	6.19E-06	7.18E-02	--	--	6.70E-06	5.67E-02	--	--	5.66E-06	5.13E-02	--	--	--	--	6.94E-06	5.82E-02	--	--	9.75E-06	8.54E-02	--	--	5.92E-06	5.19E-02	--	--	5.86E-06	5.13E-02	5.86E-06	5.13E-02	--	--	--	--	0.00E+00	0.00E+00	5.48E-05	4.80E-01		
Phenol (H,T)	1.22E+00	1.07E+04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Selenium Compounds (H,T)	--	--	3.22E-07	2.82E-03	--	--	2.64E-07	2.31E-03	--	--	2.31E-07	2.02E-03	--	--	--	--	2.61E-07	2.29E-03	--	--	3.84E-07	3.36E-03	--	--	2.33E-07	2.04E-03	--	--	2.31E-07	2.02E-03	2.31E-07	2.02E-03	--	--	--	--	8.89E-02	3.90E+02	9.03E+00	7.97E+04		
Toluene (H,T)	--	--	4.57E-05	4.00E-01	--	--	3.73E-05	3.27E-01	--	--	3.27E-05	2.86E-01	--	--	--	--	3.70E-05	3.24E-01	--	--	5.43E-05	4.76E-01	--	--	3.30E-05	2.86E-01	--	--	3.27E-05	2.86E-01	3.27E-05	2.86E-01	--	--	--	--	0.00E+00	0.00E+00	3.05E-04	2.67E+00		
Polycyclic Organic Matter (H,T)	--	--	6.21E-08	7.19E-02	--	--	6.71E-08	5.89E-02	--	--	5.97E-08	5.14E-02	--	--	--	--	6.69E-08	5.83E-02	--	--	9.71E-08	8.60E-02	--	--	6.93E-08	5.20E-02	--	--	6.67E-08	5.14E-02	6.67E-08	5.14E-02	--	--	--	--	0.00E+00	0.00E+00	5.49E-05	4.61E-01		
Lead Compounds (H)	--	--	6.72E-06	5.89E-02	--	--	5.49E-06	4.81E-02	--	--	4.80E-06	4.21E-02	--	--	--	--	5.44E-06	4.77E-02	--	--	7.09E-06	7.00E-02	--	--	4.89E-06	4.25E-02	--	--	4.80E-06	4.21E-02	4.80E-06	4.21E-02	--	--	--	--	0.00E+00	0.00E+00	4.49E-05	3.93E-01		
Arsenic Compounds (H,T)	--	--	2.69E-06	2.33E-02	--	--	2.20E-06	1.92E-02	--	--	1.92E-06	1.68E-02	--	--	--	--	2.18E-06	1.91E-02	--	--	3.20E-06	2.80E-02	--	--	1.94E-06	1.70E-02	--	--	1.92E-06	1.68E-02	1.92E-06	1.68E-02	--	--	--	--	0.00E+00	0.00E+00	1.80E-05	1.57E-01		
Beryllium Metal (H,T)	--	--	1.61E-07	1.41E-03	--	--	1.32E-07	1.15E-03	--	--	1.15E-07	1.01E-03	--	--	--	--	1.31E-07	1.14E-03	--	--	1.92E-07	1.68E-03	--	--	1.19E-07	1.02E-03	--	--	1.19E-07	1.01E-03	1.19E-07	1.01E-03	--	--	--	--	0.00E+00	0.00E+00	1.08E-06	9.44E-03		
Cadmium Metal (H,T)	--	--	1.48E-05	1.29E-01	--	--	1.21E-05	1.06E-01	--	--	1.06E-05	9.26E-02	--	--	--	--	1.20E-05	1.05E-01	--	--	1.75E-05	1.54E-01	--	--	1.07E-05	9.35E-02	--	--	1.06E-05	9.26E-02	1.06E-05	9.26E-02	--	--	--	--	0.00E+00	0.00E+00	9.88E-05	8.65E-01		
Chromic Acid VI (H,T)	--	--	1.88E-05	1.65E-01	--	--	1.54E-05	1.35E-01	--	--	1.35E-05	1.18E-01	--	--	--	--	1.52E-05	1.33E-01	--	--	2.24E-05	1.96E-01	--	--	1.36E-05	1.19E-01	--	--	1.35E-05	1.19E-01	1.35E-05	1.19E-01	--	--	--	--	0.00E+00	0.00E+00	1.28E-04	1.10E+00		
Vinyl Acetate (H,T)	--	--	--	--	--	--	--	--	9.52E+00	8.34E+04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Manganese Compounds (H,T)	--	--	5.10E-06	4.47E-02	--	--	4.17E-06	3.66E-02	--	--	3.65E-06	3.20E-02	--	--	--	--	4.14E-06	3.62E-02	--	--	6.07E-06	5.32E-02	--	--	3.69E-06	3.23E-02	--	--	3.65E-06	3.20E-02	3.65E-06	3.20E-02	--	--	--	--	0.00E+00	0.00E+00	2.91E+01	1.76E+05		
Mercury (H,T)	--	--	3.49E-06	3.06E-02	--	--	2.85E-06	2.50E-02	--	--	2.50E-06	2.19E-02	--	--	--	--	2.83E-06	2.48E-02	--	--	4.15E-06	3.64E-02	--	--	2.52E-06	2.21E-02	--	--	2.50E-06	2.19E-02	2.50E-06	2.19E-02	--	--	--	--	0.00E+00	0.00E+00	2.33E-05	2.05E-01		
Nickel Metal (H,T)	--	--	2.82E-05	2.47E-01	--	--	2.31E-05	2.02E-01	--	--	2.02E-05	1.77E-01	--	--	--	--	2.29E-05	2.00E-01	--	--	3.39E-05	2.94E-01	--	--	2.94E-05	1.79E-01	--	--	2.92E-05	1.77E-01	2.92E-05	1.77E-01	--	--	--	--	0.00E+00	0.00E+00	1.99E-04	1.69E+00		
Methanol (H,T)	4.94E+01	4.33E+05	--	--	--	--	--	--	4.74E-02	4.15E+02	--	--	1.39E-03	1.22E+01	1.39E-03	1.22E+01	--	--	5.07E+01	4.44E+05	--	--	--	--	--	--	4.87E-02	4.26E+02	--	--	2.79E-01	2.45E+03	4.61E-01	4.04E+03	4.61E-01	4.04E+03	4.61E-01	4.04E+03	8.92E-01	3.85E+03	1.02E+02	8.93E+05
Benzene (H,T)	--	--	2.82E-05	2.47E-01	--	--	2.31E-05	2.02E-01																																		

Next Generation MDO

Criteria Pollutant Summary

Pollutant	CA-1		D-1		CA-2		D-2		CA-3		D-3		HB-1		HB-2		TO-1		CA-4		D-4		CA-5		D-5		CA-6		D-6		TO-2		MX-1 (Revised)		SC-1		SC-2		Tanks		Total	
	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)		
Total PM	--	--	0.01	0.03	--	--	0.01	0.03	--	--	0.00	0.02	--	--	--	--	0.01	0.02	--	--	0.01	0.04	--	--	0.01	0.02	--	--	0.00	0.02	0.00	0.02	--	--	--	--	--	--	--	0.047	0.20	
Total PM ₁₀	--	--	0.01	0.03	--	--	0.01	0.03	--	--	0.00	0.02	--	--	--	--	0.01	0.02	--	--	0.01	0.04	--	--	0.01	0.02	--	--	0.00	0.02	0.00	0.02	--	--	--	--	--	--	--	0.047	0.20	
Total PM _{2.5}	--	--	0.01	0.03	--	--	0.00	0.02	--	--	0.00	0.02	--	--	--	--	0.00	0.02	--	--	0.01	0.03	--	--	0.00	0.02	--	--	0.00	0.02	0.00	0.02	--	--	--	--	--	--	--	0.04	0.17	
VOC	42.08	184.31	0.07	0.32	1.48	6.50	0.06	0.26	7.99	34.98	0.05	0.23	0.36	1.59	0.36	1.59	0.06	0.26	29.72	130.19	0.09	0.38	1.53	6.68	0.05	0.23	8.55	37.44	0.05	0.23	0.05	0.23	0.36	1.57	0.38	1.67	0.98	2.17	94.68	412.53		
SO ₂	--	--	0.01	0.04	--	--	0.01	0.03	--	--	0.01	0.03	--	--	--	--	0.01	0.03	--	--	0.01	0.04	--	--	0.01	0.03	--	--	0.01	0.03	--	--	0.01	0.03	--	--	--	--	--	0.05	0.24	
NO _x	--	--	0.84	4.12	--	--	1.10	4.81	--	--	0.96	4.21	--	--	--	--	1.09	4.77	--	--	1.12	4.90	--	--	0.97	4.25	--	--	0.96	4.21	0.67	2.95	--	--	--	--	--	--	7.81	34.21		
CO	--	--	1.13	4.94	--	--	0.92	4.04	--	--	0.81	3.53	--	--	--	--	0.91	4.00	--	--	1.34	5.88	--	--	0.82	3.57	--	--	0.81	3.53	0.81	3.53	--	--	--	--	--	--	7.54	33.04		
CO ₂ e	--	--	1,604.24	7,026.58	--	--	1,311.50	5,744.36	--	--	1,147.56	5,026.31	--	--	--	--	1,299.79	5,693.07	--	--	1,604.24	7,026.58	--	--	1,311.50	5,744.36	--	--	1,147.56	5,026.31	1,147.56	5,026.31	--	--	--	--	--	--	--	10,573.94	46,313.88	

HAP/TAP Pollutant Summary

Pollutant	CA-1		D-1		CA-2		D-2		CA-3		D-3		HB-1		HB-2		TO-1		CA-4		D-4		CA-5		D-5		CA-6		D-6		TO-2		MX-1 (Revised)		SC-1		SC-2		Tanks		Total			
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)				
Acetaldehyde (H.T.)	--	--	2.04E-07	1.79E-03	--	--	1.67E-07	1.46E-03	--	--	1.46E-07	1.28E-03	--	--	--	--	1.69E-07	1.45E-03	--	--	2.43E-07	2.13E-03	--	--	1.46E-07	1.29E-03	--	--	1.46E-07	1.28E-03	1.46E-07	1.28E-03	--	--	--	--	--	--	0.00E+00	0.00E+00	1.37E-06	1.20E-02		
Acrolein (H.T.)	--	--	2.42E-07	2.12E-03	--	--	1.98E-07	1.73E-03	--	--	1.73E-07	1.51E-03	--	--	--	--	1.96E-07	1.72E-03	--	--	2.88E-07	2.52E-03	--	--	1.73E-07	1.53E-03	--	--	1.73E-07	1.51E-03	1.73E-07	1.51E-03	--	--	--	--	--	--	0.00E+00	0.00E+00	1.62E-06	1.42E-02		
Formaldehyde (H.T.)	1.60E+00	1.40E+04	1.01E-03	8.82E+00	--	--	6.24E-04	7.21E+00	4.64E-02	4.07E+02	6.31E-04	6.31E+00	2.43E-03	2.13E+01	2.43E-03	2.13E+01	1.20E-03	1.05E+01	--	--	7.28E-04	6.38E+00	6.29E-02	5.51E+02	--	--	7.21E-04	6.31E+00	7.21E-04	6.31E+00	4.58E-04	4.01E+00	--	--	--	--	--	--	3.48E-02	1.52E+02	3.67E+00	3.20E+04		
Benzo(a)pyrene (H.T.)	--	--	1.61E-08	1.41E-04	--	--	1.32E-08	1.15E-04	--	--	1.15E-08	1.01E-04	--	--	--	--	1.31E-08	1.14E-04	--	--	1.92E-08	1.68E-04	--	--	1.15E-08	1.01E-04	--	--	1.15E-08	1.01E-04	1.15E-08	1.01E-04	--	--	--	--	--	--	0.00E+00	0.00E+00	1.08E-07	9.44E-04		
Cobalt Compounds (H.T.)	--	--	1.13E-06	9.88E-03	--	--	9.22E-07	8.06E-03	--	--	8.07E-07	7.07E-03	--	--	--	--	9.14E-07	8.01E-03	--	--	1.34E-06	1.18E-02	--	--	8.16E-07	7.14E-03	--	--	8.07E-07	7.07E-03	8.07E-07	7.07E-03	--	--	--	--	--	--	0.00E+00	0.00E+00	7.54E-06	6.61E-02		
n-Hexane (H.T.)	--	--	2.42E-02	2.12E+02	--	--	1.98E-02	1.73E+02	--	--	1.73E-02	1.51E+02	--	--	--	--	1.98E-02	1.72E+02	--	--	2.88E-02	2.52E+02	--	--	1.73E-02	1.53E+02	--	--	1.73E-02	1.51E+02	1.73E-02	1.51E+02	--	--	--	--	--	--	0.00E+00	0.00E+00	1.62E-01	1.42E+03		
Naphthalene (H.T.)	--	--	8.19E-06	7.18E-02	--	--	6.70E-06	5.87E-02	--	--	5.88E-06	5.13E-02	--	--	--	--	6.64E-06	5.82E-02	--	--	9.75E-06	8.54E-02	--	--	5.92E-06	5.19E-02	--	--	5.86E-06	5.13E-02	5.86E-06	5.13E-02	--	--	--	--	--	--	0.00E+00	0.00E+00	5.48E-05	4.80E-01		
Phenol (H.T.)	1.60E+00	1.40E+04	--	--	--	--	--	--	1.67E+00	1.46E+04	--	--	--	--	--	--	--	--	1.91E+00	1.68E+04	--	--	--	--	--	--	2.31E+00	2.02E+04	--	--	--	--	2.29E-07	2.02E-03	--	--	--	--	8.89E-02	3.90E+02	7.76E+00	6.76E+04		
Selenium Compounds (H.T.)	--	--	3.22E-07	2.82E-03	--	--	2.64E-07	2.31E-03	--	--	2.31E-07	2.02E-03	--	--	--	--	2.61E-07	2.29E-03	--	--	3.84E-07	3.36E-03	--	--	2.33E-07	2.04E-03	--	--	2.31E-07	2.02E-03	2.31E-07	2.02E-03	--	--	--	--	--	--	0.00E+00	0.00E+00	2.16E-06	1.89E-02		
Toluene (H.T.)	--	--	4.57E-05	4.00E-01	--	--	3.73E-05	3.27E-01	--	--	3.27E-05	2.86E-01	--	--	--	--	3.70E-05	3.24E-01	--	--	5.43E-05	4.76E-01	--	--	3.30E-05	2.88E-01	--	--	3.27E-05	2.88E-01	3.27E-05	2.88E-01	--	--	--	--	--	--	0.00E+00	0.00E+00	3.05E-04	2.67E+00		
Polycyclic Organic Matter (H.T.)	--	--	6.21E-06	7.19E-02	--	--	6.71E-06	5.88E-02	--	--	5.87E-06	5.14E-02	--	--	--	--	6.85E-06	5.83E-02	--	--	9.77E-06	8.59E-02	--	--	5.93E-06	5.20E-02	--	--	5.87E-06	5.14E-02	5.87E-06	5.14E-02	--	--	--	--	--	--	0.00E+00	0.00E+00	5.49E-05	4.81E-01		
Lead Compounds (H)	--	--	6.72E-06	5.88E-02	--	--	5.49E-06	4.81E-02	--	--	4.80E-06	4.21E-02	--	--	--	--	5.44E-06	4.77E-02	--	--	7.09E-06	7.00E-02	--	--	4.89E-06	4.25E-02	--	--	4.80E-06	4.21E-02	4.80E-06	4.21E-02	--	--	--	--	--	--	0.00E+00	0.00E+00	4.49E-05	3.93E-01		
Arsenic Compounds (H.T.)	--	--	2.69E-06	2.35E-02	--	--	2.20E-06	1.92E-02	--	--	1.92E-06	1.68E-02	--	--	--	--	2.19E-06	1.91E-02	--	--	3.20E-06	2.80E-02	--	--	1.94E-06	1.70E-02	--	--	1.92E-06	1.68E-02	1.92E-06	1.68E-02	--	--	--	--	--	--	0.00E+00	0.00E+00	1.80E-05	1.57E-01		
Beryllium Metal (H.T.)	--	--	1.61E-07	1.41E-03	--	--	1.32E-07	1.15E-03	--	--	1.15E-07	1.01E-03	--	--	--	--	1.31E-07	1.14E-03	--	--	1.92E-07	1.68E-03	--	--	1.15E-07	1.01E-03	--	--	1.15E-07	1.01E-03	1.15E-07	1.01E-03	--	--	--	--	--	--	0.00E+00	0.00E+00	1.08E-06	9.44E-03		
Cadmium Metal (H.T.)	--	--	1.48E-05	1.29E-01	--	--	1.21E-05	1.06E-01	--	--	1.06E-05	9.26E-02	--	--	--	--	1.07E-05	9.35E-02	--	--	1.79E-05	1.54E-01	--	--	1.07E-05	9.35E-02	--	--	1.06E-05	9.26E-02	1.06E-05	9.26E-02	--	--	--	--	--	--	0.00E+00	0.00E+00	9.88E-05	8.65E-01		
Chromic Acid VI (H.T.)	--	--	1.88E-05	1.65E-01	--	--	1.54E-05	1.35E-01	--	--	1.35E-05	1.18E-01	--	--	--	--	1.52E-05	1.33E-01	--	--	2.24E-05	1.96E-01	--	--	1.35E-05	1.19E-01	--	--	1.35E-05	1.18E-01	1.35E-05	1.18E-01	--	--	--	--	--	--	0.00E+00	0.00E+00	1.26E-04	1.10E+00		
Vinyl Acetate (H.T.)	--	--	--	--	--	--	--	--	6.24E+00	5.47E+04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.13E+00	5.37E+04	--	--	--	--	1.79E-01	1.54E+03	--	--	--	--	--	--	0.00E+00	0.00E+00	1.31E+01	1.15E+05
Manganese Compounds (H.T.)	--	--	5.10E-06	4.47E-02	--	--	4.17E-06	3.66E-02	--	--	3.65E-06	3.20E-02	--	--	--	--	4.14E-06	3.62E-02	--	--	6.07E-06	5.32E-02	--	--	3.69E-06	3.23E-02	--	--	3.65E-06	3.20E-02	3.65E-06	3.20E-02	--	--	--	--	--	--	0.00E+00	0.00E+00	3.41E-05	2.99E-01		
Mercury (H.T.)	--	--	3.49E-06	3.06E-02	--	--	2.85E-06	2.50E-02	--	--	2.50E-06	2.19E-02	--	--	--	--	2.83E-06	2.48E-02	--	--	4.15E-06	3.64E-02	--	--	2.52E-06	2.21E-02	--	--	2.50E-06	2.19E-02	2.50E-06	2.19E-02	--	--	--	--	--	--	0.00E+00	0.00E+00	2.33E-05	2.05E-01		
Nickel Metal (H.T.)	--	--	2.82E-05	2.47E-01	--	--	2.31E-05	2.02E-01	--	--	2.02E-05	1.77E-01	--	--	--	--	2.29E-05	2.00E-01	--	--	3.39E-05	2.94E-01	--	--	2.04E-05	1.79E-01	--	--	2.02E-05	1.77E-01	2.02E-05	1.77E-01	--	--	--	--	--	--	0.00E+00	0.00E+00	1.89E-04	1.65E+00		
Methanol (H.T.)	3.89E+01	3.41E+05	--	--	--	--	--	--	2.55E-02	2.24E+02	--	--	1.39E-03	1.22E+01	1.39E-03	1.22E+01	--	--	--	--	2.59E+01	2.27E+05	--	--	--	--	--	--	3.54E-02	3.04E+02	3.10E+02	2.71E+06	2.19E-01	1.91E+03	4.37E-01	4.01E+03	4.97E-01	4.01E+03	6.68E-05	6.68E-05				
Benzene (H.T.)	--	--	2.82E-05	2.47E-01	--	--	2.31E-05	2.02E-01	--	--	2.02E-05	1.77E-01	--	--	--	--	2.29E-05	2.00E-01	--	--	3.39E-05	2.94E-01	--	--	2.04E-05	1.79E-01	--	--	2.02E-05	1.77E-01	2.02E-05	1.77E-01	--	--	--	--	--	--	0.00E+00	0.00E+00	1.89E-04	1.65E+00		
Total Tap	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	91.53	797.49E+00		

Maximum NOx Emissions from Legacy MDO Application

Emission Unit	Equipment ID	Max Rate ¹ (Units/hr)	Legacy MDO NOx Emission Factor ² (lb /MSF)	Legacy MDO Emissions (tpy)	Legacy MDO Emissions (Unit/hr)	Dryer/RTO Combustion Emissions (tpy)	Dryer/RTO Combustion Emissions (lb/hr)	Total Nox Emissions (tpy)	Total Nox Emissions (lb/hr)
Paper Treating Line 1	CA-1	6.56	0.31	213.4	48.7	17.9	4.1	231.3	52.8
Paper Treating Line 2	CA-4	6.73	0.31	218.8	50.0	16.3	3.7	235.1	53.7

¹ Max Line Rate = ((Line Speed (fpm) x 100)/12,000 * 60 minutes/hr)/Unit Factor

² Maximum Legacy MDO NOx emission factor (lb/MSF) derived from October 2021 performance testing at Arclin Surfaces, LLC in Portland, Oregon

Arclin Surfaces - Dillon Plant
Construction Permit Application
Potential Emission Calculations

Standard

Source IDs:	CA-1
	Chemical Application 1

Process Information

Potential Throughput (lb/hr)	Potential Throughput (lb/yr)	Potential Operating Hours (hr/yr)	Overall Control Efficiency
4,161	36,450,360	8,760	98.00%

Emission Calculations

Pollutant	CAS No.	"Super Coating" %	Uncontrolled Emissions	
			(lb/hr)	(tpy)
Phenol (H,T)	108-95-2	1.79%	74.48	326.23
Formaldehyde (H,T)	50-00-0	1.86%	77.39	338.99
Methanol (H,T)	67-56-1	34.92%	1,453.02	6,364.23
VOC	--	38.57%	1,604.90	7,029.45

Pollutant	CAS No.	Controlled Chemical Application 1 Emissions	
		(lb/hr)	(tpy)
Phenol (H,T)	108-95-2	1.49	6.52
Formaldehyde (H,T)	50-00-0	1.55	6.78
Methanol (H,T)	67-56-1	29.06	127.28
VOC	--	32.10	140.59

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Phenol (H,T)	108-95-2	1.49	6.52
Formaldehyde (H,T)	50-00-0	1.55	6.78
Methanol (H,T)	67-56-1	29.06	127.28
VOC	--	32.10	140.59

Legacy MDO

Source IDs:	CA-1
	Chemical Application 1

Process Information

Potential Throughput (lb/hr)	Potential Throughput (lb/yr)	Potential Operating Hours (hr/yr)	Overall Control Efficiency
5,683	49,779,576	8,760	98.00%

Emission Calculations

Pollutant	CAS No.	"Super Coating" %	Uncontrolled Emissions	
			(lb/hr)	(tpy)
Phenol (H,T)	108-95-2	1.07%	61.01	267.23
Formaldehyde (H,T)	50-00-0	2.30%	130.74	572.64
Methanol (H,T)	67-56-1	43.50%	2,472.00	10,827.35
VOC	--	46.88%	2,663.75	11,667.23

Pollutant	CAS No.	Controlled Chemical Application 1 Emissions	
		(lb/hr)	(tpy)
Phenol (H,T)	108-95-2	1.22	5.34
Formaldehyde (H,T)	50-00-0	2.61	11.45
Methanol (H,T)	67-56-1	49.44	216.55
VOC	--	53.28	233.34

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Phenol (H,T)	108-95-2	1.22	5.34
Formaldehyde (H,T)	50-00-0	2.61	11.45
Methanol (H,T)	67-56-1	49.44	216.55
VOC	--	53.28	233.34

Next Generation MDO

Source IDs:	CA-1
	Chemical Application 1

Process Information

Potential Throughput (lb/hr)	Potential Throughput (lb/yr)	Potential Operating Hours (hr/yr)	Overall Control Efficiency
4,416	38,685,474	8,760	98.00%

Emission Calculations

Pollutant	CAS No.	"Super Coating" %	Uncontrolled Emissions	
			(lb/hr)	(tpy)
Phenol (H,T)	108-95-2	1.81%	79.91	350.01
Formaldehyde (H,T)	50-00-0	1.81%	79.91	350.01
Methanol (H,T)	67-56-1	44.02%	1,944.17	8,515.45
VOC	--	47.64%	2,103.99	9,215.47

Pollutant	CAS No.	Controlled Chemical Application 1 Emissions	
		(lb/hr)	(tpy)
Phenol (H,T)	108-95-2	1.60	7.00
Formaldehyde (H,T)	50-00-0	1.60	7.00
Methanol (H,T)	67-56-1	38.88	170.31
VOC	--	42.08	184.31

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Phenol (H,T)	108-95-2	1.60	7.00
Formaldehyde (H,T)	50-00-0	1.60	7.00
Methanol (H,T)	67-56-1	38.88	170.31
VOC	--	42.08	184.31

Arclin Surfaces - Dillon Plant
Construction Permit Application
Potential Emission Calculations

Standard

Source IDs:	CA-2
	Chemical Application 2

Process Information

Potential Throughput (lb/hr)	Potential Throughput (lb/yr)	Potential Operating Hours (hr/yr)	Overall Control Efficiency
2,300	20,148,000	8,760	98.00%

Emission Calculations

Pollutant	CAS No.	"Super Coating" %	Uncontrolled Emissions	
			(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.37%	8.51	37.27
Methanol (H,T)	67-56-1	2.24%	51.52	225.66
VOC	--	2.61%	60.03	262.93

Controlled Chemical Application 2 Emissions			
Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.17	0.75
Methanol (H,T)	67-56-1	1.03	4.51
VOC	--	1.20	5.26

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.17	0.75
Methanol (H,T)	67-56-1	1.03	4.51
VOC	--	1.20	5.26

Legacy MDO

Source IDs:	CA-2
	Chemical Application 2

Process Information

Potential Throughput (lb/hr)	Potential Throughput (lb/yr)	Potential Operating Hours (hr/yr)	Overall Control Efficiency
2,930	25,662,420	8,760	98.00%

Emission Calculations

Pollutant	CAS No.	"Super Coating" %	Uncontrolled Emissions	
			(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	--	--	--
Methanol (H,T)	67-56-1	--	--	--
VOC	--	4.13%	120.99	529.93

Controlled Chemical Application 2 Emissions			
Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	--	--
Methanol (H,T)	67-56-1	--	--
VOC	--	2.42	10.60

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	--	--
Methanol (H,T)	67-56-1	--	--
VOC	--	2.42	10.60

Next Generation MDO

Source IDs:	CA-2
	Chemical Application 2

Process Information

Potential Throughput (lb/hr)	Potential Throughput (lb/yr)	Potential Operating Hours (hr/yr)	Overall Control Efficiency
1,798	15,748,290	8,760	98.00%

Emission Calculations

Pollutant	CAS No.	"Super Coating" %	Uncontrolled Emissions	
			(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	--	--	--
Methanol (H,T)	67-56-1	--	--	--
VOC	--	4.13%	74.25	325.20

Controlled Chemical Application 2 Emissions			
Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	--	--
Methanol (H,T)	67-56-1	--	--
VOC	--	1.48	6.50

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	--	--
Methanol (H,T)	67-56-1	--	--
VOC	--	1.48	6.50

Arclin Surfaces - Dillon Plant
Construction Permit Application
Potential Emission Calculations

Source IDs:		CA-3	
		Chemical Application 3	

Standard

Potential Throughput (lb/hr)	Potential Throughput (lb/yr)	Potential Operating Hours (hr/yr)	Overall Control Efficiency
1,400	12,264,000	8,760	98.00%

Emission Calculations

Pollutant	CAS No.	"Super Coating" %	Uncontrolled Emissions	
			(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.34%	4.76	20.85
Phenol (H,T)	108-95-2	6.79%	95.06	416.36
Vinyl Acetate (H,T)	108-05-4	0.09%	1.26	5.52
VOC	--	7.22%	101.08	442.73

Controlled Chemical Application 3 Emissions			
Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.10	0.42
Phenol (H,T)	108-95-2	1.90	8.33
Vinyl Acetate (H,T)	108-05-4	0.03	0.11
VOC	--	2.02	8.85

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.10	0.42
Phenol (H,T)	108-95-2	1.90	8.33
Vinyl Acetate (H,T)	108-05-4	0.03	0.11
VOC	--	2.02	8.85

Source IDs:		CA-3	
		Chemical Application 3	

Legacy MDO

Potential Throughput (lb/hr)	Potential Throughput (lb/yr)	Potential Operating Hours (hr/yr)	Overall Control Efficiency
3,049	26,710,992	8,760	98.00%

Emission Calculations

Pollutant	CAS No.	"Super Coating" %	Uncontrolled Emissions	
			(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.14%	4.31	18.88
Phenol (H,T)	108-95-2	5.09%	155.19	679.75
Vinyl Acetate (H,T)	108-05-4	15.61%	475.98	2084.79
Methanol (H,T)	67-56-1	0.08%	2.37	10.39
VOC	--	20.92%	637.86	2793.81

Controlled Chemical Application 3 Emissions			
Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.09	0.38
Phenol (H,T)	108-95-2	3.10	13.60
Vinyl Acetate (H,T)	108-05-4	9.52	41.70
Methanol (H,T)	67-56-1	0.05	0.21
VOC	--	12.76	55.88

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.09	0.38
Phenol (H,T)	108-95-2	3.10	13.60
Vinyl Acetate (H,T)	108-05-4	9.52	41.70
Methanol (H,T)	67-56-1	0.05	0.21
VOC	--	12.76	55.88

Source IDs:		CA-3	
		Chemical Application 3	

Next Generation MDO

Potential Throughput (lb/hr)	Potential Throughput (lb/yr)	Potential Operating Hours (hr/yr)	Overall Control Efficiency
1,913	16,753,500	8,760	98.00%

Emission Calculations

Pollutant	CAS No.	Super Coating" %	Uncontrolled Emissions	
			(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.12%	2.32	10.17
Phenol (H,T)	108-95-2	4.37%	83.57	366.04
Vinyl Acetate (H,T)	108-05-4	16.32%	312.12	1367.09
Methanol (H,T)	67-56-1	0.07%	1.28	5.59
VOC	--	20.88%	399.29	1748.88

Controlled Chemical Application 3 Emissions			
Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.05	0.20
Phenol (H,T)	108-95-2	1.67	7.32
Vinyl Acetate (H,T)	108-05-4	6.24	27.34
Methanol (H,T)	67-56-1	0.03	0.11
VOC	--	7.99	34.98

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.05	0.20
Phenol (H,T)	108-95-2	1.67	7.32
Vinyl Acetate (H,T)	108-05-4	6.24	27.34
Methanol (H,T)	67-56-1	0.03	0.11
VOC	--	7.99	34.98

Arclin Surfaces - Dillon Plant
Construction Permit Application
Potential Emission Calculations

Standard	
Source IDs:	CA-4
Chemical Application 4	

Process Information

Potential Throughput (lb/hr)	Potential Throughput (lb/yr)	Potential Operating Hours (hr/yr)	Overall Control Efficiency
4,382	38,382,229	8,760	98.00%

Emission Calculations

Pollutant	CAS No.	"Super Coating" %	Uncontrolled Emissions	
			(lb/hr)	(tpy)
Phenol (H,T)	108-95-2	1.79%	78.43	343.52
Formaldehyde (H,T)	50-00-0	1.86%	81.50	356.95
Methanol (H,T)	67-56-1	34.92%	1,530.03	6,701.54
VOC	--	38.57%	1,689.96	7,402.01

Pollutant	CAS No.	Controlled Chemical Application 1 Emissions	
		(lb/hr)	(tpy)
Phenol (H,T)	108-95-2	1.57	6.87
Formaldehyde (H,T)	50-00-0	1.63	7.14
Methanol (H,T)	67-56-1	30.60	134.03
VOC	--	33.80	148.04

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Phenol (H,T)	108-95-2	1.57	6.87
Formaldehyde (H,T)	50-00-0	1.63	7.14
Methanol (H,T)	67-56-1	30.60	134.03
VOC	--	33.80	148.04

Legacy MDO	
Source IDs:	CA-4
Chemical Application 1	

Process Information

Potential Throughput (lb/hr)	Potential Throughput (lb/yr)	Potential Operating Hours (hr/yr)	Overall Control Efficiency
5,830,200	51,072,552	8,760	98.00%

Emission Calculations

Pollutant	CAS No.	"Super Coating" %	Uncontrolled Emissions	
			(lb/hr)	(tpy)
Phenol (H,T)	108-95-2	1.07%	62.60	0.00
Formaldehyde (H,T)	50-00-0	2.30%	134.14	587.51
Methanol (H,T)	67-56-1	43.50%	2,536.21	11,108.58
VOC	--	46.88%	2,732.94	11,970.27

Pollutant	CAS No.	Controlled Chemical Application 1 Emissions	
		(lb/hr)	(tpy)
Phenol (H,T)	108-95-2	1.25	5.48
Formaldehyde (H,T)	50-00-0	2.68	11.75
Methanol (H,T)	67-56-1	50.72	222.17
VOC	--	54.66	239.41

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Phenol (H,T)	108-95-2	1.25	5.48
Formaldehyde (H,T)	50-00-0	2.68	11.75
Methanol (H,T)	67-56-1	50.72	222.17
VOC	--	54.66	239.41

Next Generation MDO	
Source IDs:	CA-1
Chemical Application 1	

Process Information

Potential Throughput (lb/hr)	Potential Throughput (lb/yr)	Potential Operating Hours (hr/yr)	Overall Control Efficiency
4,516	39,559,722	8,760	98.00%

Emission Calculations

Pollutant	CAS No.	"Super Coating" %	Uncontrolled Emissions	
			(lb/hr)	(tpy)
Phenol (H,T)	108-95-2	2.12%	95.74	419.33
Formaldehyde (H,T)	50-00-0	2.12%	95.74	419.33
Methanol (H,T)	67-56-1	28.67%	1,294.72	5,670.89
VOC	--	32.91%	1,486.20	6,509.55

Pollutant	CAS No.	Controlled Chemical Application 1 Emissions	
		(lb/hr)	(tpy)
Phenol (H,T)	108-95-2	1.91	8.39
Formaldehyde (H,T)	50-00-0	1.91	8.39
Methanol (H,T)	67-56-1	25.89	113.42
VOC	--	29.72	130.19

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Phenol (H,T)	108-95-2	1.91	8.39
Formaldehyde (H,T)	50-00-0	1.91	8.39
Methanol (H,T)	67-56-1	25.89	113.42
VOC	--	29.72	130.19

Arclin Surfaces - Dillon Plant
Construction Permit Application
Potential Emission Calculations

Standard	
Source IDs:	CA-5 Chemical Application 5

Process Information

Potential Throughput (lb/hr)	Potential Throughput (lb/yr)	Potential Operating Hours (hr/yr)	Overall Control Efficiency
2,422	21,215,844	8,760	98.00%

Emission Calculations

Pollutant	CAS No.	"Super Coating" %	Uncontrolled Emissions	
			(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.37%	8.96	39.25
Methanol (H,T)	67-56-1	2.24%	54.25	237.62
VOC	--	2.61%	63.21	276.87

Pollutant	CAS No.	Controlled Chemical Application 2 Emissions	
		(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.18	0.78
Methanol (H,T)	67-56-1	1.09	4.75
VOC	--	1.26	5.54

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.18	0.78
Methanol (H,T)	67-56-1	1.09	4.75
VOC	--	1.26	5.54

Legacy MDO	
Source IDs:	CA-5 Chemical Application 5

Process Information

Potential Throughput (lb/hr)	Potential Throughput (lb/yr)	Potential Operating Hours (hr/yr)	Overall Control Efficiency
3,004	26,314,164	8,760	98.00%

Emission Calculations

Pollutant	CAS No.	"Super Coating" %	Uncontrolled Emissions	
			(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	--	--	--
Methanol (H,T)	67-56-1	--	--	--
VOC	--	4.13%	124.06	543.39

Pollutant	CAS No.	Controlled Chemical Application 2 Emissions	
		(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	--	--
Methanol (H,T)	67-56-1	--	--
VOC	--	2.48	10.87

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	--	--
Methanol (H,T)	67-56-1	--	--
VOC	--	2.48	10.87

Next Generation MDO	
Source IDs:	CA-5 Chemical Application 5

Process Information

Potential Throughput (lb/hr)	Potential Throughput (lb/yr)	Potential Operating Hours (hr/yr)	Overall Control Efficiency
1,847	16,180,596	8,760	98.00%

Emission Calculations

Pollutant	CAS No.	"Super Coating" %	Uncontrolled Emissions	
			(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	--	--	--
Methanol (H,T)	67-56-1	--	--	--
VOC	--	4.13%	76.29	334.13

Pollutant	CAS No.	Controlled Chemical Application 2 Emissions	
		(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	--	--
Methanol (H,T)	67-56-1	--	--
VOC	--	1.53	6.68

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	--	--
Methanol (H,T)	67-56-1	--	--
VOC	--	1.53	6.68

Arclin Surfaces - Dillon Plant
Construction Permit Application
Potential Emission Calculations

Standard

Source IDs:	CA-6
	Chemical Application 6

Process Information

Potential Throughput (lb/hr)	Potential Throughput (lb/yr)	Potential Operating Hours (hr/yr)	Overall Control Efficiency
1,474	12,913,992	8,760	98.00%

Emission Calculations

			Uncontrolled Emissions	
Pollutant	CAS No.	"Super Coating" %	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.34%	5.01	21.95
Phenol (H,T)	108-95-2	6.79%	100.10	438.43
Vinyl Acetate (H,T)	108-05-4	0.09%	1.33	5.81
VOC	--	7.22%	106.44	466.20

			Controlled Chemical Application 3 Emissions	
Pollutant	CAS No.		(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0		0.10	0.44
Phenol (H,T)	108-95-2		2.00	8.77
Vinyl Acetate (H,T)	108-05-4		0.03	0.12
VOC	--		2.13	9.32

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.10	0.44
Phenol (H,T)	108-95-2	2.00	8.77
Vinyl Acetate (H,T)	108-05-4	0.03	0.12
VOC	--	2.13	9.32

Legacy MDO

Source IDs:	CA-6
	Chemical Application 3

Process Information

Potential Throughput (lb/hr)	Potential Throughput (lb/yr)	Potential Operating Hours (hr/yr)	Overall Control Efficiency
3,128	27,404,784	8,760	98.00%

Emission Calculations

			Uncontrolled Emissions	
Pollutant	CAS No.	"Super Coating" %	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.14%	4.42	19.37
Phenol (H,T)	108-95-2	5.09%	159.23	697.41
Vinyl Acetate (H,T)	108-05-4	15.61%	488.34	2138.94
Methanol (H,T)	67-56-1	0.08%	2.43	10.65
VOC	--	20.92%	654.42	2866.38

			Controlled Chemical Application 3 Emissions	
Pollutant	CAS No.		(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0		0.09	0.39
Phenol (H,T)	108-95-2		3.18	13.95
Vinyl Acetate (H,T)	108-05-4		9.77	42.78
Methanol (H,T)	67-56-1		0.05	0.21
VOC	--		13.09	57.33

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.09	0.39
Phenol (H,T)	108-95-2	3.18	13.95
Vinyl Acetate (H,T)	108-05-4	9.77	42.78
Methanol (H,T)	67-56-1	0.05	0.21
VOC	--	13.09	57.33

Next Generation MDO

Source IDs:	CA-6
	Chemical Application 3

Process Information

Potential Throughput (lb/hr)	Potential Throughput (lb/yr)	Potential Operating Hours (hr/yr)	Overall Control Efficiency
1,965	17,213,400	8,760	98.00%

Emission Calculations

			Uncontrolled Emissions	
Pollutant	CAS No.	"Super Coating" %	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.16%	3.14	13.77
Phenol (H,T)	108-95-2	5.89%	115.74	506.93
Vinyl Acetate (H,T)	108-05-4	15.61%	306.74	1343.51
Methanol (H,T)	67-56-1	0.09%	1.77	7.75
VOC	--	21.75%	427.39	1871.96

			Controlled Chemical Application 3 Emissions	
Pollutant	CAS No.		(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0		0.06	0.28
Phenol (H,T)	108-95-2		2.31	10.14
Vinyl Acetate (H,T)	108-05-4		6.13	26.87
Methanol (H,T)	67-56-1		0.04	0.15
VOC	--		8.55	37.44

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.06	0.28
Phenol (H,T)	108-95-2	2.31	10.14
Vinyl Acetate (H,T)	108-05-4	6.13	26.87
Methanol (H,T)	67-56-1	0.04	0.15
VOC	--	8.55	37.44

Arclin Surfaces - Dillon Plant
Hot Box
Potential Emission Calculations

Standard, Legacy MDO, and Next Generation MDO

Source IDs:	HB-1, HB-2
	Hot Boxes

Process Information

Potential Throughput (lb/hr)	Potential Throughput (lb/yr) ¹	Potential Operating Hours (hr/yr)	Overall Control Efficiency
87	761,025	8,760	98.00%

Emission Calculations for HB-1

				HB-1 Uncontrolled Emissions
Pollutant	CAS No.	"Super Coating" % ²	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.14%	0.12	0.53
Phenol (H,T)	108-95-2	5.09%	4.42	19.37
Methanol (H,T)	67-56-1	0.08%	0.07	0.30
Vinyl Acetate (H,T)	108-05-4	15.61%	13.56	59.40
VOC	--	20.92%	18.17	79.60

			HB-1 Controlled Emissions
Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.00	0.01
Phenol (H,T)	108-95-2	0.09	0.39
Methanol (H,T)	67-56-1	0.00	0.01
Vinyl Acetate (H,T)	108-05-4	0.27	1.19
VOC	--	0.36	1.59

Emission Calculations for HB-2

				HB-2 Uncontrolled Emissions
Pollutant	CAS No.	"Super Coating" %	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.14%	0.12	0.53
Phenol (H,T)	108-95-2	5.09%	4.42	19.37
Methanol (H,T)	67-56-1	0.08%	0.07	0.30
Vinyl Acetate (H,T)	108-05-4	15.61%	13.56	59.40
VOC	--	20.92%	18.17	79.60

			HB-2 Controlled Emissions
Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.0024	0.01
Phenol (H,T)	108-95-2	0.09	0.39
Methanol (H,T)	67-56-1	0.00	0.01
Vinyl Acetate (H,T)	108-05-4	0.27	1.19
VOC	--	0.36	1.59

Total Potential Emissions Summary for HB-1 and HB-2

Pollutant	CAS No.	(lb/hr)	(tpy)
Formaldehyde (H,T)	50-00-0	0.00	0.02
Phenol (H,T)	108-95-2	0.18	0.77
Methanol (H,T)	67-56-1	0.00	0.01
Vinyl Acetate (H,T)	108-05-4	0.54	2.38
VOC	--	0.73	3.18

¹ Residual glue throughput for each Hot Box is estimated by taking the maximum volume a Hot Box can hold (500 gal) at one time and assuming a 48 hour curing time.

² Supercoating determined based on maximum individual HAP/TAP and maximum total VOC from Chemical Applications 2 and 3.

**Arclin Surfaces - Dillon Plant
Construction Permit Application
Potential Emission Calculations**

Source IDs:	SC-1
	Solvent Cleaning Operations

Process Information

Mixing System Cleaning (Methanol) ^b	6,500	lb/yr
Chemical Application Cleaning (Methanol) ^c	9,200	lb/yr
Thermal Oxidizer Control Efficiency	98%	
Percent Evaporated ^a	50%	

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Methanol (H,T)	67-56-1	0.38	1.67
VOC	--	0.38	1.67

^a Conservatively assume that 50% of all solvent cleaning methanol usage at the facility is evaporated during the cleaning operations.

^b Conservatively assume 7,900 lbs/yr of methanol used for mixing system cleaning.

^c Based on 3 cleanings per shift using 80 ounces of methanol for cleaning per shift, 14 shifts per week, operating for 52 weeks a year. 3 changeover cleanings per month using 120 ounces of methanol. Methanol density is 6.6 lbs/gal.

Source IDs:	SC-2
	Solvent Cleaning Operations

Process Information

Mixing System Cleaning (Methanol) ^b	6,500	lb/yr
Chemical Application Cleaning (Methanol) ^c	9,200	lb/yr
Thermal Oxidizer Control Efficiency	98%	
Percent Evaporated ^a	50%	

Potential Emissions Summary

Pollutant	CAS No.	(lb/hr)	(tpy)
Methanol (H,T)	67-56-1	0.38	1.67
VOC	--	0.38	1.67

^a Conservatively assume that 50% of all solvent cleaning methanol usage at the facility is evaporated during the cleaning operations.

^b Conservatively assume 7,900 lbs/yr of methanol used for mixing system cleaning.

^c Based on 3 cleanings per shift using 80 ounces of methanol for cleaning per shift, 14 shifts per week, operating for 52 weeks a year. 3 changeover cleanings per month using 120 ounces of methanol. Methanol density is 6.6 lbs/gal.

Arclin Surfaces - Dillon Plant
Construction Permit Application
Potential Emission Calculations

Source IDs:	MIX-1 (Current)
	Mixing Operation

Potential Emissions Summary

Pollutant	CAS No.	MIX-PI-1		USE-PI-1 through -2		MIX-PC-1		USE-PC-1 through -4		MIX-GC-1		USE-GC-1		Total Emissions	
		(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
Methanol (H,T)	67-56-1	1.90E-02	8.31E-02	1.92E-02	8.40E-02	2.97E-05	1.30E-04	3.20E-05	1.40E-04	--	--	--	--	0.04	0.17
Phenol (H,T)	108-95-2	2.88E-03	1.26E-02	2.91E-03	1.28E-02	--	--	--	--	1.37E-03	6.02E-03	1.38E-03	6.05E-03	0.01	0.04
Formaldehyde (H,T)	50-00-0	2.58E-03	1.13E-02	2.61E-03	1.14E-02	7.76E-05	3.40E-04	1.64E-01	7.20E-01	1.71E-05	7.50E-05	1.71E-05	7.50E-05	0.17	0.74
VOC	--	2.44E-02	1.07E-01	2.47E-02	1.08E-01	1.07E-04	4.70E-04	1.64E-01	7.20E-01	1.39E-03	6.10E-03	1.40E-03	6.13E-03	2.16E-01	9.48E-01

Source IDs:	MIX-1 (Revised)
	Mixing Operation

Potential Emissions Summary

Pollutant	CAS No.	MIX-PI-1		USE-PI-1 through -2		MIX-PC-1		MIX-PC-2		USE-PC-1 through -4		MIX-GC-1		MIX-GC-2		USE-GC-1		USE-GC-2		Total Emissions	
		(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
Methanol (H,T)	67-56-1	3.80E-02	1.66E-01	3.84E-02	1.68E-01	5.94E-05	2.60E-04	5.94E-05	2.60E-04	6.39E-05	2.80E-04	--	--	--	--	--	--	--	--	0.08	0.34
Phenol (H,T)	108-95-2	5.76E-03	2.53E-02	5.82E-03	2.55E-02	--	--	--	--	--	--	2.75E-03	1.20E-02	2.75E-03	1.20E-02	2.76E-03	1.21E-02	2.76E-03	1.21E-02	0.02	0.10
Formaldehyde (H,T)	50-00-0	5.17E-03	2.26E-02	5.22E-03	2.29E-02	1.55E-04	6.80E-04	1.55E-04	6.80E-04	3.29E-01	1.44E+00	3.42E-05	1.50E-04	3.42E-05	1.50E-04	3.42E-05	1.50E-04	3.42E-05	1.50E-04	0.34	1.49
VOC	--	4.89E-02	2.14E-01	4.94E-02	2.16E-01	2.15E-04	9.40E-04	2.15E-04	9.40E-04	3.29E-01	1.44E+00	2.78E-03	1.22E-02	2.78E-03	1.22E-02	2.80E-03	1.23E-02	2.80E-03	1.23E-02	0.44	1.92

Source IDs:	MIX-1 Legacy MDO
	Mixing Operation

Potential Emissions Summary

Pollutant	CAS No.	MIX-PI-1		USE-PI-1 through -2		MIX-PC-1		MIX-PC-2		USE-PC-1 through -4		MIX-GC-1		MIX-GC-2		USE-GC-1		USE-GC-2		Total Emissions	
		(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
Methanol (H,T)	67-56-1	1.38E-01	6.06E-01	1.39E-01	6.10E-01	--	--	--	--	--	--	4.00E-04	1.75E-03	4.00E-04	1.75E-03	4.00E-04	1.75E-03	4.00E-04	1.75E-03	0.28	1.22
Phenol (H,T)	108-95-2	1.27E-08	5.56E-08	1.27E-08	5.58E-08	--	--	--	--	--	--	9.01E-08	3.95E-07	9.01E-08	3.95E-07	9.02E-08	3.95E-07	9.02E-08	3.95E-07	0.00	0.00
Formaldehyde (H,T)	50-00-0	3.00E-04	1.31E-03	4.00E-04	1.75E-03	--	--	--	--	--	--	2.90E-05	1.27E-04	2.90E-05	1.27E-04	2.91E-05	1.27E-04	2.91E-05	1.27E-04	0.00	0.00
Vinyl Acetate (H,T)	108-05-4	--	--	--	--	--	--	--	--	--	--	6.64E-02	2.91E-01	6.64E-02	2.91E-01	6.65E-02	2.91E-01	6.65E-02	2.91E-01	0.27	1.16
VOC	--	1.39E-01	6.08E-01	1.40E-01	6.11E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.68E-02	2.93E-01	6.68E-02	2.93E-01	6.69E-02	2.93E-01	6.69E-02	2.93E-01	0.55	2.39

Source IDs:	MIX-1 Next Generation MDO
	Mixing Operation

Potential Emissions Summary

Pollutant	CAS No.	MIX-PI-1		USE-PI-1 through -2		MIX-PC-1		MIX-PC-2		USE-PC-1 through -4		MIX-GC-1		MIX-GC-2		USE-GC-1		USE-GC-2		Total Emissions	
		(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
Methanol (H,T)	67-56-1	1.08E-01	4.74E-01	1.09E-01	4.78E-01	--	--	--	--	--	--	2.00E-04	8.76E-04	2.00E-04	8.76E-04	2.00E-04	8.76E-04	2.00E-04	8.76E-04	0.22	0.96
Phenol (H,T)	108-95-2	1.66E-08	7.26E-08	1.67E-08	7.31E-08	--	--	--	--	--	--	4.88E-08	2.14E-07	4.88E-08	2.14E-07	4.89E-08	2.17E-07	4.89E-08	2.17E-07	0.00	0.00
Formaldehyde (H,T)	50-00-0	2.00E-04	8.76E-04	1.95E-04	8.56E-04	--	--	--	--	--	--	1.57E-05	6.88E-05	1.57E-05	6.88E-05	1.57E-05	6.88E-05	1.57E-05	6.88E-05	0.00	0.00
Vinyl Acetate (H,T)	108-05-4	--	--	--	--	--	--	--	--	--	--	4.38E-02	1.92E-01	4.38E-02	1.92E-01	4.39E-02	1.92E-01	4.39E-02	1.92E-01	0.18	0.77
VOC	--	1.09E-01	4.75E-01	1.09E-01	4.79E-01	1.90E-03	8.33E-03	1.90E-03	8.33E-03	2.00E-03	8.77E-03	2.00E-03	8.77E-03	4.40E-02	1.93E-01	4.41E-02	1.93E-01	4.41E-02	1.93E-01	0.36	1.57

Arclin Surfaces - Dillon Plant
Construction Permit Application
Potential Emission Calculations

Source IDs:	TK-1	TK-2.1	TK-3	TK-4	TK-2.2	TK-5	TK-6
	Methanol Tank	Resin A	Color Tanks	Resin B	Resin A	Polyvinyl Acetate Tank	Resin C

Potential Emissions Summary

Pollutant	CAS No.	TK-1 (1 Tank)		TK-2.1 (Tanks 1 & 2 out of 4)		TK-3 (4 Tanks)		TK-4 (2 Tanks)		TK-2.2 (Tanks 3 & 4 out of 4)		TK-5 (1 Tank)		TK-6 (1 Tank)		Total Emissions	
		(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
Methanol (H,T)	67-56-1	6.27E-01	1.37E+00	2.40E-01	5.26E-01	--	--	1.44E-03	3.16E-03	--	--	--	--	1.17E-02	0.03	0.88	1.93
Phenol (H,T)	108-95-2	--	--	4.76E-02	1.04E-01	--	--	--	--	4.14E-02	9.06E-02	--	--	1.91E-08	4.18E-08	0.09	0.19
Formaldehyde (H,T)	50-00-0	--	--	2.96E-02	6.49E-02	1.61E-03	3.52E-03	3.03E-03	6.64E-03	5.02E-04	1.10E-03	--	--	3.05E-04	6.68E-04	0.04	0.08
VOC	--	6.27E-01	1.37E+00	3.17E-01	6.95E-01	1.61E-03	3.52E-03	4.47E-03	9.80E-03	4.19E-02	9.17E-02	0.00E+00	0.00E+00	1.26E-02	2.76E-02	1.00	2.20