

Facility Name	Permit ID	2002 Emissions			2003 Emissions			2004 Emissions		
		NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total
Existing Facilities in 2002										
Blandin Paper Company / Rapids Energy Center	06100001	416	43	460	438	50	487	455	108	563
Boise White Paper LLC	07100002	846	68	914	919	78	998	863	69	932
Cleveland Cliffs Minorca Mine	13700062	3,254	155	3,409	2,293	155	2,448	2,827	163	2,990
Duluth Steam Plant 1	13700022	329	285	615	350	289	639	335	273	608
Georgia-Pacific - Duluth Hardboard	13700031	68	307	374	84	229	313	107	340	447
Hibbing Public Utilities Commission	13700027	283	257	539	365	344	708	392	384	776
Hibbing Taconite Company	13700061	6,203	593	6,795	6,912	662	7,573	6,187	518	6,705
Hill Biomass Inc.	13700083	224	20	243	207	22	229	215	21	236
Itasca Eco Industrial Park	06100010	105	2	106	108	2	109	104	2	106
Minnesota Power - Boswell Energy Center	06100004	14,528	21,170	35,698	14,895	19,975	34,871	12,622	19,731	32,354
Minnesota Power - Hibbard Renewable Energy Center	13700015	414	132	546	356	99	455	626	315	942
Minnesota Power - Laskin Energy Center	13700013	2,176	1,608	3,784	2,438	1,605	4,043	2,299	1,615	3,914
Minnesota Power - Taconite Harbor	03100001	2,309	3,112	5,422	3,372	5,502	8,875	3,373	5,573	8,946
Northshore Mining Company	07500003	3,911	2,291	6,202	4,054	2,369	6,423	4,350	2,880	7,230
Sappi Cloquet LLC	01700002	1,196	190	1,386	1,095	208	1,303	1,319	465	1,784
U.S. Steel Corporation - Keetac	13700063	6,049	704	6,753	4,869	567	5,435	5,926	689	6,615
U.S. Steel Corporation - Minntac	13700005	14,924	1,946	16,870	9,120	1,864	10,984	12,492	1,985	14,476
United Taconite LLC - Fairlane Plant	13700113	1,771	3,222	4,994	719	1,331	2,050	2,204	2,501	4,706
Virginia Department of Public Utilities	13700028	327	386	713	333	363	696	287	324	611
TOTAL COMBINED EMISSIONS		59,333	36,491	95,825	52,926	35,714	88,641	56,982	37,958	94,940
PERCENT REDUCTION COMPARED TO 2002		-	-	-	10.8%	2.1%	7.5%	4.0%	-4.0%	0.9%
2012 Goal (20% Reduction), 2018 Goal (30% Reduction)										
PERCENT REDUCTION COMPARED TO 2018										
2025 Goal (30% Reduction), 2028 Goal (40% Reduction)										
Facilities and Major Modifications Permitted Since 2002										
Mesabi Metallics Company	06100067	-	-	-	-	-	-	-	-	-
Mesabi Nugget Delaware LLC	13700318	-	-	-	-	-	-	-	-	-
Polymet Mining, Inc.	13700345	-	-	-	-	-	-	-	-	-
Existing Facilities that Increased Actual Emissions Above 100 tons										
Northern Natural Gas Company - Carlton	01700019	78	0	78	75	0	75	56	0	56
USG Interiors, LLC - Cloquet, MN	01700006	94	1	94	99	1	100	98	1	99
Potential Future Projects										
N/A	N/A	-	-	-	-	-	-	-	-	-
TOTAL COMBINED EMISSIONS		59,505	36,492	95,997	53,101	35,715	88,815	57,136	37,959	95,095
PERCENT REDUCTION COMPARED TO 2002		-	-	-	10.8%	2.1%	7.5%	4.0%	-4.0%	0.9%
2012 Goal (20% Reduction), 2018 Goal (30% Reduction)										
PERCENT REDUCTION COMPARED TO 2018										
2025 Goal (30% Reduction), 2028 Goal (40% Reduction)										

Facility Name	Permit ID	2005 Emissions			2006 Emissions			2007 Emissions		
		NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total
Existing Facilities in 2002										
Blandin Paper Company / Rapids Energy Center	06100001	458	69	528	546	66	613	576	140	715
Boise White Paper LLC	07100002	832	82	914	870	51	921	829	95	924
Cleveland Cliffs Minorca Mine	13700062	2,848	147	2,995	2,946	160	3,105	2,918	42	2,960
Duluth Steam Plant 1	13700022	355	294	649	509	385	895	420	429	849
Georgia-Pacific - Duluth Hardboard	13700031	104	306	410	95	216	311	90	200	290
Hibbing Public Utilities Commission	13700027	405	371	776	371	399	770	589	593	1,181
Hibbing Taconite Company	13700061	6,217	447	6,664	5,550	402	5,952	4,114	386	4,500
Hill Biomass Inc.	13700083	207	20	226	163	14	177	144	12	156
Itasca Eco Industrial Park	06100010	93	2	95	50	1	51	0	0	0
Minnesota Power - Boswell Energy Center	06100004	14,257	19,962	34,219	13,370	20,407	33,776	14,430	21,580	36,009
Minnesota Power - Hibbard Renewable Energy Center	13700015	693	323	1,016	767	357	1,124	727	354	1,081
Minnesota Power - Laskin Energy Center	13700013	2,530	1,841	4,371	2,247	1,611	3,858	932	1,341	2,273
Minnesota Power - Taconite Harbor	03100001	3,217	5,235	8,452	3,220	5,387	8,606	2,988	5,062	8,050
Northshore Mining Company	07500003	4,201	2,672	6,873	3,724	2,780	6,505	3,897	2,935	6,833
Sappi Cloquet LLC	01700002	982	383	1,365	1,155	211	1,366	1,216	268	1,484
U.S. Steel Corporation - Keetac	13700063	5,803	759	6,562	3,387	791	4,178	3,619	788	4,407
U.S. Steel Corporation - Minntac	13700005	9,660	2,020	11,680	8,543	2,056	10,599	10,247	1,811	12,058
United Taconite LLC - Fairlane Plant	13700113	3,774	2,467	6,242	3,384	3,312	6,697	4,263	3,654	7,917
Virginia Department of Public Utilities	13700028	307	354	662	271	320	591	467	572	1,039
TOTAL COMBINED EMISSIONS		56,944	37,754	94,699	51,169	38,925	90,094	52,465	40,262	92,726
PERCENT REDUCTION COMPARED TO 2002		4.0%	-3.5%	1.2%	13.8%	-6.7%	6.0%	11.6%	-10.3%	3.2%
2012 Goal (20% Reduction), 2018 Goal (30% Reduction)										
PERCENT REDUCTION COMPARED TO 2018										
2025 Goal (30% Reduction), 2028 Goal (40% Reduction)										
Facilities and Major Modifications Permitted Since 2002										
Mesabi Metallics Company	06100067	-	-	-	-	-	-	-	-	-
Mesabi Nugget Delaware LLC	13700318	-	-	-	-	-	-	-	-	-
Polymet Mining, Inc.	13700345	-	-	-	-	-	-	-	-	-
Existing Facilities that Increased Actual Emissions Above 100 tons										
Northern Natural Gas Company - Carlton	01700019	100	0	100	30	0	30	62	0	62
USG Interiors, LLC - Cloquet, MN	01700006	103	1	104	101	1	101	98	1	99
Potential Future Projects										
N/A	N/A	-	-	-	-	-	-	-	-	-
TOTAL COMBINED EMISSIONS		57,147	37,755	94,902	51,300	38,926	90,226	52,625	40,262	92,888
PERCENT REDUCTION COMPARED TO 2002		4.0%	-3.5%	1.1%	13.8%	-6.7%	6.0%	11.6%	-10.3%	3.2%
2012 Goal (20% Reduction), 2018 Goal (30% Reduction)										
PERCENT REDUCTION COMPARED TO 2018										
2025 Goal (30% Reduction), 2028 Goal (40% Reduction)										

Facility Name	Permit ID	2008 Emissions			2009 Emissions			2010 Emissions		
		NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total
Existing Facilities in 2002										
Blandin Paper Company / Rapids Energy Center	06100001	539	115	655	538	119	657	728	341	1,069
Boise White Paper LLC	07100002	839	84	924	824	65	889	853	62	915
Cleveland Cliffs Minorca Mine	13700062	2,655	150	2,805	1,809	55	1,863	3,272	101	3,373
Duluth Steam Plant 1	13700022	354	398	752	383	403	786	331	363	694
Georgia-Pacific - Duluth Hardboard	13700031	94	184	277	47	60	107	63	6	69
Hibbing Public Utilities Commission	13700027	595	799	1,394	689	1,012	1,701	610	595	1,206
Hibbing Taconite Company	13700061	4,539	417	4,956	984	95	1,078	3,628	618	4,246
Hill Biomass Inc.	13700083	63	5	68	-	-	-	-	-	-
Itasca Eco Industrial Park	06100010	-	-	-	-	-	-	-	-	-
Minnesota Power - Boswell Energy Center	06100004	15,464	21,525	36,989	11,217	13,442	24,660	6,177	6,656	12,834
Minnesota Power - Hibbard Renewable Energy Center	13700015	794	442	1,235	642	354	996	847	460	1,307
Minnesota Power - Laskin Energy Center	13700013	905	1,441	2,346	650	1,254	1,904	638	561	1,199
Minnesota Power - Taconite Harbor	03100001	2,351	4,720	7,070	1,664	3,562	5,225	1,706	3,928	5,635
Northshore Mining Company	07500003	3,646	2,312	5,958	2,986	1,756	4,742	3,873	1,644	5,517
Sappi Cloquet LLC	01700002	1,182	182	1,363	1,113	179	1,292	1,222	66	1,288
U.S. Steel Corporation - Keetac	13700063	3,471	791	4,262	46	46	93	3,588	358	3,946
U.S. Steel Corporation - Minntac	13700005	12,253	1,912	14,165	5,963	578	6,541	7,009	1,407	8,416
United Taconite LLC - Fairlane Plant	13700113	3,540	3,726	7,267	1,968	2,936	4,904	4,057	2,493	6,550
Virginia Department of Public Utilities	13700028	445	805	1,250	384	640	1,024	348	403	752
TOTAL COMBINED EMISSIONS		53,731	40,006	93,737	31,909	26,556	58,464	38,949	20,065	59,014
PERCENT REDUCTION COMPARED TO 2002		9.4%	-9.6%	2.2%	46.2%	27.2%	39.0%	34.4%	45.0%	38.4%
2012 Goal (20% Reduction), 2018 Goal (30% Reduction)										
PERCENT REDUCTION COMPARED TO 2018										
2025 Goal (30% Reduction), 2028 Goal (40% Reduction)										
Facilities and Major Modifications Permitted Since 2002										
Mesabi Metallics Company	06100067	-	-	-	-	-	-	-	-	-
Mesabi Nugget Delaware LLC	13700318	-	-	-	-	-	-	162	38	199
Polymet Mining, Inc.	13700345	-	-	-	-	-	-	-	-	-
Existing Facilities that Increased Actual Emissions Above 100 tons										
Northern Natural Gas Company - Carlton	01700019	92	0	92	78	0	78	62	0	62
USG Interiors, LLC - Cloquet, MN	01700006	91	1	91	71	0	72	74	0	75
Potential Future Projects										
N/A	N/A	-	-	-	-	-	-	-	-	-
TOTAL COMBINED EMISSIONS		53,914	40,006	93,920	32,058	26,556	58,614	39,248	20,103	59,351
PERCENT REDUCTION COMPARED TO 2002		9.4%	-9.6%	2.2%	46.1%	27.2%	38.9%	34.0%	44.9%	38.2%
2012 Goal (20% Reduction), 2018 Goal (30% Reduction)										
PERCENT REDUCTION COMPARED TO 2018										
2025 Goal (30% Reduction), 2028 Goal (40% Reduction)										

Facility Name	Permit ID	2011 Emissions			2012 Emissions			2013 Emissions		
		NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total
Existing Facilities in 2002										
Blandin Paper Company / Rapids Energy Center	06100001	522	123	645	480	124	604	445	123	568
Boise White Paper LLC	07100002	840	62	902	801	69	871	777	35	812
Cleveland Cliffs Minorca Mine	13700062	3,349	103	3,451	3,418	105	3,523	3,717	105	3,822
Duluth Steam Plant 1	13700022	336	372	708	333	369	701	306	321	627
Georgia-Pacific - Duluth Hardboard	13700031	62	7	69	40	5	44	-	-	-
Hibbing Public Utilities Commission	13700027	481	345	826	480	379	859	542	518	1,060
Hibbing Taconite Company	13700061	4,758	827	5,585	4,837	835	5,672	4,782	817	5,599
Hill Biomass Inc.	13700083	-	-	-	-	-	-	-	-	-
Itasca Eco Industrial Park	06100010	-	-	-	-	-	-	-	-	-
Minnesota Power - Boswell Energy Center	06100004	4,587	3,967	8,554	4,282	4,646	8,928	4,696	5,215	9,911
Minnesota Power - Hibbard Renewable Energy Center	13700015	549	219	768	499	163	662	582	214	796
Minnesota Power - Laskin Energy Center	13700013	575	539	1,114	424	262	686	526	394	920
Minnesota Power - Taconite Harbor	03100001	1,505	3,358	4,863	1,169	2,655	3,824	781	2,991	3,772
Northshore Mining Company	07500003	3,533	2,251	5,785	3,156	1,816	4,973	3,687	2,227	5,914
Sappi Cloquet LLC	01700002	1,255	170	1,425	1,418	207	1,625	1,049	55	1,103
U.S. Steel Corporation - Keetac	13700063	3,151	398	3,549	3,312	550	3,862	3,030	581	3,611
U.S. Steel Corporation - Minntac	13700005	6,420	1,362	7,782	6,772	1,564	8,336	6,786	1,764	8,550
United Taconite LLC - Fairlane Plant	13700113	4,355	2,009	6,364	3,432	1,430	4,862	3,014	1,053	4,067
Virginia Department of Public Utilities	13700028	394	405	798	256	205	461	338	377	716
TOTAL COMBINED EMISSIONS		36,672	16,516	53,188	35,109	15,383	50,493	35,059	16,789	51,848
PERCENT REDUCTION COMPARED TO 2002		38.2%	54.7%	44.5%	40.8%	57.8%	47.3%	40.9%	54.0%	45.9%
2012 Goal (20% Reduction), 2018 Goal (30% Reduction)					2012 Goal Met?		Yes			
PERCENT REDUCTION COMPARED TO 2018										
2025 Goal (30% Reduction), 2028 Goal (40% Reduction)										
Facilities and Major Modifications Permitted Since 2002										
Mesabi Metallics Company	06100067	-	-	-	-	-	-	-	-	-
Mesabi Nugget Delaware LLC	13700318	335	4	339	251	5	256	425	9	433
Polymet Mining, Inc.	13700345	-	-	-	-	-	-	-	-	-
Existing Facilities that Increased Actual Emissions Above 100 tons										
Northern Natural Gas Company - Carlton	01700019	59	0	59	57	0	57	182	0	182
USG Interiors, LLC - Cloquet, MN	01700006	75	0	75	71	0	71	71	0	71
Potential Future Projects										
N/A	N/A	-	-	-	-	-	-	-	-	-
TOTAL COMBINED EMISSIONS		37,140	16,520	53,660	35,488	15,389	50,877	35,737	16,798	52,534
PERCENT REDUCTION COMPARED TO 2002		37.6%	54.7%	44.1%	40.4%	57.8%	47.0%	39.9%	54.0%	45.3%
2012 Goal (20% Reduction), 2018 Goal (30% Reduction)					2012 Goal Met?		Yes			
PERCENT REDUCTION COMPARED TO 2018										
2025 Goal (30% Reduction), 2028 Goal (40% Reduction)										

Facility Name	Permit ID	2014 Emissions			2015 Emissions			2016 Emissions		
		NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total
Existing Facilities in 2002										
Blandin Paper Company / Rapids Energy Center	06100001	411	142	553	405	75	481	433	61	494
Boise White Paper LLC	07100002	742	43	785	787	28	815	803	33	836
Cleveland Cliffs Minorca Mine	13700062	3,627	99	3,725	3,209	98	3,308	3,235	97	3,332
Duluth Steam Plant 1	13700022	320	319	639	263	253	516	218	196	414
Georgia-Pacific - Duluth Hardboard	13700031	-	-	-	-	-	-	-	-	-
Hibbing Public Utilities Commission	13700027	593	535	1,128	601	449	1,050	478	369	847
Hibbing Taconite Company	13700061	4,616	794	5,410	4,428	759	5,187	4,313	737	5,050
Hill Biomass Inc.	13700083	-	-	-	-	-	-	-	-	-
Itasca Eco Industrial Park	06100010	-	-	-	-	-	-	-	-	-
Minnesota Power - Boswell Energy Center	06100004	4,000	4,576	8,576	3,678	4,027	7,706	4,314	3,644	7,958
Minnesota Power - Hibbard Renewable Energy Center	13700015	531	216	747	373	83	456	444	90	534
Minnesota Power - Laskin Energy Center	13700013	380	245	625	101	73	175	9	0	9
Minnesota Power - Taconite Harbor	03100001	734	2,944	3,678	725	2,645	3,370	343	932	1,275
Northshore Mining Company	07500003	3,781	2,369	6,151	2,547	1,586	4,133	1,581	933	2,514
Sappi Cloquet LLC	01700002	1,127	88	1,216	1,571	65	1,636	1,421	83	1,504
U.S. Steel Corporation - Keetac	13700063	5,117	669	5,786	1,539	212	1,751	-	-	-
U.S. Steel Corporation - Minntac	13700005	7,021	1,371	8,392	5,808	842	6,650	6,366	1,149	7,516
United Taconite LLC - Fairlane Plant	13700113	3,121	972	4,093	2,194	720	2,915	1,010	167	1,177
Virginia Department of Public Utilities	13700028	287	340	627	297	245	542	346	301	647
TOTAL COMBINED EMISSIONS		36,408	15,721	52,129	28,527	12,161	40,688	25,314	8,792	34,107
PERCENT REDUCTION COMPARED TO 2002		38.6%	56.9%	45.6%	51.9%	66.7%	57.5%	57.3%	75.9%	64.4%
2012 Goal (20% Reduction), 2018 Goal (30% Reduction)										
PERCENT REDUCTION COMPARED TO 2018										
2025 Goal (30% Reduction), 2028 Goal (40% Reduction)										
Facilities and Major Modifications Permitted Since 2002										
Mesabi Metallics Company	06100067	-	-	-	-	-	-	-	-	-
Mesabi Nugget Delaware LLC	13700318	528	1	529	71	2	72	0	0	0
Polymet Mining, Inc.	13700345	-	-	-	-	-	-	-	-	-
Existing Facilities that Increased Actual Emissions Above 100 tons										
Northern Natural Gas Company - Carlton	01700019	137	0	137	116	0	116	115	0	115
USG Interiors, LLC - Cloquet, MN	01700006	65	0	65	65	0	65	55	0	55
Potential Future Projects										
N/A	N/A	-	-	-	-	-	-	-	-	-
TOTAL COMBINED EMISSIONS		37,138	15,722	52,861	28,779	12,163	40,942	25,484	8,793	34,277
PERCENT REDUCTION COMPARED TO 2002		37.6%	56.9%	44.9%	51.6%	66.7%	57.4%	57.2%	75.9%	64.3%
2012 Goal (20% Reduction), 2018 Goal (30% Reduction)										
PERCENT REDUCTION COMPARED TO 2018										
2025 Goal (30% Reduction), 2028 Goal (40% Reduction)										

Facility Name	Permit ID	2017 Emissions			2018 Emissions			2019 Emissions		
		NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total
Existing Facilities in 2002										
Blandin Paper Company / Rapids Energy Center	06100001	441	76	518	378	69	447	32	1	33
Boise White Paper LLC	07100002	841	43	883	824	34	859	794	29	823
Cleveland Cliffs Minorca Mine	13700062	3,063	136	3,199	3,116	180	3,296	2,464	188	2,652
Duluth Steam Plant 1	13700022	208	104	312	180	91	271	154	68	222
Georgia-Pacific - Duluth Hardboard	13700031	-	-	-	-	-	-	-	-	-
Hibbing Public Utilities Commission	13700027	374	356	730	277	168	445	141	42	182
Hibbing Taconite Company	13700061	3,981	824	4,805	3,227	838	4,065	2,827	727	3,554
Hill Biomass Inc.	13700083	-	-	-	-	-	-	-	-	-
Itasca Eco Industrial Park	06100010	-	-	-	-	-	-	-	-	-
Minnesota Power - Boswell Energy Center	06100004	4,083	3,139	7,221	4,133	3,192	7,324	2,354	577	2,931
Minnesota Power - Hibbard Renewable Energy Center	13700015	474	130	605	431	115	546	442	111	554
Minnesota Power - Laskin Energy Center	13700013	5	0	5	12	0	12	15	0	15
Minnesota Power - Taconite Harbor	03100001	-	-	-	-	-	-	-	-	-
Northshore Mining Company	07500003	2,169	1,539	3,708	1,913	1,601	3,514	1,442	843	2,285
Sappi Cloquet LLC	01700002	1,439	152	1,591	1,413	67	1,480	1,324	114	1,438
U.S. Steel Corporation - Keetac	13700063	5,009	533	5,542	5,005	637	5,642	3,306	675	3,981
U.S. Steel Corporation - Minntac	13700005	6,481	1,207	7,688	6,202	1,052	7,254	5,695	803	6,497
United Taconite LLC - Fairlane Plant	13700113	3,743	275	4,018	4,789	365	5,154	4,782	349	5,131
Virginia Department of Public Utilities	13700028	299	296	595	260	277	538	161	159	320
TOTAL COMBINED EMISSIONS		32,609	8,811	41,420	32,159	8,685	40,845	25,931	4,687	30,617
PERCENT REDUCTION COMPARED TO 2002		45.0%	75.9%	56.8%	45.8%	76.2%	57.4%	56.3%	87.2%	68.0%
2012 Goal (20% Reduction), 2018 Goal (30% Reduction)					2018 Goal Met?		Yes			
PERCENT REDUCTION COMPARED TO 2018					-	-	-	19.4%	46.0%	25.0%
2025 Goal (30% Reduction), 2028 Goal (40% Reduction)										
Facilities and Major Modifications Permitted Since 2002										
Mesabi Metallics Company	06100067	-	-	-	-	-	-	-	-	-
Mesabi Nugget Delaware LLC	13700318	0	0	0	1	0	1	1	0	1
Polymet Mining, Inc.	13700345	-	-	-	0	0	0	0	0	0
Existing Facilities that Increased Actual Emissions Above 100 tons										
Northern Natural Gas Company - Carlton	01700019	160	0	160	159	0	159	202	0	202
USG Interiors, LLC - Cloquet, MN	01700006	57	0	57	60	0	60	56	0	57
Potential Future Projects										
N/A	N/A	-	-	-	-	-	-	-	-	-
TOTAL COMBINED EMISSIONS		32,826	8,812	41,638	32,379	8,686	41,065	26,190	4,687	30,877
PERCENT REDUCTION COMPARED TO 2002		44.8%	75.9%	56.6%	45.6%	76.2%	57.2%	56.0%	87.2%	67.8%
2012 Goal (20% Reduction), 2018 Goal (30% Reduction)					2018 Goal Met?		Yes			
PERCENT REDUCTION COMPARED TO 2018					-	-	-	19.1%	46.0%	24.8%
2025 Goal (30% Reduction), 2028 Goal (40% Reduction)										

Facility Name	Permit ID	2020 Emissions			2021 Emissions			2022 Emissions		
		NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total
Existing Facilities in 2002										
Blandin Paper Company / Rapids Energy Center	06100001	30	0	30	37	1	38	38	1	39
Boise White Paper LLC	07100002	798	16	814	801	26	827	781	54	835
Cleveland Cliffs Minorca Mine	13700062	1,151	169	1,320	1,209	153	1,362	1,406	131	1,538
Duluth Steam Plant 1	13700022	114	17	131	105	17	122	114	6	119
Georgia-Pacific - Duluth Hardboard	13700031	-	-	-	-	-	-	-	-	-
Hibbing Public Utilities Commission	13700027	116	39	155	117	17	134	139	9	148
Hibbing Taconite Company	13700061	1,594	534	2,128	1,956	645	2,601	2,294	519	2,813
Hill Biomass Inc.	13700083	-	-	-	-	-	-	-	-	-
Itasca Eco Industrial Park	06100010	-	-	-	-	-	-	-	-	-
Minnesota Power - Boswell Energy Center	06100004	2,039	491	2,530	2,430	551	2,980	2,478	606	3,084
Minnesota Power - Hibbard Renewable Energy Center	13700015	299	54	353	315	85	400	437	121	558
Minnesota Power - Laskin Energy Center	13700013	11	0	12	75	1	76	95	1	97
Minnesota Power - Taconite Harbor	03100001	-	-	-	-	-	-	-	-	-
Northshore Mining Company	07500003	639	107	746	800	135	935	243	44	287
Sappi Cloquet LLC	01700002	1,291	494	1,784	1,455	233	1,688	1,428	138	1,566
U.S. Steel Corporation - Keetac	13700063	1,388	248	1,636	4,458	750	5,208	4,624	704	5,328
U.S. Steel Corporation - Minntac	13700005	5,963	904	6,867	7,187	1,459	8,646	7,052	1,331	8,383
United Taconite LLC - Fairlane Plant	13700113	4,346	442	4,788	4,350	457	4,806	4,154	93	4,248
Virginia Department of Public Utilities	13700028	137	78	215	76	65	142	6	76	82
TOTAL COMBINED EMISSIONS		19,917	3,594	23,511	25,370	4,594	29,965	25,290	3,833	29,124
PERCENT REDUCTION COMPARED TO 2002		66.4%	90.2%	75.5%	57.2%	87.4%	68.7%	57.4%	89.5%	69.6%
2012 Goal (20% Reduction), 2018 Goal (30% Reduction)										
PERCENT REDUCTION COMPARED TO 2018		38.1%	58.6%	42.4%	21.1%	47.1%	26.6%	21.4%	55.9%	28.7%
2025 Goal (30% Reduction), 2028 Goal (40% Reduction)										
Facilities and Major Modifications Permitted Since 2002										
Mesabi Metallics Company	06100067	-	-	-	-	-	-	-	-	-
Mesabi Nugget Delaware LLC	13700318	0	0	0	0	0	0	0	0	0
Polymet Mining, Inc.	13700345	0	0	0	0	0	0	0	0	0
Existing Facilities that Increased Actual Emissions Above 100 tons										
Northern Natural Gas Company - Carlton	01700019	75	0	75	56	0	56	77	0	77
USG Interiors, LLC - Cloquet, MN	01700006	50	0	50	55	0	56	50	0	51
Potential Future Projects										
N/A	N/A	-	-	-	-	-	-	-	-	-
TOTAL COMBINED EMISSIONS		20,042	3,594	23,636	25,481	4,595	30,076	25,418	3,834	29,252
PERCENT REDUCTION COMPARED TO 2002		66.3%	90.2%	75.4%	57.2%	87.4%	68.7%	57.3%	89.5%	69.5%
2012 Goal (20% Reduction), 2018 Goal (30% Reduction)										
PERCENT REDUCTION COMPARED TO 2018		38.1%	58.6%	42.4%	21.3%	47.1%	26.8%	21.5%	55.9%	28.8%
2025 Goal (30% Reduction), 2028 Goal (40% Reduction)										

Facility Name	Permit ID	2002 Emissions			2003 Emissions			2004 Emissions		
		NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total
Forest Products										
Blandin Paper Company / Rapids Energy Center	06100001	416	43	460	438	50	487	455	108	563
Boise White Paper LLC	07100002	846	68	914	919	78	998	863	69	932
Georgia-Pacific - Duluth Hardboard	13700031	68	307	374	84	229	313	107	340	447
Hill Biomass Inc.	13700083	224	20	243	207	22	229	215	21	236
Itasca Eco Industrial Park	06100010	105	2	106	108	2	109	104	2	106
Sappi Cloquet LLC	01700002	1,196	190	1,386	1,095	208	1,303	1,319	465	1,784
USG Interiors, LLC - Cloquet, MN	01700006	94	1	94	99	1	100	98	1	99
Forest Product Total		2,948	630	3,578	2,950	589	3,539	3,160	1,006	4,167
Utilities										
Duluth Steam Plant 1	13700022	329	285	615	350	289	639	335	273	608
Hibbing Public Utilities Commission	13700027	283	257	539	365	344	708	392	384	776
Minnesota Power - Boswell Energy Center	06100004	14,528	21,170	35,698	14,895	19,975	34,871	12,622	19,731	32,354
Minnesota Power - Hibbard Renewable Energy Center	13700015	414	132	546	356	99	455	626	315	942
Minnesota Power - Laskin Energy Center	13700013	2,176	1,608	3,784	2,438	1,605	4,043	2,299	1,615	3,914
Minnesota Power - Taconite Harbor	03100001	2,309	3,112	5,422	3,372	5,502	8,875	3,373	5,573	8,946
Northern Natural Gas Company - Carlton	01700019	78	0	78	75	0	75	56	0	56
Northshore Mining Company (Power Generation)	07500003	2,947	2,223	5,170	3,030	2,291	5,320	3,306	2,798	6,104
Virginia Department of Public Utilities	13700028	327	386	713	333	363	696	287	324	611
Utilities Total		23,392	29,173	52,565	25,214	30,469	55,683	23,295	31,014	54,309
Mining										
Cleveland Cliffs Minorca Mine	13700062	3,254	155	3,409	2,293	155	2,448	2,827	163	2,990
Hibbing Taconite Company	13700061	6,203	593	6,795	6,912	662	7,573	6,187	518	6,705
Mesabi Metallics Company	06100067	-	-	-	-	-	-	-	-	-
Mesabi Nugget Delaware LLC	13700318	-	-	-	-	-	-	-	-	-
Northshore Mining Company (Taconite Operations)	07500003	964	68	1,032	1,024	79	1,103	1,044	82	1,126
Polymet Mining, Inc.	13700345	-	-	-	-	-	-	-	-	-
U.S. Steel Corporation - Keetac	13700063	6,049	704	6,753	4,869	567	5,435	5,926	689	6,615
U.S. Steel Corporation - Minntac	13700005	14,924	1,946	16,870	9,120	1,864	10,984	12,492	1,985	14,476
United Taconite LLC - Fairlane Plant	13700113	1,771	3,222	4,994	719	1,331	2,050	2,204	2,501	4,706
Mining Total		33,165	6,689	39,854	24,937	4,657	29,594	30,681	5,938	36,619
TOTAL COMBINED EMISSIONS		59,505	36,492	95,997	53,101	35,715	88,815	57,136	37,959	95,095
Forest Products Percent		5.0%	1.7%	3.7%	5.6%	1.6%	4.0%	5.5%	2.7%	4.4%
Utilities Percent		39.3%	79.9%	54.8%	47.5%	85.3%	62.7%	40.8%	81.7%	57.1%
Mining Percent		55.7%	18.3%	41.5%	47.0%	13.0%	33.3%	53.7%	15.6%	38.5%

Facility Name	Permit ID	2005 Emissions			2006 Emissions			2007 Emissions		
		NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total
Forest Products										
Blandin Paper Company / Rapids Energy Center	06100001	458	69	528	546	66	613	576	140	715
Boise White Paper LLC	07100002	832	82	914	870	51	921	829	95	924
Georgia-Pacific - Duluth Hardboard	13700031	104	306	410	95	216	311	90	200	290
Hill Biomass Inc.	13700083	207	20	226	163	14	177	144	12	156
Itasca Eco Industrial Park	06100010	93	2	95	50	1	51	0	0	0
Sappi Cloquet LLC	01700002	982	383	1,365	1,155	211	1,366	1,216	268	1,484
USG Interiors, LLC - Cloquet, MN	01700006	103	1	104	101	1	101	98	1	99
Forest Product Total		2,780	863	3,642	2,980	559	3,540	2,953	715	3,668
Utilities										
Duluth Steam Plant 1	13700022	355	294	649	509	385	895	420	429	849
Hibbing Public Utilities Commission	13700027	405	371	776	371	399	770	589	593	1,181
Minnesota Power - Boswell Energy Center	06100004	14,257	19,962	34,219	13,370	20,407	33,776	14,430	21,580	36,009
Minnesota Power - Hibbard Renewable Energy Center	13700015	693	323	1,016	767	357	1,124	727	354	1,081
Minnesota Power - Laskin Energy Center	13700013	2,530	1,841	4,371	2,247	1,611	3,858	932	1,341	2,273
Minnesota Power - Taconite Harbor	03100001	3,217	5,235	8,452	3,220	5,387	8,606	2,988	5,062	8,050
Northern Natural Gas Company - Carlton	01700019	100	0	100	30	0	30	62	0	62
Northshore Mining Company (Power Generation)	07500003	3,126	2,591	5,717	3,034	2,582	5,616	3,216	2,736	5,952
Virginia Department of Public Utilities	13700028	307	354	662	271	320	591	467	572	1,039
Utilities Total		24,989	30,972	55,962	23,819	31,448	55,267	23,830	32,667	56,497
Mining										
Cleveland Cliffs Minorca Mine	13700062	2,848	147	2,995	2,946	160	3,105	2,918	42	2,960
Hibbing Taconite Company	13700061	6,217	447	6,664	5,550	402	5,952	4,114	386	4,500
Mesabi Metallics Company	06100067	-	-	-	-	-	-	-	-	-
Mesabi Nugget Delaware LLC	13700318	-	-	-	-	-	-	-	-	-
Northshore Mining Company (Taconite Operations)	07500003	1,075	80	1,155	691	198	889	681	199	880
Polymet Mining, Inc.	13700345	-	-	-	-	-	-	-	-	-
U.S. Steel Corporation - Keetac	13700063	5,803	759	6,562	3,387	791	4,178	3,619	788	4,407
U.S. Steel Corporation - Minntac	13700005	9,660	2,020	11,680	8,543	2,056	10,599	10,247	1,811	12,058
United Taconite LLC - Fairlane Plant	13700113	3,774	2,467	6,242	3,384	3,312	6,697	4,263	3,654	7,917
Mining Total		29,378	5,920	35,298	24,501	6,919	31,419	25,842	6,880	32,722
TOTAL COMBINED EMISSIONS		57,147	37,755	94,902	51,300	38,926	90,226	52,625	40,262	92,888
Forest Products Percent		4.9%	2.3%	3.8%	5.8%	1.4%	3.9%	5.6%	1.8%	3.9%
Utilities Percent		43.7%	82.0%	59.0%	46.4%	80.8%	61.3%	45.3%	81.1%	60.8%
Mining Percent		51.4%	15.7%	37.2%	47.8%	17.8%	34.8%	49.1%	17.1%	35.2%

Facility Name	Permit ID	2008 Emissions			2009 Emissions			2010 Emissions		
		NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total
Forest Products										
Blandin Paper Company / Rapids Energy Center	06100001	539	115	655	538	119	657	728	341	1,069
Boise White Paper LLC	07100002	839	84	924	824	65	889	853	62	915
Georgia-Pacific - Duluth Hardboard	13700031	94	184	277	47	60	107	63	6	69
Hill Biomass Inc.	13700083	63	5	68	-	-	-	-	-	-
Itasca Eco Industrial Park	06100010	-	-	-	-	-	-	-	-	-
Sappi Cloquet LLC	01700002	1,182	182	1,363	1,113	179	1,292	1,222	66	1,288
USG Interiors, LLC - Cloquet, MN	01700006	91	1	91	71	0	72	74	0	75
Forest Product Total		2,808	570	3,378	2,594	424	3,018	2,940	476	3,416
Utilities										
Duluth Steam Plant 1	13700022	354	398	752	383	403	786	331	363	694
Hibbing Public Utilities Commission	13700027	595	799	1,394	689	1,012	1,701	610	595	1,206
Minnesota Power - Boswell Energy Center	06100004	15,464	21,525	36,989	11,217	13,442	24,660	6,177	6,656	12,834
Minnesota Power - Hibbard Renewable Energy Center	13700015	794	442	1,235	642	354	996	847	460	1,307
Minnesota Power - Laskin Energy Center	13700013	905	1,441	2,346	650	1,254	1,904	638	561	1,199
Minnesota Power - Taconite Harbor	03100001	2,351	4,720	7,070	1,664	3,562	5,225	1,706	3,928	5,635
Northern Natural Gas Company - Carlton	01700019	92	0	92	78	0	78	62	0	62
Northshore Mining Company (Power Generation)	07500003	2,920	2,147	5,067	2,510	1,632	4,142	2,510	1,632	4,142
Virginia Department of Public Utilities	13700028	445	805	1,250	384	640	1,024	348	403	752
Utilities Total		23,920	32,276	56,196	18,218	22,299	40,517	13,230	14,599	27,829
Mining										
Cleveland Cliffs Minorca Mine	13700062	2,655	150	2,805	1,809	55	1,863	3,272	101	3,373
Hibbing Taconite Company	13700061	4,539	417	4,956	984	95	1,078	3,628	618	4,246
Mesabi Metallics Company	06100067	-	-	-	-	-	-	-	-	-
Mesabi Nugget Delaware LLC	13700318	-	-	-	-	-	-	162	38	199
Northshore Mining Company (Taconite Operations)	07500003	726	165	891	476	124	600	1,363	12	1,375
Polymet Mining, Inc.	13700345	-	-	-	-	-	-	-	-	-
U.S. Steel Corporation - Keetac	13700063	3,471	791	4,262	46	46	93	3,588	358	3,946
U.S. Steel Corporation - Minntac	13700005	12,253	1,912	14,165	5,963	578	6,541	7,009	1,407	8,416
United Taconite LLC - Fairlane Plant	13700113	3,540	3,726	7,267	1,968	2,936	4,904	4,057	2,493	6,550
Mining Total		27,186	7,160	34,346	11,247	3,833	15,080	23,078	5,027	28,106
TOTAL COMBINED EMISSIONS		53,914	40,006	93,920	32,058	26,556	58,614	39,248	20,103	59,351
Forest Products Percent		5.2%	1.4%	3.6%	8.1%	1.6%	5.1%	7.5%	2.4%	5.8%
Utilities Percent		44.4%	80.7%	59.8%	56.8%	84.0%	69.1%	33.7%	72.6%	46.9%
Mining Percent		50.4%	17.9%	36.6%	35.1%	14.4%	25.7%	58.8%	25.0%	47.4%

Facility Name	Permit ID	2011 Emissions			2012 Emissions			2013 Emissions		
		NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total
Forest Products										
Blandin Paper Company / Rapids Energy Center	06100001	522	123	645	480	124	604	445	123	568
Boise White Paper LLC	07100002	840	62	902	801	69	871	777	35	812
Georgia-Pacific - Duluth Hardboard	13700031	62	7	69	40	5	44	-	-	-
Hill Biomass Inc.	13700083	-	-	-	-	-	-	-	-	-
Itasca Eco Industrial Park	06100010	-	-	-	-	-	-	-	-	-
Sappi Cloquet LLC	01700002	1,255	170	1,425	1,418	207	1,625	1,049	55	1,103
USG Interiors, LLC - Cloquet, MN	01700006	75	0	75	71	0	71	71	0	71
Forest Product Total		2,754	362	3,116	2,809	406	3,215	2,342	212	2,554
Utilities										
Duluth Steam Plant 1	13700022	336	372	708	333	369	701	306	321	627
Hibbing Public Utilities Commission	13700027	481	345	826	480	379	859	542	518	1,060
Minnesota Power - Boswell Energy Center	06100004	4,587	3,967	8,554	4,282	4,646	8,928	4,696	5,215	9,911
Minnesota Power - Hibbard Renewable Energy Center	13700015	549	219	768	499	163	662	582	214	796
Minnesota Power - Laskin Energy Center	13700013	575	539	1,114	424	262	686	526	394	920
Minnesota Power - Taconite Harbor	03100001	1,505	3,358	4,863	1,169	2,655	3,824	781	2,991	3,772
Northern Natural Gas Company - Carlton	01700019	59	0	59	57	0	57	182	0	182
Northshore Mining Company (Power Generation)	07500003	2,905	2,237	5,142	2,380	1,669	4,049	3,094	2,079	5,173
Virginia Department of Public Utilities	13700028	394	405	798	256	205	461	338	377	716
Utilities Total		11,390	11,442	22,832	9,880	10,347	20,228	11,047	12,111	23,158
Mining										
Cleveland Cliffs Minorca Mine	13700062	3,349	103	3,451	3,418	105	3,523	3,717	105	3,822
Hibbing Taconite Company	13700061	4,758	827	5,585	4,837	835	5,672	4,782	817	5,599
Mesabi Metallics Company	06100067	-	-	-	-	-	-	-	-	-
Mesabi Nugget Delaware LLC	13700318	335	4	339	251	5	256	425	9	433
Northshore Mining Company (Taconite Operations)	07500003	628	14	642	776	147	923	593	147	740
Polymet Mining, Inc.	13700345	-	-	-	-	-	-	-	-	-
U.S. Steel Corporation - Keetac	13700063	3,151	398	3,549	3,312	550	3,862	3,030	581	3,611
U.S. Steel Corporation - Minntac	13700005	6,420	1,362	7,782	6,772	1,564	8,336	6,786	1,764	8,550
United Taconite LLC - Fairlane Plant	13700113	4,355	2,009	6,364	3,432	1,430	4,862	3,014	1,053	4,067
Mining Total		22,996	4,717	27,712	22,798	4,636	27,434	22,348	4,475	26,823
TOTAL COMBINED EMISSIONS		37,140	16,520	53,660	35,488	15,389	50,877	35,737	16,798	52,534
Forest Products Percent		7.4%	2.2%	5.8%	7.9%	2.6%	6.3%	6.6%	1.3%	4.9%
Utilities Percent		30.7%	69.3%	42.5%	27.8%	67.2%	39.8%	30.9%	72.1%	44.1%
Mining Percent		61.9%	28.6%	51.6%	64.2%	30.1%	53.9%	62.5%	26.6%	51.1%

Facility Name	Permit ID	2014 Emissions			2015 Emissions			2016 Emissions		
		NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total
Forest Products										
Blandin Paper Company / Rapids Energy Center	06100001	411	142	553	405	75	481	433	61	494
Boise White Paper LLC	07100002	742	43	785	787	28	815	803	33	836
Georgia-Pacific - Duluth Hardboard	13700031	-	-	-	-	-	-	-	-	-
Hill Biomass Inc.	13700083	-	-	-	-	-	-	-	-	-
Itasca Eco Industrial Park	06100010	-	-	-	-	-	-	-	-	-
Sappi Cloquet LLC	01700002	1,127	88	1,216	1,571	65	1,636	1,421	83	1,504
USG Interiors, LLC - Cloquet, MN	01700006	65	0	65	65	0	65	55	0	55
Forest Product Total		2,346	273	2,619	2,828	168	2,996	2,711	177	2,888
Utilities										
Duluth Steam Plant 1	13700022	320	319	639	263	253	516	218	196	414
Hibbing Public Utilities Commission	13700027	593	535	1,128	601	449	1,050	478	369	847
Minnesota Power - Boswell Energy Center	06100004	4,000	4,576	8,576	3,678	4,027	7,706	4,314	3,644	7,958
Minnesota Power - Hibbard Renewable Energy Center	13700015	531	216	747	373	83	456	444	90	534
Minnesota Power - Laskin Energy Center	13700013	380	245	625	101	73	175	9	0	9
Minnesota Power - Taconite Harbor	03100001	734	2,944	3,678	725	2,645	3,370	343	932	1,275
Northern Natural Gas Company - Carlton	01700019	137	0	137	116	0	116	115	0	115
Northshore Mining Company (Power Generation)	07500003	3,008	2,215	5,223	1,912	1,450	3,362	1,088	836	1,923
Virginia Department of Public Utilities	13700028	287	340	627	297	245	542	346	301	647
Utilities Total		9,990	11,389	21,379	8,066	9,226	17,292	7,356	6,367	13,723
Mining										
Cleveland Cliffs Minorca Mine	13700062	3,627	99	3,725	3,209	98	3,308	3,235	97	3,332
Hibbing Taconite Company	13700061	4,616	794	5,410	4,428	759	5,187	4,313	737	5,050
Mesabi Metallics Company	06100067	-	-	-	-	-	-	-	-	-
Mesabi Nugget Delaware LLC	13700318	528	1	529	71	2	72	0	0	0
Northshore Mining Company (Taconite Operations)	07500003	773	155	928	635	136	771	493	98	591
Polymet Mining, Inc.	13700345	-	-	-	-	-	-	-	-	-
U.S. Steel Corporation - Keetac	13700063	5,117	669	5,786	1,539	212	1,751	-	-	-
U.S. Steel Corporation - Minntac	13700005	7,021	1,371	8,392	5,808	842	6,650	6,366	1,149	7,516
United Taconite LLC - Fairlane Plant	13700113	3,121	972	4,093	2,194	720	2,915	1,010	167	1,177
Mining Total		24,803	4,060	28,862	17,885	2,769	20,654	15,418	2,248	17,666
TOTAL COMBINED EMISSIONS		37,138	15,722	52,861	28,779	12,163	40,942	25,484	8,793	34,277
Forest Products Percent		6.3%	1.7%	5.0%	9.8%	1.4%	7.3%	10.6%	2.0%	8.4%
Utilities Percent		26.9%	72.4%	40.4%	28.0%	75.9%	42.2%	28.9%	72.4%	40.0%
Mining Percent		66.8%	25.8%	54.6%	62.1%	22.8%	50.4%	60.5%	25.6%	51.5%

Facility Name	Permit ID	2017 Emissions			2018 Emissions			2019 Emissions		
		NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total
Forest Products										
Blandin Paper Company / Rapids Energy Center	06100001	441	76	518	378	69	447	32	1	33
Boise White Paper LLC	07100002	841	43	883	824	34	859	794	29	823
Georgia-Pacific - Duluth Hardboard	13700031	-	-	-	-	-	-	-	-	-
Hill Biomass Inc.	13700083	-	-	-	-	-	-	-	-	-
Itasca Eco Industrial Park	06100010	-	-	-	-	-	-	-	-	-
Sappi Cloquet LLC	01700002	1,439	152	1,591	1,413	67	1,480	1,324	114	1,438
USG Interiors, LLC - Cloquet, MN	01700006	57	0	57	60	0	60	56	0	57
Forest Product Total		2,777	271	3,049	2,675	171	2,845	2,206	145	2,351
Utilities										
Duluth Steam Plant 1	13700022	208	104	312	180	91	271	154	68	222
Hibbing Public Utilities Commission	13700027	374	356	730	277	168	445	141	42	182
Minnesota Power - Boswell Energy Center	06100004	4,083	3,139	7,221	4,133	3,192	7,324	2,354	577	2,931
Minnesota Power - Hibbard Renewable Energy Center	13700015	474	130	605	431	115	546	442	111	554
Minnesota Power - Laskin Energy Center	13700013	5	0	5	12	0	12	15	0	15
Minnesota Power - Taconite Harbor	03100001	-	-	-	-	-	-	-	-	-
Northern Natural Gas Company - Carlton	01700019	160	0	160	159	0	159	202	0	202
Northshore Mining Company (Power Generation)	07500003	1,384	1,388	2,771	1,063	1,443	2,505	681	697	1,379
Virginia Department of Public Utilities	13700028	299	296	595	260	277	538	161	159	320
Utilities Total		6,987	5,414	12,400	6,515	5,285	11,800	4,149	1,654	5,803
Mining										
Cleveland Cliffs Minorca Mine	13700062	3,063	136	3,199	3,116	180	3,296	2,464	188	2,652
Hibbing Taconite Company	13700061	3,981	824	4,805	3,227	838	4,065	2,827	727	3,554
Mesabi Metallics Company	06100067	-	-	-	-	-	-	-	-	-
Mesabi Nugget Delaware LLC	13700318	0	0	0	1	0	1	1	0	1
Northshore Mining Company (Taconite Operations)	07500003	786	151	937	850	158	1,008	761	145	906
Polymet Mining, Inc.	13700345	-	-	-	0	0	0	0	0	0
U.S. Steel Corporation - Keetac	13700063	5,009	533	5,542	5,005	637	5,642	3,306	675	3,981
U.S. Steel Corporation - Minntac	13700005	6,481	1,207	7,688	6,202	1,052	7,254	5,695	803	6,497
United Taconite LLC - Fairlane Plant	13700113	3,743	275	4,018	4,789	365	5,154	4,782	349	5,131
Mining Total		23,062	3,127	26,189	23,189	3,230	26,419	19,835	2,888	22,723
TOTAL COMBINED EMISSIONS		32,826	8,812	41,638	32,379	8,686	41,065	26,190	4,687	30,877
Forest Products Percent		8.5%	3.1%	7.3%	8.3%	2.0%	6.9%	8.4%	3.1%	7.6%
Utilities Percent		21.3%	61.4%	29.8%	20.1%	60.8%	28.7%	15.8%	35.3%	18.8%
Mining Percent		70.3%	35.5%	62.9%	71.6%	37.2%	64.3%	75.7%	61.6%	73.6%

Facility Name	Permit ID	2020 Emissions			2021 Emissions			2022 Emissions		
		NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total	NO _x (tons)	SO ₂ (tons)	Total
Forest Products										
Blandin Paper Company / Rapids Energy Center	06100001	30	0	30	37	1	38	38	1	39
Boise White Paper LLC	07100002	798	16	814	801	26	827	781	54	835
Georgia-Pacific - Duluth Hardboard	13700031	-	-	-	-	-	-	-	-	-
Hill Biomass Inc.	13700083	-	-	-	-	-	-	-	-	-
Itasca Eco Industrial Park	06100010	-	-	-	-	-	-	-	-	-
Sappi Cloquet LLC	01700002	1,291	494	1,784	1,455	233	1,688	1,428	138	1,566
USG Interiors, LLC - Cloquet, MN	01700006	50	0	50	55	0	56	50	0	51
Forest Product Total		2,168	511	2,679	2,348	260	2,608	2,298	193	2,491
Utilities										
Duluth Steam Plant 1	13700022	114	17	131	105	17	122	114	6	119
Hibbing Public Utilities Commission	13700027	116	39	155	117	17	134	139	9	148
Minnesota Power - Boswell Energy Center	06100004	2,039	491	2,530	2,430	551	2,980	2,478	606	3,084
Minnesota Power - Hibbard Renewable Energy Center	13700015	299	54	353	315	85	400	437	121	558
Minnesota Power - Laskin Energy Center	13700013	11	0	12	75	1	76	95	1	97
Minnesota Power - Taconite Harbor	03100001	-	-	-	-	-	-	-	-	-
Northern Natural Gas Company - Carlton	01700019	75	0	75	56	0	56	77	0	77
Northshore Mining Company (Power Generation)	07500003	-	-	-	-	-	-	-	-	-
Virginia Department of Public Utilities	13700028	137	78	215	76	65	142	6	76	82
Utilities Total		2,791	680	3,471	3,174	736	3,910	3,346	819	4,165
Mining										
Cleveland Cliffs Minorca Mine	13700062	1,151	169	1,320	1,209	153	1,362	1,406	131	1,538
Hibbing Taconite Company	13700061	1,594	534	2,128	1,956	645	2,601	2,294	519	2,813
Mesabi Metallics Company	06100067	-	-	-	-	-	-	-	-	-
Mesabi Nugget Delaware LLC	13700318	0	0	0	0	0	0	0	0	0
Northshore Mining Company (Taconite Operations)	07500003	639	107	746	800	135	935	243	44	287
Polymet Mining, Inc.	13700345	0	0	0	0	0	0	0	0	0
U.S. Steel Corporation - Keetac	13700063	1,388	248	1,636	4,458	750	5,208	4,624	704	5,328
U.S. Steel Corporation - Minntac	13700005	5,963	904	6,867	7,187	1,459	8,646	7,052	1,331	8,383
United Taconite LLC - Fairlane Plant	13700113	4,346	442	4,788	4,350	457	4,806	4,154	93	4,248
Mining Total		15,082	2,404	17,486	19,959	3,599	23,558	19,775	2,822	22,597
TOTAL COMBINED EMISSIONS		20,042	3,594	23,636	25,481	4,595	30,076	25,418	3,834	29,252
Forest Products Percent		10.8%	14.2%	11.3%	9.2%	5.7%	8.7%	9.0%	5.0%	8.5%
Utilities Percent		13.9%	18.9%	14.7%	12.5%	16.0%	13.0%	13.2%	21.4%	14.2%
Mining Percent		75.3%	66.9%	74.0%	78.3%	78.3%	78.3%	77.8%	73.6%	77.2%