

Ontario's 2000 Dirty Water Secrets



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The Sierra Legal Defence Fund is a charitable organization that provides free legal services to environmental groups across Canada. Sierra Legal aims to enhance public access to the legal system, set important legal precedents that will strengthen existing laws, and provide professional advice on the development of environmental legislation.

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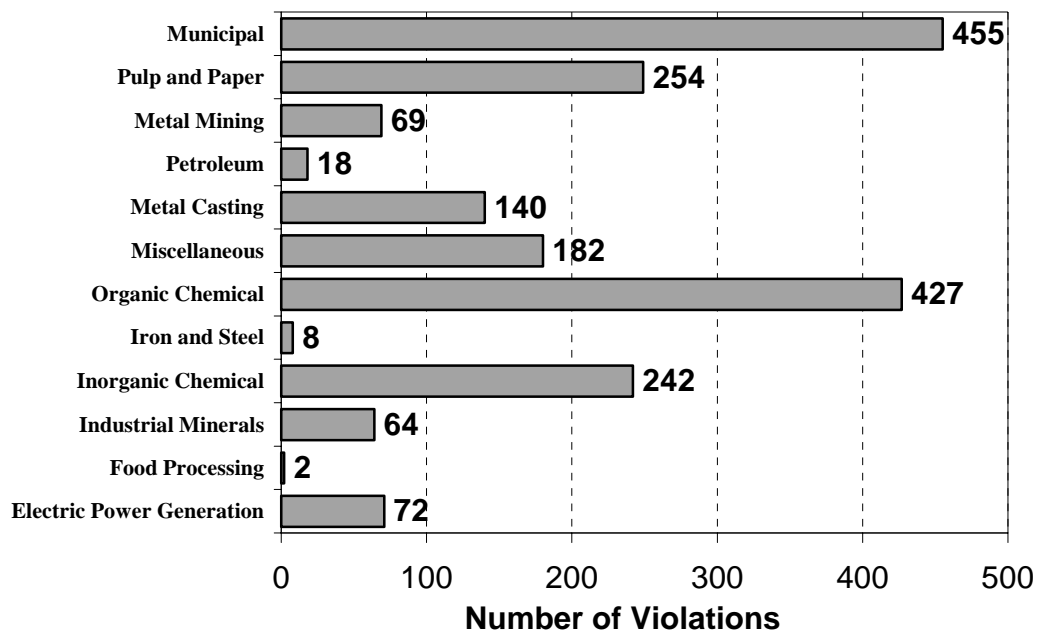
Ontario had 200 facilities responsible for 1933 wastewater violations in the year 2000.¹ Only 4 facilities were charged for year 2000 violations.² The violations pertain to a set of nine regulations under the *Environmental Protection Act (EPA)* referred to as the *Municipal Industrial Strategy for Abatement (MISA)* regulations, Certificates of Approval (issued under the *Ontario Water Resources Act and EPA*), or guidelines and objectives that establish the pollutant limits for wastewater discharged by industrial and municipal facilities.

Table 1: Average Annual Violations

Total Violations 2000	1933 ¹
Average Annual Violations 1996-2000	2363
Average Annual Violations 1994-95	761

The Municipal Sector and the Organic Chemical Sector are the worst violators of Ontario's wastewater discharge laws (see Graph 1 below). A total of 89 municipal facilities were responsible for 455 violations, of which phosphorous accounted for 26% of violations, total suspended solids accounted for 25% of violations, biological oxygen demand accounted for 18% of violations, ammonia/ammonium comprised 14% of violations, flow comprised 11% of violations, coliform comprised 4% of violations, and the final 2% of violations comprising chlorine, chromium, and nitrogen.

Graph 1: 2000 Wastewater Violations by Industrial Sector



¹ The data thus far obtained from the Ontario Ministry of Environment (MOE) is now complete and the number of violations have increased from the initial publication of this report. Data for 3 additional facilities (Bruce heavy water plant, Provincial papers Inc. and Sterling trucks) was received from the MOE pursuant to an appeal with the Information and Privacy Commissioner.

² See appendix 1

The Organic Chemical Sector was comprised of 15 facilities with 427 violations. The majority of violations in the Organic Chemical Sector are from Stepan Company (Barrie) (246 violations), Dupont Canada (Maitland) (94 violations), and Bayer (Sarnia) (35 violations). The Organic Chemical Sector was responsible for dissolved organic carbon violations (40%), phosphorous violations (12%), total suspended solid violations (11%), cobalt violations (8%), total kjeldahl nitrogen violations (7%), vanadium violations (4%), acute-lethality violations (4%), with the remaining 14% of violations pertaining to residue, solvent extractables, pH, zinc, phenol, oil & grease, ammonia, copper, chromium, cyanide, aluminium, nickel and sulphide.

Sierra Legal is not aware of any prosecution action taken by MOE on the filthiest four facilities of 2000 (see Table 2). Domtar Wood Preserver (Belleville), Cytec Canada (Niagara) and Haley Industries (Ross Township) have been in violation for 5 or more consecutive years (from 1992-2000 data).

Table 2: Filthiest Four Year 2000 Violators

Facility	Location	Total Violations 2000	MOE Action
Stepan Canada	Barrie	246	No enforcement, Director's control order issued
Domtar Wood Preserver	Belleville	174	No enforcement, Voluntary abatement Program underway
Cytec Canada Inc.	Niagara	173	Assessment complete, No further action required
Haley Industries	Ross Township (Pembroke Area)	140	No enforcement, Provincial Officer's order issued

Coliform Violations:

Typically the coliform limit for municipal sewage treatment plant discharges is 200 CFU (colony forming units) per 100 millilitres of discharge. The following facilities released wastewater in 2000 containing coliform in excess of its permitted concentration.

Table 3: Facilities with Coliform Violations in 2000

Facility	Location	Violation Date	Facility Action	MOE Abatement Action	MOE Enforcement Action
SMSI Travel Centres Inc. ³	South West Oxford	2/29/2000	Some upgrades completed, further upgrades proposed	Provincial Officers Order Issued	Null
		3/31/2000			
		4/30/2000			
		5/31/2000			
		6/30/2000			
		7/31/2000			
		9/30/2000			
		8/31/2000			
		10/31/2000			
		11/30/2000			
		12/31/2000			

³ SMSI Travel Centres operates sewage treatment for a 401 highway rest-stop. They are far enough away from the municipal water treatment system to require their own sewage treatment facility. Violations are of monthly average.

Table 3: Continuation

Facility	Location	Violation Date	Facility Action	MOE Abatement Action	MOE Enforcement Action
North Perth WWTF ⁴	North Perth Town	02/01/2000		Assessment complete, no further action required	Null
Norwich Lagoon	Norwich Township	06/30/2000	Monitored discharge, problem did not reoccur	Assessment complete, no further action required	Null
Seaforth STP ⁵	Seaforth Town	04/30/2000	New operator Azurix notified MOE problem continues	Assessment complete, no further action required	Null
Wingham STP	Wingham	05/30/2000	MOE requested year long disinfection and this has been implemented	Assessment complete, no further action required	Null

Toxic Violators:

Most discharging facilities must conduct monthly ‘acute lethality’ tests using aquatic animals. The two types of acute lethality tests used in Ontario use species named *Daphnia magna* (a water flea), and rainbow trout fingerlings. These organisms are exposed to a facility's effluent for 48 or 96 hours (daphnia or trout respectively) and the overall level of mortality is determined. If more than 50% of the test organisms die, the test is considered a failure.

Table 4: Facilities with at least 5 Acute Lethality Violations in 2000

Facility	Location	Acute Lethality to <i>Daphnia Magna</i>	Acute Lethality to Rainbow Trout	MOE Abatement Action	MOE Enforcement Action
Spruce Falls Inc.	Kapuskasing	18		Voluntary abatement program underway	Null
Interlake Acquisitions	St. Catharines	4	9	Provincial Officers Order Issued	Null
Abitibi Consolidated	Iroquois Falls	13		Directors Control Order Issued	Null
Abitibi Consolidated	Kenora	10		Assessment complete, no further action required	Null
Timminco	Haley Station	3	4	Provincial Officers Order Issued	Null

⁴ Wastewater Treatment Facility

⁵ Sewage Treatment Plant

Table 4: Continuation

Facility	Location	Acute Lethality to Daphnia Magna	Acute Lethality to Rainbow Trout	MOE Abatement Action	MOE Enforcement Action
Haley Industries	Ross Township	4	3	Provincial Officers Order Issued	Null
Sonoco Trent Valley Mill	Centre Hastings	6	1	Voluntary abatement program underway	Under Investigation
Darlington NGS ⁶	Bowmanville	4	2	Voluntary abatement program underway	Null
Chinook	Sarnia	1	5	Voluntary abatement program underway	Null

⁶ Nuclear Generating Station owned by Ontario Power Generation

Year 2000 Ontario Wastewater Pollution Violations

Wastewater pollution violators are spread across Ontario. The following map lists the number of violations per site or region. Table 4 lists the facilities according to the nearest town or city.

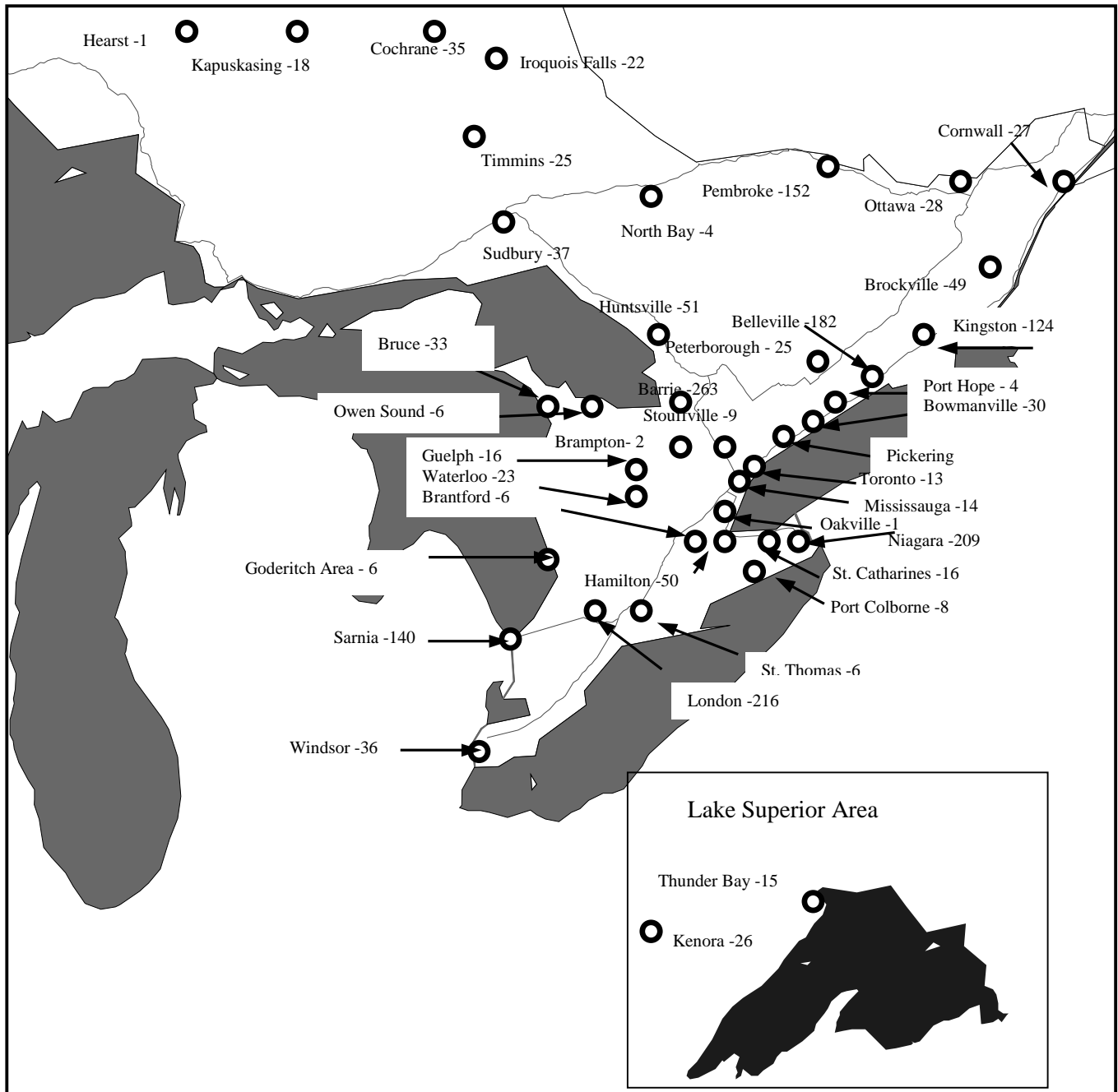


Table 4: Year 2000 Violations Listed by City

	Facility	Total
B	Barrie Area	
	Stepan Canada	246
	Angus WPCP ⁷	1
	Port Severn WPCP	1
	New Tecumseth Regional WPCP	13
	Penetanguishine Fox St. Sewage	2
	263	
	Belleville Area	
	Canada Talc - Henderson Mine	8
	Domtar Wood Perserver	174
	182	
	Bowmanville Area	
	OPG Darlington NGS	18
	Blue Circle Cement	10
	Goodyear	2
	30	
	Brampton Area	
	Maple Lodge Farms	1
	Shelburne WPCP	1
	2	
	Brantford Area	
	Cainsville Lagoon	1
	Watford Lagoon	1
	Norwich Lagoon	3
	Simcoe WPCP	1
	6	
	Brockville Area	
	Brockville WPCP	19
	Smith Falls WPCP	29
	SPC Corporation Limited	1
	49	
	Bruce Area	
	Bruce Power -Bruce bulk steam system	1
	Bruce Power- Bruce energy centre sewage works	10
	Bruce Power -Bruce NGS	2
	Bruce Power- Bruce NP Dev.	6
	Bruce Heavy Water Plant	1
	Lucknow Sewage Treatment Facilities	6
	Southampton WPCP	1
	Warton Lagoon	4
	Wingham STP	2
	33	

⁷ Water Pollution Control Plant

C Cornwall Area	
Morbern Inc.	2
Domtar	2
Cornwall WPCP	1
Craig Quay Limited	1
Morissburg WPCP	1
Ingleside WPCP	4
Iroquois WPCP	13
Long Sault WPCP	2
Winchester Lagoon	1
	27
G Goderich Area	
Blyth WPCP	1
Seaforth STP	5
	6
Guelph Area	
Uniroyal Chml (Elmira)	1
Guelph WPCP	13
Milton WWTP	2
	16
H Hamilton Area	
CGC - Hagersville Gypsum Mine	8
Georgia Pacific	5
Stelco Hilton Works	5
Lake Erie Steel	2
Dofasco	1
Dundas, King St. WPCP	4
Woodward Ave. WPCP	17
Biggar Lagoon	8
	50
Hearst Area	
Manitouwadge Lagoon	1
	1
Huntsville	
KWH Pipe Canada Ltd.	51
	51
I Iroquois Falls	
St. Andrews Goldfields - Hilslo	7
Abitibi Consolidated	14
Iroquois Falls Power Corp.	1
	22
K Kapuskasing	
Spruce Falls Inc.	18
	18

K	Kenora Area	
	Madsen Gold Madsen Mine	3
	Placer Dome Canada Musslewhite	2
	Abitibi	12
	De Beers Canada Exploration Inc.	7
	Abitibi Consolidated	1
	Placer Dome North America	1
		26
	Kingston Area	
	Nitrochem	1
	Dupont Canada (Kingston)	2
	Dupont Canada (Maitland)	94
	Kosa (Millhaven)	1
	Rohmax Canada (Morrisburg)	2
	Cardinal Power of Canada	13
	Casco Cardinal	3
	Kingston West WPCP	4
	Royal Bank	2
	Gananoque Lagoon	2
		124
L	London Area	
	Blue Circle - St. Mary's	11
	London - Vauxhall WPCP	2
	London Greenway WPCP	57
	London Oxford WPCP	31
	London Pottersburg WPCP	1
	Southland Park WPCP	1
	SMSI Travel Centres Inc.	52
	Alisa Craig WPCP	2
	Exeter Lagoon	1
	Komoka WPCP	1
	Port Rowan Lagoon	1
	Ford Motor Company	45
	Strathroy WPCP	5
	Thamesford Water Pollution Control Plant	6
		216
M	Mississauga Area	
	OPG Lakeview TGS ⁸	3
	Petro-Can (Mississauga)	10
	St. Lawrence Cement	1
		14

⁸ Thermal Generating Station

N	Niagara Area	
	OPG Nanticoke	4
	Cytec Canada Inc.	173
	Saint Gobain Ceramic Minerals	1
	Washington Mills Electro Miner	3
	Washington Mills Ltd	8
	Stamford WPCP	2
	Port Robinson Lagoon	16
	Niagara-on-the-Lake Lagoon	2
		209
	North Bay Area	
	Clublink Capital Corporation	1
	Thorne, Hamlet of	2
	Weyerhaeuser Canada	1
		4
O	Oakville	
	Zenon Environmental	1
		1
	Ottawa Area	
	Timminco - Haley Station	9
	Carleton Place WPCP	1
	Casselman WSP	1
	Hawkesbury WPCP	1
	Almonte Lagoon	2
	North Perth WWTF	4
	Embrun Lagoon	1
	Plantagenet Lagoon	1
	St. Albert WSP	2
	Wendover WPCP	6
		28
	Owen Sound Area	
	Owen Sound WPCP	1
	Becker Milk Company Ltd.	2
	Vanastra WPCP	1
	Lake huron Fishing Club	2
		6
P	Pembroke Area	
	Pembroke WPCP	8
	Petawawa WPCP	4
	Haley Industries (Haley)	140
		152
	Peterborough Area	
	Unimin Blue Mountain	3
	GE Plastics (Cobourg)	4
	Woodland Acres WPCP	1
	Georgian Triangle Apples	2
	Sonoco Trent Valley Mill	7
	Lakefield Lagoon	7
	Warkworth Lagoon	1
		25

P	Pickering Area	
	OPG Pickering NGS	3
	Corbett Creek WPCP	2
		<u>5</u>
	Port Colborne Area	
	Cayuga WPCP	2
	Inco Refinery (Port Colbourne)	1
	Sherkston Shores	1
	Rhodia Canada Inc. (Port Maitland)	4
		<u>8</u>
	Port Hope	
	Cameco Metal Mining (Port Hope)	4
		<u>4</u>
S	Sarnia Area	
	OPG Lambton TGS	19
	Cabot Canada (Sarnia)	6
	Praxair - Mooretown	2
	Praxair - Sarnia	20
	Bayer Sarnia	35
	BP Canada Resources Company	5
	Chinook (Sombra)	21
	Dow Chemical (Sarnia)	6
	Ethyl Canada (Corunna)	1
	Nova Chemicals Corp.	5
	Imperial Oil (Sarnia)	2
	Suncor (Sonoco)	2
	Shell Canada	4
	Terra Int. (Sarnia)	11
	Arkona Sewage Treatment Plant	1
		<u>140</u>
	St. Catharines	
	Interlake Acquisitions	13
	Port Dalhousie WPCP	2
	Smithville Lagoon	1
		<u>16</u>
	St. Thomas Area	
	Aylmer Lagoon	3
	Dutton Lagoon	1
	Sterling Trucks	2
		<u>6</u>
	Stouffville Area	
	Stouffville WPCP	3
	Bradford WPCP	1
	Tottenham WPCP	5
		<u>9</u>

S	Sudbury-Sault St. Marie Area	
	Praxair - Sault St. Marie	13
	Inco Garson Mine (Copper Cliff)	4
	Inco Nolin Creek (Copper Cliff)	10
	Inco Whistle Mine (Copper Cliff)	1
	River Gold Edwards Mine	5
	Chelmsford Lagoon	1
	Cameco Cdn Mining (Blind River)	3
		37
T	Thunder Bay Area	
	Provincial Papers Inc.	5
	OPG Ontario PG, Thunder Bay	1
	OPG Ontario PG, Atikokan	4
	Bowater	5
		15
	Timiskaming-Cochrane Area	
	Agrium Mine (Chochrane)	15
	Trans Canada Power - Calstock (Chochrane)	6
	Earlton Lagoon	3
	St. Andrews Goldfields - Stock Mine	6
	Northland Power, Kirkland Lake Power Corp	1
	Armistice Resources Ltd.	1
	McGarry, Township of	2
	Temagami, Municipality of	1
		35
	Timmins-James Bay Area	
	Luzenac Inc.	1
	Exall Resources Glimmer Mine - 530	4
	Falconbridge Kidd Creek (Timmins) - 188	16
	Mattice lagoon	1
	Tembec Industries, Smooth Rock Falls	3
		25
	Toronto	
	Redpath Sugar	1
	St. Lawrence & Hudson Railway	10
	Highland Creek WPCP	1
	Humber WPCP	1
		13
W	Waterloo-Cambridge Area	
	Rothsay Rendering Division (Cambridge)	1
	Rothsay, Dundas (Cambridge)	2
	Horizon Poultry Products	6
	New Hamburg	6
	St. Jacobs WPCP	2
	Waterloo WPCP	3
	Wellesly WPCP	2
	Drayton WPCP	1
		23

W Windsor Area	
Ford Essex Engine Plant	6
Canadian Salt Co. - Windsor	8
Amherstburg WPCP	7
Edgewater Beach Lagoon	3
colchester Lagoon	1
Lakeshore West Sewage Treatment Plant	5
Leamington Pollution Control Plant	6
	36
<hr/>	
Total	1933

Conclusion

Recent tragedies in Walkerton, Ontario and North Battleford, Saskatchewan have brought the quality of our drinking water to the forefront of public concern. Water is the lifeblood of the environment and is essential to the survival of all living things. Yet we continue to have problems with the water we drink because we have not protected it from the contaminants produced by industry and government.

Receiving waters polluted by wastewater discharges are potential sources of drinking water to communities and individuals living downstream. Downstream communities have little or no control over the quality of the water entering their jurisdiction but must pay the cost to treat the water such that it is fit for human consumption. Tougher regulation and enforcement of wastewater discharges would better protect downstream users of the water and save consumers millions of dollars in treatment costs (which consumers are paying for through water fees and taxes).

Though the number of violations for 2000 is down from the peaks of 3000+ violations in 1998-1999, much more must be done to improve compliance. The renewed emphasis on compliance and enforcement that followed the Walkerton tragedy needs to be sustained and improved upon. Ontario deserves a clean water supply.

Appendix 1:

Only 4 of 197 violating facilities were charged for year 2000 infractions.

Table 5: Facilities charged for year 2000 violations⁹

Offence Date	Charge Date	Violator	Details (from MOE press releases)
Between Dec. 1998 – August 2000	n/a	Tembec Industries Inc. (Timmins-James Bay Area) (Smooth Rock Falls)	Tembec Industries Inc. has been fined \$100,000 plus a victim fine surcharge of \$20,000 in connection with 14 charges laid under the <i>Environmental Protection Act (EPA)</i> . The company pleaded guilty to discharging a contaminant into the natural environment, failing to report the discharge, exceedences for total suspended solids, exceedences for phosphorous, and exceedences for biochemical oxygen demand.
Between Dec. 1999 – June 2000	n/a	CGC Inc (Hamilton Area)	The Ministry of the Environment has charged CGC Inc., a Hagersville-area gypsum mining and processing operation, with failing to meet emissions limits set under the province's Municipal-Industrial Strategy for Abatement (MISA). The charges allege that, between December 1, 1999 and June 30, 2000, CGC Inc. submitted four effluent samples that contained total suspended solids at concentrations exceeding MISA limits for industrial discharges. The company's operation, near 55 Third Line, Hagersville, discharges effluent to Boston Creek. CGC Inc. faces two counts under section 18(1) of Ontario Regulation 561/94, made under the <i>EPA</i> , for submitting weekly samples which exceeded the MISA limit. The company faces two further counts under section 18(2) of the regulation, which relates to submitting monthly-average samples exceeding the MISA limit.
Between Aug. 1999 - May 2000	July 27, 2001	Stelco (Hamilton Area)	Eight charges under <i>Ontario Regulation 214/95 (Effluent monitoring and Effluent limits - iron and steel manufacturing sector)</i> made under the <i>EPA</i> . The charges relate to failing to control the quality of an effluent stream, as measured by an acute lethality test on rainbow trout and water fleas.
Between July 2000 – Nov. 2000	Sept. 18, 2001	Saint-Gobain Ceramic Materials Canada Inc., operating as Norton Advanced Ceramics of Canada Inc (Niagara Area)	Six charges under the <i>EPA</i> . The first four charges allege the final effluent, discharged to the environment on four days in July 2000, did not meet the criteria required in the regulation. The specific charges relate to failing to ensure that the daily process effluent loading for total suspended solids did not exceed the daily plant loading limit of 450kg/day, contrary to section 16(1) of <i>Ontario Regulation 64/95</i> made under the <i>EPA</i> . The fifth charge relates to failing to report to the Director, as soon as reasonably possible, total suspended solid loadings that exceeded the limit, contrary to section 40(2) of <i>Regulation 64/95</i> . The sixth charge relates to failing to take quarterly samples for grease and oil and total phosphorus, contrary to section 21(1) of <i>Regulation 64/95</i> .

⁹ This information was gathered from the MOE website news releases at www.ene.gov.on.ca