

NB Mercury Action Plan - Progress Report Under the NEG/ECP

Initiative & Objective	Progress to Date	Notes
<p>1. <u>EMISSIONS REDUCTION</u> - at least 50 percent reduction within the NEG/ECP region by 2003</p> <p>a) <u>Medical Waste Incinerators</u> - meet NEG/ECP limit of 0.055 mg/dscm (milligrams per dry standard cubic metre) by December 2003</p> <ul style="list-style-type: none"> • Future approvals will require annual mercury stack testing as well as meeting NEG/ECP limit. • Work with facilities to remove mercury-containing products from waste prior to incineration, and on replacing equipment containing mercury with alternatives. <p>b) <u>Industrial Sources</u> - Maximum achievable reductions in shortest feasible timeframe</p> <p>c) <u>Coal-Fired Utility Boilers</u> - Promote national and international strategies to reduce emissions; develop/ implement regional strategies by 2003.</p> <p><u>Note:</u> Currently no national mercury emissions standards exist for coal-fired utility boilers, so efforts will focus on gathering emissions data.</p>	<p><u>Medical Waste Incinerators:</u></p> <ul style="list-style-type: none"> • Facilities have pollution control equipment in place and have conducted mercury stack testing. • As of October 2001, average mercury concentrations at MSWM and ERH were well below limit; concentrations at Dr. Everett Chalmers Hospital (DECH) exceeded limit of 0.055 mg/dscm. • DECH incinerator was taken out of service permanently as of mid July 2002. • Operating approvals will continue to be mechanism to control mercury emissions at these facilities. <p><u>Industrial Sources:</u></p> <ul style="list-style-type: none"> • Air and water operating approvals amended to include stricter mercury limits on air emissions and effluent discharges. • Plant is required through its operating approval to conduct quarterly source testing on the primary mercury point source and conduct ambient mercury monitoring surrounding the facility. <p><u>Coal-Fired Utility Boilers:</u></p> <ul style="list-style-type: none"> • Operating approvals amended to require annual mercury stack testing. • Testing done at Grand Lake in Fall 2000; testing at Belledune in December 2000. 	<p><u>Medical Waste Incinerators:</u> There are two medical waste incineration facilities in NB: Mr. Shredding Waste Management (MSWM, Moncton), and Edmundston Regional Hospital (ERH, Edmundston).</p> <p><u>Industrial Sources:</u> PCI Chemicals Canada Inc., Dalhousie</p> <p><u>Coal-Fired Utility Boilers:</u> Grand Lake and Belledune Generating Stations are power plants which use coal to generate electricity. Coal is known to contain mercury.</p>

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	<ul style="list-style-type: none"> Grand Lake Station anticipated to be retired prior to 2010, or will be refurbished with appropriate pollution control equipment. Belledune Station stopped using NB coal in January 2002. This reduces by half the NB coal used for power generation in the Province. 		<p><u>Grand Lake Station:</u> Decision pending.</p> <p><u>Belledune Station:</u> Winter/Spring edition of this Progress Report erroneously reported that Belledune Station stopped using NB coal in January 2001.</p>
2.	<p><u>SOURCE REDUCTION AND SAFE WASTE MANAGEMENT</u> Identify and Implement Source Reduction Programs - By 2003, reduce the overall amount of mercury-containing waste, where feasible, from household, commercial and industrial sources, through source reduction, segregation, and safe waste management, including recycling.</p> <ul style="list-style-type: none"> Explore the potential for the recycling of fluorescent light bulbs and mercury separation unit. <p>Target audiences include:</p> <p>a) <u>Provincial Government Departments</u></p>	<p><u>Provincial Government:</u></p> <ul style="list-style-type: none"> Developed Mercury Action Plan for NB. Continued participation on Canada-Wide Standards development committee for mercury. Letter from Deputy Minister of ELG to other Deputy Ministers recommending that future purchases of fluorescent lights, which can contain mercury, should be low-mercury/energy-efficient lights, has been sent. Dept. of Supply and Services has developed a policy for acquisition of low-mercury/energy-efficient fluorescent lighting for government buildings. Preparing communication to large property owners encouraging use of low-mercury/energy-efficient fluorescent light bulbs. 	

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<p>b) <u>Hydrometric stations</u></p>	<p><u>Hydrometric stations:</u></p> <ul style="list-style-type: none"> All mercury manometers installed at hydrometric stations have been replaced with mercury-free waterlevel monitoring devices. A complete modernization of the network has been completed. 	<p><u>Hydrometric stations:</u> Manometers measure the water level in rivers and lakes and are housed in small sheds on banks of rivers or lakes.</p>
<p>c) <u>Schools</u></p>	<p><u>Schools:</u></p> <ul style="list-style-type: none"> Following communication at Deputy Minister's level concerning use of mercury in schools, Dept. of Education reported that liquid mercury is no longer used in school science labs, and that fluorescent lights are being replaced with low mercury/energy-efficient models. ELG to check progress. 	
<p>d) <u>Hospitals</u></p>	<p><u>Hospitals:</u></p> <ul style="list-style-type: none"> Communications underway with hospital corporations to inventory mercury-containing products in use. Awarded ETF grant to a hospital corporation to conduct an inventory of mercury products and to replace mercury manometers. Continuing to work with hospital corporations to identify mercury-free products. 	
<p>e) <u>Dental Offices -</u></p> <ul style="list-style-type: none"> Develop document co-signed by Minister and executive director of NB Dental Society (NBDS) advising dentists of mercury reduction initiatives Canada-Wide Standards - Fall 2002. Develop Letter of Understanding with NBDS - December 2001. 	<p><u>Dental Offices:</u></p> <ul style="list-style-type: none"> Participating in finalization of Memorandum of Understanding with Canadian Dental Association to promote best management practices and collection and recycling of dental amalgam waste. Letter of Understanding between NBDS and DELG to promote better management of amalgam signed. 	<p><u>Dental Offices:</u> Mercury is a component of amalgam dentists use to fill teeth. There is a resulting waste management issue when amalgam is removed at dentists' offices.</p>

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<p>3. <u>OUTREACH AND EDUCATION</u> - Educate the public about adverse environmental and health effects of mercury and ways to reduce the risk of exposure</p> <p>a) <u>General Public:</u></p> <ul style="list-style-type: none"> • Develop a summary and progress report of NB's Mercury Action Plan - Winter 2002. • Prepare an introductory publication on the presence, sources and management of mercury in NB - Spring 2002. • To complement fish consumption advisories issued by Dept. of Health & Wellness, produce feature article on health implications of fish consumption - Spring 2002. • Continue to evaluate mercury education needs. <p>b) <u>Dentists:</u></p> <ul style="list-style-type: none"> • Produce and distribute a brochure for dentists on best management practices for mercury waste recycling - Fall 2002. 	<p><u>General Public:</u></p> <ul style="list-style-type: none"> • A summary of NB's Mercury Action Plan, and 1st edition of Progress Report, produced and available publicly as of March 2002. • Drafting of introductory publication underway. • NB residents are referred to Fishing Guidebook published by DNRE, which contains fish consumption guidelines. <p><u>Also Completed:</u></p> <ul style="list-style-type: none"> • Helped develop regional public opinion survey conducted by NEG/ECP on mercury and acid rain to gather baseline information to assist awareness activities. <p>Published article on mercury facts in <i>Gulf of Maine Times</i>.</p> <p><u>Dentists:</u></p> <ul style="list-style-type: none"> • Research for publication underway. 	<p><u>Fish Consumption Advisories:</u> Annual DNRE Fishing Guidebook contains recommendations concerning fish consumption in the Province.</p>
<p>4. <u>RESEARCH, ANALYSIS AND STRATEGIC MONITORING</u></p> <p>a) <u>Fish and Wildlife Tissue Sampling:</u></p> <ul style="list-style-type: none"> • Support and expand research and analysis to improve our understanding of mercury sources, impacts and cycles in the environment. • Carry out fish sampling program to monitor mercury levels - Summer 2003. <p>b) <u>Regional Mercury Indicators:</u></p> <ul style="list-style-type: none"> • Support and expand strategic monitoring of mercury emissions, deposition and fish tissue levels and develop meaningful environmental indicators to measure and track progress. • Collect data identified through indicator development process and publish annual status report 	<p><u>Fish and Wildlife Tissue Sampling:</u></p> <ul style="list-style-type: none"> • Fish sampling program conducted in 1994. • Protocols being developed by NEG/ECP Task Force to ensure consistency in measuring mercury across jurisdictions. <p><u>Regional Mercury Indicators:</u></p> <ul style="list-style-type: none"> • Mercury indicators are being developed under NEG/ECP Mercury Task Force. • A Report on Air Quality Monitoring Results in New Brunswick for the Year 2000 summarizes ambient mercury concentrations. 	