Chapter 10 The Failure to Enact a Notification Regulation

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10.1 Overview

The Province of Ontario failed to enact a legally enforceable regulation[1] requiring the prompt and direct reporting[2] of test results indicating unsafe drinking water to the Ministry of the Environment (MOE) and to the local Medical Officer of Health. This failure contributed to the extent of the outbreak that occurred in Walkerton in May 2000.

For years before the outbreak in Walkerton, the provincial government had recognized that the proper reporting of test results indicating unsafe drinking water is important to the protection of public health. During those years, the Ontario Drinking Water Objectives (ODWO) directed the testing laboratory[3] to notify the local MOE office of indicators of unsafe water quality. In turn, the MOE was to notify the local Medical Officer of Health, who could then issue a boil water advisory if warranted.

When provincial government laboratories were conducting all of the routine drinking water tests for municipal water systems throughout the province, it was acceptable to set out this notification protocol as a guideline under the ODWO, rather than as a legally enforceable regulation. However, the entry of private laboratories into this sensitive public health area in 1993, and the wholesale exit of all government laboratories from routine microbiological testing for municipalities in 1996, made it unacceptable to let the notification protocol remain in the form of a legally unenforceable guideline.

This was particularly the case because private sector laboratories were not regulated by the government. There were no established criteria governing quality of testing, no requirements regarding the qualifications or experience of laboratory personnel, and no provisions for the licensing, inspection, or auditing of such laboratories by the government.

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[1] I refer to "regulation" throughout this chapter, although I note that the government could also have passed a law instead of a regulation.

[2] The terms "notification" and "reporting" are used interchangeably in the documents, the evidence, and this report.

[3] Throughout this chapter, unless otherwise indicated, I use the terms "laboratory" and "testing laboratory" interchangeably to refer to environmental testing laboratories, as opposed to clinical testing laboratories.

For years before May 2000, the government was aware of the importance of requiring testing laboratories to directly notify the MOE and the local Medical Officer of Health about test results indicating unsafe water quality.[4] Shortly after privatization[5] in 1996, the MOE sent a guidance document to municipalities who requested it. That document strongly recommended that a municipality include in any contract with a private laboratory a clause specifying that the laboratory notify the local MOE office and the local Medical Officer of Health directly of adverse test results. Although the guidance document is referred to in correspondence sent by the MOE to the Walkerton PUC, there is no evidence that the PUC requested it or that the MOE sent it to the PUC.

The government clearly recognized that direct notification by testing laboratories to public authorities was an important measure in the protection of public health. It did not, however, enact a regulation making this type of reporting obligatory. One of the reasons for the failure to do so at the time of privatization in 1996 was the government's "distaste for regulation."

Before 1996, the government was aware of cases in which local Medical Officers of Health had not been notified of adverse test results from municipal water systems. At the time of privatization in 1996, the government did not implement a program to monitor the effect of privatization on the notification protocol followed whenever adverse results were found. Although the government encouraged municipalities to address the issue through their contracts with testing laboratories, the MOE did not review those contracts, had no assurance that municipalities were directing the laboratories to report as suggested, and had no way of knowing whether private laboratories were reporting adverse results.

When the MOE's Laboratory Services Branch and Operations Division became aware that some private laboratories were not notifying the ministry of adverse test results, as specified by the ODWO, the MOE's response was piecemeal

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[4] The terms "adverse tests" and "adverse test results" are used interchangeably throughout this chapter to refer to test results indicating unsafe drinking water.

[5] I use the term "privatization" throughout this chapter. This term is used extensively in the evidence, in many documents, and in the submissions of the parties. In the context of this Inquiry, the term refers to the government's 1996 discontinuation of all routine microbiological testing for municipal water systems – a move that resulted in the large majority of municipal systems turning to private sector laboratories for routine water testing. Municipalities are not required to use private laboratories: a few larger municipalities operate their own. Practically speaking, however, the large majority have no option other than to use private laboratories.

and unsatisfactory. When an instance of failure to notify came to the attention of a local MOE office, it appears that the issue was dealt with locally. The local MOE offices generally did not report these failures to regional offices or to the lead region on water. More importantly, the MOE's Laboratory Services Branch, Water Policy Branch, and Operations Division failed to alert the regional or district offices that they should monitor and follow up on the notification issue.

In 1997, the Minister of Health took the unusual step of writing to the Minister of the Environment requesting that legislation be amended or that assurances be given to ensure that local Medical Officers of Health would be immediately notified of adverse results. The Minister of the Environment declined to propose legislation, indicating that the ODWO protocol dealt with this issue. He invited the Minister of Health to address the matter through the Drinking Water Coordination Committee (DWCC), which included staff from both their ministries.

Nothing else happened until after the tragedy in Walkerton. Only then did the government enact a regulation requiring testing laboratories to directly notify the MOE and the local Medical Officer of Health about adverse test results.

There was evidence that A&L Canada Laboratories, which was conducting microbiological testing for Walkerton in May 2000, was unaware of the ODWO notification protocol. As a result, A&L notified only the Walkerton PUC of the critical adverse results from the water samples taken from the Walkerton water system on May 15.

Both the fact that private laboratories doing microbiological testing of municipal water samples were unregulated and the fact that the ODWO was only a guideline, not a regulation, help explain why A&L was not aware of the notification protocol. Significantly, some other private laboratories that *were* aware of the ODWO notification protocol consciously decided not to follow it. Instead, they sent test results to their clients only, on the grounds that only a legally enforceable requirement – and not a government guideline like the ODWO – could override concerns about client confidentiality.

Even if A&L had known of the ODWO notification protocol, it would likely have followed the same procedure and notified only the Walkerton PUC of the critical adverse results from the May 15 samples.

In my view, it was not reasonable for the government, after the privatization of water testing, to rely on the ODWO – a guideline – to ensure that public health and environmental authorities were notified of adverse results. The government should have enacted a regulation in 1996 to mandate direct reporting by testing laboratories of adverse test results to the MOE and to local Medical Officers of Health. Instead, it enacted such a regulation only in August 2000, after the Walkerton tragedy.

If, in May 2000, the notification protocol had been contained in a legally enforceable regulation applicable to private laboratories, I am satisfied that A&L would have informed itself of the regulation and complied with it. The failure of A&L to notify the MOE and the local Medical Officer of Health about the adverse results from the May 15 samples was the result of the government's failure to enact a notification regulation. If the local Medical Officer of Health had been notified of the adverse results on May 17, as he should have been, he would have issued a boil water advisory before May 21 – by May 19 at the latest. An advisory issued on May 19 would very likely have reduced the scope of the outbreak.

10.2 The Role of Provincial Government Laboratories Before 1996

In the early 1990s, provincial government laboratories at both the MOE and the Ministry of Health were providing a number of testing services to municipalities, including microbiological analyses of drinking water.[6]

At the time, the MOE's Laboratory Services Branch operated one central laboratory, in Toronto, and three regional laboratories, in Kingston, London, and Thunder Bay. The regional laboratories were part of the MOE's Operations Division. Until 1996, all four MOE laboratories engaged in routine testing of drinking water for municipalities. These tests had historically been provided to municipalities free of charge. Fees were introduced in 1993. As discussed below, the three regional laboratories were closed in July 1996. At the same time, the central laboratory stopped performing routine drinking water testing.

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[6] Microbiological analyses were also provided to the Ontario Clean Water Agency (OCWA) in its role as owner or operator of some municipal water treatment plants.

Before September 1996, there were 13 public health laboratories operated by the Ministry of Health that also provided microbiological testing of drinking water for municipalities. These municipalities were advised that all of these laboratories would stop providing this testing in September 1996. Before then, drinking water tests had been provided to the Walkerton PUC by the Ministry of Health laboratory in Palmerston.

After the MOE and Ministry of Health laboratories stopped performing routine water tests, municipalities either performed the tests internally, if they were large enough to have the resources to do so, or contracted with private laboratories to perform the tests. As discussed below, the Walkerton PUC contracted with two private laboratories after September 1996. The first, which the PUC retained from October 1996 until April 2000, was G.A.P. EnviroMicrobial Services. The second, retained from the end of April through May 2000, was A&L Canada Laboratories.

10.3 The Introduction of Fees in 1993

10.3.1 The Impact of the Decision to Introduce Fees

In January 1993, the MOE started charging fees for routine testing of drinking water for municipalities. This fee-for-service approach allowed private laboratories to enter the field of routine drinking water testing.[7]

The introduction of the fee-for-service program did not result in a significant reduction in the number of routine microbiological tests performed by the MOE laboratories. As of May 1, 1994, approximately 16 months after the introduction of fees, the MOE's Laboratory Services Branch noted that only one municipality – the Municipality of Sudbury – had switched from the MOE to a private sector laboratory. In the first 18 months after the MOE began to charge for drinking water tests, the total testing performed by MOE laboratories fell by only 6%. According to Dr. Bern Schnyder, director of the MOE's Laboratory Services Branch, this reduction could have resulted from either the introduction of private laboratory testing or a decline in the number of samples taken by municipalities.[8]

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[7] For municipalities, routine drinking water testing includes the testing, for ODWO purposes, of microbiological, physical, and chemical parameters.

[8] When testing was free, some municipalities tested more samples than the ODWO required.

Curiously, the Ministry of Health laboratories did not implement charges for microbiological testing after the MOE decision to do so in 1993, even though the Ministry of Health was subject to the same budget reduction strategy.[9] The Walkerton PUC, which was using the Ministry of Health public health laboratory in Palmerston, continued to have microbiological tests done without charge.

10.3.2 The Failure to Regulate Private Laboratories

Throughout the 1990s, an increasing number of private laboratories in Ontario provided environmental testing – including chemical, physical, and microbiological testing – for a variety of MOE programs, including the Municipal Industrial Strategy for Abatement Program and the Air Quality Program. Starting in 1993, with the introduction of fees by the MOE, private laboratories began to move into the area of drinking water testing. Although the ministry recognized this trend, it took no steps to monitor or regulate the impact of this change on public health.

During this time, there was no regulation, whether for quality or for other purposes, relating to the private laboratories that were doing environmental testing. In the area of microbiological testing of drinking water for municipalities, there was no government requirement for the certification or accreditation of private laboratories until August 2000, when the government introduced Ontario Regulation 459/00.[10] Some private laboratories voluntarily joined the International Association for Environmental Testing Laboratories (IAETL)[11] and some voluntarily became accredited or certified by the Canadian Association of Environmental Analytical Laboratories (CAEAL),[12] but there was no requirement to do so. There was not even a requirement that private laboratories have scientists on staff.

After the MOE started charging fees for routine testing of drinking water in 1993, the Ministry of Health expressed concerns about this approach and about

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[9] The strategy was described at the time as an "expenditure control and reduction strategy."
[10] Also known as the Drinking Water Protection Regulation.
[11] A voluntary association of private laboratories; it changed its name in January 2000 to the Canadian Council of Independent Laboratories.
[12] CAEAL's membership includes representatives from the private sector, government, and private individuals. It works with the Standards Council of Canada (SCC) to support certification, accreditation, and auditing of environmental laboratories.

the role it created for private laboratories. Ministry of Health staff[13] noted that a laboratory's overall capability of providing analytical testing is best determined through a recognized accreditation program. Unfortunately, though, accreditation was not required for environmental laboratories in Ontario. According to Ministry of Health staff, after the introduction of fees and the entry of private laboratories into this area, only the MOE and Ministry of Health laboratories "provide[d] an acceptable bacteriological testing service" for the province. However, nothing was done by either the MOE or the Ministry of Health to address this concern.[14] It should be noted that there were relatively few private laboratories actually conducting drinking water testing for municipalities at the time.

In 1994, the MOE's Laboratory Services Branch did require all laboratories performing contract analyses for the MOE itself to become accredited. The MOE was concerned that "[t]he quality of analytical data from private sector laboratories [was] not uniformly acceptable for Ministry use." By way of a memorandum dated April 25, 1994, the MOE notified private laboratories of this new accreditation requirement for those laboratories that wished to provide contract services to the MOE. The memo states:

> The reason for this change is twofold: to ensure the Ministry receives and acts on environmental analytical information which conforms to a minimum quality standard; and to recognize, and encourage improvements in, the performance of environmental laboratories in Ontario.

However, the MOE did not correspondingly direct municipalities in 1994 that they too should retain only accredited laboratories, nor did it impose any standards on private laboratories generally.

10.3.3 The Contrast to Regulation of Clinical Laboratories

The failure to regulate environmental laboratories in the 1990s can be contrasted with the stringent provincial standards that had been applied since the

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[13] In particular, Michael Brodsky, chief of environmental bacteriology and microbiological support services at the Ministry of Health's Laboratory Services Branch, and Nicholas Paul, manager of regional services.

[14] As mentioned below, the MOE had the lead legislative role under the OWRA.

[15] The *Laboratory and Specimen Collection Centre Licensing Act*, R.S.O. 1990, c.L.1.

early 1970s to clinical laboratories – that is, laboratories that test specimens taken from humans (such as blood or stool specimens). Clinical laboratories were and continue to be regulated under the *Laboratory and Specimen Collection Centre Licensing Act*.[15] Under section 9(1) of the Act, all laboratories that test human specimens are licensed by the provincial government with renewable 12-month licences. The government can refuse to issue or renew a licence on a number of grounds, including failing to meet the standards set out in the provincial Laboratory Proficiency Testing Program.[16]

Significantly, clinical laboratories are required by Regulation 682[17] to report all positive laboratory findings with respect to reportable and communicable diseases as defined by the *Health Protection and Promotion Act* to the Medical Officer of Health. They are required to do so within 24 hours after the test is conducted. In contrast, the government did not enact a regulation requiring this same type of reporting for environmental laboratories that were testing drinking water samples until after the tragedy in May 2000.

10.4 The Move to Privatization in 1995–96

10.4.1 The Proposal for Privatization

Once the MOE laboratories began in 1993 to charge for routine microbiological testing, private sector laboratories raised a concern that public sector laboratories should not be competing directly with the private sector for routine analytical work.

By 1994, the MOE was engaged in a review of services provided by its laboratories to assess the role and scope of laboratory operations generally and to consider how private and public laboratories could provide services more effectively. Dr. Bern Schnyder, director of the MOE's Laboratory Services Branch, addressed the issue in a report dated June 6, 1994, to Dr. Peter Victor, assistant

[16] The provincial government, together with the Ontario Medical Association, sets the standards to be met by such clinical laboratories in this program. It is a condition of the licence that laboratories submit to proficiency testing. Laboratory inspections are performed by the Ministry of Health's Laboratory Services Branch staff.

[17] Regulation 682, R.R.O. 1990, under the *Laboratory and Specimen Collection Centre Licensing Act*. This Regulation also establishes the educational and experience qualifications required for laboratory personnel, such as the laboratory director, the technical director, laboratory technologists, and laboratory technicians. It also requires laboratories to establish a quality control program and to maintain records and submit reports to the Province.

deputy minister of the MOE's Environmental Sciences and Standards Division. In the report, Dr. Schnyder suggested reducing or eliminating routine drinking water testing for municipal water sytems and for Ontario Clean Water Agency (OCWA) water systems because this work could be effectively performed by private laboratories at no cost to the MOE.

Significantly, Dr. Schnyder noted at the time that it would require a greater involvement of MOE staff to "support, regulate, monitor and accredit environmental laboratory operations in Ontario" if the withdrawal of public sector laboratories from routine drinking water testing was pursued. In fact, however, when testing was privatized in 1996, the MOE laboratories did not "support, regulate, monitor and accredit" private laboratories, and no additional staff were dedicated to these ends.

By January 26, 1995, senior MOE officials had agreed to recommend that the MOE discontinue fee-for-service work for municipal and OCWA water and wastewater plants. Three reasons were cited for this recommendation: (1) the need to eliminate policy differences between the MOE and the Ministry of Health regarding the provision of microbiological testing of water samples (the Ministry of Health was providing these services at no cost); (2) the need to remove the perception that MOE laboratories were competing with private laboratories for work that was open to competitive bidding; and (3) the fact that competent private laboratories were available to take over the analytical work.

The Ministry of Health was not involved in the process that led to the MOE's decision to privatize water testing. It was advised of this decision in late 1995 or early 1996. According to Dr. Helen Demshar, the former director of the Ministry of Health's Laboratory Services Branch, once the MOE had decided to discontinue routine testing, the Ministry of Health had no choice but to follow suit, both because the MOE had the legislative authority to make a universal policy and because the decision was made at a very senior level of the MOE. The Ministry of Health's Laboratory Services Branch was not given an opportunity to provide input into the decision or to raise concerns.

In June 1995, Dr. Victor, in a memorandum to Richard Dicerni, an MOE deputy minister, recommended that routine drinking water tests be privatized and discussed an implementation schedule. He stated that if the reduction in staff and testing capacity associated with such a privatization was managed over three years, there would be sufficient time for the private sector to make the necessary adjustments to ensure that high-quality testing continued to be

available in Ontario. He went on to say that he believed the downsizing could be accomplished within a two-year time frame. Allowing much less time than that, he said, could cause serious disruptions in the quality and availability of testing services. Thus, the original time line contemplated for the privatization of microbiological testing was two to three years.

10.4.2 The Decision to Privatize

A new government was elected in Ontario in June 1995. The MOE initiative to privatize drinking water testing that had begun shortly before the election was consistent with the policies of the new government. The decision to privatize became part of the budget reductions implemented through the MOE business plan dated January 22, 1996, and approved by Cabinet on February 28, 1996.

As mentioned, the original MOE proposal for privatization, in June 1995, was based on a time line of two to three years. After the newly elected government assumed office, this period was reduced to six months, then to four months, then to two months.[18] Municipalities were informed, in a letter dated May 15, 1996, that the MOE's laboratories would stop providing routine drinking water tests on July 13, 1996.[19] On July 17, 1996, the Ministry of Health informed municipalities that its laboratories would also stop routine testing, as of September 1996. This was the letter that affected Walkerton, because the Walkerton PUC had historically sent its water samples to the Ministry of Health laboratory in Palmerston for testing.

10.4.3 The Failure to Identify and Manage Risks

The Cabinet decision to privatize drinking water testing was based on the 1996 MOE business plan. This plan warned of increased risks to the environment and public health, but did not specifically identify risks relating to the notification procedures that private laboratories would follow when adverse results were found. The Premier of Ontario and the then Minister and Deputy

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[18] To accommodate this compressed time frame, Dr. Schnyder met with OCWA in December 1995, before the official announcement, and told them to start arranging contracts with private laboratories.

[19] Private laboratories were informed of the decision in a letter dated May 24, 1996.

Minister of the Environment testified that they understood the risks to be "manageable." There was, however, no assessment of the risks associated with the privatization of municipal water testing, nor was there a consideration of the need for a regulation requiring testing laboratories to notify the local MOE office or local Medical Officer of Health about adverse results. The budget and resource reductions, and the associated decision-making process, are addressed in Chapter 11 of this report.

A key document written jointly by the MOE and the Ministry of Health relating to the privatization of routine drinking water tests was a briefing note dated March 22, 1996.[20] The briefing note did not raise any health concerns in relation to the privatization of such testing. It did note that the municipal sector would have concerns about the increase in testing costs and about the extra administrative work involved in contracting analytical services.

The briefing note also pointed out that in 1996, only six private laboratories in Ontario were accredited for microbiological testing. It stated that with three to four months' notice, these six laboratories were capable of supplying the required volume of drinking water tests. Dr. Bern Schnyder said that this conclusion was based on the MOE's experience with its ability to increase its own workload. Further, he stated that the MOE's Laboratory Services Branch had met with some private sector laboratories and that those laboratories had confirmed that they could "quadruple" their capability in a very short time.

No other research or analysis was done to ascertain whether private sector laboratories had the capacity and the capability to assume the work of the 17 government laboratories that would withdraw from the field, nor was there an analysis of the need to make the notification protocol specified by the ODWO a legally enforceable requirement.

As I pointed out above, the regulation that applied to clinical laboratories made it mandatory that private laboratories notify the Medical Officer of Health about communicable and reportable disease results within 24 hours. Although the Ministry of Health's Laboratory Services Branch had experience with the clinical laboratory licensing model, it did not raise this issue with the MOE's Laboratory Services Branch as a model for the regulation of environmental laboratories after privatization.

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[20] The briefing note was addressed to three assistant deputy ministers: two in the MOE and one in Ministry of Health.

Part of the recommendation to transfer routine testing to private laboratories, as set out in the briefing note, was that the MOE and the Ministry of Health should ensure the quality of bacteriological testing by private and municipal laboratories in Ontario. They were to do so through partnership arrangements with the Standards Council of Canada (SCC) and the Canadian Association of Environmental Analytical Laboratories (CAEAL) aimed at strengthening and harmonizing provincial and national requirements for certification, accreditation, and performance evaluations of such laboratories. Once the decision to privatize was made, however, nothing was done in this regard.

The Public Health Branch of the Ministry of Health never raised a public health concern about the decision to implement laboratory privatization without also requiring laboratory accreditation. Dr. Demshar, formerly of the ministry's Laboratory Services Branch, testified that the branch had not pushed for accreditation because the MOE had the lead legislative role under the *Ontario Water Resources Act*.

Dr. Richard Schabas, the Chief Medical Officer of Health for Ontario at the time of the privatization,[21] testified that he was not consulted about the discontinuation of routine testing by government laboratories. Neither was he asked to provide input as to whether the testing should be privatized.

Dr. Schabas was consulted about how to implement the privatization. He commented that there was nothing wrong with privatization *per se*, so long as it was implemented properly and with the appropriate safeguards, including quality assurance and reporting requirements. However, Dr. Schabas expressed concern that municipalities were given only two months' notice of the privatization. He felt that this was insufficient notice to ensure proper implementation. Dr. Schabas was also surprised to learn that it was not mandatory to use an accredited laboratory.

10.4.4 The Decision Not to Require Accreditation

Before the decision was made to privatize testing in 1996, concerns about public health had been raised. These concerns dealt mainly with the issue of

[21] I note that the Chief Medical Officer of Health is also traditionally the director of the Public Health Branch of the Ministry of Health.

whether laboratories doing such testing should be required to be accredited by a nationally recognized body such as the SCC or CAEAL.

As it turns out, the decision not to require accreditation did not have an impact on the events in Walkerton. However, the manner in which the government approached the accreditation issue is relevant because it shows both the importance that the government put on proceeding quickly with privatization and the reservations that it had about enacting new regulations.

Since at least 1992, the International Association for Environmental Testing Laboratories (IAETL) had been lobbying for mandatory accreditation. A February 1992 briefing note recorded that IAETL had requested the MOE to recommend the use of accredited laboratories for all analytical testing done in support of regulatory programs. In fact, IAETL had expressed concern that laboratories that are not accredited might "be reducing quality conformance in an effort to cut costs in a very competitive market." It noted that mandatory accreditation would help ensure that all laboratories met the same quality guidelines.

The MOE had been informed that at the time the cost of laboratory accreditation and certification of tests was as high as $15,000 for the first year. Dr. Schnyder testified that he was concerned that mandatory accreditation could put smaller laboratories out of business. CAEAL responded quickly to meet the MOE's concern, and by September 1995 it had implemented an accreditation program for smaller laboratories that would have cost less than $5,000 per year.

Public health concerns were also raised by IAETL in a meeting with the MOE on January 13, 1994. IAETL noted that because the MOE was not bringing in mandatory accreditation, private laboratories were "not maintaining adequate quality assurance procedures because of cost cutting pressures to remain profitable."

Dr. Schnyder testified that he believed that Dr. Victor had planned to make mandatory accreditation part of the privatization package if there had been a two- to three-year transition period, as originally envisioned in Dr. Victor's 1995 recommendation regarding privatization. However, when routine testing for municipalities was privatized in 1996, the MOE did not pursue mandatory accreditation.

Dr. Schnyder recalled that Dr. Victor told him that in order to introduce mandatory accreditation, the case would have to be made to the MOE's deputy minister and to its minister. That process, along with the Regulatory Review Process,[22] would take at least one or two years. When the time frame for privatization was reduced to two months, there was no time to implement mandatory accreditation.

In addition, Dr. Victor told Dr. Schnyder that the government was attempting to consolidate or reduce the number of regulations and that the Red Tape Commission was not in favour of increased regulations. Dr. Schnyder believed that Dr. Victor felt that the newly elected government's "distaste for regulation" played a role in the decision not to make accreditation mandatory. In the same vein, George Crawford, of the MOE's Laboratory Services Branch, advised the office of the Environmental Commissioner of Ontario on October 23, 1996, that a new regulation requiring accreditation was not a direction the MOE wanted to go, in view of the general regulatory climate.

10.5 Concerns About the Lack of Notification Before and During Privatization

It seems clear that before the decision to privatize was made in 1996, the government was aware of concerns about the notification procedures being followed by private laboratories when adverse results were found. As a practical matter, the discontinuation of provincial government laboratory testing made the use of private laboratories essential unless a municipality was large enough to operate its own laboratory. Given that there were already problems with notification before privatization, the wholesale privatization of testing in 1996 enormously increased the risk that Medical Officers of Health would not be notified of adverse results. This risk should have been managed before government testing was stopped. However, after the decision to privatize was made, the need to address the risk increased dramatically.

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[22] This process, implemented by the government elected in June 1995, set standards for the enactment of new regulations. The process is described in greater detail in Chapter 13 of this report.

10.5.1 The Survey of Medical Officers of Health in 1995

Before privatization, the government was aware that local Medical Officers of Health were not always being notified of adverse results from tests conducted by private laboratories. As a result of this concern, Dr. Chuck Le Ber of the Ministry of Health's Public Health Branch[23] sent a letter dated November 2, 1995, to all Medical Officers of Health. The letter stated that some Ministry of Health laboratories had learned that adverse test results from municipal water systems might not be being conveyed to the local Medical Officer of Health by the local MOE office, as specified by section 4.1.3 of the ODWO.

Of the 42 health units that received this letter, 21 responded to Dr. Le Ber. Only six indicated that they were being advised directly by the MOE as specified by the ODWO.[24] Dr. Le Ber reported these numbers to the Ministry of Health's Technical Advisory Committee on Environmental Microbiology. In December 1995, he presented the survey results at the annual meeting of the Association of Supervisors of Public Health Inspectors of Ontario. No similar survey was conducted after the 1996 laboratory privatization.

10.5.2 Communications with Municipalities in 1996

Communications from the MOE to municipalities at the time of privatization reflected the ministry's recognition of how important it is that testing laboratories promptly and directly notify public health authorities about adverse test results. However, some of these communications were not sent to all water systems operators or to the private laboratories that would be conducting the tests. Moreover, the government did not follow up to ensure that notification was taking place.

The letters sent to municipalities by the MOE on May 15, 1996, and by the Ministry of Health on July 17, 1996, advising them of the discontinuation of public laboratory testing said that the MOE's Laboratory Services Branch would, on request, provide municipalities with a "Guidance Document" titled "Selecting an Environmental Analytical Laboratory." This document strongly

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[23] Dr. Le Ber is the senior veterinary consultant with the Ministry of Health, and head of the Food Safety/Safe Water Unit of the Public Health Branch.

[24] Seven indicated that they received results from the regional public health laboratory or from municipalities conducting their own testing. One reported that it received no results from anyone, and one specifically reported that it received no results from the MOE.

recommended that all environmental testing be done by laboratories that were properly accredited or certified by a national agency such as the SCC or CAEAL.

Subsequently, the MOE sent a separate addendum to the guidance document relating to the notification procedures for adverse results. This addendum was sent only to those municipalities who had originally requested the guidance document. There is no evidence that the Walkerton PUC ever requested or received a copy of the guidance document or that it received a copy of the addendum regarding notification. In the addendum, the MOE strongly recommended that any contract for the analytical testing of municipal water samples include the following requirement regarding notifying the proper authoritites of adverse results:

> In the case where a sample result for a parameter designated as health-related in the Ontario Drinking Water Objectives is above a certificate of approval limit or an Ontario Drinking Water Objective, the contracted laboratory must immediately inform the local Medical Officer of Health, the MOE District Office and the contracting agency of the exceedance.

This addendum is significant. It shows that the government recognized the importance of requiring private laboratories to immediately report adverse test results directly to the local MOE office and the local Medical Officer of Health. It also shows that the government was aware that the ODWO-recommended notification protocol was not binding and that further steps needed to be taken to ensure that adverse results were properly reported.

The Ministry of Health letter of July 17, 1996, strongly recommended that municipalities contract with laboratories that had demonstrated their competency through certification and/or accreditation. The letter enclosed a list of accredited/certified laboratories. It went on to say that Ministry of Health laboratory staff would:

> work with SCC/CAEAL to ensure that private sector and municipal laboratories have the required testing capabilities. The Ministry will continue its efforts to improve analytical testing capabilities in Ontario by making staff available to audit analytical performance and transfer new analytical methods and improvements to laboratories serving municipalities.

In fact, Ministry of Health staff did not establish any program to ensure that private and municipal laboratories had the required testing capabilities. Besides supplying auditors to CAEAL, they did nothing to audit the performance of those laboratories, and no program was established for transferring new analytical methods and other improvements to private laboratories.

10.5.3 Communications with Municipalities in 1997

In January 1997, the MOE's Laboratory Services Branch sent another guidance document to all municipalities, including Walkerton, regarding the collection of samples and the use of presence-absence tests for the bacteriological analysis of drinking water. The document states that the laboratory should, *with the permission of the treatment plant or distribution system owner*, report results indicating the persistence of coliforms or the presence of *E. coli* to both the MOE's district abatement officer and the local Medical Officer of Health, the ODWO notwithstanding.

However, the MOE did not send this guidance document to private laboratories. Similarly, private laboratories were not invited to workshops hosted by the MOE dealing with the implementation of the privatization initiative. Some may have attended because water operators informed them of the workshop.

The statement in the 1997 MOE guidance document was another recognition by the government that there was no requirement for private laboratories to report adverse results: otherwise, the document would not have had to specify that private laboratories should obtain "permission" from municipal clients to report to the MOE and the local Medical Officer of Health. And like the addendum to the earlier guidance document, this document also reflected the MOE's recognition of the importance of having testing laboratories directly notify the proper authorities about adverse test results.

10.5.4 Inadequate Communication with Private Laboratories

The only communication by either the MOE or the Ministry of Health to private laboratories about the decision to privatize testing was a letter dated May 24, 1996. The letter informed private laboratories of the government's withdrawal from routine testing and strongly recommended accreditation – noting that accredited laboratories are "preferred and…highly recommended

to Ministry customers." It did not refer to the notification procedures for adverse results or to the ODWO reporting protocol.

The letter was sent by the MOE's Laboratory Services Branch to laboratories that were then members of one or more of three voluntary laboratory associations: IAETL, CAEAL, and the Central Ontario Municipal Environmental Laboratories Group (COMELG). If a laboratory was not a member of at least one of these three voluntary associations, it did not receive the letter. The MOE did not even maintain an up-to-date list of association members and did not mail similar letters to new testing laboratories after privatization was implemented.

10.5.5 The Failure to Follow Up

At the time of privatization in 1996, and in spite of knowing that there was a problem with the notification procedures being followed by private laboratories when adverse results were found, the government made no effort to ensure that testing was being done properly or that notification to the local MOE office and the local Medical Officer of Health was taking place.

The MOE's Laboratory Services Branch did not ask the MOE's Operations Division to find out the names of laboratories retained by municipal water operators. There was no follow-up or ongoing communication with private laboratories. Neither the Laboratory Services Branch nor the Operations Division established a program for systematically monitoring the performance of the private laboratories, with respect either to quality or to whether proper notification procedures were being followed.

After privatization, the MOE's Laboratory Services Branch had little communication with private laboratories or with municipalities. Although MOE Operations Division personnel had regular contact with municipal water operators, they did not inspect private laboratories. The MOE provided no instructions to its staff to inquire into whether laboratories had been told to report adverse results to the MOE or to the local Medical Officer of Health.

The failure of a private laboratory to notify the proper authorities about adverse results might be discovered during an MOE inspection of a municipal water system. However, from 1994 to 2000 inspections were scheduled only every four years unless issues of non-compliance had arisen. Moreover, a

municipality might switch from a reporting laboratory to a non-reporting laboratory, and the MOE would have no way of knowing until the next inspection was conducted.

Following privatization, the MOE's Operations Division did not have any program for advising laboratories of their notification obligations or for monitoring the effects of privatization on either the notification procedures followed for adverse results or the quality of testing. Local MOE staff were never asked to provide information to their region, or to the lead MOE region on water, regarding the notification practices of private laboratories. The lead region responsible for water in the immediate post-privatization period, the Eastern Region, did not initiate any special program to monitor the impact of privatization on notification or quality issues.

Since the MOE was responsible for the ODWO, the Ministry of Health's Laboratory Services Branch did not implement any programs to monitor the effect of privatization.

10.6 Concerns About the Lack of Notification After Privatization

In the period following privatization, the government was informed on a significant number of occasions about concerns regarding the notification procedures being followed by private laboratories when adverse results were found. On each occasion, the government failed to adequately respond to the problems raised. I review five examples below.

10.6.1 The 1996 Letter to Medical Officers of Health

In November 1996, David N. Brown, a public health inspector in the Windsor-Essex County Health Unit, wrote to Dr. Le Ber, of the Ministry of Health's Public Health Branch. Mr. Brown informed Dr. Le Ber that in July 1996, three adverse tests results from a private laboratory had not been reported to the local MOE office, as specified by the ODWO. As a result, the MOE could not report the adverse results to the local Medical Officer of Health. Mr. Brown's suggested solution was for health units to "register" with private laboratories in their area so that the health units could be notified directly by the laboratories.

Dr. Le Ber proposed the "registration" solution within the Ministry of Health. The idea was vetoed by others in the ministry's Laboratory Services Branch on the grounds that it would be better not to circumvent the notification procedure identified in the ODWO. Still, Dr. Le Ber had lingering concerns.

On December 4, 1996, Dr. Le Ber wrote to all Medical Officers of Health to remind them of the ODWO notification procedure. He suggested that health units work with local MOE offices to ensure that private laboratories, as well as municipal water operators, were aware of the notification procedure. Copies of this memorandum were sent both to the MOE's Laboratory Services Branch and to the ministry's Operations Division. Despite having received the memorandum, the MOE did not take any steps to inform private laboratories of their responsibilities.

10.6.2 The 1997 E-mail Message from the MOE's Belleville Office

The issue of whether a regulation requiring private laboratories to notify the proper authorities about adverse results should be put in place was directly raised in January 1997 and considered by the MOE's Legal Services Branch. An area supervisor with the MOE's Belleville office, John Tooley, was to attend a meeting with the local health unit in February 1997. One of the agenda items was the notification procedures being followed when adverse results were found. In preparing for the meeting, Mr. Tooley wrote an e-mail message, dated January 16, 1997, to Stella Couban, a lawyer with the MOE's Legal Services Branch. He indicated to Ms. Couban that there was no guarantee that a private laboratory would notify the local MOE office of adverse results, and said:

> In fact, I can almost guarantee that the laboratory does not notify the [MOE] District Manager in the vast majority of cases. The number of deteriorating, poor and unsafe results [that the MOE learns about] have dropped dramatically since our labs do not do the analyses.

Ms. Couban responded to Mr. Tooley by e-mail on January 28, 1997, after consulting with her superiors at the Legal Services Branch. She presented three

options, the third of which was for the government to enact a notification regulation.[25] Regarding this option, Ms. Couban wrote:

> I am not sure whether the concept of a regulation imposing a new requirement is even a starter with the current regime and its interest in lessening or reducing the amount of regulatory control.

In her testimony at the Inquiry, Ms. Couban said that there were three problems associated with the option of a notification regulation. First, it would involve suggesting a new regulation in the current government climate. Second, the regulation being suggested would have resource implications for front-line MOE staff at a time when their resources had been cut "fairly significantly." Finally, the suggested regulation would impose a new requirement on the private sector – a move that in her view would probably not have been "a starter" with the government at that time.

There was no MOE initiative to proceed with a notification regulation, despite the issue's having been raised on this occasion in 1997.

10.6.3 The 1997 Survey by the MOE's Owen Sound Office

On March 11, 1997, Philip Bye, of the MOE's Owen Sound office, asked environmental officer Larry Struthers to check into whether various private laboratories were reporting adverse results to local MOE offices. Mr. Struthers determined that two of the four private laboratories he checked were not reporting adverse results to the MOE. Although he informed Mr. Bye of this situation, nothing was done by the Owen Sound office and the information was not conveyed to the Southwestern Region – to which the Owen Sound office reported – or to the MOE's lead region on water.

10.6.4 The 1996–97 Reports of the Environmental Commissioner

In her October 1996 special report, Eva Ligeti, the Environmental Commissioner of Ontario, criticized the MOE for failing to assess the effects of shutting down its three regional drinking water laboratories and laying off scientists.

[25] Ms. Couban provided legal advice as to each option: such advice was not disclosed at the Inquiry. However, only the non-legal advice given by Ms. Couban was disclosed at the Inquiry, and that advice is discussed here.

In her 1996 annual report, which was released in April 1997, the Environmental Commissioner criticized the government regarding the decision to privatize routine water testing. Specifically, she criticized the government for not posting the decision on the Environmental Registry for public comment, and for not consulting with municipalities or the public. She commented that municipalities had had barely eight weeks to arrange for private laboratories to perform tests.

The Environmental Commissioner was also critical that the law did not require private laboratories to be certified or accredited. She concluded that the MOE had not made this a legal requirement because of costs and because such a requirement ran counter to the government's move to cut regulations.

When the 1996 annual report was released, several questions were raised in the legislative assembly concerning the decision to privatize laboratory testing. On April 22, 1997, some members asked Premier Michael Harris about the Environmental Commissioner's criticism, and the lack of a legal requirement that private laboratories be certified or accredited. In response, he said that his government took responsibility and was accountable for the decision to privatize laboratory testing.

10.6.5 The 1997 Letter from the Simcoe County District Health Unit

In July 1997, the non-reporting issue was brought to the attention of the MOE's Barrie office.[26] Ian Gray, the district manager of the office, was informed by the manager of the health unit in Simcoe County[27] that some of the private laboratories in the county were not reporting adverse results to the MOE. As a result, the health unit was not being notified. Mr. Gray testified that before receiving this information, he had been unaware of a possible problem regarding the notification procedures being followed by private laboratories.

In response, Mr. Gray wrote a letter dated July 16, 1997, to the seven private laboratories that were doing microbiological testing of drinking water in Simcoe

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[26] The MOE's Barrie office was responsible for the Regional Municipality of Muskoka, Simcoe County, Grey County, and Bruce County, which included Walkerton. It supervised the MOE's Owen Sound office.

[27] Ted Devine, the manager of the Simcoe County District Health Unit, first telephoned Mr. Gray and then wrote him a letter dated July 4, 1997.

County. He reminded them of section 4.1.3 of the ODWO and requested that they fax unsatisfactory test results directly to the Simcoe County Health Unit.

Mr. Gray did not receive any resistance to this idea from the seven laboratories: in fact, he received no responses at all. He did not contact the local health units for the other counties in his district, including the Bruce-Grey-Owen Sound Health Unit, to inquire whether they had concerns similar to the ones raised by the Simcoe County District Health Unit. Nor did he recall contacting Philip Bye of the MOE's Owen Sound office. Finally, he did not raise this concern about the reporting of adverse results by private laboratories with the MOE's Southwestern Region, with the lead region on drinking water, or with the Water Policy Branch.

Prior to receiving Mr. Gray's letter, Lakefield Research Ltd., a laboratory performing tests for municipalities in Simcoe County, had not been notifying the MOE of adverse water sample results because of concerns about client confidentiality. Lakefield was an accredited laboratory and took the view, as did others, that reporting adverse results to anyone other than the client would breach International Standards Organization (ISO) Guide 25. After receiving Mr. Gray's letter, Lakefield changed its practice and began notifying the MOE district office of adverse results.

10.7 The Health Minister's Request of the Environment Minister

I mentioned earlier the ongoing concerns that Dr. Chuck Le Ber of the Ministry of Health had had about the fact that Medical Officers of Health were not always being notified about adverse drinking water test results. His concerns lingered after privatization was implemented in 1996. He expressed those concerns in a memorandum, dated December 4, 1996, to all Medical Officers of Health, in which he reminded them of the notification procedure under the ODWO.

Dr. Richard Schabas, Chief Medical Officer of Health for Ontario, testified that Dr. Le Ber had raised concerns on several occasions about the lack of legally enforceable reporting requirements for drinking water test results. Dr. Schabas agreed with Dr. Le Ber that a problem existed. They decided to take the highly unusual step of asking the Minister of Health to write to the Minister of the Environment to request that notification requirements be included in MOE legislation.

Dr. Le Ber drafted a memorandum for Dr. Schabas's signature, dated July 22, 1997, expressing the concern that there was no legally binding requirement for the reporting of adverse results to Medical Officers of Health. The memorandum described this situation as "a serious oversight." It concluded that the Ministry of Health needed assurances that adverse results would be reported directly to the local health unit for follow-up.

As a result of this memorandum, Minister of Health Jim Wilson sent a letter, dated August 20, 1997, to Minister of the Environment Norman Sterling. The letter requested an amendment to the *Ontario Water Resources Act*, or assurances from the MOE, that adverse drinking water test results from municipal water systems would be immediately brought to the attention of the local Medical Officer of Health. The letter said that it was important that policies or legislative procedures be in place to ensure the effective and timely reporting of adverse test results.

I note that this was one of many occasions on which Dr. Le Ber acted on his concerns about the notification issue. I am satisfied that he did all he could to raise the issue with those senior to him in the public service. He should be commended for his efforts.

It was Dr. Schabas's opinion that, for Medical Officers of Health to do their jobs properly, there was a need for mandatory reporting requirements, rather than voluntary guidelines. This was the basis of the concerns expressed in the memorandum and letter mentioned above. It was Dr. Schabas's experience that where a legal requirement exists, the level of reporting is more reliable. In this regard, he relied on his experience with clinical laboratories. Dr. Schabas testified that although his memorandum and Minister Wilson's letter recommended that legislation require municipal water operators to report adverse results, he now thought in hindsight that private laboratories should also have the same duty.

Minister Sterling responded to the letter from the Minister of Health in a letter dated November 10, 1997. On the advice of his senior advisers, he indicated that the transfer of laboratory testing to the private sector would have no effect on the notification procedure under the ODWO. He said that the ODWO clearly delineated the responsibility of municipalities and testing laboratories to ensure the immediate reporting of microbiological and other exceedances of maximum acceptable concentrations in drinking water. He invited the Minister of Health to refer the matter to the Drinking Water Coordination Committee (DWCC), which was responsible for amending the

ODWO. He did not initiate any amendment to the *Ontario Water Resources Act* or take any steps to make the notification procedure set out in the ODWO legally binding.

Minister Sterling testified that he did not recall receiving the letter from Minister of Health Wilson. He said that the first time the letter was brought to his attention was at the end of a briefing session related to another matter. He testified that his staff were of the opinion that the ODWO satisfied the Ministry of Health's concern, but he could not recall which staff member gave this opinion. Minister Sterling said that the whole issue was not high on the list of the MOE's priorities and that he had not read the ODWO by that point in time. He testified that he did not follow up to determine what had happened with the DWCC concerning this matter. He expected to receive something back as a proposal from the DWCC but never saw anything.

In his testimony, Minister Sterling acknowleged that if the failure to make the notification protocol a binding law after privatization in order to ensure timely reporting of adverse results contributed to the events in Walkerton, then he as Minister of the Environment was accountable in a political sense.

There is no question that there were serious concerns about the notification issue in the Ministry of Health and that those concerns were shared by a number of its officials. The letter from the Minister of Health was a significant warning to the Minister of the Environment that a potential problem existed regarding the notification procedure specified by the ODWO as a result of the privatization of water testing. Indeed, the letter described the situation as a "serious oversight." This letter from the Health Minister was highly unusual and underlined the public health importance of the issue. Unfortunately, the MOE did not respond in an adequate way, and the notification protocol remained in the form of a guideline.

Thus, more than two years before the tragedy in Walkerton, the government had at a very high level recognized a problem with its own guidelines, but had done nothing. As discussed in section 10.10, although an appropriate notification regulation would not have prevented the contamination of drinking water in Walkerton, it would have reduced the scope of the outbreak.

10.8 Reasons for the Failure to Enact a Notification Regulation

I do not intend to comment on the merits of the government's decision to privatize laboratory testing. That was a policy decision that was open to the government to make as part of its budget reduction program. The following comments are limited to the manner in which that decision was implemented: specifically, the failure to enact a notification regulation.

I am satisfied that at the time laboratory testing of municipal water samples was privatized in 1996, the government should have enacted a regulation requiring laboratories to notify public authorities promptly and directly of adverse results. As mentioned earlier, such a requirement was in place for private clinical laboratories.[28]

In my view, direct notification by a testing laboratory to public authorities when adverse test results are found is an important element in protecting public health. It avoids the delay inherent in having an intermediate step – that is, having the laboratories relay adverse results through the water operators. Just as importantly, it avoids the possibility of missed communications. In something as important as ensuring the prompt communication of unsatisfactory drinking water test results to public officials, there is no reason not to require direct reporting. The government was aware of the advantages of direct notification both before and after the decision to privatize.

Because it was the private sector that would be asked to directly notify public authorities, it was essential that the requirement be embodied in a legally enforceable regulation, rather than a guideline. After the Walkerton tragedy, the government moved quickly to enact a notification regulation. It should have done so in 1996, or at least on the numerous occasions afterward when serious concerns about the lack of notification came to its attention.

I am satisfied that the failure to enact a notification regulation resulted, at least in part, from the regulatory culture of the government elected in June 1995. The regulatory culture of the MOE, and of the government generally, discouraged the enactment of a new regulation to make the notification protocol for

[28] In Chapter 5 of this report, I concluded that Stan Koebel should have disclosed the adverse results received on May 17 to the health unit. Had he done so, the scope of the outbreak would have been reduced. However, in my view, that does not affect the conclusion that the government should have enacted a regulation mandating notification or the conclusion that if it had done so, the scope of the outbreak would have been reduced, as I describe below.

adverse drinking water results legally binding on municipal water operators and on private laboratories.

At the relevant time, the MOE was conducting a review of existing regulations to ensure that they were all justified in view of the directions being taken by the government. Any new regulation would have had to overcome the cost-benefit analysis imposed by the Red Tape Commission,[29] which discouraged regulations that imposed reporting requirements because such requirements are "complicated and create unnecessary paperwork." To impose such a legal requirement upon private laboratories might have been considered a barrier to jobs and economic growth. Moreover, because a new regulation would have to be administered and enforced, it would also increase the cost of government – another effect that would have been unpopular in the prevailing political climate.

It was also clear that the Red Tape Commission was focusing on the nature and extent of regulations under the purview of the MOE. The MOE was subject to twice as many recommendations from the commission as any other ministry.[30] In a consultation paper, the MOE stated that environmental protection agencies in many countries were reducing their emphasis on traditional "command and control" regulatory approaches. In its view, there was a trend toward using environmental management approaches that were broader than simply mandatory requirements. This paper was published in July 1996, the same month in which the routine laboratory testing was privatized. In reviewing the MOE's regulatory reform package in September 1997, the Red Tape Commission recommended that certain regulations be replaced with voluntary guidelines. In making this recommendation, the commission relied on its position that "as a matter of principle, when we ask businesses to be good corporate citizens and in effect to police themselves, those matters should be agreed upon through voluntary agreements, MOUs [Memorandums of Understanding] and other instruments outside of Regulations."

In view of this regulatory climate, it is not surprising that the MOE did not move to turn a voluntary guideline into a binding legal requirement. This is unfortunate given the information that the MOE had – both at that time and

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[29] I discuss the Red Tape Commission and the related process of regulatory review in Chapter 13 of this report.

[30] The MOE was subject to 36 recommendations; the ministry with the next highest number of recommendations was subject to 18. The recommendations pertained to a range of regulatory issues including, but not limited to, removing regulations.

afterward – that private laboratories were not notifying the local MOE offices and Medical Officers of Health about adverse test results for municipal drinking water.

I discussed above the evidence of Stella Couban, counsel with the MOE's Legal Services Branch. Ms. Couban struck me as a conscientious public servant who gave evidence in a forthright manner. She had reviewed the terms of reference of the Red Tape Commission shortly after its report was published in January 29, 1996. She followed the evolution of the government's positions on both red tape and environmental protection through documents such as throne speeches, the 1996 consultation paper titled "Responsive Environmental Protection," and the "Less Paper/More Jobs" test.[31]

Although former Minister of the Environment Norman Sterling testified that he did not believe that civil servants should have been deterred from recommending regulations for public health purposes, I am satisfied that Ms. Couban's doubts about the prospects for enacting a notification regulation were reasonable as well as fairly based on the government's enunciated policies.

I am satisfied that her view that the concept of a notification regulation was not likely "a starter" with the government, given its interest in minimizing regulation, was a reasonable assessment of the situation. I am sure that those within the MOE who might have initiated the steps necessary to develop such a regulation would have been disinclined to do so in view of the prevailing culture.

My conclusion that there was a reluctance to enact a new regulation in conjunction with the privatization of laboratory testing is also consistent with the way in which the government addressed the issue of the accreditation and certification of private laboratories. The government was disinclined to enact a regulation to require mandatory accreditation of private laboratories that were entering the area of routine drinking water testing as a result of the government's decision to discontinue conducting such tests.

There were generally two reasons for this disinclination to require mandatory accreditation. First, if such a regulation had been introduced, there would have been significant delays in the implementation of privatization. A case would

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[31] These and other documents, as they relate to the process of regulatory review, are discussed in greater detail in Chapter 13 of this report.

have had to be made to both the deputy minister and the minister, and regulatory review would also have had to occur, taking at least one or two years. Given the short time lines associated with the decision to privatize in 1996, there was not enough time to go through the review process for a regulation.

The second reason for the disinclination to require mandatory accreditation was the government's distaste for regulation. As mentioned, senior officials in the MOE were of the view that mandatory accreditation had not been implemented because of the prevailing culture against new regulations.

10.9 The Drinking Water Coordination Committee

The Drinking Water Coordination Committee (DWCC) was established around 1993.[32] Its mandate was to guide and coordinate the MOE's drinking water program. The DWCC's terms of reference[33] described the MOE's drinking water program as a comprehensive approach for ensuring that the drinking water produced by Ontario municipal water treatment plants is safe.[34]

The DWCC met infrequently. It held three meetings in 1995, two in 1996, one in 1997, and two each in 1998, 1999, and 2000 (March 1 and May 1, 2000). Subcommittees of the DWCC dealt with specific issues and met more frequently.

Beginning in 1997, the DWCC and its various subcommittees began to consider revisions to the ODWO. There is no evidence that the effect of privatization on notification was referred to the DWCC for consideration before the 1996 decision, or that the DWCC was requested to monitor the impact of privatization. The 1997 impetus to revising the ODWO came from a presentation made in November 1997 by James Mahoney, then the representative of the MOE's Operations Division on the DWCC.

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[32] In addition to the Public Health Branch of the Ministry of Health, the following areas of the MOE were usually represented on the DWCC: Program Development Branch, Standards Development Branch, Science and Technology Branch, Environmental Monitoring and Reporting Branch, Laboratory Services Branch, Approvals Branch, and Operations Division regions.

[33] Although the DWCC's draft terms of reference were never finalized, they were generally accepted as accurate by DWCC panel members.

[34] The basic components of water production to which the DWCC would turn its attention included source protection, water treatment, program assessment, upgrading, public perception, and partnerships with industry and other groups such as the Ontario Water Works Association and the Association of Municipalities of Ontario.

Mr. Mahoney addressed two main issues: the ODWO minimum recommended sampling program and related compliance problems, and the notification protocol. He noted that it no longer made sense for the MOE to notify local Medical Officers of Health about adverse results, given the privatization of laboratory testing of drinking water.

Mr. Mahoney's presentation noted that when the ODWO had last been revised in 1994, public sector laboratories had been performing most of the drinking water tests for municipalities. Since public sector laboratories were therefore typically the first to know whether a maximum acceptable concentration had been exceeded, it had made sense for the MOE to notify the local Medical Officer of Health and the operating authority about such adverse results. After the 1996 privatization of drinking water testing, however, the notification procedure contained in the ODWO no longer made sense. The presentation concluded with a statement that the accountability for drinking water quality, sampling, record keeping, and reporting should rest "where it belongs: with the waterworks' owner."

Following the November 1997 presentation, an ad hoc subcommittee of the DWCC was struck to deal with ODWO issues, including the minimum sampling program in relation to smaller municipal systems and the requirements for notifying the proper authorities about adverse test results. In June 1998, the subcommittee's proposed draft revisions to the ODWO included a provision that the testing laboratory notify only the owner of the waterworks, who would then notify the local Medical Officer of Health. No proposal was made to include the MOE in the reporting loop.

Goff Jenkins, a member of the DWCC, testified that he had expressed a concern about the failure of private laboratories to report adverse results on the basis of his previous discussions with the Ministry of Health's Public Health Branch. However, the other three members of the DWCC panel who testified at the Inquiry did not recall any discussion at either the DWCC or the subcommittee about the failure of private laboratories to report adverse tests to the MOE as specified by the ODWO, and the minutes do not reflect such a concern. The members of the DWCC who testified agreed that neither the ad hoc subcommittee nor the DWCC had considered the issue that private laboratories might be less compliant with a notification protocol that was in the form of a guideline rather than a regulation.

Mr. Jenkins testified that he felt that it would have been more appropriate to have a laboratory directly notify either the health unit or the Medical Officer of Health, but that he was told that adverse results were likely proprietary information, so it would probably be inappropriate to have the laboratory report directly to the Medical Officer of Health.[35]

10.9.1 The Delay of the 1998 ODWO Revisions

In the summer of 1998, the DWCC was set to proceed with revisions to the ODWO, including revisions to the notification protocol and to the sampling requirements. The revisions were delayed at the request of the MOE's Operations Division, which was poised to issue orders enforcing the minimum sampling program and wanted a reasonable period of time for the orders to take effect before changes to the sampling requirements were implemented. The only explanation given for not proceeding separately with the changes to the notification protocol was that all of the ODWO revisions were being presented as a package and therefore were of equal importance at the time.[36]

10.9.2 The ODWO Revisions Back on the Agenda

It appears that the ODWO revisions were back on the policy agenda of the DWCC at a subcommittee meeting scheduled for February 1999. This subcommittee work was superseded by a subsequent Water Policy Branch proposal for completely revising the ODWO, rather than just the two issues on which the subcommittee had been focusing. In January 2000, the new working group proposed the following:

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[35] Mr. Jenkins testified that he believes he was aware that some private laboratories were citing the confidentiality of data as a reason to report adverse results only to their clients (the municipalities) and not to the MOE, but he believes he had become aware of this information through his role on the Technical Liaison Committee on Water Microbiology (a joint committee of the MOE and the Ministry of Health), rather than from discussions at the DWCC. He agreed that the concern that private laboratories might not comply with the ODWO reporting protocol was not brought to the attention of the DWCC.

[36] James Janse, the director of MOE's Southwestern Region, who made the request that the revisions be delayed, testified that after the decision was made to delay the ODWO revision process, no other MOE unit, branch, or division contacted him to question the decision or to request reasons or clarification.

> Due to provincial government downsizing and restructuring from mid 1996 onwards, Ministry labs no longer undertake drinking water analyses for municipalities. The result of this change is that the [MOE] District Manager would not be the first to know of any adverse results as now there is not a reporting link through the Ministry's laboratories. As such, the responsibility for notifying the Medical Officer of Health reverts to the owner of the Works.

While agreeing that the privatization of laboratories had prompted the proposed change to the notification protocol, Donald Carr, a long-time MOE employee, testified that it had also stemmed from the municipalities' 1998 assumption of the ownership of waterworks. The group felt that the MOE should no longer be the "middleman" and that "since the owner was now fully responsible for the water quality," the owner should report adverse results directly to the local Medical Officer of Health. No changes to the notification protocol were implemented until August 2000.

10.10 The Effect on Walkerton in May 2000

10.10.1 The Role of A&L Canada Laboratories

From October 1996 until April 2000, the Walkerton PUC retained G.A.P. EnviroMicrobial Services Inc. to carry out routine microbiological testing of drinking water samples from the Walkerton water system. G.A.P. was a private laboratory that chose to follow the ODWO reporting protocol. Garry Palmateer, the president of G.A.P., had served as the regional microbiologist for the MOE's Southwestern Region laboratory from 1974 to 1996. Mr. Palmateer established G.A.P. after the MOE's regional laboratory closed in 1996. G.A.P. was accredited by CAEAL and the SCC for the testing of *E. coli* and total coliforms in water by way of both the presence-absence test and the more elaborate membrane filtration test. It withdrew from routine microbiological testing in April 2000 because of competitive pressures to cut costs.

When G.A.P. withdrew from routine testing, the Walkerton PUC retained A&L Canada Laboratories to perform microbiological tests on the town's drinking water. A&L had performed metal and chemical tests on water for the Walkerton PUC since 1996. A&L was a general-service, primarily agricultural, laboratory. It had not done any microbiological testing of drinking water until January 2000, when it began to perform presence-absence tests and

membrane filtration tests for total coliforms and *E. coli*. Although A&L employed a number of scientists (primarily agronomists), it did not have a microbiologist on staff. Walkerton's was the first and only public utilities commission for which A&L performed microbiological tests on drinking water.

As of May 2000, A&L was accredited by the SCC and certified by CAEAL for tests relating to metals in soil and in water. It was also accredited for and participated in proficiency tests for various agricultural parameters. However, it was not certified or accredited for either presence-absence or membrane filtration tests for *E. coli* and total coliforms in water.

A&L tested water samples taken from the Walkerton system on four occasions: May 1, May 8, May 15, and May 23. Robert Deakin, A&L's laboratory manager, testified that he relied on the 1996 Canadian Drinking Water Guidelines for his understanding of "acceptable" levels of *E. coli* and total coliforms (0 cfu/100 mL for each). He stated that he understood that the ODWO criteria for these organisms were the same: 0 cfu/100 mL for each. However, he was not familiar with ODWO criteria for microbiology and did not review the notification protocol under the ODWO before the events of May 2000.

It would have been preferable for A&L to have been familiar with the ODWO when it undertook the microbiological testing of Walkerton's drinking water. However, both the fact that this was an unregulated sector and the fact that the ODWO was only a guideline, not a regulation, help explain why A&L was unaware of the reporting protocol. Clearly the situation would have been different if the reporting protocol had been a legal obligation.

A&L had a procedures manual that states, "It is the intent of A&L Laboratories to ensure the confidential delivery of final results to the customer." Importantly, at the time, ISO Guide 25, a document used by the SCC and CAEAL as part of the accreditation process, provided that "[t]he laboratory shall … have policies and procedures to ensure the protection of its clients' confidential information and proprietary rights, including procedures for protecting the electronic storage and transmission of results." A&L's procedures and policies had been audited by the SCC/CAEAL and had been found to conform with ISO Guide 25. Evidence was given at the Inquiry indicating that other private laboratories had similar client confidentiality concerns and would report adverse results only to the client and not to another body, such as the MOE, in the absence of legally enforceable requirements.

An argument could be made that section 8 of CAEAL's Code of Ethics permits laboratories to disclose a client's confidential information under certain circumstances. Section 8 provides that "a member shall protect the interest of his/her… client so far as it is consistent with the public welfare." In my view, this public welfare exception is ambiguous as to its effect in the face of clear provisions elsewhere in CAEAL's Code of Ethics and in ISO Guide 25 prohibiting the disclosure of a client's confidential information. Russ Calow of Lakefield Research Ltd., another private testing laboratory, testified that his laboratory had, after much discussion, decided to protect the client's confidentiality given the wording of ISO Guide 25, and because there was no clear legal document directing otherwise.

The critical samples for Walkerton were those taken by the PUC on May 15, 2000, and received by A&L on May 16. As previously discussed, the samples labelled "Well 7 treated" were positive for both total coliforms and *E. coli*, and membrane filtration tests showed both total coliforms and *E. coli* greater than 200 cfu/100 mL. Samples from two locations in the Walkerton distribution system also tested positive for both total coliforms and *E. coli* by the presence-absence test, as did three hydrant samples from a new construction site. A&L performed these tests properly and obtained accurate results.

Upon receiving the adverse results on the morning of Wednesday, May 17, A&L's Robert Deakin telephoned Stan Koebel to alert him of the results. The results from the well and the distribution system were faxed to Mr. Koebel in the early afternoon of May 17.

However, A&L did not notify the local MOE office – the Owen Sound office – of the adverse results. Mr. Deakin testified that he did not know that the ODWO specified that testing laboratories should notify the MOE of adverse results. He also testified that even if he had known, the results would have been reported only to A&L's client, the Walkerton PUC, given the laboratory's policy on customer confidentiality.

There was no legally enforceable requirement for A&L to report adverse results to the MOE. Other laboratories cited confidentiality concerns as their reason for reporting adverse results to anyone other than the contracting client. I accept Mr. Deakin's evidence that even if he had known the ODWO notification protocol, he would have done as other laboratories did: that is, in the absence of a legal requirement to do otherwise, he would have reported only to his client. However, I am also satisfied that if there had been a regulation

requiring notification to the local MOE office and the local Medical Officer of Health, Mr. Deakin would have complied with the legal requirement.

10.10.2 The Reduction of the Scope of the Outbreak

If A&L had notified either the MOE's Owen Sound office or the Bruce-Grey-Owen Sound Health Unit of the results from the May 15 samples on Wednesday, May 17, I am satisfied that the health unit would have issued a boil water advisory earlier than Sunday, May 21 – by Friday, May 19, at the latest. By then the health unit was aware of complaints of illness in Walkerton. The combination of the adverse results and the complaints would have led to the issuance of a boil water advisory.

If a boil water advisory had been issued on May 19, approximately 300 to 400 illnesses would probably have been prevented, but it is very unlikely that any of the deaths would have been avoided.

It is possible that if the health unit had been notified of the adverse results on the afternoon of Wednesday, May 17, it would have issued a boil water advisory before May 19. The results showed gross contamination and no doubt would have triggered an immediate response: possibly a boil water advisory, but more likely a direction to resample, flush, and maintain adequate chlorine residuals. The results of any resampling would not have been available until the following day, May 18, at the earliest. By Thursday, May 18, complaints of illness had surfaced. If the health unit had been informed of those complaints and of the May 17 results, it might well have issued a boil water advisory at that point.

If a boil water advisory had been issued on May 18, between 400 and 500 illnesses would probably have been avoided. It is possible that one death might have been prevented.[37]

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[37] One of the persons who died had first experienced symptoms on May 21. Assuming a three- to four-day period of incubation, it is possible that if that person had heard of a boil water advisory on May 18 and had avoided drinking municipal water without boiling it first, he or she would have avoided infection. All the others who died had experienced symptoms before May 21, making it most unlikely that a boil water advisory on May 18 would have prevented them from becoming infected.