

CHAPTER **4**

Rescue Efforts (12:30 a.m. on June 24 to 9:30 a.m. on June 25)

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June 24

During the evidence heard in this phase of the Inquiry, the witnesses relived their experience through what I referred to during the hearings as the “fog of war.” The recollection of a number of the rescuers about when events occurred or things were done differed from one witness to the next. The difficulty was compounded by the fact that many rescuers failed to take any notes or only took limited notes during the deployment. Scribes were not designated to undertake that function. Time, of course, was of the essence throughout. Tension, emotion, and fatigue took their toll. Consequently, I did not find it unusual that the rescuers had difficulty recalling certain events when they appeared before me; better notes would certainly have assisted in bridging gaps and reviving lost recollections. I have done my best to piece together the events in the minutes, hours, and days following the collapse in order to present as accurate a narrative as possible of the response and of the efforts to rescue those trapped beneath the rubble pile.

Roger Jeffreys, structural engineer with the Ministry of Labour, arrives and surveys the damage

Roger Jeffreys, the provincial engineer with the Ministry of Labour, did not arrive in Elliot Lake until 12:30 a.m. on the morning of June 24; Donald Jones and Michel Lacroix, both inspectors with the ministry, had arrived earlier.¹ Mr. Jeffreys met with Mr. Jones and Mr. Lacroix and was then taken to the Mall at about 12:45 a.m. and introduced to Chief Paul Officer of the Elliot Lake Fire Department and Sgt. Jamie Gillespie with the Ontario Provincial Police UCRT (Urban Search and Rescue and Chemical, Biological, Radiological, Nuclear and Explosive Response Team). Mr. Jeffreys testified that he explained to them that he was a structural engineer and that he was there to provide whatever assistance he could. After the introductions, he and Sgt. Gillespie walked around the Mall to determine the structural stability of the remaining structure.² Mr. Jeffreys recalled that he was provided with copies of the steel shop drawings³ but did not recall being given a copy of the Mall’s structural drawings at the time of his arrival, although he was provided with them and other drawings later.⁴

The inspection of the Mall started on the roof, which was accessed through Zellers. Mr. Jeffreys testified that he walked back and forth along the rooftop, first in an east–west direction and then in a south–north direction, looking for structural issues and evidence of recent cracks.⁵ He also entered the penthouse area, which enclosed the stairs and escalator leading down into the Mall; there he noted a crack in the floor at the top of the stairs.⁶ The expansion of this crack would later become a determining factor in the decision to stop the rescue efforts and clear the rescuers out of the Mall.

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Following his review of the rooftop area, he re-entered the Mall through Zellers and proceeded to inspect the upper level. He and Sgt. Gillespie arrived on the west side of the collapse area where Mr. Jeffreys noted a lot of material hanging down from the ceiling, such as tiles, ductwork, and piping. He did not venture further because of these overhead hazards. He also noted cracking of the hollow core slabs to the west of the collapse area, which he identified as a potential area of subsequent collapse.⁷ The inspection proceeded through the east–west corridor running along the northern edge of the building, east to the back door of Dollarama into the food court. Overhead hanging hazards were also noted in this area.⁸

While in the food court, Mr. Jeffreys noted a column located to the west of the collapse area. The drawings he reviewed had shown an expansion joint in that area. Mr. Jeffreys wanted to confirm that the as-built conditions matched the information shown in the drawings. The tiles and drywall covering the column were removed by

OPP Cst. Steve Hulsman to allow Mr. Jeffreys to confirm whether the columns were “twinned” – meaning two columns side-by-side.⁹ The inspection revealed that there was indeed a twinned column in that area; this fact provided a level of comfort to Mr. Jeffreys. He was able to determine that the hollow core slabs were supported on the westerly end by a separate beam. This bolstered his confidence in the stability of that particular area of the Mall.¹⁰

Mr. Jeffreys also looked at the beam supporting the bottom of the escalator. He noted that this beam was also supporting the second floor of the Mall and was “noticeably bowed.”¹¹ Mr. Jeffreys identified the bow as an indication of significant structural distress in that area (see fig. 2.4.1).¹²

Mr. Jeffreys and Sgt. Gillespie discuss options to stabilize the beam under the escalator

Following the inspection, Sgt. Gillespie and Mr. Jeffreys discussed methods of stabilizing the beam under the escalator. They pondered a plan to shore up the beam and the pedestrian walkways around it with laced-post shores.¹³ It was recognized that this task would not be easy because of the location of the beam in relation to the escalator and the concrete slabs resting on top (see fig. 2.4.2). There were many hazards in the area, much debris, and an excessive load was stressing the beam. Sgt. Gillespie testified that he suggested putting larger wooden T-post-style shores or multi-post configurations to support the beam. Mr. Jeffreys was having difficulty assessing the weight of the load on the escalator and did not believe lumber would be sufficient. Consequently, Capt. John Thomas of the Elliot Lake Fire Department was asked to determine the availability of steel shores for support.¹⁴

A plan was devised at that point by Mr. Jeffreys and Sgt. Gillespie that included shoring the beam with steel. Cst. Patrick Waddick was assigned this task because of his experience as a welder before joining the OPP. Sgt. Gillespie testified that he instructed Cst. Waddick to find out from Mr. Jeffreys the type of steel required. Steel shores were ultimately obtained as well as steel jack posts (similar to those installed in the basements of residential homes). Sgt. Gillespie acknowledged that the installation of steel shores was not standard procedure; however, given Cst. Waddick’s background, he did not see an issue with proceeding in this manner. It was determined that the operation would have to be very controlled because it would be difficult to clear the debris, and it would also be risky given the massive amount of weight directly overhead.¹⁵



Figure 2.4.1 Bow in beam under the escalator

Source Exhibit 6226



Figure 2.4.2 Debris on escalator

Source Exhibit 7294

Although it had been decided that shoring the beam under the escalator would make it safer and would provide an entry and exit point onto the debris pile from the south, the work was ultimately never carried out.¹⁶ As discussed below, this plan was discarded with the arrival of the Heavy Urban Search and Rescue Task Force 3 (HUSAR/TF3). The members of the team disagreed with the decision to proceed in this manner because they felt it was not feasible.

The rescue efforts continue

The Elliot Lake Fire Department provides the logistics

In the early morning hours of June 24, the Elliot Lake Fire Department continued to set up logistics for the site while awaiting the arrival of HUSAR/TF3. Capt. Thomas testified that they were trying to determine the workforce available within the department and addressing issues like lighting, food, washrooms, and scene security.¹⁷

Capt. Thomas took over incident command from Chief Officer at 2:51 a.m. to allow him to return home to clean up.¹⁸ By this time, HUSAR/TF3 had still not arrived and those on the scene continued to prepare for its arrival. Capt. Thomas confirmed that he had been asked by UCRT to obtain steel and he was making those arrangements. At this point only UCRT was at the Mall, setting up, taking air samples, and assessing the situation.¹⁹

In the early hours of June 24, UCRT starts to develop an incident action plan

At 1:10 a.m., Cst. Ryan Cox was continuing his initial evaluation of the situation. At that point he was aware that HUSAR/TF3 was on its way with 34 of its members. Although he knew they would be present, he had not yet determined how HUSAR/TF3 would mesh into any plan he developed.²⁰ His expectation was that the two teams would divide their respective resources; part of the HUSAR/TF3 members would join the UCRT team for one shift and the balance of the HUSAR/TF3 team would form the other shift. These two groups had worked together previously without any issues. "That was the – the expectation, that we would just kind of divide and conquer, so to speak."²¹

The Mall's 22 surveillance cameras are seized by the OPP

During the OPP's inspection of the scene, it was discovered that the Mall had a surveillance system and that the cameras had been in operation at the time of the collapse. At 1:50 a.m., 22 cameras were seized from the Mall, secured by Det. Cst. Richard Eady and taken to the Elliot Lake OPP detachment. Cst. Dale Burns, the OPP identification officer, testified that the video footage was not extracted from the cameras until June 26.²²

The cameras and the recording system were seized in the hope that there would be video footage of what happened in the moments immediately before the collapse. Cst. Burns testified that he did not know whether anyone within the OPP advised HUSAR/TF3 about the contents of the video and he did not recall providing Staff Insp. William Neadles with videos. He acknowledged that the videos contained important information about the location of the victims at the time of the collapse. Cst. Burns was unable to provide any information regarding the decision on whether and when to provide the videos to Staff Insp. Neadles. That decision would have been made by someone of a higher rank.²³

Cst. Waddick testified that he had seen the video footage and that it confirmed that at least two people were trapped beneath the rubble pile. He could not recall when he had seen the video but recalled being in the area of the command post when it was shown. He believed everyone was aware that surveillance footage of the Mall

was available. He agreed that the footage should have been shared with HUSAR/TF3 command and the incident commander; it was his understanding that everyone had been aware of it.²⁴

Cst. Waddick believed that he viewed the video on Sunday morning. He testified that the video showed a young woman facing an older woman who was purchasing lottery tickets immediately prior to the collapse.²⁵ He acknowledged that he may have been mistaken about the date on which he saw the surveillance footage, because he had seen it only briefly and had not recorded it in his notes. He was prepared to accept the evidence of Cst. Burns and Staff Insp. Needles that the videos were not available until Monday, June 25, as opposed to Sunday morning as he had recalled.²⁶

Chief Officer was aware the cameras had been seized from the Mall. He testified that at the time, he was under the impression that he would be advised of the outcome of the review of the footage. He admitted that he did not ask at any point during the rescue efforts to see the videos.²⁷ He was advised that HUSAR/TF3 had seen the videos in the afternoon of June 25.²⁸

The seized video cameras should have been brought to the attention of Staff Insp. Needles and anyone else in a command position. Obtaining the footage should have been high on the list of tasks to be completed because the video was ultimately shown to contain vital information regarding the number of persons trapped and their approximate location within the rubble pile.

Once the footage had been retrieved, the OPP should have taken steps to organize a viewing and ensure that all those in command were provided with the information. The fact that not everyone had seen the footage is an example of the lack of communication and coordination that plagued this rescue and about which I will be commenting in more detail below.

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The false rumour that the Ministry of Labour had stopped the rescue persists

I have already discussed how rumours developed on June 23 that the Ministry of Labour had somehow shut down the rescue scene. Those rumours persisted in some circles. Staff Insp. Needles, in particular, repeatedly adopted and reiterated them in his communications.

Carol-Lynn Chambers, manager, Emergency Planning, Office of the Fire Marshal, continued to refer to the rumours in one of her internal email updates to that office. At 1:28 a.m., she sent an email advising:

OPP UCRT continuing to search through high angle to place cameras and, equipment.

TO HUSAR [Toronto Heavy Urban Search and Rescue] continues en route.

Potential intervention by MOL [Ministry of Labour] to halt rescue ops was reported by media but it was subsequently confirmed by OFM [Office of the Fire Marshal] from the IC (Fire Chief) that the MOL is continuing to cooperate at this time during the ongoing RESCUE phase.²⁹

James Cranford, the engineer with the HUSAR/TF3 team, also recalled hearing that the Ministry of Labour had indicated that no one should be in the Mall. He could not recall when he received this information but was confident that it was fairly soon after he arrived at the scene with HUSAR/TF3 at 4:30 a.m.³⁰ He testified that, after his arrival, he spoke with Mr. Jeffreys who stated that the building was unsafe and that he had asked people not to work in it until it could be further assessed. However, Mr. Cranford was not aware of any formal order being issued.³¹

Staff Insp. Neadles is the only one from HUSAR/TF3 who continues to believe that the Ministry of Labour has stopped the rescue

In the morning of June 24, the media continued to report that the Ministry of Labour needed to assess safety before it would allow the rescue to continue, giving the impression to the public that the ministry was interfering. At 8:19 a.m., Ms. Chambers sent an email to Staff Insp. Neadles to inquire whether the media reports were old or new. Staff Insp. Neadles confirmed by email (8:48 a.m.) that it was in fact old news because the ministry had approved HUSAR/TF3's operations plan, and he replied: "Yes it is. We have our OPS plan approved. They will be back!! Comella schmoozed them!!"³²

Capt. Tony Comella was asked about the statements made in Staff Insp. Neadles's email, and he testified that he did not know what they meant. He did not believe that he sold the ministry on anything and, to the contrary, had been struck by Mr. Jeffreys's positive attitude and his willingness to assist when he (Comella) first arrived on the scene.³³

In his first email update sent to Ms. Chambers and others within the Office of the Fire Marshal, Staff Insp. Neadles had specifically stated:

Ministry of Labour who originally cleared the site of all workers has approved our Operational plan that should take an estimated 24 hours to complete. They will return to discuss the next move.³⁴

When questioned about the information he had provided, Staff Insp. Neadles retreated somewhat from the statement in his email and indicated that he had initially been led to believe that the Ministry of Labour had removed rescuers from the site. He never identified who provided him with this information and said that he later learned that this information was not accurate.³⁵ He acknowledged that the reference to the approval of the operational plan by the ministry was misleading because it did not approve the plan. He stated that he received information throughout the deployment which ultimately turned out to be untrue and which led to many inaccurate updates.³⁶ He did not elaborate on these inaccuracies. He took no steps to confirm the authenticity of the information before disseminating it to others.

Capt. Comella testified that he did not understand why the Ministry of Labour was at the scene and stated:

At the time, I didn't really understand what the purpose was, but he did ask me ... what I felt about his ability as a Ministry of Labour representative on scene and I remember having the conversation with him that as long as it's a rescue, he has no jurisdiction as far as I was concerned. But we absolutely welcomed his help, if he was willing to do that.³⁷

Although he may not have understood the purpose or reason for the ministry's presence at the scene, Capt. Comella disagreed with the contents of the 8:48 a.m. email sent by Staff Insp. Neadles to Ms. Chambers (although he did not receive this email at the time it was sent and only learned of its existence after the deployment). He testified that he was unaware that the Ministry of Labour had cleared the site and that he would not describe Mr. Jeffreys's involvement as an approval of the operational plan. Rather, he described it as a consensus among all those involved in the assessment of the scene.³⁸ From his perspective, it was not necessary for HUSAR/TF3 to obtain approval from the Ministry of Labour for the operational plan. Capt. Comella believed that Mr. Jeffreys had removed his ministry hat, and was part of the team assessing the scene, and was genuinely looking to help out as a structural engineer and not as a Ministry of Labour representative.³⁹

Site Cmdr. Michael McCallion's evidence on the subject was essentially the same as that of Capt. Comella.⁴⁰

The Ministry of Labour denies stopping the rescue efforts

Mr. Jeffreys was emphatic in his evidence that the Ministry of Labour never cleared the site of any rescuers and he was unaware of the inspectors, Messrs. Jones and Lacroix, having done so. Mr. Jeffreys contradicted the contents of the 8:48 a.m. email sent by Staff Insp. Needles. He testified that he had not approved a plan nor had he represented or given the impression to Staff Insp. Needles that he was providing any such approval. He could not explain how Staff Insp. Needles garnered his belief. He disagreed that they were to get together to discuss the next move.⁴¹

Again, I note that false information continued to circulate on June 24 that the Ministry of Labour had halted the rescue and that MOL approval was somehow required to continue. Staff Insp. Needles, in particular, continued to promulgate this false message when, as HUSAR/TF3 incident commander, he ought to have verified the source of this important information and prevented the misinformation that led to confusion and wasted time. All he needed to do was ask Mr. Jeffreys or the ministry inspectors. Better communications between the ministry and the Office of the Fire Marshal would have squelched the rumour. A modicum of information about the purpose of the ministry's presence on scene would have sufficed.

HUSAR/TF3 arrives in Elliot Lake

At 4:18 a.m. on June 24, HUSAR/TF3 arrived in Elliot Lake, more than 12 hours after the collapse.⁴²

Capt. Comella was the first person to arrive at the Mall.⁴³ Prior to his arrival, he had received a few photographs from Sgt. Gillespie and had been involved in a few telephone calls with Sgt. Gillespie and Staff Insp. Needles.⁴⁴ At the time of his arrival, his information was that between six and 30 people were believed to be trapped in the collapse; this number had fluctuated while the team was making its way up to Elliot Lake. Capt. Comella also testified that he was aware that the fire department and a paramedic had already determined there was one death.⁴⁵

Capt. Thomas, the incident commander when HUSAR/TF3 arrived, spoke with Capt. Comella and Capt. Martin McRae. He explained that he was incident commander at that moment because Chief Officer was away from the scene. He was provided with information about the equipment HUSAR/TF3 had brought and the personnel that was available. Capt. Thomas updated them on the fact that one victim was confirmed as deceased and that contact previously established with a second potential victim had been lost.⁴⁶

HUSAR/TF3 does not assign anyone to head up the Planning Section

Staff Insp. Needles notified Ms. Chambers that HUSAR/TF3 had arrived in Elliot Lake. However, he failed to advise her that they did not have a designated planning person as part of the deployment. Division Chief Doug Silver, the person who would normally have occupied that function, was attending federal funding discussions in Ottawa and was not able to deploy to Elliot Lake. Ms. Chambers testified that she would have expected someone to be assigned to that position. She explained that the Office of the Fire Marshal provides support to HUSAR/TF3 in a response but it cannot provide the planning function. In any event, no assistance was requested.⁴⁷

Ms. Chambers agreed it was possible that, in the absence of Division Chief Silver, the next best option available to Staff Insp. Needles would have been to operate the Planning Section by committee, a less satisfactory expedient.⁴⁸

Capt. Comella took on the lion's share of the planning. This fact is addressed later in this chapter. No attempt appears to have been made to inquire of Sgt. Gillespie if UCRT had anyone who could act as chief of planning. Both teams arrived in Elliot Lake with less than their full complement. Lack of coordination between them left that essential position vacant, leading to problems during the response.

Chain of command

It quickly became clear to me that the normal chain of command integral to the Incident Management System (IMS) was not respected during the Elliot Lake deployment. Under IMS, Chief Officer, as overall incident commander, should have had the final say on all decisions. He did not. Staff Insp. Needles quickly took over and made decisions without consulting or seeking approval from Chief Officer. It appears to me that Chief Officer did not have a proper understanding of his role until much later in the response; to a certain extent he tacitly handed over the reins to Staff Insp. Needles.

Chief Officer's knowledge and understanding of the chain of command

Chief Officer testified that in the early morning hours of June 24, prior to HUSAR/TF3's arrival, he considered the operation as a unified command, with each agency having its own incident commander. The agencies present at that time were Emergency Medical Services and OPP.⁴⁹

Chief Officer testified that, after HUSAR/TF3 arrived, he treated Staff Insp. Needles as the overall rescue incident commander.⁵⁰ Initially he perceived HUSAR/TF3 as being an outside agency and Staff Insp. Needles as incident commander of that section. Chief Officer learned from Bob Thorpe, several days after the collapse, that Staff Insp. Needles was in fact working for him (Officer).⁵¹

Chief Officer also testified that he had a discussion with Cst. Cox about the role of UCRT because he did not understand how everything was going to work. Cst. Cox explained to him that, when both teams respond together, UCRT integrates with HUSAR/TF3 and is used and directed by HUSAR/TF3. Chief Officer testified that Cst. Cox indicated to him that UCRT did not like this arrangement but accepted it. Chief Officer testified that he did not necessarily understand the structure but he accepted it, and from his perspective his main interest was ensuring that he received the help he required. The organizational relationship as explained by Cst. Cox prevailed for the entire time the two teams were present on the scene.⁵² Sgt. Gillespie testified that, although HUSAR/TF3 was on the scene, it was his understanding and belief that incident command was to remain at the local level with Chief Officer.⁵³

Chief Officer testified that, when HUSAR/TF3 arrived in Elliot Lake, he went to the scene and handed it control and planning of the rescue. The Fire Department remained on site in order to provide accountability and logistics and to assist HUSAR/TF3 wherever and however it could.⁵⁴ It had been Chief Officer's expectation that on arrival HUSAR/TF3 would be in charge of the rescue.⁵⁵ Throughout the operation, Chief Officer consulted with that team on all the decision making related to the rescue. He did not consult with the UCRT team.⁵⁶ Chief Officer confirmed that he was the incident commander and that the IMS provides that the incident commander is to approve the incident action plan. Although he was the incident commander, Chief Officer confirmed that he gave Staff Insp. Needles "free rein of the rescue." From his perspective, HUSAR/TF3 personnel knew what they were doing. Chief Officer testified that no one sought his approval and he did not give his approval to the incident action plan. He explained that he was updated about ongoing actions but he was not provided with great detail in terms of the way responders were going to perform their operation.⁵⁷

Chief Officer testified that he maintained overall control and command, but that HUSAR/TF3 was in charge of the rescue sector and the Fire Department was supporting its needs by doing logistics, accountability, and any other role that Staff Insp. Needles could not staff.⁵⁸

Chief Officer testified that he did not become aware of what the true command structure should have been, and more specifically that Staff Insp. Neadles was to have reported to him, until June 25 when he learned that the rescuers would not be going back in the Mall.⁵⁹ Chief Officer qualified his answer and stated that, when Staff Insp. Neadles had indicated that he was turning the scene back over to him, he did not take that statement to mean that he had lost command of the site. He testified that he always believed he had command of the site and it was never an issue. He explained that he had the overall authority but Staff Insp. Neadles was the lead or sector officer for the rescue portion. Staff Insp. Neadles would have had full control over that portion. On June 24 and June 25, while the rescue efforts were continuing, there was never a challenge on who had the scene.⁶⁰

Capt. Thomas testified that, based on his training with the IMS, it was his belief and understanding that the Mall collapse continued to be the Elliot Lake Fire Department's responsibility and that HUSAR/TF3 and OPP UCRT were there to assist it. He also understood that Chief Officer was to maintain the decision-making power.⁶¹

The view of others as to who was in command and control

Mr. Jeffreys testified that, although no one specifically told him, he perceived Staff Insp. Neadles as being in charge of the rescue operation and Capt. Comella was the hands-on person directing what was going on on site.⁶² Mr. Jeffreys testified that he also understood James Cranford to be the in-house engineer for HUSAR/TF3 and that he was prepared to accept his advice and/or opinion. If he disagreed with Mr. Cranford on something, he was prepared to accept Mr. Cranford as being the authority.⁶³

Although he did not play a major role in the rescue and only spoke to the members of HUSAR/TF3 on occasion throughout the operation, Mr. Jones testified that his understanding of the command relationship at the site was that there were two different units operating, HUSAR/TF3 and UCRT. He did not know exactly who was in charge and it appeared to him as though the leadership role would change from time to time. As people left the site to attend to other matters, the scene would get handed over to someone else. Mr. Jones indicated that, from his perspective, the various parties appeared to communicate well with each other and seemed to respect each other's abilities and roles. Following the deployment, Mr. Jones and Mr. Lacroix prepared a document showing the time each agency had authority during the operation:⁶⁴

Elliot Lake Fire Department – June 23, 2012 until June 24, 2012 until 0430

Hussar – June 24 at 0430 until June 27, 2012 until 1247hrs

Coroner – June 27, 2012 at 1247hrs until June 29, 2012 at 1611hrs

MOL – June 29, 2012 at 1611 until July 3, 2012 until 1107hrs

Police – July 3, 2012 at 1107hrs until August 1, 2012 at 0800hrs

Ministry of Labour – August 1, 2012 0800 until 12 noon Friday August 3^d

Eastwood Mall Inc. – August 3, 2012 at 12 noon⁶⁵

This timeline was prepared on the basis of Mr. Jones's impression at the material time. He testified that he did not dispute that Chief Officer maintained authority throughout the rescue.⁶⁶

Mr. Lacroix testified that, as of the morning of June 25, it appeared to him that HUSAR/TF3 was in charge in charge of the site. Mr. Lacroix had no training on IMS but it appeared to him that Staff Insp. Neadles was the incident commander, which to him meant the person responsible for overseeing the whole site.⁶⁷

Office of the Fire Marshal's view on chain of command

Ms. Chambers raised a concern during the operation that HUSAR/TF3 was not working in concert with Chief Officer, the incident commander. This concern was set out in an email sent June 24 at 5:50 a.m. in which she gave direction to Messrs. Dave Howse and Robert Thorpe:

Please ensure the IC/FC are engaged with the team. I expect there will be a briefing cycle established. Sometimes HUSAR [TF3] prefers to work alone, but they need to loop back into the IC. They should have provided a radio to the command post, for example, if you could pls verify the link has been made in some regard.⁶⁸

Given that HUSAR/TF3 is not often deployed to a real incident, she wanted to ensure that the lines of communication were well established with the local incident commander. Ms. Chambers explained that she was aware of HUSAR/TF3's tendency not to communicate or work in collaboration with a local fire chief when responding to an emergency. She had observed a similar situation develop during a Trillium joint exercise between UCRT and HUSAR/TF3. She explained that the team is accustomed to working independently and is not really trained to work with the local fire chief. She identified that, while HUSAR/TF3 is very good at its own internal communications, it is equally important for it to be communicating in lay terms to the host municipality in which it is operating in this type of operation.⁶⁹

Ms. Chambers could not recall if she had received confirmation that Chief Officer had been given a radio from HUSAR/TF3. She understood that the two teams' radios were different, an observation during the Trillium training exercise. From her limited understanding, she believed that HUSAR/TF3 had successfully tested an interoperability system but had purchased 40 to 50 extra radios for distribution in the event that it did not work. She did not know whether HUSAR/TF3 had brought the extra radios for the Elliot Lake deployment.⁷⁰

Staff Insp. Neadles on the chain of command

Staff Insp. Neadles testified that his relationship with Chief Officer during the operation was "fantastic" and, although he knew that Chief Officer was the incident commander, Chief Officer knew that HUSAR/TF3 would work under Staff Insp. Neadles's command as the rescue specialists. He believed Chief Officer felt comfortable that the team would be self-sufficient in its operating skills. He said that he kept Chief Officer updated throughout and believed that the fire chief was prepared to go along with what he (Neadles) felt would be the best course of action.⁷¹ Notwithstanding this statement, the evidence shows that, in reality, Chief Officer was usually informed only after a decision was made and was not provided with an opportunity to give his own input or seek input from others.

Staff Insp. Neadles's understanding of the operational relationship between HUSAR/TF3 and UCRT was similar to that of Sgt. Gillespie. He indicated that he expected that the teams would proceed as they had during their provincial exercises. He expected that UCRT members would have a presence in the command tent and that it would fall under the direction of HUSAR/TF3, but it would not be giving up control of their own people. On a joint deployment, HUSAR/TF3 would retain command and would be able to give orders to a senior member of the UCRT. From his perspective, the UCRT members would be rolled into one of the rescue squads.⁷² Staff Insp. Neadles understood that Sgt. Gillespie held the rank of sergeant and that UCRT had not deployed with a staff sergeant. He noted, however, that, even if it had, he believed he would still be able to direct an OPP staff sergeant; in the event of a disagreement, there would be a discussion to attempt to work it out. If they were unable to reach an agreement, he was of the view that he had the authority to pull the UCRT squad from the rubble pile until the disagreement was sorted out.⁷³ He also believed that UCRT would have arrived in Elliot Lake with the understanding that it would be commanded by HUSAR/TF3.⁷⁴

OPP UCRT has no presence in the command tent

Ms. Chambers testified that she was not aware during the deployment that UCRT did not have a member in the command tent. She felt that, if Staff Sgt. Jim Bock had been able to deploy, he likely would have been there.⁷⁵

Sgt. Gillespie explained the reason for his absence from the command tent was a question of numbers. He did not have many members with him and no one on the UCRT team ranked at the command level. Because of the low numbers, he had to choose between staying with his team during a shift and being in the command tent. He could not do both. He decided that his duty was to stay with his team in order to ensure its safety. He trusted HUSAR/TF3 and he knew that, based on its low numbers, UCRT would essentially fall in as an extra resource under the direction of HUSAR/TF3. Sgt. Gillespie testified that he would have liked to provide Chief Officer with input but did not think that his not doing so critically affected the way things unfolded in Elliot Lake.⁷⁶

Sgt. Gillespie further testified that, from his perspective and understanding, the incident commander was Chief Officer but Staff Insp. Neadles was interposed as “Strategic Operations Commander.” Sgt. Gillespie testified that he was not consulted on this approach. Throughout the deployment, he was never asked by Staff Insp. Neadles for his input about what ought to be done.⁷⁷

There is a lack of clarity in the roles fulfilled by various persons

Sgt. Gillespie testified that, when he returned to the site at 4:30 p.m., UCRT took on the role of operations leader along with the Elliot Lake firefighters. He had initially believed that Capt. Comella was the operations leader for HUSAR/TF3. However, on his return to the site on the afternoon of June 24, he was advised that Cmdr. McCallion would be acting as the alternate for Staff Insp. Neadles, the overall incident commander for HUSAR/TF3. Sgt. Gillespie understood Staff Insp. Neadles was also the operations section chief and that he was reporting to Chief Officer. Cmdr. McCallion was to be the evening site commander, reporting to Staff Insp. Neadles. Sgt. Gillespie testified that he did not know what Capt. Comella’s official role was, but he saw him as a very experienced member of the team and indicated that the two of them worked closely together overseeing the operations within the actual hot zone, the area of the collapse. He testified that he would have expected Capt. Comella to be reporting to either Cmdr. McCallion or Staff Insp. Neadles.⁷⁸ He stated that he was in charge of the UCRT resources within the team structure.⁷⁹

Added to Chief Officer’s poor understanding of his role and authority, UCRT’s failure to place someone in the command tent deprived him of knowledge of the occasional divergence of opinion between the two teams. Different decisions might have been made with the benefit of both views.

Added to Chief Officer’s poor understanding of his role and authority, UCRT’s failure to place someone in the command tent deprived him of knowledge of the occasional divergence of opinion between the two teams. Different decisions might have been made with the benefit of both views.

Also at issue was the fact that some HUSAR/TF3 members were fulfilling roles in Elliot Lake that they normally did not perform. Cmdr. McCallion testified that his usual role in a deployment with HUSAR/TF3 would be as medical manager; before Elliot Lake he had not been part of the command team. He became aware of his additional role when Staff Insp. Neadles left the site for the first time to meet with the community control group.⁸⁰

HUSAR/TF3 is taken on a tour of the Mall with Mr. Jeffreys and Sgt. Gillespie

Mr. Jeffreys testified that he met with HUSAR/TF3 members shortly after their arrival on the scene; he was introduced to Capt. Comella and possibly also to Staff Insp. Needles. He testified that he explained that he was there to provide whatever assistance he could. Following the introductions, he, Sgt. Gillespie, Capt. Comella, and Mr. Cranford repeated the same tour of the collapse area that had been done earlier.⁸¹

During this tour, the following hazards and areas of concern were identified.

- Widow-makers and electrical wiring were hanging down from above.
- The hanging beam that was pointing down into the collapse area was swinging in the wind.
- This movement caused the beam to which it was still attached to bend and deflect.⁸²
- The concrete slabs on the escalator constituted a hazard; they were quite large and Mr. Jeffreys, Sgt. Gillespie, Capt. Comella, and Mr. Cranford could not understand why they had not slid off the escalator in view of their sharp downward angle.⁸³

As the HUSAR/TF3 team members continued the walkthrough of the Mall with Mr. Jeffreys and Sgt. Gillespie, the discussion centred on how to safely approach the pile. It was an open discussion to try to understand the available options.⁸⁴ Mr. Cranford believed that the failed beam hanging down into the collapse zone could be removed without affecting the remaining structure. He knew that a crane had been ordered but he did not recall discussing the procedure to be followed to remove the beam. He testified that, once the crane crew arrived, they would be responsible for developing a plan to remove the beam and that he and Capt. Comella agreed that a crane would be the only way to remove it safely.⁸⁵

Mr. Cranford also noted that the beam to which one end of the failed beam was still connected had been badly damaged in the collapse and advised Capt. Comella and Mr. Jeffreys accordingly. The beam was rotated, and given the extent of the rotation, it was unlikely that it was still able to carry its design load. The rotated beam ran along the edge of the collapse zone and was providing support for the hollow core slabs of the rooftop parking deck, to the north of the collapse zone. There was a second beam identified that was also rotated. It was connected to one end of the beam supporting the second floor of the Mall, which had collapsed from the weight of the rooftop slabs and the sport utility vehicle (SUV) that had fallen into the collapse zone.⁸⁶

Mr. Jeffreys views Mr. Cranford as the principal engineer for the response

Mr. Jeffreys testified that his role differed from that of Mr. Cranford in that he would not be performing any calculations, and Mr. Cranford would be in charge of designing the shoring. However, they were both there to provide advice.⁸⁷ Mr. Jeffreys explained their respective roles as follows:

Doing calculations. Doing design work. I can give – well, there is a difference. Design engineers sit in an office or out in the field, in Mr. Cranford's case, and they actually design a structure. And that was entirely his ballpark. He was going to do that. From my perspective, my experience is examining structures that are either collapsed or in the process of collapsing – and I've looked at hundreds of them – and giving advice from that perspective. I was talking about stability of the building, and if Tony [Comella] wanted advice on that, I would give it to him. If he would've asked me to do calculations, I would've declined.⁸⁸

Mr. Jeffreys believed that Capt. Comella understood the distinction between the two roles because he was never asked to do the things that Mr. Cranford was asked to perform. However, he admitted he had never explained this distinction to Capt. Comella.⁸⁹

Mr. Jeffreys testified that he never provided any advice to Staff Insp. Needles. However, he did provide advice to the UCRT members and to Sgt. Gillespie in particular during the initial walkthrough in relation to the beam beneath the escalator and the fact that steel would be needed to shore that beam.

After the walkthrough had been completed and the plan established, Mr. Cranford retired to a room at the Hampton Inn for some rest. At 11 a.m., after only one hour of sleep, Mr. Cranford was asked to return to the site to review the placement of the laced-post shores on the north side.⁹⁰

The plan to shore the beam under the escalator is discussed with Capt. Comella

Capt. Comella and Sgt. Gillespie had worked together previously and had enjoyed a good working relationship. Shortly after his arrival in Elliot Lake, Capt. Comella was provided with the information gathered by UCRT during its reconnaissance, including the plan which Sgt. Gillespie and Mr. Jeffreys had established for the installation of shoring under the beam supporting the escalator. As Sgt. Gillespie explained it to Capt. Comella, the plan involved removing drywall and debris along the pedestrian walkways on either side of the escalator and installing laced-post shores and steel jack posts.⁹¹

Mr. Jeffreys testified that, after they were told of the plan to shore under the beam, both Mr. Cranford and Capt. Comella decided it would be inappropriate to proceed with shoring in that area.⁹² Mr. Cranford testified that, in order to support the bowed beam under the escalator, the shoring would have to be installed directly beneath the beam and sitting on the floor of the lower level of the Mall. The area directly under the beam, as depicted in the photographs taken during the deployment,⁹³ clearly showed the debris that would need to be removed mostly by hand (some would have taken more work) before any shoring could be put into place directly on the floor. Mr. Cranford indicated that shoring would need to be installed at both ends of the beam supporting the collapsed concrete slabs.⁹⁴ Although the beam did not appear to be moving, this would be a difficult and hazardous process.

Although Capt. Comella appeared to have completely discounted shoring under the escalator as an option, Mr. Cranford did not seem to be as definite in his views. As discussed later in this chapter, the option of shoring under the beam was again considered by Mr. Cranford and others later on.

Sgt. Gillespie and Capt. Comella discuss a plan for creating a safe access to the rubble pile

In addition to the abandoned plan to shore beneath the beam supporting the escalator, Sgt. Gillespie and Capt. Comella also formed a plan for entry into the collapse area. It was decided that entry would be made through the Hotel lobby. Significant rubble would need to be removed and laced-post box shores built and placed to support the slabs overhead and pneumatic shores to support the beams.⁹⁵ Sgt. Gillespie testified that this discussion and the development of a plan of attack with Capt. Comella was not UCRT making decisions, but rather recommending what should be put in place. The ideas developed by Sgt. Gillespie and Capt. Comella would then have to be presented to a higher level of command for approval.⁹⁶

Entry into the Mall from the north through the Hotel lobby was chosen because it provided access to the pile while providing the safest physical entry at ground level into the collapsed area. Before the pile could be accessed, it was necessary to build a safe zone for the workers to retreat to in the event of a secondary or subsequent collapse. The construction of laced-post shores would provide a safe zone and allow for the hand removal of debris to facilitate access to the collapse area.⁹⁷

Capt. Comella testified that the north entrance through the Hotel appeared to be the least affected area, because it was somewhat removed from the collapse and was part of a larger structure, the Hotel. The Hotel was identified as the safest entrance and the plan was to start shoring and moving toward the pile from the north. The purpose of building and installing shoring was to provide support for the building and an early-warning system in the event of an impending secondary collapse. Capt. Comella told the Commission that the shoring would be made of wood, a material that will bend and twist under the pressure before it fails, providing a warning to the rescuers before it buckles and breaks.⁹⁸

Following the discussions with Capt. Comella regarding the plan for the operation, Sgt. Gillespie stood down the members of the UCRT for a rest. Sgt. Gillespie testified that, when he left the scene, it was with the understanding that HUSAR/TF3 would be shoring the Hotel lobby.⁹⁹

HUSAR/TF3 is preparing to start its work

While Capt. Comella was being briefed by Sgt. Gillespie, the remainder of the HUSAR/TF3 team grabbed a quick meal and by 5:50 a.m. was standing by to receive instructions. The team was briefed by Staff Insp. Needles and divided into two squads; one would be the day shift and the other the night shift. Capt. Chuck Guy was identified as the leader for the day shift and Capt. Chris Rowland as the squad leader for the night shift.¹⁰⁰ In addition to identifying the squad leaders, the role of search managers was assigned to Sgt. Jim Lawson and Sgt. Dave Zammitt for one team and Sgt. Phil Glavin and Sgt. Avelino Carvalho for the other.¹⁰¹

Capt. McRae testified there were a number of meetings in the first hour following the arrival of HUSAR/TF3. He understood his role would be logistics section chief for the operation. His first task was to look at the site and identify a suitable location for the staging area for all the tractors and vehicles. Capt. McRae was in charge of operations if Capt. Comella was unavailable. The few occasions when he was in charge were brief and he simply followed Capt. Comella's direction. He never held the role of planning chief and confirmed that the role was not assigned to one specific person. The planning aspect of the operation was determined by group decision and he, as the logistic chief, was responsible for advising those in the planning group of whether their plan was feasible, taking into account available equipment. Although decisions were made by consensus, Capt. McRae testified that Capt. Comella spent most of his time planning and providing his ideas to Staff Insp. Needles, who had the final say on plan implementation. From Capt. McRae's perspective, Capt. Comella was the person responsible for developing the plan.¹⁰²

Another walkthrough is performed by HUSAR/TF3

Another walkthrough of the Mall took place, this time with Capt. Guy, Mr. Cranford, and Capt. Comella. The record of this walkthrough was found in Capt. Guy's notes which gave it as occurring at 9:15 a.m. He indicated, however, that the time given in this entry was likely incorrect as he believed it had occurred earlier.¹⁰³ The purpose of this additional walkthrough was to remove drywall in areas identified by Mr. Cranford to allow him to have a better look at various areas of the structure and to examine the beams to ensure that the crew would not be working in unsafe areas.¹⁰⁴

Once the walkthrough was completed, Capt. Guy, Capt. Comella, and Mr. Cranford discussed the quantity, type, and location of the laced-post shores to be constructed and installed in the Mall. Planning could only be done on an evolving basis and was subject to continuous reassessment. It would not be known what would be required until they got to certain areas. The initial task assigned to Capt. Guy and his team was to construct a double-laced-post shore in the area immediately in front of the reception desk of the Hotel lobby and to complete extensive shoring operations throughout the building.¹⁰⁵

Although Capt. Comella had dismissed the plan to shore under the escalator, Cst. Waddick believed it was still part of the plan

Although Capt. Comella testified that soon after his arrival on the scene the group made up of Mr. Jeffreys, Mr. Cranford, and Sgt. Gillespie had decided to forgo the option of shoring under the beam, this message did not appear to have been relayed to Cst. Waddick. He testified that, from his perspective, UCRT never abandoned the idea of shoring underneath the escalator and this remained part of his plan when he arrived to start his operational cycle on June 24 at 5:30 p.m.¹⁰⁶

Mr. Jeffreys's notes made during the emergency response echoed Capt. Comella's evidence that the area under the escalator was deemed unsafe and access would be restricted:

The steel beam overhead, supporting the escalator and stairs at the second floor level, appeared to be sagging under the weight of the concrete that had fallen onto the escalator and stairway from the roof above. The area was deemed unsafe and was restricted pending the possible installation of some heavy shoring.¹⁰⁷

Although Mr. Jeffreys testified that the shoring under the escalator had been abandoned as an option, his notes record the possible installation of heavy shoring which one could reasonably interpret as being a reference to steel shoring, as had originally been discussed and planned with Sgt. Gillespie. Mr. Jeffreys further explained that he was not the one who deemed the area unsafe; the decision would have been made by Capt. Comella, although he and Mr. Cranford would have discussed the bowed beam with him.¹⁰⁸

UCRT appeared to have a different perspective of the operational plan. Cst. Waddick testified that, when he ended his shift at 9 a.m., it was his understanding that they were waiting for the crane to arrive and, once it did, the hanging beam would be removed and the crane would be used to remove the debris and the SUV that had fallen onto the pile.¹⁰⁹

A "first" incident action plan is developed

Capt. Comella testified that his plan was to go in and support the parts of the structure that were already affected by the collapse on the north side and start working toward the pile from that point. The first step would be to construct the shores in the Hotel lobby to make the area safer and to give the work crew a place to get in and out of the building with equipment and debris.¹¹⁰ Capt. Comella explained that working toward the pile meant starting "to systematically control movement of every piece and to remove pieces and/or tunnel under pieces to get the victims."¹¹¹ Capt. Comella was asked to explain what he meant by the use of the words tunnel and tunnelling, terms used repeatedly by the rescuers. He provided the following details and explanation:

Well, tunneling is a potential, but what we want to do is systematically remove debris in that pile, aiming right at where we understand people might be. So we want to – the closest fastest approach to that pile. And with our equipment, we have choices. We can lift things out of the way. We can lift things up and go underneath them. We can cut them and remove them. We have some options. Those are the Plan A, Plan B, Plan C, to actually do that work, but the objective is to work safely through the pile to get to victims. So we need to stabilize – the pile that you see in this picture is unstable. It potentially is unstable. It's like a house of cards. If you take the right card out, you can cause a secondary collapse, so for us to help anybody, we need to stabilize that scene and make sure that nothing can move. And the intention of moving in towards the pile in a controlled method, using controlled methods, is to stabilize those large pieces of concrete, and to ensure that they don't move, as our rescuers start to move into it, so we take away the potential for dynamic movement, if you will.¹¹²

Capt. Comella testified that Mr. Jeffreys, Mr. Cranford, and Sgt. Gillespie all agreed with the plan.¹¹³

He said that using a crane to remove debris would be a last resort. The preferred method would be to shore as they went along and proceed systematically through the pile.¹¹⁴ This contradicted Cst. Waddick's evidence that when he left the site that morning the crane was part of the plan.

After the plan was established as described by Capt. Comella, Messrs. Jeffreys and Cranford were asked to look at the drawings and identify the area with the most stable beams. The Hotel area was confirmed as the least affected and therefore the most stable area of the building.¹¹⁵

Mr. Jeffreys testified that, although he was involved in reviewing the plan with Capt. Comella and Mr. Cranford, he was not asked if he agreed. He was certain that Capt. Comella and Mr. Cranford understood that his role was not to approve or reject the plan and in fact his approval was never sought the entire time he was at the site. He acknowledged that, if he had noted something glaringly wrong with the plan, he would have raised it.¹¹⁶

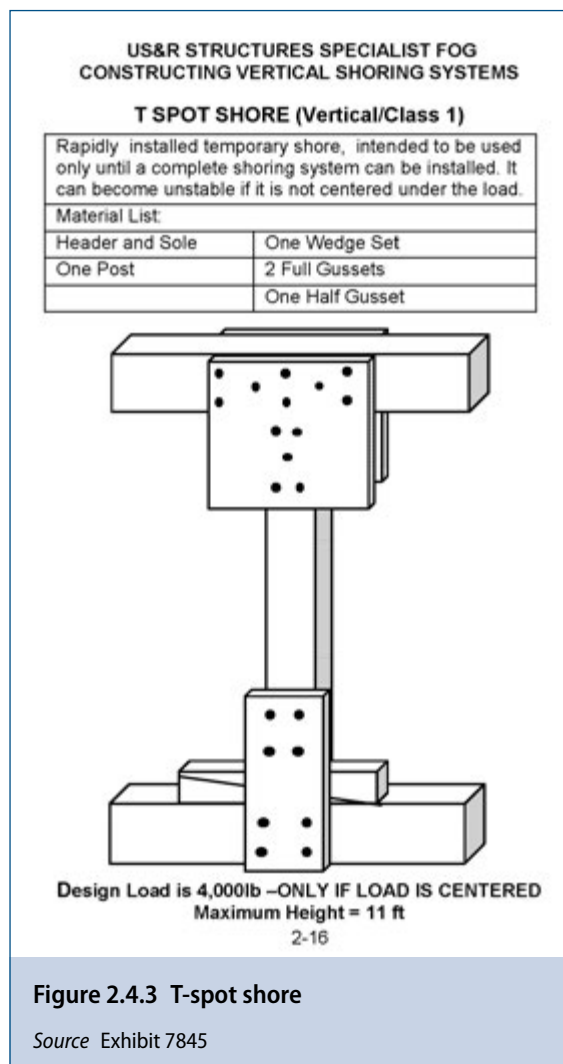
The plan included the decision to install two laced-post shores in the area of the Hotel lobby, right under the edge of the collapse zone, but still in the Hotel lobby area. Because it would take some time to build

the laced-post shores, it was decided to put in two simpler T-shaped shores (T-spot shores, see fig. 2.4.3) as temporary measures to make it safer for the workers while they were building the laced-post shores.¹¹⁷

Chief Officer testified that he was made aware of the plan to start with shoring in order to produce a safe work area. He did not recall whether he was informed of what the next steps would be, but believed that the discussion centred on removing the hanging beam. He was disappointed to learn that the shoring would take approximately 12 hours to complete because it made him realize how long and slow the process was going to be. He had a discussion regarding the next steps and was told that they would be removing debris and equipment would be ordered to assist in that process. He did not know whether the crane was part of the plan at that stage.¹¹⁸

It was estimated that it would take approximately 12 hours to shore the Hotel lobby and remove debris from that area. There was no expectation that they would get closer to the victims in the first work cycle of 12 hours.¹¹⁹

The initial action plan was rudimentary at best. It dealt solely with the initial work to be done and did not extend beyond the shoring.



It had already been recognized at that point that the hanging beam needed to be removed and that a crane would be required to complete that work. While I am reluctant to be critical of Capt. Comella's refusal to consider use of the crane as part of the plan for removing the debris, I have difficulty resisting the notion that his approach was too rigid. Understanding his mindset on that issue eludes me.

The incident action plan is not reduced to writing

Capt. Comella testified that once the plan was discussed, he presented it to HUSAR/TF3's site commander. Capt. Comella confirmed that it was never reduced to writing, except for the rudimentary drawing that had been prepared of the north interior of the Hotel lobby, identifying the locations where the laced-post shores would be installed. When the desirability of a written incident action plan was put to him, Capt. Comella replied: "An incident action plan, certainly at this level, doesn't have to be written down formally, at all."¹²⁰ He testified that from his perspective, the drawing was the written incident action plan, but also conceded that the drawing did not identify what would be done beyond the shoring. He explained that, once they had enough debris removed to allow them to walk through, they would re-evaluate to determine the next step.¹²¹

Although Capt. Comella spoke of debris removal, he did not seem to adequately turn his mind to how these large pieces of concrete slab would actually be moved or removed. He spoke vaguely, in my view, about lifting and shoring them, without elaborating. It was never addressed in his planning.

Capt. Comella testified that he did not have the luxury of time to put his plan in writing but suggested that it could be "formalized" after the plan was passed up to the command post.¹²²

Cmdr. McCallion echoed the evidence given by Capt. Comella and testified that under the IMS, incident action plans can be in writing or oral. He testified that he did not believe there ever was a written version of the incident action plan. He acknowledged that, while the team maintained a whiteboard¹²³ describing the tasks to be completed, it did not outline the plan.¹²⁴

With the benefit of hindsight, Cmdr. McCallion confirmed that it would have been prudent on their part to document the plan in writing. He did not believe that there was a conscious decision not to write the plan down, but rather that they all understood their tasks and roles and proceeded on that basis. Cmdr. McCallion agreed that, without a written plan, someone involved in the operation would not be able to go to a specific location to see the plan and also acknowledged that Chief Officer would be required to ask someone about it in order to obtain any details. As site commander, Cmdr. McCallion did not believe it was his responsibility to keep a written incident action plan.¹²⁵

All the information constituting the initial plan was communicated to Staff Insp. Neadles. Capt. Comella advised him of the hazards identified during the walkthrough and that the plan was to stay away from the escalator and stairs because the debris underneath and the overhead hazard created by the escalator made it impractical to shore that area. Capt. Comella testified that he showed Staff Insp. Neadles the plan of entry from the north and that the rescuers would work from there toward the pile. He further confirmed that this plan was loosely identified as the incident action plan and was approved by Staff Insp. Neadles. He confirmed that Chief Officer was not present when approval to proceed was given. He acknowledged that this meant Chief Officer had provided no input into the plan and that his approval had not been sought.¹²⁶

None of the witnesses assumed responsibility for putting the plan in writing. None identified whose responsibility it was. Clearly, the failure to reduce the plan to writing was contrary to recommended practice and contributed to a less-than-ideal coordination and an unfocused response.

Chief Officer is not consulted on and is not asked to approve the incident action plan

Unprompted by any question from Commission counsel, Capt. Comella attempted to justify or explain the failure to obtain Chief Officer's approval of the plan:

Yeah, and to the point of the Fire Chief not being there when he – when Bill Neadles gave me the go ahead to do this, I think we need to keep in mind that activating this plan takes a lot of time. There's still logistics that have to be done. There is a great opportunity for Bill Neadles to talk to the Incident Commander and verify that this is all fine, to go ahead and do. So I don't know that that piece wasn't done. I assume that that piece was done. There was probably a conversation about that. They certainly have – they have the time to do that long before we ever actually enter the building.¹²⁷

Staff Insp. Neadles recognized that Chief Officer was the incident commander and should have been the one to approve the plan. He acknowledged that he did not consult Chief Officer before approving it. In an effort to explain his actions, he testified that he was under the impression that Chief Officer had authorized him to move forward on the plan, without the need to consult him first, because he (Officer) had told him to do what needed to be done.¹²⁸

6:00 a.m.: There is no plan beyond shoring the Hotel lobby

It was acknowledged by Cmdr. McCallion that, once the shoring was completed to the point where the team would be able to access the pile, the next step would likely be to continue with the search, through the use of canines, search cameras, and acoustic equipment to better determine the location of the victim. However, these next steps had not been discussed or formalized with the team. As of 6:00 a.m. the plan was simply to enter the north side of the building and clear debris and install laced-post shores in the Hotel lobby.¹²⁹

Staff Insp. Neadles testified that the incident action plan prepared by Capt. Comella only covered the first operational period. They would not be able to go any further into the building or make a further assessment until they got through the Hotel lobby area and into the main building. Although they had an idea of where the victims were located and were moving in that direction, they had not at that point formulated a plan specifying what would occur once they got into the building.¹³⁰

The first operational shift begins shoring in the Hotel lobby

The first operational shift was scheduled to begin at approximately 6 a.m.; the operational team for this shift was made up solely of HUSAR/TF3 members. UCRT members had gone to bed at that point and would only return to the site at 6 p.m. to start the second shift, which would also include HUSAR/TF3 members. During the morning/day shift, there was no UCRT presence in the command structure or the command tent and this situation did not change when Sgt. Gillespie returned for the second shift. Cmdr. McCallion testified that he would have expected a member of the UCRT in the command tent but could not explain Sgt. Gillespie's absence.¹³¹

As of 8:20 a.m., the first shift of HUSAR/TF3 rescuers was preparing to commence the first of its assigned tasks: building shores and clearing out debris to allow the rescuers to gain access to the collapse zone.¹³² Capt. Guy testified that there was significant structural damage and debris that needed to be removed. He testified that, by the end of their shift, they had completed 99 percent of the double-laced posts and built a 6-by-6 solid sole raker against one column. The Elliot Lake Fire Department assisted the day shift with the construction and assembly of the shores outside the Mall.¹³³

Sgt. Phil Glavin starts working on a possible Plan B

While those in command were discussing and developing the first incident action plan, Sgt. Phil Glavin, a member of HUSAR/TF3 and a search manager, started to think about a possible “Plan B,” and during the morning of June 24 he contacted Priestly Demolition. He testified that he was aware of the type of equipment owned by the company, which included a large crane with an articulated arm that allows it to reach out and down. He explained that this equipment had the ability to grab and crush, as well as perform more intricate manoeuvres such as turning, reaching, cutting, and gently piling materials. He thought this equipment might be of assistance during the operation. He explained that he was familiar with the operations of Priestly Demolition because he is related to the owners through marriage and his father and brother worked for the company. He contacted his brother to find out whether the equipment was available to be sent to Elliot Lake to assist with the rescue. He testified that he had not discussed making this call with anyone else within HUSAR/TF3 and did not relay any of the information he received until later in the response.¹³⁴

Sgt. Glavin explained that this equipment had the ability to grab and crush, as well as perform more intricate manoeuvres such as turning, reaching, cutting, and gently piling materials. He thought this equipment might be of assistance during the operation.

Ryan Priestly, owner of Priestly Demolition, confirmed that he received a telephone call from HUSAR/TF3 on June 24, although his notes do not specify the time of the call. Although Sgt. Glavin testified that he had spoken to his brother on June 24, Mr. Priestly testified that he was the one who spoke with Sgt. Glavin and was asked whether he was available to go to Elliot Lake to assist with the collapse and was also asked about the high-reach machine. Mr. Priestly confirmed to Sgt. Glavin that his machine was available. Mr. Priestly testified that after his discussion with Sgt. Glavin he was on unofficial standby.¹³⁵

8 a.m.: Community Control Group (CCG) meetings

A CCG meeting was held on June 24 at 8 a.m. In attendance were Chief Officer; Kate Matuszewski, the information officer for the City of Elliot Lake; Darla Hennessey, the person in the group responsible for social services; Bruce Ewald, chief building official, City of Elliot Lake; Henry Allamanchuk, the head of Emergency Management Services; Dan Newburn, a representative of the Office of the Fire Marshall sent by Ms. Chambers; Natalie Bray, administrative assistant to the CAO of the City of Elliot Lake; Jocelyn Labreche, a City of Elliot Lake employee; Insp. Percy Jollymore of the East Algoma Region OPP; Bonnie deBortoli, the scribe for Insp. Jollymore; Robert deBortoli, chief administrative officer of the City of Elliot Lake; Natalie Quinn, scribe for Chief Officer; Mayor Richard Hamilton; and four City councillors (Tom Farquhar, Sandy Finamore, Norm Mann, and Al Collett).¹³⁶ During the meeting, the group was brought up to date and advised that HUSAR/TF3 needed to confirm the number of missing people. The OPP was asked to try to narrow down the number of missing.¹³⁷ The attendees were also notified of the following:

- The beam by the Hotel would need to be secured before they could move forward. It was estimated this work would take 12 hours to complete.
- A finance person was required on scene because the rescuers were ordering a lot of items and someone was needed to deal with procurement. Chief Officer confirmed that Don Halcro, the City treasurer, was sent to fulfill that role and was in the command post with Chief Officer from time to time during the operation.
- Skid steers with forks and mini-excavators with claws were required for the site.
- There had been confusion on the ordering of a crane.¹³⁸

Chief Officer testified that at the meeting it was confirmed that HUSAR/TF3 had not ordered a crane but that it had been ordered by the OPP, at the request of Cst. Cox. Chief Officer testified that he did not believe that the confusion surrounding the crane had to do with the differing opinions about whether the crane was necessary. From his perspective, he did not see how they could move forward without a crane, as there was no other way to remove the hanging beam. He further explained that the confusion discussed at the meeting related to the capabilities of the crane that had been ordered and whether it would be able to meet their needs. Although the CCG meeting notes indicated that the crane was onsite at the time of the meeting, Chief Officer indicated that this was incorrect.¹³⁹ The evidence showed that the crane did not arrive in Elliot Lake until approximately 11:15 a.m., several hours after this meeting.

During the meeting it was also noted that gaps were developing in the communications with the media and that a better communication strategy was required to control information being disseminated in the community. The two press conferences held subsequently were part of the effort to close that gap.¹⁴⁰

Insp. Jollymore testified that, on the issue of the media and information sharing, there was debate over how much to reveal to the public about the victims. It was decided to hold a panel-style press conference, and he

was given the task of dealing with the list of people who were missing and possibly trapped in the Mall. At that point, five people were still listed as missing. Insp.

Jollymore explained that the City wanted to have a consistent message from the group on the status of the rescue.¹⁴¹

Staff Insp. Neadles testified that he was not present at the 8 a.m. CCG meeting.¹⁴²

He stated that normally HUSAR/TF3 member Division Chief Doug Silver, as the planning officer, would have made contact with the local authorities and would have attended the CCG meeting to speak on behalf of the team.¹⁴³ As planning for the Elliot Lake deployment was done “by committee,” no one from HUSAR/TF3 was in attendance, an unsatisfactory result.

Insp. Jollymore testified that, on the issue of the media and information sharing, there was debate over how much to reveal to the public about the victims.

The crane is on its way to Elliot Lake

Capt. Comella testified that when he arrived in Elliot Lake he was not aware that a crane had been ordered. He was informed of this detail later on. However, even when he saw the size of the concrete slabs that had collapsed on the pile, it would not have been a priority for him to order a crane. The use of cranes is not the favoured method employed by HUSAR/TF3 to rescue people entrapped beneath concrete.¹⁴⁴

Millennium Crane was ready to mobilize out of Sault Ste. Marie and undertake the trip to Elliot Lake at 6:30 a.m. The company proceeded to Elliot Lake with 10 crew members, including three certified hoisting engineers and one certified ironworker.¹⁴⁵ Millennium initially supplied a 165-tonne crane and a 30-tonne crane. It took three-and-a-half hours to travel from Sault St. Marie via Highway 17 to the exit to Highway 108 to head to Elliot Lake. It was only at the exit that Millennium was met by a police escort. The owner of Millennium Crane, Dave Selvers, testified that he could have arrived in Elliot Lake sooner if he had been provided with a police escort for the entire route.¹⁴⁶

The 165-tonne crane arrived in Elliot Lake at 11:15 a.m. and was brought directly onto the grounds of the Mall. Once the crane was parked on level ground, Mr. Selvers was met by Chief Officer, as well as members of UCRT, OPP and HUSAR/TF3, the chief building official, and an inspector from the Ministry of Labour.¹⁴⁷ Mr. Selvers testified that at this point he assumed the Ministry of Labour was in charge of the rescue, though he did not ask who was in charge.¹⁴⁸

In order to assess the situation and the work to be completed, Mr. Selvers proceeded to the second floor of the Mall and looked into the collapsed area. He then continued to the rooftop parking deck, which allowed him to see the hanging beam for the first time. From his perspective, the hanging beam was the first thing that needed to be removed. He also realized that the 30-tonne crane would not be sufficient and immediately ordered a larger crane. He also contacted the police in Sault Ste. Marie to request a police escort to take his crane operator from a Michigan campground to Elliot Lake.¹⁴⁹

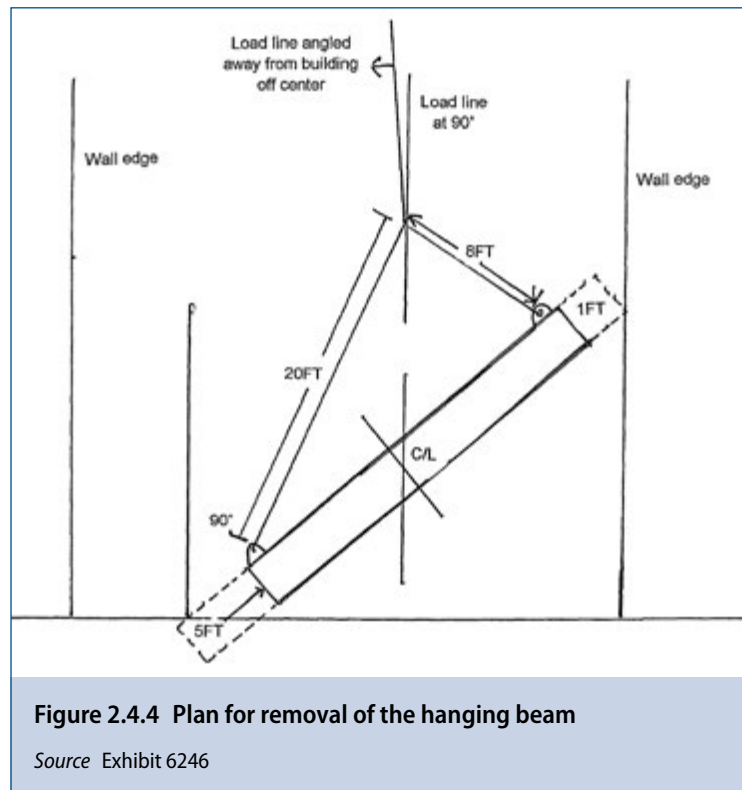
Mr. Selvers testified that someone from the Ministry of Labour asked if he had a plan for the removal of the hanging beam but did not ask to see the plan. He was prepared to show the ministry his plan had they asked for it. The plan he had developed was similar to the diagram included in his after-action report (see fig. 2.4.4).¹⁵⁰ He testified that the inquiries by the Ministry of Labour did not delay the operation to remove the beam.¹⁵¹

Mr. Selvers was asked to respond to the evidence that had been previously given by Capt. Comella in which he described the rigging training given to the HUSAR/TF3 members as:

They put a crane in front of you for either a half or three-quarters of a day and 14 people stand there and take turns operating a hoisting operation, a floating operation. That's really the training, and a little bit of the academic side, to understand the hazards that can be posed by rigging, et cetera.¹⁵²

He stated that, from his experience operating a crane, the training received by HUSAR/TF3 as described in the evidence of Capt. Comella was inadequate to allow someone to assist him in a situation similar to the one in Elliot Lake.¹⁵³

Staff Insp. Neadles testified that the decision to start the crane operations was his; however, he could not recall whom he spoke to in order to authorize the use of the crane.¹⁵⁴ Capt. Comella stated that he was not aware a crane was going to be used or its purpose.¹⁵⁵ Staff Insp. Neadles expressed surprise when it was put to him that Capt. Comella, as the operations chief, had not been aware that the crane was going to be used. He acknowledged that most of the communication on the scene was verbal and that the fact that Capt. Comella was unaware of certain facts relating to the crane was a failure in communication.¹⁵⁶ I agree. The situation was exacerbated by Staff Insp. Neadles's failure to appoint a planning officer.



9 a.m.: The City of Elliot Lake issues a press release

At 9 a.m., a press release was issued, stating: “At this time no casualties have been reported or confirmed.”¹⁵⁷ Mayor Hamilton testified that he believed this to be a truthful statement at the time because it pertained to whether there was someone deceased on the pile. He subsequently acknowledged that an emergency medical services person had reported that a person had been located with no pulse, and agreed the statement as released was untrue.¹⁵⁸

Mr. deBortoli also agreed that the press release indicating that there were no reported or confirmed casualties was inaccurate and conceded that “casualties” would include deceased as well as injured persons.¹⁵⁹ The press release had been reviewed by the OPP, the mayor, the press coordinator, and Mr. deBortoli and subsequently released to the public despite the admitted inaccuracy.¹⁶⁰

The information provided in the press release was contrary to the update Staff Insp. Neadles had given to Ms. Chambers in an email sent at 8:57 a.m. in which he reported there was one deceased victim.¹⁶¹ In her testimony, Ms. Chambers justified the discrepancy by stating that, not having all the information, the media spokespersons tend to be highly optimistic that the victims waiting to be rescued are still alive until the contrary is absolutely confirmed. She indicated that they tend to err on the side of caution. Until the information can be verified by a person in authority, the information is not released.¹⁶²

9:30 a.m.: The rescuers report a second sign of life, the first since the firefighters had communicated with the victim shortly after the collapse

At approximately 9:30 a.m., search managers Sgt. Jim Lawson and Sgt. Dave Zammitt and canine handler Sgt. Scott Fowlds were tasked with carrying out a reconnaissance of the Mall. During their reconnaissance, they heard tapping noise in response to a call-out by Sgt. Lawson. The results of their call-out were reported to command.¹⁶³

The reported signs of life influenced the decisions made by the rescuers in the steps taken to try to reach the victims.

The evidence of the different instances where signs of life were reported on June 24 and June 25 is recounted in this chapter in order to provide a coherent narrative and an accurate and complete chronology of the events which took place during the rescue efforts. The reported signs of life influenced the decisions made by the rescuers in the steps taken to try to reach the victims. More comprehensive details of all of the signs of life are described in Chapter 8, The Victims: Cause and Time of Death.

11:00 a.m.: Staff Insp. Neadles sends an update – the work is under way

At 11:00 a.m. on June 24, Staff Insp. Neadles issued another update to Ms. Chambers and others with the City of Toronto:

- The team had started working in the building starting from the Hotel entrance.
- The wood-cutting table had been constructed and was in use.
- The canine team had been sent in to search the Mall.
- Contact was established with the victim at 9:30 a.m., and it was believed this was the same victim as the previous night. The contact was established through tapping; it was short-lived but nevertheless confirmed that the victim was still alive.

- It was going to take a substantial period of time to reach the victim.
- The Community Control Group had met with the media.¹⁶⁴

Staff Insp. Needles testified that, at the time he provided this update, he had not been advised of the results from the canine search.¹⁶⁵

Premier Dalton McGuinty reaches out to Mayor Hamilton

Premier McGuinty got in touch with Mayor Hamilton on Sunday, June 24, and spoke to him by telephone at 11:30 a.m. Premier McGuinty testified that the purpose of his call was to let the mayor know that he had his support and the support of the provincial government. He also wanted to hear from Mayor Hamilton about the challenges he was facing and to convey to him that he should not hesitate to ask for provincial resources if something in particular was needed. During the call, Mayor Hamilton did not request anything other than to express his concern about the members of the community who might be trapped in the rubble.¹⁶⁶

Following the premier's discussion with Mayor Hamilton, his office issued a press release:

I want to thank our emergency crews in Elliot Lake as well as those that have come from southern Ontario to help with the rescue effort for their good work around the clock.

I spoke with Mayor Rick Hamilton this morning. As we anxiously wait to learn more about anyone thought to be missing in Elliot Lake, our thoughts and prayers are with their families, and also those who have been injured and indeed with the entire community.

During a crisis like this, I am reminded of the strength and resilience of Northern Ontarians, and how by pulling together with our friends, families and neighbours, we can get through these difficult times.¹⁶⁷

The purpose of the press release was to convey to Ontarians that the province was engaged and to convey sentiments of reassurance, comfort, and thanks. Mr. McGuinty testified that the reference to his discussion with the mayor was to convey to the people of Elliot Lake and Ontarians that they were in close communication.¹⁶⁸ I discuss Premier McGuinty's involvement in much greater detail later in the Report.

12 p.m.: A CCG meeting is held

A further CCG meeting was held at 12 noon. Many of the same attendees from the earlier morning meeting were present.¹⁶⁹ At this time, Chief Officer informed those in attendance that a 165-tonne crane was on its way to Elliot Lake and he confirmed that Capt. Thomas had informed him that tapping had been heard from the rubble pile.¹⁷⁰ The notes from the 12 noon CCG meeting indicated: "Rob/Paul/Percy/Rick to meet again now for press conference."¹⁷¹ Chief Officer testified that this additional meeting was to prepare for and to decide who would be answering questions during the press conference.¹⁷²

The group was also advised that the coroner, Dr. Marc Bradford, had been contacted and was on call but would not be travelling to Elliot Lake until the situation changed.¹⁷³

At this time, Chief Officer informed those in attendance that a 165-tonne crane was on its way to Elliot Lake and he confirmed that Capt. Thomas had informed him that tapping had been heard from the rubble pile.

12:10 p.m.: Sgt. Fowlds reports an indication of a live hit by his canine, Ranger

At 12:10 p.m., Ranger, Sgt. Fowlds's dog, was deployed onto the pile. This search resulted in a positive indication of a live person in the rubble pile. Ranger gave a positive indication in the area near the SUV (see fig. 2.4.5).¹⁷⁴ Command was notified of the results of the search.¹⁷⁵



Figure 2.4.5 Ranger gave his positive indication in the area near the railing to the left of the SUV

Source Exhibit 7924

1 p.m.: Staff Insp. Neadles sends an update – the crane will be used to assist with the removal of large debris

Staff Insp. Neadles provided a third email update to Ms. Chambers and others with the City of Toronto at 1 p.m.:

Operations continue towards reaching the live victim as of 0930 hours. (Sensitive). We are building shoring to support a main column and beam and setting up a large crane to assist with some large debris removal. This is our primary objective at this time.¹⁷⁶

Staff Insp. Neadles testified that he had marked the email “sensitive” because he did not want the public to be advised that there was a potential live victim under the pile.¹⁷⁷

In this update, Staff Insp. Neadles made reference to a primary objective, but it is not clear what was being identified as such. He explained that the “primary objective” was the shoring to be completed, which would allow the rescuers to move deeper into the building.¹⁷⁸ A reading of the update could equally be interpreted to mean that the removal of large debris was the primary objective.¹⁷⁹ Capt. Comella had received a copy of the third update but did not know what the “primary objective” was at 1 p.m. He testified that he understood at that time

that the shoring operation working toward the pile was an objective.¹⁸⁰ Staff Insp. Neadles was surprised to learn that Capt. Comella had testified that he did not know what the primary objective was as it was his (Comella's) plan they were working from.¹⁸¹ Cmdr. McCallion had also received the third update and he believed that the reference to the primary objective made by Staff Insp. Neadles was getting to the victims.¹⁸²

The fact that the three primary commanders of HUSAR/TF3 were not ad idem on the information conveyed in this update is a cause for concern and reflects further on the poor communications throughout the response.

1 p.m.: The City of Elliot Lake issues another press release – still no information provided on the known status of the victims

A second press release was issued by the City of Elliot Lake at 1 p.m.:

The City of Elliot Lake and Special Emergency Service teams remain on scene and continue to work on the stabilization of the affected area of the mall. Search and rescue dogs continue to be utilized in this process.

There is no confirmation on any loss of life. This is still a rescue effort.¹⁸³

Chief Officer testified that the statement made in the press release was not true. He indicated that Insp. Jollymore was concerned about releasing a statement that a deceased person had been located because he did not want to make a mistake. He further testified that no one shared Insp. Jollymore's opinion.¹⁸⁴ However, they acquiesced with Insp. Jollymore's instructions because of the OPP's experience dealing with coroners.¹⁸⁵ OPP Chief Supt. Robert Bruce confirmed in testimony that OPP personnel cannot confirm a death and that only the coroner or a doctor can do so, unless there are clear signs of death, such as decapitation or decomposition.¹⁸⁶ The same information was given to the public during the 1 p.m. press conference as had been included in the press release issued at the same time.¹⁸⁷ Chief Officer testified that he did not like misstating the facts to the public but he knew that the group needed to present a united front. He was concerned that the public was looking for information and they were not receiving it. He believed that when the rescuers had the opportunity they should have publicized the correct information.¹⁸⁸

Mr. deBortoli testified that this latest press release was not misleading because at that point they still had not confirmed that there had been a loss of life and they were still treating the situation as a rescue.¹⁸⁹ He ultimately agreed, upon being pressed further, that the press release could have stated more specifically that one victim was potentially alive and there were indications that the other victim might not be.¹⁹⁰

Further options are explored to stabilize the stairs and escalator

At 2 p.m., Mr. Cranford and Capt. Comella once again discussed the possibility of stabilizing the escalator and stairs supported by the bowed beam at the south end of the collapse zone.¹⁹¹ They discussed the possibility of shoring underneath the beam supporting the escalator. However, they were concerned that the hollow core slabs could slide off the escalator at any time, killing or injuring a rescuer and/or causing a secondary collapse of the building. In order to place shoring under the beam, workers would have been required to stand underneath the escalator for several hours to complete the work. This was not seen as a workable solution. They began looking at the possibility of restraining the hollow core slabs from above.¹⁹²

Mr. Cranford testified that, in his discussions with Capt. Comella, they came up with three options for dealing with the escalator and the weight of the hollow core slabs:

- Place tarps over the escalator to prevent water from seeping through and potentially causing the slabs to slide;
- Drill lugs* into the concrete slabs and run high-tensile steel cables back to the rock anchors which would have to be installed in the ground level parking lot of the Mall. This option was eliminated because the drilling would cause vibrations and would require a rescuer to be placed physically on top of the slabs.
- Wrap the concrete slabs with high-strength straps and tie the entire assembly to a rock anchor in the surface of the ground level parking lot. This option, although strongly considered, was also discarded because it required the rescuers to remove significant pieces of debris hanging from the face of the elevator frame. In order to remove the debris, the rescuers would have needed to cut away rebar and pre-stressing strands, which could have shifted the load and created additional problems.¹⁹³

Mr. Cranford testified that, by the end of the day on June 24, it had been concluded that it was not possible to secure the concrete slabs resting on the escalator. However, he did not discuss any of these options with Staff Insp. Neadles or Cmdr. McCallion.¹⁹⁴

The plan changes – but it's still not put into writing, nor is a meeting held to discuss it

According to Cmdr. McCallion, by 3 p.m. the plan was changed to include the removal of the hanging beam, and they also began contemplating the removal of the concrete slabs resting on the escalators. Cmdr. McCallion testified that this new plan involved using the crane to remove the concrete slab from the escalator in order to provide more flexibility for work inside the pile. He indicated that once the shoring was secured on the north side, the work would continue on the pile to remove debris until they got to the victims. This plan to remove the concrete slab was discussed by Mr. Cranford, the Ministry of Labour engineer, and Capt. Comella. Sgt. Gillespie was also part of the team that developed this next plan. Cmdr. McCallion acknowledged that, for the most part, the discussions on planning were not taking place in the command tent and were generally being conducted in the absence of both him and Staff Insp. Neadles. He confirmed that the plan would eventually have been presented to him for approval, if he was in charge at the relevant time, or to Staff Insp. Neadles.¹⁹⁵

Staff Insp. Neadles testified that as of 6:04 p.m., the plan was to continue shoring in order to eventually remove the beam. As far as he could recall, the removal of the slab off the escalator was still part of the plan. He admitted, however, that he did not discuss the feasibility of removing the concrete slab off the escalator with Mr. Cranford but nevertheless concluded that it was not a viable option. He thought it would be unsafe and too lengthy an operation, requiring materials such as steel that were not available to them.¹⁹⁶

The evidence relating to what was included in the incident action plan was disjointed and convoluted ...

The evidence relating to what was included in the incident action plan was disjointed and convoluted; many of the HUSAR/TF3 members provided differing accounts and interpretations of what was to be done. This confusion and the conflicting answers about the plan would have been eliminated altogether if it had simply been reduced to writing. It would also have been wise to bring everyone together (all the teams) to discuss the plan and other strategies.

.....

* A connector (such as a steel ring or handle) used to fasten cables to an object in order to lift or support the object.

3 p.m.: Staff Insp. Neadles sends an update advising that the concrete slab on the escalator will be removed

At 3 p.m., Staff Insp. Neadles sent his fourth update to Ms. Chambers and others with the City of Toronto, although it was incorrectly titled "Update #5." In his email update he indicated:

Operations continue focused on the locating of the know [sic] victim as contacted this morning. The team continues to build Raker Shores, T spots and Lace Posts from the north end while the large crane is slowly being placed to enter via the roof to have a Steel worker attach eye bolts, secure and the [sic] cut in half and remove. They will also bring in a second crane to assist with this operation. This will allow the next step of removal of a very large slab of concrete lying insecurely on the escalator.¹⁹⁷

Staff Insp. Neadles explained that the removal of a large piece of concrete slab off the escalators was a possibility being explored. He was trying to provide the best information he could to the recipients of his updates, including what might be done in the next operational period. He explained that nothing was absolute and therefore not everything included in the updates ultimately took place.¹⁹⁸ He testified that he was not trying to mislead the readers but acknowledged that any reasonable person reading this update would have believed that the removal of the concrete slab from the escalator had become part of the plan.¹⁹⁹

Staff Insp. Neadles did not dispute Capt. Comella's evidence that he was unaware that the removal of the concrete slab was being considered and he could not recall who would have proposed that part of the plan.²⁰⁰ Mr. Cranford also testified that he was never asked to give advice about removing the concrete slabs sitting on the escalator,²⁰¹ and that the whiteboard listing the tasks²⁰² did not include the removal of the slabs. When faced with this evidence, Staff Insp. Neadles then testified that the removal of the slabs was not necessarily part of the plan, but he believed it was being discussed or it could have been something that only he was considering.²⁰³

When shown the 3 p.m. update, Mr. Selvers testified that he had been told by an OPP officer about a plan to remove large pieces of concrete off the escalator after the beam was removed but that he was never asked to draw up a plan for that work.²⁰⁴

Again, this confusion could have been avoided if a planning person had been designated by Staff Insp. Neadles.

In his update, Staff Insp. Neadles also notified the recipients that the media frenzy was increasing.²⁰⁵ He attributed it to the fact that the OPP did not want information on the victims to be released. Cmdr. McCallion testified that he did not understand the reluctance to release this information. It made no sense to him.²⁰⁶

The cranes are set up and ready to be used

At 3:45 p.m., the larger crane (60-tonne), ordered by Mr. Selvers shortly after his arrival at the scene, arrived in Elliot Lake.²⁰⁷ Mr. Selvers testified that he did not believe he had lost any time while he waited for the 60-tonne crane to arrive because there was still procedural planning to be done. The plan was to use the 165-tonne crane to remove the hanging beam and the 60-tonne crane to suspend the workers in a basket inside the collapse area.²⁰⁸

Because of the configuration of the Mall and the location of the collapse, the only place they could position the cranes was in front of the interior corner of the Mall, at the entrance doors to Foodland. The 60-tonne crane was positioned to the left of the entrance (or along the long part of the L shape of the Mall).²⁰⁹ It was equipped with a 110-foot main boom and a 60-foot jib (the flexible part off the main boom) which was offset at 30 degrees. The 165-tonne crane was to the right of the entrance and had a 164-foot main boom and 60 feet of jib. The jib was kept at zero degrees to give it a better lifting capacity as it would be the one to hoist out the hanging beam.²¹⁰



Figure 2.4.6 The red part of the larger crane is the jib and the boom is white

Source Exhibit 7924

Mr. Selvers testified that one important concern with crane operations is the swing range. He explained that normally he likes to have a swing range of 360 degrees but in the case of the Algo Mall they had to exercise caution because they had only 110 degrees of swing available and the two cranes were working in close proximity. It was not possible to place them farther apart because of the location of the collapse zone in relation to the rest of the building.²¹¹

Mr. Selvers testified that it was determined that the only way to remove the beam was to rig it by wrapping cables around it, all while ensuring to maintain the angle at which it was hanging. Once the beam was secured with cables, it would be freed using a cutting torch.²¹² In order to maintain the angle of the beam, the rigging was offset, with one cable shorter than the other. The boom of the crane was also offset to control the movement of the beam once it had been cut away.²¹³ The purpose of controlling the movement of the beam, once cut, was to avoid having it come into contact with the walls, the nearby beams, or the stairwell, which had concrete resting on top that could not be disturbed.²¹⁴

He also testified that Chief Officer was concerned about the safety of the workers who would be located in the basket doing the cutting. Mr. Selvers indicated

to Chief Officer that his own son would be in the basket and that he would never put his son in harm's way. This appeared to alleviate some of Chief Officer's concerns. Mr. Selvers indicated that he did not discuss his plan with Staff Insp. Neadles and did not recall discussing it with anyone else from HUSAR/TF3 or the engineer from the Ministry of Labour.²¹⁵

Mr. Cranford testified that he reviewed the strategy for cutting and removing the beam, but he did not provide an opinion. It was beyond his expertise. He believed that it was either Capt. Comella or Mr. Jeffreys who sought his input, and he advised them that he could not advise on the strategy because he did not have much experience with hoisting and cranes.²¹⁶

3:57 p.m.: The CCG meets and is advised that the crane is in place

At 3:57 p.m., another CCG meeting was held. On this occasion, Staff Insp. Neadles was present. Those in attendance were advised by Chief Officer that the crane was in place and that the beam extraction would begin upon approval.²¹⁷ Chief Officer testified that it was his recollection that his approval was sought; he had concerns with the removal of the beam, in particular the safety of the people who would be involved in the operation. It required that workers be suspended from a basket attached to one crane inside the collapse area in order to cut the beam, while the other crane held the beam.²¹⁸

The notes on the meeting also mention next steps, which included a further meeting between “Rob/Rick/ Paul/Percy”²¹⁹ to discuss the 5 p.m. press conference. Chief Officer confirmed that this note was a reference to another meeting that was to take place in advance of the next press conference, similar to the one that had occurred earlier.²²⁰

Staff Insp. Needles testified that his purpose in attending the 3:57 p.m. Community Control Group meeting was to provide support and supply information as best he could.²²¹ He advised the group that at 9:30 a.m. there had been a confirmed identification of a victim but no further contact or confirmation since then. The group was also informed that the shoring was continuing from the north heading south in the direction of what was believed to be the location of the victim.

At that time, the CCG was informed that the plan was to remove the beam first and then the concrete slab on the escalator. Staff Insp. Needles testified that he believed the group was advised the operation would take 12 hours to complete. He said that, when he advised the group that the concrete on the escalator was going to be removed, he had not reviewed the photographs. Once he viewed the photographs of the concrete on the escalator, he knew that they would not be able to remove the slabs. He agreed that he should not have communicated a plan that could potentially not be achieved.²²²

4:40 p.m.: The City of Elliot Lake issues a press release – the public is advised of a casualty

At 4:40 p.m., a press release, prepared jointly by the media representatives for the OPP, Elliot Lake Cst. Christine Ouimet and Kate Matuszewski,²²³ was issued to the public and contained the following statement:

The Emergency Management Team is providing the following information:

Examination of the scene continues to indicate that this is still a rescue. Evidence has been uncovered that leads us to suspect that there may be a casualty.²²⁴

OPP UCRT returns to the site to begin the night shift

At 4:30 p.m., Sgt. Gillespie returned to the site following his rest period. He was informed that the next briefing would be at 6 p.m. and was told by Cmdr. McCallion that shores were being built in the area of the Hotel lobby at the north end of the collapse. At this time, Sgt. Gillespie and Cmdr. McCallion exchanged radios so that they could be kept apprised of what was happening with the other team. Despite the exchange, the radios were used infrequently during the deployment.²²⁵ Sgt. Gillespie arrived before the rest of his team, who were scheduled to return to the site for 6 p.m., so he could ascertain the night shift tasks and brief his team when it arrived. He expected there would be a meeting of the commands and the squad leaders at 6 p.m. to bring everyone up to speed on the tasks that needing completion. This did not happen. Sgt. Gillespie was unable to explain why this meeting did not take place.²²⁶ The failure to hold this meeting was contrary to Sgt. Gillespie’s training and to the predecessor of a UCRT document entitled, “Standard Operating Procedures Relating to Urban Search and Rescue Incident Response,” dated August 2012.²²⁷ This document provides that:

- USAR operations require the close coordination of all team elements for safe and successful victim extrications.
- The central point of coordination of the team lies with the team leader.

- The team leader is charged with the overall responsibility of the personnel, resources, equipment, and operations from the point of activation to demobilization at the home jurisdiction.
- This position, in conjunction with the team's supervisory personnel, must mould the various elements of the team into an integrated unit, during mission assignment.
- The team leader is responsible for the control of the team at all times.
- The team leader will ensure that an effective team command structure exists and is maintained throughout the course of the mission.
- The team leader may receive direction from the incident commander and is responsible for implementing strategic and tactical assignments.²²⁸

A previous standard operating procedure, essentially identical, was in effect in June 2012.²²⁹

Cst. Waddick returned to the site at 5 p.m. He was briefed by Sgt. Gillespie at 5:30 p.m. and the UCRT team was divided into two squads, one led by Cst. Chris Collins and the other by Cst. Hulsman. Cst. Waddick was assigned to Cst. Collins's squad, which was tasked with continuing shoring into the north building near the entrance to the Hotel lobby and the loading dock. He further testified that he had been informed that the decision had been made to remove the hanging beam, followed by the SUV, and then the debris on the pile.²³⁰

Cst. Cox and Cst. Dan Bailey also returned to the site at 5 p.m. and started a reconnaissance of the scene to determine the progress made during the daytime operational cycle. Shoring was observed in the Hotel lobby area. Cst. Cox testified that the shoring was the only significant work he recalled having been completed while he had been away from the scene.²³¹

Entry from the front of the stores was not possible because of the collapse. To gain access they breached the back walls of the stores. No dogs were used. No victims were found. Once this search was complete, the crane was ready to be put into operation.

Following his tour of the site, Cst. Cox was tasked by Sgt. Gillespie to assist the Fire Department to enter the back of the stores facing the collapse area to confirm that there were no victims trapped inside. Entry from the front of the stores was not possible because of the collapse. To gain access they breached the back walls of the stores. No dogs were used. No victims were found. Once this search was complete, the crane was ready to be put into operation.²³²

Cst. Steve Hulsman testified that he was back on shift at 6 p.m. Like the others, he was briefed by Sgt. Gillespie and was designated team leader of the night shift. He was told to continue building the laced-post shoring started by HUSAR/TF3 during the day and to build one more "rigger." HUSAR/TF3 members were still on scene, but Cst. Hulsman did not know what tasks they had been assigned.²³³

The shoring continued while the beam was being cut. It was only once the beam was about to be finally cut loose that Sgt. Gillespie instructed Cst. Hulsman's team to stand down and move away from the area, toward the entrance, for safety. He and his team spent the majority of their shift completing the shoring that HUSAR/TF3 had started on the west side of the lobby.²³⁴

Sgt. Glavin (HUSAR/TF3) began his shift at 6 p.m. He was briefed by Capt. Chris Rowland. This briefing was the first time he was made aware of what the plan was going to be. At this time, he also learned for the first time that one of the victims was believed to be deceased and the other one was believed to still be alive.²³⁵

Don Sorel, the only HUSAR/TF3 member with rigging experience, arrives in Elliot Lake

Initially, Don Sorel, an employee of Toronto Water, and a member of HUSAR/TF3, had not been available to deploy with the TF3 team. By 11:45 a.m. he was available to deploy and he arrived in Elliot Lake at 5:45 p.m. on June 24 at Staff Insp. Neadles's request.²³⁶ Several hours after his arrival on site, Mr. Sorel was assigned the task of lifting out the concrete and removing the SUV from the rubble pile. Mr. Sorel testified that before starting the work, Capt. Comella took him to the second floor of the Mall to show him the collapse zone and provide direction on the work to be completed. To the best of his recollection, he was not told that there was a limit on the number of concrete slabs to be removed from the rubble pile. During this reconnaissance, Mr. Sorel was also shown where the victim believed to be alive was thought to be located.²³⁷

5 p.m.: The City of Elliot Lake holds a press conference – a possible fatality is confirmed

A further press conference was planned for 5 p.m. Prior to it, a meeting was held at which Staff Insp. Neadles, Chief Officer, Insp. Jollymore, and others were present. There was a debate about releasing the information of a possible fatality. The notes from the meeting indicate that Staff Insp. Neadles expressed concern that the longer they waited to release the information, the more the public would think that things were being hidden. Despite his views on releasing the information, he indicated that he was prepared to go along with the majority. Chief Officer confirmed that ultimately the decision to release information about a possible fatality was made during the press conference.²³⁸

At the press conference, Insp. Jollymore stated that they had a visual sighting of a hand and a foot and that they suspected there was one casualty. In response to a question from a reporter requesting confirmation on the number of victims and casualties, Insp. Jollymore responded that the identification and number of victims were unknown.²³⁹

There was no incident action plan prepared for the night shift – it is developed as things went along

Capt. Comella testified that he did not believe he was specifically involved in formulating the plan for the second shift, but he was continually working on next steps, evaluating the building and the work to be done throughout the entire deployment. He believed that the priority of the second operational shift on June 24 would be to remove the beam and continue with the shoring. Capt. Comella also testified that the removal of the beam posed a big concern for the group because it was unknown whether it would cause a secondary collapse.²⁴⁰

Movement is noted at the top of the escalator at 6 p.m.

The evening operational cycle started at 6 p.m., when Sgt. Gillespie inspected the building and made note of "obvious minor movement of gap at top of stairs."²⁴¹ This movement was observed in the penthouse area of the rooftop parking. The gap was located at the top of the stairs which led from the rooftop parking area down to the second floor of the Mall. Sgt. Gillespie testified that the stairs at that location had started to come away from the rest of the building. He recalled that the gap became larger as time went on. He indicated that his observations were made when he was standing on the top level looking at the gap; at that point he had been able to walk right up to the top of the stairs, accessed from the rooftop parking deck.²⁴²

In addition to observing the movement of the gap at the top of the stairs, Sgt. Gillespie also noted that the beam supporting the staircase and escalator was sagging significantly more than it had on the previous day and was rotating inward from the weight of the concrete slabs on the escalator. Sgt. Gillespie testified that as a result of the sagging and twisting of the beam, he was advised that the plan was to add a tie-back, attached to the beam and secured southward to relieve some of the tension which was causing the beam to twist inward. At this point, the steel jack posts that had been ordered by Cst. Waddick on the previous night had also been delivered.²⁴³ It would appear that the information regarding the plan to add a tie-back had come from a discussion between Sgt. Gillespie and Mr. Cranford.²⁴⁴

Cmdr. McCallion had also made notes about the stability of the building; it was still moving and settling and there were concerns about the escalator collapsing. He noted that the beam under the escalator was continuing to bow incrementally, although he had not witnessed this movement himself. He testified that he had probably received this information from Capt. Comella. This 6:15 p.m. note represented the first time the concern with the beam was brought to his attention.²⁴⁵

6:04 p.m.: Staff Insp. Neadles sends an update – the cranes are getting ready and information is released about the victims

At 6:04 p.m., Staff Insp. Neadles sent his fifth update to the group, which stated:

Status quo on the Operations. The first of two cranes is set and the second crane is getting set up now.

The team continues to work on the stabilization at the south end.

We are commencing a shift change now. Team 2 is coming on as well as the OPP UCRT Team.

There was a press Conference at 1700 where the info on two victims was released. One being a Rescue.²⁴⁶

Staff Insp. Neadles testified that the notation in the update about stabilization at the south end was an error and should have read “north end.” He confirmed that this was in reference to the shoring being performed in the Hotel lobby.²⁴⁷

The crane is ready to cut the beam

As of 7:50 p.m., Millennium Crane had completed its setup and the operation for the removal of the beam had started.²⁴⁸

Initially, it had been decided that the ironworkers brought by Millennium Crane would weld lugs to the top flange of the hanging beam in order to attach the cables which would be used to hoist it out once it was cut. But after examining the beam, it was determined that there was too much rust on the top flange to securely weld the lugs to the flange. It was decided that they would double-wrap a choker around the beam (with cables) to ensure that it did not slip out of the rigging after it was cut. The boom and load line were angled away from the building, off centre, to offset the load line so that when the beam was lifted out it would be away from the closest wall.²⁴⁹

A test lift was performed of the suspended platform that would be carrying the workers. Mr. Selvers testified that such a procedure is always performed in the ordinary course of any crane operation. He said he felt the Ministry of Labour was scrutinizing his procedure but he acknowledged that the officials did not request that the test procedure be carried out. The ministry engineers asked to see the structural certifications for the cranes and the diagram of the procedure to be followed that had been prepared by Millennium Crane. Mr. Selvers confirmed that the ministry did not cause a delay in the operation.²⁵⁰

Once the test procedures were completed, two workers were lowered into the collapse area on a work platform suspended by the smaller crane. The beam was wrapped with cable chokers and suspended with the larger of the cranes (165 tonne). This crane would ultimately lift the beam out of the collapse area once it was cut free. A tag line was also attached to the beam to provide greater control once it was cut.²⁵¹

While the beam was being cut, water was sprayed across the collapse area to suppress any fire. Once the cutting of the beam began at approximately 8:00 p.m., the process was uninterrupted.²⁵² Cst. Cox testified that, while the beam was being cut, he was stationed on the west side of the second level of the Mall monitoring for any potential fires that could ignite from the sparks created by the cutting of the beam.²⁵³

Once the cutting was completed, the beam swung out but did not make contact with any of the surrounding structures. The two workers were lifted out first and then the beam was lifted out.²⁵⁴

All other work in the Mall, other than the fire suppression operations, was stopped while the beam was being cut because of concerns over safety. Capt. Comella testified that only the essential people were allowed in the hot zone – all Mall areas – as a precautionary measure during the beam removal procedure.²⁵⁵

Brian Sanders, a regional engineer with the Ministry of Labour, arrived in Elliot Lake at 10:24 p.m. to assume care and control of the removed failed beam. At the time of his arrival, he knew little of what had occurred. All he knew was that there had been a collapse and there was one possible fatality. He had not expected that the rescue operations would still be ongoing so long after the collapse.²⁵⁶

After the beam had been removed from the collapse area, the next step involved removing the SUV from the top of the pile. The windows of the SUV were broken to run the rigging equipment through the door frame and lift the vehicle out by the roof.²⁵⁷

9:04 p.m.: Staff Insp. Neadles sends an update

At 9:04 p.m., Staff Insp. Neadles provided a sixth update to the group and advised that the two cranes were preparing to cut the beam and that all other work in the Mall had been suspended. At this point he also advised that the number of missing people had been reduced to just two.²⁵⁸

9:30 p.m.: A fourth sign of life is reported

At 9:30 p.m., Cst. Bailey and his dog Dare were sent into the Mall to search the rubble pile. This was the first time Dare, a cross-trained dog capable of identifying live and deceased victims, was sent out to search on the pile. Dare gave an indication of a live victim by barking and trying to crawl into a void.²⁵⁹

9:52 p.m.: CCG meeting

Another CCG meeting was held at 9:52 p.m. Once again Staff Insp. Neadles was in attendance. At this time, he reported to the group that they would not be able to remove the large piece of concrete slab resting on the escalator, but rather that they would try to support the slabs. He testified that at some point in the evening the decision was made that the concrete slabs on the escalator would not be moved. He further testified that the reference to attempting to support the slabs would have been information he received from Capt. Comella and the engineers. He subsequently confirmed in his evidence that Capt. Comella told him that they would not be able to support the slabs on the escalator. This plan was ultimately deemed not to be feasible.²⁶⁰

More work zones are created on the west side of the collapse

At 10:40 p.m. Capt. Comella and Messrs. Jeffreys and Cranford discussed moving some of the shoring work to the west side of the collapse area on the main floor, with the intention of creating an additional safe work zone (see fig. 2.4.7).²⁶¹ Capt. Comella denied that the numerous work zones established in the Mall did nothing to assist in moving the operation forward toward the goal of removing debris off the pile and reaching the victims, and only served to increase safety. He explained that the numerous work zones were creating clear and safe areas to provide a path for debris management as they moved closer to the victims. He stated that a really good plan had to include a path to remove debris. He said that these zones were an important piece of the puzzle. Capt. Comella could not comment as to whether debris was ever removed from zones 6, 7, and 8.²⁶²

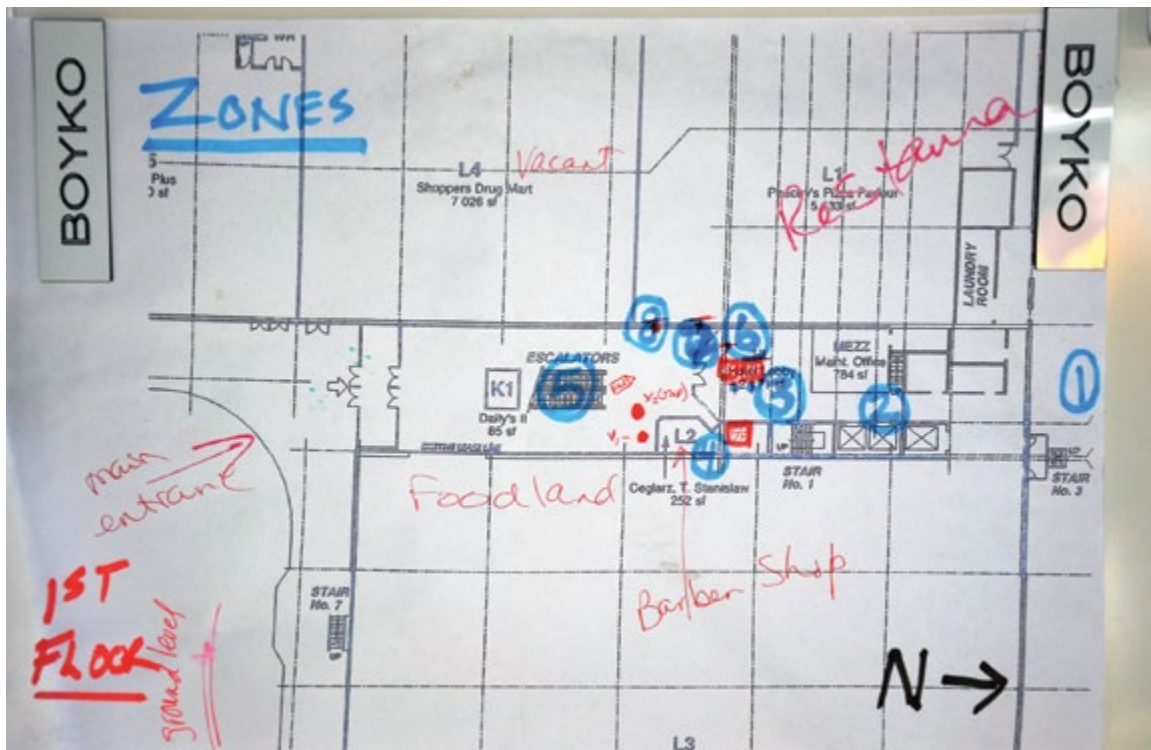


Figure 2.4.7 Work zones

Source Exhibit 7946

Secondary movement of the building is again recorded – the crack seems to be getting bigger

At 10:45 p.m., Capt. Comella noted that the escalator and stairs appeared to have sunk further since his assessment that morning.²⁶³ This observation was discussed with Messrs. Cranford and Jeffreys. Capt. Comella testified that this was not the first time he had noted movement in the crack at the top of the escalator and the stairs. It now appeared that the crack had changed from earlier in the day. He noticed the change because he had tripped over the crack. He had walked through that area on many occasions during the day, but this was the first time he tripped on the crack. He testified that by the night of June 24, the crack had become much larger and there was a height differential between the two edges. At that point he was unable to determine if or how

much the stairs and escalator had dropped. However, the fact that he had tripped on it, when he had not done so previously, raised concerns about movement and he felt that they needed to start monitoring the crack. At that point, Capt. Comella and Messrs. Jeffreys and Cranford decided to continue visually observing the crack.²⁶⁴

11:30 p.m.: the LifeLocator is deployed and gives the fifth sign of life

At 11:30 p.m. Cst. Hulsman deployed the LifeLocator device to try to find signs of life.²⁶⁵ The LifeLocator was described as sensitive equipment used by UCRT that has the ability to detect faint signs of breathing and movement. This was the first time he had deployed the LifeLocator outside training.²⁶⁶

He deployed it in an area where he had been told that there had been a live hit by the dog.²⁶⁷ To deploy the device, he lowered it onto the pile from a basket that he was in about 20 feet above the pile. When he operated the machine, there were a number of rescuers within 15 metres of the LifeLocator. This is contrary to the manufacturer's recommendations.²⁶⁸

Cst. Hulsman testified that the results he obtained showed breathing on four occasions; however, the depth of the source of the breathing below the LifeLocator varied. The closest was 2.7 metres and the furthest was 6.2 metres below the device.²⁶⁹

The decision is made to use the crane to hoist debris off the pile

Sgt. Gillespie, Mr. Jeffreys, Mr. Cranford, and Capt. Comella discussed how to proceed after the beam was successfully removed from the collapse area. Sgt. Gillespie testified that he proposed that the crane be used to remove the concrete slabs from the rubble pile. In his opinion, the crane was the safest and most expeditious way to proceed. Concerns were raised by Capt. Comella that the pile could become dynamic and start sliding if they started lifting slabs. Sgt. Gillespie testified that he did not have these same worries because no significant movement had been noted in the pile throughout the day. He further testified that Mr. Jeffreys did not seem to have an issue with lifting the slabs out with the crane. Ultimately, Capt. Comella agreed that proceeding in this manner was a reasonable option and indicated that he wanted two HUSAR/TF3 and two UCRT members as part of the rigging crew. Sgt. Gillespie agreed and there was consensus that the Millennium Crane workers should not be rigging on the pile. Rigging involves placing a chain, webbing, or straps around an object to be lifted with a crane. The extent of their knowledge and experience was unknown. Mr. Jeffreys agreed with the plan to start hoisting out slabs of concrete, provided that only UCRT and HUSAR/TF3 members would do the rigging.²⁷⁰ Sgt. Gillespie testified that all but two UCRT members had Level 2 training for rigging but he did not know how many of the HUSAR/TF3 members were similarly trained.²⁷¹

The evidence of the time when the concrete slabs were rigged and hoisted out of the collapse area differed from witness to witness. Many testified that it had been difficult to keep track of the time and acknowledged that, to the extent they had prepared notes, the time indications could be incorrect. According to Sgt. Gillespie's notes, the removal of the concrete slabs did not start until 10:45 p.m.²⁷² whereas Cst. Waddick's notes have the work starting at 8:30 p.m.²⁷³ Fortunately, the difference between the notes of Cst. Waddick and Sgt. Gillespie is inconsequential.

Before starting the rigging and hoisting on the pile, Mr. Sorel testified, the first thing he and Cst. Waddick did was create an escape route for the riggers. The location identified for the escape route was in the northwest corner of the collapse zone. Mr. Sorel testified that they worked on the escape route and the rigging and hoisting of the slabs off the pile at the same time.²⁷⁴ The procedure for removing the concrete slabs involved rigging, then carefully lifting the concrete to be hoisted. Initially the piece would only be lifted a few inches to see if it would crumble or be stable enough to be lifted out whole.²⁷⁵

A rotated beam is noticed and it is determined that the SUV needs to be removed

Mr. Cranford testified that according to his notes, he was called to return to the site at 2:00 a.m. on June 25 to assess a beam which was noted to be rotating. He explained that the crew had been building laced-post shores on the west side, behind the beam which was believed to be rotating. According to Mr. Cranford's notes, the SUV had not yet been removed from the pile and was determined to be the cause of the rotation. It was observed that the SUV was resting on a beam which was connected to the rotating beam.²⁷⁶ The vehicle was moving up and down on the beam as the rigging crew was working. Mr. Cranford testified that, as a load was being moved around from the rigging, the beam could be seen to be rocking a little bit, causing it to rotate more.²⁷⁷ Because of the movement seen in the beam, it was decided that the vehicle would be moved so that they could confirm that the rotation of the beam was caused by the weight of the SUV and not some other source.²⁷⁸

The work was stopped while Mr. Cranford examined the rotating beam. This stoppage was unrelated to the crane operations. Once Mr. Cranford had completed his review the work resumed.²⁷⁹

The SUV is hoisted out and the rigging of the concrete slabs continues

Before they could move the SUV, two pieces of concrete slab needed to be removed in order to provide an escape route for the rescuers performing the rigging.²⁸⁰ Cst. Waddick testified that when the SUV was removed there was some swinging from the crane, but nothing of concern. As they started lifting the SUV, it was noted that one of the tires was pinched between pieces of concrete. Cst. Waddick gave direction to the crane operator to take some of the load (to pull up on the car); he then directed the operator to stop and lower the load, and the tire pulled free. This action caused the boom and the SUV to swing. There was no contact with the rubble pile; there was contact with a beam, but no movement of the pile or any of the structural elements was observed. The rigging for the removal of the vehicle was done by Cst. Waddick, Cst. Cox, and two HUSAR/TF3 riggers, one of whom was Mr. Sorel.²⁸¹

According to Cst. Waddick, rigging the pieces of concrete slab required lifting the slabs up with prybars in order to get the rigging straps/cribbing underneath. In many cases it was necessary to lift the pieces up at least four times to get the straps/cribbing in place to ensure that the load was balanced.²⁸²

The slabs being removed were from the general area where the victims were believed to be located. Cst. Waddick stated that he was not relying on the signs of life which had been reported up to that point. He explained that, although the rescuers assumed the victims were at the south end of the pile, they could not just start removing concrete from that area, because it would have created a slide on the north side of the pile. The approach used throughout the night was to remove pieces progressively down through the pile. The higher pile on the north end was removed to stabilize the area so that they could begin removing the debris from the area where they believed the victims were located. Throughout the rigging and hoisting operation they continued to use cameras to check the voids because they did not know exactly where the victims were located. Cst. Waddick testified that they eventually located Mrs. Doloris Perizzolo next to a bank of payphones on the east side (albeit not until June 27) and Ms. Lucie Aylwin was found two to three metres west of Mrs. Perizzolo's position.²⁸³

Cst. Waddick testified that, the entire time he was rigging and hoisting pieces of concrete slabs from the rubble pile, he did not observe concrete pieces or debris slipping and falling out of the cribbing onto the pile. He further testified that he did not experience any movement, vibration, or groaning noises from the steel or any other sounds that would suggest or indicate any kind of movement of the building or the pile.²⁸⁴

The rigging and hoisting operations were supervised during the night by Sgt. Gillespie, Mr. Lacroix, Mr. Jones, and Capt. Comella to ensure that none of the riggers positioned themselves into a dangerous location, especially when the lifts were occurring. They were also monitoring for overhead hazards.²⁸⁵

Sgt. Gillespie testified that he could not recall how many slabs were removed during the night of June 24 but he was certain it was more than three. He explained that initially they had talked about lifting a few slabs to see how things developed, but there was no hard and fast number of slabs to be lifted. It was agreed that they would proceed slowly to ensure that the operation was as safe as possible. He acknowledged that initially there may have been discussions about lifting a limited number of slabs; however, during the night they were constantly assessing the situation as the slabs were being lifted. Sgt. Gillespie testified that he and Capt. Comella stood beside each other for many hours while the rigging was occurring and removing only three slabs was not discussed.²⁸⁶

Mr. Sorel testified that the rigging and hoisting operations were stopped on two occasions during the night, not for safety reasons, but to do a call-out. He testified that for the call-out Greg Law, a member of HUSAR/TF3 and one of the riggers assisting with hoisting the slabs off the pile, would get down on his hands and knees and yell into a void in the pile and state: "Search-and-rescue. We're here to help you, we're coming to get you. If you can hear us, please give us an indication, tap or call-out."²⁸⁷ The call-outs by Mr. Law were performed twice. No response was received.²⁸⁸

Capt. Comella testified that, during the night and into the early hours of Monday morning, two concurrent operations were being performed: the rescue shoring which was coming in from the north, and the shoring from the west toward the pile. Contrary to Sgt. Gillespie, he testified that there had been a discussion about removing three pieces of concrete, because the LifeLocator had a hit indicating that there was a victim close to the surface. He said the rescuers were continuing with the tunnelling, which simply meant that the team was moving forward into the pile; he explained it was a loose term that they used and that going down a hallway would be considered "tunnelling."²⁸⁹ It did not mean actually building a tunnel.

Capt. Comella further testified that the rigging operation with the crane for the removal of debris was not the main operation on the night of June 24 and the early hours of June 25. He explained that the crane was assisting the rescuers with the removal of debris because the LifeLocator had indicated that the victim appeared to be close to the surface. He testified that, but for the information received from the LifeLocator device, they probably would not have used the crane to remove debris. He explained that the rescuers would have simply continued moving forward toward the pile with the shoring activities. He explained that the reticence to conduct crane operations above the location of a victim is lack of control. Once a piece is lifted, a crane might fail, a cable could snap, or a piece could break apart, endangering the victim. Those types of issues do not arise when tunnelling because every piece encountered during the advance is stabilized by first using lumber.²⁹⁰

I have difficulty understanding the logic of that reasoning. While tunnelling will certainly protect the rescuers, I fail to see how it assists in removing large pieces of concrete, particularly when time is of the essence. I acknowledge the validity of the described risks when using a crane, but given the dynamics of the collapse, as well as the weight and size of the pieces overlying the victims, it seems to me that crane operations in the Elliot Lake rescue were vitally necessary. More related training and experience might have given the rescue teams more confidence in their use.

The shoring operations in the area of the Hotel lobby continued while the crane was removing the beam but were stopped while the SUV was being lifted. Sgt. Glavin testified that the SUV had been sitting on a beam attached to the area above the shoring work, making the interruption necessary in the event of a mishap during the lift.²⁹¹

... given the dynamics of the collapse, as well as the weight and size of the pieces overlying the victims, it seems to me that crane operations in the Elliot Lake rescue were vitally necessary. More related training and experience might have given the rescue teams more confidence in their use.

Work stoppages

Cst. Hulsman recalled that there were some brief work stoppages while completing the shoring in the night of June 24. Although Mr. Lacroix and Mr. Jones were on site that night, the stoppages were ordered by Capt. Rowland, the night shift squad leader, ostensibly because of concerns about a twisting I-beam. Sgt. Gillespie was advised and he ordered the team back to work. The reasons for the indecision were not explained.²⁹²

The families of the victims are not provided with adequate information in the first 24 to 36 hours following the collapse

Robin Kerr with Victims Services of Algoma testified that the families at the Collins Hall had not received any updates since 11 p.m. on June 23. At 3:30 a.m. on June 24, she went to the OPP detachment to request that a police officer go to the Collins Hall to provide an update to the family members. When she arrived at the detachment, she was unable to gain entry. An OPP cruiser drove by and she managed to flag it down and asked the two officers if someone could go to the Collins Hall to provide an update. No one went to provide an update until two hours later.²⁹³ In accordance with Ms. Kerr's notes of the events following the collapse, Staff Sgt. Dan Esposto, the communications officer assigned to the families, went to the Collins Hall and advised the families that the search was still progressing and that HUSAR/TF3 was on its way.²⁹⁴

Ms. Kerr described the update provided by Staff Sgt. Esposto as very short and abrupt. She indicated that he delivered his update to all those present at the Collins Hall but that Mrs. Perizzolo's family were outside at that point. Ms. Kerr asked the officer to wait so she could go outside and get them. He ignored her request and proceeded to provide an update anyway. Ms. Kerr testified that generally everyone present for the update seemed content; they wished that they'd been provided with more information during the night but were thankful to have received something. She further testified that once Staff Sgt. Esposto had finished giving his update, he pulled her aside and asked that she not do that again. He told her that he would come and give the updates, and they could be shared by others.²⁹⁵

Insp. Jollymore testified that from his perspective the OPP did a good job keeping the families informed about what was going on. He said that he ensured that his counterpart on the night shift went to the Collins Hall every two hours to provide an update. He also indicated that he had the Critical Trauma Support Team deal with the families on Sunday and on Monday as well.²⁹⁶

Gary Gendron, Lucie Aylwin's fiancé, testified that on the morning of June 24, he returned to the Collins Hall to see if any new information was available. Although he and the other families had been told that they would be receiving updates every two to six hours, this was not occurring. The families were getting more information from the radio than they were from the individuals in authority. Mr. Gendron recalled receiving information at some point on June 24 that a heartbeat had been detected and that the rescuers had heard tapping coming from the rubble pile.²⁹⁷

Ms. Kerr raised the lack of information with Insp. Jollymore, who apologized and indicated that he would ensure someone would attend to update them. Following this discussion, Ms. Kerr indicated that the updates became more frequent during the day on June 24 and were being provided by a designated OPP officer, Cst. Laura Hicks. Ms. Kerr testified that Cst. Hicks would go to the Collins Hall and speak to the families personally. Ms. Kerr testified that the updates from the officer created a good flow of information between the people in authority and those at the Collins Hall.²⁹⁸

Darrin Latullipe, husband of Teresa Perizzolo, testified that at one point he was informed by Staff Insp. Neadles that signs of life had been detected and that one deceased victim had been located by a cadaver dog. He said that they were told that the building was being shored up and that at that point in time the escalators were the major issues.²⁹⁹

During the night of June 24 into the early hours of June 25, Staff Sgt. Esposto (although misidentified in Ms. Kerr's testimony as Cst. Esposito) attended at the Collins Hall every two to three hours to provide updates. The last update was provided at 6:40 a.m. on June 25. After that final update, no further information was provided to those at the Collins Hall until 2:00 p.m. on June 25.³⁰⁰

Ms. Kerr called to the North Bay dispatch centre and was put through to an officer at the Elliot Lake OPP detachment. This person had no information to share. Ms. Kerr requested that someone attend at the Collins Hall to provide an update and emphasized that the families needed to know that the rescuers were continuing to work and needed to be told what was happening. However, no one came to the Collins Hall to provide an update. In her view, the updates should have been coming from someone with a badge because the representation of authority gives the families confidence in the accuracy of the information being given to them.³⁰¹ Ms. Kerr described the effect lack of information has upon the public as follows:

The turmoil grows, and speculation rises, and we had individuals from the community coming in and starting to spread what could have been rumours. We didn't know. So we worked at our utmost to try and stop that because we didn't want rumours and speculation spreading throughout the hall. And without information, you begin to think the worst instead of what may be the outcome. So it is very, very important that the victims are involved and always brought up to date in what is occurring.³⁰²

Victims Services ultimately made the decision to put workers at the main door to the Collins Hall to stop people entering. As people arrived, they would be asked what their purpose was (what they needed, who they were looking for) and then directed if necessary to other services available in Elliot Lake. These efforts were put in place in an attempt to stop the flow of misinformation being relayed to the victims' families. Ms. Kerr testified that she assumed misinformation spread nonetheless but could not provide specific examples.³⁰³

Messaging being provided to the community at large

Insp. Jollymore testified that as of midday on June 24, he was of the view "[t]hat we really did not know who was trapped or who wasn't trapped in the rubble and that we had some reports of life, and that is all we could confirm."³⁰⁴ He testified that Chief Officer had a different view of the casualties and was of the opinion that an announcement should be made that a foot had been found without a pulse, which would mean announcing that there was a confirmed death. Insp. Jollymore did not agree with this position because there was no way of knowing if the foot had been severed or pinched. He felt that in the circumstances it would have been irresponsible to announce that someone had died. He testified that he would have been fine with advising that a foot had been found but he was not prepared to use that information to confirm a death. Chief Officer ultimately agreed to go along with the decision not to announce that someone had died.³⁰⁵

It was pointed out to Insp. Jollymore during his testimony that an EMS technician had confirmed that the person was dead on June 23. He responded that it was his understanding that an EMS technician did not have the authority to make a declaration of death and that OPP protocol dictates that, when it is not clear if a person has died, a pronouncement of death from a coroner is required. From his perspective, the pronouncement of death of that victim was not going to occur until the coroner took charge of the scene, which was not going to happen until a body was recovered. He did confirm that there could be times when an EMS technician could

pronounce death, if there are obvious signs, such as decapitation or if the person has clearly been deceased for a long period of time. However, in his opinion, he needed more than a foot with no pulse to be able to make the pronouncement of death.³⁰⁶

When asked about informing the families about a death, Insp. Jollymore testified that he would not have known which family to inform, as he did not know who had died. He thought that, notwithstanding his opinion, ultimately it was up to the City of Elliot Lake or possibly Chief Officer (he was unsure) to decide what information

There are times, of course, when the need for confidentiality outweighs public disclosure. But in a situation like the one that existed in Elliot Lake, simple humanity and the preservation of public order dictated frankness, openness, and clarity rather than secrecy.

to release.³⁰⁷ He testified that he would not have objected if the City had released information stating that they suspected there was a casualty, which by definition would include a death or an injury. However, this was not done.³⁰⁸

I disagree with Insp. Jollymore's approach. Telling things as they are may sometimes be inconvenient or hard, but if one remains silent, others will invent more inconvenient versions. That is how rumours and falsehoods spread. Obviously, truth sometimes needs to be well told, but told nevertheless. There are times, of course, when the need for confidentiality outweighs public disclosure. But in a situation like the one that existed in Elliot Lake, simple humanity and the preservation of public order dictated frankness, openness, and clarity rather than secrecy.

June 25

12:03 a.m.: Staff Inspector Neadles sends an update

At 12:03 a.m. on Monday, June 25, Staff Insp. Neadles sent out a seventh update to the group. He advised that the team was removing debris and shoring the necessary areas to allow the rescuers to continue moving toward the victim. He also advised that the crane had been used to remove the hanging beam and was being used to assist with removing slabs of concrete to expedite access to the victim.³⁰⁹

2:20 a.m.: Cmdr. McCallion sends an update

At 2:20 a.m. on Monday, June 25, Cmdr. McCallion sent out an eighth update to the group and advised that the crane had removed the SUV along with a few pieces of concrete. He advised that the structural integrity of some columns was still in question but that the removal of the debris was continuing. He indicated to the group that there were no further updates to report on the status of the victim.³¹⁰

Information is received regarding the condition of the victim believed to be alive

In the early morning hours of June 25, Dr. Michael Feldman, the HUSAR/TF3 physician, learned that one of the missing persons believed to be trapped in the rubble pile was a brittle diabetic. This information had been provided to him by a local doctor.³¹¹ The survival chances of a person with this medical condition in a rubble pile is addressed in detail in Chapter 8, The Victims: Cause and Time of Death.

The possibility of shoring underneath the beam supporting the escalator is reviewed once again

According to his 3:45 a.m. notes, after examining the beam rotating because of the weight of the SUV, Mr. Cranford again discussed shoring the beam under the escalator. He could not recall whom he had this discussion with, other than to indicate that it was one of the rescue commanders. He testified that earlier he had spoken with UCRT and Capt. Comella about ways to support the escalator. He explained that at this point in the operation the work on the rubble pile was progressing and the rescuers were anticipating moving into the area of the escalators. He noted that there were steel hollow structural section posts (HSS posts or steel tubes used in construction) available on the site that would have been suitable for shoring under the escalator.³¹²

The riggers have been working all night and into the early morning hours

At 4:08 a.m., the rigging crew took a break. They had been rigging on the pile since approximately 11:00 p.m. on June 24. During this rest period, the pile was again searched with the dogs and with the LifeLocator.³¹³

As the crew continued to work on the pile, the pieces became more difficult to rig and hoist. Sgt. Gillespie testified that at the beginning the pieces were more intact and easier to remove; as the workers went lower into the pile, those pieces required more adjustment before they could be lifted out. It was becoming a more time-consuming task.³¹⁴

Capt. Comella returned to the scene at 5:45 a.m. He met up with Sgt. Gillespie, who was still acting as safety monitor for the crew rigging on the pile. He noted that more slabs had been removed than originally planned. He was not concerned as it was normal that they would have re-evaluated the plan as the work progressed.³¹⁵

The dogs are sent in again to search but yield no concrete results for a live victim

At 4:00 a.m., both Sgt. Fowlds and Cst. Bailey returned to the pile with their dogs, Ranger and Dare. Cst. Bailey accessed the pile with Dare first. During this search, Sgt. Fowlds left the area, not wanting to be influenced by where Cst. Bailey and his dog were indicating on the pile. Sgt. Fowlds returned to the pile once Cst. Bailey and Dare had finished their search and had no conversation with him. He began searching the pile with Ranger in the area where he had indicated the first time. Ranger deployed off lead (without a leash and harness) from the north end of the pile. At this point, the collapse area had changed because of the removal of the SUV and concrete slabs. Given that debris had been removed at this point, Ranger was able to search a larger area, but also searched the same area that had been part of the previous search. Ranger moved up and down the pile. Although the dog continued to work the area with a lot of interest, he did not indicate on any area. Sgt. Fowlds testified that Ranger had caught a scent and was trying to pinpoint its location by moving back and forth across the pile, but there did not appear to be enough of a scent present to cause Ranger to bark. Sgt. Fowlds testified that Ranger had searched the pile for approximately 10 minutes. He called Ranger off the pile and then reported to Capt. Rowland that there had been no indication from Ranger, although he had shown a lot of interest in the same area where he had indicated the day before.³¹⁶

Cst. Bailey's notes indicate that he was asked to take Dare back onto the pile at 5:03 a.m. Unlike the first time, when he could not go beyond the entrance doors near Foodland, he could access the pile with Dare and observe his actions and demeanour. The indications given by Dare during this search caused Cst. Bailey to believe that he was no longer indicating on a live victim, but he was not certain.³¹⁷

The LifeLocator is used a second time

Cmdr. McCallion testified that he was informed that signs of life had been detected with the LifeLocator. His notes state that the detection was made at 4:00 a.m. and there were indications of breathing at a distance of 2.6 metres below the location of the device. The work and shoring continued in the location where indications of breathing were identified with the LifeLocator. He testified that, when he was provided with the results from the LifeLocator, the information did not qualify the strength of the reading. He recalled that, while the LifeLocator had been deployed, there were people within 15 metres of the device. Being told that there was breathing detected 2.6 metres below where the device had been placed on the pile would have meant that the victim was underneath the concrete pad of the bottom floor of the Mall. This made no sense. He questioned the accuracy of the results from the device but did not voice his suspicions then. A few hours later, likely before noon on June 25, he recalled giving the results to Staff Insp. Needles, who advised him that they needed to take the information for what it was, namely, that it was showing that there was something there. Cmdr. McCallion explained that he trusted that the UCRT officer using the device was qualified, but he questioned the value of the results.³¹⁸

The LifeLocator was deployed for the second time at approximately 4:30 a.m. while the riggers were taking a break. Because the hanging beam and some of the concrete slabs had been removed, Cst. Hulsman was able to deploy the device without having to suspend it from a rope. Sgt. Gillespie felt that the results would be more reliable. The device would be used where Cst. Bailey had advised that his dog Dare had just moments earlier shown an interest. When the LifeLocator was deployed, it provided a “faint” indication, which meant that it was difficult to confirm breathing.³¹⁹

Cst. Hulsman’s notes indicated that he deployed the LifeLocator at 5:30 a.m., not 4:30 a.m. Although his notes and Sgt. Gillespie’s differ, there is no indication that the LifeLocator was deployed more than once in the early morning hours of June 25. Cst. Hulsman explained that during the second deployment, the device was placed only once in the centre of the pile in the same location as on the earlier deployment; he moved to the northwest corner to get as far away from the device as he could without getting off the pile. He believed that he was approximately 15 to 20 feet away from the device, but still within the 15-metre recommended exclusion zone. Cst. Hulsman explained that it was recommended by the manufacturer that no persons should be located within a 15-metre radius of the area where the device was to be deployed in order to avoid the potential that the LifeLocator could pick up the breathing and movement of these other persons, as opposed to that of the victim under the pile. The training received by Cst. Hulsman and the 15-metre exclusion zone is discussed later in this chapter. There were other workers in that zone. The device again gave a positive reading for breathing, but on this occasion it took longer for the breathing indication to display on the monitor. There was no movement indication this time around. He testified that he had the same level of confidence in the results for both deployments.³²⁰

Sgt. Glavin, a technical search specialist, watched the deployment of the LifeLocator out of professional curiosity.³²¹ He said that when it was deployed there were eight to 10 people less than 12 to 14 metres from the machine.³²² He said that two OPP officers were involved but Sgt. Gillespie was not one of them. He thought that the officers were not confident in their ability to use the LifeLocator. He based this judgment on their body language and conversation.³²³

The results were reported by the officers who said: “We have signs of life 12 metres.” Sgt. Glavin said that they indicated that 12 metres was below. Since the machine was nearly on the floor, it occurred to him that the LifeLocator was picking up the breathing of someone in the 12-metre range.³²⁴

Search cameras are used in the pile – fabric is seen on the camera

Sgt. Gillespie also testified that two HUSAR/TF3 members accessed the pile and performed a search with cameras and identified what appeared to be red and blue clothing. He testified that the HUSAR/TF3 members could not be certain it was clothing, but they believed it could be. This was the first time that they had seen fabric or clothing in the pile. Before this search, the only thing that had been seen other than concrete was insulation, wires, and construction debris. Until that point, they had no visual evidence that could indicate a person. The searchers were unsure if the objects believed to be clothing were on a person, but the image was in the same area where they believed the living person was located.³²⁵

Issues raised with OPP safety practices

Cmdr. McCallion testified that when he returned to the scene for the shift change on the morning of June 25, Capt. Rowland approached him with concerns regarding the manner in which the rigging operation had been conducted. He explained that his team had been building laced-post shores overnight and was concerned that, when the riggers were lifting and lowering slabs, they had not been communicating with him and his team. Capt. Rowland explained to Cmdr. McCallion that his team was 16 to 17 feet away from the rigging operation and, as the debris was being lifted, any swinging or failure could have impacted his team, particularly as they had no visual contact with the rigging operation and could not anticipate an impending incident.³²⁶

Cmdr. McCallion acknowledged that a safety officer was watching the rigging operation and another safety officer was watching the team building the laced-post shores, and that these two safety officers should generally be able to talk to each other. He also confirmed that the UCRT and HUSAR/TF3 radios were not compatible with each other.³²⁷

Cmdr. McCallion testified that he valued Capt. Rowland's opinion and, if he was concerned, he felt it would be justified. He did not ask Capt. Rowland if he had raised his concerns with the riggers during the overnight operation.³²⁸

Following his discussion with Capt. Rowland, Cmdr. McCallion approached Sgt. Gillespie and relayed the concerns that had been raised. Cmdr. McCallion testified that Sgt. Gillespie said he did not understand why Capt. Rowland had not approached him at the time. From his standpoint, having watched the rigging throughout the night and into the early morning hours, everything had been done safely.

Cmdr. McCallion testified that, while he was talking to Sgt. Gillespie about the matter raised by Capt. Rowland, he witnessed Mr. Sorel working in an unsafe manner. He saw Mr. Sorel lying down on his side with his arm underneath one of the slabs up to his shoulder. Cmdr. McCallion reprimanded Mr. Sorel. The slab under which Mr. Sorel had his arm was over the area where Mrs. Perizzolo was believed to be located. Cmdr. McCallion instructed Mr. Sorel that he was not to put himself at risk for a victim who was being treated as deceased. Cmdr. McCallion testified that Mr. Sorel took exception to this instruction and said that it was necessary to get the victim out. Cmdr. McCallion repeated his instruction that the rescuers needed to be working on the live victim. Mr. Sorel ultimately followed the instructions given to him.³²⁹

Capt. Rowland explained to Cmdr. McCallion that his team was 16 to 17 feet away from the rigging operation and, as the debris was being lifted, any swinging or failure could have impacted his team, particularly as they had no visual contact with the rigging operation and could not anticipate an impending incident.

Sgt. Gillespie addressed the exchange which occurred between him and Cmdr. McCallion and the allegation that UCRT was working in an unsafe manner on the pile. He confirmed that he met with Cmdr. McCallion at 6:35 a.m., just before a shift change. Cmdr. McCallion informed Sgt. Gillespie that Capt. Rowland had complained about unsafe practices of the rigging crew. Sgt. Gillespie testified that Cmdr. McCallion accused him and his team of operating in an unsafe fashion the entire night. Sgt. Gillespie testified that he stated that all levels of safety had been maintained. He explained to Cmdr. McCallion that he, Capt. Comella, and two Ministry of Labour personnel had been present and observed the operation throughout the night and that none had expressed any concerns. He said he felt personally targeted by Cmdr. McCallion's accusations and testified that the exchange became heated.³³⁰

Sgt. Gillespie's notes taken that night reflect much of what he expressed to Cmdr. McCallion during the exchange, in particular:

... pushing forward with every possible timely method to gain access to the likely viable patient signs of life as of 04:30 and time is against us to save this person. We must continue to save this person. We are operating with the utmost safety and have gained significant towards our goal throughout the night. If we are to save this person, we must continue. Riggers still able to continue. Never once were any of Roland's concerns brought to me personally, either Task Force 3F-3/OPP radio – I had both, as well as TFS command and we were never made aware of his concerns despite his obvious ability to do so. Requested rigging crew from day shift TF3 to continue. Denied for this request from him. Advised McCallion as TF3 not available to provide more relief for our members that we will continue two large slabs only to be removed to allow gain access.³³¹

Cmdr. McCallion testified that he believed the riggers were working under a "false sense of security" because the area where Mr. Sorel and Cst. Waddick were working was very close to the beam below the escalator and the overlying slabs.³³²

Mr. Jones testified that he was on the scene and observed some of the rigging and hoisting of the slabs that had occurred throughout the night. He indicated that if he had seen anything of concern or anyone working in an unsafe manner he would have spoken to the individual involved or to his supervisor. He did neither. As far as he knew, no one from the Ministry of Labour had any discussions with the rescue workers about unsafe practices that night.³³³

In order to ensure that the response runs smoothly and that all rescuers are kept safe, it is incumbent upon all those in a leadership or command position to ensure proper communications between all the parties.

Capt. Rowland was not called as a witness to testify. In order to ensure that the response runs smoothly and that all rescuers are kept safe, it is incumbent upon all those in a leadership or command position to ensure proper communications between all the parties. If Capt. Rowland had concerns about the manner in which the work was being carried out by the riggers, he should have approached Sgt. Gillespie at the time to raise those issues and arrive at a solution to ensure that all the workers in the building could continue to work safely.

Sgt. Gillespie had a HUSAR/TF3 radio in his possession. If Capt. Rowland had concerns, he should have expressed them at the time directly to Sgt. Gillespie, rather than waiting to express them after the fact to Cmdr. McCallion. This exchange further illustrates the communication and coordination problems that existed between the two teams.

The results of the second deployment of the LifeLocator are relayed to HUSAR/TF3 and influence the decision whether to continue with the crane operation

Sgt. Gillespie testified that, although he relayed the information about the results obtained from the use of the LifeLocator in the early morning hours of June 25, he did not express any reservations to Cmdr. McCallion about the accuracy of those results. He explained that he had fewer concerns about the manner in which the LifeLocator was employed the second occasion and believed that the device was indicating that there was a person underneath the pile.³³⁴

Capt. Comella testified that the results of the deployment of the LifeLocator device influenced the decisions made regarding next steps and in particular the decision to send the riggers on the pile to remove the concrete slabs. It was believed at that point that the removal of three more slabs could potentially expose the victim.³³⁵

Capt. Comella testified that the UCRT team was adamant that it was close to the victim based on the readings from the machine, and therefore the decision was made to risk the health and safety of a few rescuers in order to remove concrete slabs in the hopes that the victim was close to the top of the pile. He said they had agreed to remove smaller pieces that were identified as having less chance of affecting the dynamics of the collapse structure.³³⁶

Staff Insp. Neadles testified that he returned to the site in the early morning hours of June 25, although he could not recall the time. He believed he was advised at that time that the canines had been deployed on the pile in the same time frame as the LifeLocator was used for the second time. He was not told that Sgt. Fowlds's dog had also been deployed on the pile but had not given a positive indication of a live human scent. He testified that he was under the impression the UCRT dog had returned with a positive hit.³³⁷

UCRT pleads with HUSAR/TF3 to allow the rigging to continue

Sgt. Gillespie testified that after their heated discussion, he and Cmdr. McCallion were able to put aside their differences and discuss the next steps. At that point it was believed that they were getting close to the trapped person. This belief was based on the information from the search cameras (fabric or clothing had been seen), the canines, and the LifeLocator. At this point, the four riggers were at the end of their operational shift. HUSAR/TF3 was scheduled to take over for the day shift but did not have any riggers to replace the ones who would be leaving the pile. Sgt. Gillespie requested permission from Cmdr. McCallion to allow the riggers who had been working through the night to continue for another hour or so to lift a few more slabs. Sgt. Gillespie acknowledged that, if Cmdr. McCallion pulled the two HUSAR/TF3 riggers from the pile, then UCRT would be unable to continue hoisting slabs out of the collapse area, as no one was available to provide relief. Cmdr. McCallion agreed to allow them to continue and it was agreed that the riggers would lift two more slabs.³³⁸

Cst. Cox confirmed that he was advised by Sgt. Gillespie that HUSAR/TF3 did not have any riggers on the day shift. It was decided that Csts. Cox and Waddick along with HUSAR/TF3 riggers, Mr. Sorel and Mr. Law, would go back on the pile. The operations continued for approximately three hours. The riggers stopped working at 10:00 a.m. on June 25.³³⁹

Sgt. Gillespie testified that they selected the last two pieces of slab to be lifted out. Capt. Comella, Cmdr. McCallion, and Sgt. Gillespie all watched this final operation. The first of the two final pieces was taken out in two pieces because it was too unstable to take out in one piece.³⁴⁰ Sgt. Gillespie testified that the riggers could not get their slings underneath the second piece of concrete. He explained that they believed this second slab was over the person thought to still be alive. Because they could not get their slings underneath, the plan was to drill bolts into the concrete to be able to lift the slab just high enough to get the slings underneath so it could be rigged properly and lifted out. While someone was sent to find the bolts and before the second piece of slab could be lifted, Capt. Comella requested that Sgt. Gillespie go with him on the rooftop to inspect the crack at the top of the escalator and adjoining stairs. They noted a significant visual change in the crack from the previous inspection. After the inspection of the condition of the crack at the top of the escalator, the riggers were pulled off the pile.

The CCG meets at 8:30 a.m.

At 8:30 a.m. the Community Control Group met once again. Staff Insp. Neadles was present and advised the members that the beam had been cut and removed and that the crane was used to rig and remove the SUV and concrete slabs. The group was also advised that the shoring activities were continuing.³⁴¹

In addition, he advised that the canines had been sent in to perform a search at 4:00 a.m. and they continued to believe someone was alive and still breathing under the pile. He also advised them that the cameras had been used and it was believed that they saw someone in the rubble.³⁴²

Staff Insp. Neadles testified that the information he provided to the group had come to him from Cmdr. McCallion. He further explained that the reference in the notes to the belief that someone was still breathing was a reference to the results from the LifeLocator. He explained that there was never mention of the fact that the canines had made live hits because he did not think it was necessary to advise every time a dog was sent onto the rubble pile. In his view, by stating that there was no change in the victim status, he was advising them that the victim was believed to still be alive. From his perspective, the members were not looking to know which tactics were being used at the scene. They simply wanted to know the results.³⁴³

Chief Officer also advised the group that the rescuers were hoping to get people out of the pile by the late afternoon and that three more slabs would be removed from the rubble pile.³⁴⁴

The Elliot Lake collapse is the first time the LifeLocator is used

Cst. Hulsman testified that the Elliot Lake collapse was the first time the LifeLocator had been used by the UCRT in a non-training situation.³⁴⁵ He said that he had been involved in procuring the device and that the training received was not extensive. The unit came with a training DVD which was approximately 16 to 17 minutes long. He explained that it was a simple piece of equipment to use. Hands-on training was also provided by the manufacturer.³⁴⁶

The unit is manufactured by Geographical Survey Systems Inc. (GSSI), an American company in New Hampshire. Cst. Hulsman testified that the hands-on training provided by GSSI lasted approximately three-quarters of a day and included an in-class PowerPoint presentation after which those in attendance proceeded outside to the simulated collapse structure located at the UCRT Bolton detachment.³⁴⁷

During his testimony, Cst. Hulsman demonstrated how the LifeLocator device is operated. He explained that the manufacturer recommends a personnel exclusion zone of 15 metres (no people, including the operator) around the area where the device will be deployed. The machine is then placed on the ground and the operator selects the “run mode” or “expert mode.” He also explained that the manufacturer claims the device can detect movement up to 10 metres away from the antenna and breathing up to eight metres from the antenna. Cst. Hulsman confirmed that certain things could cause interference, such as the failed beam swaying in the wind and radio frequencies emitting from the walkie-talkies used by the rescuers.³⁴⁸

Cst. Hulsman explained that in Elliot Lake the device was deployed in “run” mode because if the device is run in “expert” mode there is a possibility that shallow breathing could be missed. Cst. Hulsman testified that the collapse had occurred approximately 36 hours before he used the LifeLocator; he assumed that, if he was going to get any signs of life, it was going to be breathing, and possibly very shallow breathing. He testified that in his opinion using the device in run mode was the most reliable method of operation and he also had not been trained to read the data produced in expert mode.³⁴⁹

Sgt. Gillespie acknowledged that the LifeLocator was not used as recommended by the manufacturer because it was hung from a rope. He therefore had a lower level of confidence on the information generated by the device. When asked about the use and effectiveness of equipment like the LifeLocator and dogs, he explained that he would prefer basing his decisions on aggregate results rather than those emanating from a single source, technological or animal. He could not recall if he had relayed his views on the reliability of the results received from LifeLocator to Capt. Comella. He agreed that Capt. Comella would not necessarily have appreciated that there could be a grey area and that the results from the device did not provide a definitive answer.³⁵⁰

Issues with the LifeLocator – discussions with GSSI

In mid-January 2013, Cst. Hulsman contacted GSSI because he had received information from his colleagues about a potential inconsistency between his results and the findings of the pathologist. Specifically, the pathologist had indicated death would have occurred relatively quickly after the collapse. This view was inconsistent with the results he obtained, which showed breathing more than 24 hours after the collapse. He contacted GSSI to find out why or how this inconsistency could have occurred.³⁵¹

Cst. Hulsman explained that, unbeknownst to him, the machine had reset during the deployment, wiping out the date and time until he went back to review the data after the deployment. Although this did not affect the operation of the machine, it did affect his ability to identify the files generated by the device that related to the Elliot Lake deployment. He explained that there were 15 files on the device and he identified three that appeared to be from Elliot Lake. Those were the three he sent to GSSI for review and comment. He confirmed that there was no way of knowing definitively whether the files reviewed by GSSI were actually from Elliot Lake.³⁵²

In any event, on reviewing the data and on the assumption that it was pertinent, GSSI concluded that the LifeLocator results were probably triggered by the presence of workers within the device’s exclusion zone. The company opined that the machine may have been picking up their movement and/or breathing despite the fact that Cst. Hulsman thought that he was operating the device in such a way as to avoid that possibility. The fact that the device was operated while suspended and oscillating did not appear to be problematic because GSSI was of the opinion that it could differentiate between that movement and the frequency given out by human breathing.

Commission counsel and Cst. Hulsman attempted to have GSSI attend the hearings to provide clarification and information on the operation and reliability of the device. GSSI declined to attend the hearings and, being an American company, was not compellable to attend.

Nevertheless, in correspondence with Commission counsel, the company commented:

The results show the certainty (not just a suspicion) that something was moving periodically 6 meters away and that after 50 seconds it started to move away from the sensor. Based on what we have been told, a logical inference is that the motion is caused by rescue workers in the area. NOTE: the results show several other objects moving slightly: one at a bit less than 5 meters.³⁵³

In the end, I am unable to reach any conclusion about the reliability of the device and whether the data it was analyzing came from a victim or was the result of improper usage, presence of persons within the recommended exclusion zone, or some other cause.

On March 5, 2014, GSSI provided additional submissions regarding the functionality and reliability of the device, as well as the training provided to the operators. These submissions were circulated to the Participants who were afforded an opportunity to respond. Submissions were received by the OPP, the Seniors' Action Group of Elliot Lake (SAGE), and the Ontario Association of Fire Chiefs. The additional submissions received from GSSI did not assist me in reaching any conclusions about the reliability of the device and the data put out by the device as to the identification of a victim.

Ontario Mine Rescue becomes aware of the collapse

Alex Gryska with Ontario Mine Rescue testified that he only learned of the collapse upon his arrival at work on the Monday morning, June 25. Upon learning of the collapse, he met with the president and chief executive officer of Ontario Mine Rescue, Candys Ballanger-Michaud, to discuss whether they could assist Elliot Lake. They were both well aware that the Mall collapse was not their jurisdiction but they felt they needed to do something. A call was placed to the mayor's office to offer their services; however, they were unable to reach him. A call was also made to the Ministry of Labour. The offer of assistance was reported in the media. As I have explained elsewhere, their offer went unheeded.³⁵⁴

Notes

- ¹ Jeffreys testimony, October 3, 2013, pp. 28077–8.
- ² Jeffreys testimony, October 3, 2013, p. 28078.
- ³ Jeffreys testimony, October 3, 2013, pp. 28079–80; Exhibit 9279, p. 70.
- ⁴ Jeffreys testimony, October 3, 2013, pp. 28079–80.
- ⁵ Jeffreys testimony, October 3, 2013, pp. 28081–2.
- ⁶ Exhibit 6226, p. 16; Exhibit 7924, p. 55; Jeffreys testimony, October 3, 2013, pp. 28090–1.
- ⁷ Jeffreys testimony, October 3, 2013, pp. 28085–6.
- ⁸ Jeffreys testimony, October 3, 2013, pp. 28086–7.
- ⁹ The photograph identified by Mr. Jeffreys is shown in the photograph with the yellow sign above the hand sanitizer dispenser. Exhibit 7924, p. 44; Hulsman testimony, August 28, 2013, p. 22928.
- ¹⁰ Jeffreys testimony, October 3, 2013, pp. 28087–9.
- ¹¹ Jeffreys testimony, October 3, 2013, p. 28093.
- ¹² Jeffreys testimony, October 3, 2013, p. 28093.
- ¹³ Gillespie testimony, September 3, 2013, p. 23559.
- ¹⁴ Gillespie testimony, September 3, 2013 pp. 23561–3; Thomas testimony, August 15, 2013, pp. 21094–5.
- ¹⁵ Gillespie testimony, September 3, 2013, pp. 23562–4.
- ¹⁶ Hulsman testimony, August 28, 2013, p. 22929.
- ¹⁷ Thomas testimony, August 15, 2013, pp. 21091–2.
- ¹⁸ Thomas testimony, August 20, 2013, pp. 21106–7; Officer testimony, August 21, 2013, p. 21668.
- ¹⁹ Thomas testimony, August 20, 2013, pp. 21106–8; Officer testimony, August 21, 2013, p. 21669.
- ²⁰ Cox testimony, August 26, 2013, pp. 22309–10.
- ²¹ Cox testimony, August 26, 2013, p. 22311.
- ²² Burns testimony, August 20, 2013, pp. 21300–2; Exhibit 6404, p.08.
- ²³ Burns testimony, August 20, 2013, pp. 21300–8.
- ²⁴ Waddick testimony, August 23, 2013, pp. 22090–3.
- ²⁵ Waddick testimony, August 23, 2013, pp. 21993–5.
- ²⁶ Waddick testimony, August 23, 2013, pp.22098–9.
- ²⁷ Officer testimony, August 29, 2013, pp. 23427–32.
- ²⁸ Officer testimony, August 29, 2013, p. 23367.
- ²⁹ Exhibit 6699; Chambers testimony, September 18, 2013, pp. 26134–6.
- ³⁰ Cranford testimony, September 9, 2013, pp. 24741–3.
- ³¹ Cranford testimony, September 9, 2013, p. 24744.
- ³² Exhibit 6614, p. 57.
- ³³ Comella testimony, September 9, 2013, pp. 24149–50.
- ³⁴ Exhibit 6894, p. 02.
- ³⁵ Neadles testimony, September 10, 2013, pp. 25307–8.
- ³⁶ Neadles testimony, September 10, 2013, pp. 25308–9.
- ³⁷ Comella testimony, September 4, 2013, pp. 24082–3.
- ³⁸ Comella testimony, September 5, 2013, pp. 24145–8; Exhibit 6894.
- ³⁹ Comella testimony, September 5, 2013, pp. 24153–4.
- ⁴⁰ McCallion testimony, September 6, 2013, pp. 24495–7.
- ⁴¹ Jeffreys testimony, October 3, 2013, pp. 28111–3; Exhibit 6894.
- ⁴² Exhibit 6393, p. 58.
- ⁴³ Comella testimony, September 4, 2013, p. 24075.
- ⁴⁴ Comella testimony, September 4, 2013, p. 24076.
- ⁴⁵ Comella testimony, September 4, 2013, p. 24081.
- ⁴⁶ Thomas testimony, August 15, 2013, pp. 21096–97.
- ⁴⁷ Chambers testimony, September 18, 2013, pp. 26136–8.
- ⁴⁸ Chambers testimony, September 18, 2013, pp. 26246–47.
- ⁴⁹ Officer testimony, August 21, 2013, p. 21672.
- ⁵⁰ Officer testimony, August 21, 2013, pp. 21672–3.
- ⁵¹ Officer testimony, August 21, 2013, p. 21674.
- ⁵² Officer testimony, August 21, 2013, pp. 21674–7.
- ⁵³ Gillespie testimony, September 3, 2013, p. 23581.
- ⁵⁴ Officer testimony, August 21, 2013, p. 21677.
- ⁵⁵ Officer testimony, August 21, 2013, pp. 21678–9.
- ⁵⁶ Officer testimony, August 21, 2013, p. 21678.
- ⁵⁷ Officer testimony, August 21, 2013, pp. 21687–8.
- ⁵⁸ Officer testimony, August 22, 2013, p. 21742.
- ⁵⁹ Officer testimony, August 22, 2013, p. 21744.
- ⁶⁰ Officer testimony, August 22, 2013, pp. 21744–6.
- ⁶¹ Thomas testimony, August 15, 2013, pp. 21098–9.
- ⁶² Jeffreys testimony, October 3, 2013, p. 28105.
- ⁶³ Jeffreys testimony, October 3, 2013, p. 28095.
- ⁶⁴ Jones testimony, September 26, pp. 27400–4.
- ⁶⁵ Exhibit 7643.
- ⁶⁶ Jones testimony, September 26, 2013, pp. 27446–7.
- ⁶⁷ Lacroix testimony, October 3, 2013, p. 28002; Exhibit 6385, p. 66.
- ⁶⁸ Exhibit 6725.
- ⁶⁹ Chambers testimony, September 18, 2013, pp. 26139–42.
- ⁷⁰ Chambers testimony, September 18, 2013, pp. 26143–5.
- ⁷¹ Neadles testimony, September 10, 2013, pp. 25289–90.
- ⁷² Neadles testimony, September 10, 2013, pp. 25296–9.
- ⁷³ Neadles testimony, September 10, 2013, pp. 25302–3.
- ⁷⁴ Neadles testimony, September 10, 2013, pp. 25304–5.
- ⁷⁵ Chambers testimony, September 18, 2013, pp. 26247–8.
- ⁷⁶ Gillespie testimony, September 3, 2013, pp. 23587–9.
- ⁷⁷ Gillespie testimony, September 3, 2013, pp. 23605–6 and 23611.
- ⁷⁸ Gillespie testimony, September 3, 2013, pp. 23592–6.
- ⁷⁹ Gillespie testimony, September 3, 2013, p. 25397.
- ⁸⁰ McCallion testimony, September 6, 2013, pp. 24480–1.
- ⁸¹ Jeffreys testimony, October 3, 2013, p. 28094.
- ⁸² Exhibit 7924, p. 45.
- ⁸³ Comella testimony, September 4, 2013, pp.24087–97.
- ⁸⁴ Comella testimony, September 4, 2013, pp. 24101–2.
- ⁸⁵ Cranford testimony, September 9, 2013, pp. 24762–3.
- ⁸⁶ Cranford testimony, September 9, 2013, pp. 24754–5; Exhibit 9279, p. 61.
- ⁸⁷ Jeffreys testimony, October 3, 2013, pp. 28095–6.
- ⁸⁸ Jeffreys testimony, October 3, 2013, p. 28096.
- ⁸⁹ Jeffreys testimony, October 3, 2013, p. 28097.
- ⁹⁰ Cranford testimony, September 9, 2013, pp. 24762–7.
- ⁹¹ Gillespie testimony, September 3, 2013, pp. 23566–7.
- ⁹² Jeffreys testimony, October 3, 2013, p. 28098.
- ⁹³ Exhibit 7924, pp. 14, 17, 45.
- ⁹⁴ Cranford testimony, September 9, 2013, pp. 24776–81.
- ⁹⁵ Gillespie testimony, September 3, 2013, p. 23577.
- ⁹⁶ Gillespie testimony, September 3, 2013, pp. 23578–80.
- ⁹⁷ Gillespie testimony, September 3, 2013, pp. 23578–9.
- ⁹⁸ Comella testimony, September 5, 2013, pp. 24113–4.
- ⁹⁹ Gillespie testimony, September 3, 2013, p. 23579.
- ¹⁰⁰ Guy Testimony, September 24, 2013, pp. 27077–8, 27101.
- ¹⁰¹ Glavin Testimony, October 1, 2013, pp. 27651, 27712.
- ¹⁰² McRae Testimony, September 25, 2013, pp. 27210–3.
- ¹⁰³ Guy Testimony, September 24, 2013, p. 27082; Exhibit 7560.
- ¹⁰⁴ Guy testimony, September 24, 2013, pp. 27083–5.
- ¹⁰⁵ Guy testimony, September 24, 2013, pp. 27085–90.
- ¹⁰⁶ Waddick testimony, August 23, 2013, p. 22004.

- 107 Exhibit 6226, p. 23; Jeffreys testimony, October 3, 2013, pp. 28106–7.
- 108 Jeffreys testimony, October 3, 2013, pp. 28106–7.
- 109 Waddick testimony, August 23, 2013, pp. 21993–5.
- 110 Comella testimony, September 5, 2013, pp. 24114–5.
- 111 Comella testimony, September 5, 2013, p. 24115.
- 112 Comella testimony, September 5, 2013, pp. 24116–17.
- 113 Comella testimony, September 5, 2013, p. 24115.
- 114 Comella testimony, September 5, 2013, p. 24117.
- 115 Comella testimony, September 5, 2013, pp. 24121–2.
- 116 Jeffreys testimony, October 3, 2013, pp. 28102–3.
- 117 Comella testimony, September 5, 2013, pp. 24122–3.
- 118 Officer testimony, August 21, 2013, pp. 21686, 21689.
- 119 Comella testimony, September 5, 2013, pp. 24143–5.
- 120 Comella testimony, September 5, 2013, pp. 24127.
- 121 Comella testimony, September 5, 2013, pp. 24128–9.
- 122 Comella testimony, September 5, 2013, p. 24131.
- 123 Exhibit 7961.
- 124 McCallion testimony, September 6, 2013, pp. 24491–3.
- 125 McCallion testimony, September 6, 2013, pp. 24493–5.
- 126 Comella testimony, September 5, 2013, pp. 24131–4; Exhibit 6393, p. 58.
- 127 Comella testimony, September 5, 2013, p. 24135.
- 128 Neadles testimony, September 10, 2013, pp. 25287–8.
- 129 McCallion testimony, September 6, 2013, pp. 24489–91.
- 130 Neadles testimony, September 10, 2013, pp. 25285–6.
- 131 McCallion testimony, September 6, 2013, pp. 24503–5.
- 132 McRae testimony, September 25, 2013, pp. 27216–9.
- 133 Guy testimony, September 24, 2013, pp. 27097–103; Connors testimony, August 21, 2013, pp. 21428–9.
- 134 Glavin testimony, October 1, 2013, pp. 27660–6.
- 135 Priestly testimony, October 2, 2013, pp. 27803 and 27805–7; Exhibit 6622.
- 136 Officer testimony, August 22, 2013, pp. 21703–4; Exhibit 3743, p. 16.
- 137 Officer testimony, August 22, 2013, pp. 21704–5.
- 138 Officer testimony, August 22, 2013, pp. 21705–11; Exhibit 3743 pp.17–18.
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- 140 deBortoli testimony, October 7, 2013, pp. 28437–8; Exhibit 3743, p.19.
- 141 Jollymore testimony, September 24, 2013, pp. 26888–90.
- 142 Neadles testimony, September 10, 2013, p. 25310.
- 143 Neadles testimony, September 10, 2013, pp. 25311–12.
- 144 Comella testimony, September 4, 2013, pp. 24078–80.
- 145 Selters testimony, September 9, 2013, pp. 25018–19; Exhibit 6246, p. 03.
- 146 Selters testimony, September 9, 2013, pp. 25019–21.
- 147 Selters testimony, September 9, 2013, pp. 25021–2; Exhibit 6246, p. 03.
- 148 Selters testimony, September 9, 2013, p. 25023.
- 149 Selters testimony, September 9, 2013, p. 25023; Selters testimony, September 10, 2013, pp. 25165–6.
- 150 Selters testimony, September 9, 2013, pp. 25023–5.
- 151 Selters testimony, September 10, 2013, pp. 25166–7; Exhibit 6246, p. 06.
- 152 Comella testimony, September 5, 2013, pp. 24210–11.
- 153 Selters testimony, September 10, 2013, p. 25176.
- 154 Neadles testimony, September 11, 2013, pp. 25335–6.
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- 156 Neadles testimony, September 11, 2013, pp. 25336–7.
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- 158 Hamilton testimony, October 7, 2013, pp. 28514–15.
- 159 deBortoli testimony, October 7, 2013, pp. 28424–6.
- 160 Hamilton testimony, October 7, 2013, p. 28515; deBortoli testimony, October 7, 2013, p. 28426.
- 161 Chambers testimony, September 18, 2013, pp. 26145–6; Exhibit 6766.
- 162 Chambers testimony, September 18, 2013, pp. 26146–9.
- 163 Fowlds testimony, September 19, 2013, pp. 26314–16, 26319.
- 164 Neadles testimony, September 11, 2013, pp. 25328–31; Exhibit 6894, pp. 01–02.
- 165 Neadles testimony, September 11, 2013, pp. 25328–9.
- 166 McQuinty testimony, October 9, 2013, pp. 28902–3; Exhibit 6630.
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- 168 McQuinty testimony, October 9, 2013, pp. 28905–6.
- 169 Officer testimony, August 22, 2013, p. 21728; Exhibit 3743, p. 20.
- 170 Officer testimony, August 22, 2013, p. 21728, Exhibit 3743, p. 21.
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- 172 Officer testimony, August 22, 2013, p. 21729.
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- 174 Fowlds testimony, September 19, 2013, pp. 26329–34; Exhibit 7924, pp. 15, 46–7.
- 175 Fowlds testimony, September 19, 2013, pp. 26334–5.
- 176 Exhibit 6894, p. 01.
- 177 Neadles testimony, September 11, 2013, pp. 25332–3.
- 178 Neadles testimony, September 11, 2013, p. 25338.
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- 180 Comella testimony, September 5, 2013, p. 24167.
- 181 Neadles testimony, September 11, 2013, p. 25338.
- 182 McCallion testimony, September 6, 2013, pp. 24511–12.
- 183 Exhibit 8109, p. 015.
- 184 Officer testimony, August 22, 2013, pp. 21729–30.
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- 186 Bruce testimony, August 23, 2013, pp. 22191–2.
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- 188 Officer testimony, August 22, 2013, pp. 21734–5.
- 189 deBortoli testimony, October 7, 2013, p. 28426.
- 190 deBortoli testimony, October 7, 2013, p. 28431.
- 191 Cranford testimony, September 9, pp. 24770–1.
- 192 Comella testimony, September 5, 2013, pp. 24170–4.
- 193 Cranford testimony, September 9, 2013, pp. 24865–77; Exhibit 9582, p. 02.
- 194 Cranford testimony, September 9, 2013, p. 24878.
- 195 McCallion testimony, September 6, 2013, pp. 24516–18.
- 196 Neadles testimony, September 11, 2013, pp. 25361–4.
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- 199 Neadles testimony, September 11, 2013, pp. 25343–4.
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- 203 Neadles testimony, September 11, 2013, pp. 25345–7.
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- 206 McCallion testimony, September 6, 2013, pp. 24514–15.
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- 208 Selters testimony, September 9, 2013, pp. 25027–8.

- ²⁰⁹ Exhibit 7924, p. 103.
- ²¹⁰ Selvers testimony, September 9, 2013, pp. 25028–30.
- ²¹¹ Selvers testimony, September 9, 2013, pp. 25030–2.
- ²¹² Selvers testimony, September 9, 2013, pp. 25038–9 and 25051; Exhibit 6246, p. 05.
- ²¹³ Selvers testimony, September 10, 2013, pp. 25052–4.
- ²¹⁴ Selvers testimony, September 10, 2013, pp. 25054–5.
- ²¹⁵ Selvers testimony, September 10, 2013, pp. 25061–3.
- ²¹⁶ Cranford testimony, September 9, 2013, p. 24772.
- ²¹⁷ Officer testimony, August 22, 2013, pp. 21747, 21749; Exhibit 3743, p. 23.
- ²¹⁸ Officer testimony, August 22, 2013, pp. 21750–1.
- ²¹⁹ Exhibit 3743, p. 25.
- ²²⁰ Officer testimony, August 22, 2013, p. 21753.
- ²²¹ Neadles testimony, September 11, 2013, p. 25350.
- ²²² Neadles testimony, September 11, 2013, pp. 25353–5; Exhibit 3743, p. 024.
- ²²³ Jollymore testimony, September 24, 2013, pp. 26903–4.
- ²²⁴ Exhibit 6609.
- ²²⁵ Gillespie testimony, September 3, 2013, pp. 23597–8.
- ²²⁶ Gillespie testimony, September 3, 2013, pp. 23601–2.
- ²²⁷ Exhibit 7844, p. 45.
- ²²⁸ Exhibit 7844, p. 45.
- ²²⁹ Gillespie testimony, September 3, 2013, pp. 23602–5.
- ²³⁰ Waddick testimony, August 23, 2013, pp. 22001–3; Exhibit 6378, pp. 007–8; Exhibit 6379, p. 001; Exhibit 7010, pp. 001–2.
- ²³¹ Cox testimony, August 26, 2013, pp. 22321–2.
- ²³² Cox testimony, August 26, 2013, pp. 22323–4.
- ²³³ Hulsman testimony, August 28, 2013, pp. 22934–8.
- ²³⁴ Hulsman testimony, August 28, 2013, pp. 22943–6.
- ²³⁵ Glavin testimony, October 1, 2013, pp. 27666–8.
- ²³⁶ Sorel testimony, October 1, 2013, p. 27553.
- ²³⁷ Sorel testimony, October 1, 2013, pp. 27560–3.
- ²³⁸ Officer testimony, August 22, 2013, pp. 21754–5; Exhibit 6336, p. 73.
- ²³⁹ Officer testimony, August 22, 2013, pp. 21755–6.
- ²⁴⁰ Comella testimony, September 5, 2013, pp. 24178–9.
- ²⁴¹ Exhibit 6378, p. 08.
- ²⁴² Gillespie testimony, September 3, 2013, pp. 23612–15; Exhibits 6378, p. 08; Exhibit 7924, pp. 53–5.
- ²⁴³ Gillespie testimony, September 3, 2013, pp. 23615–16, 23618–22; Exhibit 6378, pp. 008–010.
- ²⁴⁴ Cranford testimony, September 9, 2013, p. 24776; Exhibit 7545.
- ²⁴⁵ McCallion testimony, September 6, 2013, pp. 24524–6; Exhibit 6342, p. 22.
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- ²⁴⁹ Selvers testimony, September 10, 2013, pp. 25048–51, 25056–61; Exhibit 6246, p. 06.
- ²⁵⁰ Selvers testimony, September 10, 2013, pp. 25063–5; Exhibit 6246, p. 05.
- ²⁵¹ Selvers testimony, September 10, 2013, pp. 25067–8; Exhibit 6407.
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- ²⁵⁵ Comella testimony, September 5, 2013, pp. 24182–4.
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- ²⁵⁷ Selvers testimony, September 10, 2013, p. 25074; Exhibit 7924, p. 48.
- ²⁵⁸ Neadles testimony, September 11, 2013, pp. 25364–5; Exhibit 6924.
- ²⁵⁹ Bailey testimony, August 27, 2013, pp. 22734–6, 22743–8.
- ²⁶⁰ Neadles testimony, September 11, 2013, pp. 25365–7; Exhibit 3743, p. 26.
- ²⁶¹ Comella testimony, September 5, 2013, pp. 24184–5; Exhibit 7946; Exhibit 6393, p. 62.
- ²⁶² Comella testimony, September 5, 2013, pp. 24185, 24189–91.
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- ²⁷⁰ Gillespie testimony, September 3, 2013, pp. 23635–6, 23644–7; Exhibit 6378, pp. 14–15.
- ²⁷¹ Gillespie testimony, September 3, 2013, p. 23628.
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- ²⁷⁷ Cranford testimony, September 9, 2013, pp. 24794–6; Exhibit 7545.
- ²⁷⁸ Cranford testimony, September 9, 2013, pp. 24796–7.
- ²⁷⁹ Glavin testimony, October 1, 2013, pp. 27708–9; Exhibit 7617, p. 90.
- ²⁸⁰ Sorel testimony, October 1, 2013, p. 27573.
- ²⁸¹ Waddick testimony, August 23, 2013, pp. 22005–9.
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- ²⁸⁸ Sorel testimony, October 1, 2013, p. 27581.
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- ²⁹⁸ Kerr testimony, September 25, 2013, pp. 27314–15.
- ²⁹⁹ Latulippe and Perizzolo testimony, August 7, 2013, pp. 19898–901.
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- ³⁰⁹ Comella testimony, September 5, 2013, p. 24340; Exhibit 6393, p. 63.
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- ³¹² Cranford testimony, September 9, 2013, pp. 24798–800; Exhibit 7545.
- ³¹³ Gillespie testimony, September 3, 2013, pp. 23663–4; Exhibit 6378, p. 16.
- ³¹⁴ Gillespie testimony, September 3, 2013, pp. 23669–70; Exhibit 6378, pp. 17–18.
- ³¹⁵ Comella testimony, September 5, 2013, pp. 24224–5.
- ³¹⁶ Fowlds testimony, September 19, 2013, pp. 26341–7.
- ³¹⁷ Bailey testimony, August 27, 2013, pp. 22756 and 22760; Exhibit 6374, p. 03.
- ³¹⁸ McCallion testimony, September 6, 2013, pp. 24534–40; Exhibit 6342, p. 23.
- ³¹⁹ Gillespie testimony, September 3, 2013, pp. 23664–5, 23668; Exhibit 6378, pp. 16–17.
- ³²⁰ Hulsman testimony, August 28, 2013, pp. 23032–6.
- ³²¹ Glavin testimony, October 1, 2013, p. 27694.
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- ³³³ Jones testimony, September 26, 2013, pp. 27390–2.
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- ³³⁷ Neadles testimony, September 11, 2013, pp. 25383–4.
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- ³⁴⁰ Gillespie testimony, September 3, 2013, p. 23689; Exhibit 6378, pp. 19–20.
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- ³⁴⁶ Hulsman testimony, August 28, 2013, pp. 22956–7.
- ³⁴⁷ Hulsman testimony, August 28, 2013, pp. 22959–60; Exhibit 9224.
- ³⁴⁸ Hulsman testimony, August 28, 2013, pp. 22964–8, 22970.
- ³⁴⁹ Hulsman testimony, August 28, 2013, pp. 22973–4, 22977–9, 22985–6.
- ³⁵⁰ Gillespie testimony, September 3, 2013, pp. 23641–3.
- ³⁵¹ Hulsman testimony, August 28, 2013, pp. 23038–40.
- ³⁵² Hulsman testimony, August 28, 2013, pp. 22992–5, 22997.
- ³⁵³ Exhibit 9210, p. 04.
- ³⁵⁴ Gryska testimony, September 23, 2013, pp. 26691–2; Exhibit 9737.