



**NATIONAL TRANSPORTATION SAFETY BOARD**  
Office of Railroad, Pipeline, and Hazardous Materials Investigations  
Washington, D.C. 20594

## Survival Factors

### Factual Report of the Investigation<sup>1</sup>

Report Date: October 23, 2019

#### A. Accident

Location: Minneapolis, Minnesota  
Date: August 2, 2017  
Time (approximate): 10:22 a.m. CDT<sup>2</sup>  
Event Description: Natural gas explosion at an educational facility  
Accident site: North Campus of the Minnehaha Academy,  
3100 West River Road, Minneapolis, Minnesota  
NTSB Accident Number: DCA17MP007

#### B. Synopsis

On August 2, 2017, at 10:22 a.m. central daylight time, a building at the North Campus of the Minnehaha Academy in Minneapolis, Minnesota, was destroyed by a natural gas explosion. See Figure 1, an aerial view of the campus prior to the accident, and Figure 2, a photo of the accident site after the building explosion. At the time of the explosion, two workers (a journeyman / pipefitter and a helper), who were employees of a company (Master Mechanical, Inc.) that had been contracted by the natural gas supplier (CenterPoint Energy Minnesota Gas) to the North Campus facility, were installing new customer piping to support the relocation of two gas meters and related equipment from the basement of a building, to the outside of that building. Two new gas meters, which had been mounted on an exterior wall of the building, were ready for the new

---

<sup>1</sup> This report, which exclusively addresses a brief Synopsis of the accident, injury summarization, a brief synopsis of the emergency response, Timeline data (of the emergency response to the accident), and a summary of damages, was compiled from documentation sourced to the on-scene activities and documentation of the Survival Factors Technical Working Group, which did not compile any report documentation beyond the Field Notes of the Group.

<sup>2</sup> Central Daylight Time

customer piping to be connected. While the workers were removing the existing piping as preparation to installing the new piping, a full-flow natural gas line at pressure was opened. The workers were unable to mitigate the release of the gas, in which the workers evacuated the area. Moments thereafter, a school employee inside the building, upon learning of the gas leak, sounded an alert to evacuate the building (verbally, and by a handheld radio) to those persons in the building. It was estimated by witnesses that the explosion occurred less than one minute after that alert was issued. As a result of the explosion, two individuals were killed and nine were injured.



Figure 1. Aerial view, prior to the accident, of the North Campus of the Minnehaha Academy; yellow arrow indicates the area of the explosion. (Photo courtesy of minnehahaacademy.net)

508 Text: Aerial view of Minnehaha Academy, prior to the accident, which shows the campus (red brick buildings, athletic fields, and vehicles parked in the nearby parking lots); a yellow arrow indicates area of explosion.

## C. Details of the Investigation

### 1.0 Summary of Injuries

About 42 persons, comprised of administrative staff, and students plus an athletics coach, were evacuated from the North Campus structures immediately prior to the explosion. Two individuals were killed and nine were injured as a result of the explosion and fire. The injured

were transported to local medical facilities by the jurisdictional medical transport (ambulance) services, for medical evaluation and/or treatment.

## 2.0 Emergency Response of the Fire Department

All totaled, 31 apparatus [fire department vehicles] and at least 79 MFD personnel responded to the incident site, not including respondent mutual aid resources. See Timeline for response data.

## 3.0 Event Chronology (“Timeline”)

An event chronology (“Timeline”) was constructed to identify the sequencing facts of the event, and to examine the elements of the execution of the emergency response effort (e.g., fire suppression / search and rescue / incident command / technical response by the natural gas utility personnel). In support of this, communications information and incident response data, as relevant to this event, was obtained from the jurisdictional fire protection agency (Minneapolis Fire Department), and the natural gas retail supplier / distributor (CenterPoint Energy Minnesota Gas). The Emergency Response - Event Chronology (“Timeline”) narrative compiled during the investigation is presented in Exhibit 1.

## 4.0 Summary of Damages<sup>3</sup>

The ‘center section’ structure was completely destroyed by the explosion. The two floors above the basement of the ‘center section’ structure collapsed, with the debris dropping into the void of the basement, which ignited and burned as a result of the explosion. The (integrally attached) structures adjacent to the ‘center section’ structure, consisting of the southern one-third segment of the North building, and the north end of the South building, each sustained extensive damage as a result of the explosion, in which the structural shell of each building remained standing. The explosion resulted in material of the structure, and some of its contents, to have been forcibly expelled in an outward direction from the structure, which resulted in a debris field in front of the structure.

A pre-recovery examination of the debris field evidence supported that the explosion appeared to have occurred in the basement of the ‘center section’ structure of the building.<sup>4</sup>

Subsequent evaluation of the two remaining building segments, by the property owner, determined that both had sustained damage irreparable damage, which could not be repaired, in which both structures were subsequently demolished. The chapel building and the athletics building sustained minor damage and remained structurally sound. Construction of new buildings ensued to replace the structures that were damaged or demolished in the explosion and fire.

---

<sup>3</sup> Source: (undated) statement of Minnehaha Academy, responsive to NTSB data inquiry of the investigation, and other sources as described.

<sup>4</sup> Source: IIC on-scene status report notations, dated 8/02/2017, describing a statement of a spokesperson for the MN [State] Fire Marshal’s Office.

The estimated total property damages resulting from the explosion and fire were \$30,008,807.<sup>5</sup>



Figure 2. Photo of the accident site taken after the building explosion with several gas company personnel and emergency responders on-scene. Source: Minneapolis Fire Department.

508 Text: Photo shows the destroyed building with debris scattered over the area in front of the structure, with several gas company personnel and emergency responders on-scene.

### 5.0 Authorship

Compiled by:           // s //           Date   October 23, 2019    
 Richard M. Downs, Jr., P.E.  
 Mechanical Engineer (Crashworthiness)  
 Survival Factors Investigator  
 System Safety Division (RPH-40)

Supervisory review:           // s //           Date   October 23, 2019    
 Robert J. Beaton, Ph.D., CPE  
 Chief, System Safety Division (RPH-40)  
 Acting Chief, Pipeline and Hazardous Materials Division (RPH-20)

-- end of report Section --

<sup>5</sup> Source: PHMSA Report [form F 7100.1] Incident Report – Gas Distribution System, Number 20170111-16716, dated 12/05/2017.

Exhibit 1. Emergency Response - Event Chronology (“Timeline”) <sup>6,7,8</sup>

Select acronym nomenclature and abbreviations used in this Tabulation:

- \* approximate time
- CAD Computer Aided Dispatch <sup>9</sup> (report); a method of dispatching emergency services resources, in which the CAD System is assisted by utilization of computer-based technology (see further [Internet] <https://www.firehouse.com/tech-comm/cad-dispatch-systems/article/12024459/fire-service-technology>)
- CPEMG CenterPoint Energy Minnesota Gas (the local natural gas [distribution] company that provided gas service to the building at the accident site)
- CPEMG-t CPEMG Timeline (prepared by the company); reference [documentation] Request IV, Item 012
- CPEMG-i interview [transcript] of the referenced CPEMG personnel
- CSV Customer Service Valve, which CPEMG refers to as a Kerotest valve (which is also sometimes referred to, in the natural gas distribution industry, as a Curb Valve)
- HCMC Hennepin County Medical Center<sup>10</sup>
- MFD Minneapolis Fire Department

-----

Timestamp <sup>11</sup>	Activity	Source
10:23:06	Report notation indicating a call was received by the Minneapolis 9-1-1 agency (PSAPP 12F <sup>12</sup> P), reporting the event, which was initially described as a building collapse. After several subsequent 9-1-1 calls were received, the response action was amended to an explosion with [a requested] fire department response, in which callers also indicated “... there are possible injuries” and “... 2 people were buried under a wall”.	CAD

<sup>6</sup> Data sources: Minneapolis Fire Department Incident Detail Report(s); Incident Number(s) 17-0028219 and 17-0028220, and NTSB interview Transcripts, and Timeline documentation as described.

<sup>7</sup> Activity description(s) include, if appropriate, a corresponding technical description of the activity (i.e., a bracketed narrative).

<sup>8</sup> All activities of this tabulation occurred on August 2, 2017.

<sup>9</sup> Note - the CAD System notations of this report utilize acronym nomenclature and abbreviations, the notations of which were quoted verbatim from the identified fire department Incident Detail Report(s).

<sup>10</sup> A Level I Trauma Center, located in Minneapolis, MN; see [Internet] <https://www.hennepinhealthcare.org/>.

<sup>11</sup> Timestamp references are denoted in 4-digit (hr:min), and 6-digit military time (hr:min:sec), CDT.

<sup>12</sup> Such a facility is also known as a Public Safety Answering Point; see further [Internet] <http://www.nena.org/>.

10:23:38	Report notation "... Multi-Agency EMS Incident #: 17057194" [an indication that the incident would also utilize an emergency medical services response].	CAD
10:24*	CPEMG Foreman (#1) near to the accident scene about a block away on East 32 <sup>nd</sup> Street, responded on site, notified the CPEMG Supervisor (#1) about the explosion and called 911 emergency.	CPEMG-i
10:24:07	Report notation "Problem changed from Assist Police Dept (F) to Rescue-Building Collapse (PFE) by FIRE".	CAD
10:24:14	Report notation "... Paging Groups Notified: Technical Rescue ..." [an indication that the incident would also utilize a technical rescue response, which is a specialized response team of the fire department].	CAD
10:24:27	Report notation "... Multi-Agency POLICE Incident #: 17-291501" [an indication that the incident would also utilize a police department response].	CAD
10:24:39	Report notation indicating multiple resources of the Minneapolis Fire Department (MFD) were dispatched, and the first unit (Engine 21) was [logged as] enroute to the scene.	CAD
10:25:43	Report notation "...Poss Gas Explosion--Crews Were Working Up Infrt---Windows Blown Out" [an indication that the incident possibly involved a natural gas release that resulted in an explosion, in which there were workers at the site].	CAD
10:30:57	Report notation on-scene arrival of the first MFD unit (Engine 21) occurred, which was immediately followed by the subsequent responding MFD units.	CAD
10:31:03	Report notation "Strong Odor of Gas ** Per EMS Command" [indicating that a command officer of the EMS response was on-scene, and was initiating the incident command / apparatus (ambulance) staging process].	CAD
10:31:17	Report notation "E21 - 2.5 Story Bldg With Light Smoke and Windows Blown Out With Fire Showing.....Trapped Parties....Req RESC 1" [indicating that, the first on-scene MFD unit (Engine 21) was providing a brief 'size-up' report of what was observed (the debris pile was smoldering, and entrapments), and requested that a Rescue unit respond to the scene], which was followed a few seconds later, by another responding MFD unit, by the notation "This Is Gas Explos .. West Side of Bldg ..Gas Pouring In" [indicating the nature of the fire source].	CAD
10:31:36	Report notation "L2 B Putting Up Aerial to Roof" [indicating that the responding Ladder truck was extending its ladder to the roof (potentially supportive to a rescue)], which was followed a few	CAD

	seconds later, by reported action of another responding MFD unit, in the notation “E21 - Laying Tank Line for Fire in Rubble and Safety” [indicating that fire was apparent in the debris].	
10:32:16	Report notation “Need Ladder West Side ..People Trapped on Roof”.	CAD
10:33:15	Report notation “E5 On East Side Of Bldg.... Hearing Trapped Parties... Ladder Down To Lower Level”.	CAD
10:33:51	Report notation “BC3 Arrived ****Police to Assit [sic] With Traffic.” [indicating that a battalion chief had arrived at the scene, and police resources were requested to assist with traffic control in the area].	CAD
10:33:59	Report notation “primary vehicle changed from E21 to BC3” [a message consistent with an indication that an incident command process was being initiated at that time by an arriving battalion chief].	CAD
10:34:45	Report notation “BC3 - Start a 2nd Alarm” [indicating that the battalion chief had requested that a second alarm be initiated; i.e., that additional resources respond to the scene].	CAD
10:35*	CPEMG Foreman (#1) with a three-man construction and maintenance (C&M) crew that were near the site before the accident, responded to the building explosion to shut off gas service, but were unable to reach the service Curb valve at the rear (west side) of the building due to debris that covered the area. The crew changed to a second operation; they started excavation of the polyethylene gas main in the boulevard to the south of the building to squeeze it off.	CPEMG-i
10:35:47	Report notation “some fire appears to be gas line in nature” [indicating a second notification of the nature of the fire source], which was immediately followed by the notation “gas techs enroute”.	CAD
10:36	The CPEMG Special Foreperson received a text message, which he opened, in which the message indicated they had an explosion at 3100 West River Parkway; the crew [with the Advanced Mechanic Operator] decided to go to the site to check it out.	CPEMG-i
10:36:12	Report notation “3 people rpt [reported] to be trapped in basement under rubble”.	CAD
10:36:51	Report notation “Multiple Gas Techs Enr From Centerpt” [indicating that several personnel from CPEMG were enroute].	CAD
10:36:59	Report notation “L2A - Starting to Remove Rubble by Hand to Get to Trapped Parties....Will Need Back Hoe [sic] to Get Rubble	CAD

	Removed” [indicating that excavation equipment would be needed at the site to support the extrication effort].	
10:37:05	Report notation “St Paul Fire Enroute Mutual Aid” [indicating that a mutual aid response from the neighboring jurisdiction was responding].	CAD
10:37:35	Report notation “EMS Staging at East Side Parking Lot” [indicating that responding ambulances would be staged at the described location].	CAD
10:37:44	Report notation “IC - All Floors with Windows Blown Out.... Center Bldg Collapsed.... Need Gas Company Asap” [indicating that an expedited response from the gas company was needed].	CAD
10:40	The CPEMG Supervisors (#1), notified two MNOPS agents about the building explosion.	
10:39:07	Report notation “BC3 Be Careful Making Entry into Collapse Zone Till Can Size Up Stability” [indicating a message from Incident Command (the Battalion Chief) for on-scene responders to use caution given an uncertainty of the structural stability].	CAD
10:40:54	Report notation “10-8 3 Evacuated Off Roof on East Side of Bldg Going to Medical ... E7 Had Bad Hydrant /Attempting to Find Another Hydrant” [indicating a status of the roof evacuation and water source].	CAD
10:41	CPEMG Special Foreperson and Advanced Mechanic Operator, a two-man crew arrived on site. These two-man crew were additional C&M crew that came to assist in the gas emergency response after CPEMG had dispatched them. According to the CPEMG Special Foreperson, in CPEMG emergency response procedures, when CPEMG receives emergency call at the dispatch location in downtown Minneapolis. The crew members receive a call from the dispatchers, which may be followed by text messages into crew members phones. The crew members would respond to the text message which they receive on emergencies and indicate whether they are available to respond. The Special Foreperson indicated he walked up to the site after seeing the first C&M crew performing excavations. He proceeded to the sidewalk at the rear of the exploded building where he saw a marked measurement indicating 15 feet with an arrow pointing straight out; [from this] he concluded that it meant the Curb Valve to the building was 15 feet away. He informed two firemen (that were already present) about the presence of the Curb Valve and asked if they had seen it, which they replied no. The Special Foreperson stepped off 15 feet (used his footsteps as a form of measurement) to attempt locating the Curb valve. At his 13th step he encountered a falling brick wall on the ground which he noticed	CPEMG-i



	had loosed bricks and blocks. He proceeded to wiggling them by hand and they moved apart, he continued picking the bricks and block up and setting them aside. After exposing the brick and block debris to a depth about 4 feet, he found the Curb valve.	
10:41:04	Report notation "E427 Response [203] EMS Transporting to: HCMC" [indicating a status of an ambulance departure from the scene with the first transported patient, enroute to Hennepin County Medical Center (HCMC)].	CAD
10:41:12	Report notation "EMS Has Two Staging / Commands Set Up 1 at the East Side Parking Lot - Other at 32 St off of Pkwy" [indicating that a second medical staging site was established at the scene, describing their locations].	CAD
10:44:19	Report notation "10-8 Still Missing One Male and One F ..... Male Has Wked Out of Bldg / Getting Him Off Roof to Medical [indicating a status of the missing individuals and the roof evacuation].	CAD
10:45:18	Report notation "E21 Fire Started in Middle of Structure in Middle of Rubble Pile... Having Issues W/ Line Pressure" [indicating a status of the fire and water pressure].	CAD
10:46*	CPEMG Special Foreperson with a two-man C&M crew started a search for the gas service Curb valve buried under the debris to shut off the gas flow feeding the fire	CPEMG-i
10:46:07	Report notation "E21 To Get Better Water Supply...Consider Couple Blitz Fires...Blitz Fire in Place Waiting for Water" [indicating a status of the water supply, and degree of fire involvement].	CAD
10:46:19	Report notation "E12 Centerpoint W/ Back Hoe [sic] Coming In From South [indicating a status of the backhoe arrival, which was requested for collapse debris clearing].	CAD
10:47:16	Report notation "E12 to Charge Line [indicating a status of the Engine (pumper truck) that was about to initiate water application on the fires].	CAD
10:48:58	Report notation "E21 To Charge 2nd Blizt Fire ....Water Coming From E7 [indicating a status of the Engine (pumper truck) water application on the fires].	CAD
10:50:11	Report notation "BC3 10-8 to Become Division Chief in Charge of C.... W/ L3 and E5...Division a is BC1 [indicating a status of Incident Command].	CAD
10:54:04	Report notation "Div Alpha 2 Blitz Fires Attcaking [sic] Fire In Middle Section - Centerpt On Scene - Poss 3 Victims On 2nd Floor Poss In Collapse" [indicating a status of the fire	CAD

	suppression, CPEMG (resources / personnel at the scene) and the continued evacuation efforts].	
10:55	City of Minneapolis - Fire Department notified Minnesota State Fire Marshall of gas explosion and requested notification to MNOPS	CPEMG-t
10:55:35	Report notation "ST PAUL STAGED E SIDE" [indicating a status, and staging site, of the arriving mutual aid fire department resources from St. Paul].	CAD
11:04:19	Report notation "Prog Rpt: Explos Entrie [Sic] Structure Middles Section Has Collapsed Mult Lines On Fire Fed From Gas Leak - Centerpt On Scene Pri Search Completed Has Been Completed At Delta Bldg All Clear On That Side - Process Of Pri Search Of The Bravo Side Of Bldg - Div C And And [Sic] Alpha Set Up - Rescue Going To 47/Lake" [indicating a status report of the event, with the indication that a primary search on one sector of the structure had been completed, which was cleared, and a search of other sectors was in process]. Additional messages over the succeeding minutes indicated searches of additional sectors of the structure had been completed.	CAD
11:10	CPEMG Area Manager and a Supervisor (#2) arrived on site. The Area Manager had oversight of the CPEMG personnel and facilitated the gas company emergency response activities. While Supervisor (#2) ensured that the leak survey crew conducted post-accident survey and obtained zero-perimeter readings to ensure safety. These two personnel arrived after the first C&M crew had excavated a hole to squeeze the main line on the rear [west side] south of the accident property which they started about 10:35.	CPEMG-t
11:13:07	Report notation "BC3 9500 Gallons of Fuel in Sub Level Below Collapse Site" [indicating Incident Command provided an alert that a quantity of fuel remained in the structure].	CAD
11:16	The CPEMG Operations Specialist II (who was notified), and MNOPS were onsite. CPEMG Operations Specialist II, coordinated communications between the gas company, and State and Federal regulatory agencies	CPEMG-t
11:16:52	Report notation "390 ATF Working on Getting Bomb Sniffing Dog to Scene [indicating a response involvement by a Federal law enforcement agency].	CAD
11:17:05	Report notation "Centerpoint Located Shut Off/In Progress of Shutting Off..... ETA is W/In a Min" [indicating the status of the gas shut off by the gas company].	CAD
11:18	With the CPEMG Special Foreperson's crew having found the Kerotest valve (Customer service valve or Curb valve) near the	CPEMG-i

	<p>sidewalk, the CPEMG Advanced Mechanic Operator gave the Special Foreperson a wrench, which he used to shut off the Curb valve after 13 turns, and the fire went out in the building after 20 seconds.</p> <p>Testimony indicated the main pipeline was never squeezed off in this operation, but the first C&amp;M crew were about to perform the mains squeezing off when the Curb valve to the accident building was shut off by CPEMG Special Foreperson.</p> <p>The first C&amp;M crew had planned according to CPEMG procedure and excavated the gas main to the south of the building to squeeze (stop) the flow of gas from the main which happened to be one directional feed. However, such operation would isolate about 28 customers connected to this particular main downstream of the squeezed location. CPEMG was ready to follow through with it.</p>	<p>CPEMG-i</p> <p>CPEMG-i</p>
11:18:14	Report notation "Division A Reporting Gas Shut Off" [indicating the status of the gas shut off (in one area of the fire) by the gas company], which was immediately followed by the message "Division A Making Prog on Fire".	CAD
11:18	CPEMG Timeline notation "Gas off to school. [A CPEMG employee] found offset locate marks on the sidewalk and was able to find the R/W cover under the debris. He turned off the Kerotest valve on the service stopping gas to the building before squeeze on main occurred."	CPEMG-t
11:19:38	Report notation "Per EMS Command - Patient Total Transported at This Time is 5 Patients" [indicating the status of the EMS response at the scene].	CAD
11:20:12	Report notation "B Exposure N Bldg. ..D is South Bldg.... Center Collapse Zone/Need Complete 360 and What Needed For Stability for Entry .... Need Secondary Searches ..." [indicating the status of the primary searches, structural stability, and secondary searches].	CAD
11:21:59	Report notation "DEP Have Confirmed from Centerpoint All Gas Shut Off to Bldg" [as an indication confirming the termination of gas flow into the building].	CAD
11:22:21	Report notation "Centerpoint Probed Ground / 0 Readings" [indicating that gas company personnel had completed 'bar hole probing', in an activity to determine if residue natural gas was present in the soil near the accident site, in which the results show 0 (no) residue gas was present].	CAD
11:24:11	Report notation "Per EMS Command - All Staff From School Have Walked to EMS Triage at 32 / Minnehaha Pkwy"	CAD

	[indicating the status of the surviving school staff that remained at the scene].	
11:25:22	Report notation "BC3 Gas Is Secure to Bldg... Crews Putting Water on Collpase [sic] Area Remaining Fire Areas..... Rescue Div On Tac 4 /3 Groups ... Rescue Div Searching Delta and Collapse Areas... And Doing 2ndary Searches of Entire Area [indicating a status of the site by Incident Command].	CAD
11:26:53	Report notation "BC3 Waiting on Rescue Div Report ..... Once See Fires Under Control [sic] ... Will Make Plan for Entry / Recover [indicating a status of the site by Incident Command].	CAD
11:30	CPEMG Timeline notation "[A CPEMG employee] checked east sewers for gas".	CPEMG-t
11:37:31	Report notation "Div Sending R9 to A-D Sector to Mt with Bldg Supervisor to Get to the Office for the Bldg Plans" [indicating that Incident Command directed firefighting personnel to accompany the building supervisor to the office to obtain a copy of the building plans, to support the search and rescue effort].	CAD
11:39:47	Report notation "Rescue Div Prog Report: St Paul R2 Cking Bravo Bldg Pri And Secondary of All Floors -R3 Going To Delta Bldg for 2nd and 3rd Floors - R1 And E8 Going to Ck Rubble Pile at Center of Bldge Once Structural Integrity is Determined" [indicating a status report from Incident Command (the Battalion Chief) on the locations of the various personnel resources that were working the incident].	CAD
11:46:31	Report notation "PER EMS - 6 Patients Have Been Transportged [sic] - All to HCMC ER" [indicating the status of patient transports from the scene, all enroute to HCMC].	CAD
11:50:57	Report notation "Sitrep per EMS Command - 1 [deceased victim located] ... - 1 Other Possible [deceased victim] Unaccounted For - Bldg Is Unstable - Task Force 1 Entering and Searching Structure For Patients" [indicating a status report from EMS Incident Command of victims located and the ongoing search efforts].	CAD
12:01:26	Report notation "Rescue Updated Alpha Bldg Floors All Clear - Delta Bldg All Clear - Gaining Access to Rubble Pile - Bravo Side Clear - Cking Integrity of Exterior to Make Access to Pile" [indicating a status report from Incident Command, in which the search resources (personnel) were about to commence a search of the rubble pile].	CAD
12:19	Timeline notation "Still flames on site. Looking into squeezing main to ensure there is no bleed by past closed valve. Crew pulled records and discovered there are 15+ homes on the end of the one	CPEMG-t

	way feed gas main. Cannot squeeze main. [A CPEMG employee] operated the Kerotest on the service again to ensure it's sealed in the off position.”	
12:21:37	Report notation “IC All Power and Gas Has Been Secured to Entire Campus” [indicating a status report on the shutoff of electric power and the natural gas feed to the campus].	CAD
12:31:34	Report notation “DEP Wants M.E. to Respond to 32nd Side by CP -- ETA Within 30 Mins ...” [indicating a request that the Medical Examiner respond to the scene].	CAD
12:57:24	Report notation “Shutting Down All Flow of Water at This Time. Some Smolder in the Center ... Putting Water Only as it Flares.... Limiting Water at This Time” [indicating that, with the cessation of fire, in which only smoldering debris remains, the fire department water lines (hoses) were shut down, to be activated only if a rekindle occurred].	CAD
13:03:52	Report notation “2 Lines and 2 Blitz's Being Picked Up.... Leaving Main Line” [indicating that, with the fire department water lines all shut down, all lines were being withdrawn (taken back to the fire apparatus) except the main water line].	CAD
13:47:28	Report notation “All Initial Crews That Responded to the 2nd Alarm are Being Released. Exception R1-E8 and All Task Force Crews .... E15 L4 Will Remain for the Rest of Operations” [indicating that all personnel of the second alarm were released from the scene, except for the noted resources].	CAD
14:06:47	Report notation “Per Command Suspending Operations On Scene. Releasing Entire Rescue Divisions After Rehab” [indicating that per Incident Command, the on-scene operations of the Rescue Divisions were suspended after Rehabilitation operations were completed], which was immediately followed by a message “Remaining E15 and L4 For Fire Watch Only**** on Other Operations at this Time” [indicating that two firefighting crews (apparatus and personnel) would remain at the scene as a Fire Watch].	CAD
14:31:27	Report notation “[EMS] has closed their incident” [indicating that the on-scene EMS operations were concluded].	CAD

-- end of Exhibit, and end of Report --