DECISION MAKING DURING A CRISIS

Presenters:
Andrew P. Flanagan, Town Manager, Andover MA
Andrew W. Maylor, Comptroller of the Commonwealth of Massachusetts
former Town Manager, North Andover
Dan Rivera, Mayor, City of Lawrence
At approximately 4:06 pm on Thursday September 13, 2018 a work crew reconnected a replaced section of gas main in the south section of Lawrence, Massachusetts. Due to an engineering design error, the reconnection resulted in the over pressurization of approximately 45 miles of gas lines covering a 5 square mile radius in 3 communities; Andover, Lawrence and North Andover, Massachusetts.
The Impact

• More than 75,000 residents were asked to evacuate their homes

• There were more than 100 fires, one tragic death, many injuries and dozens of destroyed and seriously damaged homes

• Hundreds of calls were received by the respective 911 centers
## The Response – the first 72 hours

<table>
<thead>
<tr>
<th>Date</th>
<th>Description of Events</th>
<th>Stats</th>
</tr>
</thead>
</table>
| Thursday September 13, 2018 | • Residents voluntarily evacuated their homes  
• Some residents turned off their own gas  
• Upon identification of the impacted area, officials turned off gas at impacted homes  
• Electricity cut as a precaution  
• Highway off-ramps closed  
• Emergency Management teams were mobilized and shelters were opened | 8,570 gas meters impacted  
6,660 homes impacted  
More than 40,000 residents w/o gas  
More than 60,000 without electricity |
The Response – the first 72 Hours
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Mutual Aid Assistance
- 180 Fire Departments from 3 states
- Over 660 law enforcement units
- 54 EMS units
## The Response – the first 72 hours

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| Friday September 14, 2018     | • Streets identified as “Impacted” or “Non-impacted”  
• Gas techs begin shutting off all meters on the Impacted Streets (approx., 2am)  
• State of emergency declared; Eversource put in charge of the impacted area shutoff operation (late afternoon)  
• Inspections begin to clear streets enabling residents to return home                                                                                                                                       | Residents with electricity cleared to return home |

"Governor Baker declared a state of emergency this afternoon authorizing the Chairman of the Department of Public Utilities to authorize Eversource to take management control over the coordinated effort to safely restore utility services in South Lawrence, Andover and North Andover."
## The Response – the first 72 hours

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<thead>
<tr>
<th>Date</th>
<th>Description of Events</th>
<th>Stats</th>
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</thead>
<tbody>
<tr>
<td>Saturday September 14, 2018</td>
<td>• Non-impacted / impacted areas continue to be cleared for residents to return home</td>
<td>8,527 meters inspected</td>
</tr>
<tr>
<td></td>
<td>• Electricity restored for some</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Inspections of Public Schools begins</td>
<td></td>
</tr>
<tr>
<td>Sunday September 15, 2018</td>
<td>• Non-impacted / impacted areas continue to be cleared for residents to return home</td>
<td>100% cleared to return home</td>
</tr>
<tr>
<td></td>
<td>• Electricity restored for some</td>
<td>100% homes re-energized</td>
</tr>
<tr>
<td></td>
<td>• Inspections of Public Schools completed</td>
<td></td>
</tr>
</tbody>
</table>
The Response – the first 72 hours
The Restoration

• Navy Captain Joe Albanese, Ret., appointed by Governor Baker as Chief Recovery Officer
• Beginning 9/24 Columbia Gas and contracted construction teams began the massive restoration process in all three communities

• “Relight” date set for November 19, 2018
  – The effort ultimately replaced the 45-mile, cast iron and bare steel distribution system with state-of-the-art infrastructure and safety features such as excess flow valves that automatically shut off gas flow if a service line is damaged or broken
  – Replace of all gas appliances
  – Inspect all work for code compliance
The Restoration – Operation Assessment

PATH TO SERVICE RESTORATION

MAKING YOUR HOME OR BUSINESS “HOUSE READY”

- Assessment
  A team will visit your home or business to assess your natural gas appliances and piping and review options.

- Repairs and Installation
  Upon completion of repairs, we will test natural gas lines for safety, install appliances and you will receive warranty information.

MAKING YOUR HOME OR BUSINESS “GAS READY”

- Main Line Replacement
  The main gas line that brings gas into the area has been replaced on your street.

- Service Line Replacement
  The line connecting your home or business to the main line has been replaced.

- Meter Installation
  The gas meter that measures gas and regulates flow into your home or business has been installed.

NATURAL GAS SERVICE RELIGHT

To restore natural gas service to your home or business, all work inside and outside must be completed.

- House Ready
  work inside your home or business is complete and tested, with at least one appliance available for relight.

- Gas Ready
  means all work outside your home or business has been completed.

- Once Gas Ready and House Ready, a Columbia Gas representative will visit your home or business, perform final safety checks and restore your natural gas service.

‘House Ready’ = Inside Work by Installation Teams

Work inside your home or business is completed, safety checked and available to relight.
The Restoration – Operation Assessment

• First step, teams visited every impacted residence/business to do a full assessment and determine what appliances need to be replaced or repaired. Each assessment took several hours.
  – Assessors, Electricians, Linguists
  – It took several weeks for all assessments to be completed
  – Coordination of assessment was a challenge
The Restoration – Staffing/Labor

• Employment Center opened to manage staffing needs
• Gas Main Construction Crews – in-street
  – 110 crews at peak – 4 to 10 per crew
• Plumbers/Gas fitters – in-house
  – 1,250 at peak from 13 states
  – State had to determine reciprocity standards
• Code Inspectors from 40 Massachusetts Municipalities
  – Coordination
  – Compensation
• Total labor force working on Restoration exceeded 3,000
The Restoration – Other Services

• Showering locations identified

• Claims Processes
  – Claims Centers
  – Mobile Customer Service Centers
  – In-house Claims Representatives

• Operation Temporary Heat
  – Hot Plates
  – Space Heaters
The Restoration – Other Services

• Appliances - Repair vs Replace
• Gifts, Donations, NGOs
  – Donations came from many sources
  – Two $10 million funds were established
    • One for impacted residents
    • One for impacted businesses
The Restoration – Housing

• A comprehensive housing plan had to be established to provide displaced residents with a place to live
• Temperature was unusually mild for several weeks after the event
  – Average temperature in September was 68 degrees, 3 degrees above normal
• The concerns related to a change in temperature and the challenges of at-risk populations
  – Average temperature in November was 40 degrees, 1.6 degrees below normal
  – Earlier than normal snowfall
The Restoration – Alternative Housing Stats

<table>
<thead>
<tr>
<th>Shelter Type</th>
<th>Available as of Oct. 8, 2018</th>
<th>Progress Update</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotels</td>
<td>3,015 rooms</td>
<td>4,750 within 30 miles</td>
</tr>
<tr>
<td>Apartments</td>
<td>164 apartments</td>
<td>250</td>
</tr>
<tr>
<td>RVs</td>
<td>400 secured</td>
<td>On three sites by 10/17</td>
</tr>
<tr>
<td>Congregate Shelter</td>
<td>250 beds</td>
<td>1,000 by 10/10</td>
</tr>
</tbody>
</table>
The Restoration – Worst Case Scenario

• “Columbia Gas likely to miss Nov. 19 deadline”
  – Eagle Tribune October 25, 2018

• “Attorney General Calls 1-Month Gas Restoration Delay ‘Unacceptable’ ”
  – NBCBoston October 26, 2018

• “Months after Massachusetts gas explosions, normalcy far off”
  – Boston.com December 14th

• “Gas Recovery will extend into fall 2019”
  – Eagle Tribune December 17, 2018
The Restoration – Communications

• Columbia Gas had no defined communications strategy
• Three communities chose to replicate all communications
• No single platform was effective
• Public vs Private approach to communication
• Extensive press coverage
• Sample website communications string
Post Restoration

• Federal Hearing held to discuss causes and regulatory requirements
• Municipalities settled claims with Columbia Gas - $80 million
• Roadway repaving will take 3 to 5 years
• Impacted public spaces will take 12 to 24 months to repair
• Class action lawsuits settled - $143 million
• Phase II - Remaining appliances installed August 2019
• Back to business events were held

Total cost of the disaster has exceeded $1.4 billion
THANK YOU

Questions?