



Lessons Learned From Gas Operator Incidents



Discussion Items

- AEGIS
- Loss Control
- Loss Data 2006-2016
- Review of AEGIS RMLL Cases
- What We Do Well....Save Lives

AEGIS

Background Information

- Utility Mutual Insurance Company
- (Member-owned)
- Formed in 1975 by 22 gas utilities
- Electric Utilities began joining in 1977
- 350 members - 94% investor-owned utilities and related energy

AEGIS Loss Control Mission Statement

- To assist AEGIS member companies maintain effective and safe operating systems while reducing their overall long-term cost of risk, by developing and providing products, services and training programs specifically for this purpose.

Loss Control Division

Products and Services

- Risk Assessments
- Self-Administered Risk Assessments Guides
- Review of Major Liability Losses
- Occupational Safety & Workers' Compensation Program Assessment
- Gas Operator Training Program
- Lessons Learned Video Series
- Public Safety Awareness Program
- Electric How Safe Series
- Electric/Gas Hazard Awareness for Emergency Responders
- Consultation

Loss Control Division

Utility Risk Assessments, Services and Guides

- Natural Gas Risk Assessments
- Call Center Reviews
- Focused Services
- Webinars - One hour technical sessions for Risk Managers, Safety, Claims, Engineering and Operating Personnel

On-Site Training and Workshops (For Fee)

- Natural Gas Operator Training
- Natural Gas Incident Investigation Workshop
- Media Relations at Utility Incidents Scenes

Loss Control Division

Publications and Guides

www.aegislink.com

- Self-Administered Risk Assessments (SARA) Guide
- Natural Gas Emergency Response Tip Cards
- Review of Major Liability Losses
- What We Have Learned - And What You Should Know

Consulting and Presentations

Technical Consultations

- Code changes & interpretations
- Company operating procedures & practices
- Utility design issues
- Independent review of operating documents & manuals
- Industry & Member meetings

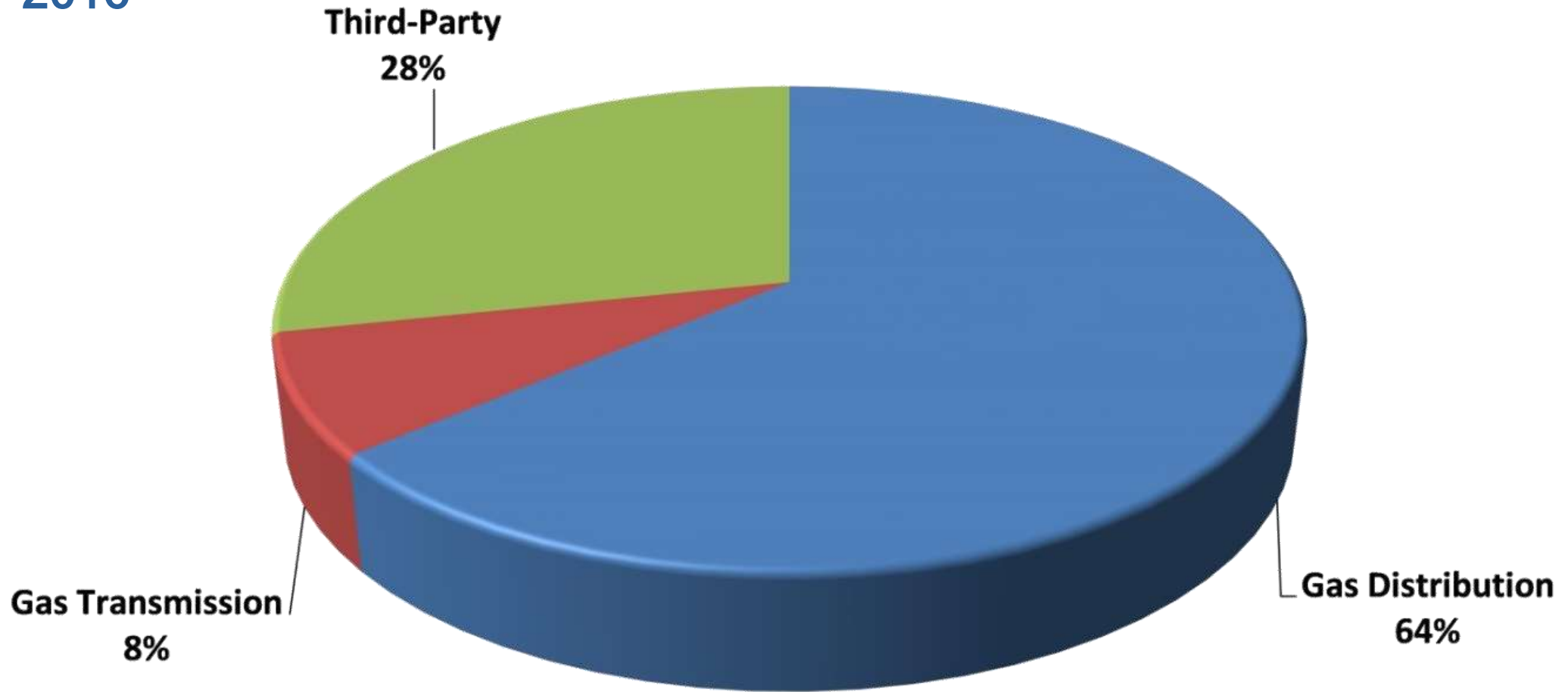
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Additional Information on AEGIS Website

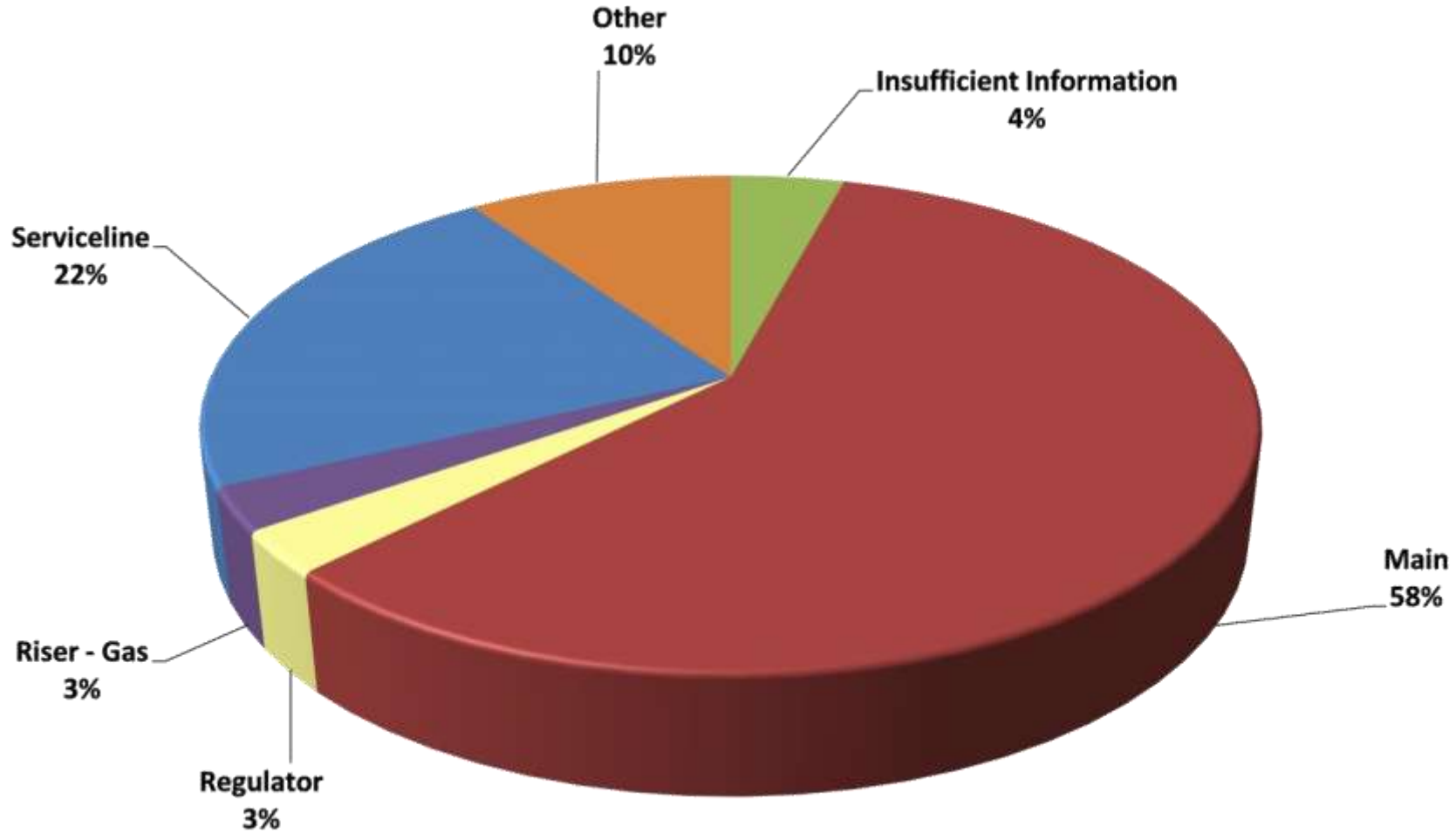
For risk managers, operations, engineering, safety, legal & claims - password protected.

- Go to <http://www.aegislink.com>
- Follow on-screen instructions

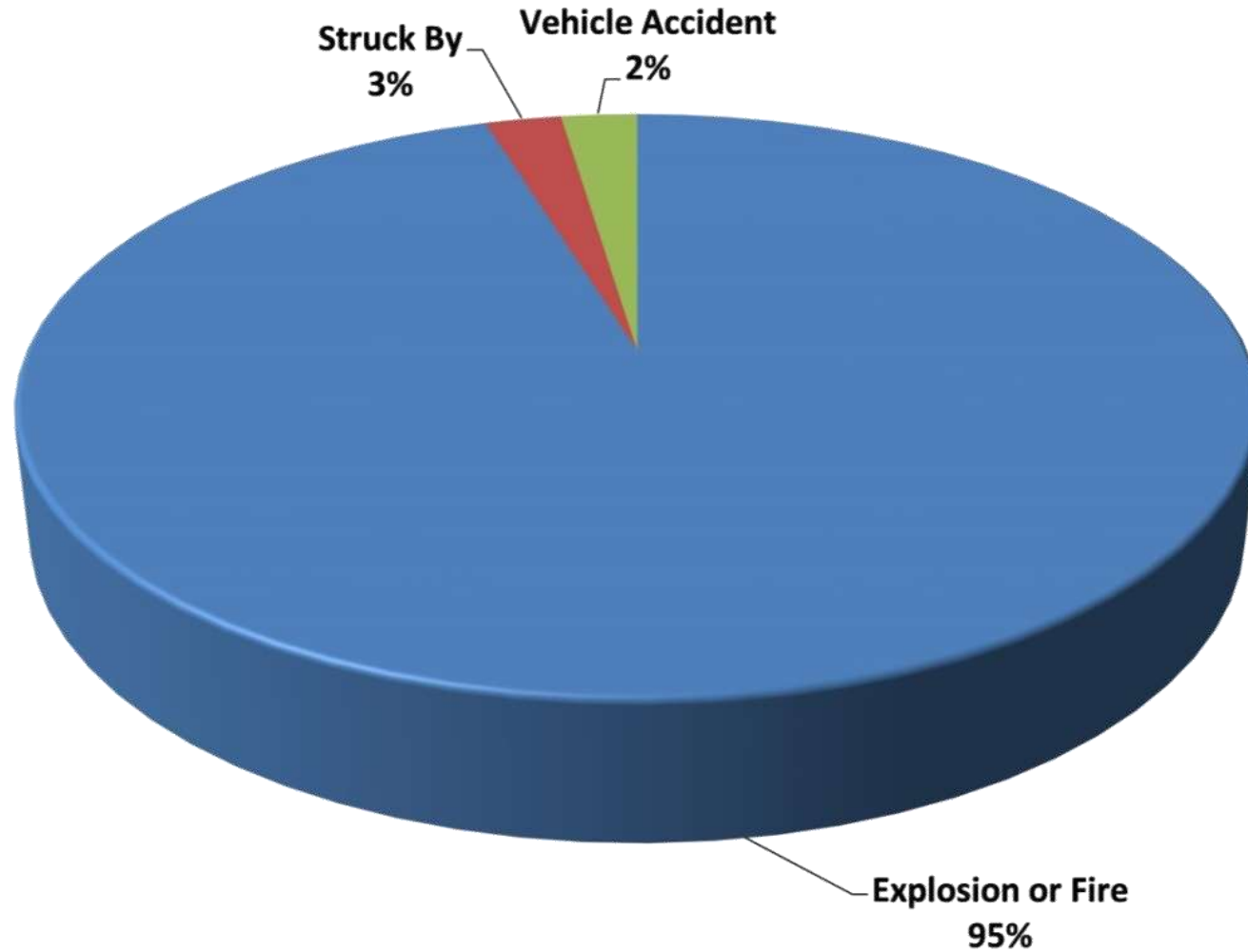
Natural Gas Reported Claims: All Systems/**Gas Distribution** 2007-2016



Natural Gas Reported Claims: All Systems/Gas Distribution/**Mains** 2007-2016



Natural Gas Reported Claims: All Systems/Gas Distribution/Mains/**Loss Type** 2007-2016



Review of Major Liability and Losses

Contributing Factors - Big 3

- Failure to Follow Procedures
- Duty to Warn
- Find and Fix Syndrome



Failure to Follow Procedures

- ❑ A natural gas explosion and fire severely injured the owner of a two story apartment building who sustained third-degree burns over ½ his body.
- ❑ In the early evening, apartment tenants began to smell an odor of gas, there is no record of any calls to the gas company until almost midnight
- ❑ A passerby called the FD, FD forwarded to Gas Company, 1st responders arrive at 12:30 am
- ❑ The employees gained entrance, smelled strong odor, knock at doors, no answer, went to basement and found a bank of meters, one being a “runaway” meter – shut valve of meter.
- ❑ Again knocked at doors, no answer – returned to their service van to re-check in 30 minutes
- ❑ 20 minutes later explosion

Failure to Follow Procedures

Lessons Learned

- The claim was based on the gas company employees' failure to follow procedures (evacuate) and contact 911
- No attempt was made to evacuate the tenants
- No CGI readings were attempted in building
- Once the “runaway meter” was found, not knowing how long the condition existed, no attempt was made to contact the dispatcher to get emergency services to help in evacuating occupants
- Deciding to wait in the van before taking any other actions in an emergency condition was contrary to all company emergency procedures

Company SIR \$2,000,000 + AEGIS Loss \$1,000,000 = \$3,000,000

Duty to Warn

- ❑ A young boy was burned over 26% of his body when gasoline vapors ignited while playing in his garage
- ❑ A gas fired water heater allegedly ignited vapors from a nearby open gasoline can
- ❑ The water heater was installed flushed to the ground, elevation required 18”, no vapor guard
- ❑ Gas company performed “turn-on” approximately 1 year prior...no record of red-tag

Lessons Learned

- ❑ Gas service employees receive training on recognizing hazards, red-tagging, informing customer - Duty to Warn
- ❑ Gas company expected to fulfill this duty to warn

Company SIR \$250,000 + AEGIS Loss \$550,000 = \$750,000

Find and Fix Syndrome

- ❑ A landscaping company cut a service line to a home while removing a tree stump
- ❑ Gas company called and responded within 30 minutes
- ❑ 1st responder focus on area of cut line...asking contractor to remove the stump to allow him to squeeze off the service line
- ❑ An explosion occurred as the 1st responder was heading to his truck for tools. Explosion destroyed one home and damaged two others

Lessons Learned

- ❑ 1st Priority of all 1st Responders is to protect life ...Avoid the Find and Fix Syndrome.....Ask the question “Where is the Gas”
- ❑ Do not instruct anyone to operate equipment in the presence of leaking gas

Company SIR \$250,000 + AEGIS Loss \$1,800,000 = \$2,050,000

SCG Service Tech Saves a Women's Life

- ❑ SCG – Receives a customer call at Noon on Jan 3rd. Female caller concerned...could smell something, but it didn't smell like the rotten-eggs smell.
- ❑ SCG – Service Tech dispatched to residence (duplex). Service Tech was getting 30-40 ppm in basement. Heard another furnace through the wall...very loud noise...unusually loud.
- ❑ Resident said occupants next door....women and two children....registers 400 ppm at front door. Pounding on door and no answer
- ❑ Communication with dispatch/supervisorgets to window, opens, 500 ppm
- ❑ FD arrives....Service Tech relays info to FD....FD full equipment....finds:
 - ❑ Women asleep in bedroom – 700 ppm
 - ❑ Basement....near Furnace – 2,100 ppm
 - ❑ Children not home

Carbon Monoxide

<u>PPM</u>	<u>Effects and Symptoms</u>	<u>Time</u>
50	Permissible Exposure Level	8 Hours
200	Slight Headache	3 hours
400-600	Headache, Discomfort	1-2 hours
1000-2000	Headache, Confusion, Nausea, Staggering	1.5 hours
2000-2500	Heart Palpitation	30 minutes
2500-3500	Unconsciousness	30 minutes
4000	Fatal	30 minutes
	Effects may vary from person to person	

Lesson Learned – SCG Service Tech Saves a Women’s Life

Lessons Learned

- ❑ Protecting Life #1 Priority.....it was carried out
- ❑ Put experience to work, relied on gut.....questioned noise from unit next door

Company SIR - \$0.00

AEGIS Retention – \$0.00

Women’s gratitude & positive impact on industry - Priceless

Thank You

AEGIS Insurance Services, Inc.

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