

Duke Energy
Distribution Integrity Management Plan (DIMP)

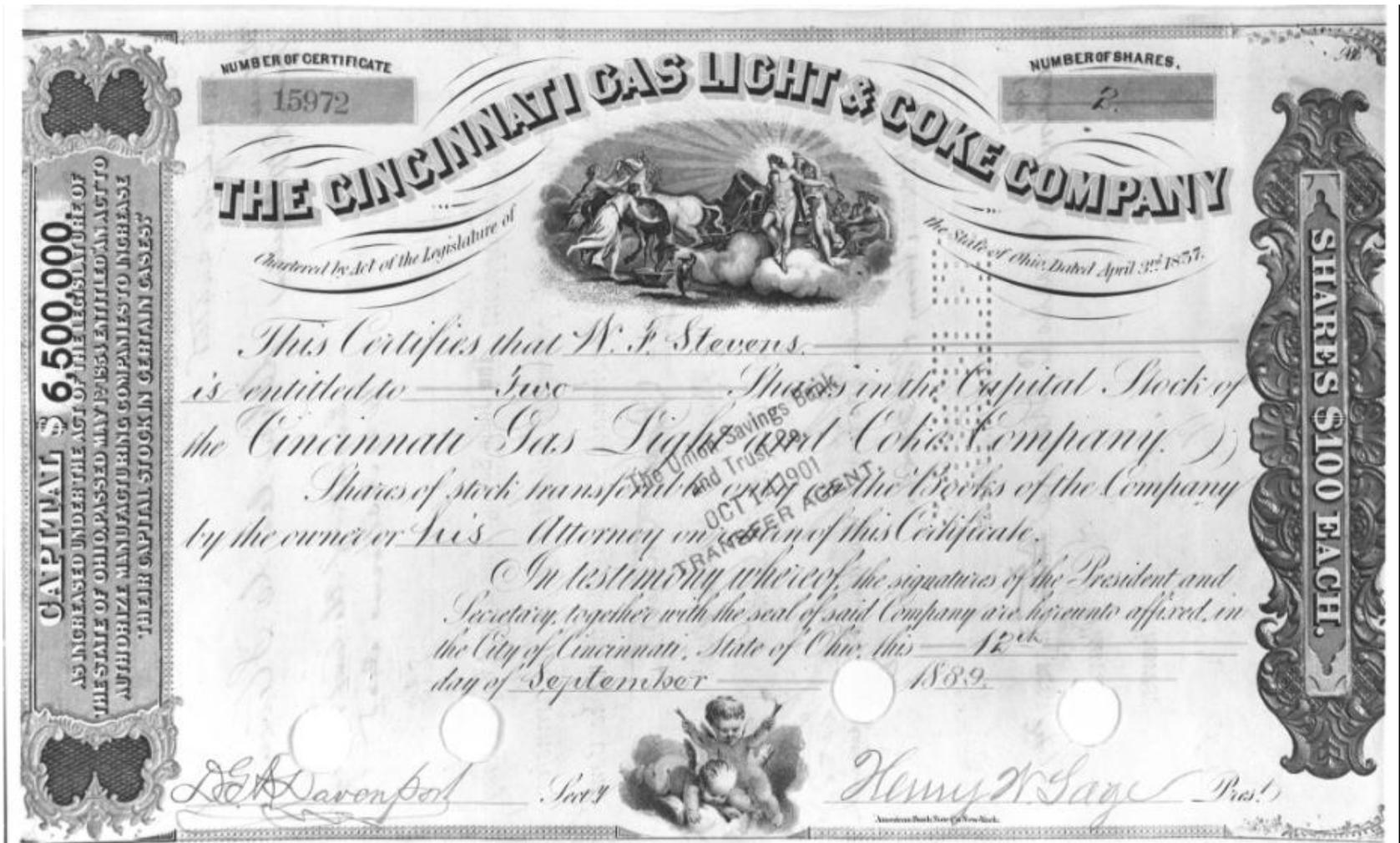


DIMP Plan Audit by the
Public Utilities Commission of Ohio
February 2012

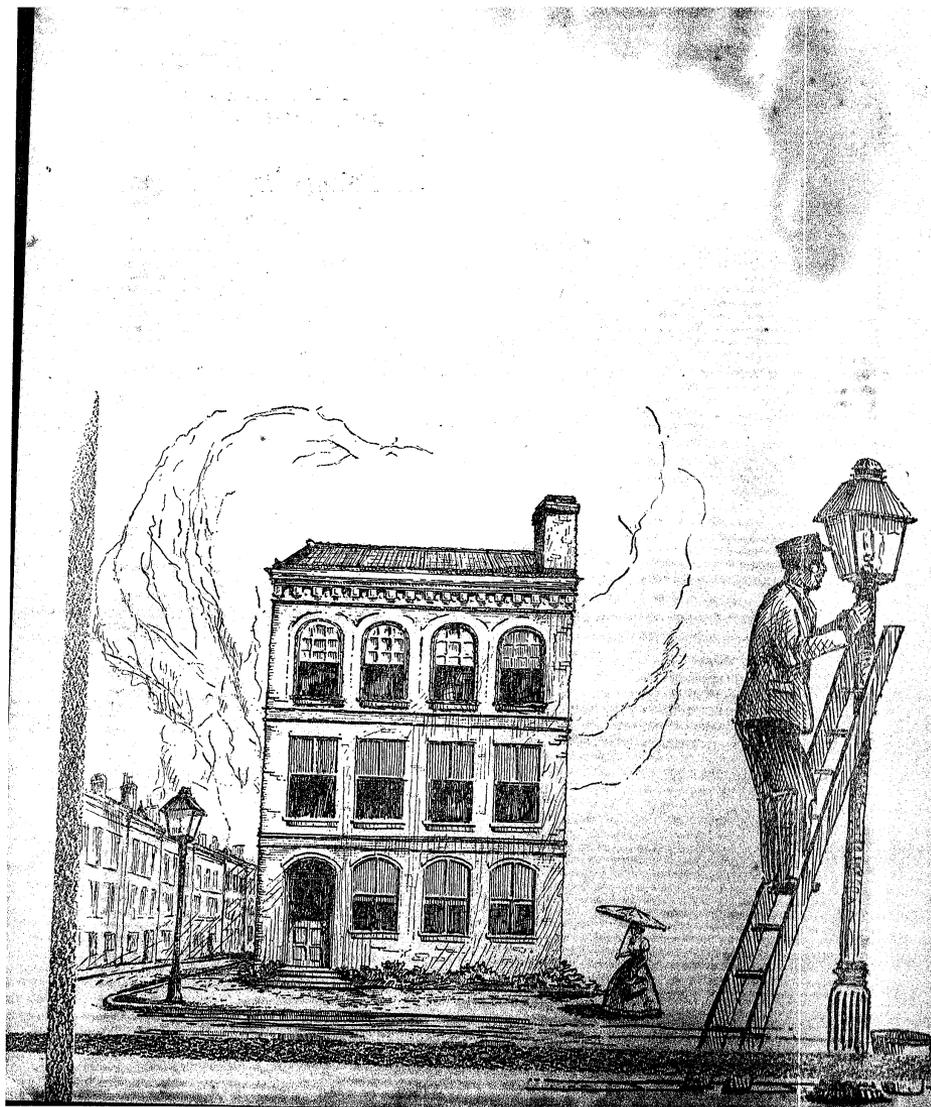


Celebrating 175 Years of Service to Our Community

1837-1901	Cincinnati Gas Light & Coke Company
1901-1994	CG&E ■ ULH&P ■
1994-2006	CINERGY ®
2006-2012	



Two Shares of The Cincinnati Gas Light & Coke Company Stock – Sept. 1889



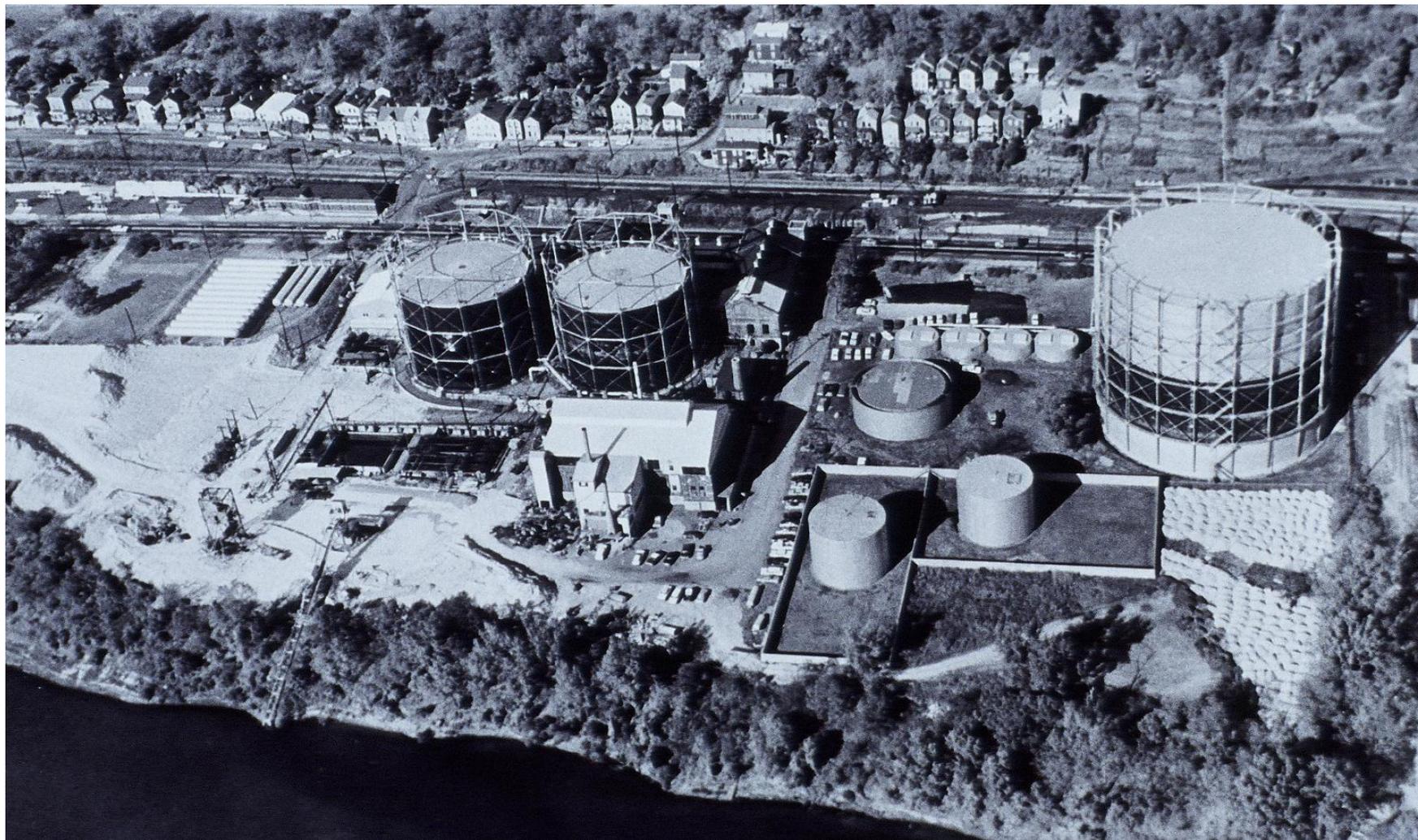
Drawing of Street Gas Lamp Lighter



4th & Main building construction – Late 1920's



Three Chambered Tobey Meter – Union Gas & Electric Co. – 1892



Eastern Ave Gas Production – 1960's



Union Gas & Electric Company Crew - 1906



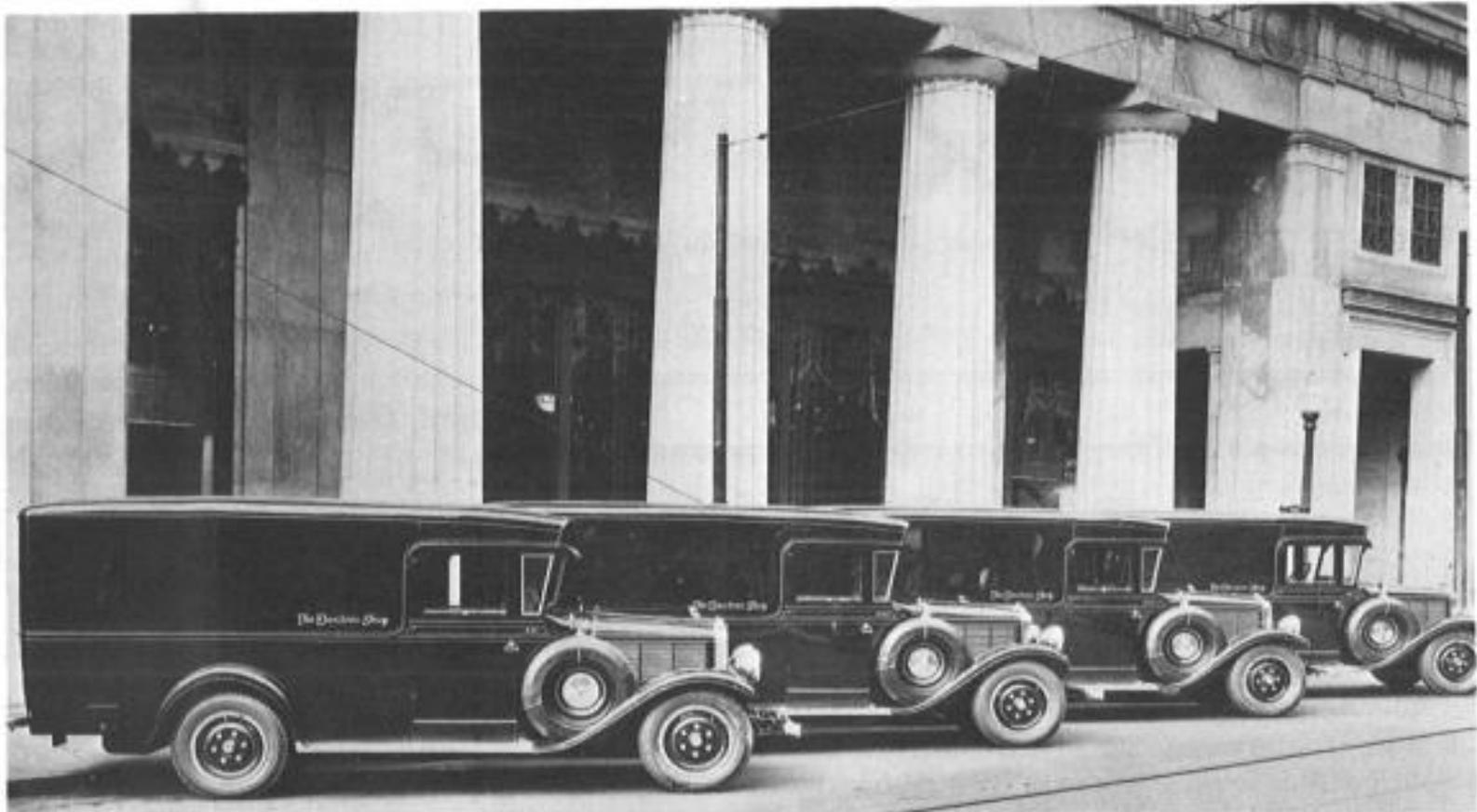
Cast Iron Main Installation



Gas Construction Job 1950's – E. McMicken & Vine Street

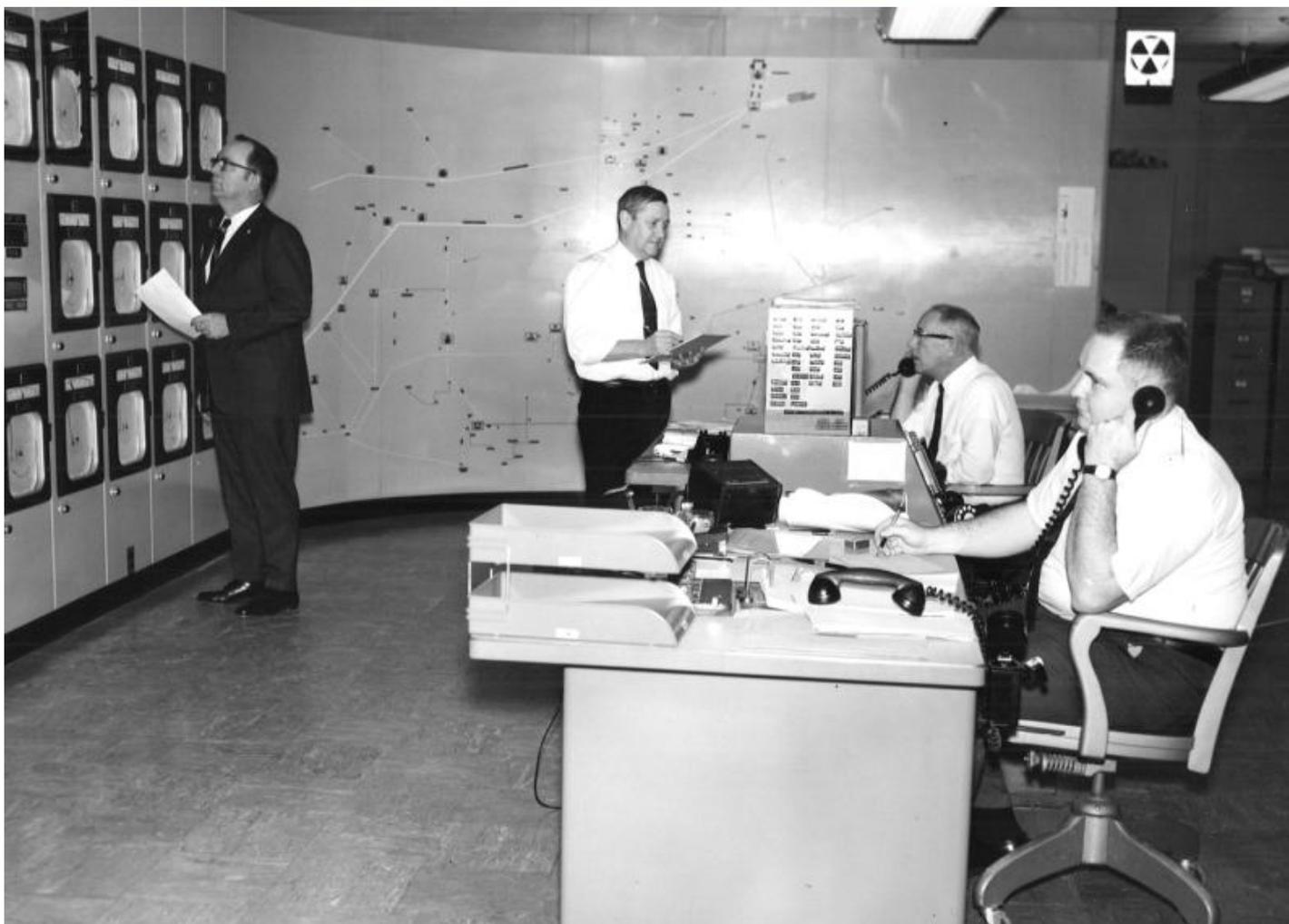


Gas Main Construction – Northbend Road 2011



If you worked at Fourth & Main in 1930, you probably remember the Gas & Electric Appliance Co. and its fleet of trucks. The donor of this picture to the historical files of the Veterans' Club is unknown.

1930 - Gas and Electric Appliance Company

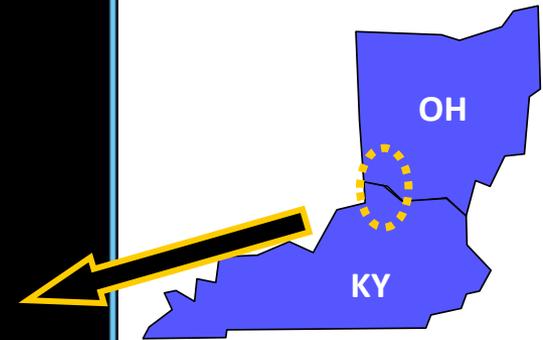


Gas Control 1970 – Bill Becker, Bolo Rogers, Dick O'Donnell



Gas Control 2012 - Mike Hoffer and Dave Rothe

Duke Energy OH & KY Gas Service Territory



The OH & KY Gas service territory covers approximately 2,148 square miles

YE2011 Mains and Services (Ohio and Kentucky)

- 7,219 Miles of Main
 - 6,877 Miles of Distribution
 - 342 Miles of Transmission

- 489,563 Services
 - 6,027 Miles of Service Pipe

- 512,460 Customers (includes transportation customers)

CFR Title 49 Part 192 Subpart P Gas Distribution Pipeline Integrity Management (IM)

Part 192.1007 – What are the required elements of an integrity management plan?

- (a) Knowledge
- (b) Identify threats
- (c) Evaluate and rank risk
- (d) Identify and implement measures to address risks
- (e) Measure performance, monitor results, and evaluate effectiveness
- (f) Periodic Evaluation and Improvement
- (g) Report results

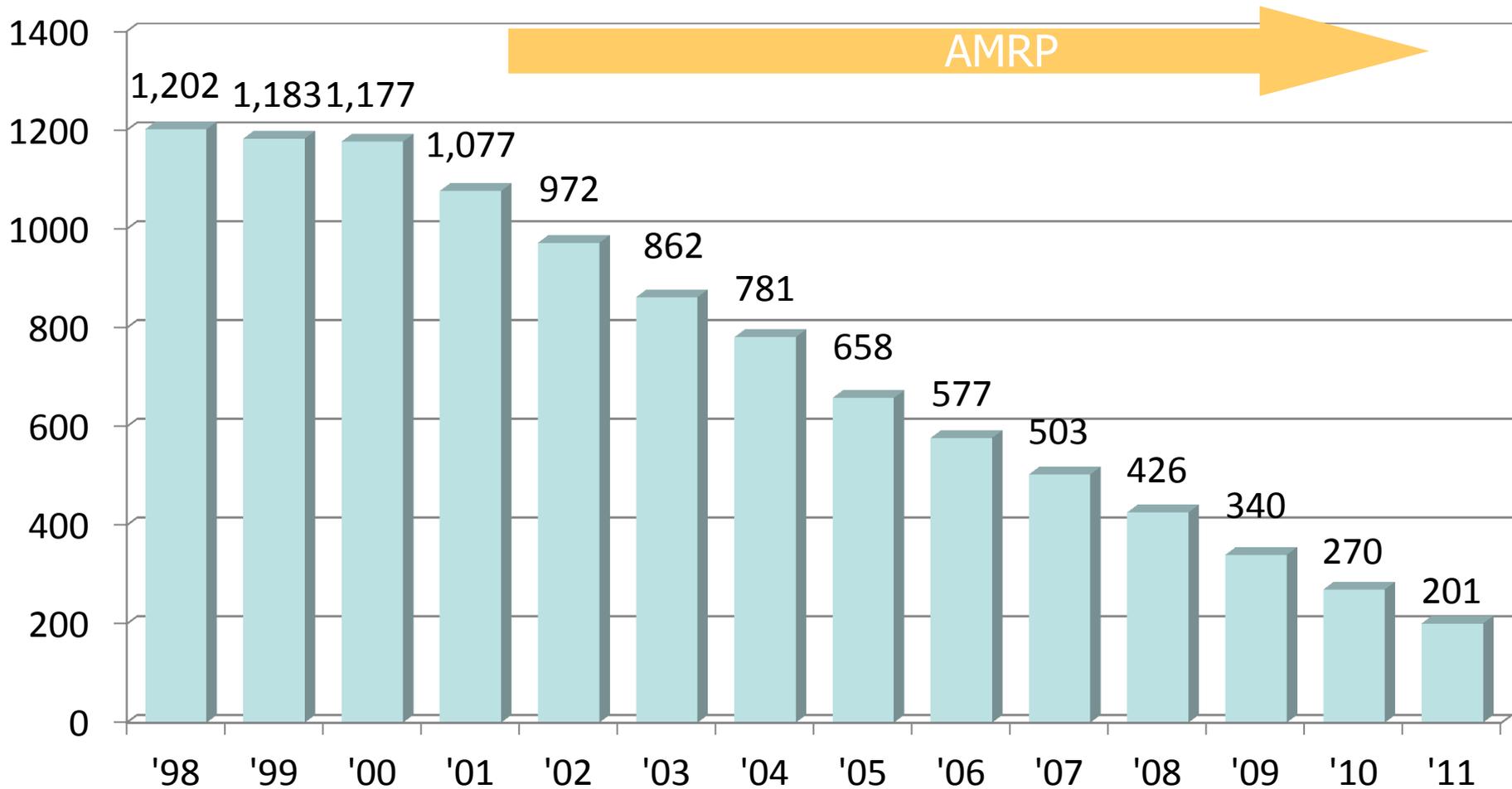
DIMP Plan Developed and Implemented

- Considered developing Plan in-house or using outside firm that was familiar with DIMP
- Decision made to use MEA Template along with Gas Operations' Subject Matter Experts (SMEs) in conjunction with outside firm to develop Plan
- Meetings held with SMEs and outside firm and eventually determined Plan was complete and met CFR Title 49 Part 192.1007
- DIMP Plan was developed, approved and implemented August 2, 2011

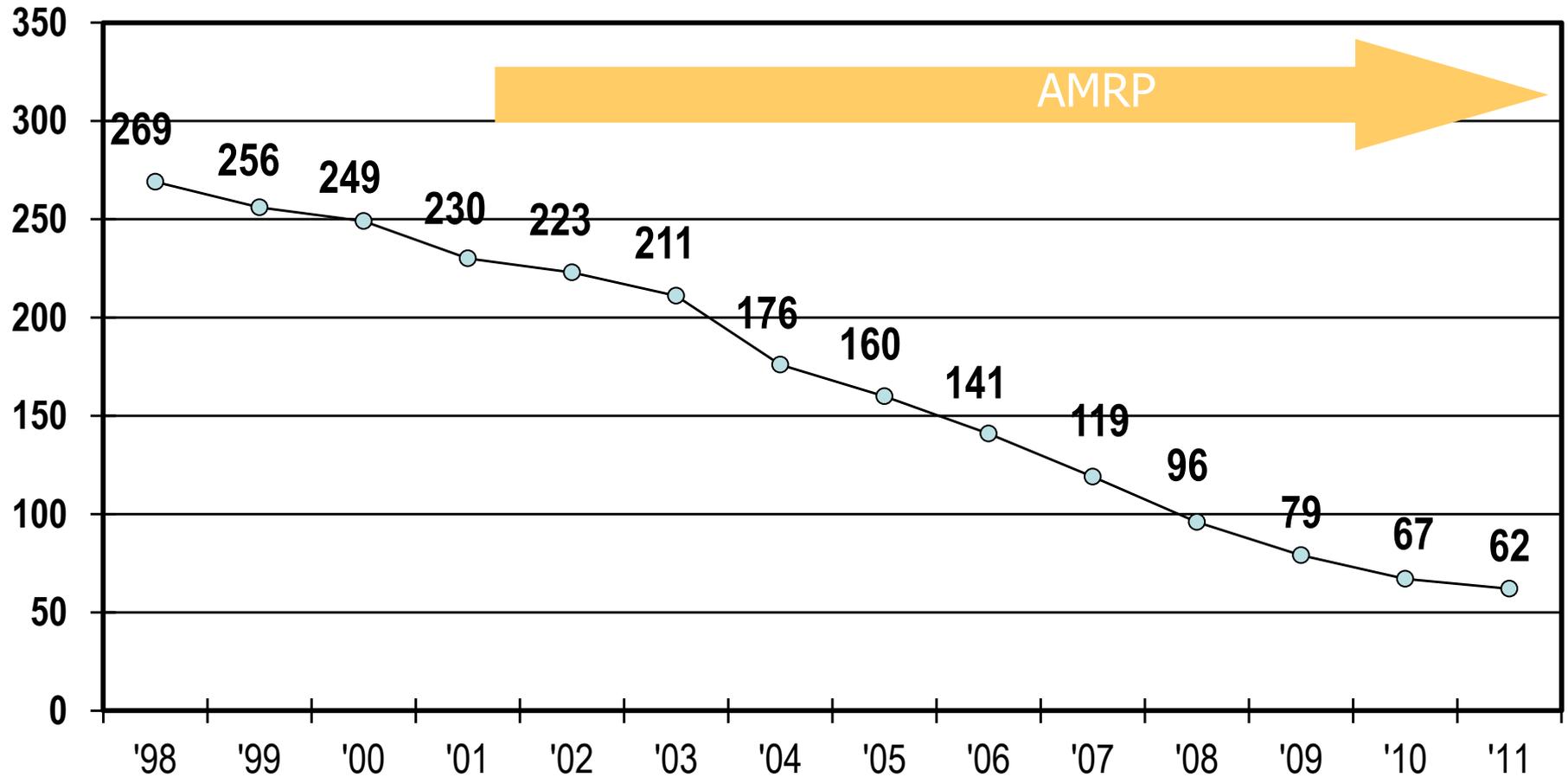
Programs Already in Progress

- On the right path, ahead of the game with a DIMP Plan in motion...
- Accelerated Main Replacement Program (AMRP) beginning in 2000 for Cast Iron and Bare Steel Mains in OHIO and KENTUCKY
- Riser Replacement Program
- Sewer Program – pre and post construction

Decline in Cast Iron

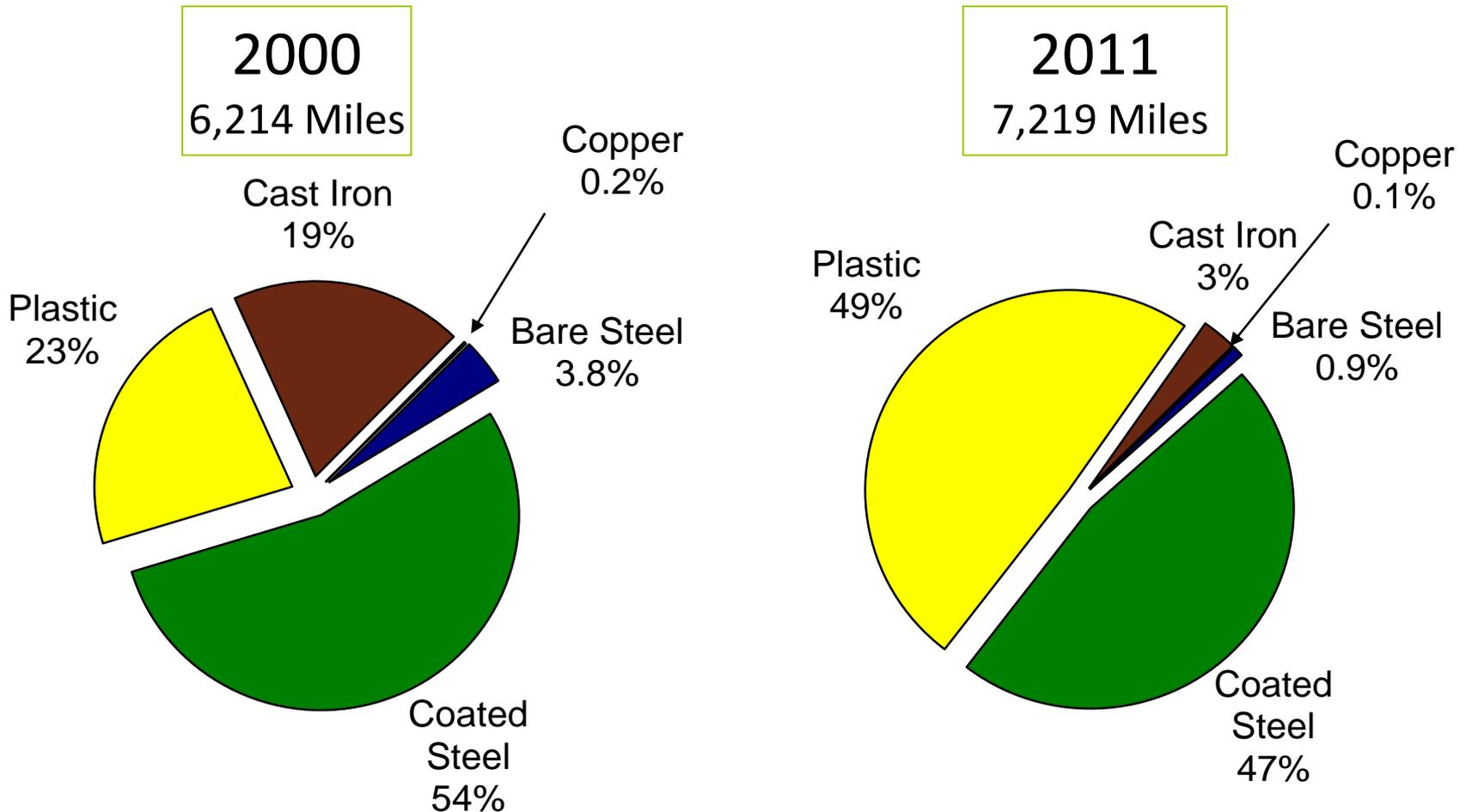


Decline in Bare Steel



Main Percentage by Material Type

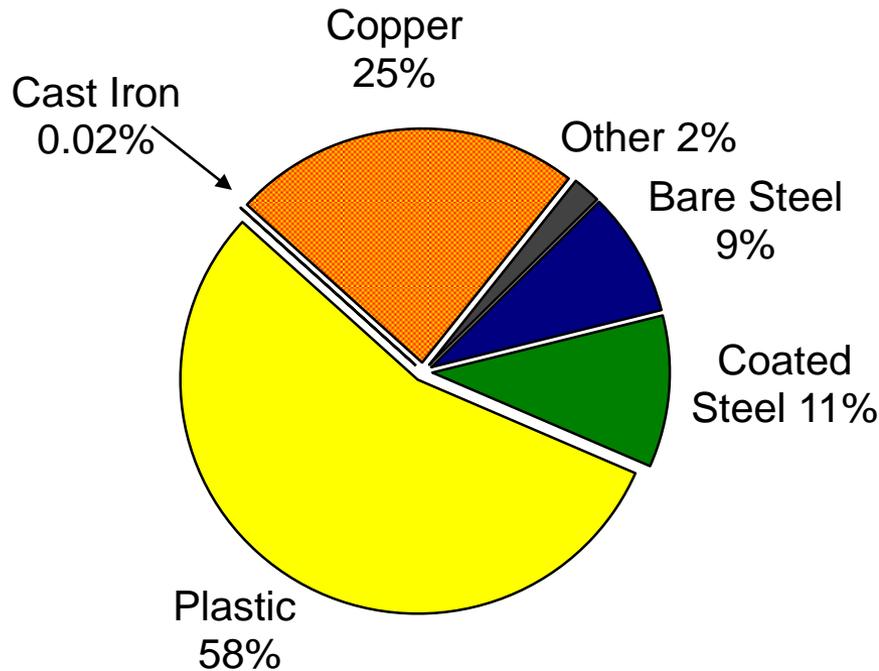
From the start of AMRP through 2011



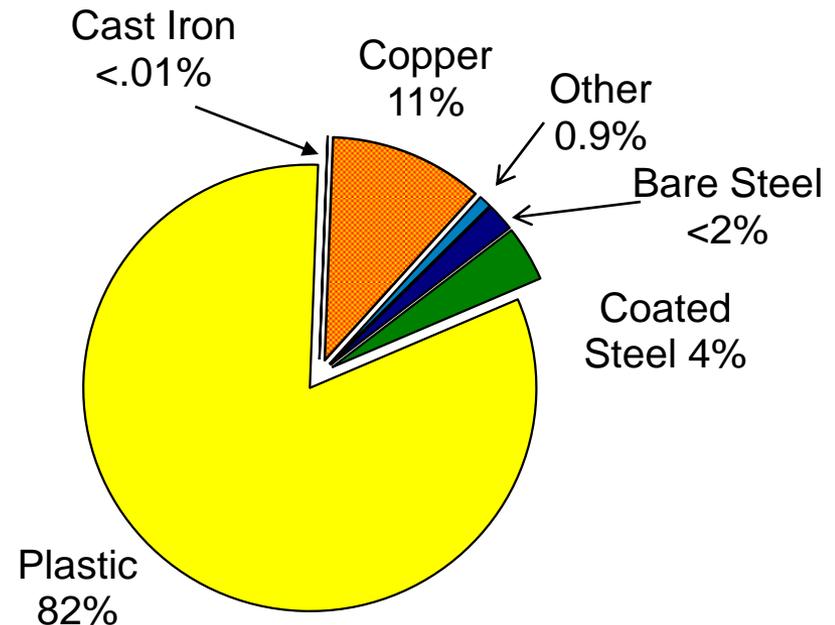
Services Percentage Material Type

From the start of AMRP through 2011

2000
444,995 Services

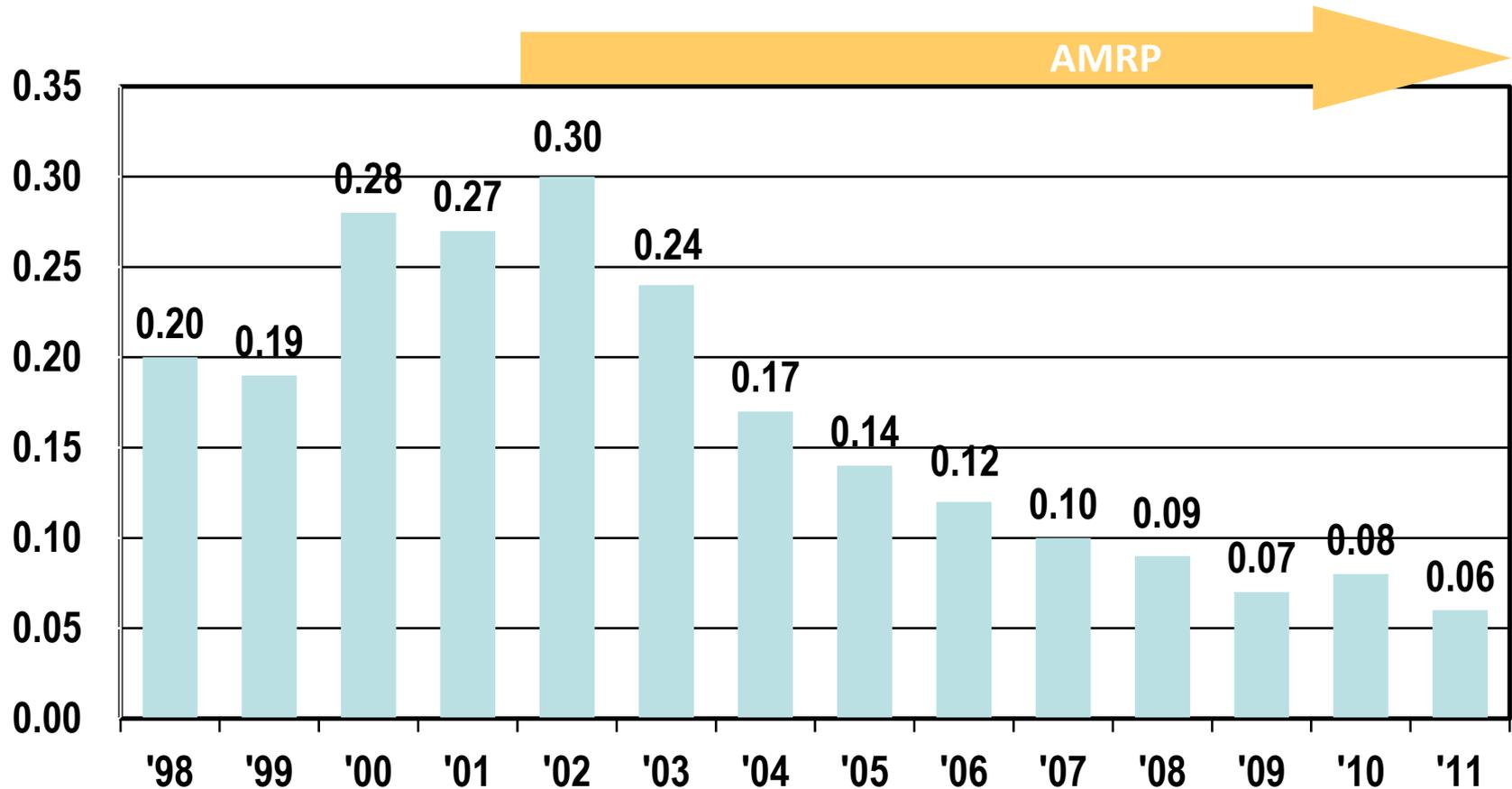


2011
489,563 Services

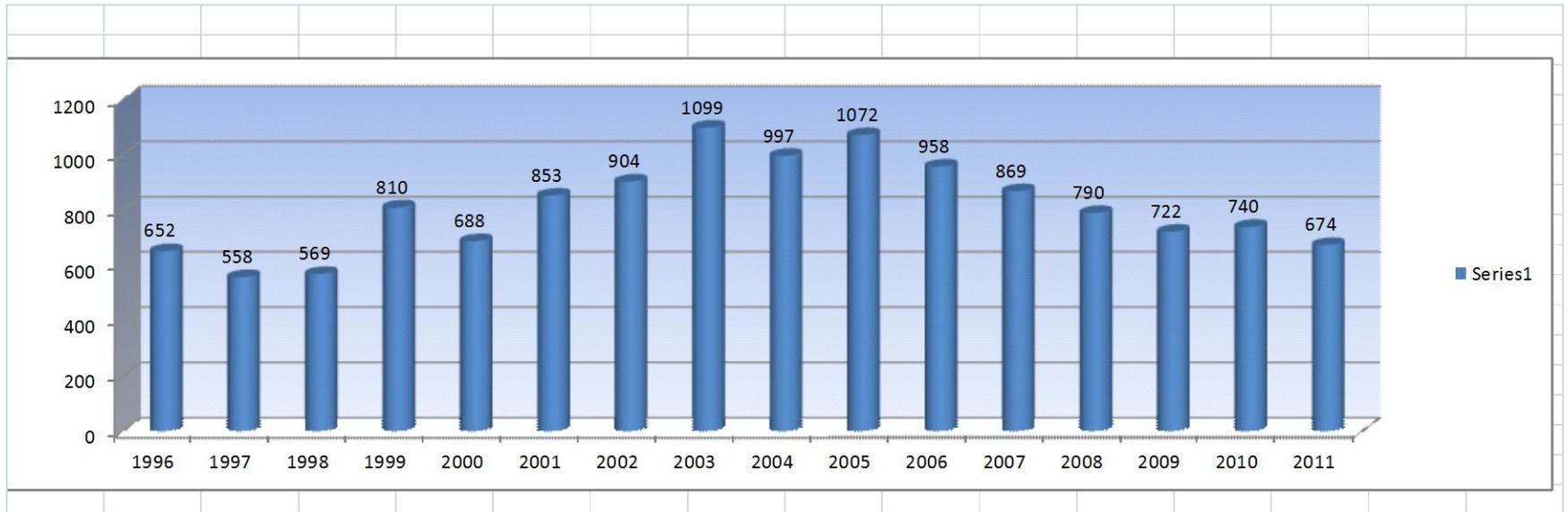


Main Leaks Repaired Rate per Mile of Main

(excludes third party damages)



Service Damages



Things were looking good...and then,
we were audited...



Don't worry, this won't hurt...

Result of DIMP Plan Audit

Probable Non-compliance

192.1007 (c) Evaluate and rank risk. All operator must evaluate the risks associated with its distribution pipeline. In this evaluation, the operator must determine the relative importance of each threat and estimate and rank the risks posted to its pipeline: This evaluation must consider each applicable current and potential threat, the likelihood of failure associated with each threat, and the potential consequences of such a failure.

Duke Energy did not consider the likelihood and consequences of failure or evaluate and rank risks.

Determining what actions
to take next....



Evaluating Our Threats and Risks

- Third Party Damages
 - Mislocates
 - Untonables
- Probable Non-compliance (PNC) or Deficiency
- Incidents
- Leak Repairs (Cause of Leak)
 - Corrosion
 - Natural Forces
 - Excavation Damage
 - Other Outside Force Damage
 - Material or Welds
 - Equipment
 - Incorrect Operations
 - Other

Evaluating Our Threats and Risks (continued)

- Incorrect Operations (trend from incidents)
- Reviewing procedures and standards
- Subject Matter Experts (SMEs) – updated BIOs to show why they are the SME
- Analyzing available data (i.e. Leak Survey, Corrosion, Valve inspections, Station/Regulator inspections, Odorization data)
- eGIS (Smallworld) – manufacturer vs. vendor
- Advisory Bulletins
- Creating a matrix for Threats and Risks

Recognition

We believe we had a very good DIMP Plan that met code requirements, as a result of our AMRP Program, Riser Replacement Program, and Sewer Program and that we addressed our most immediate threats and risks. We believe our effort and time was well spent in producing and implementing our Plan. However, as a result of the audit, we recognize that we have more work to do and believe we will have a more complete Plan by Year End to move our Plan from a “D” to an “A”.

QUESTIONS??????



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