

Regulating Development Near Rail

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Outline of Presentation

- **Context**
- **Timeline of Denver addressing Development near Freight Rail**
- **Freight Train Derailments**
- **Flammable Liquids Freight Trains in Denver**
- **Highlights of Proposed Ordinance**
- **Appendices**

Context

Local government leaders have responsibilities to put measures in place to protect public health, safety, and welfare and, under Homeland Security authorities, to identify risks and vulnerabilities.

Timeline of Denver addressing development near freight rail

2016: Mayor's Working Group on Railroad Safety report issued. Recommendations include review development applications near rail for consideration of impacts;

2017: CPD starts identifying development applications within 200 ft of rail lines for agencies' review;

2019: Review of 20+ development applications within 200 ft of rail lines during 2018 finds no agencies made comments about mitigating risks from freight rail. Agencies contend they lack authority to set requirements due to proximity to rail;

2021: CW Ortega presentation to Council Budget & Policy Committee for an ordinance requiring Denver to engage consultants to assess risks and mitigations of development near rail. FY 2022 budget funding to engage consultants is secured;

2022: RFQ is issued, engineering & architecture firm HNTB is selected and CCD/HNTB study commences;

End 2022: Target to complete study to assess risks and potential mitigations and develop consensus mitigations intended to be implemented by ordinance and agency rulemaking.

Flammable liquid rail tank cars, Lac Megantic, Quebec, Canada 2013 (downtown is obliterated – 47 dead)



Petroleum crude tank cars derailed, Weld County, May 9, 2014



Freight train derailment, downtown Roanoke VA



Freight train derailment, South Platte River, Denver, February 2022 (Denver Post)



Flammable liquid rail tank cars, Millennium Bridge, Central Platte Valley, Denver



Flammable liquid tank cars, Pepsi Center/Ball Arena & Elitch Gardens, May 2014



Rail tank cars, Ball Arena/Elitch Gardens stretching to Mile High Stadium



Highlights of proposed ordinance to regulate development near railways

Proposes requirements for applying for permits within 100 feet of freight railways;

Proposes requirement that approval be obtained from all named agencies prior to permit being issued;

Requires Council to enact standards by ordinance regarding building near freight railways that mitigate risks to people and structures, facilitate emergency response access and are based on specified risk analyses, both prior and currently underway;

Sunsets the current proposed article on July 1, 2023, in anticipation of Council enacting standards before that time.

End of presentation

Questions & Comments?

Appendices

- **Heavy Rail Incidents in Denver 1996-2015**
- **Hazmat shipments by Rail in Denver**
- **DOT projections, crude or ethanol -carrying train mainline derailments, 2015-2034**

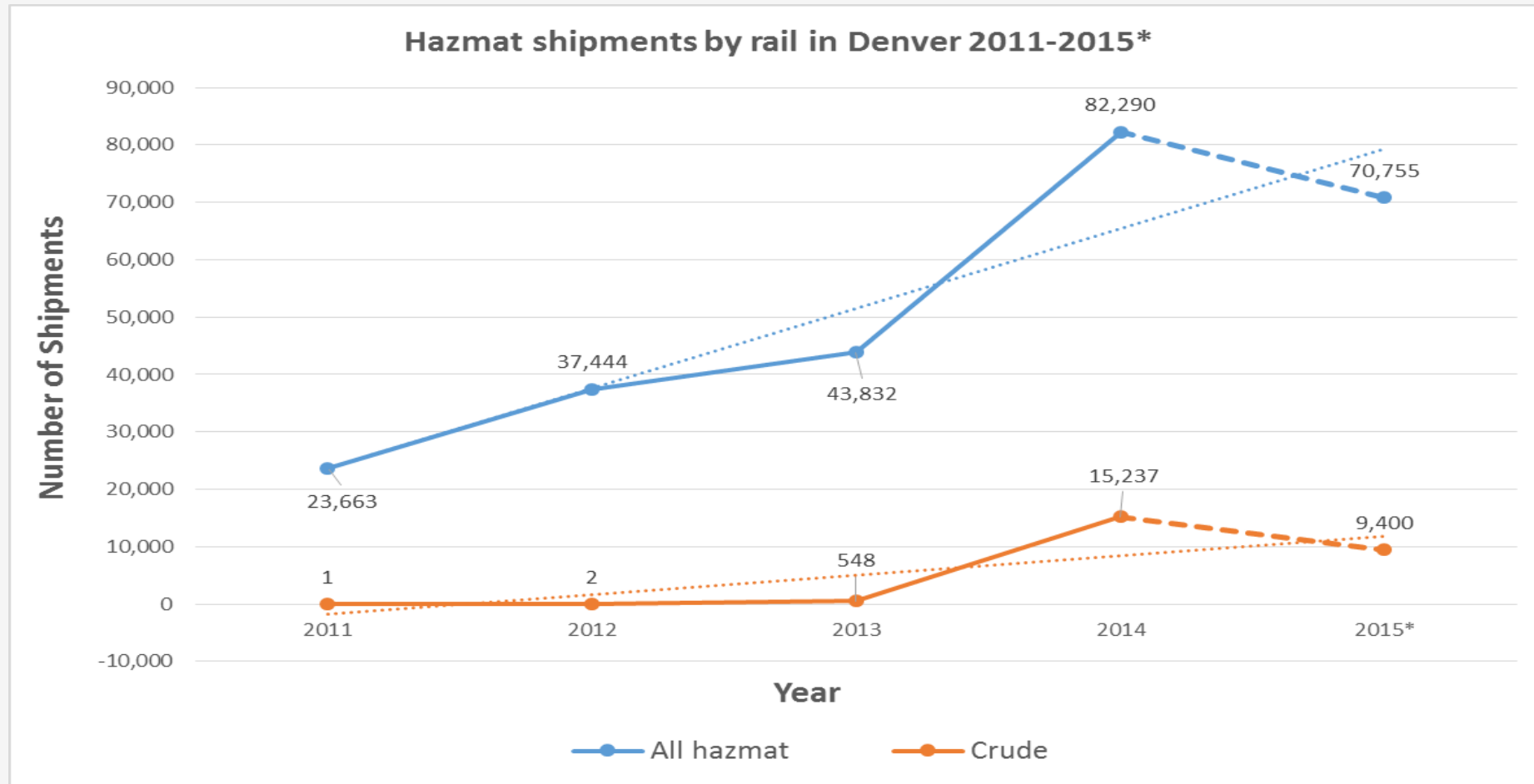
Heavy Rail Incidents in Denver 1996-2015

There were **320 heavy rail incidents in Denver** during this 20 -year period, more than any other county in Colorado. Of these:

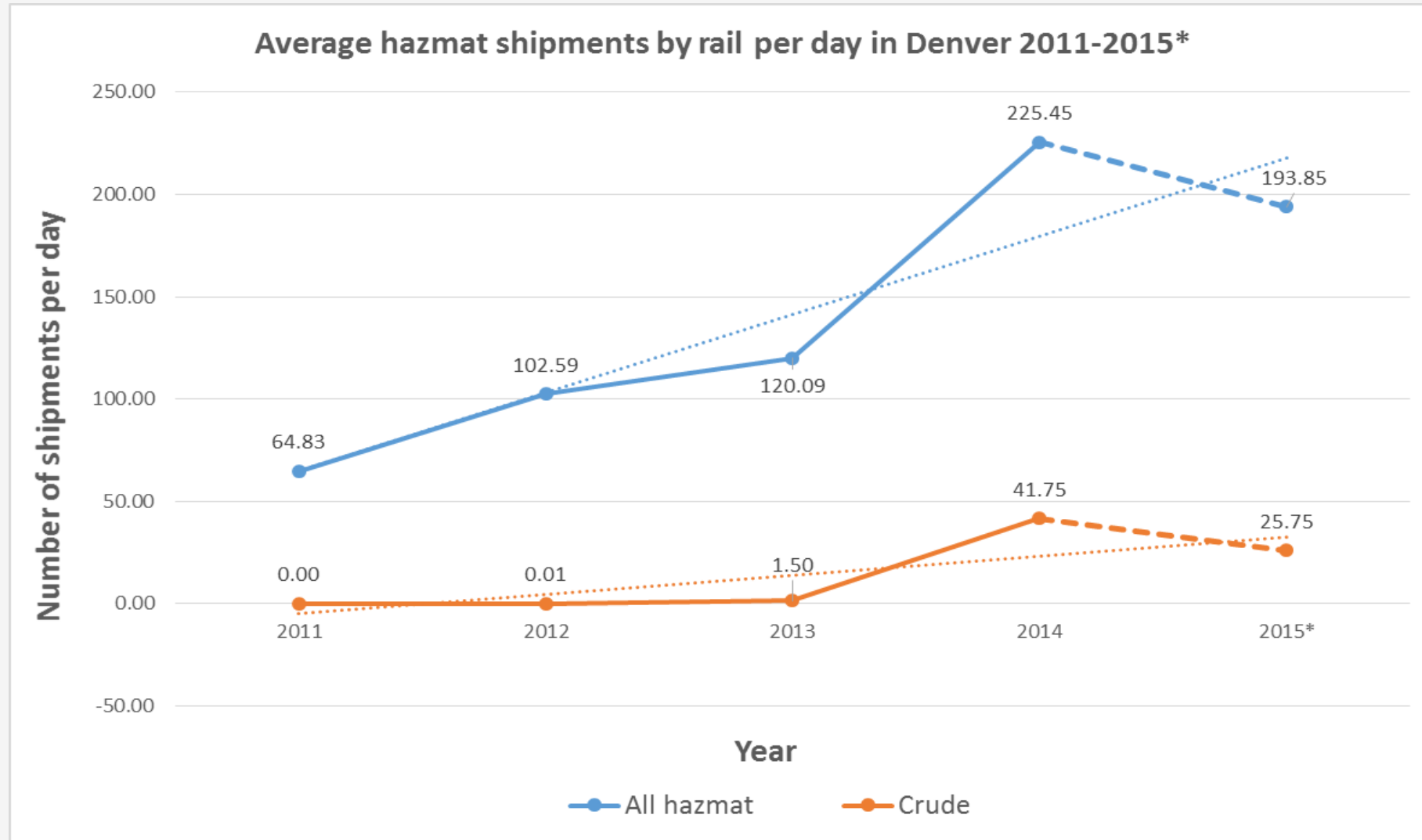
- 216 incidents were derailments;
- 26 were collisions;
- 213 were human caused; and
- 14 were caused by equipment.

(Federal Railroad Administration, Office of Safety Analysis 2016).

Annual Hazmat Shipments by Rail, Denver, 2011-2013 (*Source: Denver OEM)



Average Hazmat Shipments by Rail by Day, Denver, 2011-2015 (*Denver OEM)



DOT projections, crude or ethanol -carrying train mainline derailments, 2015-2034

DOT projects 278 mainline derailments of crude oil or ethanol -carrying trains (*not including derailments of other hazmat, other derailments or other rail hazmat incidents*), including:

- 93 (33%) in densely populated areas;
- 85 (30.4%) with at least 1 carload of released flammable liquid igniting and causing fire;
- 12 (13%) with at least 230,000 gallons of released flammable liquid (7-8 tank carloads) and large fires;
- 2 derailments projected to be high consequence events of scale equal or greater than Lac Megantic (range estimate 1-5).

Final Regulatory Impact Analysis [Docket No. PHMSA-2012-0082] (HM-251) High-Hazard Flammable Trains Rule.