



# Air Permitting at Road and Driveway Asphalt Plant

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Newport, Oregon



# Hot Mix Asphalt Plants – Background Information

- 3,600 active plants US
- 500 million tons/year produced
- Average plant produces 150,000 tons/year
- R&D produces 25,000-50,000 tons and maximum of 75,000 tons/year



# DEQ Air Permitting Program

- Major Source vs. Minor Source Permits
  - 100 tons criteria pollutant (PM, CO, SO<sub>2</sub>, NO<sub>x</sub>, VOC, Lead)
  - 10 tons of a single hazardous air pollutant (HAP) or 25 tons total
- Asphalt Plants are Minor Sources
  - General permit is issued for entire industry category
  - Permit limits are set at one ton below :  
**“significant emission rate” or safe emission level**



# What is a safe emission level?

## EPA Air Standards



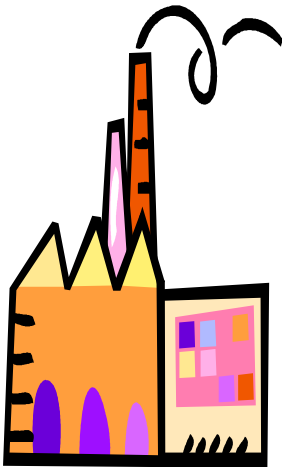
Safe level means that emission do not have the potential to affect the National Ambient Air Quality Standards (NAAQS)



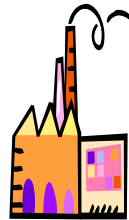
# How do we make sure we meet the air quality standards?

Major Industrial Source Significant?

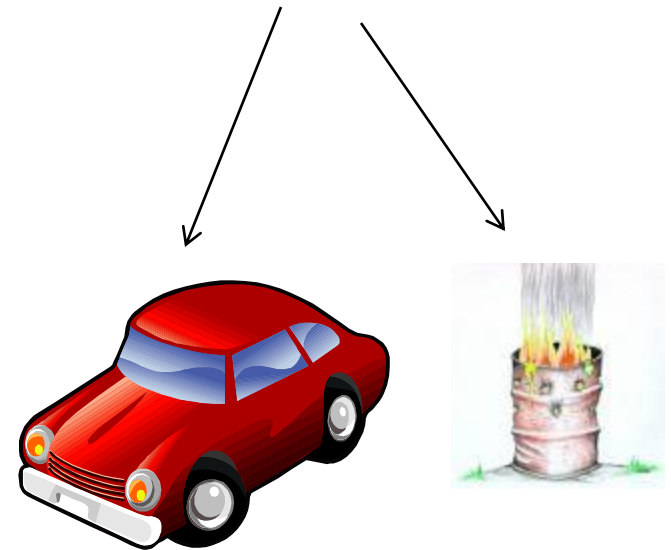
test and model emissions



Minor Source Not significant



Other sources? fuel standards/burn bans





# R&D emission limits (tons/yr)?

	<u>Limit</u>	<u>SER</u>
• Particulate Matter (PM)	24	25
• Fine Particulate (PM <sub>10</sub> )	14	15
• Sulfur Dioxide (SO <sub>2</sub> )	39	40
• Nitrogen Oxides (NO <sub>x</sub> )	39	40
• Carbon Monoxide (CO)	99	100
• Volatile Organic Compounds (VOC)	39	40

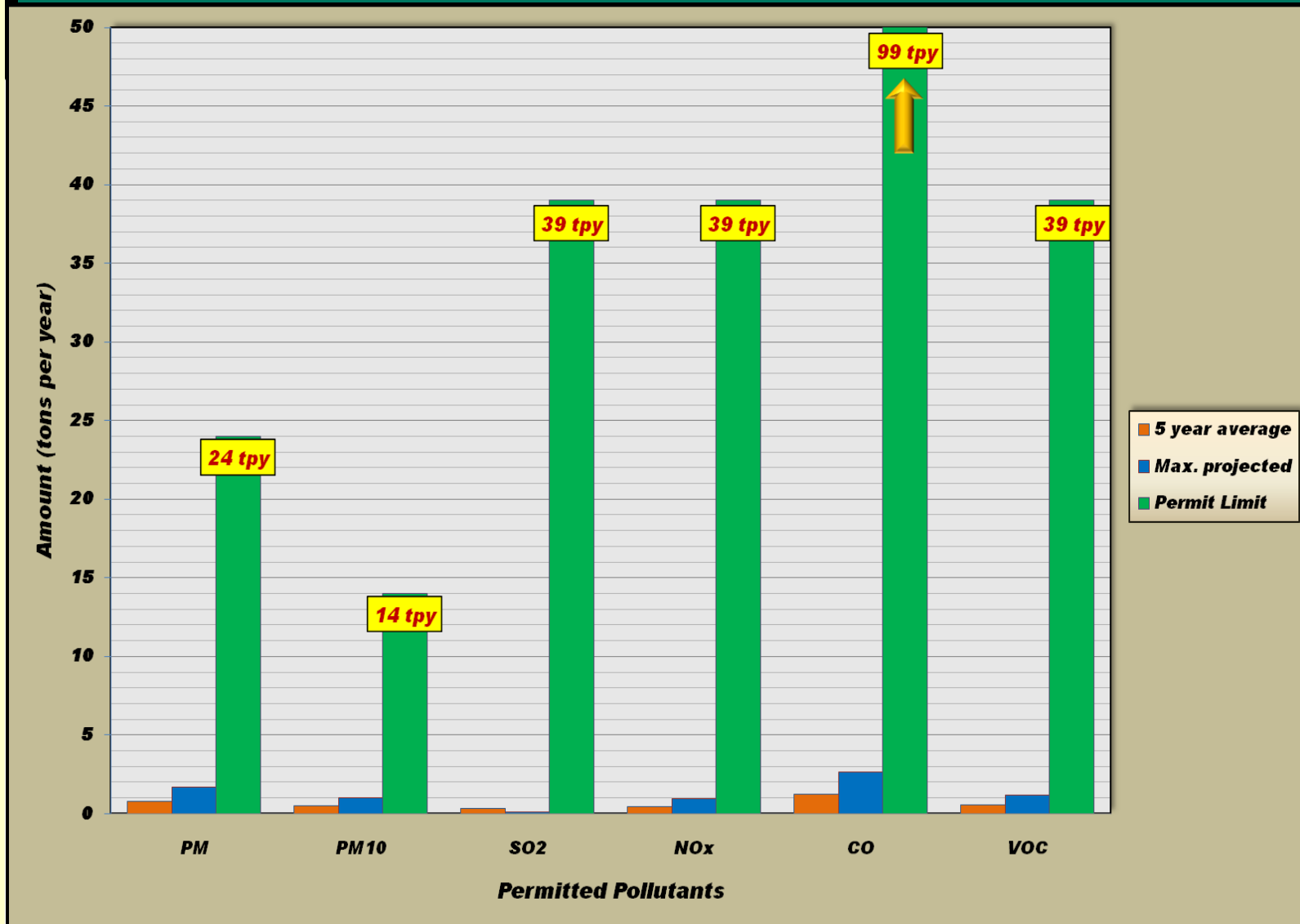


# How does R&D monitor their emissions?

- production data and emissions factors
- annual reports
- stack test required once per permit term
- inspections
- maintenance

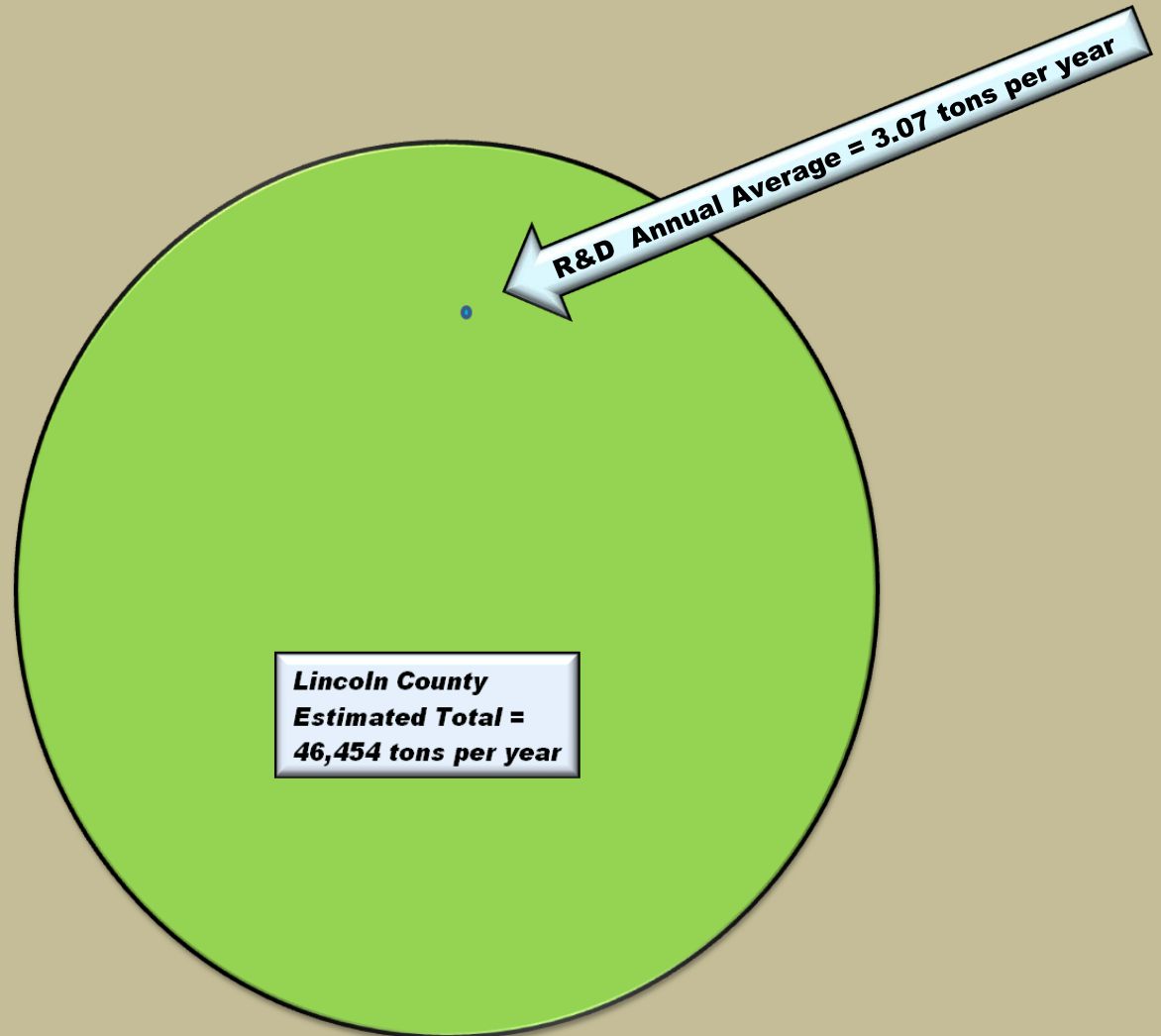


# Emissions Limit vs. Actual Emissions





# Lincoln County Pollutants



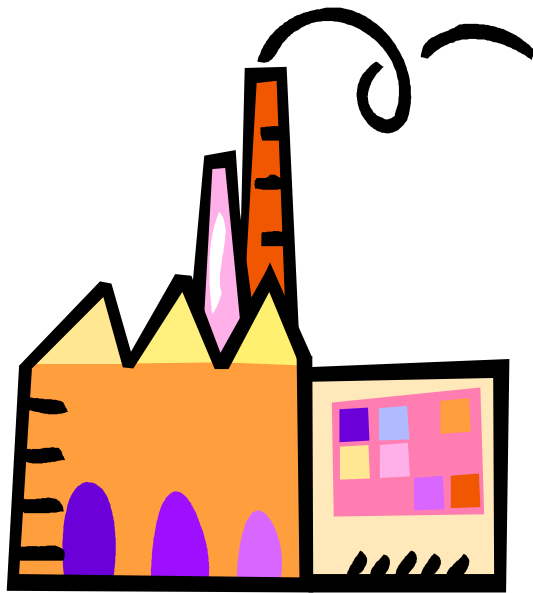


# What about Hazardous Air Pollutants?

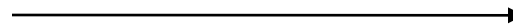
- Hazardous Air Pollutants not considered significant at asphalt plants – EPA delisted this category in 2002
- EPA document “Hot Mix Asphalt Plants – Emission Assessment Report” December 2000
- Emission factors based upon stack test data from more than 390 emission tests



# Modeled Exposure Scenario



**Road and Driveway**



**300 Feet**

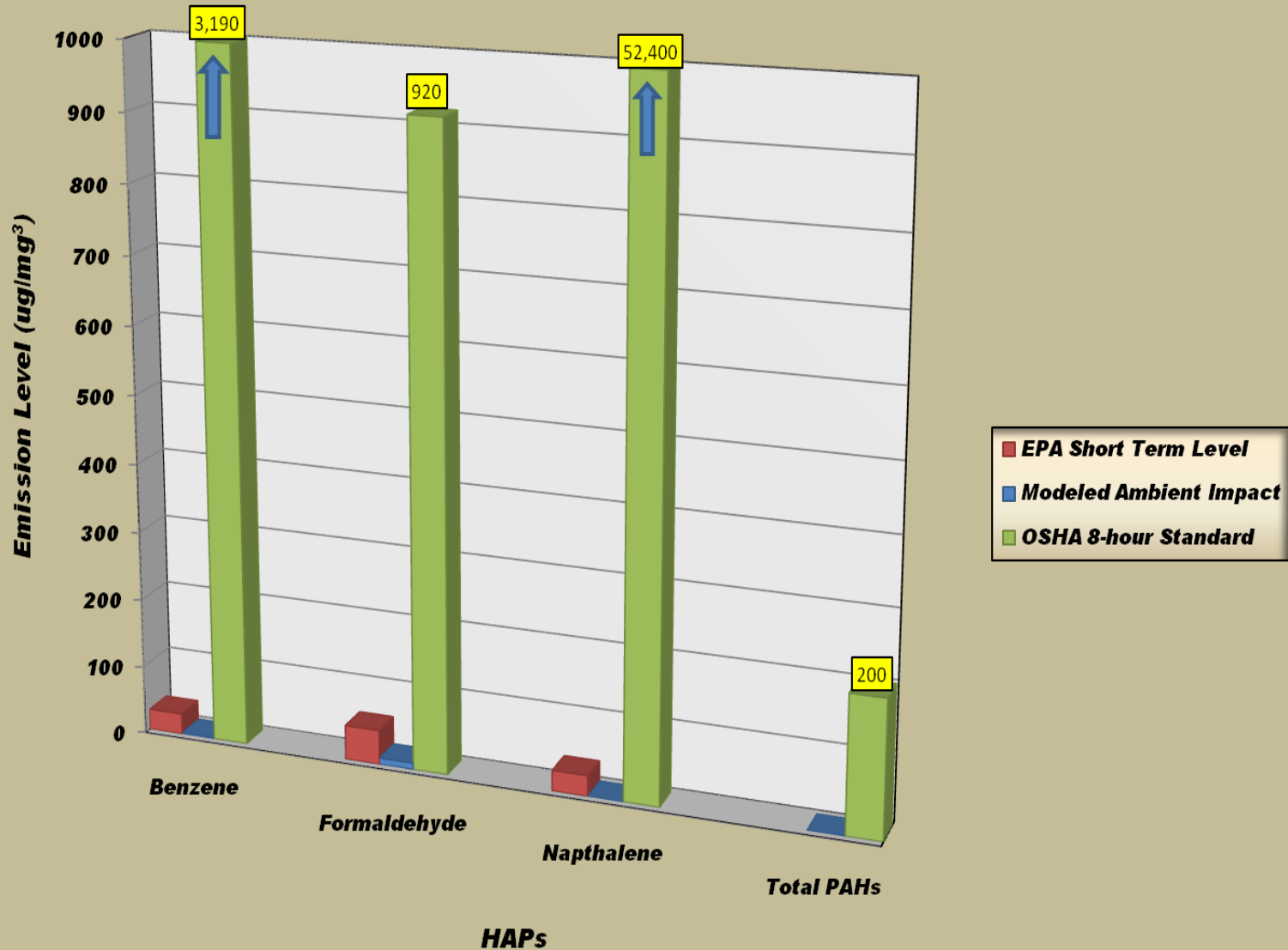


**Nearest Business**



DEQ

# R&D HAP Impacts





# What about odors?

- What are we smelling?
- DEQ Odor Survey
- Odor Solutions?
  - pollution control equipment
  - additives
  - “warm mix” asphalt
- Odors can be an irritant even though emissions are below safe levels.



# Conclusions

- Air emissions at R&D are significantly below permit limits
- Emissions are relatively small compared to all emissions in airshed
- HAPs from this facility are low
- We would like to continue to work with you about odor solutions