



# **Low Cost Solutions for Methane Reductions in Transmission Facilities**

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**2005 EPA Natural Gas Star  
Annual Workshop  
John Cordaway**

# Discussion Overview

- ⬆ Briefly discuss several low cost tools and products available on the market designed to identify the presence of fugitive gas.
- ⬆ Discuss tools and products designed to “Do Something” about mitigating the fugitive gas.
- ⬆ Group discussion on other available low cost solutions.

This presentation is simply an overview of available alternatives and is not intended as an endorsement.

# Finding the Methane

- ⤴ SNOOP or “soapy water”
  - Very time consuming
  - Labor intensive
- ⤴ Utilize Technology
  - Simple Anemometers
  - Simple Flow Meters
  - Gas Imaging
  - Laser Detection Devices

# Do Something to Reduce Fugitive Gas

⤴ Examples of Low Cost Devices to Do Something about Fugitive Gas.

- **Leak Loc's**

- Packing Vent Monitors

- LEP Packing — Properly Installed

# Installed Leak Loc



# Do Something to Reduce Fugitive Gas

⬆ Examples of Low Cost Devices to Do Something about Fugitive Gas.

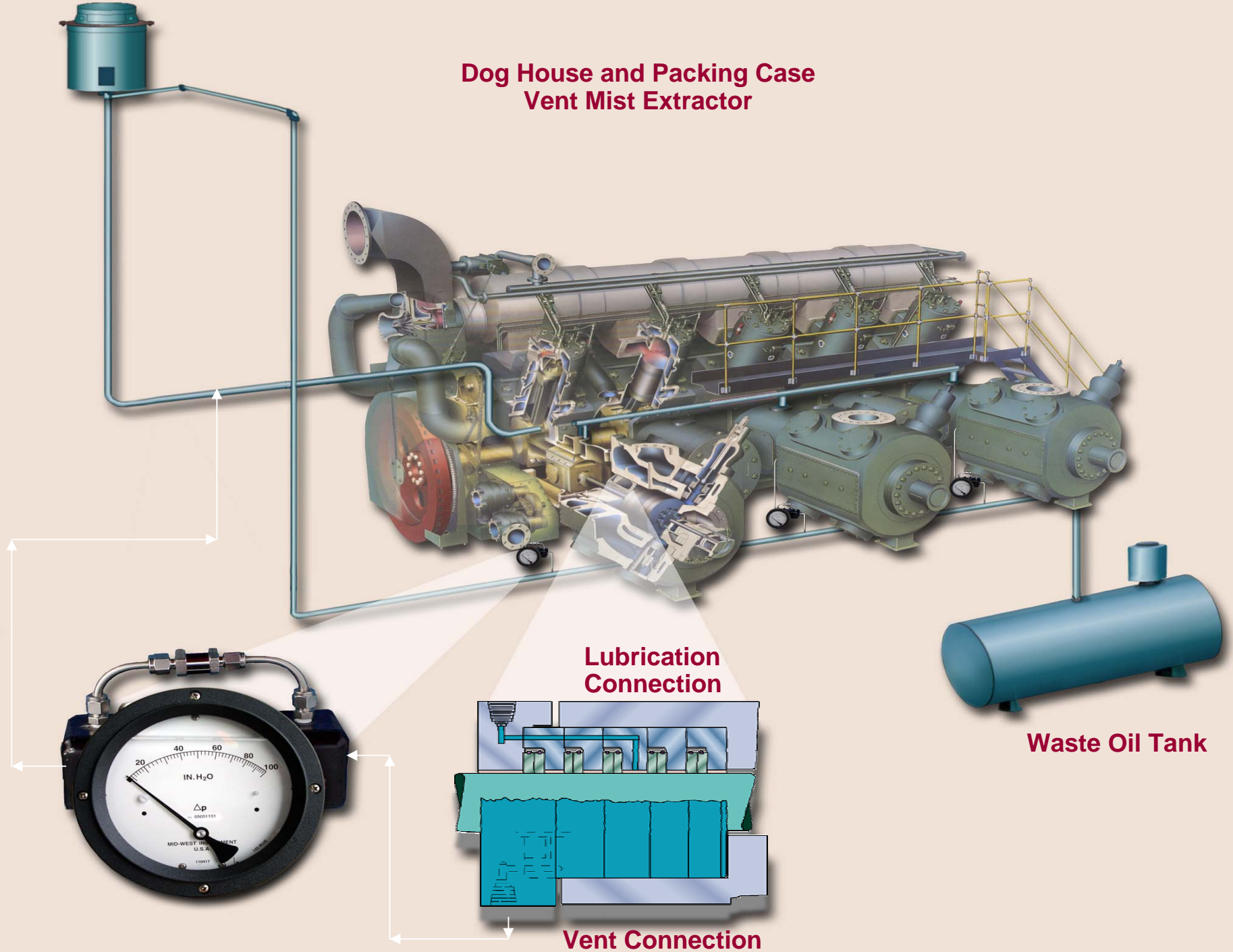
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## Dog House and Packing Case Vent Mist Extractor







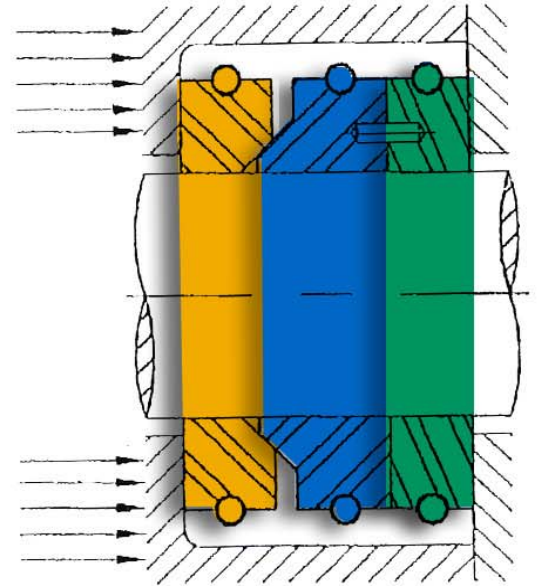
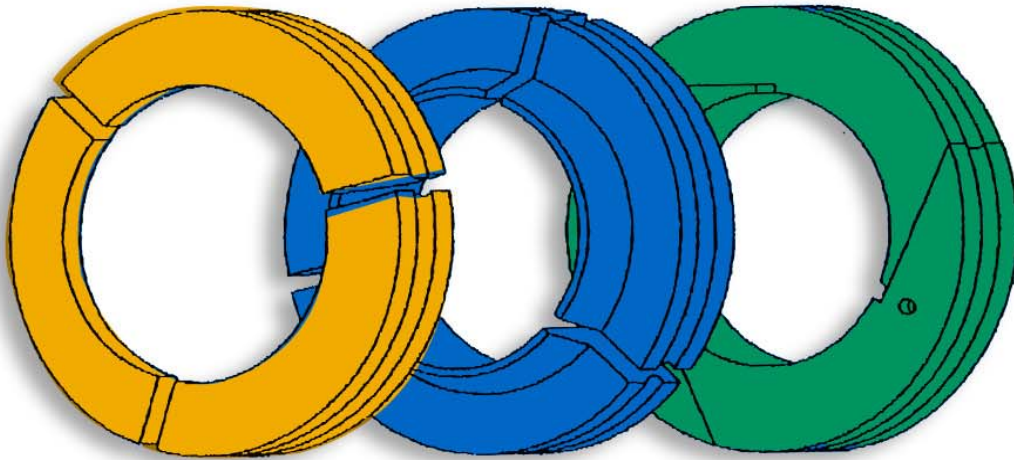
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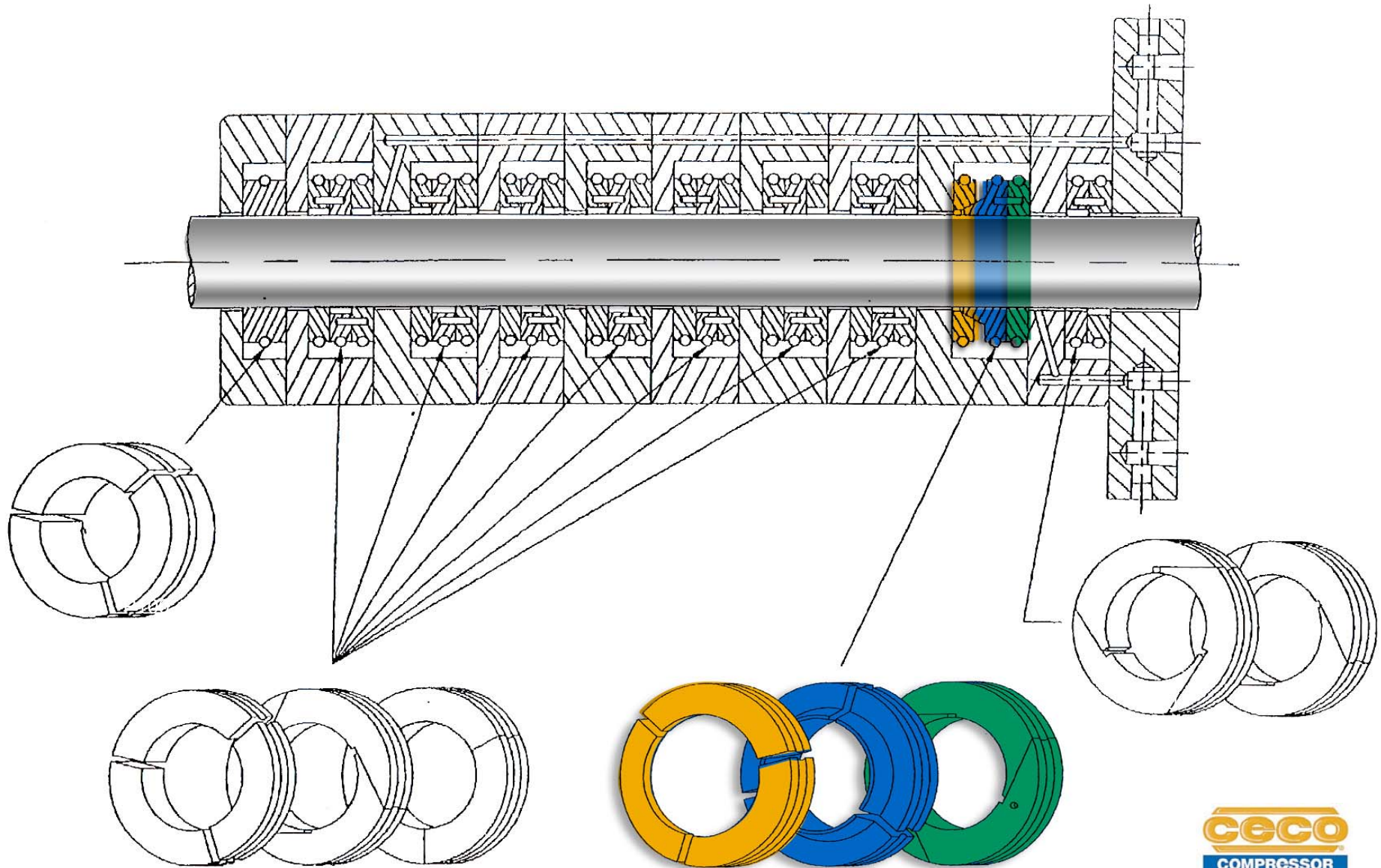
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# Low Emissions Packing

LEP: Low Emissions Packing  
Orientation of P303 Rings



# LEP Packing Upgrade

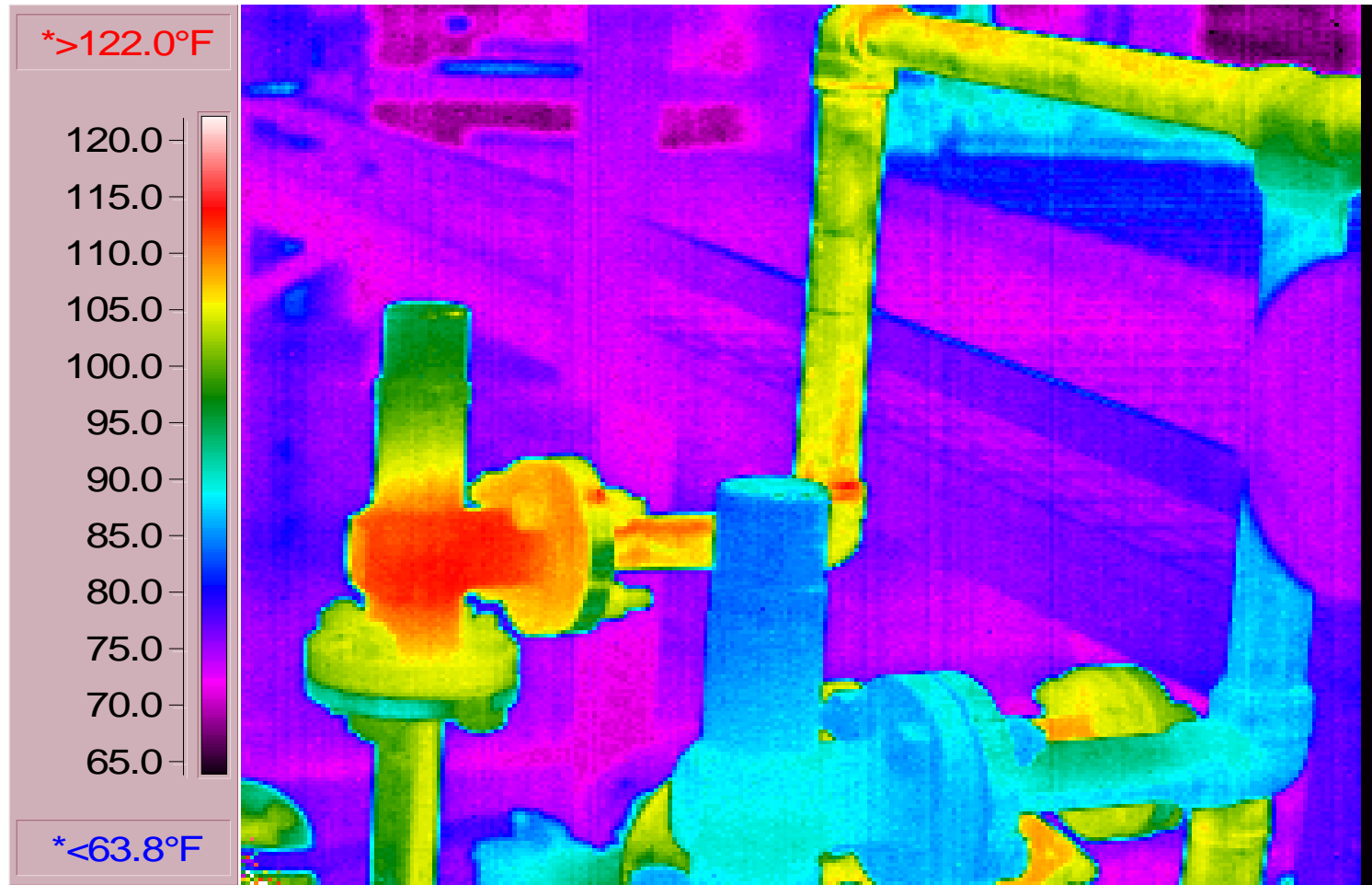


# Do Something to Reduce Fugitive Gas

⬆ Examples of Low Cost Devices to Do Something about Fugitive Gas.

- Leak Loc's
- Packing Vent Monitors
- LEP Packing – Properly Installed
- Any Others?

# How about Using an I-R Camera?



# Estimate Gas Volume

## ⬆ Low Cost Tools to Estimate Gas Volume

- Vent Bags
- Anemometers
- Orifice Plates
- Any Others?

## ⬆ Why estimate gas volume?

- Show payback or impact



# Reasons to Mitigate Fugitive Gas

- ⤴ Safety
- ⤴ Environmental
- ⤴ Regulatory – coming GHG Limitations
- ⤴ It is the right thing to do!
- ⤴ Other company “Costs”

**Thanks for The Discussion!**