



Directed Inspection & Maintenance (D I & M) to Reduce Methane Emissions From Natural Gas Processing



12 Th Annual Implementation Workshop
October 24-26, 2005
Houston , Texas

D I & M at Gas Processing Plants



- ★ Dynegey's experience w/ D , I & M Program
- ★ Dynegey was involved with both Phase I & Phase II studies.
- ★ Dynegey sites under study- Two gas plants & two compressor stations



Phase II Study



- ★ Eunice Gas Plant – Eunice , NM
- ★ Eunice North & South Comp. Stns.
- ★ Chico Gas Plant – Chico , TX
- ★ East Chico & Sitz Comp. Stns.



Eunice Gas Plant



- ★ Constructed in 1948
- ★ Sour Gas Processing Plant
- ★ Part of the Facility under LDAR Program
- ★ Number of components monitored
- ★ Number of leaks found



Eunice Plant



Eunice Plant – Engine Room



Eunice Plant



Eunice Compressor Stations



★ Eunice North Comp. Stn.

★ Number of components monitored vs. leaks
found

★ Eunice South Comp. Stn

★ Number of components monitored vs. leaks
found



Chico Gas Plant



- ★ Constructed in 1966
- ★ Sweet Gas Processing Plant
- ★ Part of the Facility under LDAR Program
- ★ Number of components monitored
- ★ Number of leaks found



Chico Plant



Chico Plant



Chico area Compressor Stations



★ East Chico Compressor Station

★ Number of components monitored vs. leaks
found

★ Sitz Compressor Station

★ Number of components monitored vs. leaks
found



East Chico Compressor Station



Sitz Compressor Station



Sitz Compressor Station



D I & M program- Identification of leaks



- ★ Conventional methods such as sniffing, soaping and ultrasonic etc.
- ★ Optical Infrared Remote Leak Detection method



Infrared LSI Camera



Conventional vs Remote Sensing



★ Speed:	2,400 comp./day	2,300 comp./hr
★ Mobility:	most areas	difficult in congest.
	elevated : difficult	easy
★ Cost :	\$1200/ day	\$ 4000/ day
★ Safety:	less	more
	proximity	distance



High Volume Sampler



Future Plans



- ★ Fix all the leaks that were identified thru the survey
- ★ Develop & Implement a maintenance program
on a more frequent basis using Leak survey study
- ★ Dynegy is evaluating to apply the optical remote sensing method on a more frequent basis.



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