

IFB 6632

DEC Gas Engine Lube Oil and Glycol Supply



City Council Presentation

Chris Lutrick/Brent Heath – Denton Municipal Electric

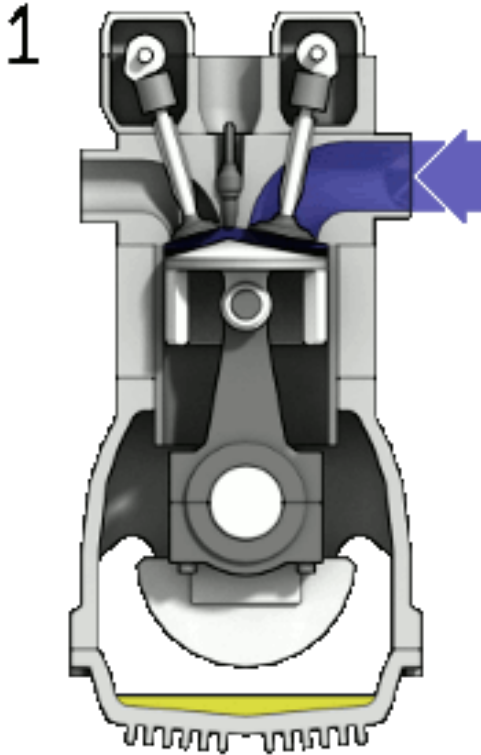
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Presentation Outline:

- ▶ Internal Combustion Engine Overview
- ▶ Bid Summary
- ▶ Recommendation
- ▶ Questions



Internal Combustion Engine Overview:



Summary of Bids:

- ▶ Purchasing method used was Invitation For Bid
- ▶ 7 bids were received for Lube Oil
- ▶ 7 bids were received for MPG
- ▶ The oil bids ranged from \$5.79 to \$7.39 per gallon
- ▶ The MPG bids ranged from \$79,953 to \$172,825.60
- ▶ This will be a single purchase of 57,000 gallons of Lube Oil
- ▶ This will be a single purchase of 8,700 gallons of Glycol

Staff Recommendations:

- ▶ Engine Lubrication Oil
 - ▶ Lowest Cost Bid submitted by Reeder Distributors, Inc.
 - ▶ Not-to-exceed \$330,030
- ▶ Glycol
 - ▶ Lowest Cost Bid submitted by O'Rourke Distribution Co., Inc.
 - ▶ Not-to-exceed \$79,953

Questions:



Chris Lutrick & Brent Heath

Typical Chemical Tote:



Engine Lubrication Requirements:

- ▶ **Wärtsilä Validated Oil**
 - ▶ 11 Manufacturers worldwide that meet Wärtsilä's lube oil specification
 - ▶ 3 Manufacturers in US (ExxonMobil, Shell, Chevron)
 - ▶ Must be a low Ash, SAE 40 weight Grade 1 or 2 base oil
- ▶ **Supplier/Distributor Requirements**
 - ▶ Oil must be delivered in bulk (tanker loads)
 - ▶ Oil must be delivered in 'staggered loads'
 - ▶ Total delivered quantity will be 57,000 gallons (Single engine 3895 ga.)
- ▶ **Upon delivery oil will be tested to verify compliance with specifications**

Monopropylene Glycol (MPG):

- ▶ MPG vs Ethylene Glycol
- ▶ Synthetic Organic compound ($C_3H_8O_2$)
- ▶ Used extensively throughout cosmetic, personal hygiene, and food industries
- ▶ MPG is the more environmentally friendly product
- ▶ DEC will use MPG to change the freezing/boiling point of the cooling system water (Antifreeze)
- ▶ Cooling system fluid will be mixed to a concentration that will provide the exposed sections of system freeze protection down to 15°F
- ▶ The glycol will be supplied in chemical totes