**Industrial SPP / Partner Teaming Profile**

**Service/Product Provider**

*Koch Filter Corporation*
4411-A Darien Street
Houston, TX 77028

Business: HVAC Filter Manufacturer  
Bob Sheppard  
Regional Sales Manager  
Phone: 713-672-6550  
Email: bobs@kochfilter.com

**Industrial Partner**

*Dow Chemical*
2301 Brazosport Boulevard
Freeport, TX 77541

Business: Chemical Manufacturer  
John Theile  
Reliability Engineer  
Phone: 979-238-1894  
Email: jptheile@dow.com

Koch Filter saves Dow $156,000 by improving air flow to turbines

**Project Scope**

Koch Filter Corporation evaluated the turbine operation at a Dow Chemical facility. They determined that the gas turbine’s air intake system was undersized and pre-filters had an initial resistance that was too high, causing the turbine to be “starved” for air. Koch replaced these filters with a better filter that eliminated the problem.

**Project Summary**

Koch Filter Corporation converted the pre-filters on Dow’s gas turbine to Koch’s Multi Pleat GT-HD Pre-filters. The lower air resistance enabled Dow to realize energy savings of $156,000 annually. Besides the energy savings, Dow was able to extend filter-change life cycle time from 3 months to 6 months, and reduce filter costs by 35%.

- **Energy Savings**  
  $156,000 per year
- **Investment**  
  35% less than the cost of the original filters
- **Financial Return**  
  Immediate - no additional investment costs were required to produce the savings
- **Other Benefits**  
  Extended filter life, reduced labor costs for change-outs, increased production uptime, and reduced landfill costs

**Monitoring & Verifying Energy Savings**

Dow has replaced filters at the new change interval, and has determined that the new filters are performing as designed.

**Distinguishing Value**

Koch Filter Corporation responded to Dow’s need to decrease energy cost and extend filter life cycle. In addition, Koch has been able to produce subsequent replacement filters in a timely manner, eliminating costly shut-downs of the gas turbine.