Report On The
Department of Energy Filter Test Facility
Air Techniques International Test Laboratory

- DOE Oak Ridge Filter Test Facility closed March 31, 2005
- Air Techniques International established an independent Filter Test Laboratory in Baltimore, Maryland
- DOE Filter Test Facility Privatized
- DOE Headquarters with several site representatives performed an ASME/ANSI NQA-1 Quality Audit on the ATI Filter Test Laboratory
- DOE issued contract to ATI Filter Test Laboratory (ATITL) to perform tasks of the former DOE Filter Test Facility
Air Techniques International Test Laboratory
1708 Whitehead Rd., Baltimore, MD 21207
Q-107 Monodispersed Aerosol Penetrometer (200 to 2500 cfm)
Q-107 Control Console
Q-107 Monodispersed DOP Aerosol Generator
Q-107 Filter Test Housing (Chuck)
HFATS Polydisperse Aerosol Generators (R2D2)
Q-107 Testing In Action
Q-76 Monodispersed Aerosol Penetrometer
(10 to 300 cfm)
Q-127 Monodispersed Aerosol Penetrometer
0.1 to 4 cfm
ATITL Warehouse Reject Area
ATITL Warehouse Dock Area
Commitment to the DFNSB by the Secretary of Energy Memo, June 4, 2001 (and further reinforced in Secretary’s letter of July 11, 2003 to the DFNSB with mandate in place, the ATI Test Lab is to be utilized

HEPA testing verification service is provided to all DOE Contractors in the DOE complex on a no charge basis

DOE work has top priority and emergency orders are always given precedence over other orders

ATITL personnel endeavor to accommodate all DOE customers to make HEPA testing verification a simple task
Operational Overview - DOE Filter Test Facility

• Current Customers

Argonne National Laboratory – Illinois
Argonne National Laboratory – Idaho
Battelle Northwest (PNL)
Bechtel BWXT Idaho, LLC (BBWI) (INEEL)
Bechtel BWXT Y-12
Bechtel Nevada
BWXT Pantex Plant
Bechtel Jacobs ETTP (K-25)
Bechtel Jacobs X-10
Brookhaven National Laboratory
CH2M Hill Hanford
CH2M-WG INEL
Duratek X-10
Current Customers (cont.)

Fluor Hanford
INEL Battelle
Jefferson Lab
Lawrence Livermore National Laboratory
Los Alamos National Laboratory/KSL
Sandia National Laboratory
UT Battelle/Oak Ridge National Laboratory
Washington TRU Solutions
Waste Isolation Pilot Plant
Westinghouse Savannah River Company
West Valley Nuclear Services
DOE Program’s

- Office of Environmental Management (EM)
- National Nuclear Security Administration (NNSA)
- Office of Nuclear Energy (NE)
- Office of Science (SC)
- Office of Environmental, Safety & Health (EH)
### Summary of Filters Tested Since 1996

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Number Tested</th>
<th>Number Rejected</th>
<th>Percentage Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>2,643</td>
<td>493</td>
<td>18.7%</td>
</tr>
<tr>
<td>1997</td>
<td>2,916</td>
<td>102</td>
<td>3.5%</td>
</tr>
<tr>
<td>1998</td>
<td>2,305</td>
<td>68</td>
<td>3.0%</td>
</tr>
<tr>
<td>1999</td>
<td>2,362</td>
<td>37</td>
<td>1.6%</td>
</tr>
<tr>
<td>2000</td>
<td>3,597</td>
<td>354</td>
<td>9.8%</td>
</tr>
<tr>
<td>2001</td>
<td>2,722</td>
<td>217</td>
<td>8.0%</td>
</tr>
<tr>
<td>2002</td>
<td>2,127</td>
<td>102</td>
<td>4.8%</td>
</tr>
<tr>
<td>2003</td>
<td>2,772</td>
<td>151</td>
<td>5.4%</td>
</tr>
<tr>
<td>2004</td>
<td>3,441</td>
<td>215</td>
<td>6.3%</td>
</tr>
<tr>
<td>2005*</td>
<td>2,331</td>
<td>168</td>
<td>7.2%</td>
</tr>
</tbody>
</table>

* Test facility closed 5 months for relocation and audit
## Summary Of Filter Rejections

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Resistance</th>
<th>Penetration</th>
<th>Mfg. Defects</th>
<th>P.O./Spec Discrepancy</th>
<th>Shipping Damage</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>371</td>
<td>70</td>
<td>35</td>
<td>17</td>
<td>0</td>
<td>493</td>
</tr>
<tr>
<td>1997</td>
<td>59</td>
<td>20</td>
<td>7</td>
<td>16</td>
<td>0</td>
<td>102</td>
</tr>
<tr>
<td>1998</td>
<td>1</td>
<td>28</td>
<td>3</td>
<td>34</td>
<td>2</td>
<td>68</td>
</tr>
<tr>
<td>1999</td>
<td>0</td>
<td>31</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>37</td>
</tr>
<tr>
<td>2000</td>
<td>0</td>
<td>43</td>
<td>36</td>
<td>270</td>
<td>5</td>
<td>354</td>
</tr>
<tr>
<td>2001</td>
<td>0</td>
<td>30</td>
<td>174</td>
<td>9</td>
<td>4</td>
<td>217</td>
</tr>
<tr>
<td>2002</td>
<td>0</td>
<td>20</td>
<td>42</td>
<td>32</td>
<td>8</td>
<td>102</td>
</tr>
<tr>
<td>2003</td>
<td>0</td>
<td>26</td>
<td>93</td>
<td>27</td>
<td>5</td>
<td>151</td>
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<tr>
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<td>36</td>
<td>86</td>
<td>86</td>
<td>4</td>
<td>215</td>
</tr>
<tr>
<td>2005*</td>
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<td>19</td>
<td>56</td>
<td>81</td>
<td>2</td>
<td>166</td>
</tr>
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Rejection Categories

- Resistance – Exceeds criteria of 1.0 “ w.g. for filters rated > 500-1250 cfm and 1.3” w.g. for filters rated <125 - > 1500 cfm

- Penetration – Exceeds 0.03%

- Manufacturing Defects – (not limited to) Defective gaskets, faceguard installation, filter pack installation, defective media, sealant problems, separators, missing rivets or bolts, dimensional tolerance, out of square measurements, etc.

- P.O/ Specification Discrepancy – (not limited to) missing UL labels, labeled incorrectly, filters rated incorrectly, wrong model number, etc.

- Shipping Damage – evident from damage to filter cartons or concealed when damage is not evident until the filter(s) are removed from cartons
### Summary of Filters Tested at the New ATI Test Laboratory

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<th>Percentage Rejected</th>
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<tr>
<td>1st half FY 2006</td>
<td>801</td>
<td>88</td>
<td>10.7</td>
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<td>43</td>
<td>41</td>
<td>4</td>
<td>0</td>
<td>801</td>
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In Summary – ATI Test Lab Is Fulfilling Its Mission!

- The privatization of the DOE FTF has been successfully accomplished

- ATI Test Lab continues to streamline the process for increased efficiency and minimum turn-around

- The most consistent cause for filter rejection has been purchase order/specification discrepancies and manufacturing defects

- With improved work processes, the ATI Test Lab is maintaining a 5 day turn-around on most orders

- ATITL personnel continue to work with manufacturers on quality related issues
Any Questions?
We Are Here To Serve You

• Dave Crosby, Lab Manager  
dcrosby@atitest.com  
410-277-8981 (phone)  
410-277-3448 (fax)

• Jan Fretthold, Lab Supervisor  
jfretthold@atitest.com  
410-277-8981 (phone)  
410-277-3448 (fax)

• Eric Hanson, ATI President  
ehanson@atitest.com  
410-363-9696 (ATI phone)  
410-363-9695 (ATI fax)

• ATI Test Lab e-mail address  
ATITL@atitest.com