



AIR TECHNIQUES
INTERNATIONAL

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

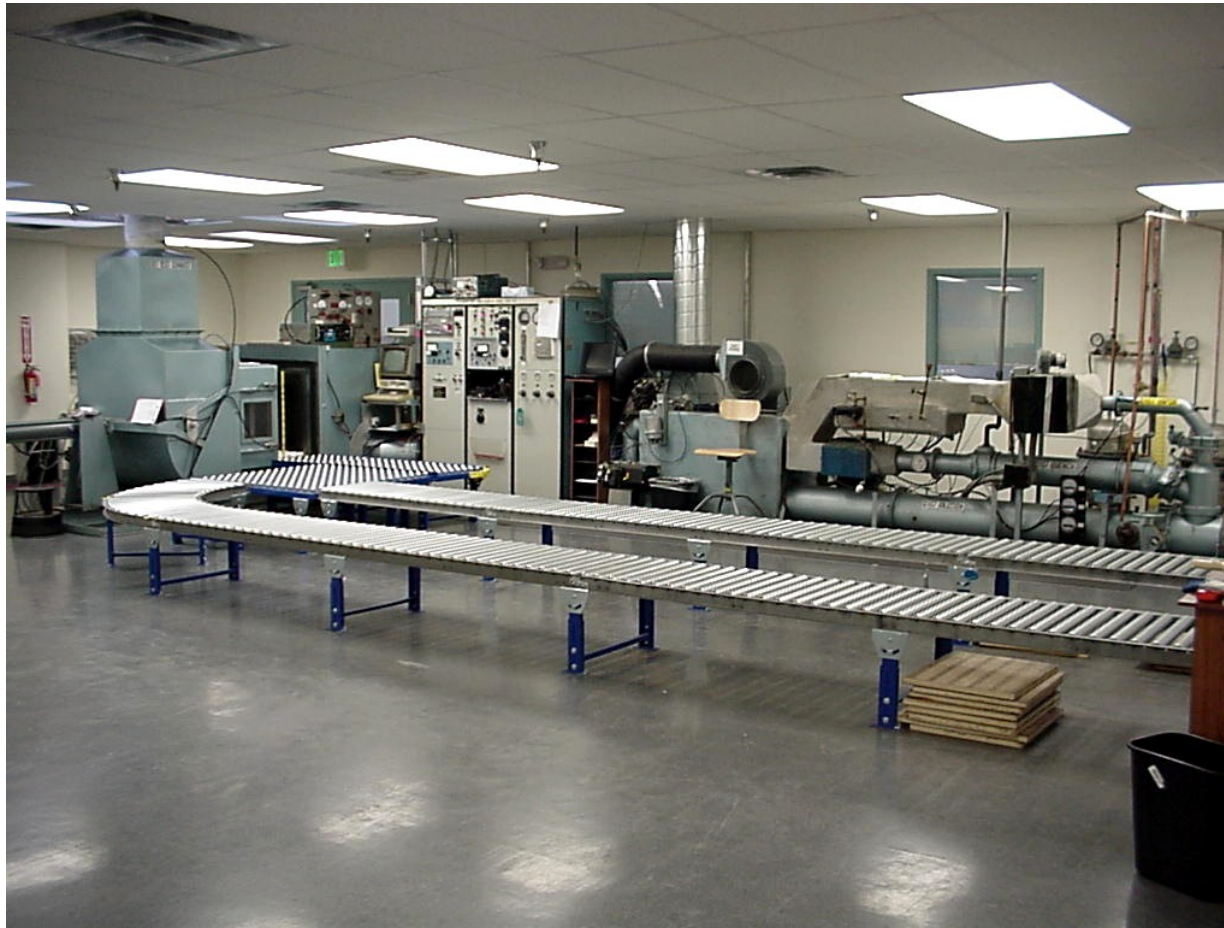


Air Techniques International Test Laboratory **1708 Whitehead Rd., Baltimore, MD 21207**



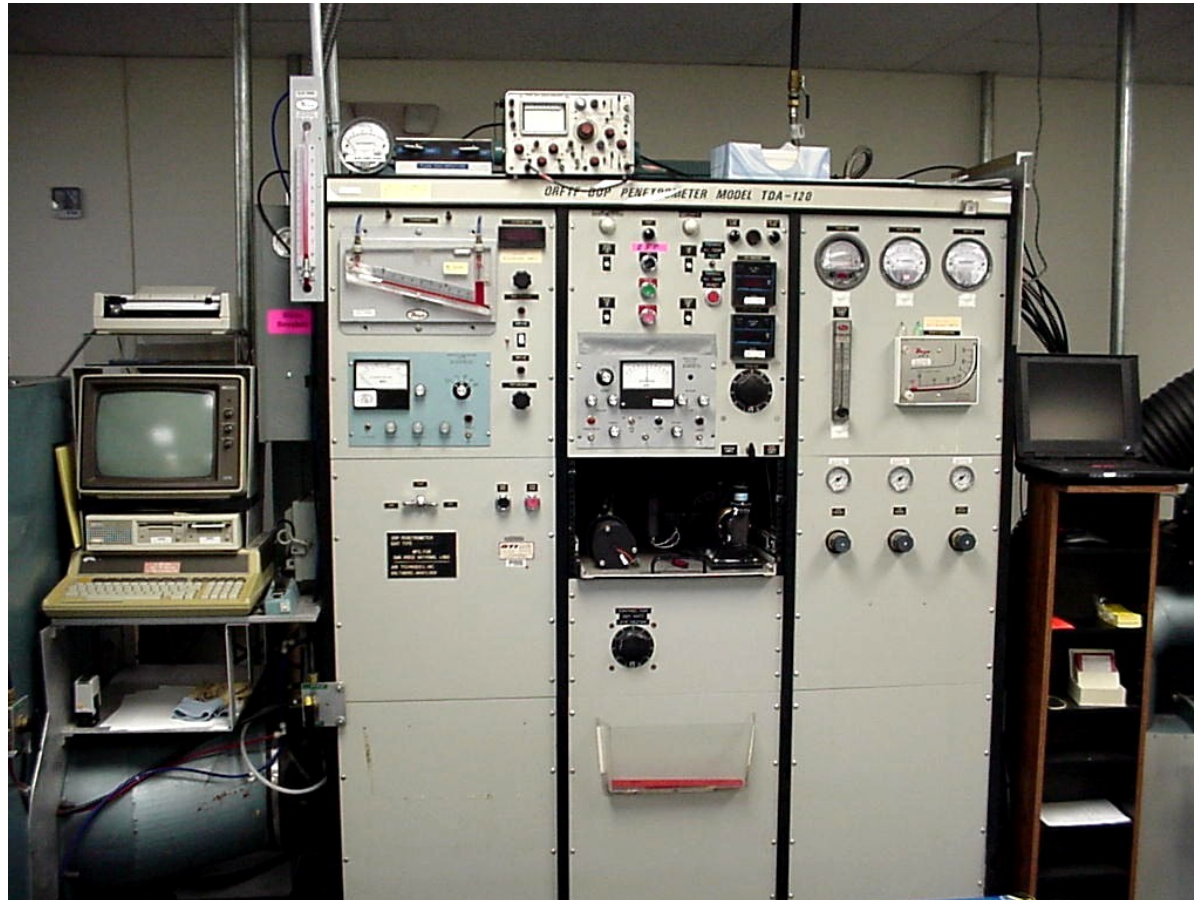


Q-107 Monodispersed Aerosol Penetrometer (200 to 2500 cfm)



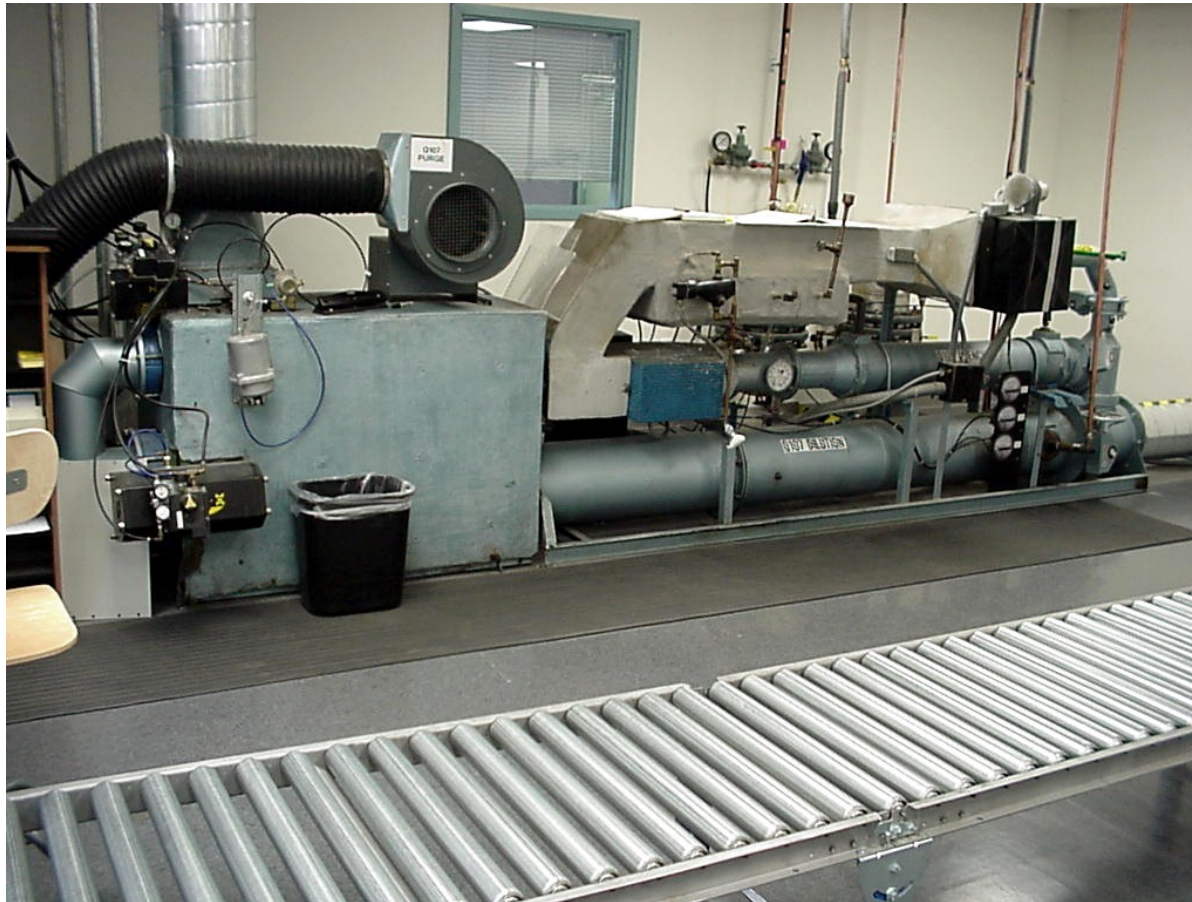


Q-107 Control Console





Q-107 Monodispersed DOP Aerosol Generator





Q-107 Filter Test Housing (Chuck)





HFATS Polydispersed Aerosol Generators (R2D2)





HFATS Control System & Computer



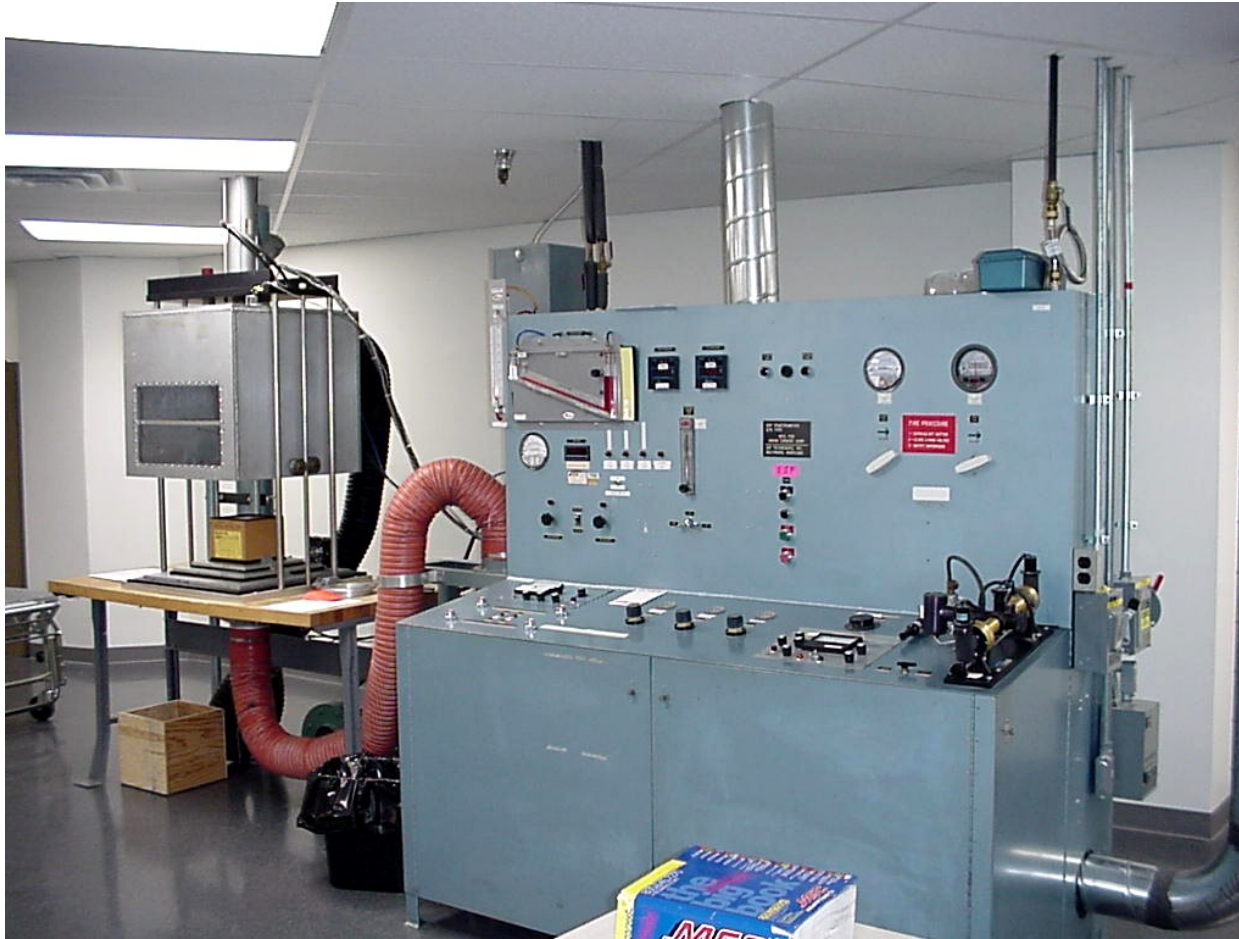


Q-107 Testing In Action



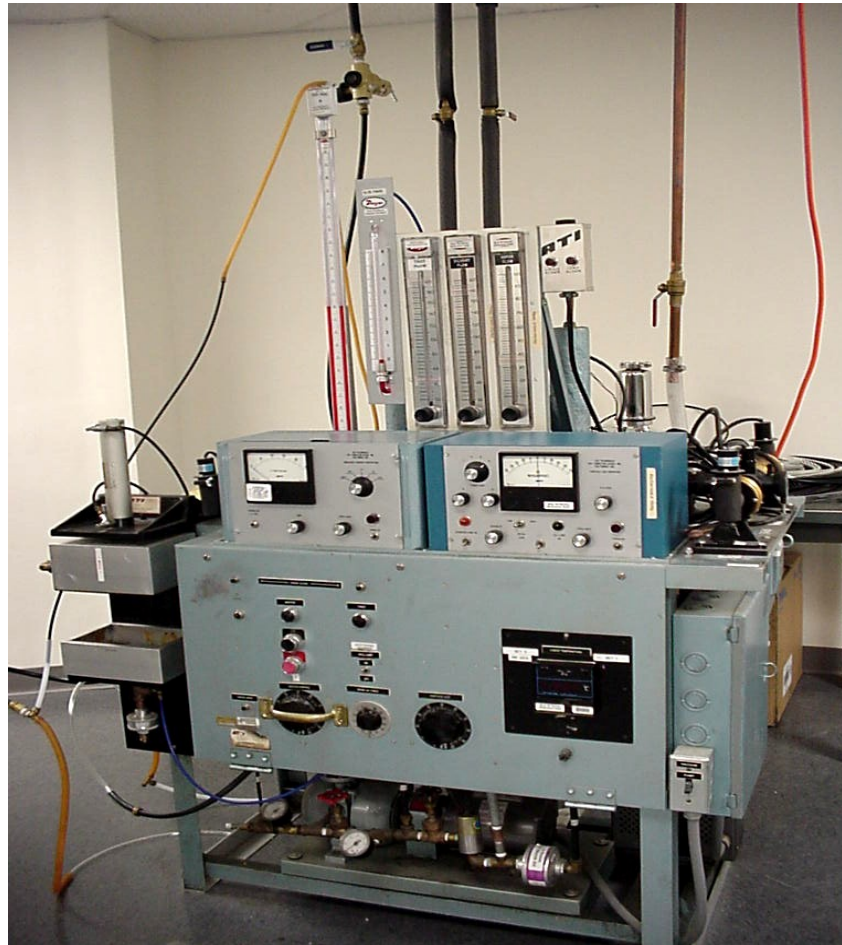


Q-76 Monodispersed Aerosol Penetrometer (10 to 300 cfm)





Q-127 Monodispersed Aerosol Penetrometer 0.1 to 4 cfm





ATITL Warehouse Laboratory End





ATITL Warehouse Reject Area





ATITL Warehouse Dock Area





Operational Overview – ATI Test Laboratory

- **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



Operational Overview - DOE Filter Test Facility

- **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

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

* Test facility closed 5 months for relocation and audit



Summary Of Filter Rejections

Fiscal Year	Resistance	Penetration	Mfg. Defects	P.O./Spec Discrepancy	Shipping Damage	Total
1996	371	70	35	17	0	493
1997	59	20	7	16	0	102
1998	1	28	3	34	2	68
1999	0	31	6	0	0	37
2000	0	43	36	270	5	354
2001	0	30	174	9	4	217
2002	0	20	42	32	8	102
2003	0	26	93	27	5	151
2004	3	36	86	86	4	215
2005*	8	19	56	81	2	166

* Test facility closed 5 months for relocation and audit



Rejection Categories

- Resistance – Exceeds criteria of 1.0 “ w.g. for filters rated \geq 500-1250 cfm and 1.3” w.g. for filters rated \leq 125 - \geq 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

Fiscal Year	Number Tested	Number Rejected	Percentage Rejected
1st half FY 2006	801	88	10.7



Summary Of Filter Rejections at the New ATI Test Laboratory

Fiscal Year	Resistance	Penetration	Mfg. Defects	P.O./Spec Discrepancy	Shipping Damage	Total
1st half FY 2006	0	43	41	4	0	801



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