



Pima County Board of Health September 24, 2014

Materion and Air Quality Monitoring

Background

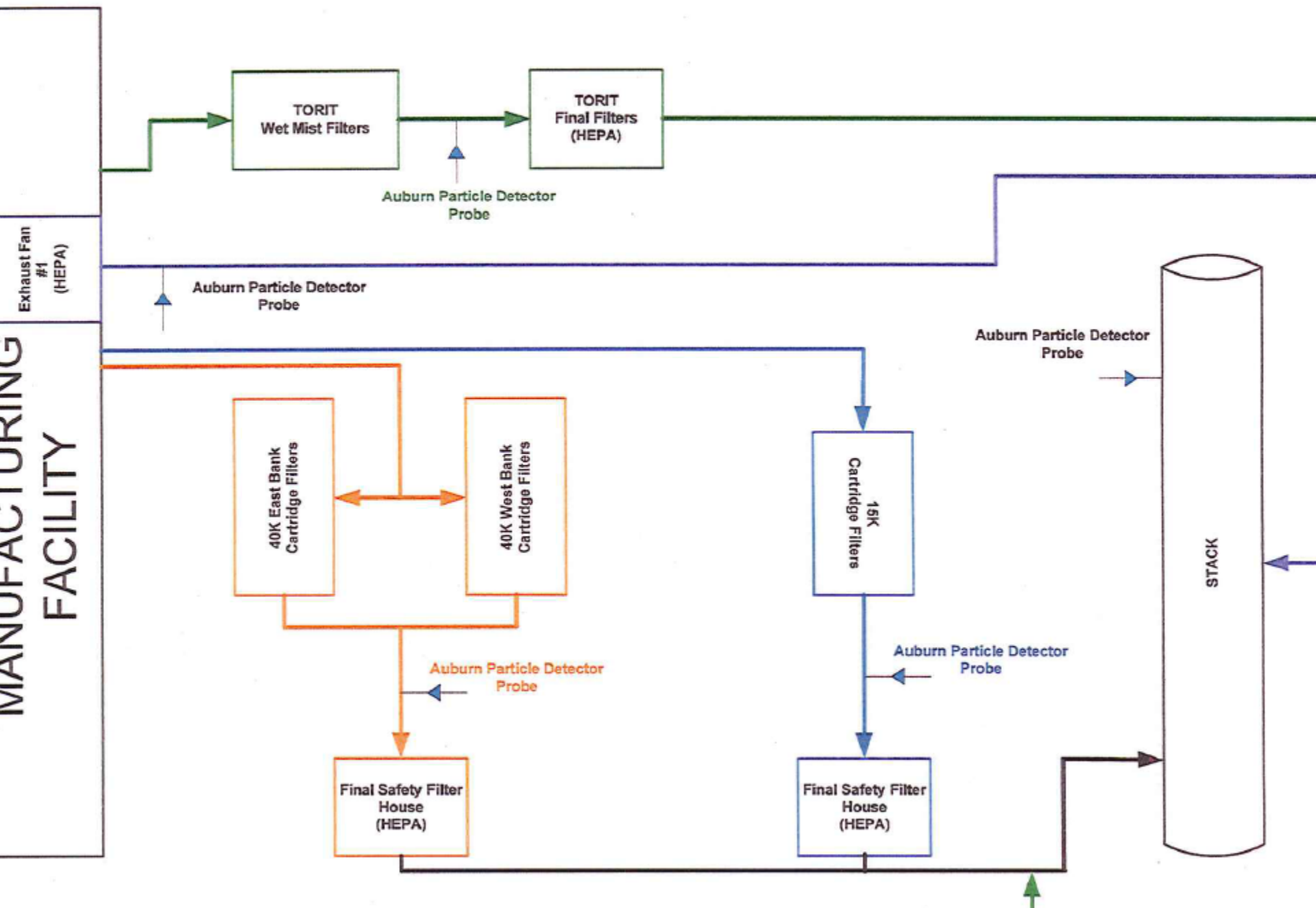
- ▶ Materion Ceramics was previously known as Brush Ceramics
- ▶ Materion produces engineered ceramics for the aerospace, telecommunications, health care and computer industries
- ▶ Utilizes beryllium oxide (BeO) in the manufacturing of ceramic products
- ▶ BeO is a crystalline solid that is light weight and can withstand high temperatures and rapidly dissipates heat

Beryllium Technology Assessment

- ▶ Materion has evaluated the use of the TRIBO particulate detection system
- ▶ Has been installed in Materion's stack since 2010
- ▶ Detector functions by processing and analyzing electrical currents generated when particles pass by sensors
- ▶ Will not measure BeO but will measure particulates (such as BeO)
- ▶ Detector will measure changes in emissions

Diagram of Pollution Control Equipment and location of Auburn Particle Detector Probes

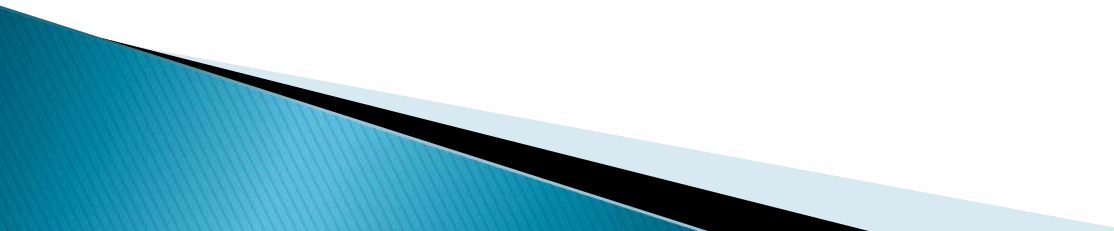
Note - Not to scale



Beryllium Air Monitoring

- ▶ Be air monitoring requested by community during permitting process in 2007
- ▶ Voluntary agreement reached between Pima County and Brush (Materion) to conduct monitoring project
- ▶ Pima County to maintain and operate monitors while Brush (Materion) contributes funding
- ▶ Monitoring agreement expires in November 2014

Beryllium Air Monitoring

- ▶ Since 2007, over 3,000 samples have been collected
 - ▶ Only one sample had detectable levels of beryllium not related to Materion operations
 - ▶ July 22, 2009 dust storm from Pinal County brought in soil with higher Be. Reported to BOH, SUSD, and BOS in September 2009
 - ▶ Current monitoring system takes over 90 days to get results from the laboratory
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Changes to Permit

- ▶ Require particulate detection system to be operating when manufacturing is taking place
- ▶ Require continuous record keeping of system
- ▶ Require notification of PDEQ within 24 hours of a reading above the threshold level
- ▶ Threshold level to be determine when manufacture evaluates the system at the end of September 2014

Public Outreach

- ▶ Memorandum describing proposed permit modifications sent to County Administrator
- ▶ Will have 30-day public notice in newspapers and will place documents on PDEQ website
- ▶ Will work with SUSD, School Board and other interested parties