

Flexible Permits – A Company Perspective

Jason Barnes, EHS Manager
Baxter Healthcare Corporation
Mountain Home, Arkansas

Baxter Healthcare Mountain Home

- Began operation in 1964
- Employ 1,000
- 580,000 Square Feet
- Medical Products and Devices
 - Separate plasma components of human blood
 - Home kidney dialysis sets
 - Intravenous products
- The largest medical grade plastics manufacturer in the world.
- ISO 14001, Performance Track, Corporate Leader
- We use ethylene oxide gas to sterilize our medical products
 - EO is a HAP (NESHAP = Title V Air Permit)
- We use solvents to bond plastics (HAP's and VOC's)

Baxter's Lean Journey

- Started in 1998
- Won the lean Shingo Prize in 2001
- Average several lean Kiazen events per week using tools like
 - 3P, 5P, 6S, 1 Piece Flow, Standard Work, Pull Systems, Value Stream Mapping, Six Sigma, DMAIC, TPM, Visual Mgmt
- RAPID CHANGES!
 - Moved entire production lines overnight during events
 - Rebuilt work cells and created standard work
 - New Business Opportunities
 - Contract manufacturing = Rapid Changes!

Problems With Old Air Permit

- Could not move air permitted sources overnight or rapidly
- Changes often involved permit modifications
- Changes often included public comment periods
- Until approval was given we could not order equipment
- Even a “quick” 30 day – yes, you can do that - response could cost us a \$big contract.
- We need an answer in hours - not days, weeks, or months

New Flexible Air Permit Architecture

- HAP Emissions Cap
 - HAP Table = TLV, PAIL (1/100th TLV), Max lbs/hr Rate
 - › Based on TLV and site modeling to prove 1/100th TLV at fence line
- VOC Emissions Cap
- Major Sources
 - EO HAP - NESHAP
 - Boilers – Criteria Pollutants
- Pre-permitted Items
 - New Boiler
 - New EO Sterilizer

Win – Win for Baxter and ADEQ

- Decreased 12.7 tons of permitted VOC's
 - Increased with pre-permitted items like boilers (PM,SO2,NOX)
- We can rapidly move production equipment around the plant to respond to our business needs.
- We can quickly determine air permit impact ourselves
- Reduced paperwork, emails, and phone calls between Baxter and ADEQ
- Removed air permit from critical path on project timeline
- Permit becomes a business asset and not a liability or overhead cost
- We can now make rapid changes in order to respond to our business and protect the environment

The Process

- Company must fully decide what it needs by thinking outside of historical boundaries
- Everyone at the same table at the same time is key
 - EPA, EPA Region Six, ADEQ, and Baxter
 - Need people at the table who can make decisions
- Agencies must think outside of what has been the normal accepted historical boundaries and look at actual legal requirements
- Ask Why? Why? Why? Why? Why?
- We are all on the same team
- Work for a win win solution