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**CLIMATE
LEADERS**



U.S. Environmental Protection Agency

**Climate Leaders
Partner Meeting
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IP's GHG Inventory Management

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Inventory Management Overview

- Our company's emission structure
- Design elements
- Measuring and managing
- Our tools
- Our process
- Ongoing management
- Future plans



IP's Emission Structure

- Important to know overall structure before designing inventory system
- 95% of our emissions come from large paper mills
 - Mill emissions range from simple to complex co-gen systems
 - Biggest sources are fuel burning and landfill emissions
- Hundreds of smaller sites contribute relatively little to our total emissions but add complexity to our accounting

Our Paper Mills Are Our Largest GHG Sources

- A typical mill uses about 20 trillion BTU per year
 - About the same energy as in 140 million gallons of gasoline



Mansfield, LA



Prattville, AL

Measuring Then Managing

- We started by first measuring our GHG emissions at our large mills
 - Needed to get the inventory developed quickly
 - GHG accounting tools were already developed to help the process
- Followed by a management process facilitated by Climate Leaders, CH2M HILL, and CCX
 - We are now coming full circle and reworking our measurement system to meet our growing needs
- Plan on an iterative process no matter how your system starts

Basic Paper Mill GHG Accounting Design Elements

- We use the WRI/WBCSD Corporate GHG Accounting Protocol as our inventory basis
 - www.ghgprotocol.org
- We use the tool developed by NCASI for paper mill GHG accounting
 - IP Helped NCASI test and develop tool
 - Tool is accepted by WRI/WBCSD and available on the ghgprotocol.org website



GHG Protocol Initiative

toward a common standard for business reporting on greenhouse gas emissions



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Advanced Paper Mill GHG Accounting Elements

- Modified the standard tool from NCASI
 - Included custom factors for our operations
 - Hard wired standard mill data
 - Converted metric inputs to units our mills are familiar with to reduce user error
 - Removed inconsequential elements from framework
 - Ex. CFC emissions
 - Created off-sheet methods for measuring complex operations – Ex. common header fed co-gens



Our Accounting Tools

- All tools are Excel-based right now
 - Hundreds of spreadsheets are a chore to manage; but it works
- Purchasing database is used to fill in energy use for smaller sites
- For Climate Leaders we use WRI/WBCSD Scope 1 + 2
- For CCX we use Scope 1 - Landfill

How We Manage the Data Collection Process

- Send the spreadsheet tools out to our mills via email
- We have two people ready to answer any questions from the facilities
- Additional guidance comes from a Q&A document on our intranet site
 - Update document when new questions arise
- Quality assurance checklist is also available on the web to guide mills through the inventory process

We've Got the Data... Now What?

- We do random error checking
- Trend a facility's emissions to check for consistency
- Corporate audit team takes quality assurance checklist on environmental audits
- We use the Inventory Management Plan from CH2M HILL to document and communicate internally
 - Very useful tool for external audits
 - Helps explain the sources considered and assumptions made in inventory
- Address audit and verification issues

Our Ongoing Data and Process Management

- The work doesn't end when we submit final data to Climate Leaders and CCX
 - Use the data and trends for forecasting
 - Review our current management process for opportunities to improve next year
 - Work to streamline the entire process
 - Moving to a database driven architecture to increase efficiency and accuracy

We Want to be Part of the Solution to Climate Change

- Remain active in all arenas
 - Looking at GHG registries
 - Working with the Kyoto and CDM processes
- Continue to promote market-based solutions
 - CCX is leading the way to an open market CO₂E trading system with low transaction costs and high transparency
- Continue to work with WRI/WBCSD, regional, and international programs to develop solid accounting tools and world-class protocols

Contact Us... We Would Love to Help

- IP Corporate Environment
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 - Karen Risse - Inventory Manager
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- Additional Information
 - WRI/WBCSD Protocols
www.ghgprotocol.org
 - Chicago Climate Exchange
www.chicagoclimatex.com

