Sustainable Development (SD)
The Journey to Zero Waste to Landfill
We, the Fairmount Santrol family, are united in our commitment to exceed all expectations while fulfilling our economic, social and environmental responsibilities.
Profile – Fairmount Santrol

Total Employees: 1059

Locations:
11 Mining & Processing
10 Coating Operations
5 Specialty Products
5 Admin Offices
2 R&D Centers
Why SD??

- *It’s the Right Thing to do*

- It is in-line with our corporate Culture and in continuity with our past

- There is a **Strong Business Case** for SD practices.

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<th>Tangible Ways SD Pays</th>
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Evolution of Sustainable Development (SD) at Fairmount Santrol

2005 – 2007
Sustainability in Our Operation

• First SD Summit (2005)
• SD Teams formed
• Joined U.N. Global Compact (2006)
• First annual CSR Report published (2006)

2008 – 2010
Sharpening Our Focus

• Second SD Summit (2008)
• Fairmount Santrol expands global footprint

2011 - 2013
Bring Your Inspired Self

• Third SD Summit
• Record profits
• More Fairmount Santrol stakeholders involved in SD than ever before

2014
United and Empowered

• Fourth SD Summit
• August, 2014 in IL
• Name Change to Fairmount Santrol
• 16 new initiatives

SiO2
Sustainability In Our Organization
United and Empowered – 2014 SD Summit in Illinois
The Value Chain

**Upstream**

**ENVIRONMENT**
- Transportation (CO2 emissions from travel)
- Raw material inputs

**SOCIAL**
- Supplier labor practices & human rights

**ECONOMIC**
- Growth & development
- Indirect impacts

**Operations**

**ENVIRONMENT**
- Energy consumption
- GHG emissions
- Water usage
- Waste-to-landfill

**SOCIAL**
- Employee health & safety
- Training & education
- Labor practices & human rights

**ECONOMIC**
- Job creation
- Community investment

**Downstream**

**ENVIRONMENT**
- Packaging/waste
- Life cycle impacts of product in use

**SOCIAL**
- Product safety
- Truth in advertising

**ECONOMIC**
- Growth & development
- Product quality
3R Team – Recover, Recycle, Reuse Journey

- Beginning 1991 – Waste Minimization Efforts
- 2007 – Goal Setting
- 2008 – Environmental Mgmt Plans & Established site Recycling Teams
- 2009 – Set up additional tracking to set 2009 as the baseline
- 2010 - 20% reduction each for 5 years to achieve Zero Waste to Landfill in 2015
  - Education Efforts by holding community recycling events & opportunities for our Neighbors
  - Implemented “Print Less. Know More” Campaign
  - Identified Opportunities to develop partnerships across the Value Chain
  - Engaged in By product Synergy Efforts with USBC-SD
3R Team – Recover, Recycle, Reuse Journey

- 2011 – Engaging Partners to achieve the first Zero Waste to Landfill
  - Implemented “Treasure Hunts” by partnering with the Best Practice Team
  - Identified partnerships with key groups
  - Engaged the USBC-SD OHIO by-product synergy group

- 2012 – 6 Zero Waste to Landfill Sites - Advanced the conversation with 80% reduction
  - Engaged in waste to energy
  - Introduced Composting opportunities in certain regions
  - 3R Champions identified by facility & dumpster dives
  - The 3R team leader engaged in Plant Managers sessions
  - Implemented new collection areas
3R Team – Recover, Recycle, Reuse Journey

- 2013 – 10 Fairmount Facilities have reached Zero Waste to Landfill
  - Cross Functional team with Sustainable Value Chain
  - Increase Visibility - Created a database to record all recycling and reuse
    • Conveyor Belts, Sand, & Packaging
  - Education through Training on the Database
  - Engaged 5 Sustainable Development Coordinators
  - Take back program with Vendors & Contractors

- 2014 – 18 Fairmount Facilities achieve Zero Waste to Landfill & 90% Reduction
  - Identified Opportunities to develop partnerships across the Value Chain to improve waste impacts
  - Added Waste to Energy sites across the US for very small amounts
  - Detroit site achievements are due to in part Networking with USBC-SD Members and participating in the ROC Detroit Launch Sept 2014
2015 – 21 Fairmount Facilities achieve Zero Waste to Landfill & 92% Reduction
- Identified Opportunities to develop partnerships across the Value Chain
- Participating in the National Market Place
- Beneficial Reuse of Spent Foundry Sand
- Participate in workshops and events with US BC SD – ROC Detroit
- Boldly Different CSR Report - Challenging our family members
- Working with Trade Associations to identify opportunities
Summary

- Common Definitions
- Leadership Commitment
- Passionate Team members
- Aggressive Goals both short and long term plans
- Education
  - Recycling education
  - Engage stakeholders in education
  - Highlight at Corp Events – Health Fairs
- Partnerships
- Measurements/Tracking
  - Dumpster dives
  - Tracking Databases
- Dedication to Zero Waste Events
- Collaborations
- Trade Association Engagements
- Share Best Practices
9 STEPS TO LANDFILL-FREE

1. Define Zero Waste
2. Track Waste Data
3. Prioritize Waste-Reduction Activities
4. Engage Employees and Build a Sustainability Culture
5. Strengthen Supplier Partnerships
6. Resolve Regulatory Challenges
7. Achieve Landfill-Free
8. Share Best Practices
9. Improve Efforts
Celebrations & Achievements – Building on Success

- High Levels of Engagement & Innovation
- Education among Family Members
- Tracking All activities for Diversion & Reduction Levels

![Fairmount Santrol Zero Waste to Land Fill Sites](chart.png)
Company Challenge - **Recover + Recycle + Reuse Competition**

- **Dates:** Nov 15, 2014 – April 22, 2015
- **The objectives of this challenge**
  - Increase awareness and sensitization in our local communities about care for the environment
  - Encourage teams to Innovate & Construct out of recycled materials from their facility

Recycling is a process to change waste materials into Innovative new products by reusing parts or scrap items that together have reached the end of their useful life.

The projects should reflect how individuals can reduce waste in order to reduce pollution and save natural resources.
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Reuse Opportunity Collaboratory Detroit (ROC Detroit)