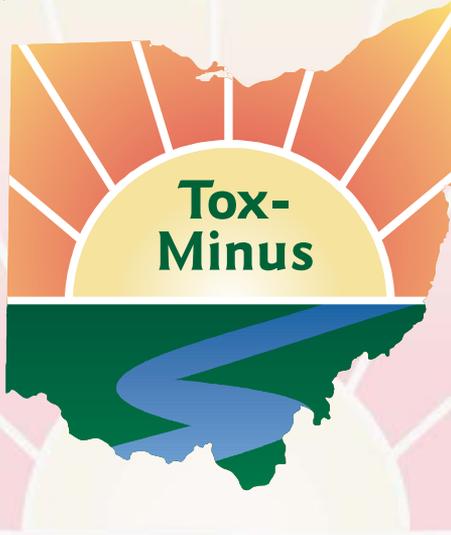




Environmental
Protection Agency



2008 Activities Report

March 2009

Background

Ohio has consistently ranked as one of the top states in toxic chemical emissions since the Toxic Release Inventory (TRI) was created in 1987. The Tox-Minus initiative was started by Ohio EPA in October 2007 as a proactive and cooperative way to work with Ohio business and industry to reduce toxic chemical releases. As a first step, Ohio EPA Director Chris Korleski asked 100 of the top Toxic Release Inventory reporters for 2005 to identify, evaluate and implement feasible and effective pollution reduction or prevention strategies to reduce waste, air and water-related TRI emissions.

The initiative's name reflects a long-term goal of moving Ohio down in the TRI listings, which will help enhance our image as an environmentally proactive, yet economically competitive state. Participation is voluntary. There are no penalties or enforcement associated with the program.

Companies participating in Tox-Minus establish their own goals for reducing TRI chemical releases and other wastes. Reduction goals should cover a five-year time frame, beginning with 2007 as the base reporting year. However, companies can use a longer time frame or different base year, if necessary, to achieve meaningful reductions. Participants also outline how they plan to reduce emissions and submit this information to Ohio EPA. In addition, participants provide annual updates on their accomplishments to Ohio EPA.

Ohio EPA's Office of Compliance Assistance and Pollution Prevention coordinates the Tox-Minus initiative. Companies participating in the program submitted their first updates on their activities related to Tox-Minus during 2008.

Reduction Goals and Activities

Fifty-three Tox-Minus participants submitted information in 2008 on their waste reduction activities. A brief description of each participant's reduction goals and efforts to date to reduce TRI chemical releases and other wastes is included in the Tox-Minus Reduction Goals and Activities Summaries section.

An analysis of TRI reductions is not included in this initial report since many participants are starting new reduction programs and the results of these efforts would not be reflected in the most recent TRI data. A listing of reductions by common waste types was not attempted due to the wide variety of TRI chemical releases and other wastes being addressed in the waste reduction programs being implemented by Tox-Minus participants. In addition, Tox-Minus participants were given the flexibility to report reductions in the method most effective for their individual facilities. This makes comparisons difficult due to the wide range of reporting formats.

The following table identifies Tox-Minus participants who submitted information in 2008 on their waste reduction activities.

Alphabetical Listing of Ohio Facilities Participating in Ohio EPA's Tox-Minus Initiative

Facility	Facility Address	City	County
AMP Ohio - Richard H. Gorsuch Station	State Route 7 South	Marietta	Washington
Belden Brick Company	700 W. Tuscarawas Street, P. O. Box 20910	Canton	Stark
BP Products North America Inc. - Toledo Refinery	4001 Cedar Point Road	Oregon	Lucas
Brush Wellman Inc.	14710 W. Portage River South Road	Elmore	Ottawa
Clow Water Systems Co.	2266 South 6th Street	Coshocton	Coshocton
Cognis Corporation/Cognis Oleochemicals LLC	4900 Este Avenue	Cincinnati	Hamilton
Dayton Power & Light Co. J.M. Stuart Station	P.O. Box 468, U.S. Highway 52	Aberdeen	Brown
Dayton Power & Light Co. Killen Station	14869 U.S. Route 52	Manchester	Adams
Dayton Power & Light Co. O.H. Hutchings Station	9200 Chautauqua Road	Miamisburg	Montgomery
Dow Chemical USA Hanging Rock Plant	925 County Road 1A	Ironton	Lawrence
Energizer Battery Mfg. Inc.	2036 Blue Knob Road	Marietta	Washington
Eramet Marietta Inc.	State Route 7 South	Marietta	Washington
FirstEnergy - Ashtabula Plant	2133 Lake Road East	Ashtabula	Ashtabula
FirstEnergy - Bayshore Plant	4701 Bayshore Road	Oregon	Lucas
FirstEnergy - Eastlake Plant	10 Erie Road	Eastlake	Lake
FirstEnergy - Lakeshore Plant	6800 South Marginal Road	Cleveland	Cuyahoga
FirstEnergy - R. E. Burger Plant	57246 Ferry Landing Road	Shadyside	Belmont
FirstEnergy - W. H. Sammis Plant	State Route 7	Stratton	Jefferson
Ford Motor Co. - Ohio Assembly Plant	650 Miller Road	Avon Lake	Lorain
General Motors (Lordstown Complex East)	2300 Hallock-Young Road	Lordstown	Trumbull
General Motors (Moraine Assembly)	2601 West Stroop Road	Dayton	Montgomery
General Motors (Powertrain Defiance)	26427 State Route 281 E.	Defiance	Defiance

Facility	Facility Address	City	County
General Motors (Powertrain Toledo)	1455 West Alexis Road	Toledo	Lucas
Givaudan Flavors Corporation	1199 Edison Drive	Cincinnati	Hamilton
Goodyear Tire & Rubber Co. Akron Technical Center	1144 East Market Street	Akron	Summit
Griffin Wheel Co.	3900 Bixby Road	Groveport	Franklin
Hamilton (City of) Department of Electric	345 High Street	Hamilton	Butler
Honda of America Mfg., Inc.	24000 Honda Parkway	Marysville	Union
Honda of America Mfg., Inc. (Anna Engine Plant)	12500 Meranda Road	Anna	Shelby
Honda of America Mfg., Inc. (East Liberty Auto Plant)	11000 State Route 347	East Liberty	Logan
Honda of America Mfg., Inc. (Marysville Motorcycle Plant)	24000 Honda Parkway	Marysville	Union
Ineos USA LLC	1900 Fort Amanda Road	Lima	Allen
Kraton Polymers U.S. LLC	2419 State Route 618	Belpre	Washington
Lincoln Electric Co. - Euclid Facility	22800 Saint Clair Avenue	Euclid	Cuyahoga
Lincoln Electric Co. - Mentor Facility	6500 Heisley Road	Mentor	Lake
Metromedia Technologies, Inc. Millennium Inorganic Chemicals, A Cristal Co.	1061 Venture Boulevard 2426 Middle Road	Wooster Ashtabula	Wayne Ashtabula
Millennium Inorganic Chemicals, A Cristal Co.	2900 Middle Road	Ashtabula	Ashtabula
MSC Walbridge Coatings Inc.	30610 East Broadway	Walbridge	Wood
Norcold Inc.	600 South Kuther Road	Sidney	Shelby
Orrville (City Of) Dept. of Public Utilities Electric Dept.	1100 Perry Street	Orrville	Wayne
Owens Corning Newark Plant	400 Case Avenue, P.O. Box 3012	Newark	Licking
Owens Corning Tallmadge Plant	170 South Avenue	Tallmadge	Portage
P.H. Glatfelter Company (formerly Chillicothe Paper)	401 South Paint Street	Chillicothe	Ross
Painesville (City of) Power Plant Premix	325 Richmond Street Route 20 and Harmon Road	Painesville North Kingsville	Lake Ashtabula
R.J. Corman Railroad (Cleveland Line)	475 West Third Street	Dover	Tuscarawas

Facility	Facility Address	City	County
Solvay Advanced Polymers LLC	Route 7 South	Marietta	Washington
Timken Co. - Faircrest Steel Plant	4511 Faircrest St., S.W.	Canton	Stark
Timken Co. - Harrison Steel Plant	Harrison Avenue, S.W.	Canton	Stark
V&M Star	2669 Martin Luther King Jr. Blvd.	Youngstown	Mahoning
Veyance Technologies (formerly Goodyear)	1115 South Wayne St.	Saint Marys	Auglaize
Whirlpool Corp.	1300 Marion-Agosta Rd.	Marion	Marion

Tox-Minus Reduction Goals and Activities Summaries — 2008

American Municipal Power - Ohio (AMP-Ohio), Inc., R.H. Gorsuch Facility State Route 7 South, Marietta, 45750

AMP-Ohio owns and operates electric generation, transmission and distribution facilities. The Gorsuch facility is a steam plant constructed in the 1950s with a capacity of 213 megawatts. Output from the plant helps meet a portion of the energy needs for 48 participating member municipal electric systems.

AMP's reduction goal is focused on finding a beneficial use for the fly ash produced at this facility to reduce the quantity of off-site disposal. AMP-Ohio has met with experts, consultants and manufacturers to educate themselves and explore alternatives for the beneficial use of the fly ash. Once a preferred alternative is determined, AMP-Ohio will implement it to the extent feasible.

The Belden Brick Company 700 W. Tuscarawas Street, P.O. Box 20910, Canton, 44701

The Belden Brick Company manufactures architectural brick at seven gas-equipped plants, with a related capacity of 225 million brick equivalents annually. In the energy development field, they have over 160 producing gas wells.

Belden Brick is working to reduce its TRI releases by recycling "green brick," which is unfired, formed brick, made of shale and/or clay that may contain additives such as barium, chromium and manganese. Recycling of the "green

brick” consists simply of adding it back into the brick production process. In the past few years, Belden Brick has disposed of about 9 million pounds of “green brick” per year. Belden Brick’s goal is to recycle 25 percent of the “green brick” in 2008 and 50 percent in 2009. It expects a reduction in reportable TRI releases of 6 percent the first year and 12 percent the following year.

BP Toledo Refinery 4001 Cedar Point Road, Oregon, 43616

The BP Toledo Refinery makes almost six million gallons of products daily, over half of which is gasoline. On an average day, the refinery produces enough products to fill 120,000 propane cylinders and fully fuel 160,000 automobiles; over 4,000 farm tractors; 8,000 semi-trucks; and 30 commercial jetliners. The refinery can process almost 150,000 barrels of crude oil per day and occupies 465 acres of land. BP’s Toledo Refinery is committed to a 10 percent reduction in TRI emissions, which will be achieved through improved detail of its emissions, improved efficiency and reduced emissions from new projects. The facility is planning an expansion in the future.

Brush Wellman Inc., Elmore Facility 14710 W. Portage River South Road, Elmore, 43416

Brush Wellman Inc. is a supplier of engineered beryllium materials. Its manufacturing facility at Elmore began operations in 1953. The Elmore facility operates two degreasers that use the solvent perchlorethylene. Estimated emissions from these sources during 2007 totaled 102,547 pounds. Brush Wellman commits to reducing these emissions over 90 percent, to below 10,560 pounds by March 2013.

It will replace an existing batch of cold perchlorethylene degreaser with new ultrasonic degreasing technology, using water and ultrasonic action to degrease scrap metal chips. The company will also reduce perchlorethylene emissions from an existing vapor degreasing operation through improvements to process controls, addition of control technology, product substitution, or a combination thereof.

Clow Water Systems Company 2266 South 6th Street, Coshocton, 43812

Clow Water Systems Company (Clow) operates a ferrous foundry and manufactures ductile iron pipe and fittings. The facility has been expanded several times since its inception in 1910. Clow transports approximately 28,000 tons of solid waste offsite within a year. Clow’s goal is to achieve a 30 percent reduction in TRI releases over the next five years, based on the 2006 TRI Inventory Report. In 2008, Clow plans to investigate the feasibility of changing the grade of its scrap

metal. This could result in 10 percent to 40 percent of the raw material being used as feedstock, which would result in a 20 percent to 40 percent reduction of total solid waste and an overall TRI reduction of 10 percent to 30 percent. Also in 2008, Clow intends to implement a cardboard recycling program to divert approximately 500 tons of cardboard from the landfill (a \$10,000 savings) and an overall waste reduction of 2 percent of non-hazardous waste.

In 2009, Clow will investigate packaging alternatives to help reduce the generation of approximately 10 tons of packaging waste (a \$200 savings) and achieve an overall waste reduction of 0.05percent of non-hazardous waste. In 2010, Clow will consider beneficial reuse of sand and slag, which could reduce these wastes by 5,025 tons per year. This would also save the company \$100,500; reduce overall total solid waste generation by 40 percent to 50 percent; and reduce TRI emissions by 20 percent to 40 percent.

Cognis Corporation/Cognis Oleochemicals LLC 4900 Este Avenue, Cincinnati, 45232

Cognis' focus is on TRI emissions reductions in three areas: 1) convert production of high-pressure steam from coal to natural gas/fuel oil fired boiler; 2) energy conservation projects; and 3) reduce methanol emissions. Historically, 8 percent of Cognis' coal usage has been for the production of high pressure steam. Using a new high pressure steam boiler, fired with either natural gas or #2 fuel oil, will permanently reduce its TRI air emissions for hydrochloric acid, sulfuric acid and hydrofluoric acid by about the same percentage. In 2007, Cognis conducted a Pollution Prevention Study, which focused on energy conservation. Approximately 75 percent of the site's TRI emissions result from burning coal to run its processes. Methanol is the site's largest TRI emission not associated with steam generation. Cognis' goal is to reduce methanol emissions by about 5-10 percent per year.

The Dayton Power and Light Company Hutchings Station (Miamisburg) – 9200 Chautauqua Road, Miamisburg, 45432 Killen Station (Wrightsville) – 14869 U.S. Route 52, Manchester, 45144 Stuart Station (Aberdeen) – P.O. Box 468, U.S. Highway 52, Aberdeen, 45101

The Dayton Power and Light Company (DP&L) operates coal-fired electric generating stations. The J.M. Stuart Station is a 2400-megawatt facility, and the Killen Station is a 600-megawatt facility. The O.H. Hutchings Station is not a base-loaded plant and only runs intermittently.

DP&L proposes to reduce sulfur dioxide by 95 percent, hydrogen chloride by 90 percent and mercury by over 50 percent at both the Killen Station and the Stuart Station from 2006 to 2008. It will install Chiyoda Flue Gas Desulfurization (FGD) Jet Bubbling Reactors (JBR) on each of the five boilers in Adams County. The O.H. Hutchings Station is only run when extra power demands require its use and there are no toxics reduction initiatives at this facility at this time.

The Dow Chemical Company, Hanging Rock Plant 925 County Road 1A, Ironton, 45638

The Hanging Rock Plant is one of Dow's three manufacturing facilities in Ohio. This facility produces STYROFOAM™, ETHAFOAM™, and STYRON™/MAGNUM™. Dow has developed a next-generation foaming agent technology that will allow Dow Chemical to manufacture STYROFOAM™ R5/inch insulation with a zero ozone-depletion factor. This new technology will cut Dow's greenhouse gas emissions in half for North America. Although a reduction in greenhouse gases has not yet been realized, plans are in place to begin supplying product in North America with this new technology in 2008 and complete the transition by mid -2009. As a result of this effort, Dow's Hanging Rock facility plans to reduce TRI emissions by approximately 350 tons per year by January 2010.

Energizer, Marietta Facility 2036 Blue Knob Road, Marietta, 45750

Energizer's Marietta facility produces electrolytic manganese dioxide, a component in its Energizer alkaline batteries. Energizer has prepared a five-year plan to reduce air emissions and off-site disposal. In 2007, Energizer Marietta implemented a project known as "Purchased Calcined Ore" that eliminated its calcining operation, which included two dust collectors, two raw ore dust bin vents and two transfer blowers. As a result of this project, it reduced annual manganese (MnO_2) by 29 percent (4,734 pounds per year).

Projects for 2008-2010 include eliminating or reducing off-site disposal. Energizer Marietta intends to implement Hot Acid Leach Manganese Recovery (phases II and III) in 2008 and 2009. The new capital equipment will recover 1.8 million pounds of manganese as MnO in 2008 and 750,000 pounds in 2009, instead of having these materials go off-site for disposal. The project will also eliminate 46,467 pounds of manganese per year going to the leach field as leach tank sand.

Energizing Marietta will also use a "Finishing Neutralization" for water recovery, diverting approximately seven million gallons of water containing small amounts of sulfuric acid and manganese from off-site disposal. In 2010, Energizer Marietta will recover 54,000 pounds of manganese per year and eliminate the rest of the landfill waste streams. It also plans to collect impurities from the Eimco filter cake and sell the material for the metal value.

Eramet Marietta State Route 7 South, Marietta, 45750

Eramet Marietta produces and sells manganese alloys used to make steel, aluminum and specialty metals stronger and more heat resistant. The manganese is mixed and refined at the company's plant in Marietta. Eramet has identified several projects to reduce its TRI emissions:

- 1) Furnace #1 upgrades (as more gases will condense back into the raw material mix, particulate matter emissions from the Furnace #1 stack, including manganese are expected to be reduced by as much as 10 percent based on engineering calculations);
- 2) Furnace #1 abatement upgrade (this includes retrofitting a new baghouse dust collector to replace the existing Venturi wet scrubber, reducing particulate matter stack emissions from this unit by 50 percent or more); and
- 3) Reducing ammonia emissions from electrolytic operations (reduction could reach 20 percent from its specialty metals operations within a five-year period).

FirstEnergy Corporation Ashtabula Plant – 2133 Lake Road East, Ashtabula, 44004 Bayshore Plant – 4701 Bayshore Road, Oregon, 43616 Eastlake Plant – 10 Erie Road, Eastlake, 44095 Lakeshore Plant – 6800 South Marginal Road, Cleveland 44103 R.E. Burger Plant (Shadyside) – 57246 Ferry Landing Road, Shadyside, 43947 W.H. Sammis Plant (Stratton) – State Route 7, Stratton, 43961

FirstEnergy Corporation is headquartered in Akron, Ohio. Its subsidiaries and affiliates are involved in the generation, transmission and distribution of electricity, as well as energy management and other energy-related services. Its seven electric utility companies comprise the nation's fifth largest investor-owned electric system, serving 4.5 million customers within 36,100 square miles of Ohio, Pennsylvania and New Jersey; and its generation subsidiaries control more than 14,000 megawatts of capacity.

TRI emissions in 2010 from FirstEnergy's six coal-fired power plants in the State of Ohio are expected to decline by 27.5 percent compared to 2006 emission levels, as a result of the installation of air quality control equipment. The actual emission levels are collectively estimated to decline by 6.3 million pounds, from reported emissions of 22.96 in 2006 to 16.66 in 2010. Most of this reduction is expected to take place at the Sammis Plant, in Stratton.

Ford Motor Company – Ohio Assembly Plant 650 Miller Road, Avon Lake, 44012

The Ford Ohio Assembly Plant, constructed in 1973, produces the Econoline Van. The three major operations required in the manufacturing and assembly processes include body, paint and final assembly. The plant has been third-party certified to the ISO 14001 Environmental Management System Standard since December 21, 1998.

In January 2008, the plant completed converting one of its paint booth systems to a 3-wet technology process that removes one of the main baking sequences (the primer booth and oven) and allows for the wet-on-wet application of the primer, basecoat and clearcoat. The plant will also implement a new uni-wipe adhesive system to install windshields, eliminating the use of methyl ethyl ketone. The plant also plans to shorten its paint transfer line, reducing the amount of cleaning solvent by about 105 gallons each time the lines are cleaned.

General Motors

Lordstown Complex East –

2300 Hallock-Young Road, Lordstown, 44481

Moraine Assembly –

2601 West Stroop Road, Dayton, 45439

Powertrain Defiance –

26427 State Route 281 East, Defiance, 43512

Powertrain Toledo –

1455 West Alexis Road, Toledo, 43612

At the Lordstown Complex, GM assembles the Chevrolet Cobalt and the Pontiac G5. At the Powertrain Defiance foundry, GM produces castings for its automotive operations. GM's SUV Chevrolet Trailblazer, GMC Envoy and Saab 9-7 are assembled at the Moraine Plant. Transmission parts and assemblies are produced at the Powertrain Toledo facility.

For its Ohio manufacturing facilities, GM has set a reduction goal of 25 percent from 2005 to 2010 for its air, water and waste-related TRI releases. GM will upgrade the Lordstown Complex with a new state-of-the-art paint shop, which will optimize all paint application equipment for improved transfer efficiency. They will minimize purge solvent usage in the paint shops. GM will increase recycling for beneficial reuse of all the by-products such as scrap, parts, cardboard, sand, plastics, etc. GM will enhance the quality of scrap used for casting operations through scrap supplier certification. Finally, they will convert to more environmentally friendly chemicals and materials.

Givaudan Flavors Corporation **1199 Edison Drive, Cincinnati, 45216**

The Givaudan Flavors Corporation manufactures a large variety of flavoring materials. Over 2,500 different raw materials are used to make over 8,000 intermediates and finished products. Acetaldehyde, that naturally occurs in some fruits, such as oranges and apples, is used in some of Givaudan's products. Natural and synthetic versions of acetaldehyde are added to enhance various flavors. The current method used to produce flavors containing acetaldehyde results in hazardous waste being generated. Givaudan's goal is to reduce acetaldehyde waste generated per pound of product produced by 10 percent in 2012.

Goodyear Tire & Rubber Co. – Akron Technical Center **1144 East Market Street, Akron, 44316**

Goodyear's Akron, Ohio, Technical Center is devoted to advancing the science and technology of tires and to applying this knowledge to new products for the company's hundreds of tire markets. In closing its powerhouse, the Technical Center has seen the following reductions:

- 1) Sulfuric acid by 115,900 pounds per year;
- 2) Hydrochloric acid by 287,796.2 pounds per year; and
- 3) Hydrofluoric acid by 15,550.2 pounds per year.

As of January 1, 2008, the Technical Center has gone completely landfill free. This has reduced landfill disposal amounts by 21.5 tons of trash and 40.75 tons of friction waste. Goodyear is also looking at reducing solvent use by 10 percent or 450 pounds per year.

Griffin Wheel Company **3900 Bixby Road, Groveport, 43125**

Since 1964, Griffin Wheel Company has been supplying the railroad industry with curved plate (parabolic deep-dish) low-stress wheels. Griffin has two main by-product streams that account for 98 percent of its reported TRI releases: slag from the electric arc melting furnaces and baghouse dust from these furnaces. In 2006, the electric arc furnaces' emissions were 466,809 pounds, about 62 percent of its total emissions. In the same year, the electric arc furnace dust captured accounted for an additional 281,478 pounds of toxic emissions (lead and zinc) or about 37 percent of its total emissions.

Griffin has set a goal of being able to beneficially reuse at least 50-60percent of its slag material in the next five years. Griffin also plans to reduce the toxicity of the lead and zinc in by-products being sent to off-site landfills. The goal is to be able to treat about 10 percent of the material on-site within the next two years and possibly treat all of its dust within the next five years. Finally, Griffin intends to use scrap that contains less toxic chemicals (e.g., lead).

City of Hamilton Department of Electric 345 High Street, Hamilton, 45111

The Electric Department is responsible for the operation, maintenance and construction of the City of Hamilton’s electric generation facilities and electric transmission systems. The department started using a reverse osmosis system that has reduced usage of sulfuric acid and caustic by about 90 percent. This system has also reduced overall wastewater discharge.

Honda of America Manufacturing (Honda) Honda of America Manufacturing, Inc. - 24000 Honda Parkway, Marysville, 43040 Anna Plant – 12500 Meranda Road, Anna, 45302 East Liberty Plant – 11000 State Route 347, East Liberty, 43319 Marysville Plant – 24000 Honda Parkway, Marysville, 43040

The Anna Engine Plant started production in 1985 and produces 1.16 million 4-cylinder engines per year for various car models. It also produces V6 engines, drive shafts, crankshafts, brake components, camshafts, and suspension components. The East Liberty Automobile Plant started production in 1989 and produces 240,000 cars and light trucks per year. The Marysville Motorcycle Plant started production in 1979 and produces 150,000 motorcycles and 75,000 engines per year.

Honda has made significant efforts in the past in reformulating its coatings in order to reduce emissions. Honda’s activities over the next three years include:

- 1) Evaluating the reformulation of purge solvent used to clean painting application systems for the Marysville and East Liberty auto plant’s body painting operation.
- 2) Implementing add-on emission reduction controls to reduce ammonia emissions from the Anna Engine Plant ferritic nitrocarburizing furnaces; and
- 3) Evaluating the reformulation of the electrodeposition coating used at the East Liberty auto plant.

Honda is committed to achieving a 25 percent reduction in TRI emissions (compared to 2005) by 2011.

INEOS

Lima Facility – 1900 Fort Amanda Road, Lima, 45804

The INEOS Lima facility produces nitrile-based products, including acrylonitrile, acetonitrile, and HCN. The plant uses INEOS proprietary, fluid-bed propylene ammoxidation process and high efficiency catalyst to produce 190,000 tons of acrylonitrile.

INEOS Lima set a goal of reducing 2 percent to 5 percent of its air emissions by the end of 2009. The TRI reported emissions from INEOS Lima also includes materials placed into the deepwell reservoir that accounts for 98 percent of its total TRI reported releases. INEOS is currently pursuing a delisting of acetonitrile from the TRI reporting requirements. This means that INEOS would no longer have to report approximately six million pounds of acetonitrile disposed of via the deepwells annually. This change in the reporting requirements will reduce the amount of reported emissions from INEOS Lima by close to 50 percent.

Kraton Polymers U.S. LLC

2419 State Route 618, Belpre, 45714

Kraton Polymers LLC is a global specialty chemical company and the world's largest producer of styrenic block copolymers (SBCs). SBCs are highly-engineered synthetic elastomers, which enhance the performance of products by delivering a variety of attributes, including greater flexibility, resilience, strength, durability and processability. Kraton polymers are used in a wide range of applications including road and roofing materials, numerous consumer products (e.g., diapers, tool handles and toothbrushes), tapes, labels, medical applications, packaging, automotive and footwear products.

Kraton's planned projects focus on air releases, waste generation/on-site treatment, and total elimination of ethylene dibromide from the Belpre site. These activities will ultimately result in a 20 percent reduction (approximately 95,000 pounds) in TRI air emissions and a 15 percent reduction in wastes treated.

The Lincoln Electric Company

Euclid Facility – 22800 Saint Clair Avenue, Euclid, 44117

Mentor Facility – 6500 Heisley Road, Mentor, 44060

Lincoln Electric, founded in 1895, designs, develops and manufactures arc welding products, robotic welding systems, plasma and oxyfuel cutting equipment. The single largest TRI emission from the Euclid facility is a non-hazardous foundry sand waste stream that contains ores, minerals, ferroalloys, and metallic powders that are scrapped from production areas. The company has a 10 percent annual reduction goal for this waste stream at the Euclid facility. Proposed methods to meet this goal include improved control technology (including a

recent change from a wet scrubber to a more efficient baghouse with a fines reuse system on a large kiln); improved reuse procedures for scrap from production lines; and improvements in technologies such as weighing and mixing with the goal of less quality rejections (all quality rejections are added to this waste stream).

At the Mentor facility, improvements were made in 2006 and 2007 to reduce copper plating wastes (the company's largest waste stream) and non-hazardous sludge from the water treatment plant. During those two years, a 33 percent reduction in TRI emissions has already been realized. Further process improvements should provide incremental decreases in TRI emissions over the next 10 years.

Metromedia Technologies, Inc. 1061 Venture Boulevard, Wooster, 44691

Metromedia Technologies (MMT) is an advertising display company specializing in imaging and project management. MMT previously used methyl isobutyl ketone (MIBK) as the main solvent in its printing inks and as a cleanup material. In early 2007, MMT began working with its ink manufacturers to replace MIBK with a less toxic material. MMT eliminated use of solvents containing MIBK in November 2007. The new inks include ethyl acetate. MMT modified its air permit to remove the MIBK specific limits and recordkeeping requirements. MIBK was also reportable in the facility's Toxic Release Inventory. Ethyl acetate is not a listed chemical, and MMT's pollution prevention project will result in no chemicals meeting the thresholds for TRI reporting. MMT previously completed a pollution prevention project to recycle ink and solvents back into the manufacturing process.

Millennium Inorganic Chemicals - A Cristal Company 2426 Middle Road, Ashtabula, 44004 2900 Middle Road, Ashtabula, 44004

National Titanium Dioxide Company Ltd. ("Cristal") and Millennium Inorganic Chemicals (MIC) combined to form the world's second largest producer of titanium dioxide and titanium chemicals. By the end of 2012, MIC plans to reduce the emissions of carbonyl sulfide at its Ashtabula facilities by about 5 percent (193 tons).

MSC Walbridge Coatings Inc.
30610 East Broadway, Walbridge, 43465

MSC Walbridge Coatings Inc. is an automotive metal finisher that is able to electrogalvanize, pretreat, prime, and paint in one pass. This one-pass coating allows MSC Walbridge to offer superior surface quality and enhanced corrosion protection.

MSC Walbridge proposes to reduce zinc-nickel plating filter cake generation by 5 percent. The facility will utilize a reverse osmosis unit to recover metal from the conductor roll process rinse and return metals (zinc and nickel) to the plating process. The process will also reuse rinse water, reducing the amount of deionized water requiring treatment. It will also reduce sodium hydroxide and sulfuric acid, used to generate deionized water. MSC Walbridge will also improve standard material handling practices.

MSC Walbridge will reduce paint-related waste by 5 percent by installing an on-line wet film determination gauge to reduce variability and encourage more efficient use of the material. MSC Walbridge will also install a Methyl Ethyl Ketone (MEK) recycling unit; a soaker/agitator unit which will enable the facility to replace disposable paint filters with stainless steel reusable filters; a paint pan soaking tank to enable more efficient use of the MEK cleaning solution; reduce the amount of rags used in the process; and utilize a pump cleaning recirculation system which will enable more efficient use of the MEK cleaning solution.

Norcold Inc.
600 South Kuther Road, Sidney, 45365

Norcold is the leading manufacturer of recreational vehicle gas/electric absorption refrigerators in the country. Norcold intends to investigate air emission reduction opportunities by all equipment and processes, with an emphasis on polyurethane dispensing sources that are permitted under Title V of the Clean Air Act.

Prior to 2008, Norcold had employed a polyurethane foam utilizing R-22 for a blowing agent. Legislation was passed to move up the phase-out of R-22 to March 1, 2008, for “grandfathered” facilities such as Norcold Inc. In 2007, Norcold tested alternative polyurethane foams and in January 2008, the company changed to less toxic blowing agents.

**City of Orrville Department of Public Utilities
Electric Department
1100 Perry Street, Orrville, 44667**

Orrville Utilities helps businesses increase energy efficiency, choose energy product improvements, reduce energy costs and stay profitable. It works with owners and operators of small commercial buildings to large industrial facilities. It also provides billing analysis, rate schedule reviews, power quality troubleshooting and on-site energy assessments.

Orrville Utilities is planning to enhance selected burners on at least one unit in the spring or fall of 2008, which should result in lower burner maintenance and increased efficiency. They are also developing real-time efficiency software that will allow them to monitor, track and make better, information-based, decisions concerning projects that will lower unit heat rate and emission levels.

**Owens Corning
Newark Plant – 400 Case Avenue, P.O. Box 3012, Newark, 43058
Tallmadge Plant – 170 South Avenue, Tallmadge, 44278**

Since 1966, Owens Corning has led every major technological advance in glass fiber technology. For 2008, Owens Corning is planning to reduce ammonia emissions by 37,500 pounds, through binder chemistry changes. The Tallmadge facility anticipates that by the year 2012, it will have reduced the emissions of 1-chloro-1, 1-difluoroethane to zero tons per year, eliminating the need to submit a TRI report.

**P.H. Glatfelter Company
401 South Paint Street, Chillicothe, 45601**

This facility specializes in carbonless paper, uncoated and other specialty grades of paper. Glatfelter has set a reduction goal of 10 percent, based on meeting Best Available Retrofit Technology requirements under the federal regional haze rule. Based on modeling conducted by Ohio EPA, the facility will also be required to meet a 58 percent reduction in sulfur dioxide emissions from two coal-fired boilers by 2013. It is anticipated that the reduction in sulfur dioxide emissions will also cause a reduction in TRI emissions. Once U.S. EPA approval is obtained, Glatfelter will design and engineer control technologies capable of meeting the 58 percent reduction. The identified technology will be installed by 2013 as specified by the rule.

City of Painesville Power Plant 325 Richmond Street, Painesville, 44077

The city's municipal electric system services the City of Painesville, parts of Concord, Painesville Township, and Perry. Painesville Power is installing new in-line diffusers in its #5 boiler, thus expecting lower NOx emissions and an increase in boiler efficiency. The plant has also identified five thermal insulation projects that will reduce heat loss and improve the plant's thermal efficiency.

Premix Inc. P. O. Box 281, Route 20 and Harmon Road, North Kingsville, 44068

Premix is the largest North American developer, formulator and manufacturer of thermoset compounds and manufacturer of thermoset parts and sub-assemblies. They serve a broad range of industries including automotive, appliance, electrical, construction, industrial equipment, heavy truck and aerospace/military. From 2008 to 2011, Premix proposes to reduce air emissions and solid waste landfill disposal by investigating process changes. In 2008, Premix will investigate alternate solvents and cleaning systems in order to reduce its air emissions and investigate possible reductions for zinc in order to reduce solid waste landfill disposal.

R.J. Corman Railroad – Cleveland Line 475 West Third Street, Dover, 44622

The R. J. Corman Railroad Company is a shortline railroad company that transports a variety of commodities and provides transloading, warehousing, track storage and logistics services. It is changing the fuel used in its locomotives to a biodegradable diesel product that reduces the need for oil changes resulting in less waste oil disposal. These changes have reduced carbon monoxide by 76 percent, sulfur dioxide by 100 percent, nitrogen oxide by 14.5 percent and particulates by 100 percent.

Solvay Advanced Polymers LLC P.O. Box 446, Route 7 South, Marietta, 45750

Solvay Advanced Polymers produces high-performance and ultra-performance plastics for a variety of industries. Solvay is committed to a 50 percent reduction of TRI chemical releases by the end of 2010 through installing additional equipment to further control air emissions. Solvay has selected thermal oxidation as its improved emission control technology in order to meet this goal. Construction is expected to be complete by the end of 2008.

The Timken Company

Faircrest Steel Plant – 4511 Faircrest Street, S.W., Canton, 44706

Harrison Steel Plant – Harrison Avenue, S.W., Canton, 44706

The Timken Company is a manufacturer of highly engineered bearings, alloy steels, and related components and assemblies. Timken changed vendors and is recycling its electric arc furnace dust instead of sending it to treatment and disposal. In January 2008, 1,486.33 tons of Electric Arc Furnace Dust was recycled from the Faircrest facility and 533.58 tons from the Harrison facility.

V & M Star

2669 Martin Luther King Jr. Blvd., Youngstown, 44510

V & M Star produces seamless tubular products for oil and gas applications. The Youngstown facilities include electric arc furnace, continuous casting, walking beam reheat furnace and retained mandrell mill operations.

One of V & M Star's goals is to improve the waste management method for sludge disposal, which is currently in an improved landfill. V & M Star is investigating several alternative uses for the sludge, including the possibility of on-site waste-to-energy utilization and use of sludge as a road base material. V & M Star also plans to complete a \$17 million upgrade to its current bag house system. V & M Star has entered into a 10-year contract with a company that is building a closed-loop water system on-site. This system will extract water from the Mahoning River, treat it for use at V & M Star and then receive and treat water released from V & M Star in a closed loop. Finally, V & M Star is currently investigating the feasibility of offering the bag house dust as a marketable product to be sold and utilized as a raw material in an abrasives manufacturing process.

Veyance Technologies, Inc.

1115 South Wayne Street, Saint Marys, 45885

Veyance manufactures industrial and hydraulic hose and fittings, automotive products, conveyor belt, power transmission products, air springs and rubber track. Veyance Technologies is committing to a voluntary reduction goal of 50 percent in the release of TRI listed chemicals by 2011. The plan to reduce release of TRI listed chemicals involves capital investment and the utilization of a regenerative thermal oxidizer and concentrator system, which will reduce solvent releases.

Whirlpool Corporation

1300 Marion-Agosta Road, Marion, 43301

Whirlpool Corporation is a global manufacturer of major home appliances. The Marion Division is a manufacturing and parts distribution facility. Whirlpool plans to achieve reductions in TRI chemicals by:

- 1) Switching to a more environmentally friendly paint resin which will lower hazardous air pollutants by 30 percent;
- 2) Converting zinc phosphate to iron phosphate for the powder painting operation;
- 3) Decreasing use of synthetic lubricants; and
- 4) Evaluating use of a less hazardous solvent for gun cleaning between paint color changes.

Also, changes in the formulation of its zinc phosphate, which was in effect for all of 2007, will result in a reduction of 180,000 pounds of total reported waste managed, but this will not change releases or transfers on the TRI report.