

SUPPLEMENTAL ENVIRONMENTAL PROJECT SUMMARIES

AIR QUALITY DIVISION

When the Air Quality Division (AQD) enters into an enforcement action with a person (including a company, government, individual, and more) that has violated air quality rules and regulations, the action typically results in a legally binding agreement between the Air Quality Division (AQD) and the person. This agreement contains a fine, a compliance plan, and sometimes a Supplemental Environmental Project (SEP). A SEP is a project that benefits the environment public health, or both. A SEP is not required by state or federal law, but a person can agree to do a SEP as part of an enforcement action. SEPs are projects that go beyond what a person is legally required to do return to compliance with the state and federal laws they violated.

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AIR COOLING AND FILTRATION PROJECT

Company: Marathon Petroleum Company, LP

AQD No.: 2020-13

Cost: \$500,000

Summary: Marathon will retrofit the air handling system at Mark Twain School for Scholars, located at 12800 Visger Street in Detroit. The retrofit will add air conditioning, better air filtration, and air purification using a system called Needlepoint Bipolar Ionization. Marathon will also pay for replacement filters and cells for five years. This project will improve the indoor air quality for children and workers at the school. The system will be up and running by August 2021.

REAL-TIME DATA WEBSITE

Company: Marathon Petroleum Company, LP

AQD No.: 2020-13

Cost: \$39,760

Summary: Marathon created a website to let the public see real-time measurements of some air pollutants at the border of Marathon's refinery. This website will show the levels of carbon monoxide (CO), particulate matter less than 10 microns wide (PM10), sulfur dioxide (SO2), total reduced sulfur (TRS), and volatile organic compound (VOC) on the Detroit Refinery Community Website (<https://detroitrefinery.drdas.cloud/>). The website will be up for at least three years.

AIR FILTRATION PROJECT

Company: AK Steel Dearborn Works

Consent Judgement (CJ) #: 90-5-2-1-10702 (2016)

Cost: \$337,000

Summary: AK Steel installed an enhanced air filtration system at Salina Elementary School and Salina Intermediate School. This system uses passive filters and active electrostatic precipitators to improve the removal of small particles. The system can remove around 30% more sub-micron particles and around 60% of gaseous odors and VOCs compared to the prior filters. This system will also reduce energy consumption because maintenance costs will be lower and fewer filtration changes will be needed.

ABANDONED BUILDING ABATEMENT AND DEMOLITION

Company: United States Steel

AQD No.: 2020-11

Cost: \$300,000

Summary: US Steel will tear down the abandoned Veteran's Memorial Ice Rink/Dan Riney Hall, located in River Rouge. This includes removing and properly disposing of any asbestos, refrigerants, PCBs, and mercury. US Steel will demolish the building to the bare ground, backfill and level the site, and then plant grass seed on the bare dirt. This project will be finished by December 2021.

AIR HOUSE EFFICIENCY IMPROVEMENT PROJECT

Company: Chrysler Group LLC, at Jefferson North Assembly Plant

AQD No.: 22-2013

Cost: \$49,000

Summary: Chrysler Group installed two variable frequency drives (VFDs) on two existing air house units to deliver the correct amount of air flow to the plant floor. It was estimated that this system would reduce the amount of carbon dioxide produced through energy usage by 116 metric tons, and there would also be indirect reductions in other emissions caused by the generation of electricity.

ELECTRIC VEHICLE CHARGING STATION, ELECTRIC VEHICLE PURCHASE, LED REPLACEMENT

Company: Henry Ford Health System d/b/a Henry Ford West Bloomfield Hospital

AQD No.: 1-2013

Cost: \$313,761

Summary: This SEP included three separate projects:

1. Electric Vehicle Charging Infrastructure Solution (EV charging station): The company installed two electric vehicle charging stations at the Henry Ford West Bloomfield Hospital. The environmental benefits include the decreased use of fossil fuels in electric vehicles used by staff and visitors. The project also increases public awareness of electric vehicles. The Company was required to submit a report within 10 days of project completion, and the report included a summary of the project, vendor receipts, and photographs of the new EV charging stations.
2. Plug-In Hybrid Vehicle Purchase: The company bought a Ford Fusion hybrid plug-in vehicle to replace the 2008 Ford Escape they were using for parking lot patrol and other campus-related services. Environmental benefits include the decreased use of fossil fuels and increased public awareness of the use of electric vehicles.
3. LED replacement of existing parking lot and interior lamps: The company replaced existing metal halide parking lot lights, atrium grow lights, and general facility lighting fluorescent bulbs with more energy-efficient LED lamps. The expected environmental benefits included reducing overall energy usage because of increased energy efficiency.

The Company was required to submit a report to the AQD within 10 days of completion of each SEP, including a summary of the project, vendor receipts, and photographs of the new lighting.

FUEL SUPPLY LED LIGHTING UPGRADE

Company: DTE Electric Company

AQD No.: 26-2015

Cost: \$98,000

Summary: The company replaced inefficient lighting in the Monroe Power Plant. Around 70 inefficient lights were replaced with high-efficiency LED lights, both inside and outside of the building. The new LED lights require significantly less energy to operate compared to the old lights, resulting in lower electricity use and lower emissions. The energy savings will benefit customers of DTE Electric Company. Energy efficiency at the plant lowers the loss factor related to the Power Supply Cost Recovery (PSCR) expense charged to the customer. When energy is saved, the loss factor is lowered due to a lower percentage of energy being generated at the plant being lost to internal or “parasitic” load. The end result of energy efficiency at the plant is that the same amount of energy can be provided to the customer with less fuel consumption.

DTE was required to keep track of all accounting and also to provide the AQD periodic updates on project progress. The project was completed in the fall of 2015.

LED LIGHTING REPLACEMENT

Company: Oakwood Healthcare Inc. d/b/a Beaumont Hospital

AQD No.: 04-2018

Cost: \$120,839

Summary: Oakwood Healthcare replaced fluorescent lightbulbs with LED lamps on six levels of their hospital. The lamps were also recycled. The replacement with more energy-efficient lightbulbs will reduce overall energy use and emissions from electrical generation.

Beaumont Hospital was required to submit a status report to the AQD after the LED installation work was completed.

PUBLIC SCHOOL AND PUBLIC RECREATION CENTER LIGHTING REPLACEMENT PROJECT

Company: US Steel

Consent Decree (CD) # Case No.: 2:12-cv-304 (March 2017); First Modification of CD (April 2019)

Cost: \$500,000

Summary: US Steel removed and properly disposed of fluorescent lighting ballasts that may have contained polychlorinated biphenyls (PCBs). The company replaced the old lighting with energy-efficient, PCB-free lighting ballasts and light bulbs in public schools and public recreation centers in Detroit, River Rouge, and Ecorse. The project was completed in March 2020.

REPLACEMENT OF STREET LIGHTING

Company: Knauf Insulation Inc.

AQD No.: 2018-17

Cost: \$103,000

Summary: This project includes the replacement of existing streetlights in the City of Albion by recycling and properly disposing of the existing lights and replacing them with energy-efficient LED lights. The environmental benefits include a reduction in overall electrical demand, which reduces emissions associated with electricity generation. Knauf Insulation was required to submit a quarterly expenditure report, which included the number of completed installations, until the project is finished.

INCINERATION IMPROVEMENTS

Company: City of Flint Water Pollution Control Facility

AQD No.: 16-2005

Cost: \$796,000

Summary: This SEP included two separate projects:

1. Incineration Motor Control Center replacement: The new center gave additional control capabilities, which reduced emissions by improving overall combustion, airflow control, monitoring, and efficiency, fuel savings. There were also fewer overall emissions due to decreased auxiliary fuel requirements.
2. Feed System Improvements: The new feed system included new feed screws and hoppers for four incinerators. These improvements reduced emissions through improved overall combustion control, decreased auxiliary fuel requirements, reduced ambient air leakage, and fuel savings.

These projects allowed for overall improvements to the combustion process, which minimized process variations. At facilities operating similar equipment, a 10% reduction in gas usage and similar reduction in pollutants was seen. The City of Flint was required to provide AQD with quarterly status reports and a final report when construction was completed.

PAVING AND MACATAWA GREENWAY PROJECT

Company: Brewer Sand & Gravel

AQD No.: 21-2004

Cost: \$27,000

Summary: The Company paved all truck operations at the facility, which cut down on fugitive dust from the facility.

The Company also purchased and donated 0.20 acres of land to the Macatawa Greenway Project for the purposes of building a pedestrian bridge across the Macatawa River. The bridge will help preserve and connect green spaces, streams, and natural lands to create greenway corridors to benefit people and wildlife. The Company had to provide AQD with a copy of the title of the property in the name of Macatawa Greenway Project.

INSTALLATION OF SOLVENT RECYCLER

Company: Axium Group

AQD No.: 2019-20

Cost: \$45,500

Summary: Axium Group purchased and installed a new NexGen Enviro Systems Model DIGIT122 explosion-proof solvent recycling unit at their facility in Cassopolis. The new unit will improve the ability to recover and reuse a significant portion of the hazardous waste cleaning solvents. It will also reduce the amount of new acetone purchased for equipment cleaning, therefore reducing the transport, handling, and emissions of acetone.

PICKLE LINE COVER REPLACEMENT

Company: Severstal Dearborn, Inc.

AQD No.: 9-2010

Cost: \$205,120

Summary: Severstal Dearborn enhanced their existing pickle line covers by replacing 27 rubber-lined steel covers with 16 polypropylene covers. The new covers reduce fugitive HCL emissions by containing acid fumes more efficiently through a tighter fit, reducing thermal expansion, reducing corrosion, and reducing the number of seams from 24 to 16.

POWDERED CARBON FEED SYSTEM FOR POLLUTION CONTROL

Company: Alloy Resource Corporation

AQD No.: 31-2015

Cost: \$108,000

Summary: Alloy Resource Corporation installed and tested a carbon feed system that injects carbon into ductwork running to the baghouse filtration system at their facility in Muskegon. The carbon adsorbs or combines with other potential pollutants, which are then captured by the baghouse filters and are prevented from being released to the environment. This system allowed the company to go substantially beyond compliance with their air permit, as it captures pollutants that are not subject to the emission limits in their air permit and the laws that were violated.

The company was required to submit a report on the installation and initial testing of the system and included photographs, invoices, and a statement regarding the effectiveness and future use and optimization of the system.

REDUCTION IN USE OF OZONE-DEPLETING SUBSTANCES

Company: Kraft Foods Global, in Battle Creek

AQD No.: 29-2007

Cost: \$202,000

Summary: Kraft Foods Global purchased and installed new refrigeration units to replace their existing refrigeration units which operated with R-22, an ozone-depleting substance. The new units contain non-ozone-depleting refrigerants. The Company also sent \$50,000 to the Climate Registry, a multi-state and international non-profit that was established to develop and manage common greenhouse gas emission reporting systems for reporting entities.

REDUCTION OF DIESEL EXHAUST FINE PARTICULATE EMISSIONS AND TREE PLANTING

Company: Severstal North America

AQD No.: 6-2006

Cost: \$400,000

Summary: The SEP included three separate projects:

1. Severstal North America invested \$100,000 for the purchase and installation of Diesel Oxidation Catalysts (DOCs) to reduce emissions from school buses and reduce the exposure of school children to these emissions. DOCs can provide a 20% reduction in PM and a 50% reduction of hydrocarbons and carbon monoxide.
2. The company invested \$100,000 to install diesel emission control devices on Severstal's on-site equipment at its Dearborn facility. This was expected to reduce PM_{2.5} and PM_{2.5} precursors from the equipment.
3. The company invested \$200,000 in the planting of trees in the southern part of Dearborn, with an emphasis on areas bordering Salina Elementary and Intermediate Schools, which are next to industrial facilities.

TREE NURSERY PROJECT

Company: Sebewaing Light and Water (SLW)

AQD No.: 2018-06

Cost: \$6,720

Summary: Sebewaing Light and Water planted native trees at an area high school to create a tree nursery. The trees are managed by the Agricultural Science Department of the school and will be sold to locals. The money earned from the tree sales will help facilitate future plantings at the school. These trees will help replace those lost by invasive insects and from a strong storm in 2008.

TRIBO ELECTRIC SENSOR INSTALLATION AND MIXING AREA BIN INSTALLATION

Company: Louis Padnos Iron and Metal Company

AQD No.: 5-2012

Cost: \$58,000

Summary: This SEP consisted of two separate projects:

1. Tribo Electric Sensor Installation: the company installed five self-checking particulate monitors in the baghouse exhaust stacks at their facility. These are probe-style monitors that are placed directly in the baghouse. The environmental benefits include an immediate notification to the equipment operator if the exhaust stack particulate exceeds a certain level, which will allow issues to be detected and addressed by operators much more quickly.
2. Mixing Area Bin Installation: the company installed a 16-foot-tall bin in the raw material mixing area, next to the feed hopper at the Turnings crusher at their facility. The bin serves to contain fugitives generated during the raw material mixing process. The environmental benefits included the reduction of fugitive dust escaping the mixing area during the raw material mixing process.

Padnos was required to submit status reports.

VEGETATIVE BUFFER – MICHIGAN SUGAR

Company: Michigan Sugar

CJ No.: 17-000727-CE

Cost: \$83,500

Summary: This project includes planting a vegetative buffer along entry roads to the facility to reduce the transport of particulate matter emissions from trucks. The company planted specific trees species listed in the SEP by November 2019, replaced any dead trees by November 2020, and conducted weed control and mulching. The project was completed by December 2020.

VEGETATIVE BUFFER – US STEEL

Company: US Steel

CD # Case No.: 2:12-cv-304 (March 2017)

Cost: \$400,000

Summary: US Steel installed a roadside vegetative buffer on public land adjacent to high traffic roadways in southwest Detroit. The vegetative buffer is designed to reduce transport of particulate matter emissions from the traffic to improve downwind air quality. The project included the installation of specific species of trees, shrubs, and bushes. The project also includes maintenance such as soil amendments, mulching, fertilizer, watering, and landscape design services. The project was completed in March 2019.

VEGETATIVE BUFFER AT WOOD STREET LANDFILL

Company: Energy Developments Lansing, LLC

AQD No.: 2021-5

Cost: \$50,000

Summary: Energy Developments Lansing, LLC will plant and maintain a vegetative barrier at several areas around Wood Street Landfill in Lansing. The vegetative buffer will help to cut down on the movement of air pollution between the landfill and surrounding areas and will also add wildlife habitat. Planting will begin by May 1, 2021 and will include fertilizer and watering. Any parts of the vegetative buffer that do not survive the initial planting will be replaced by September 30, 2022.

Michigan's Environmental Justice Policy promotes the fair, non-discriminatory treatment and meaningful involvement of Michigan's residents regarding the development, implementation, and enforcement of environmental laws, regulations, and policies by this state. Fair, non-discriminatory treatment intends that no group of people, including racial, ethnic, or low-income populations, will bear a disproportionately greater burden resulting from environmental laws, regulations, policies, and decision-making.

Meaningful involvement of residents ensures an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health.

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