Awards for Excellence in Environmental, Health, Safety & Security Performance

Ashland Hilliard
Hilliard, Ohio

Health and Safety Performance
In an effort to reduce the ergonomic strain on employees, the Atlas St. facility made upgrades to various processes that had presented a potential for causing musculoskeletal injuries to employees. To correct the issues in pail packaging; an automatic pail filler has been installed, which fills the pails to a specific weight, then moves the pails along on rollers to a self-leveling pallet stand, eliminating the majority of the manual handling of the pails. This has eliminated the need for operators to manually roll drums in packaging situations. To eliminate the ergonomic risk, as well as reduce the possibility of chemical exposure, an auto scaling system has also been set up to the reactor where product is made. The charge is now fully automated, and eliminates the need to double handle sulfuric acid and the need to move these drums.

BASF Corporation
Greenville, Ohio

Health and Safety Performance
The Greenville, OH facility has implemented over 100 LED lighting fixtures throughout their production and warehouse areas. These fixtures are serving two improvements for the site:
1. The quality of light is much brighter and provides a much safer working and walking area throughout the site.
2. The energy efficiency is approximately more that 70% less than the older incandescent fixtures they had in place.

BASF Greenville’s goal is to supply a safe working environment for their employees as well as reduce energy consumption where possible. The lighting improvement project helped them achieve improvements in both areas. By upgrading the lighting fixtures, the BASF Greenville facility has made their employees happy and increased workflow throughout the plant.
Health and Safety Performance

New Employee Onboarding Program –
New employee training at the BASF Elyria, OH, facility did not meet the needs of the newly hired chemical processors at the facility. The site leadership team empowered the behavioral safety process facilitator to improve the training program and dedicated the necessary resources required for his solution. The behavioral safety process facilitator identified the plant operations associated with the entry-level jobs in the plant. He built the training modules for the two most complex entry-level jobs in the plant. The first week of onboarding includes both classroom and in-the-field one-on-one training with subject matter experts. The following two weeks has the new employee working side-by-side with the behavioral safety facilitator to learn how to safely conduct all tasks related to the first module. For the next month, the new employee is assigned a mentor and works alongside with him or her on the job related to the first module. Upon completion of the first module, a review is conducted by the behavioral safety facilitator with the new employee to ensure firm understanding. Then, the new employee spends the next two weeks with the behavioral safety facilitator to learn the second module, followed by a second month of mentoring in the field and confirmation of understanding. This new process has transformed the new employee onboarding process from an unsustainable program, to a well-planned, fully resourced process that sets the BASF Elyria new employees up for success. The new program was identified and shared as a best practice across the entire BASF North America safety organization.

Lock, Tag and Try Training –
The site leadership team tasked the behavioral safety facilitators with reformatting the LTT training to be more effective for the employees. The behavioral safety facilitators designed their training to utilize the adult learning theory. The new LTT training is now an 8-hour, facilitator-led, small group class. The trainees learn about LTT together by reading aloud from the OSHA regulations, BASF Corporate requirements and site-specific procedures. During the training, the small group of employees solve real LTT scenarios which occur at the BASF Elyria plant. During the training, the trainees get hands-on experience by going into the plant and isolating the energy for a process. The employees follow the steps of an equipment specific hazardous energy control procedure and applying locks to various isolation devices. In 2019, the newly developed LTT training was delivered to over 150 employees, for a site total of 1200 hours in training. Since concluding the training, BASF Elyria has worked 10 months without an LTT At- Risk behavior noted during an employee safety observation.
BASF Corporation
Whitehouse, Ohio

Health and Safety Performance
In 2019, the BASF Whitehouse, OH, facility Site Leadership Team and Site Services met to review potential health and safety risks at the site. Through several strategy sessions, the team decided to address concerns with our Solvent Vaults, ease of access to safety supplies, and our Shipping and Receiving area. A review of the facility's Solvent Vaults identified issues with chemical storage, dispensing, lighting levels, and general housekeeping. A project team developed a plan to upgrade the Solvent Vaults; spending approximately $35K to complete numerous tasks.

In 2019, Whitehouse site leadership identified the need to improve safe work practices. The goal was to improve the visibility of our safety programs and improve employee access to safety supplies. It was determined that the process of acquiring needed safety supplies and PPE was time consuming and there were no standard storage locations. Site Services eliminated old safety supply storage locations and installed three new Safety Centers to consolidate safety supply. The Safety Centers are equipped with card readers that allow employees to easily access supplies with their employee badge and aids in inventory control.

In 2019, Site Services worked to improve its Shipping and Receiving area. The primary focus was workflow, health, safety, and ergonomics in the Shipping and Receiving area. New workstations were setup to provide an ergonomic work area with needed storage and working surfaces. A packaging station was installed to consolidate packaging supplies, provide proper packaging equipment/tools, and provide an ergonomic work area. An HVAC cooling system was installed to improve working conditions in the area during summer months. The approximate project cost was $45K.

In 2019, the Whitehouse site continued their strong safety record with no recordable incidents and a total of 21 years with zero hours of lost time related to worker injuries.

DuPont de Nemours, Inc.
West Alexandria, Ohio

Health and Safety Performance
In 2019, as part of the merger and spin-off of DowDuPont, Inc. into 3 separate companies, the West Alexandria facility transitioned from a legacy Dow plant to become a new DuPont plant. This change included decommissioning some assets, a reduction in headcount, and new or modified roles for several employees. Throughout this period of transition and transformation, the site achieved exemplary EH&S performance and did this through employee commitment at all levels. The DuPont West
Alexandria facility accomplished Zero OSHA recordable injuries, Zero process safety incidents, and Zero reportable spills. The site realized this achievement through a combination of programs and activities which align and support the organization’s overall Core Values. The facility would like to highlight 3 activities that exemplified their sustained commitment and EHS excellence in 2019:

Fall Protection - New fall protection equipment, including fixed ladder access and guardrail systems were installed on Buildings 6 & 8 to facilitate safe operation and maintenance of our rooftop HVAC equipment. This not only protects our employees from potential fall hazards, but also our external contractors in accordance with OSHA’s new General Industry Walking-Working Surfaces and Fall Protection standards (1910.22) and DuPont’s internal safety standards.

Process Safety Management – As part of our DuPont integration activities, we reviewed our PSM program against new internal and external requirements. We performed assessments to verify compliance in several high potential categories, including Fire Protection, Distribution Safety, Emergency Response, Process Safety Information, and Pressure Relief Devices.

Contractor Safety – In response to several incidents across the corporation, the plant improved its contractor safety program. We invited contractors to attend the plant’s monthly safety meetings, communicated 1-page summaries of DuPont incidents involving contractors, and began providing DuPont Contractor Safety Handbooks and Hand Safety Books to construction contractors.

Fort Amanda Specialties
Lima, Ohio

Health and Safety Performance
The Behavior Based Safety team at Fort Amanda Specialties is called CBT (Changing Behaviors Together). This shop floor ownership, coupled with exceptional management support, both financially and by example, has created a very successful safety culture at the Lima site.

In 2016, the Company and the Union agreed to invest in a position that resulted in a Union member fulfilling 3 main roles, including being the Facilitator of the Behavior Based Safety Committee. This allowed for several benefits including: prep time to conduct more organized meetings, day to day maintenance and support for the observation process, timely follow-up on barriers and other actions, and more detailed reporting and communication of observation data. The site also established a written policy to direct the observation strategy, communication, roles and responsibilities, barrier removal process and annual goals. Another important contributor the site’s
success is utilizing “Best Practice” visits. During these visits, a portion of the committee attends another site’s monthly meeting. The group discusses best practices, both safety and production related.

In 2018 the site exceeded their target for observations at 138% (1092 completed-792 scheduled). Even more importantly, of the 473 risks that were observed, observees/observers immediately took care of over half of them (247). In 2019, the site completed 1024 of the 768 observations scheduled. Immediate mitigation of at-risk behaviors/conditions continued to improve as the site resolved 59% (284/479) of the at-risks that were observed on the spot.

GFS Chemicals
Columbus, Ohio

Health and Safety Performance
In an effort to develop training at the GFS Chemicals Columbus site, the facility focused on specific training paths for employees in their first 90 days of employment. Each job title at the facility was entered into a complex matrix which cross-references each job title with companywide SOPs, department specific SOPs, and regulatory and safety topics on which they must receive training. The corporate training manager conducted dozens of meetings with corporate quality assurance, EHS&S, division management, and department supervisors to determine needs for each job title across the company. As part of this matrix, training on each topic in the categories mentioned above is examined and given a notation on how the material will be best delivered. There are four designations for training media: OL, IL, RA, SS.

OL is an online training that will be delivered through the company LMS, complete with audio/video support and competency questions built in. IL is an instructor led lecture-style training. RA training is a document that is delivered via LMS and must be read and acknowledged by the employee. SS training is very department and process specific. This style of training requires the new employee to be ‘shoulder-to-shoulder’ with their departmental trainer. After each training module was given its delivery designation, a critical time frame was assigned to each module.

By creating this matrix, a new hire enters the company with specific path to proficiency. A new hire will have all LMS based courses pre-loaded and will receive a “New Hire Playbook” at the end of their New Employee Orientation. Each critical time window has scheduled trainings, with all associated materials printed and dated, attached. Departmental supervisors and trainers will have all needed materials with a predetermined time frame to
aid them in training a new employee; making them a contributing team member as soon as possible.

Husky Energy Lima Refinery
Lima, Ohio

Environmental Performance
For several years, Husky Lima Refinery has planned and worked towards a significant capital upgrade called the Crude Oil Flexibility Project. The project upgrades existing refinery infrastructure to process up to 25 percent heavy crude oil. This gives the refinery flexibility to run various crude stocks and flexibility in products that can be produced. One of the challenges refining heavy crude is addressing impurities, including the element Selenium. Husky Lima Refinery’s response was a new water re-use unit that has drastically reduced the facility’s use of raw water and outfall to the Ottawa River.

The refinery’s Water Re-Use process removes Selenium by reverse osmosis. Many refineries across the country use reverse osmosis to remove impurities from water before it is discharged, but few recycle the water. The refinery will now be an intermittent discharger to the Ottawa River, discharging only a fraction of the wastewater previously sent to the river. The refinery was a significant consumer of groundwater and purchased city reservoir water, however this project reduces raw water consumption by approximately 83 percent, conserving natural resources. The net effect is that the refinery will reduce it’s discharge volume and pollutant load to the Ottawa River, while maintaining discharge limits that are protective of the river ecosystem.

Heritage Thermal Services
East Liverpool, Ohio

Environmental Performance
Each year, Heritage Thermal Services hosts a household hazardous waste (HHW) collection event at it’s East Liverpool facility. This year’s event took place on April 27 where they provided free collection of HHW and old electronics. During the four-hour free event, active environmentalists unloaded and packed for recycling or proper disposal 19.8 tons of wastes that could have been poured down the drain or tossed in the trash. This year’s volume brings the total amount collected since the program began in 1997 to 248.8 tons.

During the collection, Heritage Thermal Services awarded $7,450 to 16 non-profit and school groups to help fund their respective environmental projects. They are to be commended for their efforts to make the community cleaner and greener. Since the site began the environmental grant program in 1998, local non-profits have received a total of $101,200.
Health and Safety Performance
Jones-Hamilton Company’s Ohio facility is continually striving for EHS improvement. In 2019, the company took on two new initiatives, implementing a department specific EHS monthly audit program and starting a cross-functional safety team. These initiatives assure performance above and beyond regulatory compliance and support their strong commitment to safety, security and the environment.

Throughout the year, identified trends from the new monthly audits were used to prioritize corrective actions. The audits include behavior-based safety observations, environmental compliance reviews, and security. The audits proved to be useful tool for management to identify areas where re-training was needed, and correct safety or other compliance concerns with their department.

In addition, a cross-functional safety team was started in 2019 to improve internal communication on safety concerns. The team’s monthly review includes addressing unsafe behavior findings and investigating recent incidents such as near misses, spills, and injury reports. The team meetings offered a time and place for dialogue with management and other department employees on the current safety concerns and other important issues affecting them. The improved communications led to additional advances in the safety program in 2019 including the addition of blue backup lights for facility forklifts and the implementation of a high dexterity heat-resistant glove for work involving flanges, nuts and bolts above 350°F. These initiatives supported their achievement of over seven years with no lost time related work injuries from a contractor or employee in Walbridge, Ohio.

The Lubrizol Corporation
Avon Lake, Ohio

Health and Safety Performance
During the 2019 planning session (in 2018), the Lubrizol facility focused on step change improvements in the employee safety council and involvement. The facility developed a new approach to the employee safety council by creating the Safety Through Employee Participation (STEP) program.

During 2019, the new STEP approach, as it became known, raised operator participation from 6% to 25%. This was driven by empowering operators to make an impact in an area they were passionate about. Operators were given an opportunity to select which area of the plant they would like to focus on. These areas included Job Safety Analysis, Piping and Instrumentation Diagrams (P&IDs) reviews, Procedure Development and New Employee
Training. Upon joining, operators received formal training in those areas and were given guidelines and objectives with broad autonomy to execute.

The STEP program resulted in many key improvements, including Job Safety Analysis’ (JSAs) across the entire spectrum of the plant. Several employees began P&ID reviews and updates, with one department getting nearly 100% of the P&IDs reviewed and updated. Additionally, operators identified gaps in new employee introductory training. The STEP team took action, led by a specific operator who volunteered to conduct additional training for new employees to close those gaps. STEP members elevated the safety awareness in the plant, as well. Several operators took ownership of identifying and developing risk reduction measures, while others were intimately involved in the overhaul of the plant’s Lock Out Tag Out program and the development of a new Working From Heights Program.

The STEP program has demonstrated a marked improvement over past Employee Safety Councils. The 19% participation improvement has allowed a more comprehensive, higher level of impact to the plant’s safety, quality and efficiency. The new program offers leadership opportunities for employees to have a significantly higher impact than ever before, and these STEP improvements are consistent with the Responsible Care Management program.

McGea
Cleveland, Ohio

A worst-case scenario, table top exercise drill occurred at McGea in 2019. Managers and engineers went over layout of McGea’s facility and potential hazards of the facility with attendees consisting of the County’s hazmat team, two local fire departments, local police department representatives, and Sewer District representatives. Managers and engineers discussed McGea’s idea of a worst-case scenario incident with attendees. Following McGea’s presentation, the Fire Lieutenant and Hazmat Team leader discussed a response to the site’s worst-case scenario with the attendees.

After the presentation, the attendees were given a tour of the facility to get familiar with the layout, the hazards, and key response locations in the event of the facility’s worst-case scenario. McGea handles a lot of different hazardous chemicals and has a confusing layout. This meeting allowed the local response teams and key personnel to become familiar with the facility limiting the amount of confusion during a worst-case scenario or any incident.
Nutrien
Lima, Ohio

Environmental Performance
Nutrient pollution into surface water has been a high priority environmental issue nationwide, but especially phosphorus pollution into the Lake Erie watershed. The Nutrien Lima Nitrogen facility decided to investigate if the total phosphorus discharged from their NPDES permitted outfall could be reduced. The Lima Nitrogen facility does not produce phosphorus-containing products, but does use phosphorus in certain water treatment chemicals, such as corrosion inhibitors for cooling water. Cooling water is used to cool our process fluids and equipment throughout the plant. Phosphates have long been one of the most commonly used chemicals to prevent corrosion in water pipelines. For example, many municipalities add phosphates to condition their water to prevent metals, such as lead, from leaching into the water due to corrosion. The use of corrosion inhibitors in the site’s cooling water prolongs the life of plant piping and equipment and also helps prevent fouling of heat exchangers which allows for more efficient and less energy intensive heat transfer.

The Nutrien Lima Nitrogen facility partnered with ChemTreat to pilot using a variety of new water treatment chemicals that did not contain phosphorus or only contained small amounts of phosphorus. The new water treatment chemicals were approved by Ohio EPA, and the facility has had no issues with maintaining compliance with their NPDES permit. The new water treatment chemicals have performed just as well as their legacy counterparts, but the phosphorus discharged from the facility has been reduced by approximately 75% to 0.26mg/L.

Nutrien
Lima, Ohio

Health and Safety Performance
For several years prior to 2019, the area near the Nutrien plant had a rash of suicides by young people, several of those deaths directly impacted members of the Nutrien family of employees and contractors. Those families suffered noticeably from those tragic events. It became obvious that those people needed some assistance.

The Nutrien Lima Nitrogen SHE staff worked with local experts to set up and conduct 5 mental health first aid classes that were attended by 83 people working for or at Nutrien. The program was written by the National Council for Behavior Health. 3 presenters from a local agency, PASS (Prevention Awareness Support Services) coordinated the program.
The classes provided the participants knowledge about the warning signs, behavioral cues and situational events that could trigger a suicide attempt. It also provided attendees with tools to help the affected individuals and links to numerous resources to connect them with the help they needed. This series of classes were very well received by the attendees and we are preparing to continue the mental health program in 2020.

**Nutrien**

_Lima, Ohio_

**Security Performance**

Shortly after the terrorist attacks of September 11, 2001, the Allen County commissioners established by a resolution, the Lima Area Security and Emergency Response (LASER) group. The group met weekly for the first six months and was comprised of plant managers and senior law enforcement and public safety officials. LASER is the principle enabler for the cooperation between government agencies, at all levels, and critical private sector industrial facilities. The Nutrien Lima Nitrogen plant has been an active participant in this group since its inception.

The LASER meetings are a forum for sharing sensitive information, has received national recognition and received the “Partnership in Preparedness Award” in 2005 from the International Association of Emergency Managers and was recognized by two Ohio governors (Taft, Kasich) and three Secretaries of Homeland Security (Ridge, Chertoff, Johnson) as a “best practice” for public private partnerships.

Benefits of the partnership are shared resources, development and application of consistent standards, networking at senior most levels, shared intelligence, understanding and response to community concerns, unified response and preparedness and joint training and exercises.

**PPG**

_Barberton, Ohio_

**Health and Safety Performance**

By the middle of May 2019, the PPG Barberton site had experienced EHS performance that internally would not be considered world-class. There was an observable uptick in incidents, which included both injuries as well as non-agency reported spills. The site underwent a journey in transformation by training all of its employees on Human and Organizational Performance (HOP). This methodology shows the basic concepts of human error prevention, including modes of performance, traps and triggers. HOP teaches the modes of performance (skill based, rule based and knowledge based) to predict when an error is more likely to occur and aids in the recognition of individual error traps that are present both at work and away. Finally it
prescribes prevention tools that can be used to reduce the likelihood of error traps from occurring.

Since the roll out and training of HOP for the site, PPG has experienced a 58% reduction in the injury rates for the Barberton team while also experiencing a 29% reduction in captured spills. As HOP becomes more integrated into the PPG Barberton’s mode of operations, the expectation is that both of these performance indicators will continue to be driven to much lower numbers than where 2019 ended.

PPG
Huron, Ohio

Environmental Performance
The PPG Architectural Finishes Plant located in Huron, OH (PPG Huron) began replacing the dust collector at Latex Paint Production Plant in December 2018. The previous dust collector accumulated dust in a hopper. PPG Huron would periodically order a rental roll off container when necessary levels were reached to empty the dust collector. The previous dust collector held approximately 14-16 super sacks (~588 ft³) of dust before needing emptied. Due to the quantity of super sacks generated at a single time, PPG Huron was not able to accommodate the usage of the spent dust.

The dust collected and disposed of in a roll off container required a waste profile to be established through the Erie County landfill. The waste stream required that a Toxicity Characteristic Leaching Procedure (TCLP) analysis be conducted on a 3-year cycle. These environmental requirements had to be managed when using the old dust collector with the previous process. The new dust collector empties automatically into a single super sack rather than requiring manual intervention to empty the hopper in a single event. This allows PPG Huron to reclaim the dust and reuse it in the production process. Sixty-nine (69.28) tons of dust collector waste was sent to landfill in 2018. PPG Huron effectively eliminated this entire waste stream in 2019 and sent zero (0) tons of dust collector dust to the Erie County Landfill. This reduced total non-hazardous waste sent off-site by 9%. All dust generated over the course of 2019 and moving forward replaces virgin calcined kaolin clay as a raw material used in the production process. In total, this project yields annual net savings of $23,769 in waste disposal fees, raw materials, and labor and furthers PPG’s sustainability goals in attaining zero waste.
United Initiators
Elyria, Ohio

Health and Safety Performance
In 2019 the United Initiators, Inc. site in Elyria worked the entire calendar year without a recordable injury or lost time accident. This is something that has not been achieved in the last 20 year. The is achievement is a direct result in emphasis being put on conducting Behavior Based Safety Observations through the existing Job Safety Observation Program. In 2019, a total of 1,403 safety observations were completed with 703 of these observations including a behavior-based element. Additionally, a total of 76 near misses were identified during the year. The emphasized focus on these programs directly contributed health and safety performance success in 2019.