



Community 2020 Update

To our Pine Bend community

This year marked the 65th anniversary of the founding of the Pine Bend refinery. As our neighbors know, Pine Bend has been in a constant state of transformation since it was established in 1955. This was especially true in 2020 as we ushered in new technologies that allow us to produce more of the products people in Minnesota and across the region depend on while continuing to reduce emissions and improving the efficiency of our operations. Today, Pine Bend remains among the safest and most efficient refineries in the United States, and it continues to improve.

We also faced an unprecedented challenge this year; a global pandemic. From the onset of the COVID-19 crisis, we moved swiftly to implement safety measures to protect our employees and maintain the continuity of our operations. These efforts and the resiliency of our employees have allowed us to supply the fuels that have helped keep critical supply chains moving throughout the pandemic.

In addition to the fuels we produce, the COVID-19 fight has placed newfound importance on a number of other products refineries like ours make, including propylene. This chemical building block is used to make everything from the containers that help keep medicines and vaccines safe and at the proper temperature, to the packaging for cleaning products, and even hand sanitizer pumps and other products people need and use every day.

Apart from our operations, we've also been focused on our community and doing what we can to help people get through these difficult times. We donated all of our surplus personal protective equipment (PPE) to frontline medical workers, we've provided much-needed support to area food shelves and we converted many of our educational partnerships to virtual platforms to help meet the need for quality online educational programming.

This year has been a year like no other in Pine Bend's 65-year history. Despite the challenges, we accomplished a lot and we remain optimistic about the future.

A handwritten signature in black ink, appearing to read 'Geoff Glasrud'.

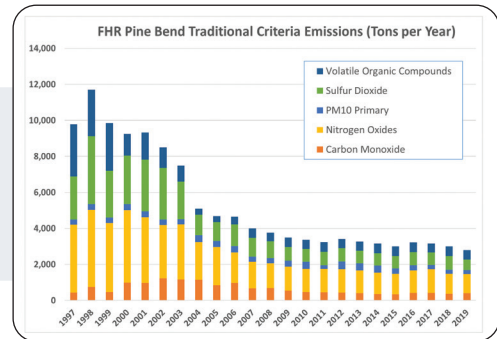
Geoff Glasrud
Vice president and manufacturing manager
Flint Hills Resources Pine Bend

Environment, health and safety

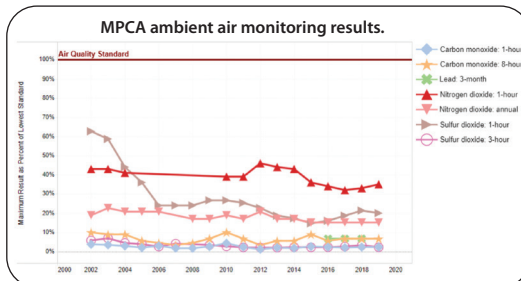
Environmental performance at-a-glance

1 In the past five years, Pine Bend has improved its energy efficiency by 10%, advancing it into the top quartile of all U.S. refineries.

2 Since 1997, the refinery has reduced traditional criteria air emissions by approximately 70% while increasing production to meet demand.

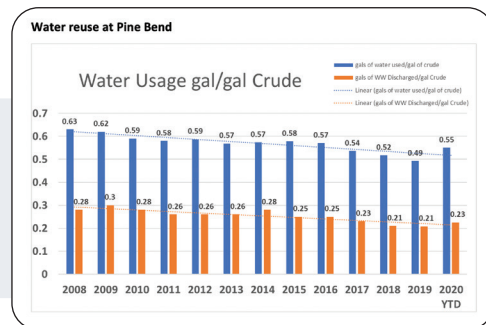


3 The Minnesota Pollution Control Agency (MPCA) maintains a statewide network of air quality monitors, including three air quality monitors around the refinery. These monitors show that air quality around the refinery remains well within federal clean air standards. To learn more, visit www.pca.state.mn.us/air/minnesota-air-monitoring-sites.



As shown, pollutant levels near the refinery have consistently measured far below the air quality standard. Results that are less than or equal to 100% meet the standard. Results greater than 100% do not meet the standard.

4 In 2020, Pine Bend improved the recovery and reuse of water by 40% from 2018 in order to return approximately 700,000 gallons per day of treated effluent to be used in our steam system.

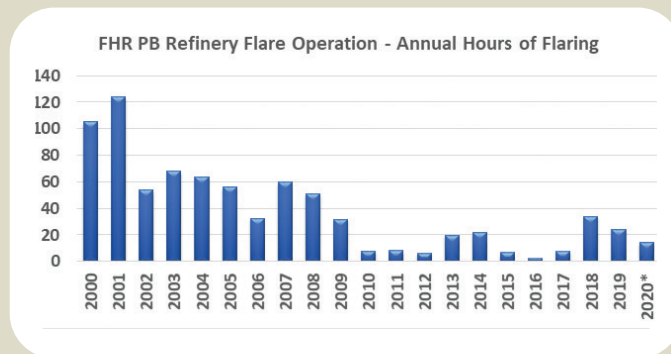
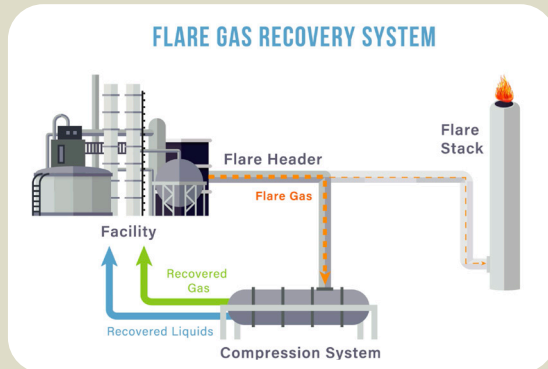


EPA administrator visits Pine Bend

In September, U.S. Environmental Protection Agency (EPA) Administrator Andrew Wheeler toured Pine Bend refinery and learned about the refinery's latest innovations and efforts to minimize emissions.



Learn more about flaring



Those who drive past the refinery may occasionally see flames coming out of certain stacks. They're called flares and they are part of the refinery's safety system. Flares help stabilize the refinery when there is an unplanned event such as a loss of power that causes a unit to shut down. The flare is a way to vent the excess gases that are in the process units, allowing the units to shut down safely. Pine Bend works to minimize flaring through automated equipment monitoring to improve response times and the use of flare gas recovery systems.

Pine Bend refinery earns 2020 EPA ENERGY STAR® certification

Flint Hills Resources Pine Bend refinery earned the U.S. Environmental Protection Agency's (EPA's) ENERGY STAR® certification in 2020. This certification signifies that the refinery performs in the top 25% of similar facilities nationwide for energy efficiency and meets strict energy efficiency performance levels set by the EPA. Pine Bend's new technologies and energy efficiency efforts, such as a new cooling tower and combined heat and power system, have contributed to reducing energy consumption.



The Manufacturing Institute honors Wendy Wildenberg

The Manufacturing Institute named Flint Hills Resources chemical engineer and technical leader Wendy Wildenberg as an honoree of the 2020 STEP Ahead Awards. This national program, created in 2012, recognizes women in the manufacturing industry who are making a difference through advocacy, mentorship, engagement, promotion and leadership.

Our operations

New technologies online

2020 was the first full year of operation for the refinery's combined heat and power system, which satisfies approximately 40% of the refinery's power needs. Another new technology under its first full year of operation is our ammonium thiosulfate unit, which captures sulfur, a traditional source of air pollution in fuel, and converts it into a liquid fertilizer that benefits area farmers. Other new technologies and improvements include a cooling tower that reduces energy consumption and saves more than 15 million gallons of water per year, and a new and more efficient process unit heater that lowered the refinery's overall NOx emissions by nearly 150 tons per year or 13%.



Located across highway 52 from the Pine Bend refinery is our ammonium thiosulfate terminal where liquid fertilizer is loaded into trucks and rail cars to be distributed to area farmers.



Pine Bend combined heat and power system.

Flint Hills is using technology to help identify potential flare sources by placing external temperature and acoustic sensors on flare lines which results in improved response times.



Wescott pipeline complete

Flint Hills Resources recently completed a new propane pipeline to connect the refinery to the Wescott terminal, a propane storage facility near Cliff Road and Highway 3 in Inver Grove Heights, just a few miles from the refinery. This facility and the improved pipeline connection to the refinery allows Flint Hills to better meet seasonal demand for propane, especially in winter months.



Launch of new leak detection technology

As part of our efforts to continually transform and improve operations, Flint Hills Resources has partnered with Molex to launch a first-of-its-kind digital approach to leak detection at industrial facilities. Leak detection and repair is the process of surveying, identifying and repairing vapor leaks at industrial facilities. It is traditionally a labor-intensive process that requires carefully collecting, analyzing and transferring high volumes of data for regulatory reporting. The Molex system employs a network of sensors combined with data analytics for early identification of potential leaks. This transformational digital monitoring system has the potential to reduce costs, enhance safety and reduce emissions at a typical refinery or chemical facility by as much as 70 tons per year.

Our response to COVID-19

At the onset of the COVID-19 pandemic, Flint Hills Resources rapidly adjusted our operations and implemented additional safety procedures to adapt to changing circumstances. These extra measures protect the health and safety of our workforce and our communities while maintaining critical supply chains and continuing to meet market demands for our products during these challenging times.

COVID/SMART

Protecting our workforce

At the Pine Bend refinery, we have taken steps to keep our employees and contractors safe and healthy. Our facility has a customized COVID-19 safety plan which includes hands-free access, self-health assessments, temporary barriers, physical distancing and engineered controls, staggered shifts, face coverings, and working remotely. Visit fhrCOVID19response.com to find the refinery's full safety plan.



FROM NORTHERN MINNESOTA TO SOUTH TEXAS, Flint Hills Resources has donated surplus personal protective equipment (PPE) to medical professionals on the front lines of the COVID-19 crisis. **Thank you to those who work hard each day to keep our communities safe.**



Helping those in need

In response to COVID-19, Flint Hills facilities across the country have come together to help people in need. In Minnesota, in addition to donating PPE, we provided more than \$20,000 in gas station gift cards to Second Harvest Heartland to help the food bank distribute emergency meals to Minnesotans. Flint Hills also repurposed much of our original STEM education programming funds to help create virtual learning programs for kids.

Community

Community partnerships go virtual

As our longtime community partners navigate the COVID-19 pandemic, many of our community activities went virtual in 2020. The Flint Hills Family Festival presented by the Ordway Center for the Performing Arts was poised to celebrate its 20th anniversary this year. The Ordway found a creative way to keep this tradition going through a virtual festival. The Virtual School Week – free for teachers, students and families – was held in May, and the Virtual Family Day – free for everyone – was held in August. These events included arts and education activities for people to enjoy from the comforts and safety of their own homes. The celebration of the 20th anniversary is postponed until 2021.



The Flint Hills Virtual Family Festival logo is at the top left, with the text 'FLINT HILLS Virtual family festival' and 'PRESENTED BY ORDWAY'. To the right is the text 'FEATURED ARTISTS' and the website 'flinthillsfestival.ordway.org'. Below are six circular portraits of featured artists with their names underneath:

- DJ Digie
- Dan & Claudia Zanes
- Suchi Sairam
- The Spread Sunshine Gang
- Andy Kust
- David Darrow



The ZOOMS STEM Design Challenge presented by Flint Hills Resources is a yearlong educational experience for students to solve real-world zoo problems. Students were preparing to exhibit their design solutions for this year's challenge – updating the Tropics Trail nocturnal hallway exhibit space and enriching the two visually impaired Hawaiian Monk Seals found in Discovery Bay – in March. A record 5,000 students, 66 schools and 104 teachers took on this challenge and the winning projects for each grade level were recognized virtually. The program continues for the 2020-21 school year with students tasked with creating an enrichment for the zoo's beloved red panda, Min. The Minnesota Zoo recently received top honors from the Association of Zoos and Aquariums for its ZOOMS education program. Flint Hills became the title sponsor of this innovative program in 2018.

Flint Hills supports bright futures through Discovery Scholarships

In 2020, 22 students from 11 schools in Dakota and Washington counties were awarded Discovery Scholarships from Flint Hills Resources. Since 1991, Flint Hills' Discovery Scholarships have helped advance the academic careers of more than 520 area students by awarding more than \$1 million in total scholarships. These annual scholarships are given to college or technical school-bound high school students.

... awarding more than **\$1 million** in total scholarships.



Project CAR fixes polluting vehicles

Flint Hills Resources is a proud funder of the recently launched Project CAR (Clean Air Repairs), which helps fix some of the most polluting vehicles on Minnesota roads. It is estimated that just 25% of passenger vehicles cause 90% of air pollution from vehicles. Led by our longtime partner Environmental Initiative, this program works to clean up these cars. Partner auto repair garages identify vehicles with outdated or broken emission controls or exhaust systems and encourage income-eligible drivers to have repairs made at low or no cost. Project CAR is the first program of its kind in Minnesota. Visit environmental-initiative.org/work/project-clean-air-repairs/ to learn more.

Conservation programs recognized by Wildlife Habitat Council

For our demonstrated commitment to environmental stewardship, Flint Hills Resources has achieved the Wildlife Habitat Council's (WHC) Silver Conservation Certification. WHC promotes and certifies habitat conservation and management on corporate lands through partnerships and education. Specifically, Flint Hills is working in four project areas: Avian (birds), Forest, Grassland and Pollinators.

Our pollinator work includes the discovery of a rare, federally endangered bee species at the Pine Bend Bluffs Natural Area: the rusty patched bumble bee. For the second consecutive year, a lone male of the species was discovered in the Pine Bend Bluffs Natural Area, where Flint Hills has partnered with Friends of the Mississippi River to restore hundreds of acres of natural prairie and oak savanna. The pollinator has since been spotted again, along with 113 different species of songbirds and waterfowl. Learn how you can contribute to pollinator habitats and continue our progress toward restoring these populations with some helpful tips from the Minnesota Pollution Control Agency at: www.pca.state.mn.us/featured/bring-back-pollinators.



Pine Bend illuminated

Curious about the number of lights it takes to illuminate the Pine Bend refinery at night? We recently received an inquiry from Elizabeth, age 6, and Drew, age 3, about the number of lights on the outside of the refinery. The refinery has many thousands of lights both indoors and outdoors. The outside lights are used to help maintain a safe working environment for our employees. As a 24-hour, seven-days-a-week operation, it's important for our employees and contractors to be able to see where they are going at all hours of the day. Recently, more than 18,000 of the refinery's lights were replaced with high-efficiency LED lighting to help reduce energy consumption.

More Pine Bend resources

COMMUNITY ADVISORY COUNCIL
TO FLINT HILLS RESOURCES PINE BEND REFINERY



Community Advisory Council

If you live near Pine Bend and are looking for ways to learn more about the refinery, consider applying to join the Community Advisory Council (CAC) to the Flint Hills Resources Pine Bend refinery. Operating independently of the refinery, the CAC provides community members with an opportunity to discuss and make recommendations to the company regarding environmental, safety and other topics of interest. The Council includes up to 20 community members, as well as two voting members and one non-voting member from Flint Hills Resources. Members serve three-year terms. There are currently open positions. To learn more and apply, visit: flinthillscac.org.



Dakota County neighbors: Sign up for community alerts

Dakota County maintains a community notification system that provides emergency alerts and other important community news. The system provides time-sensitive messages using your preferred communication method, including email, text message, or home and mobile phone numbers. Flint Hills Resources encourages its neighbors to sign up for these community alerts at mn-dcc.org/community-notification.

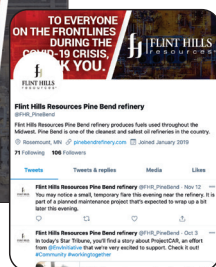
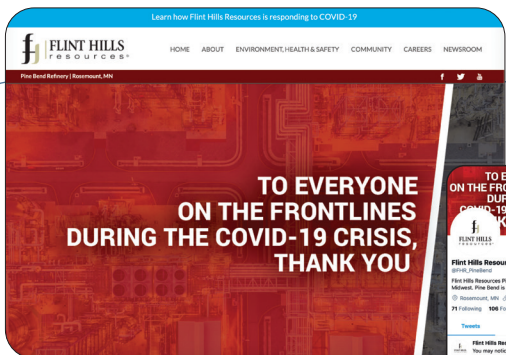
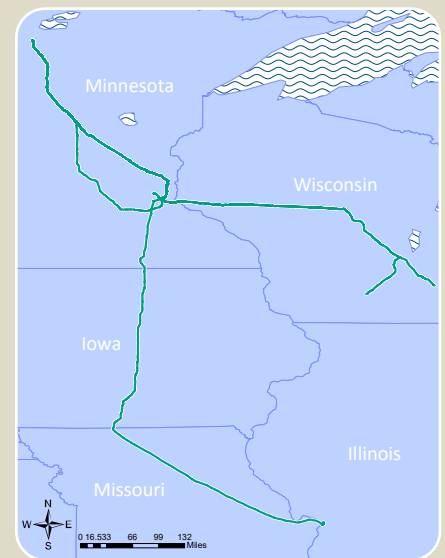


Call before you dig!

Starting a new home project? Be sure to call 811 and identify potential hazards before you dig. Hitting a buried utility line can cause injury or death. Play it safe by calling before you dig.



Flint Hills Resources northern tier pipeline system



Find us online!

Flint Hills Resources Pine Bend refinery is on Facebook and Twitter! For the most up-to-date information about Flint Hills Resources Pine Bend refinery, visit PineBendRefinery.com. You can also visit fhrcovid19response.com for specific COVID-19 updates.



Facebook.com/FHRPineBend



Twitter.com/FHR_PineBend