

HF Insider

The Latest News and Resources for
Honeywell Hydrofluoric Acid Customers



Fall/Winter 2018

Welcome to the 2018 Fall/Winter edition of the *HF Insider*, our newsletter dedicated to hydrofluoric acid (HF). In this edition, we'll introduce you to Thomas VanDiver Jr., a veteran driver with nearly 30 years of Honeywell experience. Other topics include an HF industry update that addresses issues impacting raw materials and transportation, as well as rules and regulations. We are also excited to share our progress with Augmented Reality training that was recently trialed by some of our customers. We're hoping you'll give us topic ideas for the 2019 HF Roundtable to be held in San Francisco in June, and we'll provide 2019 HF training dates. Finally, I was recently honored with the Honeywell Chairman's Award for an effort by our team to help prevent a shutdown at a customer's refinery. We'll tell you a little more about it since we are proud that Honeywell recognizes employees for contributions to customer service excellence.

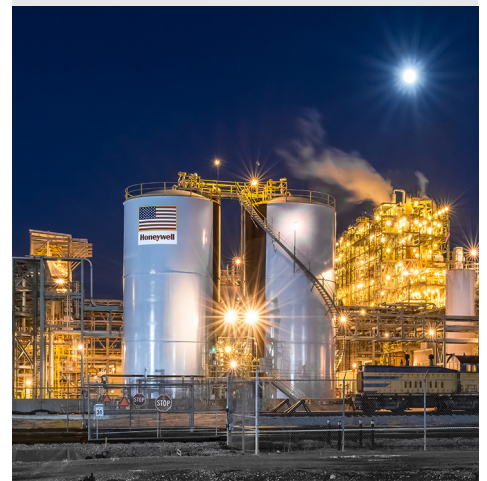
If you have improvement suggestions or topics you'd like us to cover in future editions, please let us know.

Thank you and enjoy!

Cheryl Wilkinson

Technical Services Manager, Industrial Fluorines

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MEET THOMAS VANDIVER JR. - VETERAN HF DRIVER AND TRAINER

Thomas VanDiver Jr., or “VanDiver” as he is affectionately known to his colleagues, is a veteran Honeywell employee responsible for HF transportation. Given his experience, VanDiver now serves as a driver trainer full-time. He instructs all new drivers on how to deliver HF per Honeywell policies and procedures. He recently shared the following:

How long have you been a Honeywell driver?

I have been a driver for Honeywell for 29 and a half years.

What do you enjoy about being a driver for the HF business? I take great pride in transporting HF in a safe manner.

What are your main priorities? My main priority is to represent our company with pride and do my job safely and efficiently. I strive to serve as a positive example for current and future Honeywell drivers.

Any interesting stories or unique situations that occurred on the road? I delivered HF to a customer in northern Canada where I would experience nearly 20 hours of daylight during certain times of the year. I made nearly 20 of these trips.

What value do you see from the new PeopleNet system? Having come from an era where all data was hand-written and we had to take meticulous notes, I know first-hand that the PeopleNet and TMW dispatch systems make the drivers’ jobs easier, safer, and more efficient when tracking daily data.

Note: To learn more about PeopleNet, refer to the [HF Insider Spring / Summer](#) article “HF Trucks Equipped with Cameras and Improved Communication” on pg. 3.

Can you share some insights about the training you receive? Like all Honeywell employees, I have access to leading-edge training. As an example, a new driver must deliver 10 loads of anhydrous and 10 loads of aqueous HF with an experienced Honeywell driver before being “qualified” and assigned a partner.

Dream job: I’d put my Mechanical Engineering degree to work as a plant engineer.

Family? Hobbies/Interests? I have been happily married for 30 years and have five kids and 10 grandkids. I enjoy traveling and watching Westerns and football with my grandsons.

HF INDUSTRY UPDATE

Fluorspar Market Tightness

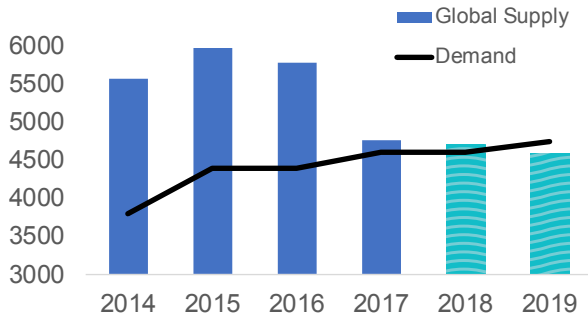


Fluorspar is one of the key raw materials used to produce HF. Supply is tight globally and getting tighter. To address this market dynamic, we continually strengthen our supply chain and seek to qualify additional sources. These actions will further position us to safely and reliably supply our customers.

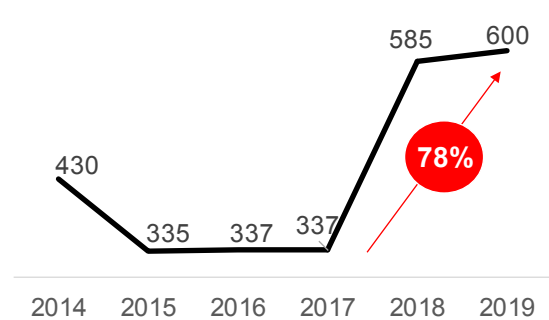
This tightness is driven by China, the largest supplier of fluorspar, reducing output due to an environmental crackdown after the government declared a “war on pollution.” Mining of natural resources like fluorspar is considered a high-polluting sector in China, so it is adopting a quota system in fluorite exploration and mining, as well as levying higher taxes. The result of China’s initiative is a reduction of supply of 600k DMT (10% of global supply) in 2017 alone. This recent supply reduction, coupled with other mine closures over the last 5 years, has reduced fluorspar output by 25% since 2012. This is having rippling affects across the globe. With stable to 3%

demand growth, spot prices have sky-rocketed 80% from this time last year. Even though new supply is coming online in 2019, there is still a net decrease in supply, which will result in continued supply tightness and elevated prices for the foreseeable future.

Fluorspar Global Supply & Demand (KDMT)



Fluorspar Market Price FOB CN (\$/DMT)



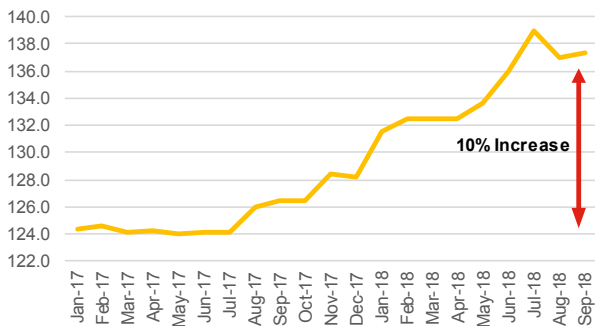
Source: Industrial Minerals and Honeywell projections

Transportation

Now more than ever, we appreciate having our own HF trailer fleet with Honeywell employees as drivers! North America transportation across all modes remains tight, particularly in the truck segment, due to high demand, driver shortages, and increased diesel prices. According to the Cass Freight Index Report, “Volume has continued to grow at such a pace that capacity in most modes has become extraordinarily tight. Pricing power has erupted in those modes to levels that spark overall inflationary concerns in the broader economy.”

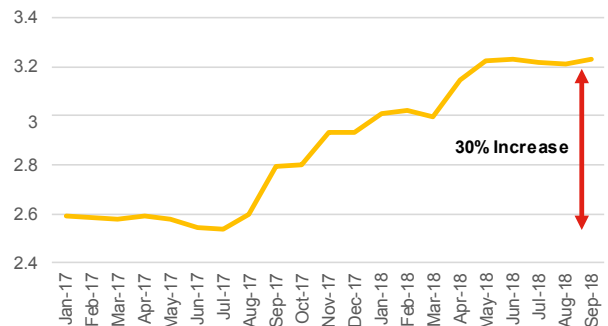
While having our own fleet of trailers, trucks, and drivers gives us the capacity to continue to deliver on time and safely to our customers, we are not immune to rising costs. Higher wages, fuel, and maintenance costs have caused us to implement a freight surcharge program across our customer base. The surcharge helps cover a portion of the inflation so that we can continue to invest in our drivers and equipment (we are adding 3 new trailers this year!). We are focused on delivering HF safely, reliably, and on time for years to come.

General Freight Trucking - PPI



Source: Bureau of Labor Statistics

US On-Highway Diesel \$/gal.



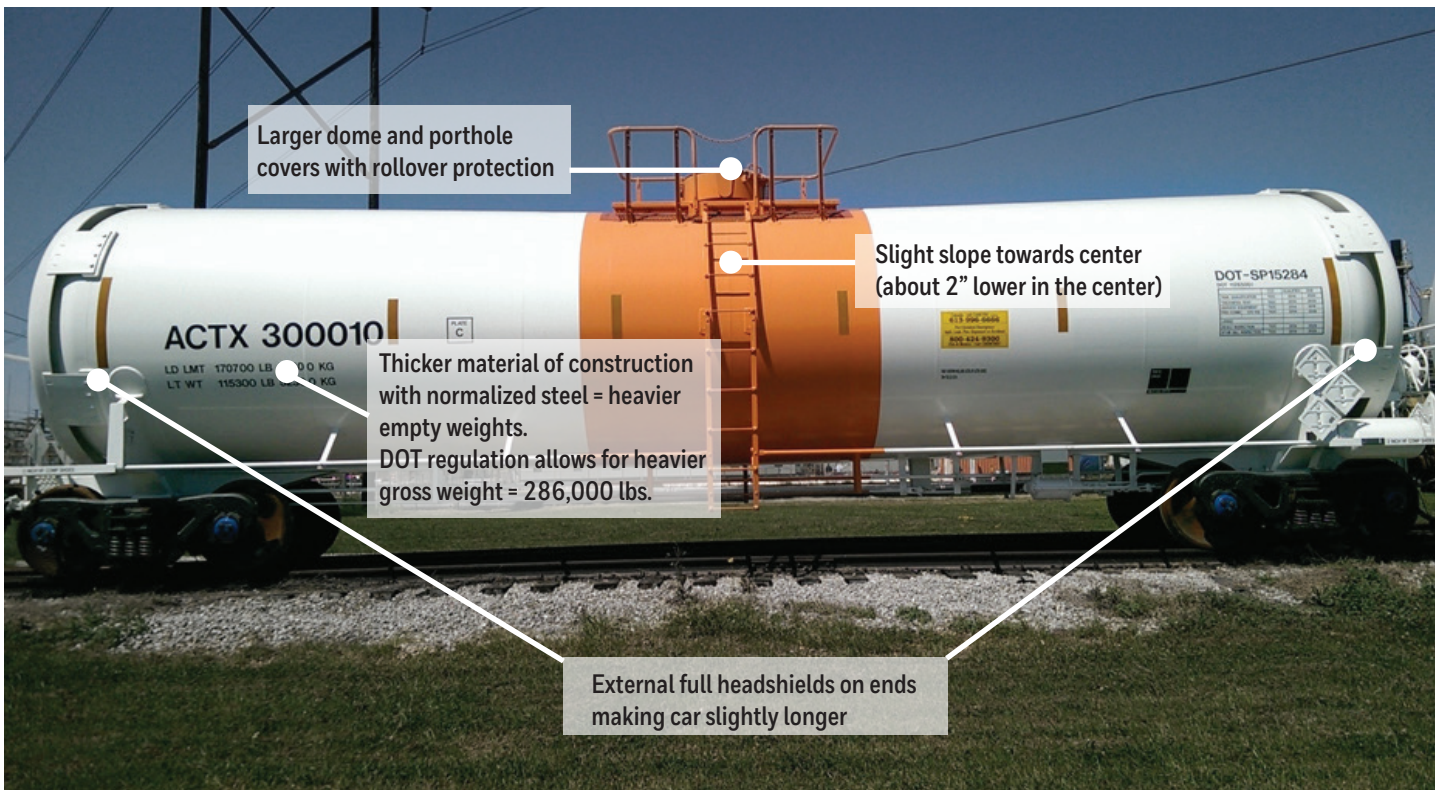
Source: U.S. Energy Information Administration

Rules and Regulations

As one of the most hazardous industrial chemicals, HF is subject to many regulations and rules. Community outreach and emergency preparedness is essential. As the leading HF producer, we are committed to safe and reliable manufacturing, transportation, and use of the product. We offer deep expertise in health, safety, and environmental requirements, as well as government relations. Working with many HF stakeholders, our goal is to provide leadership and support so that HF remains a vibrant and safe industry. Below are a few examples of how we are supporting the HF industry, as well as some key industry changes:

DOT Mandate to Upgrade all Toxic Inhalation Hazard (TIH) Railcars by 2027: Below is a photo of what the new TIH railcars will look like and what changes have been made. We have already upgraded some of our fleet and plan to continue to upgrade cars well ahead of the 2027 deadline. Railroads will need to upgrade tracks to ensure they can carry the new cars.

DIFFERENCES IN THE 112S500I TANK CAR DESIGN



Positive Train Control Mandated by December 31, 2018: This technology can automatically stop a train before certain accidents caused by human error occur. This can help prevent train to train collisions, derailments caused by excessive speed, unauthorized trains on track sections where maintenance is taking place, and movement of a train through a track switch left in the wrong position.

Federal Motor Carrier Regulations Mandate the Use of Electronic Logging Devices by December 31, 2017: This regulation was imposed to prevent drivers from exceeding their allowed hours to prevent fatigue and accidents. Honeywell has complied with this regulation through the installation of PeopleNet. In addition, we went above and beyond the regulation to include other safety enhancements, such as cameras and geofencing capabilities.

FRA Implementing More Stringent Railcar Maintenance Facility Certification and Audit Regulations: The Federal Railroad Administration (FRA) is implementing new guidelines to railcar repair and maintenance facilities effective January 1, 2020. The new guidelines affect facility certifications and audits. Anticipating these guidelines, we have partnered with a certified FRA repair vendor for onsite and offsite repairs. The FRA is going to schedule a seminar on the implementation of new regulations in Spring 2019. For more information, visit: <https://www.aar.org/tank-car-committee-meeting-materials/>

API 751 Re-Write: Section 4 in API 751, Transportation and Inventory Control is being updated. API 751 is the American Petroleum Institute Recommended Practices 751 for the Safe Operation of Alkylation Units. We would like to hear from you if there are opportunities to improve Honeywell's interaction in the transportation and delivery aspects of HF. Please contact [Cheryl Wilkinson](#) for more information.



AUGMENTED REALITY - HF CAPPING KIT TRAINING EARNS TOP MARKS

During our Fall HazMat training held in Baton Rouge, La., HF customers were introduced to an exciting new training tool that uses Augmented Reality (AR) technology. When customers donned a headset, they could see and “virtually” proceed through the steps required to apply a Honeywell HF Capping Kit to a trailer dome. The remainder of the class saw what the user was experiencing because the AR view was simultaneously projected in the classroom. Feedback on the AR training tool was very positive.

The AR technology displays the HF trailer dome and prompts the user to virtually complete each step of the HF Capping Kit

application process. Research has shown that as millennials enter the workforce in greater numbers, their preferred method of learning is via technology, such as AR. The AR offering will allow students to become proficient with the process to cap an HF trailer in a controlled environment, prior to actual hands-on training.

We are continuing to trial AR with our customers as an enhancement to the extensive suite of industry-leading training tools we offer. Beyond HF Capping Kit training, it offers many exciting possibilities and customization options and we'll continue to keep you well-informed of progress.



HF ROUNDTABLE 2019 - SEND US TOPIC IDEAS!

We are pleased to announce that the HF Roundtable will take place June, 2019 in picturesque San Francisco, Calif. This will be an exciting location for the Roundtable. When registration for the event opens in mid-March, you will be notified by email.

The HF Roundtable is a comprehensive, biennial technical symposium sponsored by Honeywell. It offers an opportunity for our HF customers to discuss valuable topics such as HF safety, risk minimization, regulations, industry trends, medical treatment, and more. The HF Roundtable is also a great way to

network with others across our diverse industry. As an additional benefit, many customers schedule internal meetings in conjunction with the HF Roundtable, since it draws key attendees from their various sites. If you are interested in hosting your meeting, please let us know by December 15, 2018.

We are currently accepting input for topics. Please email [Cheryl Wilkinson](#) with your ideas and meeting needs. We look forward to hearing from you! Information about the hotel, dates, and more will be shared very soon so stay tuned!

2019 HF TRAINING SCHEDULE

To register for any of our live webinars, visit www.hfacid.com. Select the Contact Us tab, and complete the form for the webinar(s) you wish to attend.

LIVE ONLINE TRAINING



Anhydrous HF Safety, General Awareness and First Aid Training

May 22nd, 10 a.m.

Aqueous HF Safety, General Awareness and First Aid Training

May 22nd, 1 p.m.



Recommended Medical Treatment of HF Exposures

Dates to be determined. Stay tuned!

HANDS-ON EMERGENCY RESPONSE TRAINING

To make response exercises meaningful for all participants, the class will be limited to 25 students. Participants will be responsible for travel, lodging, and meal expenses. We will assume the cost of the training and sponsor one group dinner. Lunch will be provided during the incident response exercise on the third day.



HF Emergency Response Training

Spring session: April 9-11th

Fall session: October 15-17th

Just a reminder to register early since classes fill up quickly. You can also listen to recorded training sessions at your convenience. Visit: www.hfacid.com.



CHERYL WILKINSON HONORED FOR HELPING PREVENT CUSTOMER SHUTDOWN

Cheryl Wilkinson, technical services manager, Industrial Fluorines, was recently recognized with a Honeywell Chairman's Award, the highest individual contributor award at Honeywell, for her work to help an HF customer avoid a shutdown at its refinery.

When our competitor failed to deliver HF to one of its customers, Cheryl quickly prepared a proposal that convinced the customer to switch to Honeywell as a supplier. She worked with the supply chain team and others to ensure a safe and timely delivery. Her passion for outstanding customer service helped

resolve this customer's challenge quickly and efficiently, while also providing Honeywell with an opportunity to gain this customer's long-term business.

In summing up this recognition, she said, "I'm excited, appreciative, and humble. The HF business was positioned to address the need of the customer in a manner that aligned with their expectations which spanned safety, timeliness, quality, etc. Our successful execution allowed us to show the customer that we should be an ongoing part of their sourcing strategy."

RECEIVE THE LATEST HF ACID NEWS FROM HONEYWELL

If you know someone who would like to be added to our Honeywell distribution list for future **HF Insider** editions and updates, please encourage them to send an e-mail to Industrial.Fluorines@Honeywell.com. Thanks!

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Honeywell HF Acid

115 Tabor Road
Morris Plains, NJ 07950
800-622-5002
www.honeywell-hfacid.com



460 HF Insider v8 | November 2018
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