



AFPM

American
Fuel & Petrochemical
Manufacturers

Becht HF Alky Symposium

AFPM Industry Programs

Lara Swett, VP, Technical & Safety Programs

September 24, 2024 | Orlando, FL

Agenda

- Who is AFPM?
- HF Alky Education and RMP
- HF Alky Committee
- HF Alky Operations Networks
- HF Alky Industry Forum

AFPM Committees

Manufacturing Committee

Board of Directors

Executive

Issues

Maintenance

Safety &
Health

Ops Planning
Control &
Automation
Technologies

Legal

Government
Relations

State & Local
Outreach

Communications

Hydro

Immersive
Learning/Traini
ng

HF Alky

Environmental

Fuels

Transportation,
Infrastructure
& Midstream

Tax Policy

FCC

Crude/Coking

Sustainability
Technologies

Labor
Relations
Human
Relations

Petrochemical

Security

Cybersecurity

AFPM Operational Excellence

Committees:



Advancing Process Safety – PSAG, data collection



Occupational Safety Programs-Safety Committee, awards, data collection



Process Technology - Hydro, FCC, Crude/Coking, Gasoline, Sustainability



OPCAT – Advance Process Controls

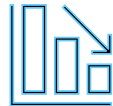


Maintenance & Reliability



Training

Committee Resources:



Data Collection:

- Injury & Illness
- Process Safety
- Incident Classification Matrix



Conferences & Webinars



Regional Network Programs:

- Process Safety
- Occupational Safety
- HF Alkylation Safety
- Mechanical Integrity



Walk the Line



Training & Immersive Learning



Practice Sharing & Hazard Identification


Safety Communications

POLITICO

SPONSORED CONTENT

POLITICO FOCUS

AFPM



05.28.2021

INDUSTRY COLLABORATION DRIVES INCIDENT RATES AT REFINERIES AND PETROCHEMICAL PLANTS TO RECORD LOWS

Sponsored by American Fuel & Petrochemical Manufacturers

It was 2010 and Jerry Wascom, ExxonMobil's American petrochemical manufacturers making significant operations, across the industries there was an uptick surrounding communities were losing confidence

“There's nothing more important than protecting people ... If we could share information, if we could learn from each other, then we could take our performance as an industry to another level. And quite frankly, if we could prevent even one incident and save lives or injuries, then it would all be worth it.”

JIM MAHONEY
Former Executive Vice President of Operations, Koch Industries

AFPM

February 7 at 3:02 PM

Refineries are prepared to handle all kinds of extreme weather, including winter storms. Learn more about how they prep for winter:



AFPM.ORG

Weathering the Storm

Winter in some parts of the country means it's time to breakout the snow boots, warm winter ...

AFPM

February 16 at 3:03 PM

Ever struggled to explain flaring to family or friends? Flaring is an important safety feature of refineries, check out our quick explainer:



0:17 / 1:11

FUELS & VEHICLES | SAFETY & HEALTH



Alkylation: Safety & Risk in the Production of Cleaner Fuels

Feb 11, 2022

Because of the extensive safety and mitigation steps refiners take wherever hydrofluoric acid (HF) alkylation is concerned, the risks from this process pale in comparison to those we assume every day when we engage in routine activities like riding a bike, driving a car and playing with pets.

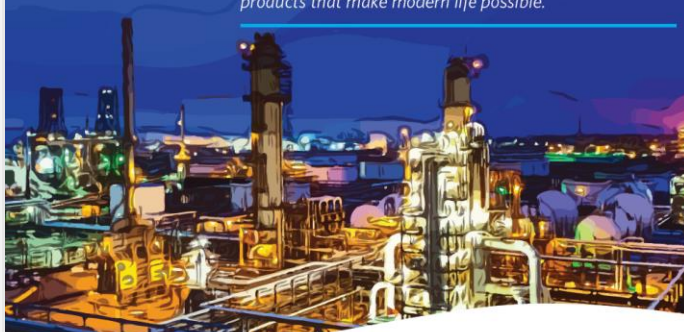

[Read More >](#) [BLOG](#)

Alkylation Education

1 in 144,000 chance of a life-threatening injury for people living in HF Alkylation unit "exposure areas"

Alkylation A Key to Cleaner Gasoline & Better Vehicle Mileage

The American Fuel & Petrochemical Manufacturers is a trade association representing the majority of U.S. refining and petrochemical manufacturing capacity. Our members produce the fuels that power the U.S. economy and the chemical building blocks integral to millions of products that make modern life possible.

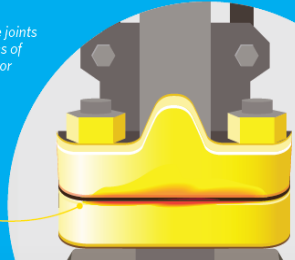
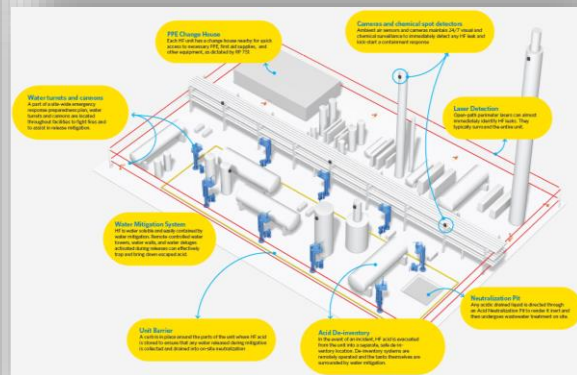
Alkylation Safety & Risk Mitigation in the Production of Cleaner Fuels

The American Fuel & Petrochemical Manufacturers (AFPM) is the leading trade association representing the makers of the fuels that keep us moving, the petrochemicals that are the essential building blocks for modern life, and the midstream companies that get our feedstocks and products where they need to go. We make the products that make life better, safer and more sustainable—we make progress.



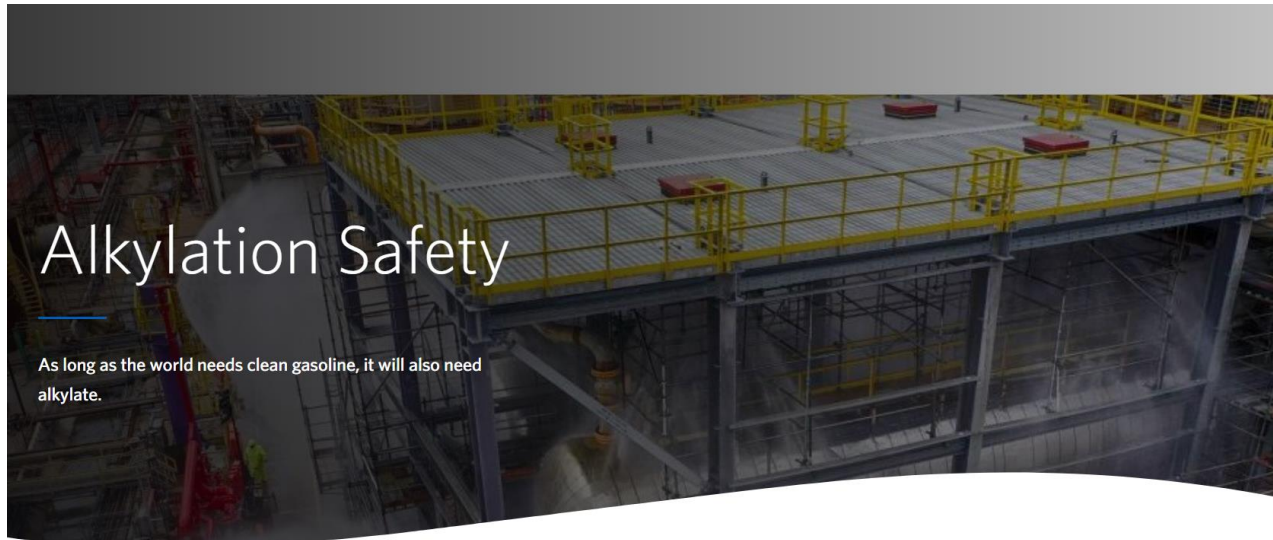

Early Detection

Acid-detecting paint applied to connective joints and flanges in an HF unit provides a means of visual leak detection. Paint will change color from yellow to red at even the slightest presence of HF (down to the parts per billion level) enabling a near-immediate incident response.

- FFS Change Notice**: Alerts operators to changes in process conditions that may indicate a safety issue.
- Cameras and chemical spill detection**: Monitor for leaks and spills, providing early warning and enabling a near-immediate incident response.
- Water Injection and Control**: A part of water management systems that monitor water levels and control water injection to prevent overflows.
- Leak Detection**: Uses ultrasonic sensors to detect leaks in process lines, providing early warning and enabling a near-immediate incident response.
- Water Mitigation System**: Prevents water from entering process units, which could cause corrosion and other safety issues.
- Ullage Barrier**: A safety barrier that prevents the spill of liquid from one vessel to another, reducing the risk of spills and leaks.
- Acid Detection**: Detects the presence of acid in process lines, providing early warning and enabling a near-immediate incident response.
- Neutralization Pit**: A safety feature that allows for the neutralization of acid spills, preventing environmental damage.

AFPM HF Alky Resources



Alkylation Safety

As long as the world needs clean gasoline, it will also need alkylate.

Issues / Safety & Health / Alkylation Safety

Nearly every gallon of gasoline sold in the United States contains a blendstock known as alkylate. Alkylate is essential in manufacturing the cleanest, high-octane motor gasoline and aviation gasoline capable of satisfying the world's strictest environmental standards. If new barriers are put in front of alkylate production at U.S. refineries, the consequences could be severe, affecting consumers, U.S. fuel supplies and availability, the viability of U.S. some U.S. refineries, national energy security and prices at the pump.

Here's what you need to know about alkylate, the catalysts refiners use to produce alkylate (hydrofluoric acid and sulfuric acid) and the steps our industry takes to manage alkylation-specific risks and keep employees, community neighbors and our facilities safe.



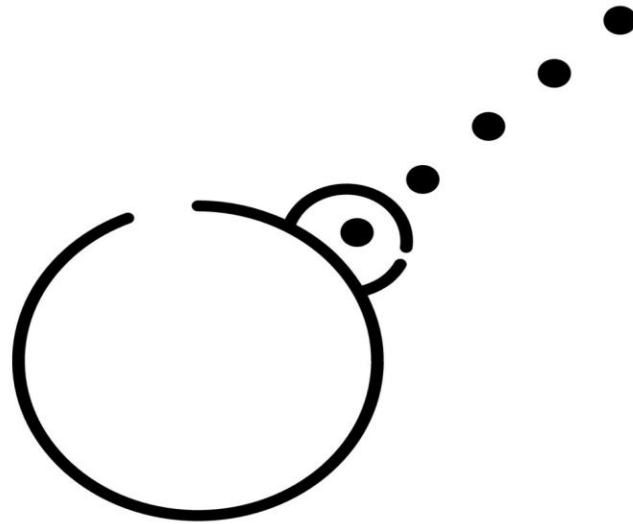
Issues
Alkylation Safety
Occupational Safety
Process Safety

[Alkylation Safety | American Fuel & Petrochemical Manufacturers \(afpm.org\)](https://afpm.org)

EPA Risk Management Program

1996

2018



2016

2024

Significantly Expands PHA

Rejected PHA Recommendations will be part of the RMP submitted to EPA and available to the public

Natural Hazards

- Risks posed by earthquakes, hurricanes, geological, wild fires, flooding
- Power Loss

Facility Siting

- Location of process, equipment, and buildings
- Hazards posed by adjacent facilities

STAA

- Applies to Chemical and Petroleum Refining facilities
- Sites with wither HF and/or in 1-mile proximity to an adjacent Chemical or Refinery
- Inherently safer technology or design practicability assessment
- Required to implement at least one mitigation measure every PHA
- Report to EPA any accepted STAAs

Other Requirements

3rd Party Compliance Audits

- WIN: From every process unit to acceptable sample of units!
- Required after RMP Reportable Event
- Only lead has to be independent – 2 year independence requirement
- Will require site to submit rejected recommendations to EPA and available to public
- Provided to Board and requires Site Manager signature

Employee Participation

- Consult on PHAs
- Access to all information related to PSM
- Consult with employees and/or representation on recommendations from:
 - PHAs
 - Compliance Audits
 - Incident Investigations
- Stop Work Authority
- Reporting Hazards

Information Sharing

- Chemical Names and SDS of regulated substances
- 5-year accident history information
- Emergency Response program information and who they have coordinated with. List of scheduled exercises
- Declined recommendations and justifications from PHAs and 3rd party Compliance Audits
- Provide in English and two most common languages
- Notification of information availability



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HF Alky Committee

American Fuel & Petrochemical Manufacturers

Case For Action

High Priority Topic for Industry

- Safety
- Government and NGO Pressure
- Continued Education

Issue Priority for Multiple Groups

- Process Safety
- Government Relations
- Media Relations
- Leadership
- HF Alky SMEs

Increased Scrutiny

- EPA RMP
- EPA National Enforcement Compliance Initiative
- CSB PES
- CSB, OSHA, and EPA on API RP 751

Need for Alignment

- Insight into all activities
- Consistency of messaging
- Cross collaboration across all activates

Committee Responsibilities

1

Industry Improvement (Data Analysis)

- AFPM Benchmarking Surveys
- API Site Assessment Data
- Event Shares

2

Knowledge Sharing

- HF Alky Industry Forum
- HF Alky Operations Regional Networks
- AFPM Summit
- Other Industry HF Alky Events

3

Standard Updates

- API RP 751
- API Responses to CSB

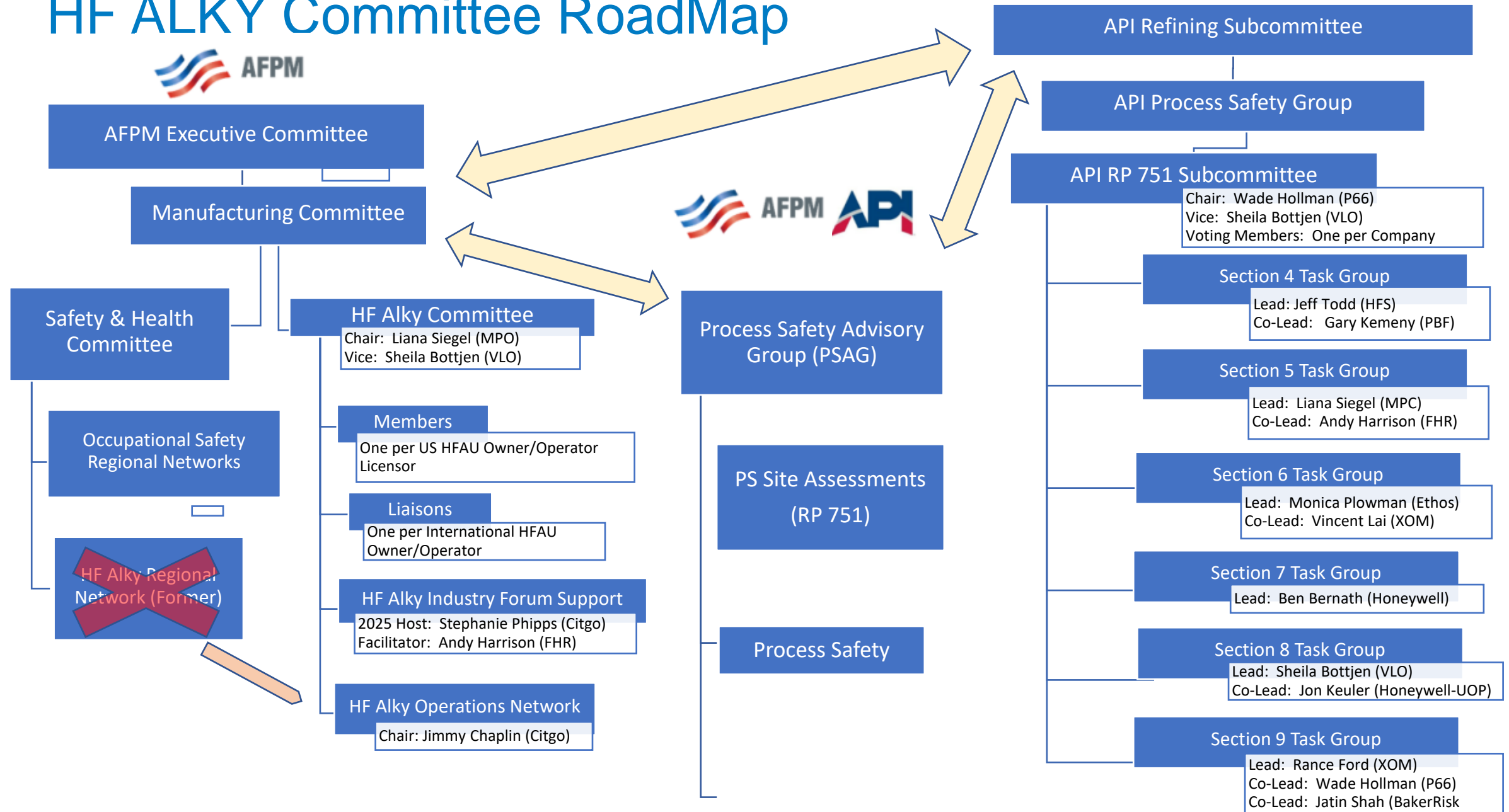
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Advocacy

- Regulatory Comments
- Talking Points
- Education



HF ALKY Committee RoadMap



HF Alkylation Committee Industry Presentations

API RP 751 – Safe Operation of Hydrofluoric Acid Alkylation Units

- History
- Purpose
- Sections
- Participants
- Shalls / Shoulds



American Fuel & Petroche



HF Mitigation and Training

SHELIA BOYD
MICHAEL SMITH-HF ALKY
LIANA SIEGEL, M

This is a presentation slide with a dark purple background. The title "HF Mitigation and Training" is written in large white font. Below the title, the names of the presenters are listed in smaller white font: SHELIA BOYD, MICHAEL SMITH-HF ALKY, and LIANA SIEGEL, M. The slide is partially overlaid by other presentation elements.

RMP
Requirements for
Refineries with HF

This is a presentation slide with a green background. The title "RMP Requirements for Refineries with HF" is written in large white font. The slide is partially overlaid by other presentation elements.

Upcoming Summit Session

AFPM Summit

October 14-17, 2024

New Orleans, LA

- Processing ASO Safety and Impacts: Phillips 66 Billings Incident Howard Butler, Phillips 66 Liana Siegel, Marathon Petroleum Corporation
- Mechanical Integrity: Dead-Legs in HF Alkylation Units Monica Plowman, Corrosion Engineering and Mechanical Integrity, RP 751 Section 6 Committee
- Quantitative Risk Assessment (QRA) 101 Jatin Shah, BakerRisk
- PHA Scenarios: Licensor Safety System Protection Layers for Grassroots Design vs. Existing Units Jon Keuler, Honeywell UOP



HF Alky Operations Network

American Fuel & Petrochemical Manufacturers

Network Update

- Happy 4th Birthday!
- Combined Regions and Renamed – HF Alky Operations Network
- Site level participation by operations
- Wide variety of topics:
 - Event Sharing
 - API RP 751 Updates
 - PPE
 - Inspections and Monitoring
 - Mitigation Testing
- Upcoming Meetings
 - October 8, 2024

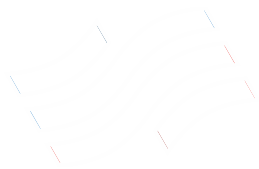


Industry HF Alky Forum

Location: Citgo Lemont

Date: April 22-24

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Questions

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