

# REFINERY DECONTAMINATION

## WHAT IS **REFINERY DECONTAMINATION**

A process for making hydrocarbon process equipment safe for personnel entry. To meet this goal after decontamination equipment must be:

- Non-pyrophoric.
- H<sub>2</sub>S free.
- Benzene free.
- Explosive gases (LEL's) free.

## THIS IS **ACHIEVED BY**

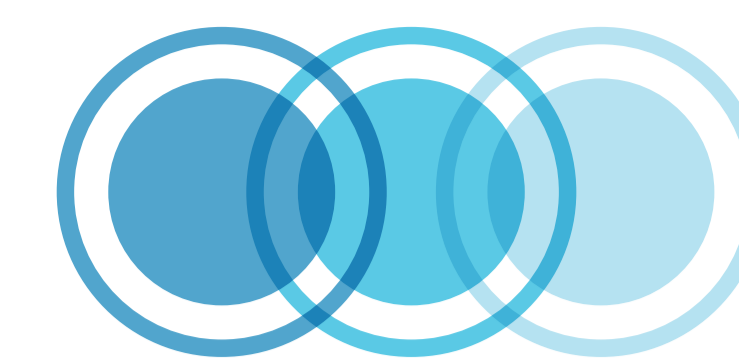
- De-oiling through solvency and surfactancy.
- Sulfide Oxidation - in all areas of the equipment.
- Degassing - LEL from water, oil and vapor.
- Benzene Control - putting benzene where you want it.
- Sludge Reduction.

## JAYNE **PRODUCTS**

- JPX Refinery Decontamination Cleaner
- JPX-E for Refinery Decontamination and Cleaning Sour Equipment (H<sub>2</sub>S)
- JPX-EE for Neutralizing Pyrophoric Materials
- JPX-F for Fin Fan Cleaning
- JP-Scavenger and Deodorizers for H<sub>2</sub>S and Other Gases

## SERVICES **OFFERED**

- Product & Application Consulting
- Shutdown & Turnaround Management
- Project Engineering
- Project Management
- Developing Procedures
- Toll Blending Services



**JAYNE**  
PRODUCTS, INC.

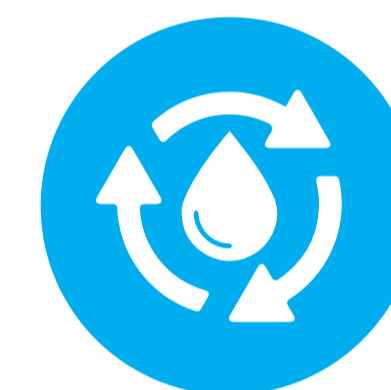
## THE JAYNE PRODUCTS ADVANTAGE



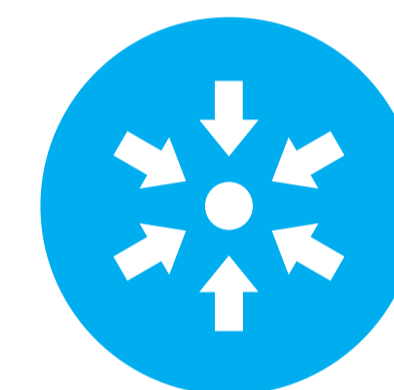
ENGINEERING, SOLUTIONS &  
ON SITE MANAGEMENT



OVER 30 YEARS  
EXPERIENCE IN REFINERIES



VAPOR PHASE, CIRCULATION  
AND BOIL-OUT



PRODUCTS & PROCEDURES  
FOR EACH JOB



SLUDGE REDUCTION



SAFE FOR PEOPLE  
AND EQUIPMENT



ON BUDGET



ON SCHEDULE



EASE OF DISPOSAL



RELIABLE

**Cleaner. Quicker. Greener.**



# REFINERY DECONTAMINATION



JPX is a powerful water-soluble product designed to be used in columns, desalters, exchangers, reboilers and vessels clean up. JPX is very versatile and effective for general maintenance and turnaround applications in oil refineries. JPX can be used in vapor phase or liquid phase circulation decontamination. JPX has been formulated to handle the toughest-to-clean hydrocarbon deposits with superior price and performance, while complying with the highest air and water quality standards. This biodegradable cleaner is compatible with stringent effluent system requirements and leaves less dissolved oil in water than more expensive competitive products.

JPX-E is an additized Heavy Duty Industrial Degreaser, which is specifically formulated to react with Hydrogen Sulfide ( $H_2S$ ) to provide a sweetened atmosphere within process equipment. JPX-E will handle the toughest-to clean refinery vessels at superior price and performance while complying with the highest air and water quality standards. This biodegradable cleaner is also compatible with stringent effluent system requirements and leaves less dissolved oil in water than more expensive competitive products. JPX-E is a powerful water-soluble product specially designed to be used in columns, exchangers, reboilers and vessels clean up.

JPX-EE is the solution in refinery cleaning when pyrophoric materials may be a problem. JPX-EE is able to solublize and oxidize any pyrophoric materials. Iron sulfide becomes oxidized by JPX-EE turning it into a brown/black precipitate and sulfide, which can be removed by a final rinse step.

## PRODUCT BENEFITS

- Top rated in heavy oil degreasing, emulsification, and being low in toxicity with minimal effluent impact
- After decontamination process, waste streams can be broken into layers for hydrocarbon recovery
- Powerful water-based product
- Will reduce time compared to a steam purge
- Biodegradable Cleaner
- Non-caustic, Non-corrosive and compatible with all metals
- Reduces time to reach acceptable Benzene, Hydrogen Sulfide and LEL levels
- Excellent with foamers and stable foam for vertical cling
- Easy to use application
- Superior Emulsification of 40%
- FeS Neutralized
- 0 PPM LEL
- 0 PPM  $H_2S$
- 0 Pyrophorics
- 0 PPM Benzene

The result of this combination of **JPX/JPX-E/JPX-EE** is that the column internals are clean and ready to enter for inspection and maintenance.

**Cleaner. Quicker. Greener.**



# REFINERY DECONTAMINATION

## COMPANY OVERVIEW

Jayne Products has over 30 years of manufacturing and providing environmentally compliant cleaners and degreasers for high volume industrial users. Located near major international shipping ports in Los Angeles, California, we are a low-overhead/high-volume capacity operation that provides the highest quality standard and customized products at a minimum cost. We have an R&D and QC laboratory that performs comprehensive product development and testing to ensure that all our products meet both our quality standards and the customers' needs.

## WHAT CUSTOMERS ARE SAYING

JPX delivered as promised, ALL our clients process unit managers and area engineers expressed satisfaction with the results.

We delivered on target and unit was handed over-clean and ready for maintenance-in fact we beat the schedule and caught the maintenance crews off guard.

The total job took 3 days-we used 6000 liters of JPX and the results , "SMILING PLANT MANAGER AND TECHNOLOGIST."

We consider ourselves experienced with the cleaning process and in fact have become quite creative in some of our application methods/injection techniques and line ups of process systems. As for me - JPX will remain the product of choice.

## OUR MISSION

To produce and manufacture the best chemical cleaning products, using our experience to exceed the ever-changing demand for safety, new processes, and environmentally friendly technology.

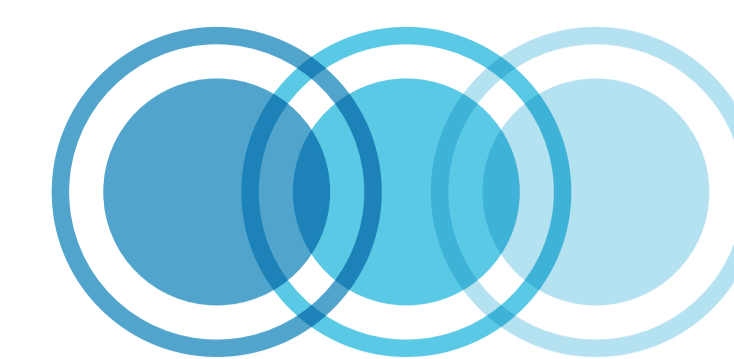
We will leave our customers **Cleaner. Quicker. Greener.**

## OUR VISION

To be the company that satisfies the product and application requirements of our customers as well as providing related services and equipment globally.

## OUR VALUES

Focus on Safety, with an emphasis on Quality, Innovation, Teamwork, and a Passion for providing solutions to our customers.



JAYNE  
PRODUCTS, INC.

## OUR PRODUCTS HAVE BEEN USED AT



ExxonMobil



ConocoPhillips



**Cleaner. Quicker. Greener.**