

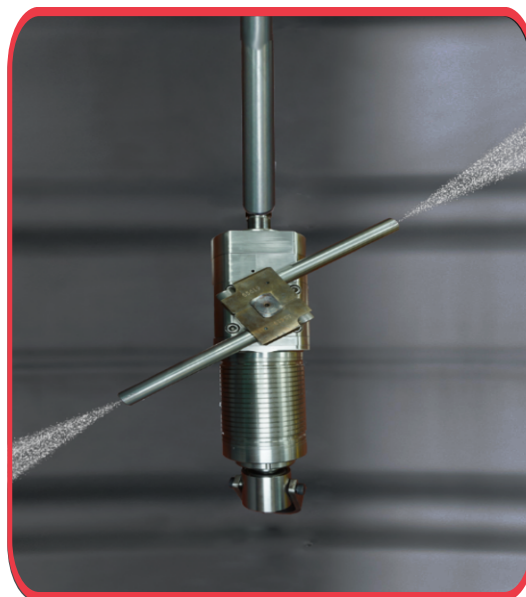
UHP Surface Preparation Case Study:

Vessel Liner Removal Amid Arsenic Hazard

Introduction

AllStream was set to remove a rubber liner from an 8' x 10' vessel. The original plan was to utilize Ultra High Pressure (UHP) water blasting with a hand lance to remove the liner; however, obstacles arose that presented a potential safety threat, requiring AllStream to evaluate the hazards with the Customer before proceeding.

The goal was to stay on schedule while prioritizing safety, reducing exposure to hazardous materials, and minimizing confined space entry. This shifted the service from a typical scope of work to a customized solution.



Advanced 3D Nozzle

Challenges

Upon arriving on site, the team learned that the vessel could contain arsenic, introducing a serious health hazard for anyone working inside the confined space. A stop work was immediately called so that both AllStream's and the Customer's Safety teams could meet and discuss the potential hazards. The focus became finding a way to remove the liner effectively while keeping the crew's safety a top priority.

Solution / Scope of Work

Following the safety discussion, AllStream shifted from solely using the handlance to utilizing AllStream's automated 3D nozzle, a zero-entry approach that eliminated the need for crew members to enter the confined space. The remaining portion of the liner was completed using the handlance, with the crew equipped in proper PPE to safely manage the residual risk.

Results

Method	Previous Method	Planned Method	Actual Method
Shifts	4	3	1

Before AllStream, previous methods that would be used for this project relied on a lower-pressure, higher-volume water approach that required bulkier equipment. This approach placed greater strain on blasters and introduced water control issues due to the increased volume. As a result, the previous approach was approximately 30% slower than AllStream's originally planned method.

Using the 3D nozzle approach allowed 90% of the rubber liner to be removed without exposing anyone to the arsenic hazard, while the remaining 10% was completed using the handlance with full face specialized respiratory protection and all other required PPE. By adapting the approach in real time, AllStream delivered a customized solution that completed the job in one day, rather than the original plan of three days, successfully balancing safety and schedule. This project reflects AllStream's commitment to *Raising The Standard*, delivering engineered solutions that protect crews without compromising performance.

