

## CASE STUDY

# A-Gas Executes Emergency Halon Recovery Job on Aircraft



## BACKGROUND

### About Our Customer

Our customer is a worldwide logistics and shipping company with over 690 aircrafts in service at over 650 airports. With their large footprint, they are committed to integrating sustainability into their operations.

### About A-Gas

A-Gas is building a sustainable future through the supply of lower global warming refrigerants combined with responsible lifecycle management of refrigerant gases. Through our first-class recovery, reclamation, and repurposing processes, we capture refrigerants and fire protection gases for future reclamation or destruction, preventing harmful release into the atmosphere.

### About Rapid Recovery

Rapid Recovery is A-Gas' premier refrigerant recovery service. Across the globe, we provide a safe and fast on-site recovery service, which includes industry-leading EPA documentation and refrigerant analysis.

## CHALLENGE

In 2017, a maiden voyage of an international cargo flight for our customer landed in Memphis, TN with a Halon fire suppression system problem. The system released Halon into a manifold and would need to either be vented or recovered.

Our customer knew that venting wasn't an option due to the negative environmental impact and unnecessary operations disruptions; venting would initiate a 20-day mandatory downtime and overhaul procedure. While Halon manufacturing was banned in 1994, today it is still a critical fire suppressant product used in aircraft—in addition to protecting electronics and military and maritime applications—with stock coming from recycled and recertified Halon. Thus, preventing venting was of the utmost importance to keep the environment safe and protect future supply of the product.

## AT A GLANCE

### Challenges

- Safe Halon recovery
- Speedy Halon recovery
- Mitigate an \$800,000 per day loss for each day the cargo plane was down
- Eliminate the potential 20-day mandatory downtime and overhaul procedure

### Benefits

- Economic: Got a cargo plane back into operation, stopping the \$800,000 per day expense for each day the plane was out of commission
- Environmental: Safe recovery of Halon, eliminating harmful venting
- Other: Reliable partner dedicated to collaborative problem solving

But our customer was in a time crunch—it cost them \$800,000 for each day the cargo plane was down. That's \$556 dollars per minute!

After escalating the problem and seeking a solution, they turned to A-Gas having worked with us for their fire protection needs.

Our Fire Protection team worked with our Rapid Recovery team to see how a Halon recovery might work using our proprietary, high-speed, on-site recovery system, El Machino. Up until this point, El Machino had only been used to recover refrigerants, not halons.

## SOLUTION

Time was of the essence, and as such, a formal, detailed written proposal was sent to the customer in under 20 minutes. After speedy customer approval, our Nashville-based Rapid Recovery team made the 214-mile journey to bring equipment and assist with the recovery, while two members of our FAST (Field Advisory Support Technicians) Team immediately flew to Memphis to meet the onsite engineers and assess the situation.



## RESULTS

After a short flight, the FAST team arrived at Memphis International Airport, where the cargo plane was staged to begin the recovery process. Custom fittings were required to connect El Machino to the suppression equipment and a machine shop was on standby to build the necessary parts and fittings. Within a few short hours, the emergency recovery of three halon spheres began. Six hours and 209 pounds of Halon later, the recovery was complete!

## CONCLUSION

During the post-recovery debrief, the onsite mechanics expressed how thoroughly impressed and grateful they were to have a high-caliber team to assist them with their dilemma. They also were impressed after hearing how big of an impact on the environment this had; our team eliminated CO<sub>2</sub> emissions which were equivalent to the emissions that would result from powering 84 homes for one year.

October 2022



209 lbs Halon recovered



Eliminated CO<sub>2</sub> emissions equivalent to 84 homes' energy use for one year