



CASE STUDY

# HVAC REPAIR & CLEANING

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Healthcare Facility

Alliance Environmental Group is the leading abatement and indoor air quality company across California, Nevada, and Arizona  
[alliance-enviro.com](http://alliance-enviro.com) | 877-858-6220

# HVAC Repair & Cleaning

Many HVAC (heating, ventilation and air conditioning) units at a California healthcare facility were underperforming, and a consultant was called to evaluate the situation.

Undersized units, faulty mechanical components, deteriorating insulation, the presence of moisture, rust and low CFM (cubic feet per minute) flow were among the identified problems. Facing budgetary restrictions, the healthcare facility selected irreparable units for replacement and conducted a bid process through its capital projects team for additional work.

In collaboration with the facility's team, Alliance Environmental Group established a cost-effective solution to isolate and rehabilitate the remaining units. Each unit was sanitized: Coils were safely cleaned with a probiotic, PH-neutral surfactant; insulation was replaced, drain pans were diagnosed and either repaired or replaced; and the exterior of each unit was resurfaced.

After healthcare facility officials raised air quality concerns, Alliance's experienced and licensed technicians triaged units that served critical care areas. Photos and CFM readings before and after the work showed significant improvement.

The client increased its flow rate, decreased energy usage, extended the life of their units and avoided exorbitant replacement costs. Most importantly, Alliance eliminated the results of an outdated AHU (air handling unit) design that fostered microbial growth by having deteriorated porous material in a wet environment.

Alliance Environmental worked to remove the possibility of airborne contaminants in the airstream of patients, visitors and staff—exactly what the facility needed at a cost it could afford.

AC 9 Readings Before Cleaning				CFM
Resulting Approx. Air Flow (CFM)		3,077		0
				100
Initial Readings (CFM): BEFORE AHU #9				200
189	405	279	310	300
210	259	155	261	400
256	167	296	290	500
				600
				700
AC 9 Readings After Cleaning				800
Resulting Approx. Air Flow (CFM)		9,063		900
				1000
Post Cleaning Readings (CFM): AFTER AHU #9				
678	972	628	710	
955	837	739	654	
622	869	867	532	
Conclusion After Cleaning				
Resulting Approx. CFM Increase		195%		

Air Handler - Area Served	Coils Cleaned & Air Handler Refurbished	Approx. Percentage Increase of CFM Before & After Coil Cleaning
AHU 4 - Med Surgery 6th~9th	☑	+ 71%
AHU 5 - Med Surgery 6th~9th	☑	+ 135%
AHU 6 - L&D 5th Floor	☑	+ 165%
AHU 7 - 5th Floor L&D and NICU	☑	+ 152%
AHU 9 - 4th Floor OR 1,6,7	☑	+ 195%
AHU 11 - 3rd Fl, ICU/CCU	☑	+ 241%
AHU 12, 3rd Fl, ICU/CCU	☑	+ 201%
AHU 14 - 1st Fl, Cafeteria	☑	+ 61%
AHU 15 - 1st Fl, Kitchen	☑	+ 18%