



# CASE STUDY

## Hospitality Guest Rooms

**PURE-Stream and PURE-Duct combination helps resort hotel improve guest experience, optimize IAQ and save energy**

### The Project:

The 650 room AAA Four-Diamond Award-winning resort hotel built in the 70's faced declining HVAC capacity over the years, musty odors emanating from the AHU's, and increase maintenance call back requests reducing the guest experience. Resort management was faced with the task of either replacing the aging HVAC equipment or finding the most qualified, competent environmental contractor to restore the equipment back to like-new condition without having to perform any replacements and with no downtime.

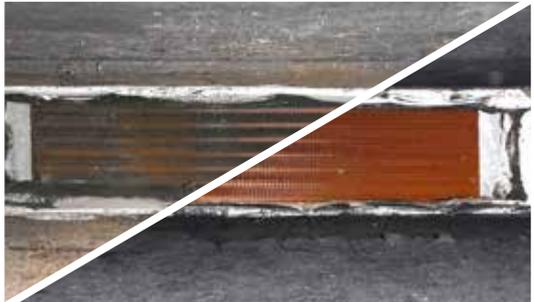


**Pure Air technician HEPA vacuums components and duct work**



**Pure Air technician implements PURE-Stream**

**Before PURE-Stream**



**After PURE-Stream**



**Pure Air technicians mobilize in preparation of environmental cleaning**



BUILDING REMEDIATION SCIENCES



## The Solution:

Pure Air Control Services was chosen for the project because of their indoor air quality focus backed by more than 30 years and 600 million square feet of experience in over 12,000 facilities. The Green Clean Institute Certified PURE-Steam process was selected as the preferred method to clean the evaporator coils in each unit because of its superior disinfection and performance capabilities when compared to traditional chemical rinse techniques. All other fan coil components, including the blower motor were disassembled, HEPA vacuumed, then disinfected and rinsed in a contained basin. In addition to the fan coil restoration the ductwork was HEPA vacuumed and encapsulated with a black antimicrobial paint in conjunction with the PURE-Duct hygienic cleaning process.

## The Result:

The resort was fully operational during the HVAC Hygienic cleaning process creating challenging conditions. 8-10 members of the Pure Air Control Services environmental team worked closely for over 60 days with resort management, facilities and housekeeping making sure that all units were meticulously environmentally cleaned via the proprietary

*“An estimated 310 tons of air conditioning was added back to the entire resort...”*

process. The project went like clockwork, on time, within budget and with remarkably

improved environmental and mechanical conditions. At the end of the project the PURE-Steam process was able to add an estimated 310 tons of air conditioning back to the entire resort without the need of new HVAC equipment.

### PURE-Steam Coil Cleaning Results Average Per Guest Room Fan Coil Unit

Units	Before PURE-Steam	After PURE-Steam	Improvement Net
CFM	451	618	167 or 36.9%
ΔT	2.41	3.72	1.31 or 56.5%
BTU	4,893	10,534	5,641 or 121.3%

**CFM:** Cubic Feet per Minute **ΔT:** Temperature Differential  
**BTU:** British Thermal Unit

**NOTE:** With the average of 36.9% increase in CFM or 167 CFM / per unit x 650 units = 108,550 CFM's were added to the bldg. / 350 CFM per ton = 310 TONS added back to the building without adding any new equipment.

## The Numbers at a Glance:



### Benefits of the PURE-Steam Coil Cleaning Process

- Sanitizes the coils/ blower assembly
- Removes latent debris from deep within the coils
- Creates improved air flow
- Creates better cooling capacity
- Saves Energy (typically .22 cents per sq ft)
- Improves indoor air quality
- Reduces HVAC related work orders
- Extends HVAC equipment

PURE-Steam and PURE-Duct are integral maintenance services for a



**Call today to find out more!**  
**1-800-422-7873**