



SANI EFFECT™
WATER • MOLD • INDOOR AIR QUALITY

Sani Effect Environmental Inc.

(772) 206-2121

pb@sanieffect.com

<https://sanieffect.com/>

ASSESSMENT REPORT



Client:

Agent:

Date: 2026-08-27

Case ID:

INSPECTION TEAM

Rodrigo Aguilar

MANAGING PARTNER | IAQ & SYSTEMS ARCHITECT

Lic: MRSA-4183

INTRODUCTION AND SCOPE

The purpose of this assessment is to identify moisture issues and microbial growth reported by the inspector, in order to develop a remediation plan in accordance with their recommendations.

DETAILED FINDINGS

HVAC SYSTEM

Observation HVAC System

⚠ ACTION REQUIRED

Inspection Findings

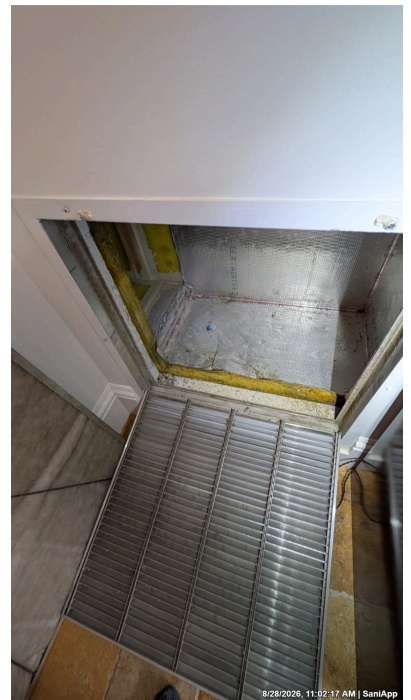
During the inspection utilizing an endoscope camera, we observed the presence of dark spots indicative of microbial growth on the fiberglass surfaces within several ventilation ducts. Additionally, microbial growth was identified extending at least one foot into the flexible ductwork.



HVAC Unit Assessment

The return vents of the two HVAC units exhibit significant dust accumulation and evidence of microbial growth on the fiberglass surfaces. It is recommended to conduct a thorough cleaning and remediation of these surfaces to eliminate any potential health hazards associated with the presence of contaminants.







HVAC System Assessment

The Plenum box and the Return Box of the HVAC unit located in the attic have been recently replaced; however, the remainder of the duct system is significantly aged. The connection boxes and the existing ductwork exhibit external cracks and signs of microbial growth. This condition is attributed to damage sustained by the insulation surrounding the flexible ducts. Typically, flexible ducts have a lifespan of approximately 12 to 20 years, after which they begin to lose their thermal efficiency. This deterioration leads to air leakage, resulting in the escape of cold air and the subsequent formation of condensation, which fosters the growth of mold on the ducts.



8/28/2026, 11:04:40 AM | SaniApp



8/28/2026, 11:08:53 AM | SaniApp



8/28/2026, 11:08:53 AM | SaniApp



8/28/2026, 11:08:54 AM | SaniApp



8/28/2026, 11:08:54 AM | SaniApp



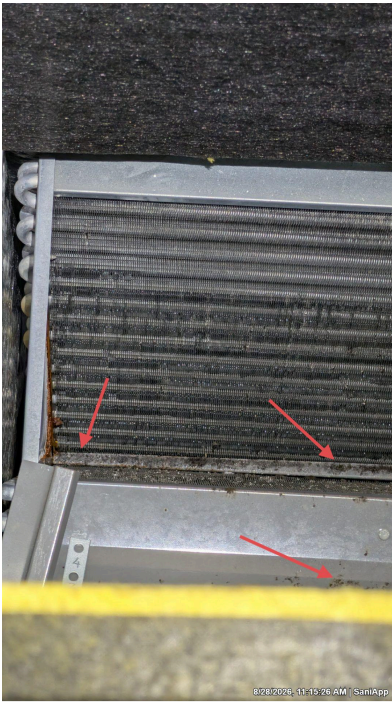
8/28/2026, 11:08:54 AM | SaniApp



HVAC Units Maintenance

The two HVAC units located in the attic and garage require comprehensive cleaning and sanitation treatment to ensure optimal performance and indoor air quality.

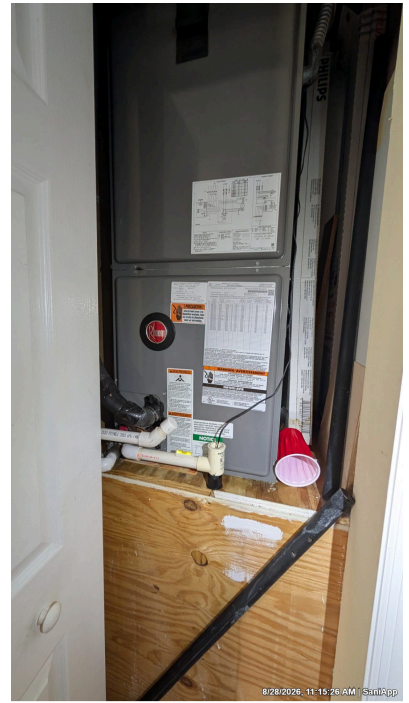




8/28/2026, 11:15:26 AM | SaniApp



8/28/2026, 11:15:26 AM | SaniApp



8/28/2026, 11:15:26 AM | SaniApp



8/28/2026, 11:15:26 AM | SaniApp

Attic Insulation Assessment

Multiple sections of the attic exhibit a lack of insulation in both vertical and horizontal areas. This deficiency results in the drywall absorbing moisture, leading to condensation within the living spaces of the home. Consequently, the HVAC system is compelled to operate with increased intensity to mitigate humidity levels and regulate indoor temperatures.

It is recommended that the existing insulation be removed and replaced with new, high-quality insulation that is installed in accordance with industry standards throughout the attic to enhance energy efficiency and prevent moisture-related issues.



8/28/2026, 11:12:46 AM | SaniApp



8/28/2026, 11:12:46 AM | SaniApp



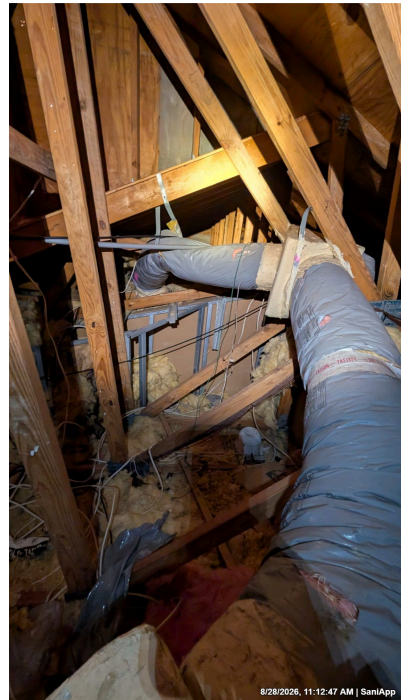
8/28/2026, 11:12:47 AM | SaniApp



8/28/2026, 11:12:47 AM | SaniApp



8/28/2026, 11:12:47 AM | SaniApp



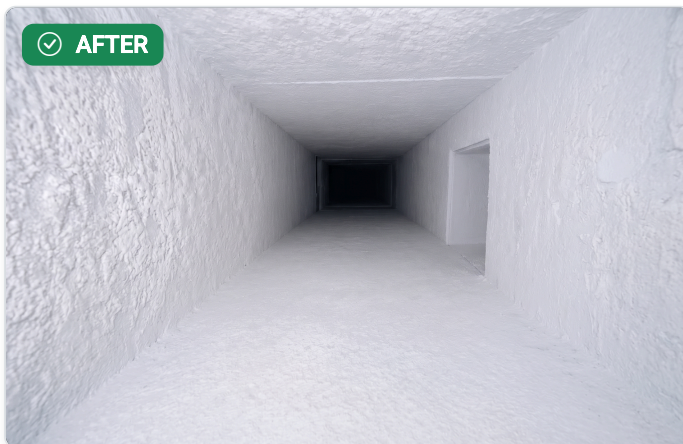
8/28/2026, 11:12:47 AM | SaniApp



↩️ Fiberglass Ducts, Plenums and Returns Board - Sani Seal Service

Process Description / Technical Summary

Remediation and Encapsulation of Internal Insulation A specialized process that complies with EPA guidelines for mold remediation in porous materials. It includes mechanical cleaning and subsequent encapsulation of fiberglass duct liners, plenums, and return boards using Fiberlock IAQ 8000. This solution encapsulates deteriorated surfaces to stabilize insulation and prevent fiber migration. Furthermore, it utilizes an EPA-registered fungistatic agent to actively inhibit microbial growth, restoring a healthy indoor environment.



CONCLUSIONS

Executive IAQ Conclusions

Current State of the Property

The inspection of the HVAC system and laboratory results indicate a mixed indoor air quality scenario. While the overall airborne fungal particulate levels in primary living spaces are within acceptable limits, localized issues have been identified that necessitate immediate attention to safeguard the health and safety of the occupants.

Critical Findings

- HVAC System Contamination:** The inspection revealed microbial growth on the fiberglass surfaces of the ducts and significant dust accumulation within the HVAC system, which may lead to further degradation of air quality and cross-contamination throughout the home.
- Moisture Issues in the Attic:** Insulation deficiencies in the attic are contributing to moisture accumulation, resulting in increased condensation and the potential for mold growth, which further stresses the HVAC system.
- Age of Ductwork:** Numerous components of the HVAC system are over 12 years old, exhibiting visible damage and microbial growth, indicating a need for thorough cleaning and possible replacement to restore proper functionality.

Florida Climate Impact

The high humidity levels characteristic of Florida exacerbate these issues by promoting condensation and mold growth, particularly in inadequately insulated areas such as attics. The age and condition of the HVAC system further contribute to moisture-related problems, making it imperative to address both the biological contaminants and the underlying causes of moisture.

Recommended Remediation Protocol (Phase-by-Phase)

Step 1: Containment & Air Management

- **Establish Containment:** Implement protective measures around the vents specifically for the

protective conditions to prevent cross-contamination from the attic into the living spaces.

- **Deploy HEPA Air Scrubbers:** Utilize HEPA-filtered air scrubbers to continuously capture airborne spores and hyphal fragments throughout the remediation process.

Step 2: Source Removal & Sanitization

- **HVAC System Cleaning:** Perform a comprehensive cleaning of the HVAC units, including the air handler, evaporator coils, supply vents, and return air plenums, utilizing Sani Effect Organic Products. Alternatively, consider replacing the entire flexible duct system, including connection boxes, plenums, and returns.

- **HEPA Vacuuming & Damp Wiping:** Execute thorough HEPA vacuuming followed by damp-wiping of all horizontal and vertical surfaces in the affected areas to eliminate dust and microbial contaminants.

Step 3: Structural Encapsulation

- **Insulation Replacement:** It is recommended to remove the old insulation in the attic and install new insulation to prevent moisture accumulation and enhance HVAC efficiency.

- **Sealant Application:** Apply specialized sealants (IAQ 8000 or Sentinel 539) to the HVAC components and any porous surfaces that may harbor mold.

Step 4: NASA-Patented PCO Technology

- **Deploy PCO Machines:** Implement PCO technology to eliminate airborne spores and volatile organic compounds (VOCs) at a molecular level, thereby enhancing indoor air quality.

Step 5: Prevention & Post-Remediation Verification (PRV)

- **Future Maintenance Recommendations:** Provide guidance on regular HVAC maintenance, including filter changes and inspections, to prevent future mold growth.

- **Clearance Testing:** Engage a third-party certified mold inspector to conduct visual inspections and follow-up spore trap air sampling to confirm that the indoor environment meets Condition I (Normal Fungal Ecology) following remediation.

By adhering to this protocol, we aim to restore a healthy indoor environment, ensuring the well-being of the residents while effectively addressing the root causes of mold and moisture issues.



Sani Implement Recommendation

Sani Duct Guardian



★ **Healthy Home Upgrade:** This solution is highly recommended to protect your indoor environment and prevent future contamination.

Installation of the Sani Air Duct Guardian within your HVAC system to actively neutralize airborne contaminants using a combination of UV-C light and advanced photohydrolysis technology. This proactive purification system seeks out and destroys pollutants at the source, ensuring cleaner, healthier air circulates throughout your property.

[Learn More about Sani Duct Guardian](#)



Sani Implement Recommendation

Sani Guardian Equipment Installation Technician



★ **Healthy Home Upgrade:** This solution is highly recommended to protect your indoor environment and prevent future contamination.

Installation of advanced Sani Guardian air purification or environmental monitoring systems by a certified Sani Effect technician to ensure continuous, long-term indoor air quality management.

[Learn More about Sani Guardian Equipment Installation Technician](#)



🔒 PROPRIETARY ENVIRONMENTAL REPORT & INTELLECTUAL PROPERTY NOTICE

FL State Licensed Assessor

This Environmental Inspection Report, including all laboratory diagnostics, sampling results, moisture assessments, photographic/video documentation, and remediation protocols, represents the proprietary intellectual property of **Sani Effect Environmental Inc.** It is prepared and licensed strictly for the property owner and authorized stakeholders evaluating Sani Effect services.

Third-Party Prohibition & Liability Transfer: Unauthorized reproduction, sharing, or execution of this report's remediation protocols by unlicensed handymen, uncertified contractors, or third parties without written authorization from Sani Effect Environmental is strictly prohibited under Federal copyright law and Florida DBPR Environmental Licensing statutes. Sani Effect Environmental assumes **ZERO environmental, structural, or health liability**, and all post-remediation clearances, guarantees, and certifications are strictly **VOID** if work is executed by third parties.

Protocol Licensing Notice: If this proprietary diagnostic report or scope of work is utilized by an unauthorized third party or contractor to conduct remediation, a mandatory *Engineering & Protocol Release Fee of \$500.00* shall apply and be invoiced to the property account.