



UNITED STATES MARINE CORPS
BASE SAFETY DEPARTMENT
MARINE CORPS BASE HAWAII
BOX 63002
KANEHOE BAY HAWAII 96863-3002

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STANDARD OPERATING PROCEDURE 27

From: Director, Base Safety Department, Marine Corps Base Hawai'i
To: Distribution

Subj: STANDARD OPERATING PROCEDURE FOR MOLD INSPECTION & CLEANING

Ref: (a) MCO 5100.29C
(b) IICRC R520 Reference Guide for Professional Mold Remediation
(c) IICRC Safety and Health Field Guide for Professional Cleaners

Encl: (1) Mold Cleaning Procedures

1. Background. To anticipate, recognize, evaluate, and make recommendations to clean or remediate spaces where mold is growing or suspected to be growing. Mold—a type of fungus—is a common problem in various indoor environments. It not only poses a threat to human health but also leads to the deterioration of structures and belongings, causing significant financial implications for individuals and organizations alike. Hence, it is vital to implement a standardized procedure for the inspection, testing, and cleaning of mold to ensure a safe and healthy environment. This Standard Operating Procedure (SOP) aims to guide individuals in effectively addressing mold-related issues.

a. Mold thrives in damp and humid environments. Barracks rooms, with their limited ventilation, close quarters, and shared bathrooms, can provide an ideal breeding ground for mold spores. Factors like leaking pipes, excessive moisture from showers or laundry, and poor air circulation can further contribute to mold growth.

b. The health implications of mold in barracks rooms cannot be understated. Exposure to mold can trigger various health issues, especially for individuals with respiratory conditions like asthma or allergies. Symptoms may include coughing, wheezing, sneezing, throat irritation, and even more severe reactions in some cases. Prolonged exposure to mold can also lead to long-term health problems like respiratory infections or chronic sinusitis.

c. Preventing mold growth in indoor environments requires a proactive approach. First, it is crucial to maintain proper hygiene practices. Regularly clean and dry any wet or damp surfaces, such as sinks, showers, or even wet clothes. Ensure prompt attention to any leaks or water damage to prevent the growth and spread of mold.

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d. Inadequate ventilation is one of the root causes of mold growth. Residents can improve airflow by keeping windows open whenever possible or using fans or dehumidifiers to circulate air in non-airconditioned rooms. In air-conditioned rooms, opening doors and windows or tampering with thermostats can negatively impact the overall Heating, Ventilation, and Air Conditioning. For air-conditioned spaces, any adjustments to the cooling of the space should be performed by qualified facilities personnel. Additionally, regularly cleaning or replacing air filters can help inhibit mold growth.

2. Purpose. To assess the potential health risks of Mold faced by MCBH Marines, Sailors, and Civilian personnel, the following policy applies:

a. Establish and document a historical record of potential exposure for MCBH personnel and communicate concerns and results.

b. To ensure and demonstrate compliance with safety and health exposure criteria.

c. To provide a basis for evaluation, testing, cleaning, or remediation.

3. Basic (Base) Policy. It is this command's policy to provide a safe and healthful work/living environment in compliance with all Marine Corps, Navy, and Federal standards. When an occupant believes they may be exposed to mold or believes there is mold present, they should submit a work order to facilities to have the room/space evaluated for mold. The Base Safety Office will receive the work order information from the service desk and will then perform an evaluation of the space to determine the following:

a. The space can be cleaned by the occupant with no risk to their health or safety.

b. Testing to confirm the presence of mold growth/infestation if warranted.

c. The space should be professionally remediated.

d. The source of any water leaks, if possible, or if repairs are recommended.

4. Inspection. The initial step in combating mold is conducting a thorough inspection. This involves a systematic examination of the premises to identify areas susceptible to mold growth. It is important to visually inspect all visible surfaces, paying special attention to areas with high moisture content, such as basements, bathrooms, and kitchens. In addition to a visual inspection, it may also be necessary to utilize specialized equipment like moisture meters or thermal imaging cameras for detecting hidden mold.

5. Scope. Once potential mold growth areas are identified, testing should be conducted to determine the presence and extent of mold contamination. Professional mold testing laboratories are recommended for accurate and reliable results. Common testing methods include air sampling, surface sampling, and bulk sampling. Air sampling helps measure the concentration of mold spores in the air; surface sampling involves swabbing or tape lifting on suspected surfaces, while bulk sampling involves collecting physical samples of materials suspected to be

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contaminated. Testing should adhere to established quality assurance protocols and be performed by qualified personnel.

6. Cleaning. After successful inspection and testing, the next step is to develop a comprehensive cleaning plan. Depending on the severity of mold contamination, cleaning methods can range from simple surface cleaning to extensive remediation. It is crucial to choose appropriate cleaning products and techniques to ensure the effective removal of mold spores and prevent their further dissemination. Cleaning agents should be non-toxic, environmentally friendly, and approved for mold remediation. Usage of the cleaning products should follow the manufacturer's guidance and be in compliance with required Occupational Safety and Health Administration Standards for hazardous communication. Personal protective equipment, including gloves, goggles, and filtering facepiece respirators, if required, should be worn during the cleaning process to protect individuals from exposure to mold allergens. If professional cleaning is advised or remediation of damaged building materials is required, a work order shall be submitted to facilities by the unit/command.

7. Prevention and Mitigation. Preventing mold growth is better than dealing with its consequences. To mitigate future mold-related problems, it is essential to address the underlying factors that contribute to its growth. The management of humidity levels, proper ventilation, and effective moisture control measures are crucial. Regular inspections and proactive maintenance should be carried out to detect potential issues early and prevent mold growth. In addition, educating college-level individuals about mold prevention and remediation techniques can create awareness and empower them to take appropriate actions in their respective environments.

8. Conclusion. Mold growth is a serious concern that demands immediate attention due to its adverse impact on human health and property. Implementing a well-defined SOP for inspection, testing, and cleaning mold is essential to creating a safe and healthy environment. By adhering to this SOP and promoting mold prevention practices, individuals can enhance their knowledge and skills in mold management, contributing to the overall well-being of their surroundings.



R. McCARTHY

GENERAL PROCEDURES FOR MOLD CLEANING

1. Identify where active visible mold growth is present.
2. Inform building occupants where and when cleaning will take place. To the maximum extent possible conduct cleaning during off-hours, early morning, late afternoon, or on weekends during periods of no to minimal occupancy.
3. Assemble personal protective and cleaning equipment before proceeding with cleaning.

Personal Protective Equipment:

- Disposable gloves (non-powdered) - avoid using latex gloves since some individuals may be allergic to latex.
- Filtering facepiece respirator (i.e., N95 particulate)
- Eye protection (chemical goggles)

Cleaning Supplies:

- Liquid detergent (i.e., dawn dishwashing detergent)
- 2 Each bucket (1 soapy water / 1 clean water)
- Commercial disinfectant (Microban 24 or Concrobium)
- Trash bags
- Paper towels
- Soft-bristled brush
- Sponge/rags

NOTE: For any hazardous material used, ensure personnel are provided a copy of the product's Safety Data Sheet (SDS) and follow all requirements of the OSHA Hazardous Communication (HAZCOM) standard and requirements of the command and/or installation Hazardous Material Control Program.

1. Don personal protective equipment.
2. Use warm water and soap to remove visible mold growth using a sponge, rag, and/or soft-bristled brush for stubborn growth.
3. Once mold has been cleaned, rinse the area with clean water using a clean wet sponge and thoroughly dry it with paper towels.
4. After the area is dry, mist the cleaned area with Microban 24 or Concrobium. Do not wipe the area; allow it to air dry.

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5. Paint the area as required. Note that some painted surfaces, such as latex, will show light staining after cleaning even though the area has been properly cleaned. Painting over this area is fine and will minimize confusion that mold still exists. It is recommended to add KILZ to all paint being used, especially in damp locations such as bathrooms.
6. Keep a record of where the problem areas are and note the time of day when the cleaning took place for future reference.

MOLD PREVENTION AND CONTROL TIPS FOR BUILDING OCCUPANTS

1. Room surfaces, such as desks, shelves, books, etc., should be wiped down with disinfectant (e.g., Lysol or Clorox) at least once a month.
2. Remove plants from the area. Wet soil, plants, and/or containers such as wicker baskets introduce moisture into the air and promote fungal growth.
3. Maintain good housekeeping by not accumulating items that harbor spores or mold, such as old books, journals/magazines, clothing, etc.
4. When water leaks or spills occur indoors, ACT QUICKLY. Call Facilities to repair the leak and have them dry or replace damp material within 24-48 hours.
5. If ceiling tiles appear to be water-damaged or if a leak occurs, immediately call Facilities to repair the leak and replace ceiling tiles.

When the air-conditioning system is in operation, keep all exterior doors and windows closed. If the temperature in an area is very cold, call Facilities to have the temperature adjusted. Do not open exterior doors and/or windows because this will introduce higher humidity and moisture. Do not block supply air registers because this may cause some areas to have warmer temperatures and higher humidity.