

How To Restore Your Flooded Home

Addressing Mold
& other health
related hazards.

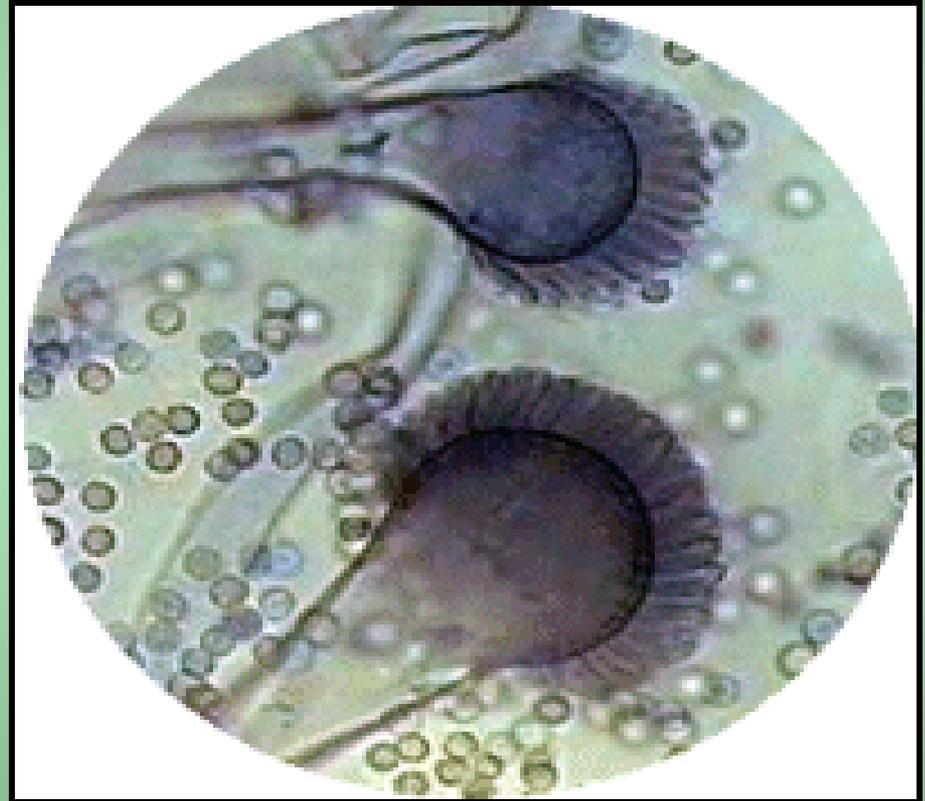


Agenda

1. Introductions
2. Survey of your situations
3. Outline of Potential Health Hazards
4. Using the NCHH Field Guide
& the AHH Manual
5. Tools and Products
6. Resources

Health Effects of Mold Exposure

- Allergic reactions and asthma attacks
- Effects from toxins released by molds
- Most vulnerable are:
 - Young children
 - The elderly
 - People with respiratory problems
 - Immune-compromised individuals



Health Effects of Mold Exposure

An example of mold - *Aspergillus*

A genus of mold which can be found within indoor environments. Certain species are pathogenic (harmful to human health) and cause **Aspergillosis** (an infection, a growth, or an allergic response)



<http://www.aspergillus.man.ac.uk/>

Examples of 2 Flooded Homes

- Three homes located in the Gentilly neighborhood of New Orleans. *
- Owner occupied
- Each experienced different levels of flooding

HOME #1

- 2 story home
- Built in 1987
- Slab on grade construction
- Received up to a foot of flood water
- 2-3 ft of mold growth on first floor



HOME #2



- 1 story home
- Approximately 100 years old
- Raised on piers
- Received at least 5 ft of flooding
- Mold growth to ceiling

Mold Sampling Results: Home #1

approximate live mold levels (CFU/m³)

	<u>Living Room</u>	<u>2nd Floor</u>
Possession Removal	1,229,000	313,000
Before work next day	35,000	
During demolition	594,000	15,000

CFU/m³ = Colony Forming Units/Cubic Meter

Mold Sampling Results: Home #2

approximate live mold levels (CFU/m³)

	<u>Living Room</u>	<u>Outside</u>
Pre-Work 11/1	34,000	
Pre-Work 11/15	17,000	24,000
During demolition	>6,000,000	36,000

What's Safe?

The American College of Personal Hygiene
Says:

< 500 CFU/m³ is ok

500 CFU/m³ = Colony Forming Units/Cubic Meter

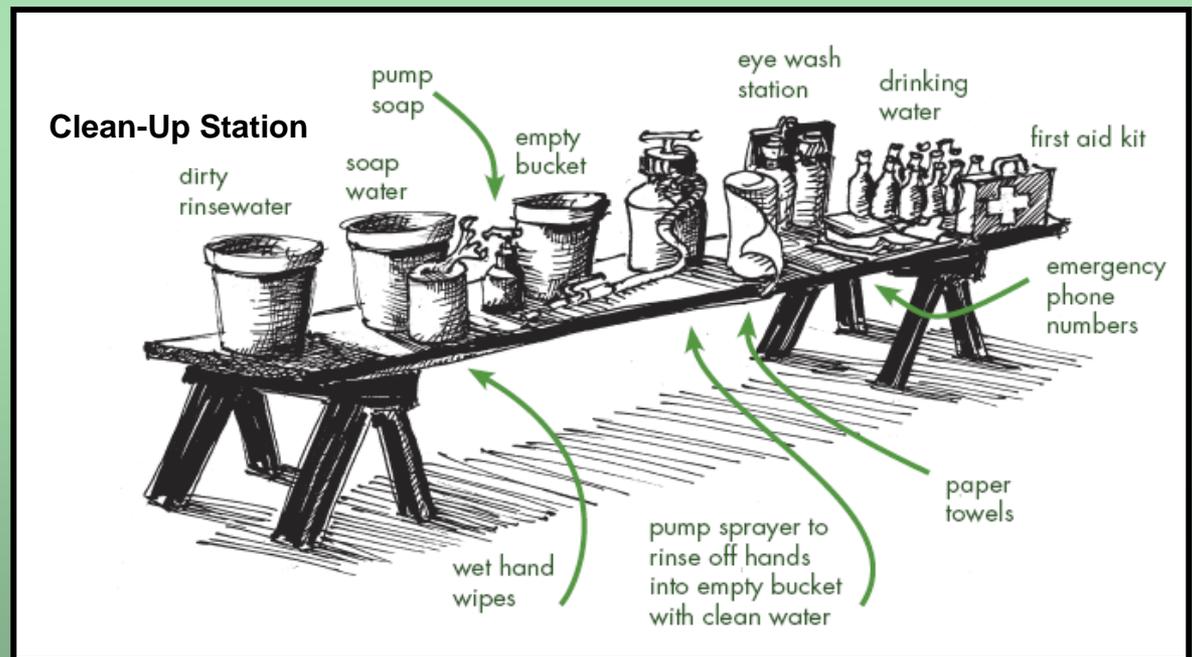
Other Health Issues During Clean-up and Renovation

- Bacteria
- Lead Paint Hazards
- Asbestos
- Pests
- Termites
- Bird droppings – Pigeons



Personal Hygiene is Very Important!

- Hand washing - towelettes
- Clean Break Areas
- Protective Clothing can spread all the Bad Stuff



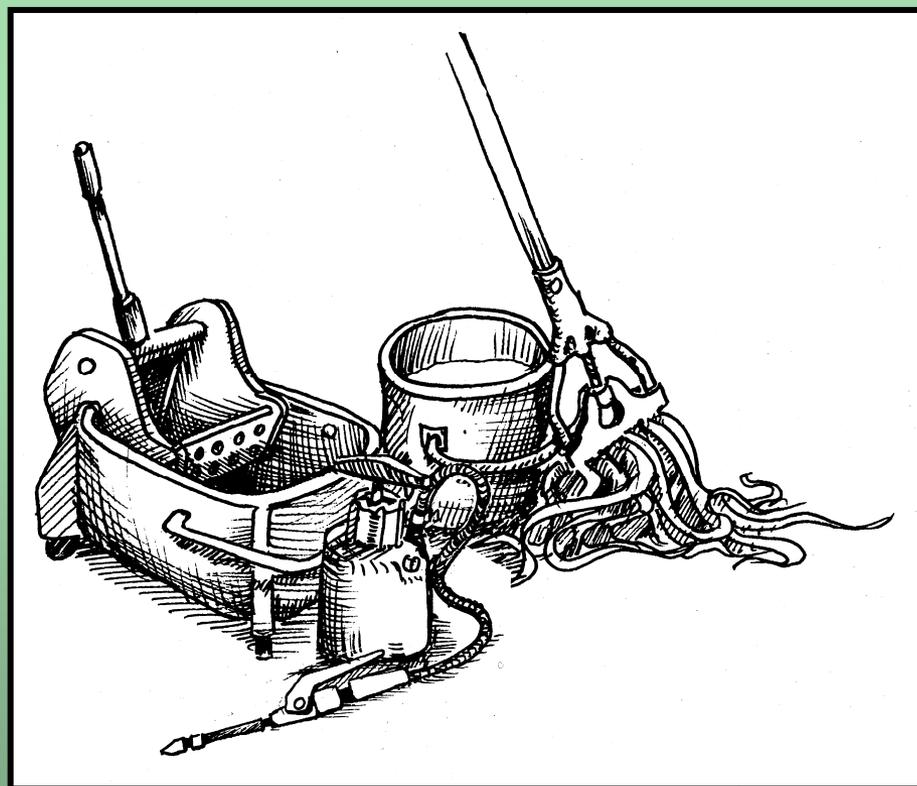
Dealing with Black Water (sewage)

- Protect yourselves
- Dry out the space
- Remove the mess
- Clean and disinfect

Creating a Healthy Home

A Field Guide for Clean-Up of Flooded Homes

Created by the National Center
for Healthy Housing



Acknowledgements

Between October 2005 and March 2006, three national housing organizations—Enterprise Community Partners Inc, the National Center for Healthy Housing and NeighborWorks® America—teamed up with Neighborhood Housing Services of New Orleans to investigate how to safely and affordably decontaminate flooded homes in the Gulf Coast region post-Hurricanes Katrina and Rita.

Funding was provided by the Robert Wood Johnson Foundation.

These organizations wish to thank the four homeowners who volunteered their homes for this work.



We also acknowledge the important contributions of:

- Researchers at the Mailman School of Public Health at Columbia University and the Center for Applied Environmental Public Health at Tulane University for their scientific support with mold sample collection and documentation of the effectiveness of the work.
- Little Sisters of the Assumption Family Health Services, Inc. and Microecologies, Inc. for the invaluable advice that is included in this document, which they obtained from their own cleanup demonstration project in New Orleans. A copy of the flood clean-up DVD, “Mold Clean-up Guidance for New Orleans Area Residents Affected by Hurricane Katrina,” co-produced by these partners and the National Center for Healthy Housing (NCHH) is available by contacting NCHH.
- URC, Inc. for assisting with the development of the clean-up specifications, the oversight of the clean-up work, and general expertise in housing rehabilitation.
- Community Resources for creating the fine illustrations in this document and assisting with its content.



Disclaimer

The information contained in this field guide was compiled to serve as a general informational guide for mold remediation and is not intended to address specific conditions that may be present at individual properties or to replace the services of a professional, accredited consultant. Persons who believe that their premises may contain mold should consult professional consultants to address their specific conditions. Several states, including Louisiana and Texas, license these professionals.



Disclaimer

As each reader's circumstances vary, this field guide is solely for informational purposes. The advice offered addresses some of the more general hazards resulting from mold. In no event shall any party that has contributed to this field guide, its underwriter, or any other party be liable for damages of any nature resulting from the use of or inability to use this field guide.

Who Should Use This Guide?

This guide is meant for do-it-yourselfers and contractors who need to clean up mold in flooded homes before starting to rebuild or renovate.

Housing Rehabilitation Specialists, and others who must contract for and supervise the clean up of flooded homes can also benefit from its content.

This booklet tells how to clean up after flooding, but does not describe how to rebuild.



What Can You Do Yourself & When to Hire a Professional

The U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control and Prevention (CDC) recommend that trained mold remediation professionals do the mold clean up if mold growth covers more than 100 square feet, or a 10 ft. by 10 ft. area.



Tips for Hiring Mold Remediation Professionals

- Know your State regulations. Some states require licensing.
- Avoid contractors that recommend fogging or spraying
- Get more than one quote
- Get references on similar jobs & **check those references**

Tips for Hiring Mold Remediation Professionals

- **Require estimates that include**
 - A detailed scope of work (or provide a detailed written scope)
 - A detailed plan for how residents, belongings, and the workers themselves will be protected
 - An agreement that you will hold the final payment until the work passes an inspection by an independent professional
 - Insurance certificate that names the property owner as insured, and gives proof that the contractor has commercial general liability, contractual liability, and pollution (mold) liability insurance

Tips for Hiring Mold Remediation Professionals

For the Final Inspection:

- Use a highly qualified person for the final inspection and testing.
- In some States, like Louisiana, that person must not work for the mold remediation contractor
- Require a written report of the inspection findings
- This report lets you know that it is safe to rebuild
- You should also save this report and show it to prospective buyers when you sell or rent your home

Tips for Hiring Mold Remediation Professionals

Other Professionals:

Asbestos must be removed by a certified professional.

In some states, contractors who apply borate solutions, like Termite Prufe or BoraCare, need to be licensed pest control operators.

Residents and Volunteers:

In emergencies and special situations, residents and volunteers may do mold clean-up work that would normally be done by trained mold remediation professionals.

No matter who does the mold clean-up work, **be sure to wear the necessary personal protective equipment and follow the work practices and procedures described in this guide for a safe and effective mold clean-up.**



Residents and Volunteers:

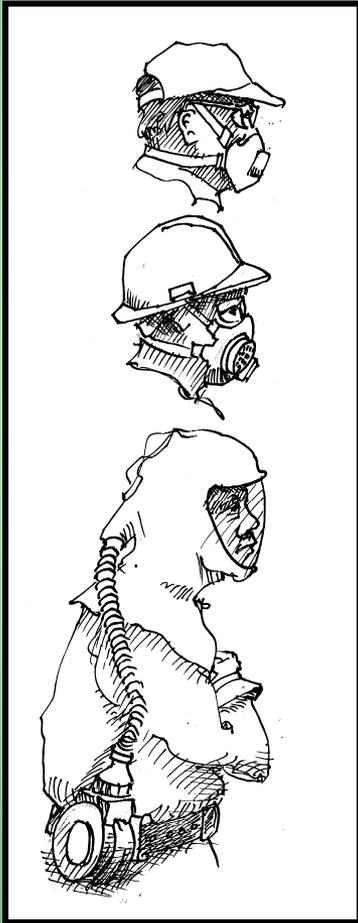
People with asthma, mold allergies or other respiratory conditions, people with weakened immune systems, children and pregnant women **SHOULD NOT** do this work and **MUST** remain out of these homes until the work is complete. They are especially vulnerable to the hazards found in flooded homes.



The Major Health Risks When Working on Water-Damaged Homes

- Structural Problems
 - Check the floors
- Mold
 - Health Effects
 - Symptoms
 - Breathing difficulties
 - Wheezing
 - Sore Throat
 - Flue-like aches and Pains
 - Fatigue (tired for a long time)
- Lead Dust
 - Often shows no symptoms
 - Watch for listed symptoms in Adults
- Carbon Monoxide
 - Fuel burning equipment (generators)
- Cuts and Punctures
 - Wear Protective Equipment
 - Current Tetanus Shots
 - Clean the Cut with Antiseptic
- Electric Shocks
 - Turn off the power

Protection from Environmental Health and Safety Threats

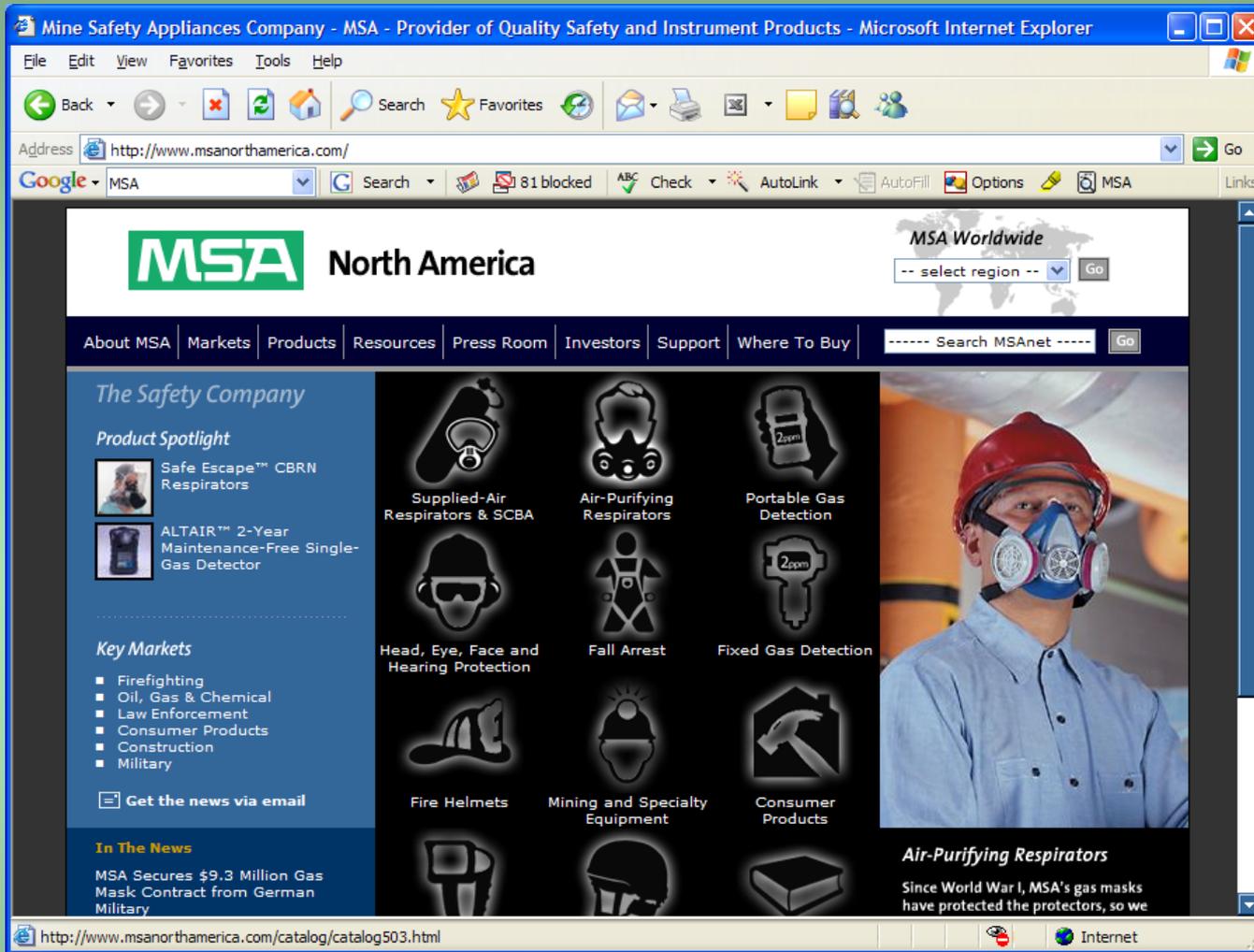


Wear a Respirator

- N95 or P100 only for < 15 min Exposure when you are not disturbing mold
- Half-face Negative Air with a HEPA Filter (magenta)
- Powered Air Purifying Respirator (PAPR)
- Carefully follow instructions for the device you use

Respiratory Protection

- P-100 respirators: Home Depot supplies a P-100 filter class respirator, MSA Safety Work Multi-Purpose Use Mask. Model # 00817663.
- N-95 respirators: Home Depot offers a package of 10 Dust and Mist Respirators (N-95) Model 8611 (about \$18.00)
- Powered Air Purifying Respirator (PAPR)
MSA - Mine Safety Appliances Company



MSA

Mine Safety Appliances

<http://www.msanorthamerica.com/>



Professional Equipment

<http://www.professionalequipment.com/>

MSA OptimAir PAPR
Respirator, Advantage
3000 - Medium

Item #: A602-4150

Manufacturer: MSA

Manufacturer Item #:

MSA10034150

Product Type: Half Mask
Respirators

Price: \$589.95

The screenshot shows the Professional Equipment website in a Microsoft Internet Explorer browser window. The page features a navigation menu with categories like Accessories, Books, Electrical, Environmental, Flash, Gas, Hand, HVAC, Inspection & Business Forms, Investigative, Ladders, License/Exam-Prep, Light Meters, Measuring Tools, Moisture Meters, New Products, Pest Control, Plumbing, Safety Products, Sound Meters, Specials, Thermometers, and Videos/DVDs. A search bar is prominently displayed with a 'Go!' button. Below the search bar, there are logos for FLUKE.store, EXTECH.store, and MANNIX.store. The main content area is titled 'MOST POPULAR PRODUCTS' and lists three items: 'Tramex Encounter Plus, Non-Destructive Moisture Meter' (Your Price: \$399.00), 'TPI Combo Carbon Monoxide and Combustible Gas Leak Detector w/ Free Gas DVD' (Your Price: \$359.95), and 'Protimeter Surveymaster Home Inspection Meter & Free Moisture Meter DVD' (Your Price: \$499.00). A 'Featured Products' sidebar on the right highlights 'FLIR ThermoCAM B-CAM Infrared Thermal Imaging Camera' (Your Price: \$6,750.00) and 'FLIR ThermoCAM B2 Portable Infrared Thermal Imaging Camera'. The website also includes a 'Catalog Express Shop' link and a 'Shop by Brand' button.

Professional Equipment

<http://www.professionalequipment.com/>

**MSA OptimAir PAPR
Respirator, Advantage
3000 - Medium**

Item #: A602-4150

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The screenshot shows a Microsoft Internet Explorer browser window displaying the Professional Equipment website. The address bar shows the URL: <http://www.professionalequipment.com/xq/ASP/respirators/id.8/subID.131/qx/default.html>. The website header includes the company name 'PROFESSIONAL EQUIPMENT' with the phone number '1-800-334-9291' and the date 'March 29, 2006'. A navigation menu lists various product categories such as 'Accessories', 'Books', 'Electrical', 'Environmental Equipment', 'Flash Lights', 'Gas Detectors', 'Hand Tools', 'HVAC', 'Inspection & Business Forms', 'Investigative', 'Ladders', and 'License/Exam-Prep'. Below the menu is a search bar and a 'SHOP BY BRAND' button. The main content area is titled 'Respirators' and features a section for 'Most Popular Respirators' with four product listings:

- Kimberly Clark Tecnol N95 Particulate Filter Respirator and Surgical Mask (Box of 50)**: Your Price: \$49.95
- Gerson® N95 Particulate Dust Masks (Box of 20)**: Your Price: \$15.95
- 3M N95 Dust Masks with Exhalation Valve (Box of 10)**
- Moldex N95 Dust Masks Plus Nuisance Organic Vapors (Box of 10)**

Professional Equipment

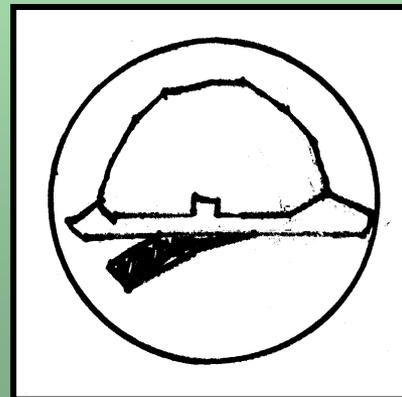
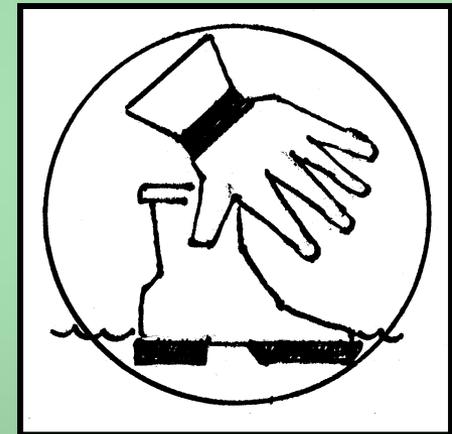
<http://www.professionalequipment.com/>

- **3M Full Face Respirator 6000 Series - Large**
- **Item #: A406-6900**
- **Manufacturer: 3M**
- **Manufacturer Item #: 6900**
- **Product Type: 3M Full Face Respirator**
- **Price: \$129.95**



Protection from Environmental Health and Safety Threats

- Eye Protection
 - Wear goggles, safety glasses or full face shield
 - Wear a hat with a brim
 - Keep eyewash handy
- Ears
 - Use earplugs
- Feet
 - Heavy work boots
 - Not tennis shoes



Protection from Environmental Health and Safety Threats

- Head
 - Use coverall with a hood, and/or a hat with a brim
- Hands
 - Use heavy, waterproof, cut resistant gloves
 - Wash your hands and face before eating, drinking or smoking
- Protection for the people you go home to
 - Wear disposable coveralls
 - Clean all reusable equipment
 - Wash clothing in hot water & detergent separately

Pre Work Inspection

- Let's take a few minutes and examine a checklist
- The checklist should have a sequence that makes sense to you
- Each item ideally will have a check box to simplify using the tool, notes are ok.

Section 1 - P. 6 of NCHH Field Guide &
Chapter 2 P. 17 of AHH Manual

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Pre Work Flood Inspection Checklist

Y	N			Actions/Entry	Notes
<input type="checkbox"/>	<input type="checkbox"/>	1	Is the building is secure?		
		2	If not, how will you secure it?		
<input type="checkbox"/>	<input type="checkbox"/>	3	Is there structural damage?		
<input type="checkbox"/>	<input type="checkbox"/>	4	Is there standing water in the home?		
		5	How high did the water go?		
		6	How high is the mold growth?		
<input type="checkbox"/>	<input type="checkbox"/>	7	Were any rooms unaffected by water of mold?		
<input type="checkbox"/>	<input type="checkbox"/>	8	Has the electrical system been inspected?		
<input type="checkbox"/>	<input type="checkbox"/>	9	Has the natural gas system been inspected?		
<input type="checkbox"/>	<input type="checkbox"/>	10	Do you smell natural gas?		
<input type="checkbox"/>	<input type="checkbox"/>	11	Is the domestic water supply working?		
<input type="checkbox"/>	<input type="checkbox"/>	12	Is the DWV system working?		
<input type="checkbox"/>	<input type="checkbox"/>	13	Was ductwork flooded?		
<input type="checkbox"/>	<input type="checkbox"/>	14	Is there mold in the ductwork?		
<input type="checkbox"/>	<input type="checkbox"/>	15	Is there an active roof leak or other sources of water entry?		
<input type="checkbox"/>	<input type="checkbox"/>	16	Did you contact the insurance claims adjuster?		
<input type="checkbox"/>	<input type="checkbox"/>	17	Was the home build before 1978? (Lead Based paint?)		
<input type="checkbox"/>	<input type="checkbox"/>	18	Are there any materials that likely contain asbestos?		
		Are any of the following components salvageable?			
<input type="checkbox"/>	<input type="checkbox"/>	19	Doors?		
<input type="checkbox"/>	<input type="checkbox"/>	20	Windows?		
<input type="checkbox"/>	<input type="checkbox"/>	21	Cabinetry?		
<input type="checkbox"/>	<input type="checkbox"/>	22	Can any furnishings or belongings be salvaged?		
		23	How will you provide ventilation for drying?		

Before Work Begins

- Purchase and order tools and supplies
- Plan for trash removal
- Set up a storage area for items to be saved
- Set up electricity
- Set up secure tool storage area
- Turn off gas
- Provide bathroom access

- Section 2 – P. 8 of NCHH Field Guide

Site Preparation



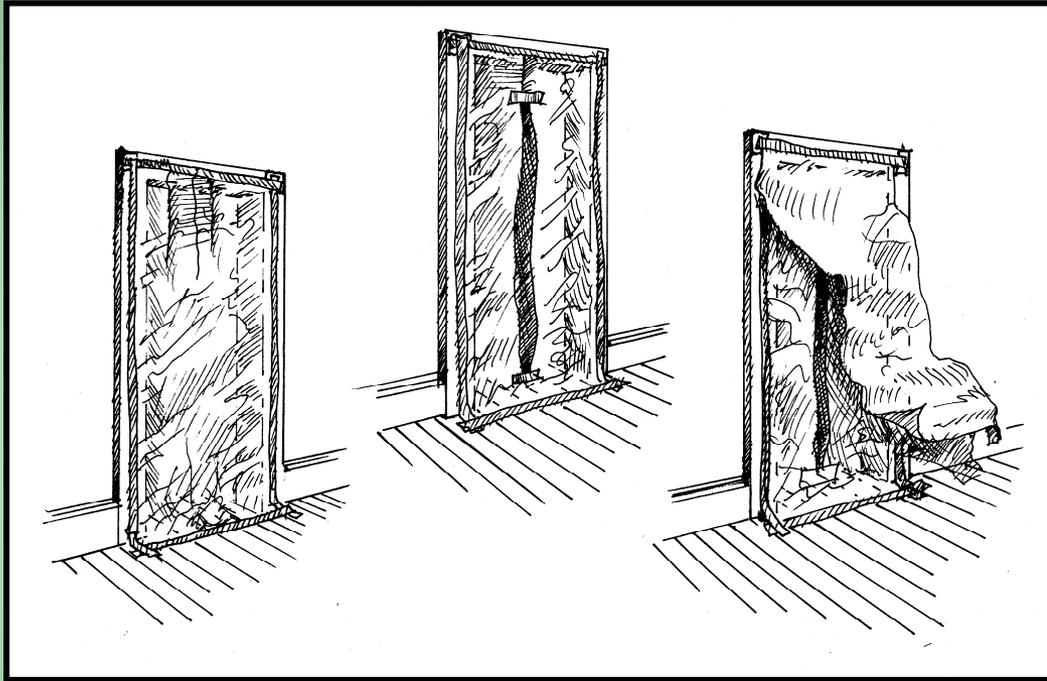
Set up a safety and cleanup area

Put on your personal protection equipment



Section 3 - P. 9 NCHH Field Guide
& Pages 26 – 31 of AHH Manual

Site Preparation

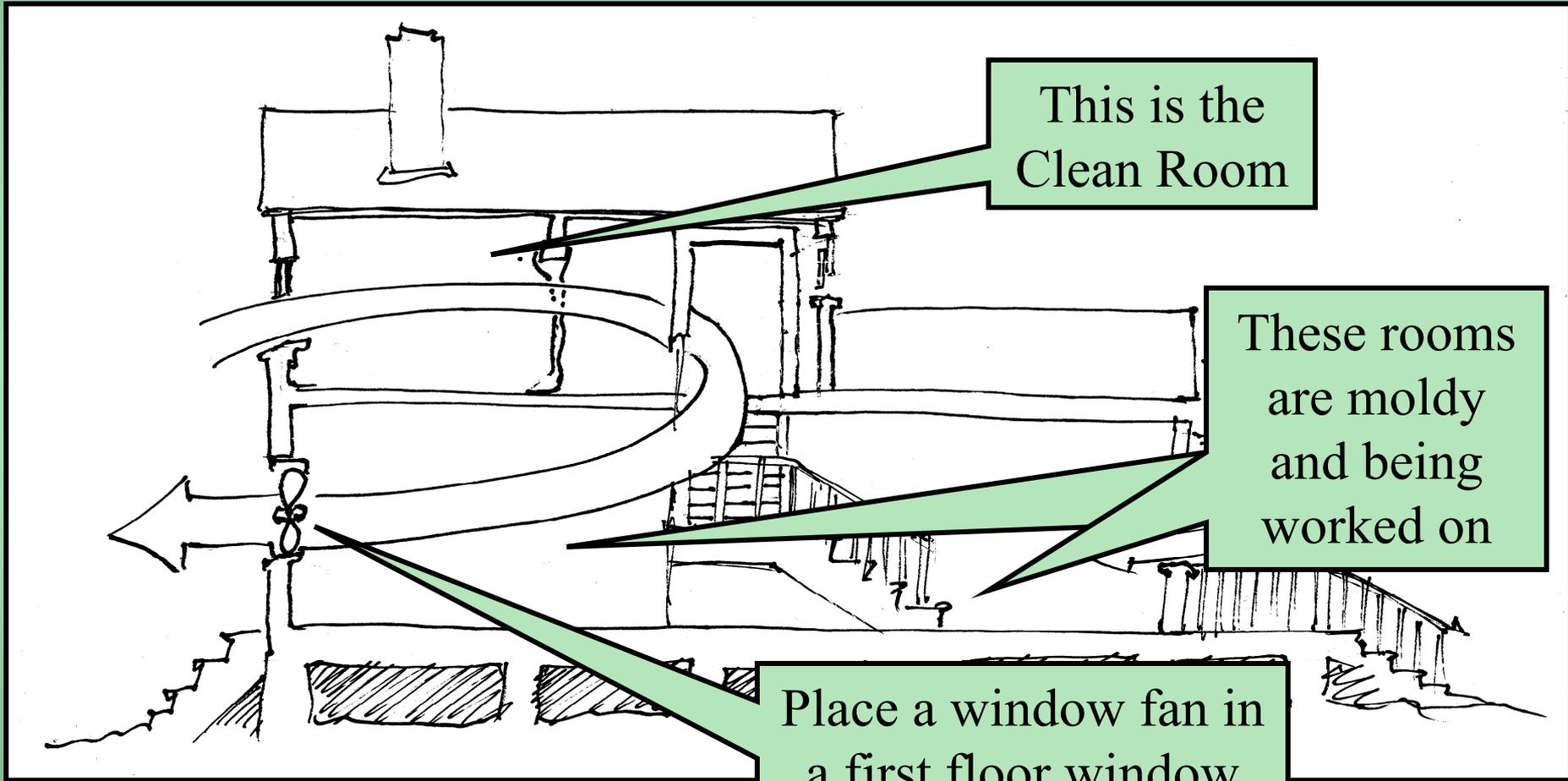


Keep clean areas separate from the work areas

Set up a “things-to-be-saved table”

Lay a plywood path

Site Preparation



This is the
Clean Room

These rooms
are moldy
and being
worked on

Place a window fan in
a first floor window
blowing out.

Clean-Out

- Air Out
- Remove small furniture and objects on the floor
- Remove large furniture
- Remove appliances
- Cut and remove wall to wall carpet
- Clean out closets, shelves, storage areas, and kitchen cabinets

Section 4 - P. 11 NCHH Field Guide
& Pages 32 – 34 of AHH Manual

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Gut Tear-Out

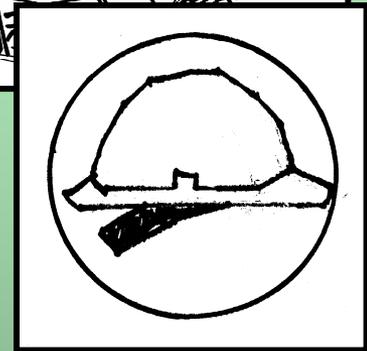
- Many damaged homes contain valuable historic materials
- These materials are usually of higher quality than what you can buy as a replacement.
- Saving historic materials that are in good condition and can be cleaned makes sense
- But, it may be cheaper to dispose of moldy building components.
- If you choose selective tear out, see Section 7.

Section 5 - P. 12-13 NCHH Field Guide
& Pages 35 – 37 of AHH Manual



Gut Tear-Out

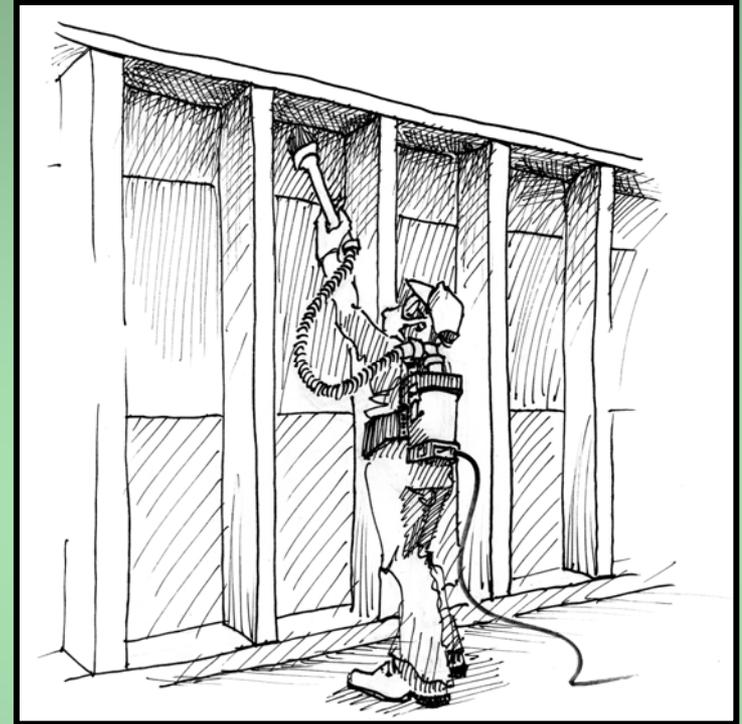
- Remove and dispose of cabinets, shelves, doors and trim
- Tear down drywall or plaster ceiling
- Remove drywall from walls
- Remove plaster from walls



- Remove insulation
- Remove layers from floor

Pre Construction Cleaning and Treatment

- Prepare surfaces
- Vacuum all surfaces
- Wet clean wooden surfaces if needed
- Disinfect all hard surfaces
- Treat surfaces with Borate solution
- Dry out the building
 - < 15% moisture content for wood



- Treat remaining wood studs with fungal coating (optional)

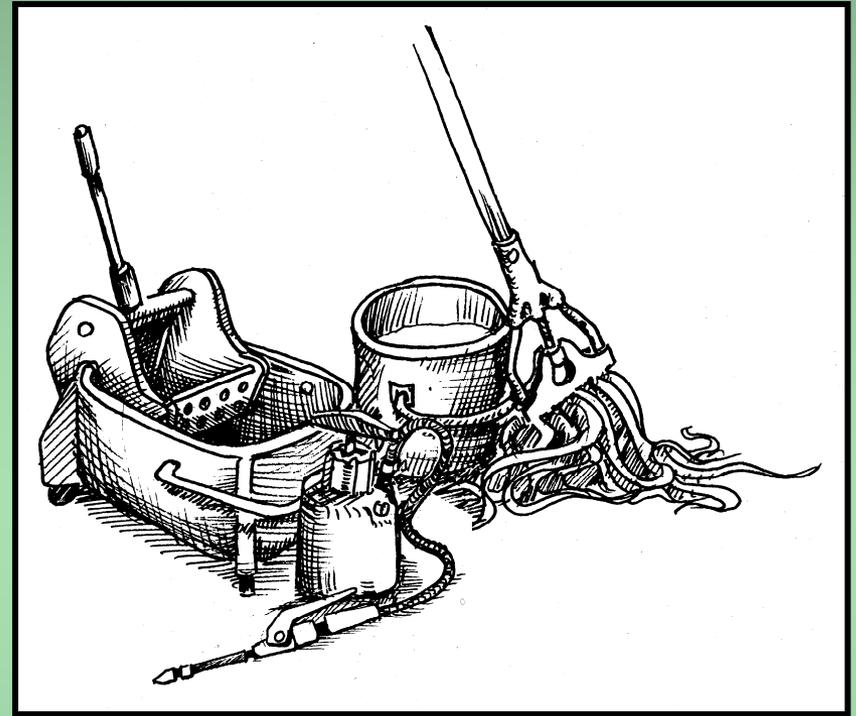
Section 6 - P. 13-15 NCHH Field Guide
& Pages 41-43 of AHH Manual

HEPA Vacuum

- HEPA Vacuuming can be performed using a Wet-Dry Vacuum with a HEPA filter.
- Home Depot carries a 5-Layer HEPA Filter - Model VF6000 - \$29.97 which fits all RIDGID shopvacs except the model TV3000
- Similar products manufactured by Shop-Vac and Sears.

Wet Cleaning Terms and Tips

- Wet Cleaning
 - Bleach may damage wood & some metals
 - Clean bare wood and metals with a non phosphate detergent
 - Allow surfaces to dry
- Disinfect hard surfaces with bleach & non phosphate detergent



- Use the 3 bucket system

Dealing with Black Water (sewage)

- You'll need waders of some sort & respiratory protection
- Pump it out (methane is a hazard!)
- Shovel out the remaining solids
- Scrub down the walls (it will help if you have working floor drains at this point)
- Treat thoroughly with a bleach solution 1 cup to 1 gallon of water (keep your respiratory protection on & do not mix with ammonia)

Dealing with Black Water (sewage)

- Ventilate basements **EXTREMELY** well (big fans and all access doors and windows kept open for a period before entry and the entire time during cleanup).
- Unfortunately, there are no air-purifying respirators that protect against sewer gas exposure.
- The biggest component is likely hydrogen sulfide, which has no adequate warning properties for Air Purifying Respirators (APRs),
- And additionally there may be insufficient oxygen.

Dealing with Black Water (sewage)

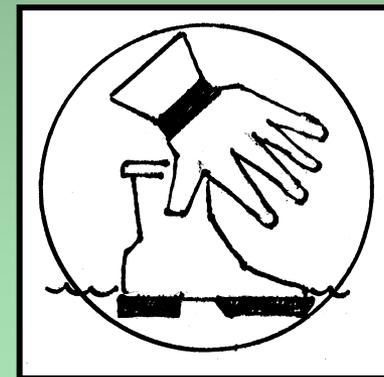
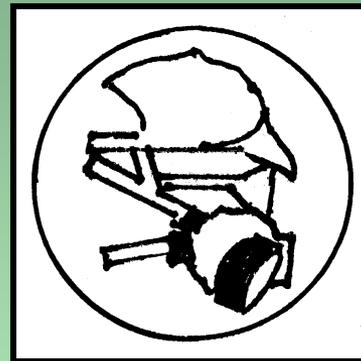
- If there are few or no doors or windows in the basement and you can't ventilate, then the basement needs to be treated as a confined space with a high potential for oxygen deficiency.
- A self-contained breathing apparatus is recommended.
- At least one additional person would need to be present immediately outside the space in case the person in the basement needs help.

Dealing with Black Water (sewage)

- One of the main hazards from sprayed bleach is eye irritation, so protective eye gear or a full-face respirator must be worn.
- There is a respirator cartridge that's protective for chlorine gas, which may be needed.
- The bleach spray itself isn't likely to give off chlorine gas, but may become a hazardous gas if it gets mixed with an incompatible chemical such as ammonia, which may be part of the sewage.

Selective Tear-Out & Prep Pre-Restoration

- Clean up as you go
- Open attic
- Open crawl space
- Drywall
- Plaster walls
- Insulation
- Kitchen cabinets and countertops
- Kitchen and bathroom fixtures

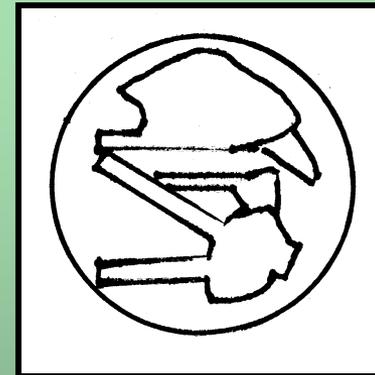
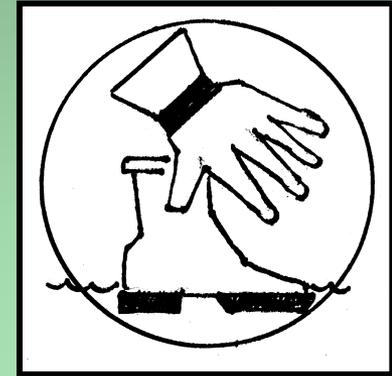


- Wood flooring
- Ceramic Flooring
- Wood windows, doors and trim
 - Repairing T & G Floor
- HVAC

Sect. 7 - pp 15, 16, 17

Restore Possessions

- Wood furnishings
- Clothing, drapery and other cloth
- China, glass, jewelry, porcelain and metal possessions
- Electric appliances
- Small valuables



Sect. 8 - p 17

Moisture Meters (IICRC*)

- Most commercially available moisture meters have a scale that is calibrated on wood and covers a range of 6% to 40% moisture content (MC).
- When testing the moisture content of materials other than wood, the reference scale must be used by testing material samples that are known to be dry. These readings are then used as benchmarks against which other readings are compared.
- There are two different types of moisture meters.
 - *Non-penetrating moisture meters* allow the users to test large areas quickly without penetrating the material. It is possible to get false positive readings when metals or certain chemicals are present behind the material being tested, and non-penetrating meters cannot detect moisture to a detection depth over $\frac{3}{4}$ inches.
 - *Penetrating moisture meters* with their different attachments, provide information about moisture content in hidden areas such as wall framing materials, insulation behind drywall and in floors and sub-floors.

* The Institute of Inspection, Cleaning and Restoration Certification



Borate Treatment Products

- Termite-Prufe: Copper Brite, Inc., P.O. Box 50610, Santa Barbara, CA 93150-0610, 805-565-1566 (www.copperbrite.com). Each container contains 1 pound of product, which makes one gallon of treatment solution. This solution will cover about 200 square feet. About 14 pounds is needed for an average house, at a cost of \$126.
- Bora-Care: Nisus Corporation, 100 Nisus Drive, Rockford, TN 37853, (800) 264-0870. (www.nisuscorp.com). The Nisus Corporation website lists local distributors.

Termite Prufe

Termite control with Termite Prufe, kills wood destroying insects & fungi that causes wood rot - Mi...

File Edit View Favorites Tools Help

Address <http://www.copperbrite.com/termite.html> Go

DEADLY TO TERMITES!

They eat the treated wood and die

Kills **all** species of termites. Also effective against wood destroying beetles, carpenter ants, wood rot and mold.

For Infestation & Prevention!
Kills Wood Destroying Insects & Fungi That Causes Wood Rot

termite prufe™
ODORLESS NON-FLAMMABLE

NET WT 1 LB. - Makes 1 GAL. Covers 200 sq. ft.

CAUTION: KEEP OUT OF REACH OF CHILDREN. See directions and label use for more info.

For Infestation & Prevention!
Kills Wood Destroying Insects & Fungi That Causes Wood Rot

termite prufe
READY TO USE

ODORLESS NON-FLAMMABLE

NET WT 1 LB. - Makes 1 GAL. Covers 200 sq. ft.

CAUTION: KEEP OUT OF REACH OF CHILDREN. See directions and label use for more info.

Deadly to Termites!

Termite Prufe™ Injectors
Use for: Termites, Moles, Cracks and Crevices, Wall and Ceiling Voids
(Fits most brass tapered garden sprayers)

EFFECTIVE AGAINST:
All Termites
Beetles
Carpenter Ants
Wood Rot
(Over)

Fits garden tank sprayer

Done Internet

Foster's 40-50

The screenshot shows a Microsoft Internet Explorer browser window displaying the Foster website. The address bar shows the URL: http://www.fosterproducts.com/default.aspx?PageID=details&pid=238. The page features a navigation menu with links for HOME, PDS, MSDS, INTERNATIONAL, CONTACT US, and CORPORATE. The main content area is titled "FOSTER® PRODUCTS" and includes a sidebar with links for PRODUCTS, PRODUCT DATA SHEETS, FOSTER® MSDS, CHILDERS™ MSDS, and HURRICANE SUPPORT. The main text describes the Foster® 40-50™ Mold Resistant Coating, highlighting its high quality, low viscosity, and mold resistance. It also provides application instructions and a list of specifications, including links to the 40-50™ Fact Sheet, 40-50™ White Paper, 40-50™ Sell Sheet, PDS, and MSDS. A search bar and a "SEARCH" button are located at the bottom of the page. The footer contains the copyright information: © 2005 Specialty Construction Brands, Inc.

Cost Estimates - NCHH

- Decontamination:
\$3.40 to \$4.10 per square foot of floor area
or
\$4,400 for average 1200 square foot home
- To complete repairs:
Home flooded 18 inches deep: \$32,000 to \$47,000
Homes flooded 6 feet deep: \$78,000 to \$120,000

Resources

Here are some web sites for future reference.



The National Center for Healthy Housing

<http://www.centerforhealthyhousing.org/>

The screenshot shows a Microsoft Internet Explorer browser window displaying the website for the National Center for Healthy Housing (NCHH). The address bar shows the URL <http://www.centerforhealthyhousing.org/>. The website header features the NCHH logo, a navigation menu with links for Home, Info For You, Links, Resources, and About Us, and a secondary menu with buttons for Research and Evaluation, Technical Assist. and Training, Policy and Regulations, NCHH Projects, and Services. A central banner highlights the 2005 Children's Environmental Health Recognition Award. Below this, a photograph shows a diverse group of people in front of a brick building. The main content area includes a 'Make a Difference' section with a link to learn how to give to NCHH, and a 'What's New?' section with links to Hurricane Recovery Efforts, EPA Renovation, Repair, and Painting Rule, National Healthy Homes Training Center and Network, National Healthy Housing Clearinghouse, and Home-Based Childcare Lead Safety Program. A paragraph describes the organization's mission to combat childhood lead poisoning and other environmental health hazards in homes.

NATIONAL CENTER FOR HEALTHY HOUSING

Home Info For You Links Resources About Us

Research and Evaluation Technical Assist. and Training Policy and Regulations NCHH Projects Services

2005 Children's Environmental Health Recognition Award

National Center for Healthy Housing, formerly the Center for Lead Safe Housing, was founded in 1992 to bring the housing, environmental, and public health communities together to combat childhood lead poisoning. As the National Center for Healthy Housing, we continue our important role as a non-profit organization in reducing children's risk of lead poisoning and will also expand our expertise to decrease their exposure to other hazards in the home, including allergens and irritants associated with asthma.

Our Mission To develop and promote practical methods to protect children from environmental health hazards in their homes while preserving affordable housing.



Little Sisters of the Assumption Family Health Services

<http://www.littlesistersfamily.org/index.htm>

LSAFHS - Microsoft Internet Explorer

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Address <http://www.littlesistersfamily.org/index.htm>

Google ion Family Health Services Search Popups okay Check AutoLink AutoFill Options Little Sisters of the

Little Sisters of the Assumption Family Health Service

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This web site is currently in development...

A Place to Grow

The Little Sisters of the Assumption Family Health Service, founded in 1958, is a nonprofit community-based organization that works with the people of East Harlem to address the physical, emotional, educational, and spiritual dimensions of family health.

Its home-based and center-based programs are designed to empower those who are most vulnerable and who have least access to the basic necessities of life, in the conviction that the entire community grows when individuals and families are affirmed in their own dignity.

[More](#) about the LSAFHS...

We've [moved!](#) Click [here](#) for a panoramic view from the rooftop of our new building.

Stephanie Shows a Tomato from the Pleasant Park Community Garden

Internet

http://www.mold-help.org

Mold- Help Web Site

Mold-Help.org: The BEST toxic mold site on the web...the truth; - Microsoft Internet Explorer

Address <http://www.mold-help.org/>

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Home

MOLD. . .What is it all about?

Posted by Susan Lillard-Roberts
Thursday, 16 February 2006

Mold has certainly made its way into people's homes as well as the headlines recently. Many people still don't fully understand the health hazards of fungal exposure. The term toxic mold is somewhat misleading as it exudes an idea that certain molds are toxic, when actually certain types of molds produce secondary metabolites that produce toxins. The correct term is mycotoxins. Airborne mycotoxins from can definitely destroy one's health. Sometimes, people are unaware that they are breathing mold spores and mycotoxins until they are very sick. Certain people have a minor allergic reactions to the non-toxic mold, but once you leave the affected area they most likely recover with few serious side effects. However, if they have been exposed to the dangerous molds such as *Stachybotrys* or *Chaetomium*, they could suffer from a myriad of serious symptoms and illnesses such as chronic bronchitis, learning disabilities, mental deficiencies, heart problems, cancer, multiple sclerosis, chronic fatigue, lupus, fibromyalgia, rheumatoid arthritis, multiple chemical sensitivity, bleeding lungs and much more.

This organization is dedicated to the hundreds of thousands of innocent people who have lost their lives, health, and homes to this scourge as our government, insurance companies, social service organizations, and disaster management groups have ignored them in their greatest time of need. We offer

Resources & Documentation

- Mold proven to be ... 7/4/05 Manchester, UK...
- Garlic showing pos... 1/17/06 Portlan...
- Moldy foods - What... Molds on Food FOO...
- Slobber syndrome a... The fungus Rhizictonia legumin...
- Fusarium equiseti ... Tibial dyschondroplasia (TDP) ...
- Deoxynivalenol (vo... Fusarium graminearum (sexual sta...
- Trichothecenes, T... Fusarium tricinatum and ...
- Ochratoxin, citrin... Ochratoxin A, produced primari...

Types of Toxic Molds & Images of Mold(29)

Fungal Infections and Symptoms(23)

Research and Findings(20)

Ads by Goooooogle

Mold Inspection & Removal

Using a Common Sense Approach Serving Pa, Md, DC, WVa, Va, & De
www.grangevilleenvironmental.c

Mold and Mildew

Welcome to Mold-Help.org - The BEST Toxic Mold Site on the Web

Internet

<http://www.epa.gov/iaq/molds/index.html>

EPA's Mold Web Site

Check out the Mold Course

U.S. Environmental Protection Agency

Indoor Air - Mold

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Quick Finder

[Mold Course](#) | ["A Brief Guide to Mold, Moisture, and Your Home"](#) | ["Mold Remediation in Schools and Commercial Buildings"](#) | [Mold Resources Page](#) | [EPA Hurricane Response](#) | [Flood Cleanup Fact Sheet](#) | [How to Order EPA Publications](#)

Top Stories

Mold Course New!

[Introduction to Mold and Mold Remediation for Environmental and Public Health Professionals](#) - This web course contains information on mold prevention and remediation. It is designed primarily for environmental and public health professionals. The [Mold Course](#) has nine chapters; these chapters are further divided into smaller lessons. At the end of each chapter there is a voluntary quiz to test your understanding of the material covered. Each chapter may be accessed at any point in the course using the menu on the left side of the page. If you would like to take a short quiz on your current mold knowledge, begin with the [Pre-Test](#). You can print a PDF version of this course ([PDF](#), 202 pp, 6.1MB, [About PDF](#)).



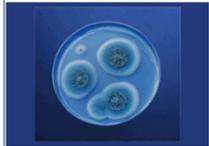
Mold Resource Available - Guidance for Health Professionals

New!

A mold resource, entitled: *Guidance for Clinicians on the Recognition and Management of Health Effects Related to Mold Exposure and Moisture Indoors* (September 30, 2004), published by the Center for Indoor Environments and Health at University of Connecticut Health Center with support from a grant by the U.S. EPA is available for free from <http://oehc.uconn.edu/clinsr/indoor.htm> [\[EXIT disclaimer\]](#). This document is also available in PDF format from their site http://oehc.uconn.edu/clinsr/MOLD_GUIDE.pdf [\[EXIT disclaimer\]](#)

The Key to Mold Control is Moisture Control.

It is important to dry water damaged areas and items within 24-48 hours to prevent mold growth. If mold is a problem in your home, clean up the mold and get rid of the excess water or moisture. Fix leaky plumbing or other sources of water. Wash mold off hard surfaces with detergent and water, and dry completely. Absorbent materials (such as ceiling tiles & carpet) that become moldy may have to be replaced.



Alliance to Save Energy Home Energy Checkup

The screenshot shows a web browser window with the URL http://www.ase.org/section/_audience/consumers/homecheckup/#DOE. The page header features the Alliance to Save Energy logo and navigation links: Home, Topics, Programs, Countries, News, Events, About Us, Contact Us. The main content area is titled "Home Energy Checkup and Audit" and includes a list of links: About Checkup, Conduct a Home Energy Checkup, and DOE Resources. A paragraph explains the interactive tools available. A sidebar on the left lists various resources like "Consumer Tax Credits" and "Tips to Lower Your Energy Bills". A "Donate Now" button and an "Email Newsletter Subscription" form are also visible.



Termite Prufe

Termite control with Termite Prufe, kills wood destroying insects & fungi that causes wood rot - Mi...

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DEADLY TO TERMITES!

They eat the treated wood and die

Kills **all** species of termites. Also effective against wood destroying beetles, carpenter ants, wood rot and mold.

For Infestation & Prevention!
Kills Wood Destroying Insects & Fungi That Causes Wood Rot

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READY TO USE
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For Infestation & Prevention!
Kills Wood Destroying Insects & Fungi That Causes Wood Rot

DEADLY TO TERMITES!

Use for: Termite Moles, Crack and Crevice, Wall and Ceiling Voids (fits most brass tipped garden sprayers)

termite prufe

EFFECTIVE AGAINST:
All Termites
Beetles
Carpenter Ants
Wood Rot
(Over)

Fits garden tank sprayer

Done Internet

Foster's 40-50

The screenshot shows a Microsoft Internet Explorer browser window displaying the Foster Products website. The address bar shows the URL: http://www.fosterproducts.com/default.aspx?PageID=details&pid=238. The page features a navigation menu with links for HOME, PDS, MSDS, INTERNATIONAL, CONTACT US, and CORPORATE. The main content area is titled "FOSTER® PRODUCTS" and includes a sidebar with links for PRODUCTS, PRODUCT DATA SHEETS, FOSTER® MSDS, CHILDERS™ MSDS, and HURRICANE SUPPORT. The main text describes the Foster® 40-50™ Mold Resistant Coating, highlighting its high quality, low viscosity, and mold resistance. It also provides application instructions and a list of specifications, including links to the 40-50™ Fact Sheet, 40-50™ White Paper, 40-50™ Sell Sheet, PDS, and MSDS. The footer contains a search bar, a site index, legal terms, and contact information for HB Fuller, along with a copyright notice for Specialty Construction Brands, Inc. from 2005.