O-07

CITY COUNCIL AGENDA ITEM

Date: November 7, 2012

To: Mike Culpepper, Acting City Manager

From: Mark F. Miller, Director of Economic and Community Development

Subject: Water Damaged Buildings

Attached please find correspondence from Rose Van Den Branden. Ms. Van Den Branden contacted City Management regarding water damage and mold at 2846 Alisop, apartment 402, Regents Park.

All code violations were corrected by the apartment management. Ms. Van Den Branden has concerns regarding mold. City Management informed Ms. Van Den Branden that neither the Michigan Building Code, Property Maintenance Code or any other City code regulate mold.

It appears that this is private matter between Ms. Van Den Branden and Regents Park Apartments.

October 18, 2012

To: Robert Ervin
Mayor Danials and Members of Troy City Council
Mike Culpepper, City Manager - Troy
Steve Burns, Building Official

Subject: Water damaged building in Troy with laboratory results showing fungal and bacterial contamination

As many of you are aware, I have been working on this problem for almost a year. I was in communication with the former City Manager, John Szerlag. I have enclosed a copy of e-mails to update all parties. I have also enclosed laboratory results and reports along with a current letter to Nathan Wild, General Manager, Regents Park Apartments in Troy. This letter outlines the situation and my current concerns.

As I stated in that letter, I am concerned for the health and safety of the Troy residence if they are being exposed to these known toxins.

I have spoken to the Center for Disease Control and they suggested I contact you - the City Officials - so we can improve the safety and health implications of this situation.

Please read the enclosed reports and research. I believe by working together we can educate people how to correct water related problems to ensure that people renting apartments in Troy are protected. This will increase property value and maintain Troy's reputation as the City that demands high building standard, not just for homes, but for apartment buildings as well.

If you would like more information, I can be reached at 586.484.6342 or rosevdb3@gmail.com

Looking forward to finding a solution.

Thank you.

Rose Van Den Branden, R.N.

-----Original Message-----
From: Rose VanDenBranden [mailto:rosevdb3@gmail.com]
Sent: Sunday, March 11, 2012 9:23 PM
To: John Szerlag
Cc: Janice Daniels
Subject: Building codes as the relate to water damaged buildings

Hello John,
Over the last few months I have had the opportunity to work with various members of your staff and also speak with the mayor concerning an issue that is extremely important to the well being of Troy residences. Janice has a great concern for water damaged buildings and subsequent mold and illness related issues. She suggested I write to you.

In speaking with your inspectors they state the city does not have any laws relating to mold in buildings therefore they do not have a code to enforce. Many of them suggested sending a letter to you so you can direct them how to deal with water damaged buildings and problems they bring.

Water damaged buildings create a host of problems and safety issues just as dangerous as idems you do have codes that cover and help protect the citizens of troy. New York City has guidelines. In the State of Florida an apartment owner must disclose if mold remediation was performed in an apartment. Why not in Troy?

The officials need to become educated about the dangers that water damaged buildings create.This issue not only effects the property value in Troy it also can effect the health of the citizens of Troy.

Looking forward to hearing your solution. Thank you for you time. I have been a citizen of Troy for twenty years and always am striving to make Troy a place where my kids can raise their kids. Several years ago my husband and I fought to keep the Aquatic Center open and now it brings me great pleasure to see it on Troys web site promoting what a great city it is to live in. Please let me know if I can help.

Rose Van Den Branden

---------- Forwarded message ----------
From: **John Szerlag** <J.Szerlag@troymi.gov>
Date: Wed, Mar 14, 2012 at 10:59 AM
Subject: RE: Building codes as the relate to water damaged buildings
To: Rose VanDenBranden <rosevdb3@gmail.com>
Cc: Mark F Miller <MillerMF@troymi.gov>, Steve Burns <S.Burns@troymi.gov>, Dane Slater <djlkslater@aol.com>, Dave Henderson <davehenderson@wideopenwest.com>, Doug Tietz <doug@greatdanemarketingservices.com>, Janice Daniels <janice.daniels@troymi.gov>, Jim Campbell <jcampbell@futuretool.com>, Maureen McGinnis <mmcginnis@dmcginnis.com>, Wade Fleming <wade.fleming@proforma.com>

Good morning Ms. VanDenBranden,
Please find below a response to your email of March 11th, provided by our Building Official, Steve Burns.

The City of Troy enforces is the 2009 Michigan Residential Code as per the Stille-DeRossett-Hale Single State Construction Code Act that applies uniformly throughout the state with no local amendments.

While I am not sure what inspector specifically you spoke with, sometimes the answer given depends on the detail in the question asked. The short answer is correct, the 2009 MRC is mute when it comes to mold specifically. However the Code is prescriptive in its methods and standards for new construction, and or alterations and repairs to existing dwellings.
Mold is caused from moisture infiltration. The code and referenced standards regulate how water infiltration and ventilation is handled through the various methods of construction and the building systems being installed. That is what is inspected throughout the construction, alteration or repair process by the Building Inspection Department.
The City of Troy also has a Property Maintenance Code per chapter 82 of the city ordinance that states the following:

101.2 Scope. The provisions of this code shall apply to all existing residential and nonresidential structures and all existing premises and constitute minimum requirements and standards for premises, structures, equipment and facilities for light, ventilation, space, heating, sanitation, protection from the elements, life safety, safety from fire and other hazards, and for safe and sanitary maintenance; the responsibility of owners, operators and occupants; the occupancy of existing structures and premises, and for administration, enforcement and penalties.

101.3 Intent. This code shall be construed to secure its expressed intent, which is to ensure and promote public health, safety and welfare in so far as they are affected by the continued occupancy and maintenance of structures and premises. Existing structures and premises that do not comply with these provisions shall be altered or repaired to provide a minimum level of health and safety as required herein.

SECTION 102 APPLICABILITY
102.1 General. The provisions of this code shall apply to all matters affecting or relating to structures and premises, as set forth in Section 101. Where, in a specific case, different sections of this code specify different requirements, the most restrictive shall govern.

102.2 Maintenance. Equipment, systems, devices and safeguards required by this code or a previous regulation or code under which the structure or premises was constructed, altered or repaired shall be maintained in good working order. No owner, operator or occupant shall cause any service, facility, equipment or utility which is required under this section to be removed from or shut off from or discontinued for any occupied dwelling, except for such temporary interruption as necessary while repairs or alterations are in progress. The requirements of this code are not intended to provide the basis for removal or abrogation of fire protection and safety systems and devices in existing structures. Except as otherwise specified herein, the owner or the owner's designated agent shall be responsible for the maintenance of buildings, structures and premises.

While there is no mention specifically to mold in the lack of maintenance or damage to a structure that causes mold falls under the requirements. If a structure is under repair or alteration and mold was discovered an inspector would take the appropriate actions to ensure it is remediated.

If a structure is not being maintained, an enforcement action can be taken to bring the property into compliance with the property maintenance requirements set forth in Chapter 82 of the City of Troy Ordinance.

That is not to imply that we can address every instance of mold occurring in a structure. But when we are made aware of and issue and can identify a building code violation and or property maintenance violations as a cause that is contributing to mold we can address it.

If the City were to consider a local ordinance to establish a standard for mold remediation it could not infringe on items regulated by the Michigan Residential Code, as it is not permitted to be amended by local jurisdictions under the Stille-DeRossett-Hale Single State Construction Code Act.

---------- Forwarded message ----------
From: **Regents Park of Troy Property Manager** <executivemanager@regentspark.com>
Date: Mon, Apr 2, 2012 at 6:12 PM
Subject: RE: 2846 Alisop Apt 402
To: Rose Van Den Branden <rosevdb3@gmail.com>

Hi Rose,

Thank you for the update with regard to the apartment. We did not receive the apartment keys over the weekend. Will you be dropping off all the apartment keys, key fobs and gate cards or should we expect them in the mail?

Nathan Wild | General Manager | Regents Park of Troy
2751 Melcombe Circle, Troy, MI 48084
(P) 248.641.5333 |(F) 248.641.9255 | generalmanager@regentspark.com www.regentspark.com
<http://www.regentspark.com/>

"We are passionate about providing an exceptional rental experience and developing extraordinary apartment communities with complete devotion to pleasing our customers."

From: Rose Van Den Branden [mailto:rosevdb3@gmail.com]
Sent: Sun 4/1/2012 11:30 AM
To: Regents Park of Troy Property Manager
Cc: Mark Van Den Branden
Subject: 2846 Alisop Apt 402

Nathan,
Please be advised that as of 3/31/12 we have completely vacated our home at 2846 Alisop Apt 402, per court order. According to a certified environmental air hygienist and microbiology reports, the apartment remains contaminated and uninhabitable.

As I previously informed you the downspout on the front of the building remains non functional. In addition, on March 31,2012, a second downspout was observed to be completely down laying on the ground next to the building thus also non functional.

The pipe in the basement-parking structure continues to leak thus creating a pool of standing water as of 3/31/12. This is the same pipe that was leaking and reported previously to you.

Rose and Mark Van Den Branden

PLEASE PRINT
---------- Forwarded message ----------
From: **Robert J Ervin** <R.Ervin@troymi.gov>
Date: Wed, Sep 26, 2012 at 1:46 PM
Subject: Regents Park Apartments
To: rosevdb3@gmail.com
Cc: Paul M Evans <P.Evans@troymi.gov>

Rose,

The answer is yes to both of your questions.

From: Rose Van Den Branden [mailto:rosevdb3@gmail.com]
Sent: Wednesday, September 26, 2012 10:18 AM
To: Paul M Evans
Cc: Mark Van Den Branden
Subject: Regents Park Apartment

Hi Paul,

Just following up on our previous conversations and wanted to know if Regents Park forwarded the final mold remediations reports about apt 402 building 10? Also does Regents Park have a valid Certificate of Compliance yet? Last time we spoke they did not.

Please let me know ASAP.

Thank you and have a great day!

Rose Van Den Branden

Nathan,

I just received your letter dated 9/21/2012 summarizing the final balance due.The balance is incorrect and please note that this is the first time that you informed us about anything being due and since we came to our agreement in court.

I have a bag full of keys,garage openers,fabs,and gate openers that I will drop off today. Attached is a copy of the receipt showing we paid for the stove.

Your letter stated that you are forwarding this information regarding the amount due to your 3rd Party Collection Agency.I respectfully request that you do not do that as it would be a misrepresentation of us as tenants and cause myself and family intentional and unnecessary hardship and damage. As you know all of our rent was paid on time while we lived at Regents Park. The presence of Black Mold along with other toxic molds in you apartment forced us to leave. Your threat to affect our credit rating is uncalled for and malaise in nature,and it is our intention to resolve this matter.

Once you receive the items please credit my account appropriately and send me a corrected invoice.

A copy of this Email has been sent thru US Mail First Class.

Thank You, Mark Van Den Branden

October 17, 2012

Nathan Wild
Regents Park Apartments of Troy
2751 Melcombe Circle
Troy, MI 48084

Dear Nathan,

Pursuant to my e-mail dated October 2, 2012 I have not received any communication from you. Let me reiterate my concerns and request that you resolve this matter. Please reassure me that you will not falsely report information in an attempt to ruin my credit rating as you threatened to do in your letter dated September 21, 2012.

As you are aware:

- Toxic mold contamination was found in the apartment we rented from you (You repeatedly told us that our apartment was safe to return to live in but upon questioning, your own mold remediator would discover more toxic mold under baseboards, under the floor, in the HVAC closet, etc. Your top priority was certainly not the safety and health of my family)

- Certified indoor air scientific lab tests confirmed that both our apartment and contents were exposed and contaminated

- At one point you offered to clean our contents following your own guidelines not the industry standard guidelines as presented by Connie Morbach, M.S., CHMM, CIE, our indoor air hygienist

- Subsequently you retracted that offer, filed to evict us and refused to reimburse us for all our damaged contents and related costs

Dr. Ritchie Shoemaker, MD, in his book SURVIVNG MOLD: LIFE IN THE ERA OF DANGEROUS BUILDINGS, describes how a biotoxic illness can follow exposure to the "biochemical stew" of toxins found in water damaged buildings.

Definitely the most disturbing fact is that you were notified that my family became ill while living in your water damaged building and you chose to ignore the medical doctor's orders, advice from environmental specialists and results of scientific laboratory tests. I have enclosed another copy of the final report that shows both fungal and bacterial contamination that exists in your water damaged building.

October 17, 2012

Isn't it true that you had a Regents Park Representative/Witness present when these samples were collected? Did you still choose to ignore the scientific results and related problems?

For the sake of your employees and tenants, I hope you relook at the scientific results and research and clean your building to prevent serious health hazards caused from these organisms. As the leader in luxury apartment living, I would expect that you would hold yourself to the highest standards. I know I did. We rented from you because you advertised you were the best.

As a Registered Nurse, concerned citizen and toxic mold survivor, I wonder if you re-rented our apartment knowing the contamination existed. And if re-rented, did you inform the new tenants of this known risk? For their sake I hope you did tell them of the toxic mold contamination.

As for us it has been a living nightmare; a series of hotel rooms, medical problems and the loss of all our personal belongings and children's treasured items due to contamination!

Please contact me to resolve the outstanding issues and please do not create more problems for us by reporting inaccurate information to the credit bureau.

Thank you,

Rose Van Den Branden

CC: Robert Ervin, Housing and Zoning Inspector, City of Troy
Mayor Daniels
Mike Culpepper, City Manager, Troy
Beth Thomas, Michigan Attorney General's Office

SANIT-AIR

ENVIRONMENTAL
COMPLIANCE
SOLUTIONS

800 N. Crooks, Suite 205
Clawson, MI 48017

(248) 435-2088 p
(248) 435-2388 f

March 09, 2012

Mark and Rose Vandenbranden
2846 Alisop Place, Apt. 402
Troy, MI 48084

Dear Mr. and Mrs. Vandenbranden:

Attached are the laboratory reports for the final testing that was performed in the apartment you leased at 2846 Alisop Place. The samples demonstrate that the remediation was not effective in restoring the apartment to inhabitable conditions. If needed, a supplemental report with more detailed interpretation of the data will follow.

A brief summary of the notable findings is provided below:

- The settled dust sample from the remediated bedroom was analyzed by MSQPCR, which is a DNA based analysis. The sample collected from the bedroom that was remediated demonstrates that problematic fungi that are associated with water damaged building materials remain in significant concentrations. The dust was collected from the floor, closet shelves, and HVAC platform. The resultant ERMI value (Environmental Relative Moldiness Index) places the apartment in the interpretive index of 4, which is the group that represents the highest likelihood that a mold problem exists in the indoor environment.
- The culturable air samples collected in the remediated bedroom, hallway outside of the bedroom and the hallway outside of the apartment also demonstrate that the air in the apartment remains contaminated. The total concentrations of fungi identified in the air samples ranged from 340 cfu/m^3 to 900 cfu/m^3, with *Cladosporium sphaerospermum*, a mold that grows on wet insulation and fiberboards, as the predominant species. Comparatively, 18 cfu/m^3 of culturable fungi are identified in one of the outdoor air samples.
- *Cladosporium sphaerospermum* is also reported at a high concentration in a surface sample collected from a water

damaged ceiling tile in the parking garage. The results indicate that sources of mold contamination existed at other locations outside of the Vandenbranden apartment.

- A sample of puddled water on the garage floor beneath the damaged ceiling tile shows high concentrations of pathogenic bacteria, including *Pseudomonas*, which can cause pneumonia and other illnesses. High concentrations of yeasts were also identified in the water puddle.

- Based on the results of samples collected inside of the apartment, in the hallway outside of the apartment as well as visual observations of ground water intrusion, pipe leaks, and contaminated building materials in the garage, 2846 Alisop Place and apartment have not been restored to habitable conditions.

- Additionally, the air sample results confirm that contaminants associated with water damaged building materials were airborne at the time of testing. The airborne fungal spores continue to add to the contamination level of the contents. In accordance with industry standards of care, the following guidelines are to be used to address contents that remain in the apartment.

    * Porous padded items, such as upholstered furniture, mattresses, pillows, stuffed animals, etc., are to be discarded.

    * Semi-porous items, such as furnishings constructed of unsealed wood or composite wood materials, are to be discarded.

    * Solid wood items with all surfaces sealed with an impermeable coating are to be HEPA vacuumed, damp wiped, washed with compressed air, then vacuumed and wiped again.

    * Dishes, cooking utensils, glasses and other cleanable non-porous items are to be cleaned in a dishwasher or hand washed using detergent and multiple clear water rinses.

* Glass and metal tables are to be HEPA vacuumed and cleaned with detergent and water, followed by clear water rinses. Air washing with compressed air is to be incorporated on items that have intricate design or surfaces that are not smooth.

* Books, papers, purses, photographs, and other porous items that cannot be effectively cleaned without altering the appearance are to be discarded. Items that are to be photocopied or electronically reproduced are to be HEPA vacuumed and agitated over the inlet of a HEPA filtered downdraft table prior to packing.

* Art work in frames should remain in the frame. The cardboard and craft paper backing is to be replaced. The outside of the frame and glass is to be HEPA vacuumed and wiped with only damp cloths.

* Ceramic items that are not completely sealed with a non-permeable coating are to be discarded. Items to be restored are to be submersed in water with detergent, rinsed in clear water and air washed with compressed air.

* Clothing is to be discarded.

* Medication, cosmetics, personal care items, and food items are to be discarded.

* Questionable items with high monetary or intrinsic value are to be placed in rubber tubs with lids for individual evaluation.

I can prepare a more detailed report if needed. Please call if you have questions.

Best regards,

Connie A. Morbach, M.S., CHMM, CIE

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone: (800) 220-3675 Fax: (856) 786-0262 Email: cinnmicrolab@emsl.com

Attn: **Connie Morbach**
Sanit-Air, Inc.
800 North Crooks Road
Suite 206
Clawson, MI 48017

Customer ID: SANI78
Customer PO:
EMSL Order: 371204776
EMSL Proj:
Received: 03/27/2012 1:55 PM
Analysis Date: 4/4/2012

Project: **Vandenbranden 3**
Fax: (248) 435-2388 Phone: (248) 435-2088

Test Report: Identification and Enumeration of Culturable Fungi by Swab (Including Speciation of Penicillium, Aspergillus, Cladosporium, and Stachybotrys (EMSL Method M005))

Sample Description	Sample Location	Temp (C)	Sample Measure (ft^2)	Analytical Sensitivity (CFU/ft^2)	Dilution	Fungal Identification	Colony Count	CFUs (CFU/ft^2)	Percent of Total
UB205	Coil/Furnace; Bdrm	25	1	10,000	10000	*Cladosporium sphaerospermum*	34	340,000	81.0
371204776-0001	*Media:* MEA,CELL,CYA			10,000	10000	*Penicillium chrysogenum*	5	50,000	11.9
				10,000	10000	*Ulocladium sp.*	3	30,000	7.1
						Total	**42**	**420,000**	

No discernable blank was submitted with this group of samples

Initial report from 04/04/2012 16:26:58

Farbod Nekouei, M.S., Laboratory Manager
or other approved signatory

"<" means less than the stated value. The level of detection is equal to 1 CFU per plate of sample analyzed. CFU = colony forming unit. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation of the data contained in this report is the responsibility of the client. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ AIHA-LAP, LLC–EMLAP Lab 100194

THIS IS THE LAST PAGE OF THE REPORT.

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone: (800) 220-3675 Fax: (856) 786-0262 Email: cinnmicrolab@emsl.com

Attn: **Connie Morbach**
Sanit-Air, Inc.
800 North Crooks Road
Suite 206
Clawson, MI 48017

Customer ID: SANI78
Customer PO:
EMSL Order: 371204776
EMSL Proj:
Received: 03/27/2012 1:55 PM
Analysis Date: 4/3/2012

Project: **Vandenbranden 3**
Fax: (248) 435-2388 Phone: (248) 435-2088

Test Report: Identification and Enumeration of Culturable Bacteria by Swab (Three Most Prominent Types (EMSL Method M009))

Sample Description	Location	Media	Temp (C)	Sample Measure (ft^2)	*Analytical Sensitivity* (*CFU/ft^2*)	*Dilution*	*Bacteria Identification*	*Colony Count*	*CFUs* (*CFU/ft^2*)
UB205	Coil/Furnace; Bdrm	SBA	35	1	1000	1000	*Gram positive rod*	89	89,000
					1000	1000	*Micrococcus luteus*	4	4,000
							Total	**93**	**93,000**

371204776-0001

No discernable blank was submitted with this group of samples

Initial report from 04/03/2012 15:45:59

Farbod Nekouei, M.S., Laboratory Manager
or other approved signatory

EDLab
Environmental Diagnostics Laboratory

April 5, 2012

Sanit-Air
800 N. Crooks, Suite 206
Clawson, MI 48017

Re: **Vandenbranden Residence**
Laboratory Analysis Report
Work Authorization # 05616- 014115

Dear Sanit-Air,

We appreciate the opportunity to provide you with our professional indoor environmental laboratory services. The following environmental assays were performed on the samples submitted by you:

- **Mycotoxin (Trichothecenes) Analysis**

Please call me at 1-800-422-7873, ext. 301, should you have any questions. We look forward in assisting you to create a healthy indoor environment for you and your organization.

Sincerely,

Dr. Rajiv Sahay, CIAQP, FIAS
EDL Laboratory Director

Corporate Office
4911 Creekside Drive • Suite C • Clearwater, FL 33760 • (727) 572-4550 • Toll Free 1-800-422-7873 • Fax: (727) 572-5859
Email: laboratory@pureaircontrols.com • Website: www.pureaircontrols.com

EDLab
Environmental Diagnostics Laboratory
1-800-422-7873, Ext. 301

Laboratory Analysis Report
Mycotoxin
(Trichothecenes)
Analysis

AIHA LAP, LLC
ACCREDITED LABORATORY
ENVIRONMENTAL MICROBIOLOGY
ISO/IEC 17025:2005
www.aihaaccreditedlabs.org
LAB #102796

Client: **Building Health Check, LLC**
Jobsite: **Sanit-Air**
Location : **Vandenbranden Reside**

PACS ID # : **05616**
Work Order # : **014115**
Project Date : **3/26/2012**
Date Issued : **4/5/2012**

Unit	Zone	Test Site	Sample#	Lab Rec'd. Date	Date Analyzed	Mycotoxin Concentration (Trichothecenes)
N/A	#2 Furnace Interior	N/A	77627	3/26/2012	4/5/2012	0.4
N/A	2nd Bedroom Contents	N/A	77630	3/26/2012	4/5/2012	0.2
N/A	Bedroom Furnace	N/A	77628	3/26/2012	4/5/2012	0.3
N/A	Outside housing	N/A	77629	3/26/2012	4/5/2012	0.2

Method of Analysis: EDLAB SOP-7/15001

*ppb = parts per billion.

BDL = Below Detection Limit
Detection Limit: The assay's quantitation range is from 0.2 to 18.0 parts per billion (ppb).

The results in this report apply only to the sample(s) specifically listed above and tested at Environmental Diagnostics Laboratory. Unless otherwise noted, samples were received in good condition. Laboratory-prepared Quality Control (QC) samples are analyzed with the samples routinely; however, unless a blank (control) is received, the result for the control is not compared.

Quality Controlled By : _____

Approved By : _____
Rajiv R. Sahay, Ph.D.

Prestige EnviroMicrobiology, Inc

Website: www.prestige-em.com

Analytical Test Report

Client: Sanit-Air, 800 N. Crooks St., Clawson, MI 48017

Client Project: Vandenbrandon 2312

Sample date: 2-3-2012

Submittal date: 2-20-2012

Date samples received: 2-21-2012

Inoculation date: 2-3-2012 (Andersen); 2-21-2012 (wipe)

Samples submitted by: Connie Morbach

Data analysis completed: February 28, 2012

Prestige Report number: 120221-06

Culture Method (P007): Culture Analysis of Andersen Samples for Airborne Fungal Speciation

Prestige # Client sample ID Location	Air vol. (m^3)	Medium used	Fungal Identification	Colony counts	CFU/ m^3	Percentage
120221-06-021 1 Out 1	0.056	MEA	*Cladosporium sphaerospermum*	1	18 Total 18	100%
120221-06-022 3 Out 2	0.056	MEA	*Epicoccum nigrum*	1	18 Total 18	100%
120221-06-023 5 Bedroom 1	0.056	MEA	*Chaetomium globosum* *Cladosporium sphaerospermum* *Paecilomyces marquandii* *Penicillium chrysogenum* *Penicillium viridicatum* *Rhodotorula glutinis* *Ulocladium botrytis* yeasts	1 14 1 1 1 1 1 2	18 250 18 18 18 18 18 36 Total 390	5% 64% 5% 5% 5% 5% 5% 9%
120221-06-024 7 Remediation area	0.056	MEA	*Acremonium strictum* *Cladosporium sphaerospermum* *Ulocladium botrytis*	1 13 5	18 230 89 Total 340	5% 68% 26%
120221-06-025 9 Hallway	0.056	MEA	*Acremonium strictum* *Cladosporium cladosporioides* *Cladosporium sphaerospermum* sterile fungi	1 4 45 1	18 71 800 18 Total 910	2% 8% 88% 2%

Culture Method (P010): Culture Analysis of Wipe Samples for Fungi with Full Speciation

Prestige # Client sample ID Location	Area (inch^2)	Medium used	Dilution factor	Fungal Identification	Colony counts	Conc. (CFU/ in^2)	Percentage
120221-06-031	1	MEA	1,000x	*Alternaria alternata*	17	17,000	35%
11				*Cladosporium sphaerospermum*	28	28,000	58%
Garage ceiling				*Penicillium chrysogenum*	1	1,000	2%
				Ulocladium botrytis	2	2,000	4%
						Total 48,000	

Culture Method (P028): Culture Analysis of Wipe Samples for Fungi with Full Speciation & Bacteria

Prestige # Client sample ID Location	Area (inch^2)	Medium used	Dilution factor	Fungal/Bacterial Identification	Colony counts	Conc. (CFU/ in^2)	Percentage
120221-06-032	1	MEA	100x	*Aureobasidium pullulans*	2	200	7%
12				*Cladosporium sphaerospermum*	2	200	7%
Water				yeasts	23	2,300	85%
						Total 2,700	
		TSA	10,000x	*Flavobacterium* spp.	13	130,000	5%
				gram (-) bacteria	52	520,000	20%
				Methylobacterium spp.	24	240,000	9%
				Pseudomonas spp.	166	1,700,000	65%
						Total 2,600,000	

Report approved: Theresa Lehman
Theresa Lehman, MPH, Lab Director

Quality control check:
Chin S Yang, Ph.D.

Report review: Theresa Lehman

1. The samples in this report were received in good, acceptable conditions. Results relate only to the items tested.
2. Percentage is for each group of fungal structures/fungi in total population.
3. Concentrations and percentages are rounded to the nearest two significant digits. Total percentage may not add up to 100% due to rounding.
4. MEA=2% malt extract agar; TSA=tryptic soy agar.
5. All culture samples are incubated at 25±0.5°C unless otherwise indicated.
6. The detection limit of this analysis is one fungal colony. The quantitation limits vary from analysis to analysis and by air volume. Contact us to determine your quantitation limits.

SANIT-AIR

and

ENVIRONMENTAL COMPLIANCE SOLUTIONS

1311 N. Main St.
Clawson, MI 48017

(248) 435-2088 p
(248) 435-2388 f

January 5, 2012

Mark and Rose Vandenbranden
2846 Alisop Place, Apt. 402
Troy, MI 48084

Dear Mr. and Mrs. Vandenbranden:

Over the past six weeks, Sanit-Air inspected your apartment before and after various stages of mold remediation. Samples for microbial analysis were collected on 11/22/11 and 12/5/11. Following is a description of the sampling and analytical methods, as well as the results.

Composite samples of settled dust from areas of approximately 20 ft^2 were collected from horizontal surfaces in specified areas. On 11/22/2011, a sample was collected from horizontal surfaces within the remediation area that reportedly was ready for re-build (Dust Sample 1). Additionally, on the same day, a composite sample was collected from contents in the living room and daughter's bedroom (Dust 2). On December 05, 2011, as sample composite sample (Dust 3) was collected from contents in the living room and daughter's bedroom. Analysis of the samples was performed by an EPA certified laboratory that performed MSQPCR (Mold Specific Quantitative Polymerase Chain Reaction). MSQPCR is a very sensitive and accurate analytic method that is based on DNA analysis.

In addition to the dust samples, two surfaces samples were collected on 12/05/11. One sample was collected from an area of dense black growth at approximately mid-point and two inches from the floor along the east wall in the water damaged bedroom. The second sample was collected from the lower two inches of the east wall of the furnace room closet (approximately six inches from the furnace room door in the remediation area). The sample location was the backside of the drywall on the west wall in the daughter's bedroom.

As identified in the lab results, high concentrations of fungi that are indicators of water damage are reported in all of the dust samples. In the attached report, Table 1 represents the problematic fungi that are indicators of water damage, while Table 2 identifies fungi that are typical in all residence and generally are considered outdoor molds. The settled dust samples represent fungal spores that were previously airborne and settled onto surfaces in an indoor environment. The predominance of spores that are from Table 1 (indicator organisms) indicates that contaminants in the dust were released from indoor locations with water damage and actual fungal growth occurred. Additionally, the results demonstrate that spores identified in the samples of settled dust from the contents were consistent with those found in settled dust within the area where remediation was reportedly completed.

Dust Samples	
1. The predominant fungi identified in the sample of settled dust collected from the remediation area are species of *Aspergillus* and *Aureobasidium*. 2. Species of *Aspergillus* are not typically dominant in outdoor air. Indoors, species of *Aspergillus* colonize on water damaged particle board, plaster, wood, plywood and drywall.	*Aspergillus* colonization in indoor environments is undesirable, as species in this group can cause lung infections, hypersensitivity diseases, pneumonia, and allergic reactions (cough, rashes, headaches, runny nose, etc.). *Aspergillus niger* can cause skin infections as well as *Aspergillosis* in the lungs. This fungus also produces a toxin that can affect the liver and kidneys. *Aureobasidium* is associated with allergic reactions and exacerbation of asthma. This fungus commonly colonizes on wet plywood and oriented strand board (OSB).
3. *Aureobasidium* is also the predominant fungus identified in the samples of settled dust collected from the contents on 11/22 and 12/5.	The results are indicative of cross-contamination from the affected bedroom to other areas of the apartment.
4. *Cladosporium sphaerospermum* is reported in notable concentrations in all of the dust samples.	This fungus is most commonly found in water damaged insulation. The results are indicative of cross-contamination from the water damaged bedroom.
5. *Wallemia* is reported in notable concentrations in all of the dust samples.	The results are indicative of cross-contamination from the water damaged bedroom. *Wallemia* is found in buildings that experience long term elevated moisture conditions. This fungus is commonly found in damp carpet and wood building materials. This fungus does produce citrinin and penicillic acid, mycotoxins that can affect liver and kidney cells.
6. *Stachybotrys* is identified in the settled dust collected from contents outside of the remediation area on 11/22/11. This fungus was also identified in the surface sample collected from the furnace closet wall.	The results confirm that cross contamination occurred and that indoor exposure hazards existed. *Stachybotrys* is a tertiary colonizer that requires high moisture for amplification. This fungus is a signature organism for water damage. The American Industrial Hygiene

	Association reports that the presence of *Stachybotrys* in indoor samples requires risk management decisions, with special consideration given to the children, immune-compromised individuals and mold-sensitive people. [1]
7. The overall Environmental Moldiness Index Values for the samples of settled dust equate to a high likelihood of a mold problem in the home. These values result in ERMI indexes of the highest index (4) for all the samples collected on 11/22 and an index of 3 (also high) on 12/05. 8. The actual ERMI values, which are derived by subtracting the sum of the logs of common household molds from the sum of the logs of indictor molds, are elevated and similar in all three samples).	Calculation of the ERMI values is based on a nationwide study performed by an EPA scientist. The study included samples of settled dust from 1,000 homes, with half of the homes having known water damage problems and half having no history of water damage. Analysis of settled dust provides information on organisms that were previously airborne and settled in an indoor environment. If the mold spores in settled dust are in the group 2 molds, a conclusion can be drawn that the spores came from outdoors and are not the result of indoor water damage and mold growth. If the mold species in the settled dust are predominantly from group 1, indoor mold growth is not likely because these fungi grow on wet building materials. The high ERMI ratings in the samples collected in the Vandenbranden's apartment indicate that indoor mold problems persisted after the remediation was reportedly complete.
Surface Samples	
9. High concentrations of *Aspergillus* and *Penicillium* spores are reported in the surface samples collected from the bedroom wall and the furnace closet wall. 10. Stachybotrys is reported in the sample collected from the furnace closet wall.	The results demonstrate that water damaged building materials in the bedroom were a source of contaminants found in the dust samples.

[1] AIHA, Field Guide for the Determination of Biological Contaminants in Environmental Samples, 2005, p.115.

The sample results confirmed the visual observations of incomplete remediation on 11/22/11. The results also demonstrate that the contents were contaminated on 11/22/11 and remained contaminated on 12/5/11, despite the reported HEPA vacuuming and damp wiping by the remediation contractor. The similarity in fungal profiles in the water damaged bedroom and contents outside of the bedroom demonstrates that the water damaged bedroom was a predominant source of contamination to the contents. Based on the findings, the contents must be addressed to avoid on-going exposure hazards. All hard-surfaced items such as metal and glass are to be cleaned by a competent mold remediation contractor with expertise in content cleaning. These items are to be HEPA vacuumed and damp-wiped, or submersed in a solution of detergent and water, followed by clear water rinsing. Wood items that have all surfaces sealed are to be HEPA vacuumed and damp wiped. Wood items that have unsealed surfaces or contain composite wood materials (OSB, plywood, particle board) are to be discarded. Any electrical item with a fan or compartments that cannot be accessed (computers, televisions, radios, etc.) are to be discarded. All porous items, including books clothing, papers, etc., are to be discarded. Photos and documents that must be saved are to be boxed and transported to a facility for copying.

In addition to the contents issue, Sanit-Air's visual observations and sampling data demonstrate that the apartment is not habitable for the Vandenbranden's. Conditions observed during remediation, such as unsealed HVAC system, unsealed common return plenum, and breeched containment, indicate that pathways existed for the spread of contaminants throughout the apartment. Additionally, observaations of water damage in the garage ceiling (damaged ceiling tiles, contaminated condensate drain pans in ceiling HVAC units, standing water in the garage and stairwell provide evidemce of chronic moisture problems and substandard maintenance. These same conditions were observed in another Regency Parks building within the same complex in 2007.

Recent there has been a shift in focusing only on fungi (mold) in water damaged buildings. Wall buildings with water damage contain various contaminants, which can include mold, mycotoxins, bacteria, endotoxins, exotoxins, fungal fragments, glucans, and others. Mold sampling in this apartment confirmed the fungal contamination. Other contaminants require more complex sampling and analysis, but studies have demonstrated that one or all of these contaminants exist in water damaged indoor environments. As reported by the World Health Orgnization,[1] contaminants inherent to water damaged buildings are associated with a variety of adverse health conditions, including chronic fatigue, inflammation, toxicosis, asthma, allergies, and various breathing disorders. The conditions that promoted water damage in the Vandenbranden apartment, including improper door installation, leaks from the HVAC system, and ground water intrusion, indicate that appropriate systems are not in place to properly prevent, assess, and remediate water damage

[1] WHO, *Guidelines for Indoor Air Quality: Dampness and Mold*, 2009.

and mold issues. The Vandenbranden's are advised to not return to the apartment. Contents should not be moved to a new dwelling, except for items that are decotnamianted according to the guidelines outlined in the above paragraph.

Please call if Sanit-Air can be of additional assistance.

Best regards,

Connie A. Morbach, M.S., CHMM, CIE

Mark Van Den Branden

From: Rose Van Den Branden [rosevdb3@gmail.com]
Sent: Wednesday, October 03, 2012 9:50 AM
To: Mark Van Den Branden
Subject: Fwd: SurvivingMold.com - Mold Illness please print

Recognized researcher and educator

Testified to United States Senate about dangers in water damaged buildings

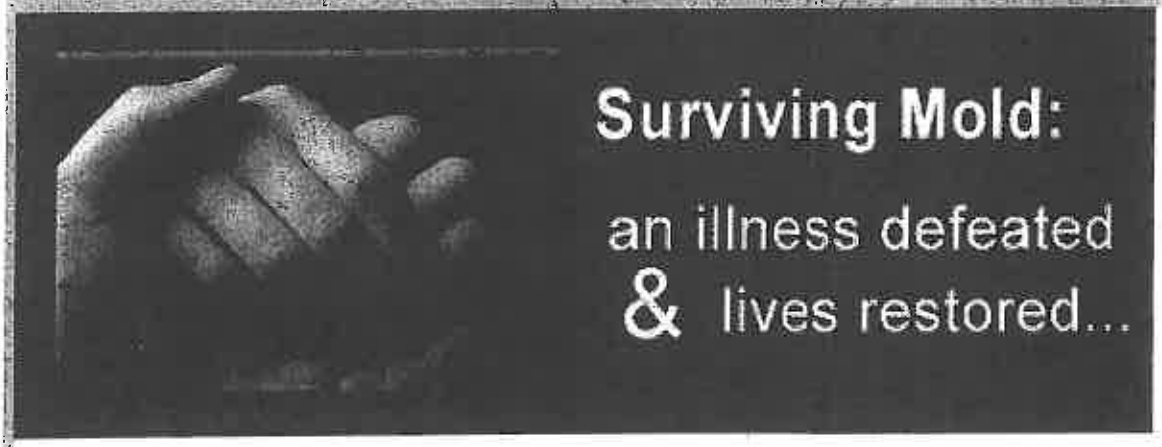
---------- Forwarded message ----------
From: **Surviving Mold, LLC** <Surviving_Mold_LLC@mail.vresp.com>
Date: Tue, Oct 2, 2012 at 7:34 PM
Subject: SurvivingMold.com - Mold Illness
To: rosevdb3@gmail.com

Click to view this email in a browser

shoemaker

SurvivingMold.com

Surviving Mold Book | About | Ritchie Shoemaker, MD | Understanding the Illness



Mold Illness

For the record, my use of the term "mold illness" needs to be clarified:

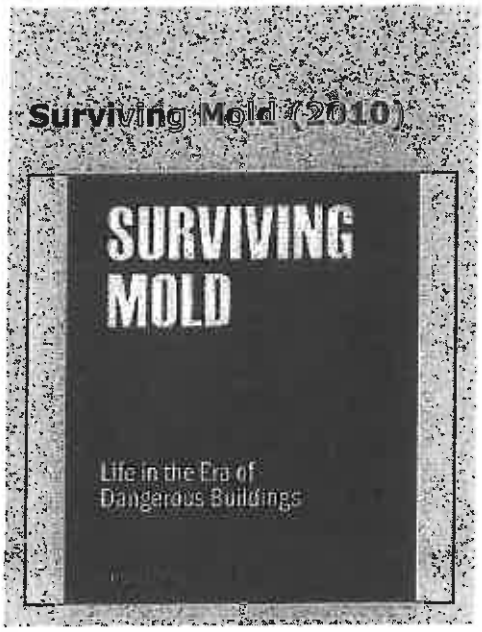
It's merely an expression for a sub-category of biotoxin illness, a jargon term, a shortcut I use, one that connotes that this illness is an acute and chronic, systemic inflammatory response syndrome acquired following exposure to the interior of a water-damaged building (CIRS) with resident toxigenic organisms, including, but not limited to fungi, bacteria, actinomycetes and mycobacteria as well as inflammagens such as endotoxins, beta glucans, hemolysins,

drimanes, plus volatile organic compounds(VOC's). There is no one element that is a causative of mold illness. It is the end result of countless aspects of innate inflammation merging together.

While molds themselves may be associated with human illness, in my opinion the secondary metabolites of microbial growth and inflammagens from those microbes are of greater overall importance. Until we have a way to identify the specific interaction that each individual component of the "biochemical stew" found inside Water Damaged Buildings can cause, we can only look at exposure to the entire interior environment as the cause of the illness.

-Ritchie Shoemaker, MD

Excerpt from
Surviving Mold:
Life in the Era of Dangerous Buildings (pgs. 29-30)



In Surviving Mold, Dr. Shoemaker shares his latest findings and offers hope to those who have been continually let down by the medical community. Containing Dr. Shoemaker's cutting-edge research into the effects of chronic neurotoxins, Surviving Mold also examines in-depth the root causes of the growth of dangerous mold forms in buildings and homes.
View details >

Take the online screening test right from your computer. The test asks a series of questions and tests your visual contrast sensitivity to determine the likelihood of illness associated with biotoxins. Your results will be provided in an easy to download format that can be taken to your physician for follow up.

View details >

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