



HYGIENETECH

Hygiene Technologies International, Inc.

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Torrance, California 90503-1643
(310) 370-8370
(310) 370-7026 FAX
www.hygienetech.com

June 16, 2008

California State Board of Equalization
450 N Street
Sacramento, California 94279

Document No. 20804001.5

Attention: David Gau

Regarding: Limited Fungal Growth Exposure Assessment Survey
First Floor Security Guard Kiosk

Dear Mr. Gau:

On April 28, 29, and May 2, 2008, industrial hygienists with Hygiene Technologies International, Inc. (HygieneTech) conducted a limited fungal growth assessment survey involving the above-referenced area on the First Floor of the California State Board of Equalization (BOE) building. On the initial survey date, HygieneTech was informed that evidence of water intrusion and blistering paint had reportedly been observed on the ceiling in the First Floor elevator lobby above the Security Guard Kiosk. The survey findings, along with the analytical data, conclusions, and recommendations appear below.

Upon visual inspection, evidence of water staining and blistering paint was apparent on the ceiling directly above the Security Guard Kiosk. The impacted ceiling area was subsequently sealed with polyethylene sheeting and adhesive tape later that afternoon. On April 29, a visual inspection of the plenum area above the ceiling was performed. At that time, water staining and suspect fungal growth were observed on the upper surfaces of the ceiling in the plenum.

On the survey dates, air samples were collected for total (viable and nonviable) fungi analyses using a Zefon brand Bio-Pump™ equipped with Allergenco-D™ cassettes. Surface samples were collected for fungal growth assessment using Zefon Bio-Tape®. All such samples were subsequently analyzed for fungi (including yeasts, molds, rusts, smuts, and mushrooms) by trained and experienced microbiologists at a laboratory accredited by the American Industrial Hygiene Association (AIHA) and that successfully participates in the AIHA Environmental Microbiology Proficiency Analytical Testing (EMPAT) Program. The airborne fungi and surface assessment analytical data with supporting and background information appear in the enclosed tables.

As presented in Table 20804001-3, the airborne spore count data recorded on April 24 and May 2, 2008 showed common spore types outdoors such as *Alternaria*, ascospores, basidiospores, *Botrytis*, *Chaetomium*, *Cladosporium*, colorless spores typical of *Penicillium* and *Aspergillus* species, *Oidium*, rusts, *Scopulariopsis*, smuts, *Stemphylium*, *Torula*, and/or unidentified mitosporic fungi with basidiospores or *Cladosporium* predominating in the samples collected. In the indoor areas tested, the data showed airborne concentrations of common fungal spores at below background levels. The data



recorded were considered unremarkable and are not believed to pose a health risk beyond that posed by the outdoor environment where exposures to airborne fungi are expected.

The surface assessment data, which appear with supporting information in Table 20804001-4, indicated fungal growth involving *Stachybotrys* and unidentified hyphal fragments on the upper surface of the gypsum board ceiling in the plenum located directly above the Security Guard Kiosk and elevator lobby.

By observation and upon review of the analytical data, HygieneTech has concluded that repeated water intrusion had likely occurred to varying degrees in the ceiling plenum above the Security Guard Kiosk. Based on these findings, HygieneTech recommends that additional building investigative and/or remediation efforts are performed in this area.

Be advised that the data provided in this report only represent limited fungal growth and exposure potentials that existed at the time the survey was performed and at the precise sample locations indicated, the latter of which were selected based on the available background information provided. Note that fungal growth and exposure potentials may change due to changes in environmental conditions (such as those caused by water intrusion), use of mechanical systems, or other factors. Also be advised that additional fungal growth may exist at one or more locations in the structure that were not specifically assessed during the survey.

If you have any comments or questions regarding the information contained in this correspondence, please feel free to contact our offices directly at (310) 370-8370.

Sincerely,

HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

A handwritten signature in black ink, appearing to read 'Kenny Hsi', is written over a solid horizontal line.

Kenny K. Hsi, CIH
Technical Director

HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

APPENDIX A



CLIENT: California State Board of Equalization
450 N Street
Sacramento, California 94279

**TABLE 20804001-3
AIRBORNE TOTAL FUNGI RESULTS
1ST FLOOR
SACRAMENTO, CALIFORNIA
APRIL 24 AND MAY 2, 2008**

Page 1

Results reported in spores per cubic meter of air (spores/M³)

SAMPLE NUMBER	20804001-TM0118OUTJL	20804001-TM119JL	20804001-TM120JL	20804001-TM121OUTJL
SAMPLING LOCATION/ACTIVITIES	Outdoors; about 25 feet north of building; approximately five feet above ground/Normal outdoors activities	Elevator lobby; about four feet south of Security Guard Kiosk; approximately five feet above floor/Normal building activities	Security Guard Kiosk; about center; approximately five feet above floor/Normal building activities	Outdoors; about 25 feet north of building; approximately five feet above ground/Normal outdoors activities
START/STOP	14:21:00/14:26:00	14:28:00/14:33:00	15:20:00/15:25:00	15:30:00/15:35:00
DATE	04-28-08	04-28-08	04-28-08	04-28-08
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria		52		
Ascospores	520	52		P
Aureobasidium				
Basidiospores	260	210	P	360
Bipolaris/Drechslera group				
Botrytis	P			
Chaetomium	P			
Cladosporium	1,100	310	210	520
Epicoccum				
Nigrospora				
Oidium	P	P		
Penicillium/Aspergillus types	620	P	100	100
Pithomyces				
Rusts		P	P	
Scopulariopsis				
Smuts (Periconia, Myxomycetes)	100	100	210	52
Spegazzinia		52		
Stachybotrys				
Torula	P	P		P
Ulocladium				
Unidentified mitosporic fungi	160	52	100	100
Unidentified zygomycetes				
Background particulates*	Moderate	Moderate	Heavy	Light
TOTAL**	2,800	830	620	1,100

P = Spores present

* Background particulates is an indication of the amount of non-biological particulate matter present on the media and is graded (from least to greatest) as very light, light, moderate, heavy and very heavy.

** Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.



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**TABLE 20804001-3
AIRBORNE TOTAL FUNGI RESULTS
1ST FLOOR
SACRAMENTO, CALIFORNIA
APRIL 24 AND MAY 2, 2008**

Page 2

Results reported in spores per cubic meter of air (spores/M³)

SAMPLE NUMBER	20805001-TM01OUTCL	20805001-TM02CL	20805001-TM03CL	20805001-TM04OUTCL
SAMPLING LOCATION/ACTIVITIES	Outdoors; about 25 feet north of building; approximately five feet above ground/Normal outdoors activities	Elevator lobby; about four feet south of Security Guard Kiosk; approximately five feet above floor/Normal building activities	Security Guard Kiosk; about center; approximately five feet above floor/Normal building activities	Outdoors; about 25 feet north of building; approximately five feet above ground/Normal outdoors activities
START/STOP	16:33:00/16:38:00	16:40:00/16:45:00	16:46:00/16:51:00	16:54:00/16:59:00
DATE	05-02-08	05-02-08	05-02-08	05-02-08
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria	880		P	
Ascospores				420
Aureobasidium				
Basidiospores	990	100	210	940
Bipolaris/Drechslera group				
Botrytis				
Chaetomium	P			
Cladosporium	210	52	160	880
Epicoccum		P		
Nigrospora				
Oidium	52			
Penicillium/Aspergillus types	780	100	210	520
Pithomyces				
Rusts	52	52		52
Scopulariopsis	52			
Smuts (Periconia, Myxomycetes)	P	52	52	260
Stemphylium	P			
Stachybotrys				
Torula	52			
Ulocladium				
Unidentified mitosporic fungi	160	52	52	100
Unidentified zygomycetes				
Background particulates*	Moderate	Moderate	Moderate	Moderate
TOTAL**	3200	410	680	3200

P = Spores present

* Background particulates is an indication of the amount of non-biological particulate matter present on the media and is graded (from least to greatest) as very light, light, moderate, heavy and very heavy.

** Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.

HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

APPENDIX A



CLIENT: California State Board of Equalization
450 N Street
Sacramento, California 94279

TABLE 20804001-4
SURFACE FUNGAL GROWTH POTENTIALS
1ST FLOOR
SACRAMENTO, CALIFORNIA
APRIL 29, 2008

SAMPLE NUMBER	SAMPLING LOCATION	AMORPHOUS DEBRIS	MISCELLANEOUS FUNGI/POLLEN*	FUNGI SEEN WITH UNDERLYING MYCELIAL AND/OR SPORULATING STRUCTURES**	OTHER COMMENTS	GENERAL IMPRESSION
20804001-TL301CL	Plenum area above Security Guard Kiosk; about center; from reverse side of ceiling	Light particulates Very light dander Very light fibers Very light frass	Trace	Few <i>Stachybotrys</i> Trace unidentified hyphal fragments	Massive <i>Stachybotrys</i> Trace <i>Cladosporium</i>	Fungal growth
20804001-TL302CL	Plenum area above Security Guard Kiosk; about three feet south of access hatch; from reverse side of ceiling	Heavy particulates Moderate fibers Very light dander Very light frass Very light wood fibers	Trace	Trace unidentified hyphal fragments	Trace <i>Alternaria</i> Trace <i>Cladosporium</i> Trace <i>Stemphylium</i> Trace unidentified mitosporic fungi	Minimal fungal growth

*Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating (indicative of normal trapping).

**Quantities of fungi are graded (from least to greatest) as none, trace, few, numerous, and massive.



HYGIENETECH

- 0804042

Hygiene Technologies International, Inc.

3625 Del Amo Boulevard, Suite 180
Torrance, California 90505-1643
(310) 370-8370
(310) 370-2474 FAX
www.hygienetech.com

Request For Analysis

Project Number/Purchase Order: 20804001 Date Submitted: 4/24/08
 Project Contact: Chuan Lau Turnaround Required: Same day Rush
 Lab Destination: Bio Hygiene Lab Contact: _____

SAMPLE ID	VOLUME	MEDIA	ANALYSIS REQUESTED
20804001-TM118OUTJL	75L	allergens D	M 101.1
20804001-TM119JL	↓	↓	↓
20804001-TM120JL	↓	↓	↓
20804001-TM121OUTJL	↓	↓	↓
<i>RF 04.25.08</i>			

Special Instructions: _____

- 1. Sampled by: John Lee 4/24/08 2:45 Received by: A. Renteria 04.25.08 9:35
- 2. Relinquished by: Renteria 04.25.08 10:24 Received by: Sonia Satija 04.25.08 10:30 (-TM118OUTJL)
- 3. Relinquished by: _____ Received by: Renteria 04.25.08 10:30 (-TM119JL)

Please include signature, date, and time

Lab Use Only: completed 04.25.08 in Book 3205 p. 46 (-TM120JL, -TM121JL) RF
 Completed on 04.25.08 in Book 3199 p. 54 (-TM118OUTJL, -TM119JL). SS.



FINAL REPORT: Total Fungal Spore Trap Count

PROJECT NUMBER: 20804001

LABORATORY ID NUMBER: 0804042

Hygiene Technologies International, Inc.

Received Date: April 25, 2008

Attention: Chun Lau

Report Date: April 25, 2008

3625 Del Amo Blvd. Suite 180

Torrance, CA 90503-1643

Customer Sample Number: -
TM118OUTJL

Method: M101.1

Date Of Analysis: 25-Apr-08

Detection Limit: 52 Spores/M³

Background: Moderate particulates

Sample Intact: Yes

Genus (species)	Raw Count	Total Spores / M ³	Comment
<i>Ascospores</i>	10	520	
<i>Basidiospores</i>	5	260	
<i>Botrytis</i>		P	
<i>Chaetomium</i>		P	
<i>Cladosporium</i>	22	1100	
<i>Oidium</i>		P	
<i>Penicillium/Aspergillus types</i>	12	620	
<i>Pollen</i>	1	52	
<i>Smuts/Myxomycetes</i>	2	100	
<i>Torula</i>		P	
<i>Unidentified mitosporic fungi</i>	3	160	
TOTAL	54	2800	

P = Spores Present

< (less than) = measurement below the reporting limit

Rounding: Note that all reported counts have been rounded to two significant figures based on the sampling and analytical methods used. BioHygiene Labs rounds such that if the last significant digit is an even number, then the result is rounded down to that digit; if the last significant digit is an odd number, then it is rounded up to the nearest even number. Thus the TOTAL may not equal the sum of the individual counts per column. TOTAL rows do not include pollen.

Background is graded as Very Light (0 - 10%), Light (>10 - 30%), Moderate (>30 - 70%), Heavy (>70 - 90%), and Very Heavy (>90%) Particulates as a percentage of the trace area.

APPROVED: _____

DATE: _____

Name _____

Title: _____

Results reported relate only to the sample items tested. This test report shall not be reproduced (except in full), corrected or added to without written approval from BioHygiene Laboratories, Inc.



FINAL REPORT: Total Fungal Spore Trap Count

PROJECT NUMBER: 20804001
Hygiene Technologies International, Inc.
Attention: Chun Lau
3625 Del Amo Blvd. Suite 180
Torrance, CA 90503-1643

LABORATORY ID NUMBER: 0804042
Received Date: April 25, 2008
Report Date: April 25, 2008

Customer Sample Number: -TM119JL	Method: M101.1	Date Of Analysis: 25-Apr-08	Detection Limit: 52 Spores/M ³
Background: Moderate particulates	Sample Intact: Yes		
Genus (species)	Raw Count	Total Spores / M ³	Comment
<i>Alternaria</i>	1	52	
<i>Ascospores</i>	1	52	
<i>Basidiospores</i>	4	210	
<i>Cladosporium</i>	6	310	
<i>Oidium</i>		P	
<i>Penicillium/Aspergillus types</i>		P	
<i>Pollen</i>	3	160	
<i>Rusts</i>		P	
<i>Smuts/Myxomycetes</i>	2	100	
<i>Spegazzinia</i>	1	52	
<i>Torula</i>		P	
<i>Unidentified mitosporic fungi</i>	1	52	
TOTAL	16	830	

Customer Sample Number: -TM120JL	Method: M101.1	Date Of Analysis: 25-Apr-08	Detection Limit: 52 Spores/M ³
Background: Heavy particulates	Sample Intact: Yes		
Genus (species)	Raw Count	Total Spores / M ³	Comment
<i>Basidiospores</i>		P	
<i>Cladosporium</i>	4	210	
<i>Penicillium/Aspergillus types</i>	2	100	
<i>Pollen</i>	4	210	
<i>Rusts</i>		P	
<i>Smuts/Myxomycetes</i>	4	210	
<i>Unidentified mitosporic fungi</i>	2	100	
TOTAL	12	620	

P = Spores Present < (less than) = measurement below the reporting limit

Rounding: Note that all reported counts have been rounded to two significant figures based on the sampling and analytical methods used. BioHygiene Labs rounds such that if the last significant digit is an even number, then the result is rounded down to that digit; if the last significant digit is an odd number, then it is rounded up to the nearest even number. Thus the TOTAL may not equal the sum of the individual counts per column. TOTAL rows do not include pollen.

Background is graded as Very Light (0 - 10%), Light (>10 - 30%), Moderate (>30 - 70%), Heavy (>70 - 90%), and Very Heavy (>90%) Particulates as a percentage of the trace area.

APPROVED: **DATE:** 04/25/08
Name Lucas Wallin **Title:** Lab Analyst

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FINAL REPORT: Total Fungal Spore Trap Count
PROJECT NUMBER: 20804001
LABORATORY ID NUMBER: 0804042
Hygiene Technologies International, Inc.
Received Date: April 25, 2008

Attention: Chun Lau

Report Date: April 25, 2008

3625 Del Amo Blvd. Suite 180

Torrance, CA 90503-1643

**Customer Sample Number: -
TM1210UTJL**
Method: M101.1
Date Of Analysis: 25-Apr-08
Detection Limit: 52 Spores/M³
Background: Light particulates
Sample Intact: Yes

Genus (species)	Raw Count	Total Spores / M ³	Comment
<i>Ascospores</i>		P	
<i>Basidiospores</i>	7	360	
<i>Cladosporium</i>	10	520	
<i>Penicillium/Aspergillus types</i>	2	100	
<i>Pollen</i>	1	52	
<i>Smuts/Myxomycetes</i>	1	52	
<i>Torula</i>		P	
<i>Unidentified mitosporic fungi</i>	2	100	
TOTAL	22	1100	

P = Spores Present

< (less than) = measurement below the reporting limit

Rounding: Note that all reported counts have been rounded to two significant figures based on the sampling and analytical methods used. BioHygiene Labs rounds such that if the last significant digit is an even number, then the result is rounded down to that digit; if the last significant digit is an odd number, then it is rounded up to the nearest even number. Thus the TOTAL may not equal the sum of the individual counts per column. TOTAL rows do not include pollen.

Background is graded as Very Light (0 - 10%), Light (>10 - 30%), Moderate (>30 - 70%), Heavy (>70 - 90%), and Very Heavy (>90%) Particulates as a percentage of the trace area.

APPROVED:

DATE:

04/25/08

Name

Lucas Walker

Title:

Lab Analyst

Results reported relate only to the sample items tested. This test report shall not be reproduced (except in full), corrected or added to without written approval from BioHygiene Laboratories, Inc.



FINAL REPORT: Total Fungal Spore Trap Count

PROJECT NUMBER: 20805001

LABORATORY ID NUMBER: 0805007

Hygiene Technologies International, Inc.

Received Date: May 05, 2008

Attention: Wes Frey

Report Date: May 05, 2008

4330 Auburn Blvd. Suite 1850

Sacramento, CA 95841

Customer Sample Number: -TM03CL

Method: M101.1

Date Of Analysis: 05-May-08

Detection Limit: 52 Spores/M³

Background: Moderate particulates

Sample Intact: Yes

Genus (species)

Raw Count

Total Spores / M³

Comment

Alternaria

P

Basidiospores

4

210

Cladosporium

3

160

Penicillium/Aspergillus types

4

210

Smuts/Myxomycetes

1

52

Unidentified mitosporic fungi

1

52

TOTAL

13

680

Customer Sample Number: -TM04OUTCL

Method: M101.1

Date Of Analysis: 05-May-08

Detection Limit: 52 Spores/M³

Background: Moderate particulates

Sample Intact: Yes

Genus (species)

Raw Count

Total Spores / M³

Comment

Ascospores

8

420

Basidiospores

18

940

Cladosporium

17

880

Penicillium/Aspergillus types

10

520

Pollen

6

310

Rusts

1

52

Smuts/Myxomycetes

5

260

Unidentified mitosporic fungi

2

100

TOTAL

61

3200

P = Spores Present

< (less than) = measurement below the reporting limit

Rounding: Note that all reported counts have been rounded to two significant figures based on the sampling and analytical methods used. BioHygiene Labs rounds such that if the last significant digit is an even number, then the result is rounded down to that digit; if the last significant digit is an odd number, then it is rounded up to the nearest even number. Thus the TOTAL may not equal the sum of the individual counts per column. TOTAL rows do not include pollen.

Background is graded as Very Light (0 - 10%), Light (>10 - 30%), Moderate (>30 - 70%), Heavy (>70 - 90%), and Very Heavy (>90%) Particulates as a percentage of the trace area.

APPROVED:

DATE:

05/05/08

Name

Lucas Wallin

Title:

Lab Analyst

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Request For Analysis

Project Number/Purchase Order: 20805001 Date Submitted: 5/2/08
 Project Contact: Wes Frey Turnaround Required: Rush
 Lab Destination: Bio Hygiene Lab Contact: Randii / Rupa

SAMPLE ID	VOLUME	MEDIA	ANALYSIS REQUESTED
<u>20805001-TM01OUTCL</u>	<u>75L</u>	<u>allergenco D</u>	<u>M 101.1</u>
<u>20805001-TM02CL</u>	↓	↓	↓
<u>20805001-TM03CL</u>	↓	↓	↓
<u>20805001-TM04OUTCL</u>	↓	↓	↓
<u>05.05.08</u>			

Special Instructions: _____

1. Sampled by: Chun Lau 1700 5/2/08 Received by: R. Balleggs 05.05.08 9:35
 2. Relinquished by: R. Balleggs 05.05.08 9:44 Received by: A. Rendon 05.05.08 9:43AM
 3. Relinquished by: _____ Received by: _____
- Please include signature, date, and time

Lab Use Only: Completed on 05.05.08 in Book # 3205 p. 05L-TM01OUTCL, -TM02CL, p. 06 (-TM03CL, -TM04OUTCL)

FINAL REPORT: Direct Microscopic Exam Of Tape Lift Samples

PROJECT NUMBER: 20804001

LABORATORY ID NUMBER: 0805002

Hygiene Technologies International, Inc.

Received Date: May 01, 2008

Attention: Chun Lau

Report Date: May 01, 2008

3625 Del Amo Blvd. Suite 180
Torrance, CA 90503-1643

Customer Sample Number	Date of Analysis	Method	Sample Intact	Amorphous Debris	Miscellaneous Fungi/Pollen ¹	Fungi with hyphal and /or sporulating structures ²	Loose spores/ Other comments ²
-TL301CL	05/01/08	M102.1	Yes	Light particulates, Very light dander, Very light fibers, Very light frass	Trace	Few Stachybotrys, Trace Unidentified hyphal fragments	Massive Stachybotrys, Trace Cladosporium
-TL302CL	05/01/08	M102.1	Yes	Heavy particulates, Moderate fibers, Very light dander, Very light frass, Very light wood fibers	Trace	Trace Unidentified hyphal fragments	Trace Alternaria, Trace Cladosporium, Trace Stemphylium, Trace Unidentified mitosporic fungi

1 - Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating (indicative of normal trapping).

2 - Quantities of fungi are graded (from least to greatest) as a percentage of coverage of the slide area examined: none (0%), trace (0 - 10%), few (10 - 40%), numerous (40 - 80%), and massive (>80%).

APPROVED:  DATE: 05/01/08
Name Lucas Wallen Title: Lab Analyst

Results reported relate only to the sample items tested. This test report shall not be reproduced (except in full), corrected or added to without written approval from BioHygiene Laboratories, Inc.

