



HYGIENETECH

Hygiene Technologies International, Inc.

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June 10, 2009

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

Document No. 20903001.3

Attention: David Gau

Regarding: Limited Fungal Growth Exposure Assessment Survey
Elevator Lobby Areas

Dear Mr. Gau:

On March 9, 2009, industrial hygienists with Hygiene Technologies International, Inc. (HygieneTech) conducted a limited fungal growth exposure assessment survey involving ten randomly selected elevator lobby areas located within the State of California Board of Equalization (BOE) building. This survey is one in a series of routine air quality assessments to monitor the indoor air quality of the building elevator lobby areas in regards to airborne fungal spores. The survey findings, along with the analytical data, conclusions, and recommendations appear below.

On the survey date, air samples were collected for total (viable and nonviable) fungi analyses using a Zefon brand Bio-Pump™ equipped with Allergenco-D™ cassettes. 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 assessment analytical data with supporting and background information appear in the enclosed table.

As presented in Table 20903001-1009, the airborne spore count data recorded showed mostly common fungal spore types outdoors such as ascospores, basidiospores, *Botrytis*, *Cladosporium*, colorless spores typical of *Penicillium* and *Aspergillus* species, *Oidium*, rusts, smuts, *Torula*, and/or unidentified mitosporic fungi, with basidiospores or *Cladosporium* predominating. In the indoor areas tested, the data showed low airborne concentrations of mostly common fungal spores that included one or more of the following: *Alternaria*, basidiospores, *Chaetomium*, *Cladosporium*, colorless spores typical of *Penicillium* and *Aspergillus* species, *Oidium*, smuts, and/or unidentified mitosporic fungi. The distribution of fungal spore types detected in the surveyed areas was generally consistent with those found outdoors, and the overall data within the tested areas were well below the overall data recorded outdoors. These data are 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.



Be advised that the data provided in this report only represent limited fungal growth 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 K. Hsi', is written over a horizontal line.

Kenny K. Hsi, CIH
Technical Director

HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

APPENDIX A



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

**TABLE 20903001-1009
AIRBORNE TOTAL FUNGI RESULTS
ELEVATOR LOBBY AREAS
SACRAMENTO, CALIFORNIA
MARCH 9, 2009**

Page 1

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

SAMPLE NUMBER	20903001-TM30OUTCL	20903001-TM31CL	20903001-TM32CL	20903001-TM33CL
SAMPLING LOCATION/ACTIVITIES	Outdoors; about 20 feet east of building; approximately five feet above ground/Normal outdoor activities	21 st floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities	20 th floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities	18 th floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities
START/STOP	14:07:00/14:12:00	14:29:00/14:34:00	14:36:00/14:41:00	14:47:00/14:52:00
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria				
Ascospores	P			
Basidiospores	100	P	100	100
Bipolaris/Dreschlera group				
Botrytis	P			
Chaetomium		52		
Cladosporium	420	52	P	52
Curvularia				
Epicoccum				
Fusariella				
Fusarium				
Nigrospora				
Oidium	P		P	
Penicillium/Aspergillus types	P	52	100	P
Rusts				
Scopulariopsis				
Smuts (Periconia, Myxomycetes)	100			52
Stachybotrys				
Stemphylium				
Torula	P			
Ulocladium				
Unidentified mitosporic fungi	210	160	52	52
Unidentified zygomycetes				
Background particulates*	Moderate	Moderate	Moderate	Moderate
TOTAL**	830	320	250	260

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 20903001-1009
AIRBORNE TOTAL FUNGI RESULTS
ELEVATOR LOBBY AREAS
SACRAMENTO, CALIFORNIA
MARCH 9, 2009

Page 2

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

SAMPLE NUMBER	20903001-TM34CL	20903001-TM35CL	20903001-TM36CL	20903001-TM37CL
SAMPLING LOCATION/ACTIVITIES	16 th floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities	14 th floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities	10 th floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities	8 th floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities
START/STOP	14:56:00/15:01:00	15:03:00/15:08:00	15:11:00/15:16:00	15:21:00/15:26:00
SAMPLE TIME	5 minutes	5 minutes	5minutes	5 minutes
Alternaria				
Ascospores				
Basidiospores	52	210	P	P
Bipolaris/Dreschlera group				
Botrytis				
Chaetomium				
Cladosporium		100	P	P
Curvularia				
Epicoccum				
Fusariella				
Fusarium				
Nigrospora				
Oidium				
Penicillium/Aspergillus types	P	P	100	52
Rusts				
Scopulariopsis				
Smuts (Periconia, Myxomycetes)				
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Unidentified mitosporic fungi	52	100		
Unidentified zygomycetes				
Background particulates*	Light	Light	Moderate	Moderate
TOTAL**	100	410	100	52

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 20903001-1009
AIRBORNE TOTAL FUNGI RESULTS
ELEVATOR LOBBY AREAS
SACRAMENTO, CALIFORNIA
MARCH 9, 2009

Page 3

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

SAMPLE NUMBER	20903001-TM38CL	20903001-TM39CL	20903001-TM40CL	20903001-TM41OUTCL
SAMPLING LOCATION/ACTIVITIES	5 th floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities	3 rd floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities	1 st floor; High Rise Elevator Lobby; about center; approximately five feet above floor/Normal office activities	Outdoors; about 15 feet north of building; approximately five feet above ground/Normal outdoor activities
START/STOP	15:30:00/15:35:00	15:37:00/15:42:00	15:45:00/15:50:00	15:55:00/16:00:00
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria	52			
Ascospores				P
Basidiospores	P	52	P	260
Bipolaris/Dreschlera group				
Botrytis				
Chaetomium				
Cladosporium	52	P	52	100
Curvularia				
Epicoccum				
Fusariella				
Fusarium				
Nigrospora				
Oidium				
Penicillium/Aspergillus types	210		52	P
Rusts				100
Scopulariopsis				
Smuts (Periconia, Myxomycetes)	P			52
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Unidentified mitosporic fungi	P	52	P	100
Unidentified zygomycetes				
Background particulates*	Moderate	Light	Moderate	Heavy
TOTAL**	310	100	100	610

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.

FINAL REPORT: Total Fungal Spore Trap Count

PROJECT NUMBER: 20903001
Hygiene Technologies International, Inc.
 Attention: Wes Frey
 3127 Bowen Island St.
 West Sacramento, CA 95691

LABORATORY ID NUMBER: 0903008
Received Date: March 10, 2009
Report Date: March 10, 2009

Customer Sample Number: -TM300UTCL **Method: M101.1** **Date Of Analysis: 10-Mar-09** **Detection Limit: 52 Spores/M³**
Background: Moderate particulates **Sample Intact: Yes**

Genus (species)	Raw Count	Total Spores / M ³	Comment
<i>Ascospores</i>		P	
<i>Basidiospores</i>	2	100	
<i>Botrytis</i>		P	
<i>Cladosporium</i>	8	420	
<i>Oidium</i>		P	
<i>Penicillium/Aspergillus types</i>		P	
<i>Pollen</i>	1	52	
<i>Smuts/Myxomycetes</i>	2	100	
<i>Torula</i>		P	
<i>Unidentified mitosporic fungi</i>	4	210	
TOTAL	16	830	

Customer Sample Number: -TM31CL **Method: M101.1** **Date Of Analysis: 10-Mar-09** **Detection Limit: 52 Spores/M³**
Background: Moderate particulates **Sample Intact: Yes**

Genus (species)	Raw Count	Total Spores / M ³	Comment
<i>Basidiospores</i>		P	
<i>Chaetomium</i>	1	52	
<i>Cladosporium</i>	1	52	
<i>Penicillium/Aspergillus types</i>	1	52	
<i>Pollen</i>		P	
<i>Unidentified mitosporic fungi</i>	3	160	
TOTAL	6	320	

Sample results have not been corrected based on a blank sample

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:

03.10.09

Name

Lucas Wallin

Title:

Quality Manager

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: 20903001
Hygiene Technologies International, Inc.
Attention: Wes Frey
3127 Bowen Island St.
West Sacramento, CA 95691

LABORATORY ID NUMBER: 0903008
Received Date: March 10, 2009
Report Date: March 10, 2009

Customer Sample Number: -TM32CL Method: M101.1 Date Of Analysis: 10-Mar-09 Detection Limit: 52 Spores/M³
Background: Moderate particulates Sample Intact: Yes

Genus (species)	Raw Count	Total Spores / M ³	Comment
<i>Basidiospores</i>	2	100	
<i>Cladosporium</i>		P	
<i>Oidium</i>		P	
<i>Penicillium/Aspergillus types</i>	2	100	
<i>Pollen</i>		P	
<i>Unidentified mitosporic fungi</i>	1	52	
TOTAL	5	250	

Customer Sample Number: -TM33CL Method: M101.1 Date Of Analysis: 10-Mar-09 Detection Limit: 52 Spores/M³
Background: Moderate particulates Sample Intact: Yes

Genus (species)	Raw Count	Total Spores / M ³	Comment
<i>Basidiospores</i>	2	100	
<i>Cladosporium</i>	1	52	
<i>Penicillium/Aspergillus types</i>		P	
<i>Pollen</i>		P	
<i>Smuts/Myxomycetes</i>	1	52	
<i>Unidentified mitosporic fungi</i>	1	52	
TOTAL	5	260	

Sample results have not been corrected based on a blank sample

P = Spores Present

< (less than) = measurement below the reporting limit

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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: [Signature] DATE: 03.10.09
Name Lucas Walker Title: Quality Manager

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FINAL REPORT: Total Fungal Spore Trap Count
PROJECT NUMBER: 20903001
LABORATORY ID NUMBER: 0903008
Hygiene Technologies International, Inc.
Received Date: March 10, 2009

Attention: Wes Frey

Report Date: March 10, 2009

3127 Bowen Island St.

West Sacramento, CA 95691

Customer Sample Number: -TM34CL
Method: M101.1
Date Of Analysis: 10-Mar-09
Detection Limit: 52 Spores/M³
Background: Light particulates
Sample Intact: Yes

Genus (species)	Raw Count	Total Spores / M ³	Comment
<i>Basidiospores</i>	1	52	
<i>Penicillium/Aspergillus types</i>		P	
<i>Unidentified mitosporic fungi</i>	1	52	
TOTAL	2	100	

Customer Sample Number: -TM35CL
Method: M101.1
Date Of Analysis: 10-Mar-09
Detection Limit: 52 Spores/M³
Background: Light particulates
Sample Intact: Yes

Genus (species)	Raw Count	Total Spores / M ³	Comment
<i>Basidiospores</i>	4	210	
<i>Cladosporium</i>	2	100	
<i>Penicillium/Aspergillus types</i>		P	
<i>Unidentified mitosporic fungi</i>	2	100	
TOTAL	8	410	

Customer Sample Number: -TM36CL
Method: M101.1
Date Of Analysis: 10-Mar-09
Detection Limit: 52 Spores/M³
Background: Moderate particulates
Sample Intact: Yes

Genus (species)	Raw Count	Total Spores / M ³	Comment
<i>Basidiospores</i>		P	
<i>Cladosporium</i>		P	
<i>Penicillium/Aspergillus types</i>	2	100	
TOTAL	2	100	

Sample results have not been corrected based on a blank sample

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:

03.10.09

Name

Lucas Wallin

Title:

Quality Manager

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: 20903001
LABORATORY ID NUMBER: 0903008
Hygiene Technologies International, Inc.
Received Date: March 10, 2009

Attention: Wes Frey

Report Date: March 10, 2009

3127 Bowen Island St.

West Sacramento, CA 95691

Customer Sample Number: -TM37CL Method: M101.1 Date Of Analysis: 10-Mar-09 Detection Limit: 52 Spores/M³
Background: Moderate particulates Sample Intact: Yes

Genus (species)	Raw Count	Total Spores / M ³	Comment
<i>Basidiospores</i>		P	
<i>Cladosporium</i>		P	
<i>Penicillium/Aspergillus types</i>	1	52	
TOTAL	1	52	

Customer Sample Number: -TM38CL Method: M101.1 Date Of Analysis: 10-Mar-09 Detection Limit: 52 Spores/M³
Background: Moderate particulates Sample Intact: Yes

Genus (species)	Raw Count	Total Spores / M ³	Comment
<i>Alternaria</i>	1	52	
<i>Basidiospores</i>		P	
<i>Cladosporium</i>	1	52	
<i>Penicillium/Aspergillus types</i>	4	210	
<i>Smuts/Myxomycetes</i>		P	
<i>Unidentified mitosporic fungi</i>		P	
TOTAL	6	310	

Customer Sample Number: -TM39CL Method: M101.1 Date Of Analysis: 10-Mar-09 Detection Limit: 52 Spores/M³
Background: Light particulates Sample Intact: Yes

Genus (species)	Raw Count	Total Spores / M ³	Comment
<i>Basidiospores</i>	1	52	
<i>Cladosporium</i>		P	
<i>Unidentified mitosporic fungi</i>	1	52	
TOTAL	2	100	

Sample results have not been corrected based on a blank sample

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:

03-10-09

Name

Lucas Wellin

Title:

Quality Manager

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FINAL REPORT: Total Fungal Spore Trap Count

PROJECT NUMBER: 20903001

LABORATORY ID NUMBER: 0903008

Hygiene Technologies International, Inc.

Received Date: March 10, 2009

Attention: Wes Frey
3127 Bowen Island St.

Report Date: March 10, 2009

West Sacramento, CA 95691

Customer Sample Number: -TM40CL
Background: Moderate particulates

Method: M101.1
Sample Intact: Yes

Date Of Analysis: 10-Mar-09

Detection Limit: 52 Spores/M³

Genus (species)	Raw Count	Total Spores / M ³	Comment
<i>Basidiospores</i>		P	
<i>Cladosporium</i>	1	52	
<i>Penicillium/Aspergillus types</i>	1	52	
<i>Pollen</i>	1	52	
<i>Unidentified mitosporic fungi</i>		P	
TOTAL	2	100	

Customer Sample Number: -TM410UTCL
Background: Heavy particulates

Method: M101.1
Sample Intact: Yes

Date Of Analysis: 10-Mar-09

Detection Limit: 52 Spores/M³

Genus (species)	Raw Count	Total Spores / M ³	Comment
<i>Ascospores</i>		P	
<i>Basidiospores</i>	5	260	
<i>Cladosporium</i>	2	100	
<i>Penicillium/Aspergillus types</i>		P	
<i>Pollen</i>		P	
<i>Rusts</i>	2	100	
<i>Smuts/Myxomycetes</i>	1	52	
<i>Unidentified mitosporic fungi</i>	2	100	
TOTAL	12	610	

Sample results have not been corrected based on a blank sample

P = Spores Present

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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:

03.10.09

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Title:

Quality Manager

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HYGIENE TECHNOLOGIES INTERNATIONAL

-0903008-

Hygiene Technologies International, Inc.

3625 Del Amo Boulevard, Suite 180
Torrance, California 90503-1643
(310) 370-8370
(310) 370-2474 FAX
www.hygienetech.com

Request For Analysis

Project Number/Purchase Order: 20903001 Date Submitted: 3/19/09
 Project Contact: Wes / Chun Turnaround Required: Normal
 Lab Destination: Biohygiene Lab Contact: Rupa

SAMPLE ID	VOLUME	MEDIA	ANALYSIS REQUESTED
<u>20903001-TM30 OUTCL</u>	<u>75L</u>	<u>Allergenco D</u>	<u>M101-1</u>
<u>-TM31 CL</u>	↓	↓	↓
<u>-TM32 CL</u>			
<u>-TM33 CL</u>			
<u>-TM34 CL</u>			
<u>-TM35 CL</u>			
<u>-TM36 CL</u>			
<u>-TM37 CL</u>			
<u>-TM38 CL</u>			
<u>-TM39 CL</u>			
<u>-TM40 CL</u>			
<u>-TM41 OUTCL</u>			

03-10-09

Special Instructions:

1. Sampled by: [Signature] 3/19/09 Received by: R. Halley 03-10-09 9:50A
 2. Relinquished by: [Signature] 3/19/09 Received by: Rupa 03-10-09 10:05 AM (-TM34CL to -TM35CL)
 3. Relinquished by: R. Halley 03-10-09 10:01 Received by: [Signature] 03-10-09 11:13 (-TM36CL to -TM37CL)
- Please include signature, date, and time [Signature] 03-10-09 12:45 (-TM39CL to -TM41 OUTCL)

Lab Use Only: Completed on 03-10-09 Book 3239 p.50 (-TM30OUTCL, -TM31CL) p.51 (-TM32CL, -TM35CL) RA
 Completed on 03-10-09 Book 3239 p.50 (-TM30OUTCL, -TM31CL) p.51 (-TM32CL, -TM35CL) RA
 Completed on 03-10-09 Book 3241 p.25 (-TM36CL, -TM37CL), p.26 (-TM38CL) LR
 Completed on 03-10-09 Book 3240 p.43 (-TM39CL, -TM40CL) p.44 (-TM41 OUTCL) LR