



HYGIENETECH

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January 10, 2008

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

Document No. 20711002.1

Attention: David Gau

Regarding: Limited Fungal Growth Exposure Assessment Survey
5th Floor Storage Room 5B

Dear Mr. Gau:

On December 4, 2007, industrial hygienists with Hygiene Technologies International, Inc. (HygieneTech) visited the California State Board of Equalization (BOE) building located at the above-referenced address for the purpose of conducting a limited fungal growth exposure assessment survey in 5TH Floor Storage Room 5B. The survey findings, along with the analytical data, conclusions, recommendations, and a discussion of the recently recorded observations, appear below.

Storage Room 5B was located on the 5TH Floor along the southern main hallway. HygieneTech was informed that the primary purpose of the room was storage of electronic equipment and infrequently used by BOE employees. Typical metal shelving units were observed with various boxes and loose electronic/computer components throughout.

Upon visual inspection, evidence of water intrusion was apparent on the eastern and western walls. Specifically, blistering and peeling paint was observed on eastern partition wall near the ceiling junction while small areas of suspect fungal growth were observed on the lower portions of both the eastern and western partition walls behind the metal shelving units. The suspect fungal growth was initially obscured by boxes on the shelves. Odors characteristic of fungal growth, however, were not evident in the inspected areas at the time of the survey.

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. Surface samples were collected using Scotch® brand cellophane tape segments that were affixed to microscope slides. 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 analytical data with supporting and background information appear in the enclosed tables.

The airborne total spore count data presented in Table 20711001-41 showed common spore types outdoors such as ascospores, basidiospores, *Cladosporium*, *Nigrospora*, other colorless, and



Stemphylium, with basidiospores predominating. In Storage Room 5B, the data showed low airborne concentrations of common fungal spores that were well below the levels recorded outdoors and were therefore considered unremarkable.

The surface assessment data, which appear with supporting information in Table 20711002-42, indicated fungal growth involving *Penicillium* and *Ulocladium* on the lower portions of the eastern and western partition walls.

By observation and upon review of the analytical data, HygieneTech has concluded that water intrusion had occurred to varying degrees in Storage Room 5B in the past. Based on these findings, HygieneTech recommends that additional building investigative and/or remediation efforts be 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.

Kenny K. Hsi, CIH
Technical Director

HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

APPENDIX A



CLIENT: California Board of Equalization
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Sacramento, California 94279

TABLE 20711002-41
AIRBORNE TOTAL FUNGI RESULTS
5TH FLOOR – STORAGE ROOM 5B
SACRAMENTO, CALIFORNIA
DECEMBER 4, 2007

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

SAMPLE NUMBER	20711002-TM04BP	20711002-TM08OUTBP		
SAMPLING LOCATION/ACTIVITIES	Storage Room 5B; about center; approximately five feet above floor/Sampling activities only	Outdoors; 23 RD Floor; northern deck; northwestern corner; approximately five feet above deck/Normal outdoor activities	This column intentionally left blank	This column intentionally left blank
START/STOP	14:40:00/14:45:00	15:15:00/15:20:00		
SAMPLE TIME	5 minutes	5 minutes		
Alternaria				
Ascospores		1,800		
Aureobasidium				
Basidiospores		19,500		
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium	107	427		
Epicoccum				
Microsporium				
Myrothecium				
Nigrospora		13		
Other colorless		53		
Penicillium/Aspergillus types				
Pithomyces				
Rusts				
Scopulariopsis				
Smuts (Periconia, Myxomycetes)	13			
Stachybotrys				
Stemphylium		13		
Torula				
Trichoderma				
Ulocladium				
Unidentified mitosporic fungi				
Unidentified zygomycetes				
Hyphal fragments	<13	<13		
Background debris*	2+	1+		
TOTAL	120	21,806		

*Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

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TABLE 20711002-42
SURFACE FUNGAL GROWTH POTENTIALS
5TH FLOOR - STORAGE ROOM 5B
SACRAMENTO, CALIFORNIA
DECEMBER 4, 2007

SAMPLE NUMBER	SAMPLING LOCATION	AMORPHOUS DEBRIS	MISCELLANEOUS FUNG/POLLEN*	FUNGI SEEN WITH UNDERLYING MYCELIAL AND/OR SPORULATING STRUCTURES**	OTHER COMMENTS	GENERAL IMPRESSION
20711002-TL136BP	Eastern partition wall contiguous with elevator shaft; about two inches; north of south end; approximately one inch above floor; from vertical surface of gypsum board	Light	Very few	4+ <i>Ulocladium</i> species (spores, hyphae) 3+ <i>Penicillium</i> species (spores, hyphae, conidiophores)	None	Fungal growth
20711002-TL137BP	Eastern partition wall contiguous with elevator shaft; about one inch north of south end; approximately seven feet above floor; from vertical surface of gypsum board	Light	Very few	None	None	Background
20711002-TL138BP	West partition wall; approximately four feet north of door; approximately six inches above floor; from vertical surface of gypsum board	Light	Very few	4+ <i>Ulocladium</i> species (spores, hyphae) 4+ <i>Penicillium</i> (spores, hyphae, conidiophores)	None	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 <1+ to 4+.