BioMax Environmental

Environmental Consulting and Industrial Hygiene Services

May 7th, 2008

Mr. Doug Button
Deputy Director
Real Estate Services Division
707 Third Street - 8th Floor
West Sacramento, CA 95605

Mitigative and Clean Up Procedures for Interior Electrical/Data Rooms, Janitorial Rooms, Supply Rooms, Copy Rooms, Storage Rooms, and Rest Room Areas
Department of General Services Board of Equalization Building
450 N. Street
Sacramento, California

Dear Mr. Button,

BioMax Environmental, LLC (BioMax) is pleased to provide the Department of General Services (DGS) with this letter summary report detailing BioMax's recommendations pertaining to the mitigative and clean up procedures associated with the interior electrical/data rooms, janitorial rooms, supply rooms, copy rooms, and rest room areas. Such recommended procedures are intended to be applicable solely to the currently unoccupied interior areas present within the 24th, 23rd, and 22nd Floors of the BOE building located at 450 N Street Building (subject building) Sacramento, California. BioMax understands that the development of these specific procedures has been directed by DGS in an effort to appropriately inspect, clean such areas, and address any additional potential moisture related impacts found within these noted areas of the subject building as part of the final stages of current mitigative efforts on these floors. BioMax also understands, that these procedural activities have been requested by your offices in an effort to establish the necessary standard procedures required for forthcoming inspection and microbial mitigative efforts specifically anticipated currently within rest room areas and other noted interior building areas as deemed necessary. Hence, these general performance procedures may be utilized, as necessary on each of the noted unoccupied floors (24, 23, and 22) at the direction of DGS and the Project CIH

As such, these recommended procedures have been developed by Mr. Michael A. Polkabla, CIH, REA, of BioMax in accordance with currently recognized microbial assessment and sampling guideline procedures. Mr. Polkabla has been certified in the Comprehensive Practice of Industrial Hygiene by the American Board of Industrial Hygiene and holds the right to the designation "Certified Industrial Hygienist" (CIH) under certification number CP 7104. Mr.

775 San Pablo Avenue, Pinole, Ca 94564 • Telephone (510) 724-3100 • Facsimile (510) 724-3145

Polkabla is also certified by the California Environmental Protection Agency (Cal/EPA) as a Class I Registered Environmental Assessor (REA) under Cal/EPA certification number 05011.

Based on our review of current data, preliminary visual observations of the noted areas within the subject building, and review of historical information available at this time, BioMax recommends that the following investigative and corrective measures/actions be considered as follows:

Electrical and Data Rooms (Floors 24, 23, and 22):

1. Interior electrical and data rooms shall be detail cleaned by the selected mitigation contractor utilizing dry HEPA filtered vacuum equipment with soft bristle brush attachments (or equivalent). Surfaces cleaned shall include all accessible vertical and horizontal surfaces present within the noted areas. Electrical and data access panels and boxes shall remain closed during such treatment cleaning procedures. No exposed wires, electrical, or data wiring shall be contacted at any time during the performance of these procedures.

2. Special care shall be taken by the selected mitigation contractor to avoid contact with any electrical supply and/or shut off boxes during the performance of these recommended procedures. It is critical that the mitigation contractor be instructed to only contact and clean materials and equipment in a manner in which they are certain that they can do so both safely and effectively in accordance with worker protection codes and requirements. Any questions regarding such material and equipment contact shall be raised and reviewed with the site building maintenance manager, Mr. John Munoz prior to the implementation of these procedures.

3. HVAC systems are currently non operational on each of these floors (24, 23, and 22) and shall remain as such for the duration of these supplemental activities unless otherwise directed by DGS and the Project CIH. Each ceiling mounted supply and return register shall be wipe cleaned, HEPA vacuumed and sealed in plastic during the performance of these activities

4. Personal Protective Equipment (PPE) utilized by workers during the performance of this supplemental scope of work shall include standard construction clothing with supplemental nitrile gloves (3-5 mil.) and ANSI approved eye protection at minimum. Voluntary use of dust mask respiratory protection may be utilized by workers at their discretion but is not required as part of these recommended procedures.

Copy, Storage, and Office Supply Rooms (Floors 24, 23, and 22):

5. BioMax recommends that all copy, storage, and office supply rooms shall be detail cleaned by the selected mitigation contractor utilizing appropriate wet and dry HEPA filtered vacuum equipment methods with soft bristle brush attachments (or equivalent).

Wherever possible, equipment and office supply materials shall be removed from its shelving/storage position, HEPA vacuumed and replaced onto it's a cleaned resting surface. If this is impractical, then cleaning in place methods shall be utilized. Remaining floors, walls, and interior storage surfaces shall be similarly cleaned utilizing HEPA filtered vacuum equipment and materials. Air scrubbing equipment may also be utilized within the working area to further reduce the potential for airborne release of fugitive particulate emissions during the performance of these cleaning procedures. Any electrical and/or data access panels present within these areas shall remain closed during such treatment cleaning procedures and only outer cover materials will be cleaned. For appropriate safety reasons, no energized equipment (such as copy machines, computer towers, etc.) shall be opened or cleaned internally as part of this procedure.

6. As similar to previously noted electrical and data rooms, it is critical that the mitigation contractor be instructed to only contact and clean materials and equipment in a manner in which they are certain that they can do so both safely and effectively in accordance with worker protection codes and requirements. Additional consultation regarding such material and equipment contact may be provided by the Project CIH upon request.

7. HVAC systems are currently non operational within these areas and shall remain as such for the duration of these supplemental activities unless otherwise directed by DGS and the Project CIH. Each ceiling mounted supply and return register shall be wipe cleaned, HEPA vacuumed and sealed in plastic during the performance of these activities.

8. Personal Protective Equipment (PPE) utilized by workers during the performance of this supplemental scope of work shall include standard construction clothing with supplemental nitrile gloves (3-5 mil.) and ANSI approved eye protection at minimum. Voluntary use of dust mask respiratory protection may be utilized by workers at their discretion but is not required as part of these recommended procedures.

Janitorial Rooms (Floors 24, 23, and 22):

9. Due to the presence of water supply lines and frequent moisture related activities performed within these areas, all janitorial rooms will be inspected by the Project CIH in an effort to identify any significant visible moisture and/or mold like staining present within the current building materials. If such visual indicators are **absent**, BioMax recommends that such areas be detail cleaned by the selected mitigation contractor utilizing appropriate wet and dry HEPA filtered vacuum equipment methods with soft bristle brush attachments (or equivalent). Any interior equipment and janitorial supply materials shall be HEPA vacuumed and/or wet wipe cleaned in place replaced as part of this procedure. Remaining floors, walls, and interior storage surfaces shall be similarly cleaned utilizing HEPA filtered vacuum equipment and/or wet-wipe materials, as necessary. Air scrubbing equipment may also be utilized within the working area to further reduce the potential for airborne release of fugitive particulate emissions during the performance of these cleaning procedures at the direction of the Project CIH.

10. It is critical that the mitigation contractor be instructed to only contact and clean materials and equipment in a manner in which they are certain that they can do so both safely and effectively in accordance with worker protection codes and requirements. Additional consultation regarding such material and equipment contact may be provided by the Project CIH upon request.

11. HVAC supply and return systems are currently non operational within these areas and shall remain as such for the duration of these supplemental activities unless otherwise directed by DGS and the Project CIH. Each ceiling mounted supply and return register shall be wipe cleaned, HEPA vacuumed and sealed in plastic during the performance of these activities

12. Personal Protective Equipment (PPE) utilized by workers during the performance of this supplemental scope of work shall include standard construction clothing with supplemental nitrile gloves (3-5 mil.) and ANSI approved eye protection at minimum. Voluntary use of dust mask respiratory protection may be utilized by workers at their discretion but is not required as part of these recommended procedures.

The Project CIH shall be notified immediately if moisture and/or mold like staining are identified during the performance of any inspection and/or cleaning activities associated with the interior areas noted above. Upon further review, if such moisture indicators are confirmed within the janitorial and/or other interior areas, additional mitigative procedures shall be implemented in accordance with the recommended guideline procedures noted as follows:

Rest Room Areas (Floors 24, 23, and 22):

1. In areas where significant moisture staining and/or mold growth has been confirmed, BioMax recommends that the microbial abatement contractor erect critical containment barriers and perform deconstructive inspection and microbial mitigative measures within each of the interior areas noted. The containment barrier system may also be designed, established, and maintained so as to isolate the existing ceiling tiles and above ceiling plenum areas from the active working areas below at the direction of the Project CIH based on the severity of impacted materials. The selected mitigation contractor must be specifically trained in the field of microbial abatement techniques and methods as well as maintain demonstrated proficiency in the establishment and use of appropriate barriers, personal protective equipment, abatement techniques and methods in the removal and decontamination of microbial affected and impacted materials.

2. Containment systems shall be designed for the purposes of containing and controlling possible fugitive emissions of airborne fungal spore contaminants during all forthcoming deconstruction, inspection, and mitigative activities within the noted areas. All critical containment systems shall be constructed of plastic and/or otherwise airtight materials so as to create a negative pressure system within the noted areas of concern. Due to physical constraints, all negative air pressure shall be maintained within the critical areas with the use of a High Efficiency Particulate Aerosol (HEPA) filtered "negative air machine"

vented to the adjacent outside workspace environment. An adequate supply of HEPA filtered intake air shall also be established to allow an adequate supply of "clean" filtered make-up air into the critical containment. Pleated high efficiency filter elements shall be required to perform this function. Wherever possible, clear translucent plastic observation windows shall be placed on the critical containment barrier within direct sight of the affected areas for the purposes of inspection during the performance of prescribed mitigative measures. BioMax is prepared to provide your selected contractor with additional and ongoing detail pertaining to the establishment maintenance, and specific locations of critical containment barriers, as necessary. Once, containment parameters have been established, the site contractor shall maintain an "as built" record of exact containment locations and materials for further review and reference.

3. A series of similar plastic and/or otherwise impermeable zippered entry chambers shall also be erected at the entrance of each containment system for the purpose of establishing worker entrance/exit and clean personal protective equipment donning and decontamination area. HEPA filtered vacuum equipment capable of the effective removal of particulate contaminants from tools and personal protective equipment shall be placed within each of the zippered chambers closest to the working area. During such measures, appropriate signage and warnings must be posted on the exterior of containment entrances to preclude uninformed access from unauthorized personnel. Data logging monitoring equipment employed to record pressure differentials on a 24-hour basis shall be used for the duration of functional barrier use.

4. Upon establishment of critical containment barriers, BioMax recommends that the selected microbial abatement contractor also places and maintains appropriate HEPA filtered air-scrubbing units within the affected areas, as necessary. All Heating Ventilation and Air Conditioning (HVAC) supply vents and ceiling or wall mounted recessed lighting/ fan penetrations within the containment systems shall be deactivated, detail cleaned, and covered within similar plastic barrier systems. All appropriate wall and ceiling penetrations present within the containment systems shall also be sealed and/or otherwise rendered airtight and inoperable so as to minimize unfiltered particulate intrusion into and out of the established containment systems. It is specifically recommended that the ceiling tile level materials be critically sealed from the working areas within each of the noted containment rooms so as to preclude fugitive emissions from exiting the noted containments. Any smoke detectors and/or fire suppression systems shall NOT be covered nor rendered inoperable within the subject building unless authorized to do so under the direction and supervision of personnel.

5. Workers engaged in mold remediation/mitigation activities must be adequately trained and equipped with properly selected personal protective equipment (PPE) including, at minimum, hooded Tyvek coveralls, air purifying full face respirators with N100 minimum HEPA filter rating or similar PAPR systems, nitrile or latex gloves, chemical resistant boots or boot covers, with taped joints. Site control zones shall be established with exclusion, contaminant reduction (decontamination), and support zones in accordance with published Environmental Protection Agency (EPA) and California

Department of Occupational Safety and Health (Cal/OSHA) guidelines. BioMax would be happy in providing the selected contractor with further site-specific detail regarding PPE regimen and appropriate site control zones, as necessary.

6. BioMax recommends that all interior items or furnishings located within the noted areas be cleaned and isolated from the containment area systems prior to the initiation of mitigative activities. Any remaining hard surface materials not removed from the containment must be appropriate disposal and/or decontamination as noted below. As a precautionary measure, all hard mounted and/or otherwise emaining hard surface furnishings (shelving, cabinets, etc.) shall receive a thorough cleaning, mildicide wet-wiping, and HEPA vacuuming as part of these recommended procedures prior to subsequent clearance testing and reuse.

7. BioMax specifically recommends that all visually affected wall mounted sink cabinet materials present within each rest room areas where visual evidence of significant moisture intrusion and damages has been identified, be removed for inspection of the interior and adjacent wall cavities/underlayment. As verified through inspection, any affected interior sheetrock and building materials shall be digitally documented by the mitigation contractor and removed, wherever feasible, to the extent of visible staining, at a minimum. Mirror and flooring materials present within the impacted areas may also be removed under containment controls (at the direction of the Project CIH) for appropriate inspection of underlayment surfaces as deemed necessary. Removal of moisture impacted and mold damaged materials may also employ the use of appropriate item-specific containment methods and systems (such as sealed plastic glove-bag containment systems, or equivalent) applicable to the materials being removed at the discretion of the mitigation contractor. BioMax currently anticipates that all visually affected sheetrock, wall mounted cabinets and sink materials present within the impacted rest room areas shall be removed for disposal, and physical inspection of wall cavities and underlayment surfaces, as necessary. Any underlayment materials exhibiting visible signs of moisture staining shall also be removed or decontaminated as necessary.

8. Other potentially affected areas and building materials encountered during these deconstructive and investigative stages, such as adjacent wall studs, underlayment, etc., must be thoroughly inspected during these deconstructive stages to identify any potential signs of additional microbial related materials and water damage indicators. In general, all microbial impacted materials shall be removed to the extent of visible staining and at least 2 feet beyond such identified perimeters, wherever feasible and possible. The Project CIH shall review each area containing significant moisture impacted materials so as to render a professional opinion regarding the necessary extent of physical removal on a case-by-case basis.

9. All remaining moisture/mold affected porous and non-porous building materials deemed infeasible for removal and/or disposal (due to structural integrity concerns) shall be inspected and receive a series of decontamination treatment measures designed to minimize and control the presence of microbial related substances. Decontamination

methods employed shall, at a minimum, include treatment of all identified surfaces with a series of thorough chlorine based mildicide (minimum 10 parts water to 1 part chlorine soln.) applications followed by a series of thorough HEPA filtered vacuuming procedures using power sanding and/or brush agitation. The duration and frequency of mildicide and HEPA sanding/brushing applications employed may vary depending on local material contamination but shall be sufficient in removing and decontaminating all visible surface staining to levels deemed by BioMax to be consistent with representative background levels. Reasonable additional mitigative measures and controls may be required, as necessary, upon discovery of additional contaminated materials as well as BioMax's site inspection findings and observations performed during this scope of work. BioMax would be happy to provide ongoing consultation with the contractor pertaining to these measures and site/material specific decontamination measures upon request.

10. Upon completion of mitigation efforts performed by the selected microbial abatement contractor, BioMax recommends the performance of a visual inspection conducted by the Project CIH to verify that all significant mold related staining and moisture indicators have been removed and/or treated and that all prescribed mitigative efforts and measures have been appropriately achieved. Once established, it is recommended that the Project CIH collect a series of microbial "clearance" air samples to verify that all affected interior areas have been appropriately decontaminated to acceptable background airborne levels and that the affected areas within the subject building are verified as "cleared" for reconstruction, forthcoming reoccupancy, and reuse. Additional "punch-list" action items may by provided to the contractor following the performance of this site clearance inspection prior to receipt of analytical results, as deemed necessary.

11. Upon review of analytical sampling results by the Project CIH and achievement of acceptable clearance criteria, BioMax recommends that the mitigation/reconstruction contractor to apply a mildicide-based sealant onto all remaining organic-based building materials and treated surfaces within rest room areas. Use of a recognized commercially available encapsulant/sealant product with microbial growth inhibitors in accordance with manufacturer's application and use instructions is believed to be currently acceptable for these purposes. Following the achievement of acceptable clearance criteria, the provision of appropriate access shall be provided to BOE and its consultants for inspection of affected areas and materials prior to final encapsulation and reconstruction.

12. Following the performance of these mitigative measures, the designated site reconstruction contractor is strongly encouraged to verify that repairs to any faulty and/or deficient plumbing and/or building sealing systems have been appropriately inspected, replaced/repaired, and function tested prior to the reconstruction of the affected interior structures and cavities. Certainly, the repair/replacement and/or establishment of any such additional engineering controls (as recommended through additional professional consultation) must be performed and implemented in accordance with applicable standards, building codes, and ordinances, as necessary.

13. Upon completion, reconstruction of interior structural materials should be undertaken utilizing visibly clean (hand selected) construction grade materials in accordance with applicable building codes and requirements. The reconstruction contractor shall be required to only select materials which are obtained from reputable commercial sources and which are believed and visually verified to be free from elevated microbial contamination and/or elevated moisture content. New building materials, which are notably moist and/or visibly stained, shall NOT be used during the reconstruction of the subject structure. BioMax specifically recommends that reconstruction materials selected for use in the rest room areas be specifically selected based on their moisture deterrent and anti-microbial properties wherever feasible.

14. Reasonable additional assessment and mitigative measures may also be required upon the identification of new or previously undiscovered materials and/or information related to moisture/microbial impacts, as necessary. Any reoccurrence of moisture intrusion following reconstruction should certainly be reviewed and addressed through further professional consultation, as necessary. BioMax would be happy to provide additional microbial consultative services pertaining to the mitigation of such structures so as to minimize any adverse impacts to the interior environment during the performance of any such activities upon request..

Once again, it has been a pleasure working with DGS on these important matters. If you have any additional questions, comments, or require further assistance, please do not hesitate to contact me directly at (510) 724-3100.

Sincerely,

Michael A. Polkabla, CIH, REA
Vice President, Principal

THE AMERICAN BOARD OF INDUSTRIAL HYGIENE INCORPORATED
CERTIFICATION NUMBER 7104 CP
EXPIRES 6-1-2013
PENNSYLVANIA - 1969
MICHAEL ANDREW POLKABLA, CIH

LIMITATIONS

Please note that the professional opinions presented in this review are intended for the sole use of DGS and their designated beneficiaries. No other party should rely on the information contained herein without the prior written consent of BioMax Environmental and DGS. The professional opinions provided herein are based on BioMax's review and understanding of current site information and observed site conditions present within the areas inspected at the time these services were performed. Professional recommendations provided as part of this limited scope of work are intended for client consideration only and are not intended as a professional or regulatory mandate. Implementation of any of the above measures or recommendations does not, in any way, warrant the day-to-day health and/or safety of building occupants, residents, site workers, nor regulatory or building code compliance status during normal and changing environmental conditions. As microbial contamination, by nature, may change over time due to additional moisture intrusion, favorable growth conditions, and changing environments, the findings of this report are subject to change in the event that such conditions and/or environments arise. Also, the professional opinions expressed here are subject to revision in the event that new or previously undiscovered information is obtained or uncovered.

The information contained in this and any other applicable report communication is intended for consideration purposes only. It is not intended, nor should it be construed as providing legal advice or warranting any level of safety or regulatory compliance. The sole purpose of such information is to assist with the identification, evaluation and control of potential contamination or unnecessary physical, chemical, and/or biological hazards. Any action taken based on this information, including but not limited to opinions, suggestions and recommendations, whether implied or expressed, is the sole responsibility of the individual taking the action. Risk management and safety is criteria dependent and situation specific requiring extensive knowledge and value assessments to be properly determined by competent professionals.

These services were performed by BioMax in accordance with generally accepted professional industrial hygiene principals, practices, and standards of care. Under the existing Industrial Hygiene Definition and Registration Act, all reports, opinions or official documents prepared by a Certified Industrial Hygienist (CIH) constitutes an expression of professional opinion regarding those facts or findings which are subject of a certification and does not constitute a warranty or guarantee, either expressed or implied.

HYGIENETECH
Hygiene Technologies International, Inc.

3625 Del Amo Boulevard, Suite 180
Torrance, California 90503-1643
(310) 370-8370
(310) 370-7026 FAX
www.hygienetech.com

May 8, 2008

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

Document No. 20805001.1

Attention: David Gau

Regarding: Review of *Mitigation and Clean Up Procedures for Interior Electrical/Data Rooms, Janitorial Rooms, Supply Rooms, Copy Rooms, Storage Rooms, and Rest Room Areas*

Dear Mr. Gau:

Today, Hygiene Technologies International, Inc. (HygieneTech) received a copy of the "Mitigation and Clean Up Procedures for Interior Electrical/Data Rooms, Janitorial Rooms, Supply Rooms, Copy Rooms, Storage Rooms, and Rest Room Areas" prepared by BioMax Environmental, LLC dated May 7, 2008. Upon review of said document, HygieneTech concurs with the recommendations and has no additional comments or questions at this time.

If you have any comments or questions, please fell free to contact our offices directly at (310) 370-8370.

Sincerely,

HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

Kenny K. Hsi, CIH
Technical Director