
BioMax Environmental

Environmental Consulting and Industrial Hygiene Services

April 10th, 2008

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

**Recommended Mitigation Procedures for Floor 24 - Supplement
Carpet Removal Activity
Department of General Services Building
450 N. Street
Sacramento, California**

Dear Mr. Button,

As per your request, BioMax Environmental, LLC (BioMax) is pleased to provide you with the following professional recommendations supplement pertaining to the carpet removal activities anticipated within the currently unoccupied 24th Floor of 450 N. Street, Sacramento, California (subject building) as previously occupied by Board of Equalization (BOE) personnel. BioMax understands that these supplemental procedural recommendations have been requested at the specific direction of the Department of General Services (DGS), in an effort to address the concerns expressed by BOE's consultant Hygientech (HTI) regarding the carpet replacement phase of the forthcoming scope of work.

Please note, that BioMax's previous report entitled Recommended Mitigation Procedures for Floor 24 dated February 21st, 2008 has been reviewed and approved by BOE and their environmental consultant Hygientech (HTI) as written. This referenced document is, therefore, incorporated into this procedural supplement as pertaining to the noted carpet removal activity phase only. It is also DGS's position that the February 21st recommended mitigation procedures as written, are sufficient in establishing and maintaining a safe and healthful working environment for contracted employees as well as BOE staff during the noted carpet removal procedures in question. However, to address the concerns of potential airborne release of dusts contained within the carpeting during removal as brought forth by BOE and their consultant, DGS has agreed to modify the existing 24th Floor protocol as noted below.

It is, therefore, the intent of DGS to employ current operational building maintenance practices (as modified within this supplement) during the reactivation of the 24th Floor Heating Ventilation and Air Conditioning (HVAC) as follows:

1. Carpet removal activities shall be scheduled and performed independently of painting and/or carpet replacement activities on the 24th Floor. It is understood that the 24th Floor is currently vacated and the HVAC system has been out of operation on this floor for a number of months and will remain out of operation until carpet removal operations are complete.
2. As an additional precautionary measure, all HVAC supply and return registers shall be cleaned and covered in plastic and remain in place until the HVAC systems are activated. Prior to removal, all carpets shall be thoroughly HEPA vacuumed by a competent mitigation contractor experienced in HEPA filtering. The mitigation contractor shall be appropriately trained and have demonstrated experience in particulate control methods and techniques in accordance with industry standard practices. The 24th Floor HVAC system shall remain non-operational (quiescent) as well as isolated from other remaining building floors during this HEPA vacuuming activity.
3. Following the performance of the HEPA vacuuming of carpet, all bulk carpeting may be removed by the mitigation contractor. As an additional precautionary measure, based on the expressed concerns from BOE's consultant, a series of portable HEPA filtered air scrubber units shall also be utilized in each work space where the localized carpet removal activities are being performed. Air scrubbers shall be oriented in such a way that their filter elements are facing the carpet removal work area wherever feasible, thus effectively reducing the potential fugitive dust emissions resultant from such physical removal. It is currently anticipated that the HEPA filtered air scrubbing units shall be supplied, tested, and maintained by the mitigation contractor. BioMax also understands that this carpet removal activity may also require the utilization of a subcontractor experienced and equipped to lift interior furnishings to gain access to the carpet and baseboard. Such contracted personnel shall also be experienced in working under such PPE regimen and maintain current certifications and training records as such.
4. It has been directed by DGS that vinyl baseboard materials and vinyl window blinds (leaving hardware) shall also be removed by the mitigation contractor as part of the carpet removal process. All carpet underlayment as well as baseboard underlayment surfaces shall be visually inspected by the mitigation contractor wherein any potential moisture indicators and/or mold-like staining is immediately reported to the Project CIH for further review and appropriate action.
5. As a precautionary measure, personal protective equipment (PPE) utilized by the mitigation contractor and any subcontracted furniture lifting employees shall include the use of Tyvek suits and NIOSH approved N95 respiratory protection (dust masks) at minimum. Such regimen shall be utilized during the entirety of carpet removal, vinyl baseboard removal, and post removal cleaning activities performed by the mitigation contractor.
6. Following the floor wide removal of all carpet and vinyl baseboards the mitigation contractor shall be instructed to HEPA vacuum and/or wet wipe all physical remaining debris present on the newly exposed subflooring and remaining horizontal surfaces. BioMax currently understands that the physical removal of carpet adhesive (through scraping) is not standard

building maintenance practice (nor necessary) as part of the routine performance of this carpet replacement activity. Hence, the physical removal of debris (utilizing the noted HEPA filtered equipment) from exposed flooring and any remaining furnishings shall be performed by the mitigation contractor. Following carpet and baseboard removal, all accessible interior surfaces (excluding the ceiling and non carpeted areas) shall be HEPA vacuumed and/or wet wiped in an effort to minimize the accumulation of any particulate deposition resultant from the noted carpet removal activity.

7. Upon completion, the Project CIH will then perform a floor-wide inspection to verify successful completion of the procedures noted above. Under the Project CIH's direction, the HVAC system may then be reactivated (on the 24th floor) and run in 100 percent outside air ("Flush Mode") for a minimum of 48 hours prior to painting and carpet replacement activities. According to information provided to BioMax by DGS, this measure constitutes standard building maintenance practice for painting and carpet replacement activities within the industry. As such, the HVAC systems shall be maintained in "Flush" mode during the activities following the carpet removal such as painting and carpet replacement activities in accordance with standard building maintenance practices. Based on the anticipated generation of vapors associated with paints and carpet adhesives, it is critical that such activities (painting and carpet replacement) shall only be performed under conditions wherein the HVAC system remains operational under "Flush" mode in accordance with standard building maintenance practices.
8. At the conclusion of Tasks 1-7 above, BioMax shall conduct airborne particulate sampling throughout the 24th Floor areas in an effort to evaluate the airborne environmental conditions following the performance of the above activities utilizing the controls noted. Such findings shall be professionally reviewed by BioMax's Project Certified Industrial Hygienist whereby the noted procedures employed as well as the adequacy of the supplemental controls and work practices will be assessed and evaluated. Supplemental air sampling/testing may also be performed prior to and/or during the time of the physical carpet removal activity at the direction of the Project CIH, as deemed necessary.
9. As an additional measure following the completion of finish painting and carpet replacement activities, BioMax anticipates that all interior work area surfaces be detail cleaned utilizing (and in accordance with) standard building Operations and Maintenance (O&M) janitorial practices consistent with industry standard practices. Such post construction measures may be modified and/or supplemented based on our review of the analytical data as necessary.
10. Reasonable additional mitigative measures and controls may be required, as necessary, upon discovery/provision of additional information as well as review of additional site inspection findings, analytical data, and observations pertaining to these areas of concern.

BioMax believes that the above supplemental procedures are consistent with the intended goals of this project phase as well as in addressing the expressed concerns of the building tenant and their environmental consultants. Please note that BioMax has been directed by DGS to prepare

these supplemental procedures which are recognized to establish procedural requirements intended to be in excess of the current industry standard of care for carpet removal activities within the noted 24th Floor only. However, in doing so, such procedures (as written) also follow prudent industrial hygiene safety principles necessary in accomplishing the requested supplemental tasks under the requisite conditions.

Pursuant to an ongoing agreement between the BOE and DGS, it is BioMax's understanding that these recommended supplemental procedures and actions will be distributed and reviewed by BOE's environmental consultant representatives prior to implementation. Therefore, any revisions and/or modifications to these current recommendations performed by applicable parties should only be implemented following the appropriate review and approval by DGS and BOE.

Please do not hesitate to contact me directly at our offices if you have any additional questions, comments about these recommendations, or require further assistance regarding this important matter.

Sincerely,

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

LIMITATIONS

Please note that the professional opinions presented in this review are intended for the sole use of the California State Department of General Services (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. 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. 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.

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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.