

## EPA Comments - Triple Site - The King's Academy - Revised Mitigation Plan for Small Auxiliary Gym

MORASH, MELANIE

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1 attachment (15 KB)

Comments.docx;

Good morning, Wes,

Thank you for submitting this revised mitigation plan for the King's Academy small auxiliary gym. Please review the attached set of comments and prepare and submit a response to EPA by Thursday, May 12.

Please also verify with the school that the signage we developed has been posted on the doors to the small gym.

Regards,

Melanie Morash

Comments:

1. Based on EPA Region 9's experience in the oversight of sub-slab mitigation system design and installation at other sites, we have concerns that the current plan may not be adequate if the sub-slab materials beneath the small gym are similar to those of other commercial buildings in the area. Following the current approach outlined in the plan would require a number of weeks to months to determine its adequacy, which would allow for unnecessary exposure to the students or staff occupying the gym.
2. The plan should address uncertainty by providing additional text to show how diagnostic testing or pilot testing can be done to ensure coverage over the slab is provided, or how the testing will be used to determine the need for additional extraction points and where such points should be located.
3. Based on comment #2 above, the mitigation plan should be revised to state that the plan is a presumptive design and that sub-slab pressure differential testing will be used to guide the installation of extraction points. This pressure differential testing will ensure that complete vacuum coverage over the entire slab is provided before the system design is finalized and implemented.
4. If it is preferred to do diagnostic testing or pilot testing first, then the work plan should be revised to show how the testing will be done and what data will be collected. At a minimum, the additional information should include examples of how testing will be done, how pressure differential testing locations will be chosen and measured, and fan operational data, including vacuum and air velocity.
5. For diagnostic testing, it should be noted in the plan how that testing will be conducted and the vacuum range expected to apply at the extraction point(s).
6. In-line radon fans are limited to around 4.0 inches of water vacuum and may not be strong enough to provide sub-slab coverage. Therefore, alternative methods of applying higher vacuums should be included in the work plan.
7. If higher vacuum levels are required to provide the necessary coverage, a list of the types of fans (for example, RadonAway HS2000, HS3000, etc.) should be included as alternatives. It should also be noted that the overall installation may take longer if the higher suction fans are required to meet the overall coverage requirements.
8. To collect sub-slab pressure differential data, approval from the school will need to be obtained. While disturbing the floor of the gym is more invasive, the school has already indicated that they are ready to do whatever is necessary to accommodate the mitigation effort and ensure that TCE levels are reduced. The request to the school should be in writing and include a detailed description of the sub-slab test ports, as they are essential to the overall mitigation of the building.

9. Commercially available test ports (for example, vapor pins, etc.) are available and provide a professional and acceptable finish in finish flooring, including hardwood gymnasium floors.
10. Copies of test equipment calibration certificates should be provided in the work plan to ensure accuracy of measurement readings.