

MORASH, MELANIE

From: MORASH, MELANIE
Sent: Friday, July 01, 2016 12:02 PM
To: Wes Hawthorne
Cc: Elizabeth Brown; Heather O'Cleirigh; Joseph Innamorati; Linda Niemeyer; Michele Yuen; Morgan Gilhuly; Nancy-Jeanne LeFevre; Peter Bennett; Peter Scaramella; Rebecca Mora; Shau Luen Barker; Shaun Moore; Todd Maiden; Wendy Feng; Cynthia Woo; Lawrence McGuire; Leslie Lundgren; Lora Battaglia; Rose Condit; Sabrina Morales; Wenqian Dou; DIAZ, ALEJANDRO; Estrada, Thelma; Harris-Bishop, Rusty; Lyons, John; Maldonado, Lewis; MORASH, MELANIE; Parker, Heather; Plate, Mathew; Shaffer, Caleb; Stralka, Daniel; Yogi, David
Subject: EPA Comments - RP's Proposed Mitigation Plans for School Buildings - King's Academy Small Auxiliary Gym & San Miguel Elementary School Buildings - Response Requested by Friday, July 15th

Good morning, Wes,

Thank you for providing the mitigation plans for the above-referenced school buildings and the response-to-comment letters. **Please consider the following comments and provide a response to comments letter and updated plans to EPA for review and approval by Friday, July 15th. EPA encourages you to aim for an earlier submittal date for the San Miguel Elementary School buildings (L1, L2 and K) that are being constructed this summer, so as not to delay the school district's construction schedule.**

General Comments:

1. Implementing mitigation activities in homes and schools needs to be performed efficiently and avoid multiple mobilizations whenever possible. Installing systems correctly during the first installation will save resources and provide greater assurance to the residents, school officials and parents that the program is credible and that their safety is being adequately addressed. Please work ahead of time with your staff and mitigation subcontractors to prepare for all reasonably anticipated contingencies and have materials on-hand to facilitate prompt completion of installation activities during one continuous work period.
2. There is no mention in the school building mitigation plans, especially the commercial type buildings, as to whether the regional air quality board will require air permits for the systems. The air boards generally waive the requirement for residential, but not for commercial applications. The regional air quality board should be contacted to determine if the commercial type buildings should be permitted and if mitigating more than a couple of houses is an issue.

Specific Comments on The King's Academy Small Auxiliary Gymnasium Mitigation Plan:

1. The document states that 100% coverage across the slab may not be necessary for indoor air levels to fall below existing standards. While EPA agrees that coverage is only needed where vapors are entering the building through the slab, 100% sub-slab vacuum coverage is still recommended because it is not known where the vapor is entering the building through the slab. This will minimize the number of mobilizations to the building. Several trips to the site to install the system to understand the coverage of a given system will result in the stakeholders to lose confidence in the process. Given the number of system installations required in the area, it is imperative to plan into our technical approach the procedures necessary to ensure the greatest likelihood that the systems will function correctly the first time.

2. Page 3, SSDS Description, second paragraph (¶) – reference to the muffler and condensate bypass is made but it is not clear whether this specification is intended to be the standard with all system installations (or only this building). It is likely that the muffler is only necessary if the HS style fans are necessary for mitigation of the building. If the HS fans are selected, they have condensate bypass built into the fan, so adding condensate bypass is not necessary.
3. Page 3, SSDS Description, second ¶ – In the sentence, “An audible and visual alarm will be placed on the exterior of the building next to the front door, ...”, however, comments made during the recent system installation at RES084/085 indicated that the alarm had to be installed near the fan and could not be located in the house or at an alternate location. Please clarify.
4. Page 4, SSDS Specifications, second ¶, Third bullet – While the correct gauge part for the Dwyer Magnahelic was included, this gauge is only applicable if a single GP501 is used. If two GP501 fans are stacked or if an HS fan is chosen, then the specified gauge will not work. Please update the text to reflect the change in the design based on diagnostic testing. Text could be rewritten to state that the part number specified is for the single GP501 application and that if changes are made due to diagnostic testing, then a gauge will be selected that has an appropriate scale for the final fan(s) chosen.
5. Page 6, Diagnostic Testing Contingencies, third ¶ – This paragraph states that a second suction point will be added during a second mobilization and not during the initial mobilization. If diagnostic testing is done during the initial system installation and it indicates that additional suction points are necessary, please consider installing additional suction points at the same time during the first mobilization. The purpose of diagnostic testing is to determine the necessary requirements to provide 100% coverage across the slab. Diagnostic testing will demonstrate how much coverage is provided with increased vacuum and the number and location of suction points can be determined. It is preferable to install the additional suction points at the same time to limit the number of mobilizations needed to install the system.
6. Page 6, Diagnostic Testing Contingencies, third ¶ – This paragraph states that a second suction point would be installed if the system doesn’t meet mitigation effectiveness. Please clarify whether the effectiveness is based on diagnostic testing or indoor air sampling results. If effectiveness is based on indoor air sampling results, clarify how the 30 day timeframe can be met. Please revise the description in the text for contingency to be more clear how system effectiveness is evaluated.
7. Page 6, Diagnostic Testing Specifications, first ¶ – The HS fans are an adequate substitution if higher vacuum is required. It would be prudent to have an HS fan available during the installation, in case it is needed. One option is the OBAR Systems direct drive blower as it closely models the HS RadonAway fans. In contrast to the HS RadonAway fan, OBAR allows for the housing to be opened and the potentiometer be accessed to dial in the appropriate vacuum. The HS blowers are all basically the same blowers that have had the potentiometer factory set to the vacuum levels shown in their literature. If RadonAway fans are opened, then the warranties are voided. The OBAR fan does not have this restriction and is basically the same cost as one of the HS fans.
8. Page 6, Implementation Schedule Section, first ¶ – The text states that any diagnostic testing is separate from the installation of the system. EPA prefers the diagnostic testing performed during the system installation to condense the schedule and guide the installation.

Specific Comments on the San Miguel Elementary School mitigation plans for Buildings L1, L2 and K (New Construction) and California Young World building (CYW – existing):

1. Page 3, Proposed Mitigation Plan – L1, L2 & K, Description, first ¶ – The soil gas collector mat location under the slab should be provided in a plan view drawing.

2. Page 3, Proposed Mitigation Plan – L1, L2 & K, Description, fourth ¶ – The ASTM standard cited is for existing low rise residential building and not an appropriate reference for new construction. It should be ASTM 1465-08a, “Standard Practice for Radon Control Options for the Design and Construction of New Low-Rise Residential Buildings”.
3. Page 3, Proposed Mitigation Plan – L1, L2 & K, Construction Sequence, first ¶, first bullet – please clarify whether the design and specifications be given to the construction contractor verbally or in writing.
4. Page 4, Proposed Mitigation Plan – L1, L2 & K, Construction Sequence, second ¶ – based on this paragraph, it appears the design of the SSDS is going to be passive, with no fan. This needs to be clearly identified earlier in the plan. Text should include, “passive” sub-slab system, and additional wording that states it could be made active if post-construction testing indicates a problem. The text should also include that an electrical connection should be installed during construction in the area that a fan would be installed, so as to facilitate the fan’s incorporation into the system if it is needed in the future.
5. Page 5, Proposed Mitigation Plan – L1, L2 & K, Potential Alternatives, second ¶, first bullet – since the system will be a SSDS rather than a SMDS, there should be text that states the fan will be determined once the building is constructed and the system is tested to select the appropriate fan. EPA is not clear whether a high flow, low vacuum fan is going to be the correct selection for the SSDS, or a higher suction low flow fan (for example, GP501, etc.) will be warranted. Please clarify.
6. Page 5, Proposed Mitigation Plan – L1, L2 & K, Potential Alternatives, second ¶, third bullet – The Dwyer gauge specified may need to be modified if the fan selected is different than what is shown in the list under the first bullet. Text could be modified to state “gauge will be selected that has an appropriate scale for the final fan(s) chosen”.
7. Page 5, Proposed Mitigation Plan – L1, L2 & K, Potential Alternatives, third ¶ – The paragraph assumes that the fan will be located on the exterior and not on the interior. Since previous text allows for either an interior installation or exterior installation, this should be updated to explain how the added components will be handled if the school chooses an interior installation.
8. Page 6, Proposed Mitigation Plan – CYW, Description, third ¶ – The paragraph assumes that the fan will be located on the exterior and not on the interior. Since previous text allows for either an interior installation or exterior installation, this should be updated to explain how the added components will be handled if the school chooses an interior installation.
9. Page 7, Proposed Mitigation Plan – CYW, SMDS Specifications, second ¶ last bullet – The Dwyer gauge specified may need to be modified if the fan selected is different than what is shown in the list under the first bullet. Text could be modified to state “gauge will be selected that has an appropriate scale for the final fan(s) chosen”.
10. Page 8, Proposed Mitigation Plan, Justification – Second footnote in section is incomplete or no reference to the appropriate ASTM standard.

Regards,

Melanie Morash

Melanie Morash, Project Manager
California Site Cleanup Section I, Superfund Division

US EPA Region 9
75 Hawthorne Street (SFD-7-1)
San Francisco, CA 94105

(415) 972-3050 [office]
(415) 535-3732 [mobile]
morash.melanie@epa.gov