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17 June 2016

Melanie Morash
Remedial Project Manager
U.S. Environmental Protection Agency
Region 9
75 Hawthorne Street (SFD-7-1)
San Francisco, CA 94105

RE: Response to EPA Comments Received 11 June 2016 Regarding Small Gym Mitigation Plan
Offsite Operable Unit, Sunnyvale, California

Dear Ms. Morash:

This letter is submitted on behalf of Philips Semiconductors Inc (Philips) in response to the comments received on 11 June 2016 with regard to the Small Gym mitigation plan submitted on 12 May 2016. Responses to comments and how they are addressed in the revised plan are provided below.

Comment 1: *Page 4, SSDS Specifications, second paragraph (¶), third bullet – refers to Dwyer Magnahelic gauge Part #2001. The specified range of vacuum (0-1.0" wc) is incorrect for the model fan specified and likely to be used. The appropriate gauge would be Part #2005.*

Response: Revised to Part #2005 (0-5.0" WC).

Comment 2: *Page 5, Diagnostic Testing Description Section, first ¶ – In the second sentence it states, "diagnostic testing can be performed to guide the design" as this is the approach EPA recommends during the installation of the SSDS. However the remaining text and following paragraphs tend to indicate that diagnostic testing is something different and done at another time and not during the system installation. The point of diagnostic testing during the installation of a presumptive system is to ensure that the system provides some level of coverage to the slab, thereby minimizing the risk that follow-up sampling may still show a problem. If it can be demonstrated that the slab has good coverage during the system installation, then there is a greater chance that the follow-up sampling will be acceptable. If the system is installed and no diagnostic testing is done, then there is no way of knowing the overall coverage. EPA is not requesting that diagnostic testing be done prior to the system installation, so it is not accurate to state that it would add 30 days onto the schedule.*

Response: The plan is accommodating the possibility that the building owner and/or tenant may object to damaging to the wood floor unless found to be absolutely necessary. Therefore, the plan is written to be acceptable in either case so that

mitigation can proceed without installing the vapor monitoring points if this becomes a barrier to their acceptance of the plan. The *Diagnostic Testing Description* and *Potential Alternatives* have been revised for clarity.

Comment 3: *Page 5, Diagnostic Testing Description Section, third ¶ – The design for diagnostic testing lacks a basic understanding of the principal for doing diagnostic testing. The extraction point is located on the end of a rectangular building and the test locations will be in the four corners, so the design is an all or very limited approach. One would expect the two test locations in the corners adjacent to the extraction point to show influence even at lower vacuum levels due to their proximity to the extraction point. However, the other two test holes are at the far ends of the building and may not see influence at any applied vacuum. If this is the case, then the data gleaned from the testing does nothing to assist with the overall design or modifications to the design. There must be a way to show how far vacuum extends at each increased application of vacuum so we understand where to place extraction points or how to size a blower. A contingency is necessary in case there is no influence seen at the other end of the slab after applying a vacuum.*

Response: Refer to *Diagnostic Testing Contingencies* section added to the revised plan.

Comment 4: *Page 5, Diagnostic Testing Description Section, fourth ¶, second sentence – The assumption is that the shop vacuum will be adequate to show an influence all the way across the slab. However, if no influence is demonstrated, then there should be some intermediate test hole locations to show where there is coverage at applied vacuums.*

Response: Refer to *Diagnostic Testing Contingencies* section added to the revised plan.

Comment 5: *Page 5, Diagnostic Testing Description Section, fourth ¶, sixth sentence – The HS fans are noisier and would require a muffler, but shouldn't be any louder than the GP501 if a muffler is used. The HS fans would most likely require a second visit to the site as they would be ordered and shipped at a later date.*

Response: The plan already includes a muffler on the fan (refer to Sentence 2 of Paragraph 2 of *SSDS Description*); the plan has been revised to reiterate this in the sentence referenced in Comment 5 above. A *Diagnostic Testing Contingencies* section and *Implementation Schedule* revision have also been added to address scheduling in the case that an HS fan is required.

Comment 6: *Page 5, Diagnostic Testing Description Section, last ¶ – The test or observation holes can be smaller as recommended in the VIMA. A hole small enough to accommodate the tubing from the micromanometer is all that is needed for pressure differential monitoring. The hole can be ¼" in diameter and would be almost undetectable when restoring the floor back to original condition.*

Response: The subject sentence has been revised. However, note that the use of VAPOR PINS will require 1.5-inch diameter holes.

Comment 7: *Page 6, Implementation Schedule Section, first ¶ – This implies that any diagnostic testing is separate from the installation of the system. EPA would like to see the diagnostic testing be used during the system installation to condense the schedule and to guide the installation. EPA recognizes that additional equipment might have to be ordered and installed at a later date, but the system can be installed and ready for operation when the new fan arrives. This is preferable to adding 30 days to the schedule.*

Response: Refer to response to Comment 2, added *Diagnostic Testing Contingencies* section, and revised *Implementation Schedule*.

If you have any questions regarding this correspondence, please call me at (415) 799-9937.

Sincerely,

J. Wesley Hawthorne, PE, PG
Senior Vice President

JWH/njl

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