UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

July 21, 2022

Mr. Joshua Nandi
Northrop Grumman Systems Corporation
One Space Park Mail Stop: NGC CER-XE6D21
Redondo Beach, CA 90278

SENT VIA EMAIL

Re: Northrop Grumman Response to EPA Technical Comments on the Passive SSDS O&M Plan and SSDS Evaluation, 825 Stewart Avenue Sunnyvale, CA, TRW Microwave Superfund Site (CERCLIS ID# CAD009159088)

Dear Mr. Nandi:

Thank you for submitting the Northrop Grumman Systems Corporation (Northrop Grumman) written response to EPA's technical comments and agreeing to collect indoor air samples at the subject building. As stated in the EPA's letter, the objective of collecting the indoor air is to document protectiveness, under a normal building HVAC operation, while the modifications to the building passive sub-slab ventilation (SSV) system are being addressed.

Based on the uncontrolled and unpredictable nature of many weather variables that could potentially affect the vapor intrusion into a building, an approach to evaluate vapor intrusion in any site, is to collect multiple lines of evidence. Based on that, EPA requires Northrop Grumman to evaluate the current sub-slab soil gas concentrations as well as the building-slab pressure differentials at the time of the indoor air sampling, and regardless of the indoor air results. The sampling plan should include outdoor air measurements at the intakes of the HVAC systems. The data from the sub-slab soil gas samples and the pressure differentials will assist in determining whether the passive SSV should be converted to an active system. Additionally, this data will provide information on the current conceptual site model. Please submit a sampling plan that includes indoor air sampling with building-slab pressure differential monitoring, sub-slab soil gas sampling and outdoor air sampling at the HVAC intakes.

Regarding the limitations to change vents height due to the building codes, EPA cannot evaluate the impact on air dispersion and re-entry through the HVAC intakes without sub-slab soi gas, indoor and outdoor air data; nevertheless, the results of the future sampling plan to be collected, will assist in this evaluation. Northrop Grumman states on Response #3 to EPA's comment that the design drawings are correct in relation to the overall exterior building layout. In this case, EPA requests that Northrop Grumman perform the modifications to the SSV as proposed.

Regarding Response #2 to the Vapor Mitigation Sciences comment, the results of the sub-slab soil gas sampling will inform the potential concern for weather inversions based on potential emissions through the roof.

EPA requests that Northrop Grumman provide a sampling and analysis plan for the collection of indoor air and sub-slab soil gas samples and monitoring of the building-slab pressure differentials within 30-days from the receipt of this letter. Please feel free to contact me anytime at abreu.lilian@epa.gov or 415-972-3010 if you have any questions or comments.

Sincerely,

LILIAN ABREU Digitally signed by LILIAN ABREU Date: 2022.07.21 14:54:22 -07'00'

Lilian Abreu, PhD
Remedial Project Manager
Superfund and Emergency Management Division

cc: Holly Holbrook, AECOM
Mark Riley, AECOM

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