

**Responses to Comments**  
**Site 21 Vapor Intrusion Investigation Work Plan – Worksheets 10 and 11**  
**St. Juliens Creek Annex**  
**Chesapeake, Virginia**

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**Comments from EPA, provided 8 January 09.**  
**RPM Comments**

1. **Comment:** *Page 25, Building Evaluation.* There are a number of instances where ft2 is used when describing the size of the buildings. Please adjust these to be consistent with one another (currently (ft<sup>2</sup>), ft2, and ft<sup>2</sup>).

**Response:** The requested revision will be made.
2. **Comment:** *General Problem to Address.* Final sentence on the page. Worksheet 10 states that, “The other building will not be evaluated unless the current land use changes”. This needs to be done in some type formal documentation. Documentation of these restrictions should be placed in a LUC’s document, deed restriction/notice, and updated on the base master plan.

**Response:** The SJCA Environmental Restoration Program Geographical Information System (GIS) identifies areas of past or present environmental concern. The information is provided to the facility personal annually with the Site Management Plan update and throughout the year when conditions change. Facility personnel use the tool during operational planning and decision-making, and consult with the NAVFAC Remedial Project Manager when base operations may be modified within the environmental areas. Land use control requirements will be documented in the upcoming Interim Record of Decision for Site 21 and developed within the Land Use Control Remedial Design.

  3. **Comment:** *Page 26, Final Paragraph.* The 3<sup>rd</sup> sentence of the final paragraph states, “Collection of indoor air samples will provide a direct measurement of exposure point concentration to quantify potential risks in the building if necessary”. Please remove potential.

**Response:** The sentence will be revised to read as follows: "Collection of indoor air samples will provide a direct measurement of exposure point concentration for use in a quantitative risk assessment, if necessary, to determine if unacceptable risk is present within the building."

4. **Comment:** Page 28. What will the data be used for?" 2<sup>nd</sup> Sentence. Please remove potential.

**Response:** The first "potential" in the sentence will be replaced by "unacceptable". The second "potential" will not be removed, as it refers to the future scenario and is therefore appropriate.

5. **Comment:** Page 29 5<sup>th</sup> paragraph. The worksheet states, "The results of the initial sampling event will determine the total number of sampling events. A minimum of one and a maximum of four sampling events will be conducted." However, there does not appear to be a scenario where only one round of samples are taken. Please revise this sentence and maybe include the word subsequent or additional.

**Response:** It is possible that only one round of data will be collected in the event that the "right" side of the decision tree is used, indoor air concentrations exceed the screening level, and it is concluded that groundwater contaminant concentrations are contributing to the exceedance. Therefore, the requested revision has not been made.

## **Comments from EPA, provided 8 January 09. Toxicological Comments**

1. **Comment:** All of the PAL values are appropriate with the exception of the following: trans-1,2-DCE, 1,1-DCE, and Freon 12.

Since these contaminants are all non-carcinogens, the screening value must be adjusted to 0.1. thus, the appropriate screening values are as follows:

trans-1,2-DCE - industrial indoor air-26 ug/m<sup>3</sup>; residential indoor air-6.3 ug/m<sup>3</sup>,  
industrial sub slab-260 ug/m<sup>3</sup>, residential sub-slab-63 ug/m<sup>3</sup>

1,1-DCE - industrial indoor air-88 ug/m<sup>3</sup>; residential indoor air-21 ug/m<sup>3</sup>,  
industrial sub slab-880 ug/m<sup>3</sup>, residential sub-slab-210 ug/m<sup>3</sup>

Freon 12 - industrial indoor air-88 ug/m<sup>3</sup>; residential indoor air-21 ug/m<sup>3</sup>,  
industrial sub slab-880 ug/m<sup>3</sup>, residential sub-slab-210 ug/m<sup>3</sup>

**Response:** The requested revision will be made and is in compliance with the 1993 Regional Guidance, "Selecting Exposure Routes and Contaminants of Concern by Risk-Based Screening" to account for additive effects in non-carcinogens. During the scoping session held on November 18, 2008, in Washington DC, by the SJCA and Naval Amphibious Base Little Creek Tier I

Partnering Teams and their technical consultants, the teams had established that COCs would be screened against the USEPA Screening Levels (indoor air concentrations directly to the Screening Levels, and sub slab vapor concentrations to the Screening Levels multiplied by 10 to represent a 0.1 attenuation factor). Therefore, the decision tree has also been modified to clarify that non-carcinogens would be adjusted by 0.1 to match the requested text revision.