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Stantec

November 7, 2018
File: 193705359.100.004

Mr. Hylton Jackson
Environmental Specialist, Contaminated Sites Section
Iowa Department of Natural Resources
Wallace State Office Building
502 East 9th Street
Des Moines, IA 50319

RE: Response to September 17, 2018 Review Letter
Building 105 Manhole, Cedar Rapids, Iowa
Spill Number 050804-SJM-1142

Dear Mr. Jackson:

On behalf of Rockwell Collins, Inc. (Rockwell Collins), Stantec Consulting Services Inc. (Stantec) has prepared this response to the Iowa Department of Natural Resources (IDNR) September 17, 2018 review letter (Letter) of the 2018 Groundwater Sampling Activities Report for the above-referenced site (Site). In the letter, IDNR stated groundwater concentrations of trichloroethylene (TCE) and 1,1-dichloroethylene (1,1-DCE) in monitoring well 105SW-1 increased between the 2017 and 2018 annual groundwater monitoring events. Furthermore, the Letter states the vapor intrusion pathway, as evaluated using the United States Environmental Protection Agency (EPA) Vapor Intrusion Screening Level (VISL) calculator, will not screen out for a commercial scenario using the 2018 TCE and 1,1-DCE concentrations reported from monitoring well 105SW-1. The Letter approves continued annual groundwater monitoring at the Site and requested Rockwell Collins to contact IDNR to discuss possible options to evaluate and address any potential vapor intrusion issues.

Upon request, Stantec obtained and reviewed a copy of the IDNR VISL calculations, which used the following process to estimate potential risk to an indoor commercial worker via the vapor intrusion pathway:

- 2018 TCE and 1,1-DCE groundwater concentrations from monitoring well 105SW-1 and a site-specific groundwater temperature of 11 degrees Celsius (°C) were entered into the EPA Groundwater Concentration to Indoor Air Concentration Calculator tab of the VISL Calculator (Version 3.45) to calculate potential indoor air concentrations.
- The calculated potential indoor air concentrations were entered into the IDNR Cumulative Risk Calculator to calculate potential risk to a commercial worker through the vapor intrusion pathway.

Stantec obtained similar results by entering the 2018 TCE and 1,1-DCE groundwater data from 105SW-1 and site-specific groundwater temperature (11°C) into the online May 2018 VISL

Reference: Response to September 17, 2018 Review Letter

calculator, which calculates both estimated indoor air concentrations and associated cumulative risk.

As discussed with IDNR on October 29, 2018, the VISL calculator uses a subslab soil gas to indoor air attenuation factor of 0.03 to estimate indoor air concentrations resulting from vapor intrusion. This attenuation factor is based on data gathered from residential scenarios only and likely results in overly conservative risk estimates for commercial and industrial buildings like Building 105. Although the attenuation factor can be adjusted in the VISL Calculator, the groundwater to indoor air calculation is based only on the default 0.03 attenuation factor in the current version.

To further evaluate the potential vapor intrusion pathway between groundwater and indoor air in Building 105, Rockwell Collins proposes to complete subslab soil gas sampling and/or indoor air sampling in the vicinity of monitoring well 105SW-1. Stantec understands Rockwell Collins is planning to shut down and dismantle the Building 105 manufacturing line by April 2019; therefore, Stantec proposes to complete the subslab soil gas and/or indoor air sampling once this portion of Building 105 is vacated. A work plan providing further details of the planned sampling activities will be submitted to IDNR for review by February 28, 2019.

Please contact Mr. Tom Gentner of Rockwell Collins at 319-295-1689; or me, if you have questions or require additional information.

Sincerely,

Stantec Consulting Services Inc.

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cc: Mr. Tom Gentner, Rockwell Collins