

GDC VICINITY NEIGHBORHOOD SAMPLING PLAN

Project name **Fugitive Emissions Estimation – BD Global Distribution Center**
 Client **Becton, Dickinson and Company**
 Version **1**
 To **Georgia Environmental Protection Division (EPD)**
 From **Russell S. Kemp, PE**

TASK

Date January 13, 2020

Conduct outdoor ambient air monitoring for ethylene oxide (EO) at the residential areas and school nearest to the Becton, Dickinson and Company (BD) Global Distribution Center (GDC) located at 14201 Lochridge Blvd. in Covington (Newton County), Georgia.

VICINITY OVERVIEW

The GDC is a warehousing and distribution operation that receives ethylene oxide sterilized medical products from BD’s nearby sterilization facilities in Covington and Madison, Georgia, and ships out these products to customers. The GDC is located in a commercial area. The nearest “residential areas” are a neighborhood south of the GDC with the primary street being Riverbend Drive [Riverbend Area], a neighborhood east-southeast of the GDC with primary streets being Alcovy Circle, Alcovy Way, and Alcovy Court [Alcovy Area], and an area west of Highway 142 [Highway 142 Area]. The nearest school is a private institution named Peachtree Academy, located at the south entrance to the Riverbend Area with address 14101 US-278, Covington, GA 30014.

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The GDC, Alcovy Area, Riverbend Area, Highway 142 Area, and Peachtree Academy are denoted on the attached **Figure**.

SAMPLING PLAN

Upon receiving approval of this plan from the Georgia Environmental Protection Division (EPD) and permission to access the properties involved, sampling will be conducted in the manner described below at Peachtree Academy, an address in the Alcovy Area, an address in the Highway 142 Area, and an address in the Riverbend Area.

Concentrations of EO in the air will be sampled over an approximately 24-hour period over two consecutive days. Samples will be collected using Summa

Canisters set to pull sample over a 24-hour duration. Canisters will be placed in the mid-morning of the first day and collected the morning of the second day.

SCHEDULE

At a minimum, outdoor air monitoring at these locations shall include 24-hour samples collected every 3 days. In accordance with an EPD approved plan, BD shall initiate monitoring by January 17, 2020. EPD will provide comments to BD on this residential and school monitoring plan on or before January 14, 2020, and BD will address those comments and initiate testing on or before January 17, 2020, provided that BD has secured written consent to sample from applicable property owners prior to that date. If BD has not secured written consent from applicable property owners on or before January 17, 2020, BD shall notify EPD and identify the date when sampling is expected to occur. If BD has not secured written consent from applicable property owners on or before January 24, 2020, BD shall initiate testing on those properties where written consent has been secured.

ANALYTICAL METHODS

The samples collected in the Summa Canisters will be analyzed using EPA Method TO-15 with GC/MS in the Selective Ion Monitoring (SIM) acquisition mode to determine the concentration of ethylene oxide. Analysis will be performed by Eurofins, a national independent laboratory. Concentration results will be reported in units of micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

