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Mr. Pat Flannery
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Subject: GHG Third-Party Initial Verification of Scope 1 and Scope 2 Annual Emissions

Dear Mr. Flannery:

Yorke Engineering, LLC (Yorke) has prepared a greenhouse gas (GHG) third-party verification report of Halvik Corporation's GHG emissions inventory for 2023. The inventory includes Scope 1 direct GHG emissions from stationary sources and Scope 2 indirect GHG emissions from consumed electricity. The verification was performed to support Halvik's application for a government contract.

BACKGROUND

Halvik is an Information Technology (IT) service company operating out of three offices. Halvik has completed a Scope 1 and 2 GHG emissions footprint internally, which will act as the baseline for future emissions reporting and for targeting GHG emissions reductions in future years. According to Halvik, the Scope-based inventory was prepared per the guidelines provided in The Greenhouse Gas Protocol (GHG Protocol).

Halvik does not directly own its offices, instead leasing them from local companies in the states where they are located. Halvik's current leasing agreements do not include itemized utility usage from the respective utility companies. Usage information is automatically calculated by the leasing offices and incorporated into the monthly billing. In order to procure the information on Halvik's gas and electric usage, each leasing office must be contacted individually to request the relevant data. Each leasing company has a unique style of recordkeeping and relationship with the utility companies, resulting in diverse formatting of the primary source data. To compile the GHG inventory, Halvik standardizes the data through their business development team, which then calculates Halvik's GHG inventory based on the GHG Protocol methodology.

Each office has air conditioning and heating, which are included in the utility bills as electricity and gas (if applicable). Each office has its own layout and the building plans for each office are located in Halvik's corporate records.

Greenbelt

Halvik's Greenbelt office, located in Maryland, is a three-story office building which is completely dedicated to servicing Halvik's hybrid workforce of approximately 115 workers in the area. The office was leased starting in October 2023. Based on information provided by the property manager's office, Halvik is only responsible for the building's electrical consumption; it does not

consume natural gas or produce any direct combustion emissions. The building has a refrigeration unit that uses R-410A refrigerant.

Bloomfield

Halvik's Bloomfield office, located in Indiana, is located on the first floor of a two-story building and operates out of two office spaces that are in shared space with another company. The office supports a hybrid workforce of approximately 10 employees. Halvik has been at this location since 2022 and only pays for electricity based on the property manager's office assessment and does not consume natural gas or produce any direct combustion emissions. The building has a refrigeration unit that uses R-410A refrigerant.

Tysons

The Tysons office, located in Virginia, is Halvik's operational headquarters. The offices are located on the third floor of a four-story building, which is shared with other companies. The Tysons location supports a workforce of approximately 15 hybrid employees and Halvik has been at this location since 2016. According to the leasing company, Halvik is responsible for both natural gas used in direct combustion and electricity usage at this location. The building has a refrigeration unit that uses R-410A refrigerant.

VERIFICATION TEAM

Yorke's GHG staff involved in this third-party verification for Halvik consisted of the following members:

- Lead Verifier – Stephanie Wien
- Independent Reviewer – Joseph Steirer

2023 GHG EMISSIONS INVENTORY

Halvik's GHG emissions for 2023 include the following sources:

Scope 1 Emissions

Scope 1, direct emissions from stationary sources, include the following:

- Natural gas usage for water and/or space heating at Tysons; and
- Refrigeration / AC Equipment Use.

Scope 2 Emissions

Scope 2, indirect emissions, include electricity usage at all three sites. They are calculated in accordance with emission factors and calculation methods outlined in The GHG Protocol. Regional eGRID factors are used for electricity usage at each location. Table 1 shows Halvik's calculated GHG emissions by location and scope in metric tons of carbon dioxide equivalent (MT CO₂e).

Table 1: 2023 Halvik GHG Emissions by Location and Scope

Location	Scope 1 (MT CO ₂ e)	Scope 2 (MT CO ₂ e)
Bloomfield	1.7	56
Greenbelt	1,347	381
Tysons	7.4	19
Total	1,356	456

VERIFICATION ACTIVITIES

To verify Halvik’s 2023 GHG emission calculations, Yorke reviewed the 2017 GHG Corporate Protocol and Accounting Standard to determine if Halvik’s calculations were consistent with the GHG Protocol methodology. The GHG Protocol does not provide any basis for a materiality threshold for verification.

The boundaries of Halvik’s calculated emissions correspond to the space it leases for its operations. The emission factors used by Halvik for Scope 1 GHG calculations match those defined in the GHG Protocol. Halvik utilized region-specific eGRID emission factors for its Scope 2 emissions calculations.

The verification team assessed the accuracy of the data collected and sources reported. The team reviewed the facility floor plans, monitoring methodology, utility usage data, and emissions calculation workbook.

DATA CHECKS AND EMISSION CALCULATION VERIFICATION

Yorke reviewed the source data used to calculate Halvik’s emissions. Halvik does not own the properties that are the basis of its emissions. Therefore, it has limited access to utility data that are used to calculate its Scope 1 and Scope 2 emissions. The property owners for each location provided bills or prorate each monthly statement based on the percentage of the lease that is held by Halvik and invoices Halvik on a monthly basis. The data used in Halvik’s calculations is consistent with the billing data that was provided.

Scope 1 emissions from refrigerant usage were based upon the US EPA Screening Method in the Center for Corporate Climate Leadership’s *Direct Fugitive Emissions from Refrigeration, Air Conditioning, Fire Suppression, and Industrial Gases* document. The EPA’s calculation tool provides standard values for leak rate based on the size of the refrigerant system. Final GHG emissions are based on the assumed leak rate, global warming potential of the refrigerant used, the duration of operation, and the capacity of the equipment.

Yorke reviewed the Scope 1 and Scope 2 emissions calculations that Halvik used to develop its 2023 GHG emissions inventory. The GHG emission calculations that Yorke reviewed from Halvik’s workbook are presented in Attachment A. Table 2 shows the comparison of Halvik’s GHG values and those calculated by Yorke.

Table 2: 2023 Halvik GHG Emissions versus Verifier Calculations

Location	Scope 1 (MT CO ₂ e)		Difference (%)	Scope 2 (MT CO ₂ e)		Difference (%)
	Halvik	Yorke Verified		Halvik	Yorke Verified	
Bloomfield	1.7	1.7	0.0	57	57	-0.6
Greenbelt	1,347	1,347	0.0	381	383	-0.4
Tysons	7.4	7.4	0.0	19	19	-0.5
Total	1,356	1,356	0.0	456	458	-0.4

ISSUES

During the course of verification, several correctable issues were identified by Yorke. Halvik revised its calculations and added supporting information that resolved all open issues.

VERIFICATION FINDINGS

In Yorke’s review of Halvik’s calculated emissions for Scope 1 and Scope 2, the data presented follow the GHG Protocol methodology and are accurately calculated. Yorke verifies the 2023 Scope 1 and Scope 2 GHG emission for Halvik with reasonable assurance.

Should you have any questions or concerns, please contact me at (949) 248-8490.

Sincerely,

and



Stephanie Wien
Lead Verifier
Yorke Engineering, LLC
swien@yorkeengr.com



Joseph J. Steirer, P.E.
Independent Reviewer
Yorke Engineering, LLC
JSteirer@yorkeengr.com

cc: Jeff Rynes, Halvik Corp.
Wendy Fairchild, Yorke Engineering, LLC

Attachment A – Halvik Corp. “Emissions Calculations” workbook

Emissions Summary

Guidance

The total GHG emissions from each source category are provided below. You may also use this summary sheet to fill out the *Annual GHG Inventory Summary and Target Tracking Form* (.xls) as this Calculator only quantifies one year of emissions at a time. The form is available here:

<https://www.epa.gov/climateleadership/target-setting>

By entering the data below into the appropriate cell of the *Annual GHG Inventory Summary and Target Tracking Form*, you will be able to compare multiple years of data.

If you have multiple Calculator files covering sub-sets of your inventory for a particular reporting period, sum each of the emission categories (e.g. Stationary Combustion) to an organizational total, which then can be entered into the *Annual GHG Inventory Summary and Target Tracking Form*.

(A) Enter organization information into the orange cells. Other cells on this sheet will be automatically calculated from the data entered in the sheets in this workbook. Blue cells indicate required emission sources if applicable. Green cells indicate scope 3 emission sources and offsets, which organizations may optionally include in its inventory.

(B) The "Go To Sheet" buttons can be used to navigate to the data entry sheets.

Organizational Information:

Organization Name:	Halvik		
Organization Address:	1600 Spring Hill Rd #240 Vienna, VA 22182		
Inventory Reporting Period:	Calendar Year 2023		
	Start:	1/1/2023	End: 12/31/2023
Name of Preparer:	Mr. Pat Flannery		
Contact Information of Preparer:	pflannery@halvik.com		
Date Prepared:	10/16/2024		

Summary of Organization's Emissions:

Scope 1 Emissions

		CO ₂ -e (metric tons)
Go To Sheet	Stationary Combustion	6
Go To Sheet	Mobile Sources	0
Go To Sheet	Refrigeration / AC Equipment Use	1,350
Go To Sheet	Fire Suppression	0
Go To Sheet	Purchased Gases	0

	CO ₂ -e (metric tons)		
	Gross	Offsets	Net
Scope 1 Summary	1,356	0	1,356

Scope 2 Emissions

Location-Based Scope 2 Emissions

		CO ₂ -e (metric tons)
Go To Sheet	Purchased and Consumed Electricity	458
Go To Sheet	Purchased and Consumed Steam	0

	CO ₂ -e (metric tons)		
	Gross	Offsets	Net
Location-Based Scope 2 Summary	458	0	458

Market-Based Scope 2 Emissions

		CO ₂ -e (metric tons)
Go To Sheet	Purchased and Consumed Electricity	458
Go To Sheet	Purchased and Consumed Steam	0

	CO ₂ -e (metric tons)		
	Gross	Offsets	Net
Market-Based Scope 2 Summary	458	0	458

Scope 1 & 2 Summary

	CO ₂ -e (metric tons)	
	Gross	Net
Total Scope 1 & Location-Based Scope 2	1,814	1,814
Total Scope 1 & Market-Based Scope 2	1,814	1,814

Scope 3 Emissions

		CO ₂ -e (metric tons)		
		Gross	Offsets	Net
Go To Sheet	Business Travel	0	0	0
Go To Sheet	Employee Commuting	0	0	0
Go To Sheet	Upstream Transportation and Distribution	0	0	0
Go To Sheet	Waste	0	0	0

Required Supplemental Information

		CO ₂ -e (metric tons)
Go To Sheet	Biomass CO ₂ Emissions from Stationary Sources	0
Go To Sheet	Biomass CO ₂ Emissions from Mobile Sources	0