

April 27, 2023

Project #ACR815 - Addendum

Locations within this project plan this addendum applies to:

Location	Project Refrigerant
PFG – Hickory, NC	R-717 (Ammonia)

Current SDG's in Project Plan:

Goal #9 - Industry, Innovation, and Infrastructure: This project fulfills this goal, specifically 33 subsection 9.4, in that the adoption of low-GWP refrigeration systems is a sustainable upgrade with substantially reduced CO2 emissions per unit of value (in this case food distribution and sale) added. Low-GWP refrigeration systems both reduce emissions from refrigerant leakage (addressed in this project) and reduce emissions from typically lower energy consumption than comparable HFC or HFC/HFO systems.

Goal #11 – Sustainable Cities and Communities: This project fulfills Goal #11 by reducing climate-damaging emissions which cause natural disasters. Successfully reducing these emissions at scale, for example through use of low-GWP refrigerants, will help prevent the human and economic losses associated natural disasters.

Goal #12 - Responsible Consumption and Production: This project fulfills Goal #12 in several ways related to food production. It reduces the material footprint per capita for supermarkets (12.2) by using lower footprint low-GWP refrigerants. It achieves environmentally sound management of chemicals throughout their life cycle (12.4) by using chemicals that are minimally damaging to the climate and local communities when leaked during use and at time of decommissioning. Finally, it fulfills the goal for companies to adopt sustainable practices (12.6).

Goal #13 – Climate Action: This project fulfills Goal #13 by taking direct climate action through the choice to use a low-GWP refrigerant. Paul Hawken's Drawdown ranks refrigeration as the #1 global drawdown opportunity, based on the total amount of greenhouse gases it can potentially avoid or remove from the atmosphere. Bill Gates' How to Avoid a Climate Disaster calls F-Gases used in traditional AC and refrigeration "extremely powerful contributors to climate change". This project directly addresses one of our world's most meaningful solutions for climate change.

Proposed Amendments:

Subsection 3.9 of Goal #3 by preventing the release of hazardous “forever chemicals”, called PFAS, that contaminate our water supply and take over a thousand years to break down. This project uses refrigerants that emit zero PFAS.

Goal #6 - Clean Water and Sanitation: Synthetic refrigerant options that were rejected in favor of near-zero GWP refrigerants in this project emit forever chemicals, called PFAS, that contaminate our water supply and take over a thousand years to break down. This project uses refrigerants that emit zero PFAS.

Goal #9 - Industry, Innovation, and Infrastructure: This project fulfills this goal, specifically subsection 9.4, in that the adoption of low-GWP refrigeration systems is a sustainable upgrade with substantially reduced CO₂ emissions per unit of value (in this case food distribution and sale) added. Low-GWP refrigeration systems both reduce emissions from refrigerant leakage (addressed in this project) and reduce emissions from typically lower energy consumption than comparable HFC or HFC/HFO systems.

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Goal #13 – Climate Action: This project fulfills Goal #13 by taking direct climate action through the choice to use a low-GWP refrigerant. Paul Hawken's *Drawdown* ranks refrigeration as the #1 global drawdown opportunity, based on the total amount of greenhouse gases it can potentially avoid or remove from the atmosphere. Bill Gates' *How to Avoid a Climate Disaster* calls F-Gases used in traditional AC and refrigeration "extremely powerful contributors to climate change". This project directly addresses one of our world's most meaningful solutions for climate change.