Nawaf Alhussain, an Aramco employee, is currently on assignment with Motiva, where he is broadening his skillset by working with a team that manages vapor recovery systems used at the refiner’s products terminals in the United States.

Vapor recovery systems provide both environmental and economic benefits. Without them, up to two percent of gasoline can be lost to evaporation during the loading of tanker trucks at terminals. Vapor forms routinely when handling hydrocarbons, so companies have developed equipment to capture it from a vent at the top of tanker trucks when they are being loaded from the bottom with liquid fuel.

For each tanker truck that Motiva loads, typically with a capacity of 8,000 gallons, it recovers 16 gallons of fuel that were processed from recovered vapor that was turned back into a liquid. That is about enough fuel to fill the tank of a typical car on the road today.

Alhussain is working with Robert Costarella, who oversees 23 vapor recovery units at Motiva terminals, and his supervisor, Benedict Lim.

“What I really like about this program is that it is allowing me to see up close how Motiva approaches terminal operations,” he said.

Alhussain is a mechanical engineer, works in the Project & Technical Support Department of Pipeline, Distribution & Terminals of Aramco. He is part of a team that oversees terminal operations in Saudi Arabia.

He recently participated in the replacement of carbon in the vapor recovery system at a Motiva terminal in Dallas, a type of turnaround that only happens every 10 or 15 years.

He also plans to train on a new vapor recovery unit made by the company John Zink Hamworthy Combustion that will soon be deployed by Aramco.

“This project will help my team back home to incorporate new equipment into our operations in the future – generating environmental and economic benefits simultaneously,” he said.

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