A standard operating procedure was written and a 12-month leak detection inspection plan was developed to facilitate timely detection and repair of leaks in the future. Internal maintenance staff will be responsible for carrying out the leak detection plan and following the standard operating procedure to properly tag, report, and repair leaks found in these areas. This will decrease energy costs, improve machine efficiency, and decrease compressor operation.

Belt Grease-Skimmer: A belt grease-skimmer could provide effective grease removal from the on-site grease pit. A tube skimmer is housed in the grease pit building but is not currently in use. In the past, a grease recycling vendor hauled grease from the pit when the tube skimmer was in use. Due to insufficient grease quantities and a lack of onsite storage options, this service was deemed economically infeasible. The pit is currently pumped out twice weekly to remove solids and grease, which are sent to the landfill.

A vertically designed belt grease-skimmer could significantly increase the quantity of recovered grease and make recycling a more cost effective option. With this system, secondary heated storage would not be needed. Additionally, the remaining contents of the pit would require less frequent pumping, which could save labor pumping costs and reduce the volume of waste going to the landfill. Initial discussions are taking place to prepare for implementation.

Reuse of RO Blowdown Water: A variety of different areas were considered when exploring opportunities for reuse of the RO blowdown water. To improve water conservation efforts at the Smithfield Sioux City plant, an RO system was implemented to help purify and filter the water received from the city. An opportunity exists to significantly reduce water usage and associated costs by capturing and reusing the blowdown water from this system. Areas considered for potential reuse of the RO blowdown water were chip burners, sanitation, and rack-washer, which have not proved feasible due to the impurity levels of the blowdown water.