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Utah Department of Environmental Quality
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1-800-458-0145

Annual Report

For the period of 2016

Smithfield
Facility Name

<u>341 South Main</u>	<u>Milford</u>	<u>84751</u>
<i>Facility Street Address</i>	<i>City</i>	<i>Zip</i>

Project Status

On a separate sheet, summarize:

- your Clean Utah project commitments and accomplishments made to date,
- major indicators of environmental improvements (measurable ways that you are determining the environment is improving as the result of steps you are taking),
- public participation activities you have undertaken, and
- your project plans for next year, as they relate to this program.

Certification Statement

(to be signed by the senior facility manager)

I certify that the information outlined in the attached annual report is correct and that this facility continues to meet all program criteria and has an active EMS, as defined by the Clean Utah program. I further certify that this facility has conducted periodic assessments of compliance with legal requirements, has corrected all identified instances of noncompliance, and is currently in compliance with all applicable federal, state, and local environmental rules and regulations.

Signed

2/14/17

Date

James W. Webb
Print Name

Director of EHS and Public Affairs
Title

Clean Utah Annual Report 2016 Smithfield

Project #1

Run a Recycling program at Smithfield for those items that we use in large quantities and have value as a recycled product.

Target Date: Ongoing

Results of investigation: We have identified stainless steel, steel and pallets as three items that we use a lot of and have typically disposed of these items in a landfill. We will continue to evaluate our operations for any other material that can be recycled.

Benefit to the environment for the year: The benefit to the environmental from a recycling program will be that items will not be disposed in the local landfill but will be recycled for re-use.

During the life of the project we have generated a savings of \$255,917 and have prevented 2,466,733 pounds from entering the landfill.

Benefit or savings to the company: The cost to recycle some of these items like the metal will not result in a financial benefit but will be a break even project. The pallets and stainless steel are more financially enticing but will be near breakeven once you consider the labor and transportation costs.

Targeted Goal for 2016 was 100 tons of steel, 1000 pallets and 40 tons of stainless steel. Actual for 2016 was 491.6 tons of steel, 249 pallets and 90.78 tons of stainless steel. Actuals for 2016 were up on steel and stainless steel because we are renovating some farms.

Targeted Goals for 2017 is 100 tons of steel, 250 pallets and 40 tons of stainless steel.

Project #2

Leasing property for windmill development. The final stage of this project was completed in 2011 and was closed. This project resulted in the development of the largest windmill farm development in the State of Utah with more than 130 megawatts of power being generated on Smithfield property.

Project #3

Investigated Struvite removal techniques to reduce the number of blockage related spills from our manure collection system.

Target Date: Implemented

Results of investigation: Struvite formation in discharge and recycle lines reduce the flow of manure and in some occludes the line completely causing manure spills.

Benefit to the environment for the year: The benefit to the environmental is the reduction of spills from occluded lines.

Benefit or savings to the company: The cost to replace lines and to clean up spills is significant to the company.

Update: We have completed the trial and have found ways to remove the struvite from all of the wastewater lines from the farms. These processes have been fully implemented. This project is now closed

Project #4

Alpental Project: We have contracted with Alpental Energy Partners to develop a manure to energy project. Our hog manure will be digested in a series of anaerobic digesters to produce biogas. The biogas will then be scrubbed to remove impurities and then used to run several generators to produce electricity. The project treats and harvest the energy from nearly 350,000 animal spaces. This project began commercial power production in December of 2012. It will take several more months to determine the true output of the project but is anticipated to generate about 3.2 megawatts of power.

This project actually has 2 phases both phases has been fully implemented. We have increased the animals spaces connected to this project by more than 150,000 spaces. Total number of spaces is 350,000 finishing hog spaces.

Target Date: Ongoing

Results of investigation: Based on this trial we have moved this technology to more of our farms.

Benefit to the environment for the year: The benefit to the environmental is the reduction of green house gas emissions.

Benefit or savings to the company: Alpental is able to sell the power to a local community as renewable energy. Smithfield shares royalties from the sale of electricity.

Targeted Goal 2017: Based on the original production estimates this project should reduce green house gas emissions by 107,000 metric tonnes of CO2 equivalent.

Public Participation

We have also participated in numerous community events and have participated financially in numerous public events and projects.