

Entity Name: South Dakota State Government
Event Number: 8661
Event ID: 23RFP8661
Event Name: Pellet Mill
Requested By: Missy Schuetzle
Created By: Missy Schuetzle
Due By Date: 04/25/2023 05:00 PM Central Time
Q&A Cutoff Date: 04/11/2023 3:49 PM Central Time
Invitation Type: Invitation Only
Assigned Commodities: 490-43 Laboratory and Scientific Equipment and Supplies (Not Otherwise Classified)
Allow Supplier Terms and Conditions: No
Public Responses: No
Display Awardee: Display
Posting Board Status: Published
Event Status: Event Under Review

Section #: Name:

1 Section 1 - 23RFP8661

Do not submit response through ESM Sourcing as this section is for informational purposes only. Please download RFP Document and follow submittal instructions to respond.

1 SCOPE

The project will include the installation of a new Pellet Mill system. This document defines the requirements and deliverables for this system. It describes overall requirements that must be met to produce the specific equipment requested. Equipment procurement, delivery, and start-up support are included. No installation is required.

This URS is the input document for the:

- Equipment procurement purposes.
- Equipment sizing
- Functional and technical specifications.

2 BACKGROUND

The Dakota Bioproducts Innovation Institute is a research facility for the development of high-quality bioproducts. A Pellet mill has been identified as one of the densification technologies that will be available for customer use.

3 PROCESS DESCRIPTION

The Pellet Mill will be a self-contained skid that will allow for the processing of different materials into pelleted form. The pellet mill will be manually fed from an infeed chute feeder that will convey the material into the feed conditioners. The pellet mill will include three conditioners that will allow for the addition of steam or liquids into the mash prior to the pelleting chamber.

The pellets will be pressed through a perforated rotating die that will compress the material into different diameters of pellets based on the configuration of the die. The pellet mill will allow for die changes to change the pelleting parameters.

The pellet mill will be capable of being fed by hand or by suspending a super sack of material over the infeed chute. The finished pellets will drop from the pellet mill die by gravity discharge into a collection bucket.

4 Basis of Design

4.1 Capacities

The Pellet Mill capacity will vary depending on die diameter and hole configuration. Typically, 500 lb/hr rate using a 1/4" diameter die on feed pellets is to be expected.

4.2 Construction

The Pellet Mill shall be mounted on a steel support structure preferably with wheels for easy movement to different locations. Requirements for the support structure and other component parts will be defined by the Pellet Mill supplier in a pre-purchase detailed proposal and drawings.

4.3 Health, Safety and Environment (HSE)

The Pellet Mill will satisfy appropriate conformity assessment procedures and the controls shall carry the UL marking. The selected unit shall be provided with a dedicated control panel with E-stop.

4.4 Operation, personnel and automation

The Pellet Mill will be set up to be operated by a single operator. All controls will be housed in a single panel for feeder, conditioners, die motor start/stops and E-stop.

4.5 Materials of Construction

Materials of construction for the Pellet Mill will be carbon steel.

4.6 Reliability & maintenance

The Pellet Mill will be designed to operate routinely during 8-12-hour pelleting operations. All wear parts shall be easily accessible and able to be replaced on a regular maintenance schedule. Dies, rollers and other wear parts shall be stock items that can be ordered and delivered in a timely manner.

Terms and Conditions

ESM Sourcing Terms

None

General Terms and Conditions

None

Event Specific Terms and Conditions

See attached RFP Document