

**Entity Name:** South Dakota State Government  
**Event Number:** 9829  
**Event ID:** 24RFP9829  
**Event Name:** Air Actuated Chain Hoist  
**Requested By:** Missy Schuetzle  
**Created By:** Missy Schuetzle  
**Due By Date:** 01/26/2024 05:00 PM Central Time  
**Q&A Cutoff Date:** 01/12/2024 10:56 AM Central Time  
**Invitation Type:** Invitation Only  
**Assigned Commodities:** 545-06 Chain Hoists and Cable Lifts  
**Allow Supplier Terms and Conditions:** No  
**Public Responses:** No  
**Display Awardee:** Display  
**Posting Board Status:** Published  
**Event Status:** Event Under Review

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**Section #: Name:**

**1 Section 1 - 24RFP9829**

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**2 SCOPE**

The project will include the installation of a new Air Actuated Chain Hoist. 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.

**3 BACKGROUND**

The Dakota Bioproducts Innovation Institute is a research facility for the development of high-quality bioproducts. A chain hoist has been identified as one of the lifting devices that will be available for customer use.

**4 PROCESS DESCRIPTION**

The chain hoist will be utilized in the hammer mill area. The hoist will be capable of lifting a super sack of grain or other material from the floor to a height above the infed hopper of the hammer mill. The hoist will have independent controls to allow for lifting the super sack and then moving the hoist trolley along an I-beam to position the super sack for unloading. The chain hoist and trolley motors will be air actuated with air supplied from the facility compressed air system. The chain hoist will have a lifting chain with a hook that will attach to a super sack lifting frame. The lifting frame will be adjustable to various sizes of super sacks.

**5 BASIS OF DESIGN**

**5.1 Capacities**

The chain hoist capacity will be 2 tons (4000 lbs) with a minimum 20 ft of lifting chain. The hoist will be attached to a lifting frame suitable for attaching the loops of a super sack. Air consumption to be roughly 60 cfm at 90 psi.

**5.2 Construction**

The chain hoist and trolley shall be mounted on a steel I-beam capable of supporting the hoist, chain, trolley, lifting arm, and super sack combined weight. Requirements for the I-beam size and other component parts will be defined by the chain hoist supplier in a pre-purchase detailed proposal and drawings.

**5.3 Health, Safety and Environment (HSE)**

The chain hoist will satisfy appropriate conformity assessment procedures and shall be rated for a dusty environment (Class II, Div II). The selected unit shall be provided with a dedicated control system. Built in overload protection and overtravel limit controls are preferred.

**5.4 Operation, personnel and automation**

The chain hoist will be set up to be operated by a single operator. All controls will be housed in a single control pendant for lifting/lowering and for movement of the trolley along the I-beam. The hoist will be manually operated by push button controls—no automation included.

**5.5 Materials of Construction**

Materials of construction for the chain hoist and lifting frame will be carbon steel sealed construction.

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5.6 Reliability & maintenance

The chain hoist will be designed to operate routinely during 8 to 12-hour milling operations. Air filter, regulator, and lubricator must be provided with the hoist as well as manufacturer recommended oil for proper lubrication.

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**Terms and Conditions**

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**ESM Sourcing Terms**

None

**General Terms and Conditions**

None

**Event Specific Terms and Conditions**

See attached document