



ENGINEERING Services

•• Optimizing Plant Configuration and Operation

Utilizing a broad systems view of each plant's particular operations and needs, Novinda offers a seamless connection between the results of chemical testing and the design and implementation of needed operational performance solutions. Novinda's start-to-finish process expertise and methodology improves overall plant functionality and leads to more efficient, cost effective and compliant plant operations.

•• Process Engineering

Right Design, Right Components

With knowledge derived from successful plant test scenarios and installations Novinda provides the lead for the crucial top-level specification of the ultimate system. Component design and placement—silo and feed system sizing; lance quantity, layout and geometry; and, systematic fluid mechanics design—are carefully considered alongside vital CFD modeling and PFD and P&ID development.

•• RFP Development and Review

Getting it Right, Right from the Start

With invaluable expertise and experience, especially regarding Amended Silicates®- (AS) specific needs, Novinda contributes to the development and review of the system RFP, including thorough proposal evaluation and ultimate source selection.

•• System Design and Construction

Oversight and QA/QC

To ensure proper design and installation, Novinda offers ongoing consultation and design review throughout the process, including leading a comprehensive HAZOPS review of the projected system.

•• Plant Startup and Commissioning

Ensuring Successful Startup and Operation

Committed to successful and compliant plant operations, from initial design to successful completion, Novinda maintains its involvement, offering skilled engineering, quality assurance and control oversight through the plant startup and commissioning process.

•• Case Studies:

Provide Flexible Feed Systems

Wyoming

Challenge: Extensive mercury control field trials with AS were conducted which lead to a signed supply agreement for AS. Existing silos and feed systems were designed for Powdered Activated Carbon; not efficient for Amended Silicates

Approach: Analyze existing equipment and AS material flow properties in conjunction with Jenike & Johanson. Prepare conceptual design and request for proposals to modify existing equipment.

Result: Flexible feed system that will feed AS or PAC.

Silo Retrofit Consultation

Nebraska

Challenge: Based on successful field trials client selected AS as the preferred mercury control reagent.

Approach: Novinda is assisting the client in modifying existing equipment to perform efficiently with AS. Scope includes: process engineering evaluation that leads to an RFP to modify existing equipment; review and input to the source selection for process modifications; system design review, construction, and startup and commissioning.

Result: Feed system that will work with AS and minimization of effort by client.