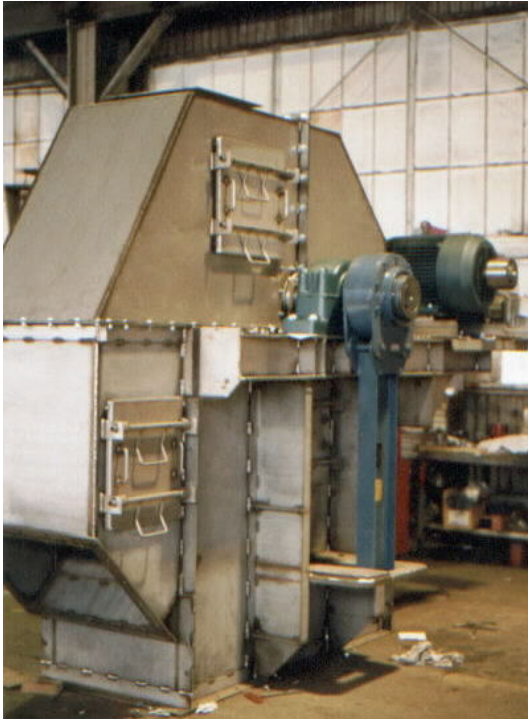


## B. W. SINCLAIR “INFORMATION UPDATE”

### POWER PLANT USES BWSI MILL-DUTY BUCKET ELEVATOR FOR LIMESTONE

A leading northeastern energy utility has selected SINCLAIR to furnish a high-capacity Bucket Elevator to handle limestone for their flue-gas scrubbing systems.

The unit – a BWSI Model 900-18x10-MD Mill Duty Centrifugal Discharge Elevator – lifts 230 STPH of ½” x 0” limestone over a total height of ~ 150 feet to fill a storage silo. The stone is later transferred to on-site pulverizers to produce the calcium carbonate powder required by the scrubbers.



Lift power is provided by a special 60 HP Reliance™ dual-shafted electric motor coupled to a Dodge Maxum™ concentric shaft gear reducer that powers an engineered-class roller chain primary drive. The secondary motor shaft extension is used to connect to an auxiliary 5 HP overrunning-clutch “creeper drive” module to move the chain and buckets at slow speed for maintenance and inspection services.

The elevator is manufactured from T-304-L stainless steel for corrosion resistance. The

Style “AC” high-capacity buckets are bolted to Rexnord ER-864™ steel elevator chain, with slightly oversized “digger” buckets mounted every tenth link to insure adequate boot section cleanout.



The buckets rise through a fabricated “loading leg” to insure efficient transfer of material into the buckets. Chain tension is constantly maintained through a counterweighted internal gravity

take-up module with Rexnord NI-Hard™ manganese sleeve bearings.

A Stephens-Adamson Torquemaster™ HD-600 holdback prevents chain-and-bucket reverse travel in the event of a power failure. BWSI quick-access CamLock™ access and inspection doors are mounted at the head, the boot, and selected intermediate casings, a standard feature of a BWSI elevator.

Operational monitors include a Milltronics MFA4P™ zero speed monitoring system, as well as a Milltronics Millpulse 600™ electronic pulse counter for speed verification. To prevent damage at start-up, the plant specified an ABB SO601-482™ NEMA-12 Soft Start Controller.

The height of the elevator and the severity of the service suggested special design for the elevator intermediate casings. Structural steel angle iron x-braces are attached to the casing external walls to provide increased strength and rigidity.



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