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Independent Report by Jenike
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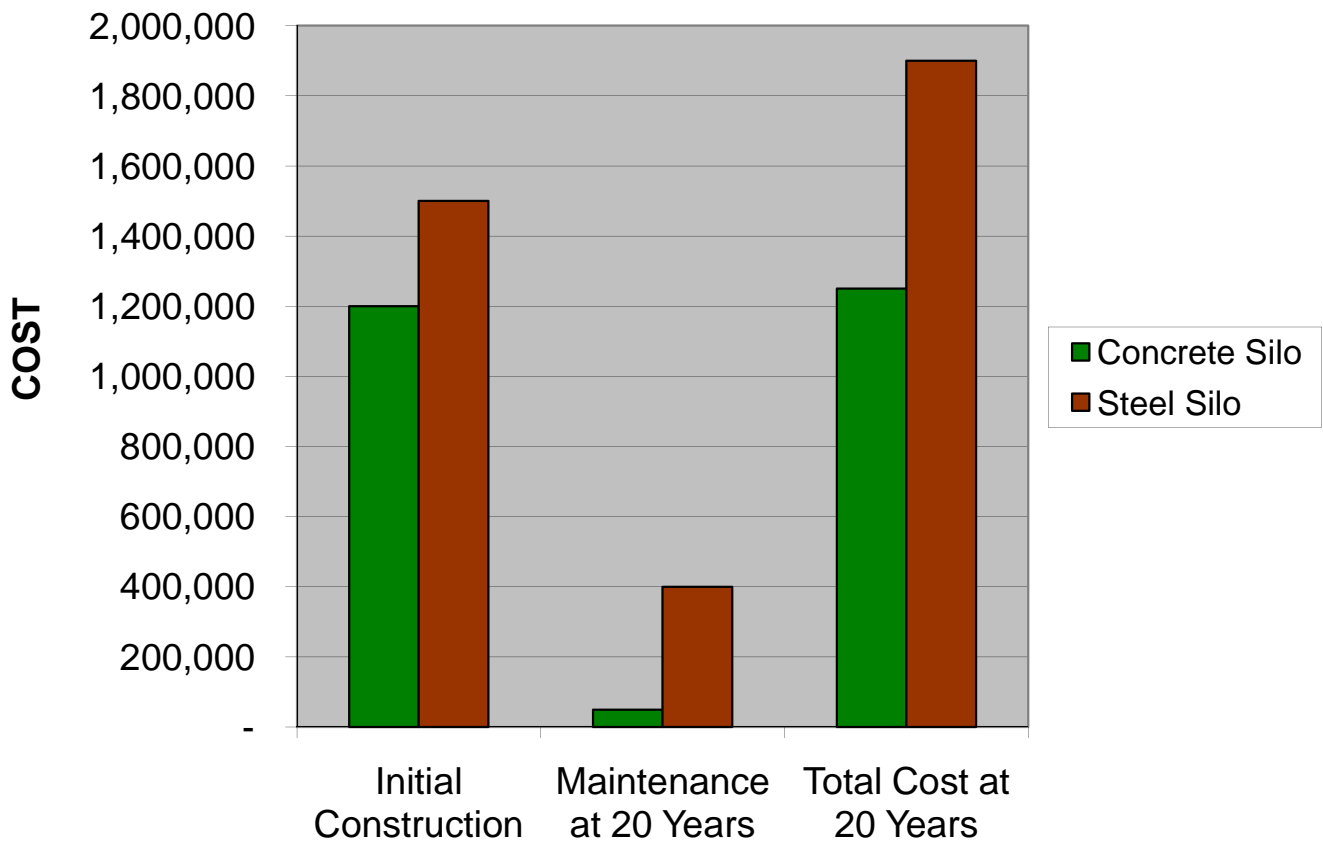
Advantages of Concrete Silos **Over** **Metal Welded or Bolted Silos**

- Concrete silos are typically lower in cost than metal silos.
- Concrete silos have good resistance to corrosion. This includes both corrosion of internal walls due to the stored bulk solid and also external corrosion caused by moisture. Metal corrosion is a well known problem.
- No need for expensive painting of silos due to corrosion thus lowering operational cost.
- There is no concern about electrolytic effects at welds or liner connections.
- Careless detailing of metal walls may leave inward facing ledges or welds, which can obstruct flow and increase wall pressures. This is avoided with concrete.
- Concrete is better able to resist abrasive wear than most metals.
- Concrete is more robust and thus better able to withstand internal pressure loads and impact loads.
- Concrete has higher wall friction angles with most bulk solids than most metals. This results in higher frictional drag down the cylinder walls and hence lower pressures acting normal (i.e. perpendicular) to cylinder and hopper walls.
- There is no concern about weld quality or stress risers, such as bolted connections.
- There is no concern about leakage to the environment, which can be a problem when storing fine powders in bolted silos.

Conclusion: Concrete always beats steel!

***For further information or lunch and learn presentations contact Marietta Silos
740-373-2822 or visit www.MariettaSilos.com or www.FlyAshSilo.com***

TYPICAL FLY ASH SILO Union Construction COMPARISON CHART



Ratholes formed in 60 ft. diameter fly ash silo
which will cause a symmetrical flow problem



Denting in welded steel silo
caused by eccentric withdrawal



Welded steel silo needed stiffener to
receive new fill pipe



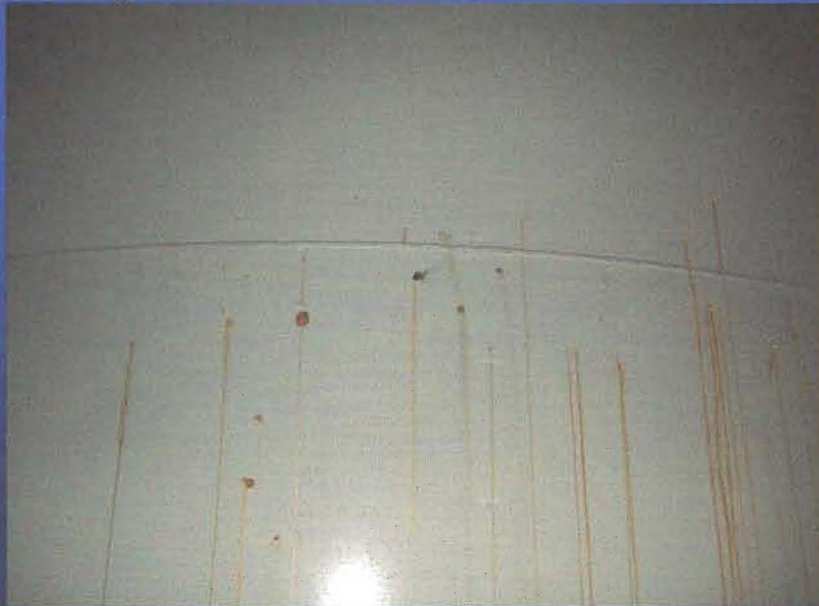
Bending of welded steel silo
wall and new stiffener



Corrosion just above
hopper/cylinder junction that
caused hopper to drop off



Welded steel silo rusting through
allowing holes due to steel corroding



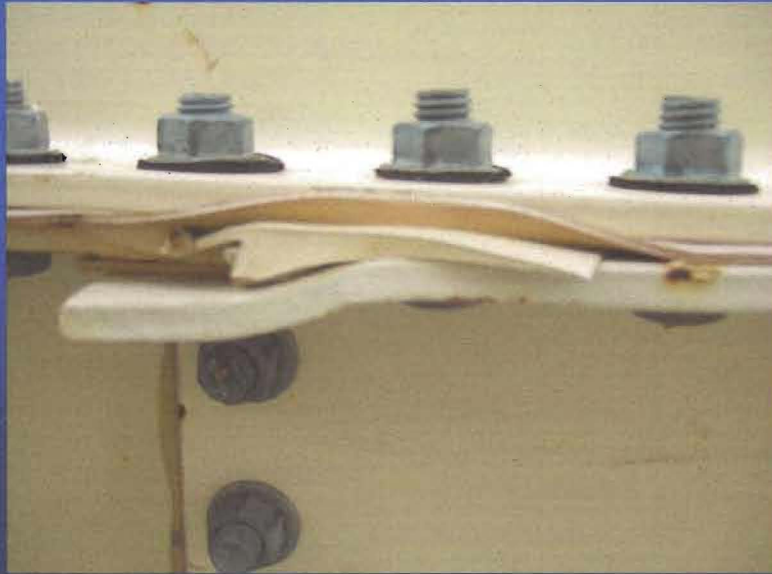
Failure of welded steel conical
hopper storing limestone



Water leaking inside
new bolted steel silo



Misaligned gasket on
new bolted steel silo



Bolted steel silo leaking material



Steel silos need painting.
Painting delayed due to high cost.



Holes in bolted steel silo
due to corrosion

