



# INFRASTRUCTURE

## Storage: Optimizing Facility Operations and Novel Ideas

The purpose behind optimizing facility operations is to incorporate other programs and best practices into one facility. One such practice is the ability to fill the dome completely utilizing conveyor systems. Other examples of this could be storing more than one type of material in one facility, the making and storing of salt brine within the facility, storing and dispensing liquids in or at the facility and even treating the materials as they are placed inside the facility. Incorporating these types of operations into the facility will almost certainly improve the efficiency of the operation and are great examples of sustainable operations. Retrofitting existing facilities is possible especially when adding a brine maker or liquid storage to an existing facility, however the ability to drive through a facility, wash vehicles in the facility and reuse that wash water for brine making will likely need to be incorporated into a new facility.

Along with methods to optimize facility operations came some very unique and novel ideas. One of these ideas is to build a regional facility that can serve more than one agency. These regional storage facilities can house additional material for agencies during extreme winter events or years where salt supplies become extremely low. These regional facilities also give agencies much more flexibility when purchasing salt. Regional facilities combined with an agency's normal supply of salt may give the agency multiple years of material for its operation. Other novel ideas that were discovered were facilities with multiple entrances and exits and remote site facilities where operators can load themselves without returning to the main yard.



**Washburn, Indiana**

Incorporating other operations into a facility is a good example of a best practice here. The ability to drive through a facility, fill indoors with no spillage, incorporate truck washing inside, reuse the runoff in brine making that takes place inside the facility and then load those liquids or other liquids indoors is an incredible way to optimize the facility.

**The numbers:** To optimizing facility operations, the goal is to consider all operations that will be conducted on site, and to ensure that each one can be done with minimal interference with other operations. Safety of operators and workers in the facility is a key concern but ease of operation for the operator is a great benefit. Adding remote storage facilities can benefit many agencies and give them multiple years supplies of materials. It can also give them great flexibility and purchasing power.



### **The Alternatives:**

Implementing plans to retrofit existing facilities and incorporate best practices and other operations into an existing facility if possible. Any new construction should consider incorporating these operations into it for efficiency and for environmental concerns. Agencies should look for opportunities to partner in regional storage facilities.

### **The needs:**

Good planning and design is needed to incorporate other programs into a facility and have them successful. All local regulations must be followed for containment of any liquids at the site. In regional storage facilities agreements in contracts will need to be in place and maintenance of these facilities must be considered.

### **The future:**

More state agencies are adding proactive approaches to their operations which include the use of liquids, brine making and truck washing. More regional storage opportunities are being planned.

