Fluid Fertilizer Foundation

Safety is For Everyone Lessons Learned From Emergency Incidents

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The Andersons, Inc.

Agenda

- Safety Share
- The Andersons at a Glance
- Case Study 1: Tank Collapse
- Case Study 2: Fertilizer Storage Fire
- Chemical Safety Board Alert re: Facility Winterization
- Planning for the Worst

Safety Share

The Andersons at a Glance

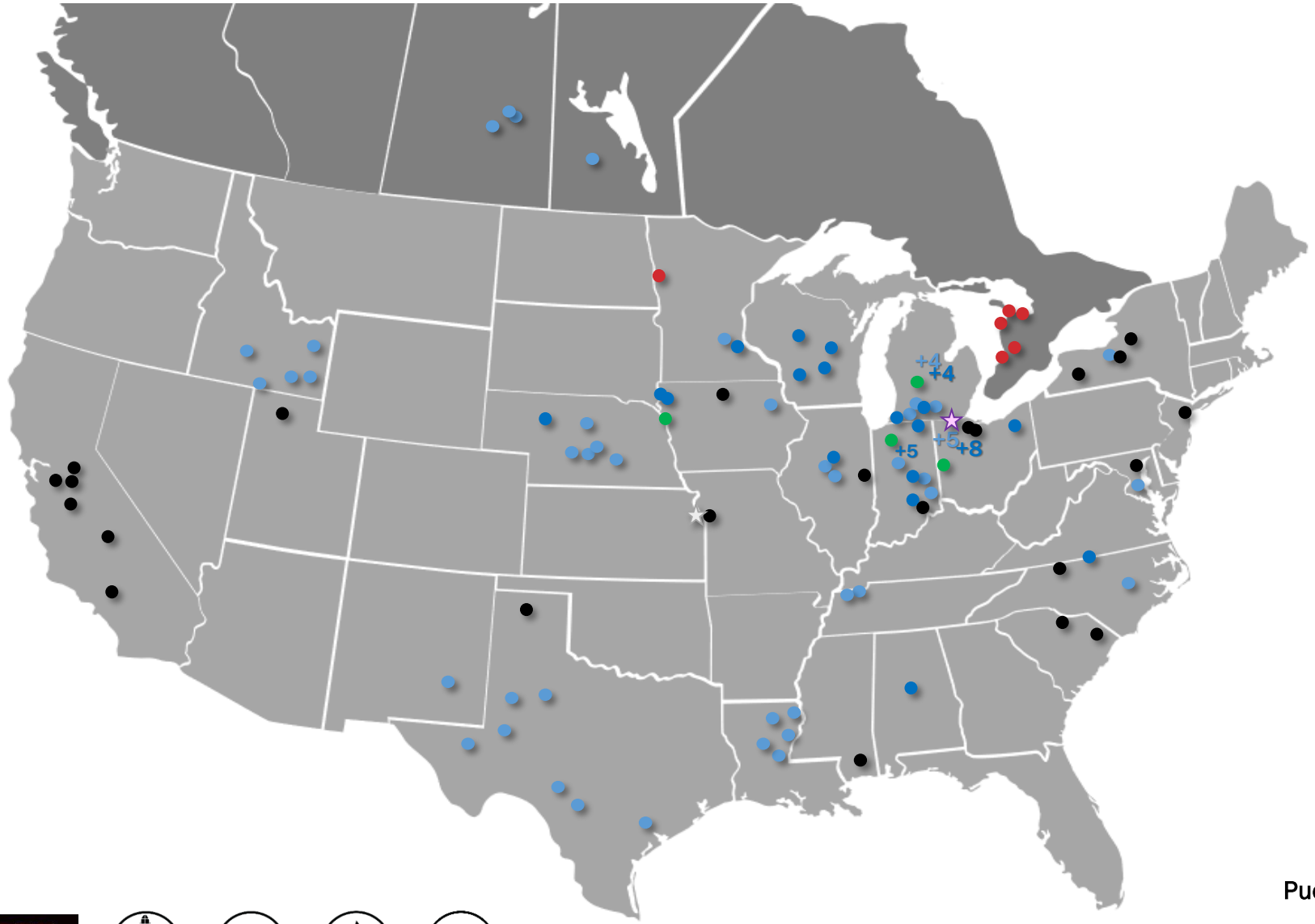
Founded	Listed (NASDAQ)	Headquarters	2018 Revenue[1]	Employees	Locations	Dividend History[2]
1947	1996, ANDE	Maumee, OH	$8.1B	~2,600	~140	22 Years

Four Groups. One Company.

Diversified Company Rooted in Agriculture, Conducting Business Across the Globe

[1]*Combined revenues of The Andersons, Inc., Lansing Trade Group, LLC, and Thompsons Ltd. for the calendar year 2018.* [2]*Consecutive years of paying a dividend.*

Strong Geographic Footprint



- Maumee Office
- Overland Park Office
- Trade Group
- Ethanol Group
- Plant Nutrient Group
- Rail Group
- Thompsons Limited
  (subsidiary of The Andersons)

Puerto Rico

The Andersons

Case Study #1

July, 1999

One million gallon tank of 10-34-0

One employee using a Gator to move a pump inside the dike

Two employees nearby painting tank plumbing

Plant manager is on vacation

New plant supervisor is in charge (two months on the job)

Gator backs into welded seam on bottom ring of tank

Tank “unzips” and sends a tsunami of dense liquid into the dike and over the dike wall

Case Study #1

Tsunami wave flips the Gator, submerging the operator. He cuts his seatbelt off to prevent drowning and escapes

The two nearby employees are thrown against the adjacent tank, causing severe bodily injury and head trauma

Three nearby tanks are damaged, two begin leaking

Case Study #1

Meanwhile…

An excavation contractor is cleaning out a ditch along the property and left a stockpile of dirt alongside. This ditch drains to a large creek ¼ mile away.

Gator operator has presence of mind to use radio and call for help.

Coworker jumps into payloader and drives to the ditch. Stockpile of dirt is pushed into the ditch to prevent the flow from leaving the property.

Case Study #1

Three employees are taken to local hospital by ambulance.

Remaining employees are shaken, but continue working.

Plant has lost all power.

Property is flooded, but contained.

Media has picked up the 911 call.

Corporate has been notified.

Where do you begin?

Case Study 1: Lessons Learned

1. Value of emergency contractor resource list (especially back in pre-cell phone days)
2. Importance of quick access to emergency lighting, generators
3. Importance of media communication plan. Who will say what? How often? Where do you corral the media?
4. Planning for the long haul. Cleanup took several days, around the clock.
5. Employee coverage for shifts and loaning employees from other sites
6. Importance of strong relationship with emergency responders and familiarity with plant.
7. Importance of strong relationship with state agencies and solid company reputation.

Case Study #2

October, 2019

Hardinsburg KY

(Not an Andersons facility)

Storage building catches on fire.

300 tons of fertilizer inside.

Suspected cause is electrical.

Five fire departments respond.

Some products are reacting to water, making it difficult to contain.

Nearby residents and businesses ordered to shelter in place for several hours.

Fire smolders for days.

Case Study #2

Initial media reports claim hazardous chemicals on fire inside. This drives the shelter in place directive.

Later, they rely on company website to provide information on stored materials…which were NOT in this particular building.

Initial confusion on water-reactive materials created delay in fire containment. Foam was eventually used.

Media uses drones to get detailed footage of the fire response.

Case Study #2: Predicted Lessons

1. Fire Department familiarity with products and appropriate fire response methods (water vs foam) are critical.
2. Providing regular updates to the media prevents them from needing to “mine” for it on your website.
3. Accurate information prevents inaccurate or un-necessary responses.
4. Drones present a whole new layer of vulnerability during an incident and air space can be controlled by the Fire Department.
5. A thorough business continuity plan is valuable for worst-case planning.

Chemical Safety Board: Winterization of Chemical Plants

Five Minute Video:
https://youtu.be/mEtpUmYs1kg

1. Have you identified and addressed freeze-related hazards to piping and process equipment?
2. Do you have a winterization checklist to ensure systems are ready for cold weather?
3. Do you have a documented freeze-protection program?
4. Do you survey piping systems for dead-legs and ensure they are properly isolated, removed or winterized?

Planning for the Worst

- Incorporate various scenario discussions into daily pre-shift [aka “toolbox”] talks.
- Ensure that everyone knows their role.
- Train with Fire Departments at your facility. Provide updated plant maps with utility locations.
- Plan ahead for media communication and control.
- Cultivate strong reputation with regulators.
- Share contingency plans with nearby businesses.
- Establish relationship with critical equipment rental vendors.

“My safety strategy? Hope for the best, but plan for the worst.”