CONESTOGA ENERGY CASE STUDY

BACKGROUND - ARKALON ETHANOL

Conestoga Ethanol Arkalon, located in Liberal, Kansas, has been in operation since 2007, and has the capacity to produce an astounding 110 million gallons of ethanol per year. The plant was founded by farmers and businessmen who recognized the potential of ethanol.

In order to keep the plant up and running, it was important that they had a robust Computerized Maintenance Management System (CMMS), which is why they have been a MAPCON CMMS customer since the plant first opened.

While Conestoga uses MAPCON for a myriad of tasks, perhaps no other use is as important as plant shutdown planning and execution. Plant shutdowns are one of the most critical times in plant operation.

During a shutdown, all machinery is powered down for a period of time, usually a few days, while maintenance repairs, replacements, and inspections are done. Since all operations cease during this time, it is important that tasks are planned ahead of time and completed in a timely manner.

"MAPCON touches on all facets of the shutdown. Without it, things would be very chaotic."

Machine downtime can be costly. It is critical that everything gets done as safely and efficiently as possible.

MAPCON

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THE PLANNING

According to Maintenance Manager Allen Bryant, Conestoga begins planning for their annual plant shutdown three months beforehand. While planning, work orders and preventive maintenance tasks can be entered into MAPCON under a project, which keeps shutdown tasks and costs separate from regular work. While planning, prioritization of the repairs is done. This ensures critical machines are looked at first, which means they will be up and running faster.

Historical data kept within the software proves invaluable during shutdown planning. Looking at data from previous years can help Conestoga determine how long repairs and cleaning will take, allowing them to decide how many workers are needed per shift.

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Historical data also helps workers determine which parts fail and when. If they know ahead of time that a motor generally fails once per year, efforts can be made to replace the motor during plant shutdown, thus eliminating reactive maintenance on the motor.

MAPCON also helps make sure all parts and tools are in-stock prior to the shutdown. Running out of a part or misplacing a tool during shutdown would result in added downtime, which could result in lost revenue.

THE EXECUTION

When the planning is done and the shutdown begins, Conestoga uses MAPCON to make sure everything goes smoothly. By looking at the priority level on their planned work orders, workers can easily determine what needs to be completed first. In addition, each work order details precisely what parts and tools are needed, and where they can be found, which means workers will not be wandering around looking for them and wasting time.

While ideally all work orders will be planned ahead of time, of course unexpected repairs come up. Conestoga utilizes MAPCON for those work orders, too. With the use of MAPCON Mobile, workers can create a work order right from the field and attach a photo of the item that needs repairs. Creating work orders on the fly instead of having to trek back to a PC is another way MAPCON decreases equipment downtime. Tracking unplanned repairs helps workers plan for the following year's plant shutdown.

Conestoga uses MAPCON CMMS for their day-to-day maintenance tasks as well as during plant shutdown, but workers say the system truly shines during that time of year.

"MAPCON touches on all facets of the shutdown. Without it, things would be very chaotic." Bryant concluded.