



Mid-South Engineering Company

Issue 1

Working Together

First Quarter, 2002

Maiden Issue Mission Statement

In the tradition of a community coming together to raise a barn, we are starting our quarterly newsletter to work with you to raise issues and ideas that hopefully benefit our friends and neighbors. Many newsletters simply tell you about the company writing the report and their recent work. The Barn Raiser will instead focus on you and areas that your company might want to explore in order to improve a facility or an operation. From time to time, we may tell you a little about ourselves and how we might work together to accomplish your task. Our topics will vary from issue to issue and from discipline to discipline. Every newsletter article may not spark your attention, but we hope to cover enough topics to periodically touch on one that does.

Mid-South Engineering has been partners in industry since 1969 and knows that more can be accomplished when we work together, lifting each other's burdens and side by side framing our future. We're confident that with time, you will learn of our knowledge and integrity so that we can stand next to you in a common goal.

How Good is Your Electrical System?

As with anything, time can change your electrical system. Equipment installed with the original construction may have been replaced with equipment having significantly different power requirements. Sometimes original equipment may have been inadvertently installed which is not rated for the available short circuit current. Then there is the possibility that the utility company may have significantly increased the amount of short circuit current that could flow into your system. Unfortunately, many plant electricians don't know if their systems have the proper equipment to safely interrupt fault currents. And while all these points are good, the bottom line for everyone is, "Is my electrical system and the associated equipment properly rated to protect my plant and more importantly my people?"

Businesses or plants can lose thousands or millions in dollars if fire occurs as the result of improperly rated equipment... and what is the cost of just one life?

If you are concerned, you may want to consider having a Power Study done to review some of the following items:

- Short circuit capacity & Impedance of the Utility Supply.
- High Voltage Fuse types, sizes, & ratings.
- Transformer evaluations for quantity, size, etc.
- Switchgear evaluations for amp ratings, short circuit ratings, breaker quantities & sizes, etc.
- Amp ratings, short circuit ratings, connected loads for your Motor Control Centers.
- Cable sizes & raceway types.
- Fuse types, sizes, & ratings.

A power study can analyze and simulate the power or current flow throughout your systems. Various scenarios can be examined for possible overload conditions on your equipment to see if low voltage levels exist at different operating conditions. Given that the cost of knowing is high, and preventative costs are far less than a catastrophic event, a power study can be a life saver. In this case, ignorance certainly isn't bliss.



"The Barn" built in the 1930's to house Welsh ponies, serves as Mid-South's offices. →

Everyday Ordinary Common Sense Rules of Management

Every once in a while a rare individual comes along and leaves a lasting impression on others. A man known as “Sticky” Monroe, mill superintendent for the old Dierks Lumber & Coal Company, was one such person. Sticky began working for the mill in the early 1900’s at the age of 13 and using the following rules worked his way up to the top position in the plant.

1. A manager (boss, foreman, supervisor, etc.) must be a decision maker.
 - Use all available information to make a decision, Now!
 - Pass the decision and all conclusions to your subordinates quickly.
 - Even with limited information, if it is logically evaluated, the chances favor a good decision.
 - Once a decision is made, even if it turns out to be in error, don’t dwell on it with self doubt. Move forward.
 - If a subordinate makes a decision using the same methodology, support them. If it turns out to be in error, simply proceed with a new evaluation and a new decision together.
2. Every person who works on the job needs to have something they enjoy doing off the job.
 - Everyone needs time off the job to be useful on the job.
3. A good person can be in the wrong job, and may need to be moved. Finding the right person for the right job is important.
4. When something goes bad there are usually a lot of reasons.
 - Don’t try to correct everything at once, but instead try and pick the worst three.
 - Once those are working correctly, pick up to three more to begin addressing.
 - Identifying too many problems at one time is demoralizing to people.
 - Never correct any problem while you’re mad.
5. ALWAYS GET UP AND GO SEE FOR YOURSELF.

The fatal flaw of any “would-be” manager is that they enjoy finding fault with others.

Drainage Problems Cost You More than You Think

If your facility is like most of the ones we visit, one thing that may be overlooked is the amount of standing water that seems to be present year round. It doesn’t matter what the location is, water always seems to be standing in one place or another. Does it rain more at industrial facilities than other places? Obviously it doesn’t. So, why is water always standing somewhere? The answer is that grounds’ keeping doesn’t rank high on the list of priorities when it comes to routine maintenance procedures. And why should it, right? Well, if you knew what it cost you then maybe you would change your mind. Let’s explain why you should take a closer look. Anytime that maintenance of the grounds in your facility gets slack, it becomes harder for water to reach the drainage ditches, culverts, or catch basins that make it possible for an area to dry out. And when an area holds water, a domino effect of problems start. The first problem occurs when your paving starts to deteriorate. Concrete and especially asphalt do not tolerate standing water well. Once the pavement starts to deteriorate, you begin to hold more and more water until other areas of the facility, such as foundations, become adversely effected. Water under slabs can undermine the base, and require slab replacement. Part of the problem comes from lack of grass cutting or the accumulation of materials, such as a by-product, on the grounds that prevent water from escaping. However, the bigger problem occurs when water actually does get to a drainage ditch - and the drainage ditch is either filled in or blocked. Drainage ditches should be routinely cleaned and, for earthen ditches, re-shaped on a frequent basis. If your drainage ditches are earthen, you might consider reshaping and paving them to allow for easier maintenance. No matter how much time and effort it takes, proper grounds’ maintenance will not only make your facility a more pleasant and accessible place, it will save you money in the long run.



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