



# LOTO compliance: Lack not

## Application Factory

Despite the safety risk and cost of violating OSHA's CFR 29 Section 1910.147, there are still deficiencies in lockout tagout (LOTO) in the industrial sector. According to OSHA, about 10 percent of all accidents in the workplace are caused by not following procedures of lockout and tagout and as many as 82 percent of the LOTO violations are due to failure to isolate, block and/or dissipate the energy source(s).

With so much at stake and clear guidelines, why are there incidents related to lockout tagout?

### Lack of documentation

There are many organizations that want to comply but don't have sufficient information — companies whose operators are tagging their isolation points and writing out a good tag diligently but are not aware of details of what has to be tagged to isolate. This is commonly caused by a lack of documentation or over reliance on senior employees to tell them what to do.

It is a common mistake for someone to isolate electricity properly but not isolate other forms of energy like pressure. These

incidences occur for a variety of reasons, such as a lack of understanding about what needs to be tagged, or the inevitability of human error, both the result of a lack of documentation of the isolation points.

Countless organizations have not identified all isolation points on their equipment and have not documented these points.

A critical tool for documentation of isolation points is an Energy Isolation List (EIL). The EIL is the conductor that orchestrates a properly ordered, complete isolation. Another common document is a Blinding List that provides a list of isolation points that require blinding and details like blind type. Other lists include a Critical Alarms Checklist and a Gasket Staging List.

Setting up these lists properly is vital, as well as keeping them updated as equipment changes occur. As isolation points evolve, so should the EIL. Besides, OSHA requires that employees review their LOTO procedures at least once a year.

### Lack of procedures

Some organizations have sufficient information in the form of a well-maintained EIL,

but because of a shortage of time or overwhelming number of tags to be handwritten, tagging is handled in a careless, even haphazard manner, destroying the integrity of the process.

For instance, OSHA requires at least a date, signature and equipment description to identify employees authorized to manage LOTO. However, frequently this information is omitted.

Another corner-cutting decision is using substandard tags. When a tag is hung for a week, a month or longer, it's possible the sun and rain will render it illegible if not blank. If OSHA finds blank tags, there will be citations and fines.

Not only do LOTO materials need to be durable but tags need to be replaced if hung for extended periods of time. OSHA requires that no tag hang longer than one year, but the reality is most tags are worthless before a year passes.

### Lack of training and review

Another 7 percent of the violations cited are due to failure to verify the energy source was de-energized before beginning work.

Here is a real-world example. An operator blinds the output of a stream but doesn't blind the inlet. There is still pressure on the line that results in a release of pressure and potentially hazardous product. The best-case scenario is minor injuries and clean up. Worst case involves injuries and a reportable spill.

The bottom line is if the operator is trained and there are written procedures in place about shutting equipment down, incidents are less likely to occur.

### Lack of commitment

Last and worst, is downright disregard of procedures or total negligence. Sadly, organizations have operators just write a whole stack of tags, sign them and then go out and hang them, an absolute violation of OSHA's mandated procedures. There are organizations not locking out or tagging out and are thereby committing the most egregious offense and endangering their employees.

Next month in BIC Magazine, I will discuss demystifying the OSHA regulations.

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## NEWS UPDATE

# First Solar to build world's largest solar field

TEMPE, Ariz. — First Solar Inc. has signed a deal with China to build a 2-gigawatt solar field in Ordos City, Inner Mongolia.

The solar power field, to be completed in several phases, will possibly become the largest in the world at approximately 25 square miles. First Solar is the world's largest manufacturer of thin solar panels. The solar plant could put the equivalent of two coal-fired plants onto China's energy grid.

Phase 1 will be a 30-megawatt demonstration project that will begin construction by June 1. Phases 2, 3 and 4 will be 100 megawatts, 870 megawatts and 1,000 megawatts. Phases 2 and 3 will be completed in 2014 and Phase 4 will be completed by 2019.

"This major commitment to solar power is a direct result of the progressive energy policies being adopted in China to create a sustainable, long-term market for solar and a low carbon future for China," First Solar CEO Mike Ahearn said. "We're proud to be announcing this precedent-setting project. It represents an encouraging step

forward toward the mass-scale deployment of solar power worldwide to help mitigate climate change concerns."

The project will operate under a feed-in-tariff, which will guarantee the pricing of electricity produced by the power plant over a long-term period.

## The solar plant could put the equivalent of two coal-fired plants onto China's energy grid.

"The Chinese feed-in tariff will be critical to this project," Ahearn said. "This type of forward-looking government policy is necessary to create a strong solar market and facilitate the construction of a project of this size, which in turn continues to drive the cost of solar electricity closer to 'grid parity' — where it is competitive with traditional energy sources."

**For more information, visit [www.firstsolar.com](http://www.firstsolar.com) or call (602) 414-9300.**