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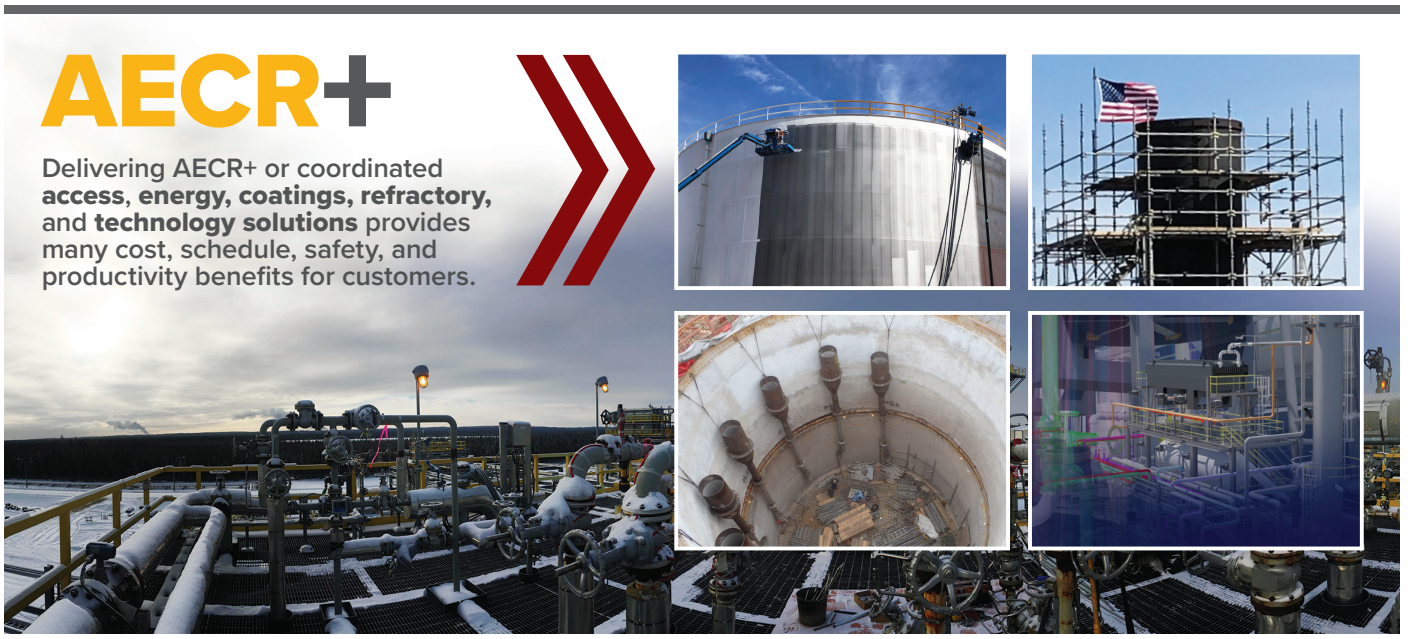
The evolution of industrial specialty craft-labor services

AECR+: Access, energy, coatings, refractory + technology



Not long ago, the acronym "SIP," which meant integrating "scaffold, insulation and paint" work under one contractor, was the leading edge of "soft craft" industrial services. By working with one specialty industrial contractor that was able to deliver these three integrated services, customers realized meaningful schedule, cost and productivity benefits. Today, with labor wage inflation escalating, it is increasingly important that the industry continues to evolve and innovate for productivity, and we're realizing that more can be achieved with even broader thinking.

The next step beyond just SIP is "AECR+" or "access, energy, coatings, refractory, and technology," which mandates a larger "solutions toolbox" to complete soft craft work at higher levels of productivity. When we think about "access" instead of simply "scaffold" (i.e., A vs. S), or "coatings" instead of simply "paint" (i.e., C vs. P), it drives us to add *depth* to our service offerings. Similarly, adding refractory, which is often performed together with the other services, is about adding *width* to our solutions toolbox.

The advantages and savings in schedule and costs from integrating AECR+ are best understood by taking a deeper dive into each component, beginning with the A instead of S — or access instead of simply scaffold.

'A' is for access

As the saying goes, "When all you have is a hammer, every problem looks like a nail." In the same vein, an access company will approach a project with a much broader and innovative outlook and may suggest a very different solution than a "scaffold company" might.

As an example, on one recent project, instead of building 36 levels of sectional scaffold with 18 work decks or renting a crane to access a 245-foot distillation tower, a temporary personnel hoist (or elevator) was installed, saving significant time, costs and worker fatigue. In fact, we now have numerous examples where site challenges were solved more efficiently and cost effectively with solutions like rope access, explosion-proof-controlled industrial elevators, mobile material hoists or temporary transport platforms, instead of scaffold.

'E' is for energy efficiency

We also need to think beyond insulation to include related thermal management solutions that drive energy efficiency, such as abatement, energy-loss appraisals and heat tracing. Optimizing thermal control of a process can include evaluating current energy losses, removing existing insulation, re-engineering and installing a new heat tracing system (including cabling, power distribution and control panels), and installing a newer insulation system, which together result in maximum energy efficiency.

For example, to effectively winterize an entire Florida power plant, the end-to-end solution included a baseline survey, removing all insulation, engineering and installing a new heat tracing system, and re-insulating with an improved insulation system. Projects like these provide enhanced power reliability during unseasonably cold weather like Winter Storm Uri.

'C' is for coatings

Parallel examples exist when we talk about coatings or "C," which suggests more than simply paint or "P." Coatings services have become much more sophisticated to allow us to meet increasingly stringent government and industry requirements in abatement, surface prep, coating application methods, and the coatings themselves. Some examples include more advanced liquid and metalized coatings, robotic surface prep, and recyclable abrasives.

On any given day, we may use robotic equipment and recyclable abrasives to remove existing coatings, which could contain heavy metals (lead, chromium or beryllium), and then apply new coatings with a variety of specified materials and application methods. These could include advanced internal linings, atmospheric protection options or basic paint.

'R' is for refractory

Next in this new industrial service acronym is "R" for refractory, which is a service that is often performed in conjunction with projects and schedules that include AEC and therefore is a natural addition to our toolbox. At the same time, recent innovations in refractory and welding offer a dramatic and positive impact on schedules and cost. From new precision layout systems and precast shapes, to computer-controlled stud welding systems and new anchor designs, recent developments in refractory can enhance safety and increase productivity by 50 percent or more when compared to conventional methods.

'+' is for smart digital technology

The final "+" at the end of AECR+ is for technology — specifically, smart digital technology — which enables planning, tracking, reporting and workflow management by exponentially increasing information availability to those involved in the process. By using technology to create "smart" projects and jobsites, we can better plan our work and better work the plan with less hours, thereby improving productivity and safety.

Beginning with software to import a 3-D model, we can overlay a recommended access solution into a preexisting (or recently laser scanned) digital model to generate a "virtual walk-through" of a project. Integrating technology for better design and planning offers several advantages.

For example, in one recent FCCU repair project, viewing a digital 3-D model enabled a refinery to avoid potentially costly issues when they realized a scaffold had the wrong dimensions, thus preventing a delay of six to eight shifts. On another project, 3-D modeling showed that optimizing the access solution to design one large scaffold instead of building several smaller scaffolds in an area allowed a five-person crew to work much more productively.

Once work begins on a jobsite, technology can be used to track data, KPIs and performance in order to keep a project on budget and on time. In addition, another advancement in technology, using standard barcodes, QR codes, and other intelligent or "smart" tags, allows workers to capture and update the information associated with each scaffold (or insulation blanket, pipe, etc.) on a jobsite.

Providing total solutions

Altogether, the savings from integrating AECR+ comes from blended work crews, reduced site overhead, and fewer (and more coordinated) handoffs in the execution of work. Companies that seamlessly integrate the design, planning and execution of AECR+ services, along with the associated efficiency-driving technology, will be best positioned to lead the industry in cost, schedule, safety and productivity benefits.

For more information, visit www.brandsafway.com or call (800) 558-4772. ●