

# The ADF EXPERIENCE

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Q3 2017



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## 5 Practical Strategies for Removing Heavy Metals and Cyanides from Waste Water



*Ted Ortiz, P.E.  
Omaha, Neb.*



*Rakesh Patel, P.E.  
Dayton, Ohio*

Treating your industrial waste streams for heavy metals is a costly, highly-regulated process. In ADF's new white paper, our in-house experts Ted Ortiz and Rakesh Patel deliver their top five strategies to improve efficiency and cut costs to your operations while treating for heavy metals.

[Read the white paper online.](#)

## Webinar: Opportunities for Water Recovery in Industrial Plants



### **FREE WEBINAR: Opportunities for Water Recovery in Industrial Plants**

**Presented by Rakesh Patel, PE**

**Coming October 2nd!** Join us for a FREE 30-minute webinar, *Opportunities for Water Recovery in Industrial Plants*. The webinar will be held Monday, Oct. 2nd at 2 p.m. EST.

In this webinar, Rakesh Patel, P.E., will discuss factors that influence design of industrial process and wastewater plants for cost efficient, reliable and expandable equipment systems. The webinar will also cover operational challenges faced by industrial water plants including common failure types, early

detection of issues and explore opportunities for recycling and reusing waste streams.

[Click here](#) for registration and additional details.

## Electrical Zoning and Classification is Critical to Your Plant Operations



### Electrical Zoning & Classification



*Jim Bader*  
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*937-308-5394*

Keeping your facility's electrical classification maps up-to-date will help you avoid risk, create confidence in construction planning, and more easily navigate through complex code compliance. They serve as a visual tool and common language for plant employees and contractors at all levels. Here, our AEI Department Manager Jim Bader offers his top reasons to keep your zoning and classifications up to date:

- Avoid overspecifying and purchasing costly equipment that might not be required by code.
- Good zoning and classification practices lead to good documentation, better process safety, and a more thorough overall site safety program.
- Properly zoned and classified areas ensure that you'll be in compliance with the latest safety regulations.
- Maps that are kept up-to-date will help you avoid major rework costs and keep equipment running reliably with lower risk.

Have zoning and classification questions? [Email Jim](#).

## Project Management Hotline: What are the Project Phases?

According to the Construction Industry Institute (CII), project phases are broken down into several steps with increasing clarity and detail. Most people in the architecture, engineering, and construction industries will recognize the CII format, as well as the similar American Institute of Architects (AIA) and Engineers Joint Contract Documents Committee (EJCDC) formats. Some of the phase titles may differ, but their goals and definitions are largely the same.

- **Feasibility:** In this phase, project managers study the viability of a potential project, probable costs, facility details, production needs, and more to develop a scope of work and schedule outline for a project.
- **Conceptual Design:** This phase seeks to define the scope and conceptual design of the project, including scale and the relationship between project components. Items such as utility selections, site selection, process flows, and equipment selections are finalized so that the design teams can begin their work. The goal of this phase is to provide the

client with rough sketches to verify that the engineering team has interpreted the project correctly.

- **Definition Design:** The next phase is when schematic design decisions are detailed, providing a clear and coordinated description of all aspects of the design to prepare for construction documents. Engineering will provide the client with updated, to-scale drawings, including 3D models with updated with equipment layouts, general arrangement drawings and diagrams. These will specifically define the site plan, floor plans, and exterior elevations.
- **Detail Design:** In this step, drawing and specification documents are completed that will detail the requirements for construction. Drawings are the illustrative component, and specifications outline building materials, equipment, and construction systems that show the standards to be met during building.
- **Bidding & Negotiation:** As indicated, this is when construction bids and negotiations are held before construction starts.
- **Construction:** This is the implementation phase, when building and execution of engineering plans take place.
- **Commissioning:** Once design and construction are completed, it's time to start testing facility operations. This process includes testing performance levels, production times, and all other key performance indicators you expect your new design to meet.

For more information, [download ADF's Critical Design Steps chart](#) with phase details, cost estimating, and engineering information.

*PM Hotline* is a new quarterly column where ADF will feature a hot topic in Project Management. Have a question for the Hotline? [Email us](#) and we may feature it next time!

## 2018 Calendar Orders

Would you like to receive a free 2018 ADF Engineering poster calendar?

Calendar orders are now open for ADF's annual 12x18 inch, yearlong calendars.

Place an order for yourself, or for your organization at the link below, and we'll mail them to you in a couple of months.

[Fill out an order form here.](#)

2018

Source: Vertex42.com

January

Su	M	Tu	W	Th	F	Sa
	1	2	3	4	5	6
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## Spotted at ADF...

Our brand new, state-of-the-art scanner arrived this week! Lead Scan Operator and Designer Justin Hays has been having fun learning how to use the new machine. We'll have more on how this can improve your next project in our Q4 issue.



## How Are We Doing?

Have an idea for an article? Want to provide feedback on this newsletter?

[Please let us know how we're doing!](#)