

Hydrazine Injection for Power Plant Applications

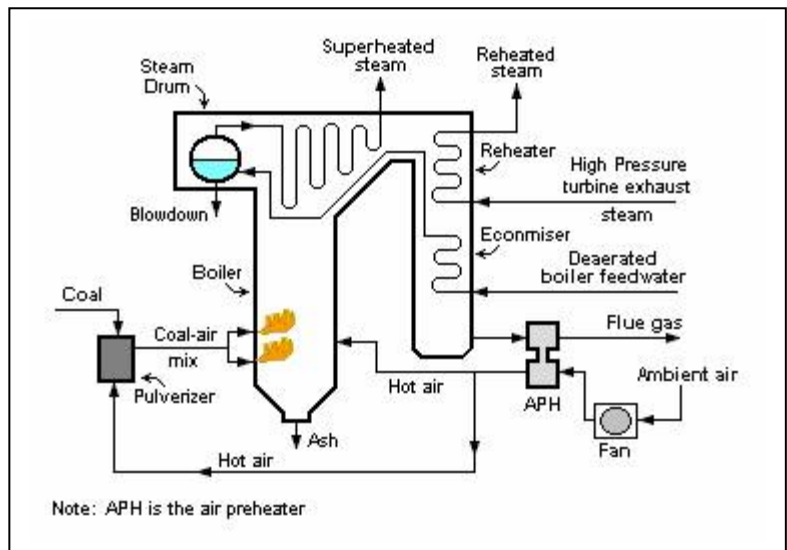
Power plants are a complex blend of some of the simplest systems we know today. Pumping water to cool, treating water for purity and ph, using steam to spin turbines, and generating electrical current from magnetic excitation.

Being Pump people we are going to talk about the wet side of things. There are five main separate systems that have to do with water treatment:

- Feedwater /Boiler/Afterboiler
- Condensor cooling
- Ash sluicing or exhaust cleaning
- Makeup system
- Closed cooling water

Each of these has their own set of challenges. The need for multiple chemical feed systems is evident. Surface water needs to be cleaned and demineralized. Then disinfected and deaerated. Then it is PH balanced and boiled. Then it is cooled and condensed, and we go nearly back to the beginning.

For the purpose of this article we will talk about condensate/feedwater system. Specifically Hydrazine injection, of all the substances in the water system, Oxygen has one of the most corrosive effects on the entire “wet” system. In addition, dissolved oxygen in the feed water makes it less efficient for carrying temperature.



Hydrazine is an oxygen scavenger which works in conjunction with a mechanical deaerator. Our 1700 series of Hydraulically actuated pumps has been a historic part of feeding Hydrazine at many a power plant across the country. Our vertical tubular diaphragms are well suited to the demands of this service. We have the range of flow and discharge pressure to meet nearly any application.

Hydrazine is not the only chemical fed at power plants of course, Sodium Hypochlorite, Ammonia, amines, corrosion inhibitors, flocculants, and a host of other chemicals are being injected to keep the plants operating smoothly.