



**Providing Treatment Solutions for Air, Water, & Land**

**[www.TheiaLLC.com](http://www.TheiaLLC.com)**

**(888)330-2260**

# Solutions for Leachate Treatment

Theia offers a variety of solutions for treatment or pretreatment of landfill leachate. We can work with what you already have in place or we can build a treatment system from scratch.

**H<sub>2</sub>S Reduction/  
Elimination**

**Odor  
Control**

**BOD/COD  
Reduction**

**Ammonia  
Removal**

**Storage &  
Pumping**

**Partial Re-Use  
Systems**

**Metals  
Treatment**

**Aeration/Oxygen  
Addition**



Theia provides solutions for you and your facility that are designed for your specific requirements and your budget. We do not offer a cookie cutter system that is dropped off the back of the truck as we drive away. The Theia team starts by looking at what is already in place and, where possible, making your existing infrastructure part of the final treatment solution.

Some applications fit neatly into a standard product while others require a combination of products or something new altogether. Theia will provide the BEST solution for the application, the project, and for your plant.

Theia works as part of your team but we never forget that it is your project and your site and that you, the customer, always decides that the ultimate solution looks like. You also decide what scope of supply you require from us.

Most of our equipment and systems are available for lease and lease/purchase arrangements. Theia typically has equipment available for short term rental and can provide these on a fast mobilization basis.

We offer pilot scale systems for most of our technologies to let you kick the tires before making a decision.





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## H<sub>2</sub>S Reduction/Elimination



Theia has more experience in eliminating Hydrogen Sulfide than anyone in the industry. Leachate, with its high strength and long detention times, offers a challenge that most companies will run from. Theia is the only company with the tools and the knowledge to cost effectively address this issue

**The Oxygenator:** Our oxygenator systems are the simplest and least costly method of eliminating existing H<sub>2</sub>S and making sure it does not come back. This system eliminates existing H<sub>2</sub>S and prevents it from coming back using nothing but ambient air. The Oxygenator is the most effective and cost effective system on earth and has been doing this for over 40 years. Simple and inexpensive to install, virtually no maintenance required and very low operating costs.

**H<sub>2</sub>S Eliminator:** Even the Oxygenator has its limits. For some applications, a little chemistry is the best approach. Theia offers a unique solution that eliminates existing H<sub>2</sub>S permanently. This chemical has been in use for over 25 years in other applications and proven effective. The H<sub>2</sub>S eliminator converts H<sub>2</sub>S as well as mercaptans to water soluble polysulfides which are no longer gaseous or of interest to SRB bacteria. The chemical does not freeze or require mixing and is very concentrated so storage and handling is simple. The chemical is also not aggressive which mitigates handling concerns.



**Theia offers odor control solutions for tanks, vaults, etc which scrub the air to remove H<sub>2</sub>S as well as a whole list of organic and inorganic odors**







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## Better Aeration



Many lagoons and other storage systems suffer from ineffective and insufficient aeration. Surface aerators are not effective or efficient and are difficult to maintain. So stop using them.

Theia offers the most energy efficient aeration systems in the marketplace. These systems are also unique in that they are *simple*. Simple to install, simple to operate and they require very little maintenance. What little maintenance is required is all performed on dry land. All of our systems are designed to operate efficiently while keeping all the critical parts of the system *outside* of the water. The only thing that goes under water is pipe.

Oxygenator systems provide mixing and aeration in one step. The mixing component is designed specifically for the tank or the lagoon and can turn even the largest lagoons without dredging up the bottom. The Oxygenator System can easily be added to any tank and lagoon without draining the water or sending anyone into the water.





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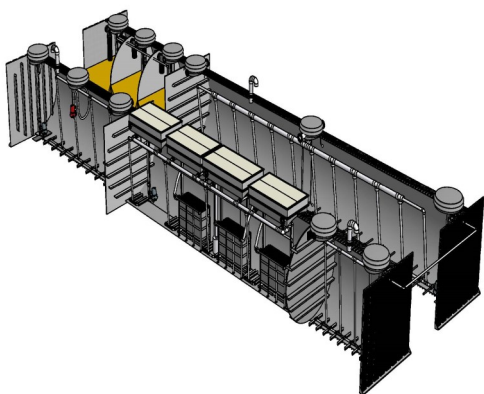
## Better Treatment



Stripping Systems for Ammonia—simple robust and inexpensive



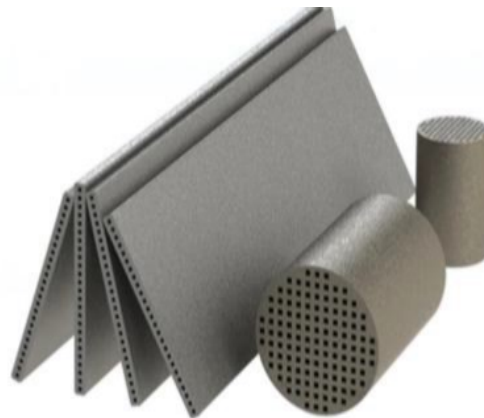
Physical & chemical treatment systems for removal of metals, reduction of BOD & COD, TSS, TDS.



Biological Treatment for BOD, COD, Ammonia



Pump Stations, tanks, sumps, vaults, etc that will stand up to pretty much anything



Advanced filtration and membrane systems

