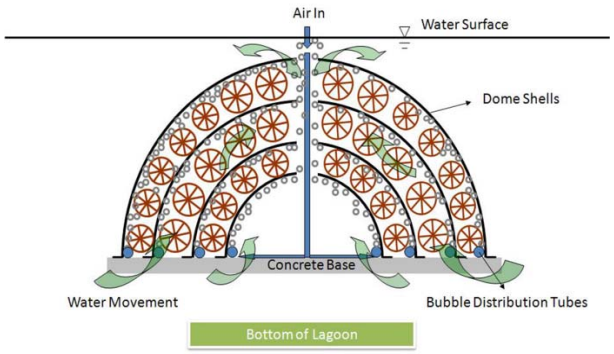
Wastewater Compliance Systems, Inc.

Background

Lagoon efficiency can be dramatically improved by promoting the growth and development of beneficial microbial colonies. Diverse bacterial colonies consume water-borne contaminants, but such colonies can only exist within a thin bio-film attached to submerged surfaces. Beneficial bio-films thrive when they are protected from sunlight, and exposed to optimal degrees of aeration and nutrient mixing.

Wastewater Compliance System's patented technologies create and sustain all of these conditions.. *Bio-domes* consist of several concentrically nested domes that are infused with low pressure air to optimize the growth of naturally occurring bio-films. *Bio-domes* sit on the floor of a lagoon and are completely submerged. As water flows through *bio-domes,* bottom-to-top, beneficial bacteria effectively reduce biochemical oxygen demand (BOD), total suspended solids (TSS), and ammonia-nitrogen (NH_3/NH_4^+) in waste water lagoons prior to discharge.



***Bio-dome* cross section**

Bio-domes *are* 6ft diameter, 5ft high, and weighs 850 lbs. *Bio-domes* are economical, and can be incrementally installed to match the specific needs of a community; whether it is to increase lagoon capacity, extend the useful life of the lagoon, or to help lagoon operators meet regulatory requirements. Installation of *bio-domes* can dramatically improve lagoon performance and can delay or avoid costly capital expenditures in more expensive solutions.

Fully assembled *bio-dome*

Pilot study *bio-dome*

Bio-film on the inside of *bio-dome*

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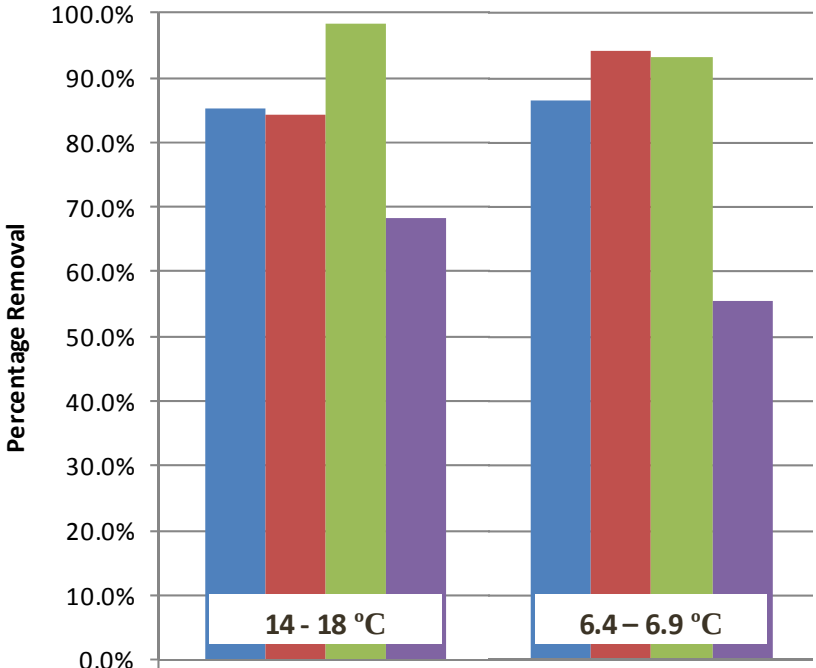
Demonstrated Performance

Ammonia is a common wastewater contaminant. The chart to the right shows effective ammonia removal under test bed conditions using aerated *bio-domes*. *Bio-domes* can also reduce BOD, TSS and Total Nitrogen levels. The chart also shows water temperatures during the tests. *Bio-domes* are able to effectively remove contaminants under cold weather conditions. *Bio-dome* effectiveness was also tested during winter conditions in a lagoon with an average wastewater temperature of 5° C, and still demonstrated successful ammonia removal.



	10/16/2009	10/30/2009
COD	85.1%	86.4%
TSS	84.3%	94.1%
NH3-N	98.3%	93.1%
Total N	68.3%	55.6%

Effective in cold weather

Pilot Studies

If you are an engineer, lagoon operator or community interested in utilizing *bio-domes* in your wastewater treatment facility, please contact WCS for more information. WCS is happy to share (non-confidential) data from past pilots, or to discuss the logistics of performing an on-site pilot at your facility. The real-time performance of our bio-dome product speaks for itself, and we encourage our clients to put our bio-dome technologies to the test. Field data and operating performance will demonstrate that our solution is one of the most economical and effective wastewater technologies on the market today.

About Us

Wastewater Compliance Systems is based in Salt Lake City, Utah. Our patented technologies were developed by leading experts at the University of Utah. WCS is rapidly expanding its presence in the United States and abroad. Our team of engineers, technicians and representatives are capable of assisting communities and engineers in the development and customization of designs capable of meeting the most stringent regulatory requirements.

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