

# Industrial Water Purifier

Gulf Spill – Orange Beach, AL



A technology that injects negatively charged ions into water (oxidation). The **Kria Industrial Water Purifier** degrades any organic pollutant including submerged oil. It may well be the only known way to clean marshes of spilled oil. Also removes pesticides, Corexit, phosphates, ammonia, nitrates and nitrites.

**Recent Test Location** – a local Gulf Coast community strongly affected by the Deepwater Horizon Oil Spill (2010) – one year later

**Existing** (May 9, 2011)  
Hydro-carbon levels - 10 ppm  
Dissolved Oxygen levels less than 5.0 mg/l  
Visual oil and 'oil-bubbles' in the water



**In Less Than One Day**  
Hydro-carbons are dramatically reduced (negligible)  
Dissolved-oxygen levels increase (over 11.0 mg/l)  
Visually affected area is approximately 1,000 ft radius  
Small fish and aquatic life sightings – not seen since before the spill

**After One Month**  
Oil on the bottom sand is now being degraded.  
Dissolved-oxygen maintained (11.0 to 17.0 mg/l)  
Visually affected area is approximately 5,000 ft radius, total depth of the water body  
Aquatic life changes are abundant (dolphin sighted)

## Observations

*"After the ionizer set-up ran on that first day, we noticed the difference. There were minnows and things we hadn't seen since before the spill",* Margaret Long, Orange Beach, AL, Author and Community Environmental Leader

*"The numbers are very impressive. This equipment works",* John Pastore, a marine biologist and President of Blue Water Environmental in Jacksonville, FL



General Data

Tests / Studies	Yes
Use Location	In-water, on dock, on float
Unit Size	30" h x 36" w x 40" l
Weight	440 lbs
Delivery Unit	(each) Pallet
Availability	3-4 weeks
Benchmarks	Yes (see data)

Performance Benchmarks



Setup & Installation Specifics

Operations Manual	Yes
Additional Tools & Equip	Per site requirements
Power Source	1 phase, 750 watts/hr
Water Cycle	120,000 to 360,000 gallons/day
Est Installation Time	Less than 2 hrs.

Maintenance & Monitoring Specifics

Power	Per site requirements
Maintenance Cycle	Every 6 months
Maintenance Time	Less than 1 hr
Record Visual Inspection	At least monthly
Record Test Data	At least monthly
Warranty Period	3 yrs

Scope of Work

- EcoUSA provides site specific layout and equipment setup instructions.
- Equipment is installed by qualified environmental or marine contractor.
- Insure the equipment base is properly secured to a supplied float and/or anchored to shore.
- Provide electrical power to equipment per requirements.
- Minimum visual and testing observations – installation, 1<sup>st</sup> 24 hrs, each month

Suggested Uses (improves fresh or salt water quality)

- Retention ponds – golf courses, park sites, HOA practices
- Pollution points along waterway
- Harbors and marinas – general water cleaning and fuel dock BMPs
- Municipal Utilities – emergency and community cleanup
- Aquariums and Zoos

Cost & Purchasing

- EcoUSA will supply a cost proposal for the size and performance of each unit.
- Units are available for purchase with installer and operational training.
- Units are available from equipment lease programs.

