

Environmental Edge Technologies, LLC.

Executive Summary: Select Completed Projects; LEL Knock-Down and reduction of VOC's to include H₂S, SO₂ and Benzene; enhanced Tank-clearing/cleaning and sludge liquefaction, reduction/mitigation of TO units; waste stream mitigation. **Reducing Cost and Down Time.**

Products used: all are non-hazardous/non-flammable

Natures Edge Industrial (NEI), is engineered to reduce VOC's, LEL's, H₂S, SO₂, Benzene, vapors and gases on contact eliminating the need for multiple water fills, steam/chemical circulating and even thermal oxidizer (TO) units; also is a wetting agent/penetrant that inhibits adherence and build-up of sticky residues and solids. NEI is a non-hazardous, aqueous based, multi-functional Industrial concentrate with oil consuming microbes.

Gold Edge (GE), Gold Edge X40 (X40), GE is a non-petroleum based solvent that is non-toxic, flash point above 400f degrees PMCC and will dissolve asphalt at ambient temperature. X40 is GE with select additives allowing X40 to break down and dissolve paraffin based hydrocarbons and many polymer/plasticizer materials. According to the scope of work, a protocol can be prepared whereby the products are used separately or together as a system.

Representative Completed Projects:

1) LNG/gas operations: Pre-filters/filter pots, Coalescers, Caustic Towers, and associated lines; EPROD - were cleared of LEL's, and H₂S using Natures Edge Industrial (NEI); Additionally, NEI along with Gold Edge (GE) was used as a system to simultaneously knock out Benzene while eliminating the need for a chemical/cleaning contractor. Saving multiple down-days per unit/system per month.

2) Crude Lines at Docking facility; Houston area Port facility; EPROD - Cleared 2000 + feet of varied size crude oil piping for removal from a ship loading dock. Piping had never been cleared/cleaned due to the location, daily use requirements and limitations of original design. Completed in 2 days with GE, X40 and NEI applied as a system.

3) Refinery and Pipeline operations: TANK clearing/cleaning; EPROD - Cleared LEL's and VOC's from 9 bullet tanks, 3 spherical gas-tanks and 2 floating roof storage tanks from C5 unrefined gasoline, Butane, Isobutene, LNG/LPG, reformat, Naphtha and crude oil using NEI, specialty pump/nozzles and 70 barrel vacuum truck. Eliminated the need for TO units; previously never successfully accomplished. Note: some product recovered and re-used on subsequent tanks.

4) Crude Tanks: Albemarle Corp - Clear and Clean nine large Crude tanks and all connecting pipelines using NEI and Specialty high volume pumps/nozzles. Contractor was \$250K under competition and finished total project ahead of schedule.

5) Gasoline Blending tanks; Magellan Midstream - Clear and clean gasoline blending tanks for API 653 inspection by inducting NEI via water cannons and Specialty high volume pump.

6) Tanks; Xylene and Para-Xylene; BP Texas City (Marathon) – Clear and clean 5 tanks with Natures Edge Industrial. Process/protocol developed, whereby; the Thermal Oxidizer unit (TO) was reduced to only four hours run-time to verify results (less than 4 hours each tank), rather than continuous 24 hour TO operations for multiple days per tank. Huge savings.

7) Tanks; bullet/horizontal for storage of raw materials and finished products: Shell Lube Oil– Clear and clean tanks (including multiple issues with H₂S/SO₂) and lines of oil and oil additives/polymers using all three products, NEI, GE and X40. On-going work.

8) Recovery Pit/pool and Oil Water Separator: Shell Lube Oil - NEI used to treat API pool to release oil at bottom of system and to allow recovery while also cleaning/separating sediments for easier removal. Reduced hazardous waste stream.

Karl Fysh: Cell 281.824.2457 of Enviromental Edge Technologies LLC; was the Project Manager or Consultant for all 8 of the Projects outlined above and can provide first hand related Protocol background to include product-mix and equipment required for each project as implemented/modified along with lessons learned.

Environmental Edge Technologies new advances in encapsulation and biotechnology has a proven track record of reducing health risks, cost, down time and mitigating waste streams associated with the clearing/degassing and cleaning of hydrocarbons.

For more information or a live demonstration of the effectiveness of these and other products please email info@environmentaledgetech.com or call Kerry Liles at Cell; 281-546-9800

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