

## **ClearSign Announces Final Regulatory Approval for Collaborative Project with World Oil to Demonstrate Duplex™ as a Superior Ultra-Low Emissions Solution**

### **Installation of Five Duplex Plug & Play™ Burners Expected to Eliminate Over 15 Tons of NOx Per Year**

SEATTLE, Feb. 5, 2019 /PRNewswire/ -- ClearSign Combustion Corporation (Nasdaq: CLIR) ("ClearSign" or the "Company"), an emerging leader in industrial combustion technologies that improve energy and operational efficiencies while dramatically reducing emissions, announces that the Board of the South Coast Air Quality Management District (SCAQMD or the "District") unanimously voted to approve the Duplex demonstration project at a refinery location in the greater Los Angeles area.

This project, which was previously announced in September 2017, will demonstrate ClearSign's Duplex technology as a Best Available Control Technology (BACT) candidate to achieve sub 5 ppm NOx emissions levels in refinery process heaters and other types of fired equipment. The project will involve a retrofit installation of five Duplex Plug & Play™ burners on a process heater within World Oil Refinery's South Gate, California refinery as a demonstration of the technology for the District and refiner.

Funding for the project is a collaborative effort that includes contributions from the District, ClearSign, and World Oil Refining. The addition of World Oil to the project was subject to final review and approval by SCAQMD Board of Directors, and once commenced is slated to span approximately one year. Based on preliminary estimates, the project is expected to result in a reduction of over 15 tons of NOx emissions compared to current operations, without the utilization of catalysts, chemicals, utility consumption or other inefficient requirements of established technologies.

"We are pleased that this project has been approved to move forward," said Rob Hoffman, Interim CEO and Chairman of the Board of Directors. "We are encouraged that all parties see the benefits and value that our technologies provide. The installation, as it is planned, will involve replacement of all existing burners with our Duplex Plug & Play product resulting in a complete heater operating with our Duplex technology. This will be another field demonstration of the superior attributes of our technology when compared to the cost and performance of alternative methods like Selective Catalytic Reduction (SCR) and flue gas recirculation. We see this as a win for all involved and express our thanks to our collaboration partners."

"World Oil is committed to sustainability, environmental protection, and building a better future by employing a broad range of emissions reduction initiatives," said Robert and Steven Roth, co-CEOs of World Oil Corp. "We are delighted to partner with the teams at ClearSign and SCAQMD to advance this promising technology."

#### **About ClearSign Combustion Corporation**

ClearSign Combustion Corporation designs and develops products and technologies for the purpose of improving key performance characteristics of combustion systems, including emissions and operational performance, energy efficiency and overall cost-effectiveness. Our patented Duplex™, Duplex Plug & Play™ and Electrodynamic Combustion Control™ platform technologies enhance the performance of combustion systems in a broad range of markets, including the energy (upstream oil production and downstream refining), commercial/industrial boiler, chemical, petrochemical, and power industries. For more information, please visit [www.clearsign.com](http://www.clearsign.com).

#### **About World Oil**

World Oil Refining is a member of the World Oil family of companies. For more than 75 years, the World Oil family of companies has served California by recycling, transporting, producing and retailing petroleum products and providing environmental remediation services. World Oil Refining processes crude oil into a mix of products ranging from light cuts, such as Naphtha and Light Distillate Oil and Vacuum Gas Oil, to heavier cuts of residual that are used to produce a wide variety of paving and roofing asphalt grades. World Oil Recycling is California's leading recycler of waste oils, antifreeze and other waste streams. World Oil offers end-to-end solutions focused on sustainability, protection of the environment and building a better future for the communities we serve. For more information, please visit [www.worldoilcorp.com](http://www.worldoilcorp.com).

### **Cautionary note on forward-looking statements**

All statements in this press release that are not based on historical fact are "forward-looking statements." You can find many (but not all) of these statements by looking for words such as "approximates," "believes," "hopes," "expects," "anticipates," "estimates," "projects," "intends," "plans," "would," "should," "could," "may," "will" or other similar expressions. While management has based any forward-looking statements included in this press release on its current expectations, the information on which such expectations were based may change. These forward-looking statements rely on a number of assumptions concerning future events and are subject to a number of risks, uncertainties and other factors, many of which are outside of our control, which could cause actual results to materially differ from such statements. Such risks, uncertainties and other factors include, but are not limited to, general business and economic conditions, the performance of management and our employees, our ability to obtain financing, competition, whether our technology will be accepted and other factors identified in our Annual Report on Form 10-K filed with the Securities and Exchange Commission and available at [www.sec.gov](http://www.sec.gov) and other factors that are to be detailed in our periodic and current reports available for review at [www.sec.gov](http://www.sec.gov). Furthermore, we operate in a competitive environment where new and unanticipated risks may arise. Accordingly, investors should not place any reliance on forward-looking statements as a prediction of actual results. We disclaim any intention to, and undertake no obligation to, update or revise forward-looking statements to reflect events or circumstances that subsequently occur or of which we hereafter become aware.

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