



El Dorado County

# Air Quality Management District

Dave Johnston, Air Pollution Control Officer

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11/14/2017

Mr. Sean McCoy  
E Program, Global Security  
Lawrence Livermore National Laboratory  
P.O. Box 808, L-103  
Livermore, CA 94551

**RE: Autothermal Pyrolysis Demonstration Project Camino California**

Dear Mr. McCoy:

El Dorado Air Quality Management District (AQMD) supports your proposed California Energy Commission grant funded Autothermal Pyrolysis project. We understand this process will convert up to 50 tons per day of forest biomass wood waste into a phenolic oil that could be refined to a low carbon transportation fuels and other commercially viable products.

California mountain counties are faced with an overabundance of wood waste due to the recent tree mortality crisis. The development of a cost effective process to produce a renewable fuel could result in the removal of substantial amounts of forest wood waste. Based upon data provided by your subcontractor Iowa State University and compared to wildfires and prescribed burning, autothermal pyrolysis of wood waste will significantly reduce air emissions. Estimated emission reductions include VOCs by 93%, NOx by 89% and PM10 by 97% as compared to wildfire emissions.

Our AQMD staff will support this project by participating in the CEQA review process and working with you to evaluate the process and determine applicable source permit conditions and best available control technologies. Please contact Air Pollution Control Officer Dave Johnston with any questions about the source permitting process.

Sincerely,

Shiva Frentzen, Chair  
EDC AQMD Board of Directors

# COUNTY OF EL DORADO

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JAMES S. MITRISIN  
Clerk of the Board



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November 14, 2017

Mr. Sean McCoy  
E Program, Global Security  
Lawrence Livermore National Laboratory  
P.O. Box 808, L-103  
Livermore, CA 94551

Re: Wood to Fuel using Autothermal Pyrolysis Demonstration Project

Dear Mr. McCoy,

The El Dorado County Board of Supervisors are in support of the project that you are proposing to be located on the SPI mill site in Camino. We recognize fully the need to turn our forest's biomass waste materials into positive and environmentally sound products.

We understand this project supports California energy, climate, and economic goals by harnessing forest residues to produce very low-carbon, drop-in renewable fuels. It's based on a new process, known as autothermal process intensified (AT-PI) pyrolysis. AT-PI pyrolysis was developed at Iowa State University and has already proven to be successful in converting corn residues to bio-oil. If successful, this technology could support production of up to 378 million gallons gasoline equivalent of renewable fuel per year from California forest residues.

We also understand that your team will adapt AT-PI pyrolysis for use with wood waste, and scale the technology from a 1 ton-per-day pilot to a 50-ton-per-day commercial system. A complete engineering package will be developed; modules will be manufactured, and installed at a Sierra Pacific Industries' demonstration site (Camino mill site). Over the course of the demonstration, you anticipate the production of at least 50,000 gallons of bio-oil.

The County of El Dorado will be the lead agency on the CEQA process. Our departments are eager to work with you through the permitting process and with more detailed information, can start the due diligence to determine the levels of CEQA that might be required.

Sincerely,

A handwritten signature in black ink, appearing to read "Shiva E. Frentzen", written over a white background.

Shiva Frentzen, Chair  
EDC Board of Supervisors