

## **MEMORANDUM OF AGREEMENT**

### **TO CO-SPONSOR PHASE 3 FURTHER DEVELOPMENT AND VALIDATION OF TECHNOLOGIES TO LOWER OXIDES OF NITROGEN EMISSIONS FROM HEAVY DUTY VEHICLES**

This Memorandum of Agreement (Agreement) is entered into by the SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (District) and the City of Los Angeles, a municipal corporation (City) acting by and through its Board of Harbor Commissioners (Board).

- I. This Agreement is made with reference to the following recitals:
1. The District is the regional regulatory agency with jurisdiction over air quality in the South Coast Air Basin in the State of California.
  2. The City of Los Angeles Harbor Department (POLA) and the City of Long Beach Harbor Department (POLB) (referred collectively as the Ports) created the Technology Advancement Program (TAP) as part of the joint Ports' Clean Air Action Plan (CAAP) in order to accelerate the verification or commercial availability of new, clean technologies that are applicable to the port industry and result in significant reductions of diesel particulate matter, nitrogen oxides, sulfur oxides, and other pollutants.
  3. The TAP provides grant funding to assist port-related technology vendors in identifying, evaluating, and demonstrating new and emerging emission reductions technologies and strategies that may result in new strategies under the CAAP.
  4. The California Air Resources Board (CARB) awarded a contract to Southwest Research Institute (SwRI) to investigate and demonstrate emission control strategies for 13-liter diesel engines to achieve emission reductions 90% cleaner than the current NOx standard. Phase 1, the development of an aged after-treatment system representative of real world testing in order to reach near zero NOx, is complete. Phase 2, the development of a low-load test-cycle to be used as a supplemental certification test is currently on going. The success of the first two phases of this project will lead to technological advancement to achieve ultra-low NOx from heavy-duty diesel engines.
  5. The TAP Advisory Committee, comprised of representatives from the Ports, the District, CARB, and U.S. Environmental Protection Agency (EPA), reviews proposed projects for funding and has recommended TAP grant funding for what is Phase 3 of the SwRI project, to develop an Ultra-Low Emission Diesel Engine for On-Road Heavy Duty Vehicles to achieve NOx emission levels that are at least 90% lower than 2010 heavy duty NOx emission standards. The District and POLA wish to cooperate through this Agreement to co-sponsor part of Phase 3 for the development, integration, and demonstration of a near-zero emissions, heavy-duty engine that is larger than 13 liters. Near-zero emission duty cycles at cold start and low-load conditions are described in the proposals submitted by SwRI in response to the District's Request for Information-#2017-01 to "Develop, Integrate and Demonstrate Ultra-Low Emission Diesel Engines for On-Road Heavy-Duty #2017-01", dated July 2016 ("RFI"), incorporated herein by reference. The parties believe

that the continuation of the proposed projects by SwRI will encourage the manufacturing of heavy duty near-zero NOx engines and will provide significant opportunities to reduce NOx emissions from heavy-duty vehicles to the benefit of the region's air quality and contribute towards a revised national heavy-duty engine air quality standard.

6. The City finds that Project supports its broader strategic goals to advance zero-, low- and near-zero emission technologies in order to reduce air pollution from freight operations occurring in and around the port.

II. NOW, THEREFORE, in consideration of the mutual interests and benefits to the regional air quality, the parties agree as follows:

1. **Contribution.** City shall provide funding to the District in the amount of \$287,500 to co-sponsor the development and demonstration of low-emission heavy duty diesel engines, as described in SwRI proposals in response to the District's RFI for "On-Road Heavy-Duty Development, Integration and Demonstration of Ultra-Low Emission Heavy Duty Diesel Engines #2017-01".
2. **Project Contracts.** Following execution of this Agreement, the District shall enter into contract with SwRI as the prime contractor for the development of Part 1 of Phase 3 heavy duty diesel engine continuation project, including a provision requiring them to indemnify, hold harmless and defend from any and all loss, liability, cost or expense, including reasonable attorneys' fees, incurred by the City by reason of any and all claims, demands, suits and proceedings made or brought against City arising from this projects.
3. **Project Documents and Updates.** The District shall provide City a copy of the executed contract with SwRI and copies of all reports received by the District under the terms of the contracts. The POLA shall be given notice of all meetings and presentations between the District and SwRI concerning this project, and The PORTS staff may participate in any or all such meetings.
4. **Invoicing Instructions.**  
The District shall invoice The POLA in accordance with this Agreement. The District shall send two invoices to City of its contribution of \$287,500 in two equal payments, 12 months apart.

<b>Accounts Payable Section</b>
<b>Harbor Department City of Los Angeles</b>
<b>P.O. Box 191</b>
<b>San Pedro, CA 90733-0191</b>

5. The District shall submit appropriate supporting documents agreed upon by the Parties with each invoice. All invoices shall be submitted in triplicate and shall reference the City Agreement number. The District shall include the following certification:

"I certify under penalty of perjury that this statement is true and correct according to the terms of Agreement No. \_\_\_\_\_ and that payment therefore has not been received."

\_\_\_\_\_ Grantee's Signature

6. Payments. City shall remit payment to the District within 60 days of receipt of an invoice.
7. Notice. All notices to be given under this Agreement shall be in writing and either sent by a nationally recognized overnight courier service, in which case notice shall be deemed delivered as of the date shown on the courier's delivery receipt; or sent by telecopy during business hours of the recipient, with a copy of the notice also deposited in the United States mail (postage prepaid) the same business day, in which case notice shall be deemed delivered on transmittal by telecopy provided that a transmission report is generated reflecting the accurate transmission of the notices, or sent by United States mail, postage prepaid, in which case notice shall be deemed delivered as of two business days after deposit in the mail, addressed as follows:

Attention: Christopher Cannon  
 Director of Environmental Management  
 Environmental Management Division  
 Harbor Department, City of Los Angeles  
 425 S. Palos Verdes Street  
 San Pedro, CA 90731

South Coast Air Quality Management District  
 21865 Copley Drive, Diamond Bar, CA 91765  
 Attention: Joseph Lopat, TAO

These addresses may be changed by written notice to the other Party provided that no notice of a change of address shall be effective until actual receipt of the notice. Copies of notices are for informational purposes only, and a failure to give or receive copies of any notice shall not be deemed a failure to give notice.

8. Term. This Agreement shall be in full force and effect when signed by both parties and shall remain in effect until three years from this Agreement's effective date or the termination of the term of the District's contract with SwRI.

This Memorandum of Agreement has been entered into and executed by:

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

By: \_\_\_\_\_ Date \_\_\_\_\_  
 Dr. William A. Burke  
 Title: Chairman of the Board

Approved as to form:  
 Kurt Wiese, General Counsel

By: \_\_\_\_\_ Date \_\_\_\_\_

THE CITY OF LOS ANGELES, a municipal corporation,  
Acting by and through its Board of Harbor Commissioners

By: \_\_\_\_\_  
Eugene D. Seroka  
Title: Executive Director

\_\_\_\_\_ Date

Attest: \_\_\_\_\_  
Title: Secretary

\_\_\_\_\_ Date

APPROVED AS TO FORM AND LEGALITY:  
MICHAEL N. FEUER, City Attorney  
Janna B. Sidley, General Counsel

By: Joy M. Crose  
Joy Crose  
Title: Assistant General Counsel

10/10/17  
Date

Account#	59965	W.O. #	78085
Ctr/Div#	0330	Job Fac.#	637-00
Proj/Prog#	000		
Budget FY:		Amount:	
17/18		\$143,750	
18/19		\$143,750	
19/20		\$ 0	
20/21		\$ 0	
TOTAL		\$287,500	

For Acct/Budget Div. Use Only

Verified by: [Signature]

Verified Funds Available: [Signature]

Date Approved: 10/5/17