

**South Coast Air Quality Management District**  
**SOx RECLAIM**  
**Bidder's Conference**

**July 16, 2008**

**2:00 p.m.**

**Conference Room GB**

# Background

- Non-Attainment for Ozone and PM2.5
- 52% National Wide Exposure for PM2.5
- 2015 Deadline for PM2.5 Standards
- Further Reduce Direct PM2.5 & Precursors

# SOx RECLAIM Rule Amendment

- Control Measure CMB-02: One-and-Only Stationary Source Measure Contributed to PM2.5 Attainment in 2014
- At Least 3 Tons Per Day Reductions
- Implementation Period: 2011-2014
- Preliminary Draft Staff Report
  - Part I Posted on AQMD Website
  - Part II Will Be Developed, In Part, Based on Information Provided By This RFP

# Purpose of Request For Proposal

- Obtain Independent Assessment of Engineering Evaluations & Cost Estimates of Commercially Viable Control Technologies To Further Reduce SO<sub>x</sub> Emissions from Seven Major Emitting Categories of Stationary Sources at RECLAIM Facilities
- Project Information Will Be Used To Assist Staff in BARCT Analysis for Regulation XX Amendment

# General Information on RFP

- Three Modules
- Five Sub-Modules in Module 3
- Five Tasks for Each Module (or Sub-Module)
- Bid On All or Individual Module (or Sub-Module)
- Must Manage Confidentiality Data Appropriately

# Module 1

## FCCU SOx Reducing Additives

- Objective: Analyze Results of Short-Term Testing & Provide Recommendations
- Total Budget of \$36,000 for Tasks 1 – 4
- Task 1: Field Visit to Each Refinery
- Task 2: Feasibility Analysis
  - Determine 2005 and 2008 Emission Levels
  - Address Various Achievable Concentration Levels & Associated Emission Reductions
  - Address Analysis Uncertainty
  - Address Impacts on Emissions and FCCU Operation

July 16, 2008

# Module 1

## FCCU SOx Reducing Additives

- Task 3: Cost Analysis
  - Quantify Costs and Cost Effectiveness Associated With Each Concentration Levels
- Task 4: Report Submittal
  - Progress Report: 30 Days After Receiving Data
  - Final Report: 15 Days After Receiving Data
- Task 5: Participation in Meetings
  - Mandatory Participation in 3 Meetings, If Asked
  - No Bidding Required. Additional Stipend Divided Equally Between Contractors

# Module 1

## FCCU Short-Term Testing

- Potentially Participation of Three Refineries
- Three-Step Process
  - Step 1: Assessment of 2005 & 2008 Emission Levels
  - Step 2: Short-Term Testing In 2008
    - Period 1: 1 Month Testing at A% Additive Addition Rate
    - Period 2: 1 Month Testing at B% Additive Addition Rate
    - Period 3: 1 Month Testing at C% Additive Addition Rate
  - Step 3: Long-Term Testing In 2009 (Optional)
- Parallel Testing, Reporting & Data Analysis



# Module 2

## Fuel Gas Treatment and SRU/Tail Gas System

- Objective: Analyze Available Control Technologies for Further Emission Reductions and Provide Recommendations
- Total Budget of \$124,000 for Tasks 1 – 4
- Task 1: Field Visit
  - Visit Each Refinery At Least Twice To Assess Site-Specific Information
  - Start Immediately After Signing of Contract
  - Must Complete Within 1-Month Maximum

# Module 2

## Fuel Gas Treatment and SRU/Tail Gas System

- Task 2: Feasibility Analysis
  - Top-Down Analysis - Most Effective Control First
  - Analyze & Recommend At Least Two Technologies or Methods
  - Quantify Associated Emission Reductions
  - Estimate Multimedia Impacts (Water, Energy, Waste)
  - Address Analysis Uncertainty
  - May Need to Evaluate Fuel Gas Treatment and SRU/Tail Gas System in Parallel

# Module 2

## Fuel Gas Treatment and SRU/Tail Gas System

- Task 3: Cost Analysis
  - Estimate Costs/Cost Effectiveness Associated With Each Level of Controls
- Task 4: Report Submittal
  - Progress Report: October 15, 2008
  - Final Report: December 1, 2008
- Task 5: Participation in Meetings
  - Mandatory Participation in 3 Meetings, If Asked
  - No Bidding Required. Additional Stipend Divided Equally Between Contractors

# Module 3

## Wet/Dry Gas Scrubbers

- Objective: Analyze Wet/Dry Scrubbing Technology and Provide Recommendations
- Total Budget of \$200K for 5 Sub-Modules and 4 Tasks In Each Sub-Module
  - \$133K: FCCUs, Boilers/Heaters & SRUs/Tail Gas
  - \$24K: Sulfuric Acid Plants
  - \$14K: Coke Calciner
  - \$14K: Container Glass Manufacturing Plant
  - \$15K: Cement Kilns & Coal-Fired Boiler

# Module 3

## Wet/Dry Gas Scrubbers

- Task 1: Field Visit
  - Visit Each Refinery At Least Twice & Other Facilities At Least Once To Gather and Assess Site-Specific Information
  - Start Immediately After Signing of Contract
  - Must Complete Within 1-Month Maximum

# Module 3

## Wet/Dry Gas Scrubbers

- Task 2: Feasibility Analysis
  - Top-Down Analysis With Most Effective Control First
  - Provide Information From At Least Two Vendors
  - Recommend Various Achievable Concentration Levels & Associated Emission Reductions
  - Estimate Multimedia Impacts (Energy, Water, Waste)
  - Estimate Concurrent Effect on Other Air Pollutants (NO<sub>x</sub>, PM)
  - Address Analysis Uncertainty

# Module 3

## Wet/Dry Gas Scrubbers

- Task 3: Cost Analysis
  - Gather Costs Information & Performance Warranty
  - Provide Costs/Cost Effectiveness Associated With Each Level of Controls
- Task 4: Report Submittal
  - Progress Report: October 15, 2008
  - Final Report: December 1, 2008
- Task 5: Participation in Meetings
  - Mandatory Participation in 3 Meetings, If Asked
  - No Bidding Required. Additional Stipend Divided Equally Between Contractor

# Proposal Evaluation

- Evaluation Panel: AQMD & Non-AQMD Staff
- Independent Evaluation For Each Module (or Sub-Module)
- Technical Criteria: 70 Points
  - Understanding Scope of Work: 10 Points
  - Past Experience on Similar Projects: 30 Points
  - Technical/Management Approach&Schedule:30 Points
  - Minimum of 56 Points To Be Deemed Qualified



# Proposal Evaluation

- **Project Cost: 30 Points**
  - Lowest Cost Proposal Will Receive Maximum Point
  - Other Cost Proposals Will Receive Points on Prorated Basis From Lowest Cost Proposal
- **Additional Points: Cumulative Maximum of 15 Points for Small Business, Local Business, DVBE .....**
- **Project May Have Multiple Contractors**

# Schedule

- **Aug 15: Proposal Submittal**
- Aug – Sept: Evaluation Process
- Sept 5: Governing Board for Approval of Selected Contractors
- Sept 9: Anticipated Contract Execution
- December 1: Anticipated Project Completion

# Contacts

## ■ RFP Submission Procedures

Mr. Dean Hughbanks, Procurement Manager  
(909) 396-2808, [dhughbanks@aqmd.gov](mailto:dhughbanks@aqmd.gov)

## ■ Funding & Schedule

Mr. Joe Cassmassi, Planning & Rules Manager  
(909) 396-3155, [jcassmassi@aqmd.gov](mailto:jcassmassi@aqmd.gov)

## ■ Technical

Ms. Minh Pham, P.E., Air Quality Specialist  
(909) 396-2613, [mpham@aqmd.gov](mailto:mpham@aqmd.gov)

# Some References

- Request for Proposal <http://aqmd.gov/rfp/index.html>
- PDSR & Past Presentations  
<http://aqmd.gov/rules/proposed.html#Regulation%20XX>
- Cost Analysis
  - EPA Air Pollution Control Cost Manual, 6<sup>th</sup> Edition  
<http://www.epa.gov/ttn/catc1/products.html#cccinfo>
  - SCAQMD BACT Guidelines  
<http://aqmd.gov/bact/bact-guidelines-7-14-2006-update.pdf>