



**EPA Office of Compliance  
Enforcement Targeting and Data Division**

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# South Coast Air Quality Management District

Electronic CEMS  
Remote Terminal Unit  
Data Transfer, Collection and  
Processing



# SCAQMD Functions

Air Pollution Control Agency In Southern California  
- Orange County And Parts Of Los Angeles,  
Riverside And San Bernardino Counties

Responsible For Controlling Emissions From:

- ~28,000 Stationary Sources Of Air Pollution With About 80,000 Pieces Of Permitted Equipment
- Regulating 723 Title V Sources
- Several Transportation Related Programs

# South Coast AQMD Coverage Area



## SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

21865 Copley Drive, Diamond Bar, CA 91765-4182

Information: 1-800-CUT-SMOG® (1-800-288-7664)

Internet: [www.aqmd.gov](http://www.aqmd.gov)



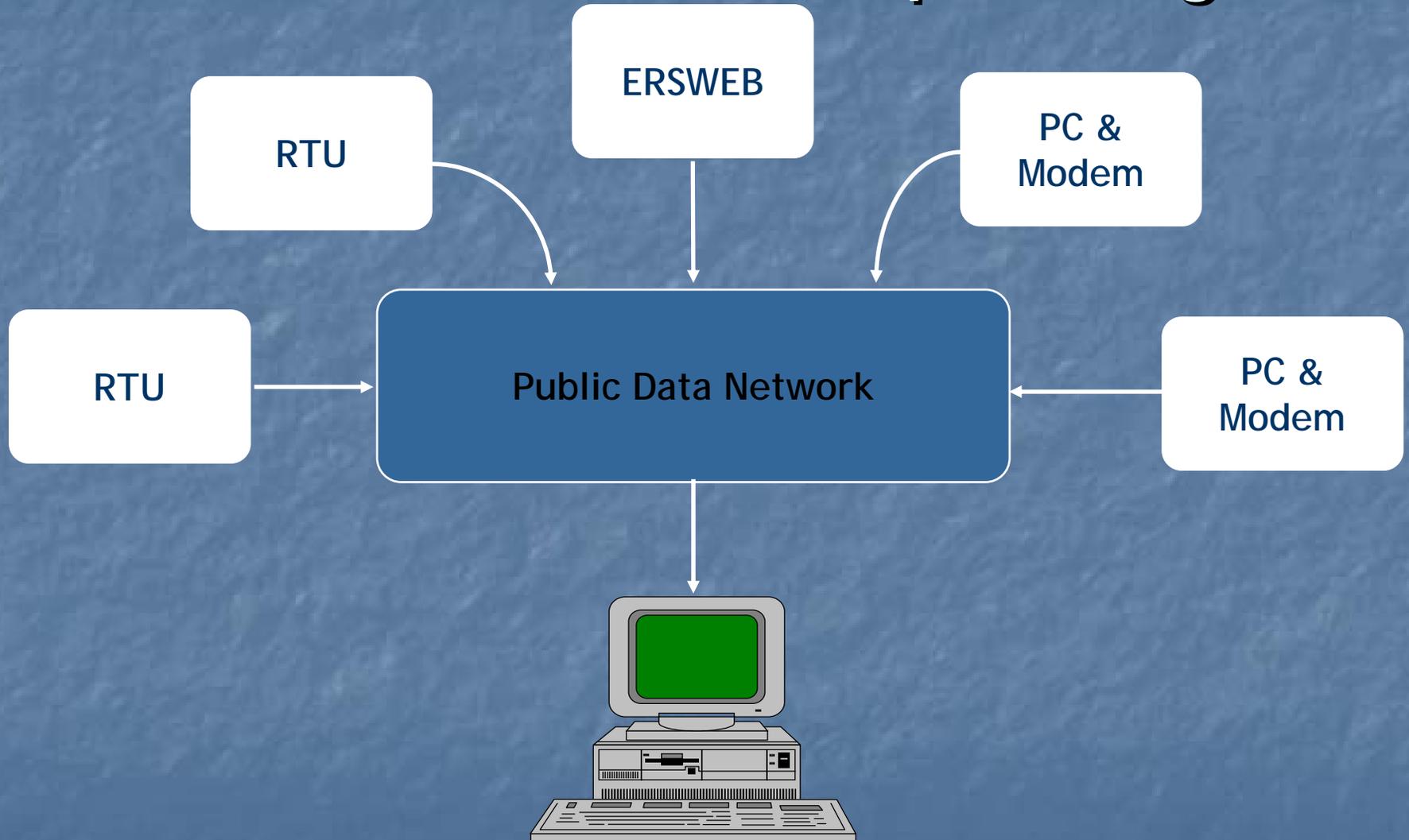
# Emission Reporting System

- Receive Electronic Data Required By Rules 2011 And 2012
- Emission Reporting System (ERS) Has Been In Use Since 1994
- Uses A Public Data Network (PDN) To Receive The Facilities Data
- District Retrieves Daily Batches Of Transactions From The PDN

# Functional Requirements

- Capture User Data Files From Remote Terminal Units (RTU's) At ~ 400 Facilities
- Compile And Batch Daily Download File
- Provide For Downloading Of Batch
- Perform Error Checking
- Receive And Process Control Data File
- Archive Historical Data

# RECLAIM Electronic Emissions Reporting



# Communications - Public Data Network (PDN)

- Analog Phone Line
- Production Number (800)
- Test Number (Local)
- 1200 Baud
- 8 Data Bits
- No Parity
- 1 Stop Bit
- Xmodem File Transfer Protocol

# Simplified Communications Protocols

Facility RTU	Data Flow	Host
Calls		Answers
Raise Originate Carrier		Raise Carrier
		Sends NAK 3 Sec. Delay (up to 3 tries)
Send Data File Using XMODEM with Checksum Send ENQ 3 Sec. Delay (up to 3 tries)		Receive Data File Using XMODEM with Checksum
		Send Response Packet
Send ACK 3 Sec. Delay (up to 3 tries)		
		Send EOT
Hang-Up		Hang -Up

# Reference Number

- 16 Characters - SDDDLYYJJJHHMMSS
  - S: System No. (alpha numeric)
  - DDD: Ldev (Port No.) (alpha numeric)
  - L: Leaf/Modem No. (alpha numeric)
  - YY: Year (numeric)
  - JJJ: Julian Day of year file sent (001 - 365)
  - HH: Hour (00-23)
  - MM: Minutes (00-59)
  - SS: Seconds (00-59)

# BAD Response Packet

- <STX>BAD\_####\_XXX\_{TEXT MESSAGE} <ETX>  
<LRC> i.e.

BAD 0005 020 Out Of Order

- #### - Number of Records Sent
- XXX - Error Number, 3 digits
- {TEXT MESSAGE} Text Describing Error

# Enforcement Actions

- RTU Data Is Reviewed Annually As Part Of Facility Audit
- Notice Of Violation Can Be Issued By Inspector For Missing Data, No Data, Bad Data, Or Late Transmittal Of Data

# Additional Data Streams

- CEMS Data For Acid Rain Facilities Is Also Sent Using A Separate Protocol To EPA
- SCAQMD Also Provides An On-line Web Based Method For Entering CEMS Data