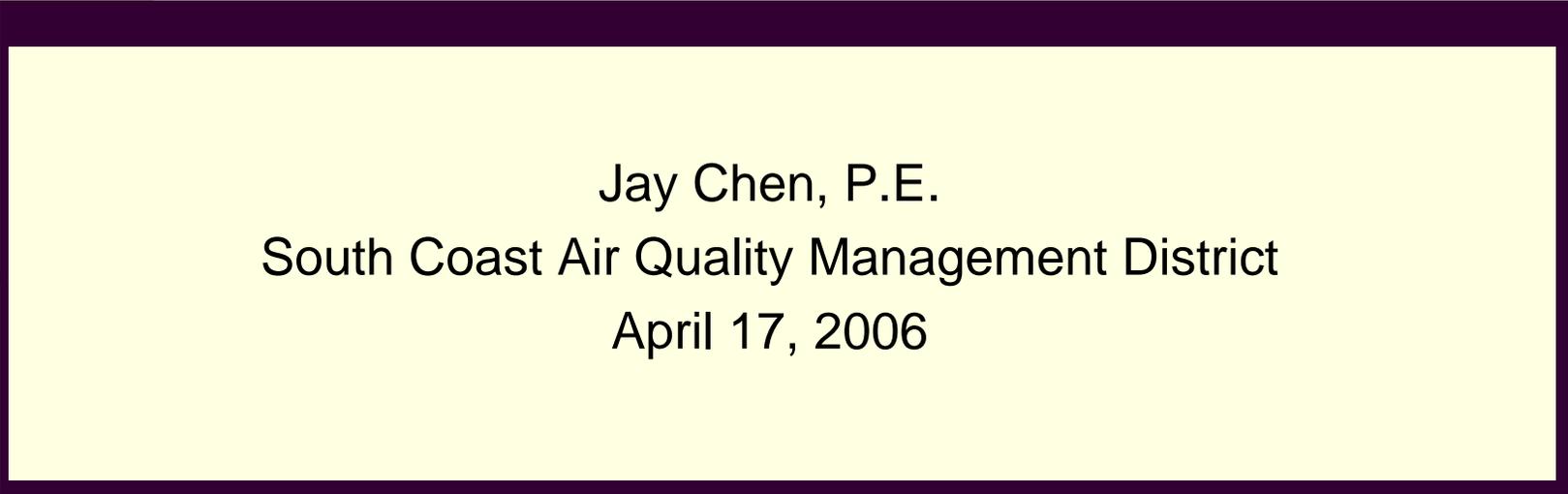




Emerging Technologies Forum

IES Romoland Emission Tests

Status Update



Jay Chen, P.E.
South Coast Air Quality Management District
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Emission Tests at IES Romoland

Status Update (I)

- Under SCAQMD's Research Permit, IES conducted emissions testing in June/July 2005 for criteria and toxic air pollutants.
 - 1.25 tons/hour, 30 tons total post-MRF MSW was processed in the pyrolytic converter during the tests.
 - APC system included thermal oxidizer with low NOx burner, baghouse, wet scrubber, and in-stack carbon filter (and/or carbon injection).
- Test report was submitted to SCAQMD for review in August 2005.
- SCAQMD discussed the preliminary findings at the September 2005 Waste Board meeting as requested by the Board.
- Informed IES in October 2005 that the initial test results were valid only for criteria pollutants with corrections.

Emission Tests at IES Romoland

Status Update (II)

- IES submitted supplemental test data for toxic pollutants in November 2005.
- SCAQMD determined in March 2006 that the test results were valid for criteria pollutants, formaldehyde, dioxins, furans, and toxic VOCs; but were invalid for multiple metals and mercury.
- Another Research Permit was issued in March 2006 for IES to conduct a 14-day reliability test and emissions tests with enhanced air pollution control technologies.
 - These tests have not been conducted as of 4/14/06
 - APC System enhancement includes urea injection, improved thermal oxidation efficiency, carbon injection, cyclones and upgraded baghouse filter cloth.

IES Romoland Emissions Data

June/July 2005 Tests - Final Results

Pollutants	Emissions lb/hr	Pollutants	Emissions lb/hr
CO	0.28	Arsenic	6.10x10 ⁻⁷
NOx	2.0	Nickel	4.10x10 ⁻⁶
SOx	0.01	Mercury	2.79x10 ⁻⁶
VOC	0.44	Cadmium	8.01x10 ⁻⁷
PM10	0.061	Lead	2.38x10 ⁻⁵
Dioxins	4.96x10 ⁻⁹	Benzene	8.46x10 ⁻⁴
Furans	4.10x10 ⁻⁸	Formaldehyde	5.00x10 ⁻⁴

The data in the shaded areas (metals) have been determined by the SCAQMD to be invalid.

Comparison of Emissions between IES and WTE Facilities in South Coast

(lbs/ton of MSW Feed)

Pollutants	IES Romoland	WTE Average
CO	0.22	0.45
NOx	1.60	1.78
SOx	0.01	0.04
VOC	0.35	0.04
PM ₁₀	0.05	0.0046
Air Toxics		
Dioxins/Furans	3.68x10 ⁻⁸	1.85x10 ⁻⁸
Arsenic	4.88x10 ⁻⁷	1.01x10 ⁻⁵
Nickel	3.28x10 ⁻⁶	5.70x10 ⁻⁴
Mercury	2.23x10 ⁻⁶	3.86x10 ⁻⁴
Cadmium	6.41x10 ⁻⁷	8.54x10 ⁻⁷
Lead	1.90x10 ⁻⁵	2.94x10 ⁻⁵

The data in the shaded areas have been determined by the SCAQMD to be invalid.