SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND COMPLIANCE
APPLICATION PROCESSING AND CALCULATIONS

PC/PO

COMPANY NAME AND ADDRESS

Quemetco, Inc.
720 South Seventh Avenue
City of Industry, CA 91746

ID 8547

mailing and equipment address

EQUIPMENT DESCRIPTION

APPLICATION NO. 542750

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: SECONDARY LEAD SMELTING System 1: BATTERY CRUSHING AND MATERIAL SEPARATION SYSTEM					
SCRUBBER, D.R. TECHNOLOGY INC., MODEL CUSTOM, VENTURI A/N: 542750	C2	D1 C109 C168 C169 C170		**PM**: (9) **[RULE 404, 2-7-1986]**	D323.1
CYCLONE, WITH A 50-HP MINIMUM EXHAUST BLOWER AND AN INTEGRAL 500 GALLON TANK, HEIGHT: 17 FT 6 IN; DIAMETER: 5 FT 6 IN A/N: 542750	C109	C2 C30 C31 C32 C168 C169 C170		**PM**: (9) **[RULE 404, 2-7-1986]**	

APPLICATION NO. 542751

TITLE V FACILITY PERMIT REVISION

HISTORY

Application Nos. 542750-1 were received on 9-12-2012. A/N 542750 was received as Class I for a Permit to Construct to replace an old venturi scrubber with a new venturi scrubber, with larger dimensions and ratings. The cyclone separator is equipped with an integral scrubber sump. A/N 542751 is the Title V minor revision application which will be used to update the Title V permit pursuant to the requested changes.

The table on the following page summarizes the recent permit history for the battery crusher scrubber:

AIR POLLUTION CONTROL SYSTEM VENTING BATTERY CRUSHER	
542750	**Received 9/12/2012 for replacement of previous venturi scrubber with new, larger venturi scrubber system. This is an end of life replacement for old scrubber system.**
432954	Received 7/30/2004 for replacement of low energy spray chamber scrubber with high energy venturi type scrubber. PC/PO F72581 issued 12/15/2004. Added to Facility Permit in Title V renewal on 4/28/2006.
385381	Received 4/20/2001, P/C 12/7/2001. Alteration to P/O M22506 by venting exhaust stack to containment building. Cancelled 12/16/2004. Superseded by 432954.
373219	Received 8/15/2000 for change of ownership under new ID 124462. Later determined that this was not true change of ownership. Application moved to ID 8547 and cancelled 7/24/2001.
C29616	Received 1/31/1980. P/O M22506 issued 2/24/1982. This is initial application for battery crusher system scrubber.

TITLE V REVISION APPLICATION	
542751	**Received 9/12/2012. TV revision application for A/N 542750.**

PROCESS DESCRIPTION

Quemetco, Inc. recycles spent lead acid batteries to recover lead metal. In this operation, lead acid batteries are broken into fragments and the liquid sulfuric acid is washed and/or partially neutralized in the battery crusher system. The subject scrubber vents the battery crusher and the battery crusher building total enclosure. There are no changes to items vented before and after the scrubber replacement. The new scrubber has more air capacity then the previous system. The air flow rate is increased from the previous 4,000 CFM to 10,000 CFM under the proposed system.

The exhaust outlet from the subject APCS is not vented directly to the atmosphere, but instead is vented to the total containment building at this facility. Since this building is vented by nine baghouses equipped with secondary HEPA filters, compliance is expected with all requirements in Rules 1420 and 1420.1, and with the lead NESHAP, with regards to lead emissions from the battery crusher system.

The raw material prepared in the battery crusher system is transferred to, and stored in, the main total containment building at this facility. The raw material is subsequently charged to the rotary dryer furnace which dries the feed that is ultimately charged to the reverberatory furnace at this facility.

The subject equipment operates 24 hours/day and 365 days/year.

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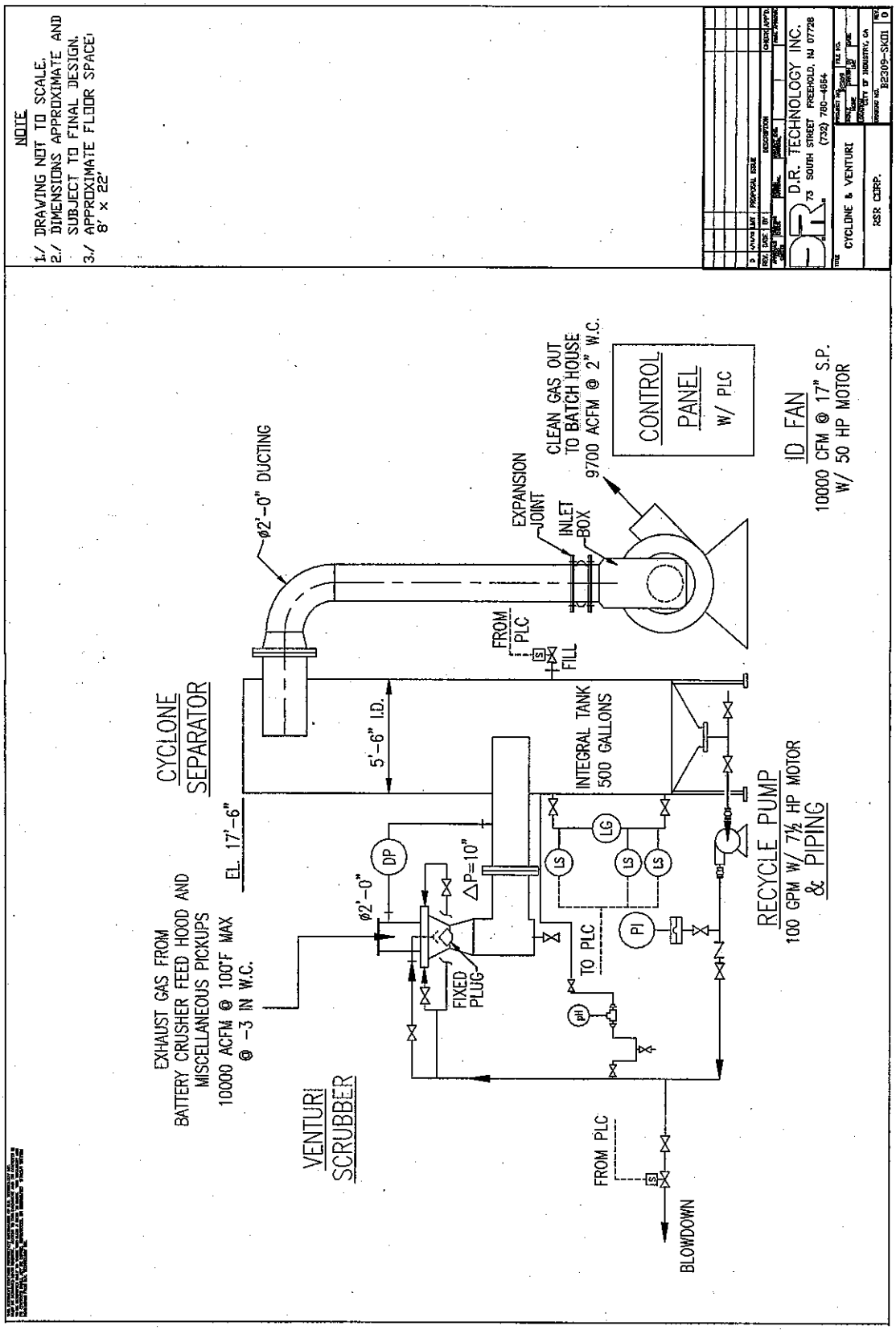

EVALUATION

CEQA

Based on the CEQA form submitted with this application, this project is not subject to a CEQA evaluation.

RULE 212

Since this project will not result in an emissions increase and since this facility is not located within 1,000 feet from the outer boundary of a school, public notice pursuant to Rule 212 is not required.

RULE 401

Due to the nature of this equipment, visible emissions are not expected. Therefore, compliance with this rule is expected.

RULE 402

The proposed changes are not expected to result in increases of emissions of toxic air contaminants. Since there are no emissions increases, nuisance problems are not anticipated. Therefore, compliance with this rule is expected.

RULE 404

Since the subject equipment is vented to a venturi scrubber and room ventilation baghouses equipped with HEPA filters, the exhaust gas particulate concentrations are expected to be diminimus. Therefore, compliance with this rule is expected.

REGULATION XIII

No increases in emissions are expected. Therefore, Regulation XIII is not applicable in this case.

BACT

Since there is no increase in air contaminants, a BACT evaluation is not required in this case.

RULE 1420

Rule 1420 (d) requires that the ambient lead concentration at or beyond the fence line of this facility does not exceed 1.5 ug/m^3 on a 30 day average. This facility is currently in compliance with this requirement.

Previous source test data has demonstrated that all control systems tested so far have at least 98 percent control efficiency on lead emissions. The source test report for the second battery wrecker enclosure building baghouse is pending. Based on previous test data, compliance is expected.

RULE 1420.1

The most recent monthly ambient air monitoring report submitted by Quemetco indicates that the fence line 30 day average concentrations at all ambient air monitors in the vicinity of Quemetco are below 0.15 ug/m^3.

Subpart (f)(2) requires that:

The total facility mass lead emissions from all lead point sources shall not exceed 0.045 pounds of lead per hour. The maximum emission rate for any single lead point source shall not exceed 0.010 pounds of lead per hour. The total facility and maximum emission rates shall be determined using the most recent source tests conducted by the facility or the District.

Since the **total** facility lead emissions are equal to approximately 0.0037 lbs/hr, compliance with both of these limits is expected.

All baghouses not equipped with PTFE membrane type filter bags are additionally equipped with HEPA secondary filters in compliance with subpart (f)(4) of this rule, and the HEPA filters are rated by the manufacturer to be 99.97 percent efficient on 0.3 micron particles, also required by this subpart.

All baghouses without HEPA filters at this facility are equipped with PTFE membrane type filter bags pursuant to the requirements in subpart (f)(5) of this rule.

GRANT 105

Since there are no increases of emissions from this project, the Grant 105 permit conditions are not required in this case.

CAM

CAM requirements pertain to the requirements of 40 CFR 64, Continuous Assurance Monitoring. The CAM rule contains specific federal monitoring requirements for process equipment which is vented by air pollution control systems where the facilities which are major sources, as defined in Title V (Reg 30).

The exhaust outlet from the subject APCS is not vented directly to the atmosphere, but instead is vented to the total containment building at this facility. Since this building is vented by nine baghouses equipped with secondary HEPA filters, compliance is expected with all requirements

in Rules 1420 and 1420.1, and with the lead NESHAP, with regards to lead emissions from the battery crusher system. It has previously been determined that the CAM requirements do not apply to the room ventilation baghouses at this facility.

40CFR63 Subpart X

The subject scrubber does not vent to the atmosphere and is therefore not subject to Subpart X.

This rule was most recently amended on 1/15/2012. New requirements include emission standards for hazardous air pollutants (HAP). Specifically, new emission limits have been added for polychlorinated dioxins and dibenzofurans, as indicated in no. 3 below:

The lead NESHAP requirements regarding this facility are:

1. Exhaust concentration limit of 2.0 mg/DSCM regarding each facility APC system.

2. Negative pressure of at least 0.02 mmHg in facility total enclosure buildings.

3. Organic HAP emission standards effective 1/6/2014.

Source tests have demonstrated compliance with the lead concentration limit, and permit conditions ensure compliance with the negative pressure requirement.

REGULATION XXX

Since the new scrubber is not subject to any NSPS/NESHAP, and causes no increase in emissions, this project is considered to be a minor permit revision under Title V. A 45 day EPA notice and review period is required.

DISCUSSION

The subject equipment is expected to operate in compliance with all of the applicable rules and regulations of the SCAQMD. Since the exhaust from the subject scrubber is vented to the total containment building at this facility, the operating parameters of the subject scrubber are not critical and compliance source testing is periodically performed at the outlets of the nine room ventilation baghouses, each equipped with secondary HEPA filters. These baghouses have been previously tested and have been determined to operate in compliance with all applicable Rules and Regulations of the AQMD and with the lead NESHAP of 40CFR63 Subpart X.

RECOMMENDATION

APPLICATION NOS. 542750

Issue Permit to Construct and Operate subject to the description and conditions in the draft permit.

APPLICATION NO. 542751

Approve TV Permit Modification