

PERMIT by RULE TECHNICAL REVIEW

Company: Powerlab, Inc., P.O. Box 913, Terrell, Texas 75160

Registration Number: X **Record Number:** 82196 **Account ID Number:** KB-0027-N

Contact Name: Mr. Donald Rabon, Company Engineering Manager

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Description/Name of Facilities and Processes Claimed:

This registration request (***Form PI-7 submitted***) is concerning the new installation and operational use of one Eagle Model HM-4 Red Lead Hammer Mill (4,000 Pounds/Hour Capacity) to the process operations of Powerlab, Incorporated's Plant located at 1145 State Highway 34 South in the City of Terrell, Kaufman County, Texas.

The HM-4 Hammer Mill is expected to be delivered within two-weeks of August 1, 2001. The existing HM-3 Hammer Mill has been sold to a company in Puerto Rico. The Eagle Manufacturing Company is installing, removing, and re-selling the hammer mill unit.

It has been represented that this new hammer mill is replacing one existing Eagle Model HM-3 Red Lead Hammer Mill (3,000 Pounds/Hour Capacity) which will be removed from service. The original unit was authorized under Office of Air Quality Permit No. 578, which was amended on September 13, 1999 to include the complete Red Lead Production System. The addition of this larger 4,000 pounds per hour capacity unit will not increase the total plant production of red lead, as production is controlled by the permitted amount of batches received from the red lead furnaces. This larger capacity unit will result in production operating more smoothly and removing some of the over-load from the milling system. In addition, this unit should help prevent down time for maintenance due to the hammer mill being continuously utilized at maximum load capacity.

It has been determined that the air flow through the present HM-3 Red Lead Hammer Mill is restricted. As an additional modification associated with the installation of this larger capacity hammer mill, we understand that the air flow from the larger hammer mill will increase, in range, from 1,350 actual cubic feet per minute (ACFM) to 1,700 ACFM. It has been represented that a new (larger) fan may be added to this process, but the Mill System Bin Vent (EPN: 10) air flow will not increase over the permitted level of 1,800 ACFM authorized under the September 13, 1999 Amendment to Permit No. 578.

Per Chapter 106, Section 262's $E = L/K$ Formula: elemental lead (Pb) has a threshold limit value (1997 ACGIH - TLV) of 0.05 milligrams per cubic meter, therefore, "L" is equal to 0.05. A distance of 104.5 feet (from the Mill System Bin Vent centerline to the closest property line) has been represented, therefore, "K" equals 320.33. ($0.05/320.33 = 0.000156$ pounds/hour allowable emissions of elemental lead). In addition, a distance of 181.5 feet (from the Mill System Bin Vent centerline to the closest structure not on Powerlab, Inc. property) has also been represented, therefore (as

secondary info), "K" is equal to 223.31. ($0.05/223.31 = 0.000223$ pounds/hour allowable emissions of elemental lead). Powerlab, Inc. is satisfied using the more conservative number of 104.5 feet as a "K" value.

Sources/Emissions/Control Summary:

The routine emissions associated with the operational use of this new hammer mill (which is vented into the Mill System Bin Vent (Emission Point Number: [EPN:] 10) incorporating a HEPA filter system exhaust for atmosphere control) have been estimated at 0.0001 pounds per hour and 0.0004 tons per year of lead particulate matter.

[Team Leader Note: the fabric filter control system is not being modified.]

Powerlab, Inc., Permit No. X, Project No. 82196
Addition of Eagle Model HM-4 and Removal of Eagle Model HM-3
Page -2- Technical Review

Emission Estimates are Based Upon:

Emission estimates have been based upon testing data performed by Metco Environmental, Dallas, Texas on May 22, 23, and 24, 2000. These tests were performed to determine the concentrations of lead being emitted to the atmosphere via the Raw Material Hopper Bin Vent (EPN: 9), **the Mill System Bin Vent (EPN: 10)**, and the Bulk Loading Bin Vent (EPN: 11). The sampling followed procedures set forth in 40 CFR, Chapter 1, Part 60, Appendix A, Methods 1, 2, 3B, 4, 5, 9, and 12; and in the "Sampling Procedures Manual, Texas Air Control Board, Revised July 1985). The sampling was observed by Mr. Doug Stolowski and Mr. Gary Goldman of the TNRCC's Region 4 - Arlington, Texas Office.

In addition, a second set of test procedures has been submitted regarding this company's second site in Winston-Salem, North Carolina. This site utilizes one Eagle Model HM-6 which operates at 6,613 pounds per hour capacity. This test was conducted by the Trigon Company using EPA's Method 12 (Determination of Inorganic Lead Emissions). This test resulted in 0.000027 pounds per hour elemental lead concentration. This "test" (at a substantially larger pound/hour capacity) resulted in lower numbers than those referenced above (when compared, Metco Environmental's results were considered most conservative).

Emission Reductions Due to the NSR: None

PSD or Nonattainment Netting Required: NO **Submitted:** N/A

NSPS: YES - Subparts A and KK for lead-acid battery manufacturing plants per Permit No. 578

NESHAPS: N/A

Site Review Required: NO _____ **Performed by/date:** N/A

Public Notice Required: NO _____ **Approved:** N/A

Meets all general and specific criteria: YES (a favorable concurrence letter and technical review e-mailed for supervisor review on 8-15-01).

Reviewed By: Robert Walts _____ **Team Leader:** Angel Tomasino

Date: _____ August 15, 2001 **Date:** _____ August 16, 2001