Charles Frye
C & D Technologies, Inc.
P.O. Box 279
Attica, Indiana 47918-0279

Re: **045-13609**
First Significant Revision to
FESOP 045-11285-00008

Dear Mr. Frye:

C & D Technologies, Inc. was issued a permit on May 26, 2000 for a custom industrial battery manufacturing source. A letter requesting changes to this permit was received on December 14, 2000. Pursuant to the provisions of 326 IAC 2-8-11.1 a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of construction and operation of the following emission units and pollution control devices:

(a) One (1) 3PO-plate processing operation, known as EU 0700F, to be installed, equipped with a Farr dust collector, exhausting through Stack 247, capacity: 8,473 pounds of plate frames per hour, limited by the formation bottleneck to 3,809,664 pounds per month (46.5% of capacity).

In addition, three (3) natural gas-fired heaters rated at a total of 4.25 million British thermal units per hour have been added to the natural gas-fired combustion insignificant activity. Furthermore, the following new insignificant activity has been added:

(f) Three (3) electric LCT 1700 battery curing ovens, to be installed, exhausting through Stack 246, capacity: 1,302 pounds of plates and small parts and cell covers per hour, limited by the formation bottleneck to 282,100 pounds (29.7% of capacity) per month and 23.8 liters of cover adhesive per month.

Furthermore, the source requested that several stack designations be changed and certain stacks that were combined for construction covered by the FESOP F045-11285-00008 be duly noted in the revision.

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Frank Castelli, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
FPC/MES
cc: File - Fountain County
U.S. EPA, Region V
Fountain County Health Department
Air Compliance Section Inspector - Eric Courtright
Compliance Data Section - Mendy Jones
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR MANAGEMENT

C & D Technologies, Inc.
200 West Main Street
Attica, Indiana 47918

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: **F 045-11285-00008**	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date: May 26, 2000 Expiration Date: May 26, 2005

First Significant Permit Revision.: **F 045-13609-00008**	Pages Affected: 4, 6 - 10, 33, 38 - 55
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

(e) Four (4) natural gas-fired grid curing ovens, known as EU 0200B through EU 0200E, to be installed, exhausting through Stacks 226 - 229, respectively, rated at 0.140 million British thermal units per hour each, total process capacity: 3,634 pounds of casted lead grid plates per hour, limited by the formation bottleneck to 1,886,884 pounds (71.1% of capacity) per month.

Pasting

(f) One (1) positive lead oxide bulk handing operation, known as EU 0300A, installed in 1983, last modified June 10, 1983, equipped with a Flex-Kleen Model 84 dust collector, exhausting through Stack 84 to be replaced by Stack 232, capacity: 1,526 pounds of positive lead oxide per hour, limited by the formation bottleneck to 689,752 pounds (61.9% of capacity) per month.

(g) One (1) positive oxide storage, known as EU 0300A, equipped with a Pneumatics Bin Vent HEPA filter, to be installed, exhausting through Stack 232, capacity: 2,088 pounds of positive lead oxide per hour, limited by the formation bottleneck to 1,191,581 pounds (78.2% of capacity) per month.

(h) One (1) negative lead oxide bulk handing operation, known as EU 0300B, installed in 1983, last modified June 10, 1983, equipped with a Flex-Kleen Model 84 dust collector, exhausting through Stack 85, capacity: 1,526 pounds of negative lead oxide per hour, limited by the formation bottleneck to 665,336 pounds (59.7% of capacity) per month.

(i) One (1) negative oxide storage, known as EU 0300Bn, equipped with a Pneumatics Bin Vent HEPA filter, to be installed, exhausting through Stack 233, capacity: 2,016 pounds of positive lead oxide per hour, limited by the formation bottleneck to 973,728 pounds (66.2% of capacity) per month.

(j) Removed from Service.

(k) One (1) paste mixing system, known as EU 0300C, equipped with a Tri Mer wet scrubber, to be installed, exhausting through Stack 231, capacity: 6,268 pounds of negative and positive lead oxide, expander, and dilute sulfuric acid per hour, limited by the formation bottleneck to 2,150,545 pounds (47.0% of capacity) per month.

(l) One (1) expander manufacturing operation, known as EU 0300D, installed in 1983, equipped with Farr Model 24 LS dust collector, exhausting through Stack 159, capacity: 312 pounds of lead oxide, carbon black, barytes, and barium sulfate per hour.

(m) One (1) grid pasting system, known as EU 0300E, equipped with a Sly Manufacturing scrubber, to be installed, exhausting through Stack 230, capacity: 11,663 pounds of positive and negative lead paste and lead grids per hour, limited by the formation bottleneck to 4,037,854 pounds (47.4%) per month.

(n) Four (4) humidity ovens, known as EU 0300 F, G, H and I, exhausting through Stacks 26, 27, 28 and 29, respectively, total process capacity: 2,012 pounds of lead plates per hour, limited by the formation bottleneck to 1,255,488 pounds (85.5% of capacity) per month.

(o) Four (4) natural gas-fired Universal curing ovens, known as EU 0300 J, K, L and M, exhausting through Stacks 179, 180, 193 and 194, respectively, rated at 0.800 million British thermal units per hour each, total process capacity: 2,012 pounds of lead plates per hour, limited by the

formation bottleneck to 1,255,488 pounds (85.5% of capacity) per month.

(p) Four (4) natural gas-fired OSI universal ovens, known as EU 0500E through EU 0500H, to be installed, exhausting through Stacks 234, 235, 237 and 238, respectively, rated at 0.800 million British thermal units per hour each, total process capacity: 2,456 pounds of lead plates per hour, limited by the formation bottleneck to 1,532,544 pounds (85.5% of capacity) per month.

Three Process Operation

(q) Removed From Service.

(r) One (1) 3PO-plate processing operation, known as EU 0700B, installed in 1993, last modified October 26, 1993, equipped with an OSI dust collector, exhausting through Stack 152, capacity: 2,914 pounds of plate frames per hour, limited by the formation bottleneck to 1,010,672 pounds (47.5% of capacity) per month.

(s) One (1) 3PO-plate processing operation, known as EU 0700C, installed in 1993, last modified October 26, 1993, equipped with an OSI dust collector, exhausting through Stack 151, capacity: 2,914 pounds of plate frames per hour, limited by the formation bottleneck to 1,010,672 pounds (47.5% of capacity) per month.

(t) Removed From Service.

(u) One (1) 3PO-plate processing operation, known as EU 0700E, installed in 1995, equipped with a Torit dust collector, exhausting through Stack 127, capacity: 160 pounds of plate frames per hour, limited by the formation bottleneck to 55,573 pounds (47.5% of capacity) per month.

(v) One (1) 3PO-plate processing operation, known as EU 0700F, equipped with a Farr dust collector, exhausting through Stack 247, capacity: 8,473 pounds of plate frames per hour, limited by the formation bottleneck to 3,809,664 pounds per month (46.5% of capacity).

(w) One (1) 3PO-L plate assembly operation, known as EU 0800A, installed March 30, 1984, equipped with an American air filter dust collector, exhausting through Stack 140, capacity: 1,444 pounds of cured plates and small parts per hour, limited by the formation bottleneck to 548,720 pounds (52.1% of capacity) per month.

(x) One (1) 3PO-L plate assembly operation, known as EU 0800B, installed in 1988, last modified April 8, 1988, equipped with an American air filter dust collector, exhausting through Stack 166, capacity: 2,165 pounds of positive and negative plates and small parts per hour, limited by the formation bottleneck to 822,700 pounds (52.1% of capacity) per month.

(y) One (1) 3PO-L plate assembly operation, known as EU 0800C, installed in 1984, last modified March 30, 1984, equipped with an OSI #10 dust collector, exhausting through Stack 142, capacity: 2,165 pounds of cured plates and small parts per hour, limited by the formation bottleneck to 822,700 pounds (52.1% of capacity) per month.

(z) One (1) 3PO-MP assembly, known as EU 0800D, installed in 1993, last modified January 1, 1993, equipped with a Torit dust collector, exhausting through Stack 127, capacity: 2,404 pounds of cured plates and small parts and cell covers per hour, limited by the formation bottleneck to 67,112 pounds (3.8% of capacity) per month and 5.662 liters of cover adhesive per month.

(aa) One (1) 3PO-JC/D assembly, known as EU 0800E, installed in 1994, last modified December 5, 1994, equipped with a Torit dust collector, exhausting through Stack 247, capacity: 174 pounds of cured plates and small parts and cell covers per hour limited by the formation bottleneck to 56,550 pounds per month (44.5% of capacity) and 4.943 liters of cover adhesive per month.

(bb) One (1) 3PO-MCT assembly, known as EU 0800F, installed in 1999, equipped with a Farr 48D dust collector, exhausting through Stack 188, capacity: 3,813 pounds of lead plates and small parts and cell covers per hour, limited by the formation bottleneck to 1,652,300 pounds (59.4% of capacity) per month and 139.875 liters of cover adhesive per month.

(cc) One (1) L-cell cover adhesive station, known as EU 0800G, installed in 1982, exhausting through Stack 167, capacity: 4,000 pounds of L-cells per hour, limited by the formation bottleneck to 2,195,000 pounds of L-cells and covers per month (75.2% of capacity) and 185.5 liters of cover adhesive per month.

(dd) One (1) 3PO-L cell cover insert, known as EU 0800H, installed in 1984, last modified March 30, 1984, equipped with two (2) Torit dust collectors, exhausting through Stack 141, capacity: 600 pounds of assembled cells per hour, limited by the formation bottleneck to 153,600 pounds (35.1% of capacity) per month.

(ee) One (1) LCT 1700 Assembly with two jigs, known as EU 0800K, installed in December 2000, equipped with a Farr dust collector, exhausting through Stack 244, capacity: 1,302 pounds of plates and small parts and cell covers per hour, limited by the formation bottleneck to 282,100 pounds (29.7% of capacity) per month and 23.8 liters of cover adhesive per month.

Formation

(ff) One (1) tank dry formation, known as EU 0900A, installed in 1990, last modified March 5, 1990, equipped with a scrubber, exhausting through Stack 178, capacity: 200 pounds of lead plates per hour.

(gg) One (1) tank wet formation, known as EU 0900B, installed in 1990, capacity: 3,420 pounds of dry batteries per hour (fugitive).

(hh) One (1) tank wet formation, known as 0900C, to be installed, capacity: 2,215 pounds of completed dry cells per hour (fugitive).

Central Vac

(ii) One (1) central vacuum #2, known as Maint2000B, installed October 6, 1980, exhausting through Stack 129.

(jj) One (1) 3 process central vacuum, known as Maint2000C, installed in 1980, exhausting through Stack 130.

(kk) One (1) 3 process central vacuum , known as Maint2000D, installed in 1980, exhausting through Stack 131.

(ll) One (1) grid casting central vacuum #5, known as Maint2000E, installed November 19, 1999, exhausting through Stack 224.

(mm) One (1) pasting central vacuum, known as EU 2000F, to be installed, exhausting through Stack 242.

(nn) One (1) polyurethane battery topping, known as Misc, installed in 1990, exhausting through Stack 160, capacity: 30 gallons of perchloroethylene per month.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour consisting of fifty-six (56) existing facilities rated at total of 56.10 million British thermal units per hour, including two (2) pasting boilers, exhausting through Stacks 163 and164, rated at 0.690 and 1.050 million British thermal units per hour, respectively.

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-8-4(11). A total of thirteen (13) proposed natural gas-fired combustion facilities rated at total of 7.18 million British thermal units per hour are comprised of the eight (8) natural gas-fired grid curing and universal ovens listed under New Emission Units and the following five (5) new insignificant combustion units:

Casting

(1) One (1) natural gas-fired boiler, installed in December 2000, exhausting through Stack 236, rated at 0.340 million British thermal units per hour.

Pasting

(2) One (1) natural gas-fired boiler, installed in December 2000, exhausting through Stack 239, rated at 0.340 million British thermal units per hour.

LCT Assembly

(3) One (1) natural gas-fired rapid air heater, installed in December 2000, exhausting through Stack 245, rated at 1.650 million British thermal units per hour.

Plate Storage Area

(4) One (1) natural gas-fired universal oven boiler, installed in December 2000, exhausting through Stack 225, rated at 0.340 million British thermal units per hour.

Charging

(5) One (1) natural gas-fired rapid air heater, installed in December 2000, exhausting through Stack 243, rated at 0.750 million British thermal units per hour.

(b) The following VOC and HAP storage containers: vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.

(c) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

(d) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(e) Cleaning - alcohol, mineral spirits, parts washer; paint; carbon steel welding. VOC less than 3 pounds per hour or 15 pounds per day, PM less than 5 pounds per hour or 25 pounds per day.

(f) Three (3) electric LCT 1700 battery curing ovens, to be installed, exhausting through Stack 246, capacity: 1,302 pounds of plates and small parts and cell covers per hour, limited by the formation bottleneck to 282,100 pounds (29.7% of capacity) per month and 23.8 liters of cover adhesive per month.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permit Conditions

(a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAM, when applicable shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

Oxide Mill

(a) One (1) oxide mill, combustion exhausting through Stack 112, consisting of a Barton Pot, known as EU 0011A, equipped with two (2) baghouses in series, known as 011B and 011C, exhausting through Stacks 110 and 111, installed in 1978, last modified May 25, 1978, and 3-process central vac, known as Maint2000A, exhausting through Stack 113, installed in 1980, capacity: 1,800 pounds of lead ingots per hour, limited by the formation bottleneck to 958,964 pounds (73% of capacity) per month.

Casting

(b) One (1) small parts casting operation, known as EU 0100A, installed in 1977, equipped with a Farr 48D cartridge dust collector, to be installed, exhausting through Stack 195, capacity: 1,446 pounds of lead pigs per hour, limited by the formation bottleneck to 214,851 pounds (20.3% of capacity) per month.

(c) One (1) small parts flaming operation, known as EU 0100B, installed in 1977, last modified October 13, 1977, exhausting through Stack 4, to be exhausted through Stack 195, equipped with a Farr 48D cartridge dust collector, to be installed, capacity: 488 pounds of small parts per hour, limited by the formation bottleneck to 214,851 pounds (60.15% of capacity) per month.

(d) One (1) grid casting operation, known as EU 0200A, installed in 1977, equipped with a Farr 60LL cartridge dust collector, to be installed, exhausting through Stack 196, capacity: 5,197 pounds of lead pigs per hour, limited by the formation bottleneck to 1,886,883 pounds (49.7% of capacity) per month.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-5(1)]

D.1.1 Lead Emissions [326 IAC 12, (40 CFR Part 60.370 - 60.374, Subpart KK)]

Pursuant to 40 CFR Part 60.372;

(a) the lead oxide manufacturing facilities, oxide mill EU 0011A, shall not emit any gases that contain in excess of 0.010 pounds of lead per ton of lead feed,

(b) the grid casting facilities (EU 0100A, EU 0100B and EU 0200A) shall not emit any gases that contain in excess of 0.000175 grains of lead per dry standard cubic foot of exhaust, and

(c) the central vac facility (Maint2000A) shall not emit any gases that contain in excess of 0.000437 grains of lead per dry standard cubic foot of exhaust.

D.1.2 Opacity [326 IAC 12, (40 CFR Part 60.370 - 60.374, Subpart KK)]

Pursuant to 40 CFR Part 60.372; the exhaust Stacks (195, 4,196 and 113) shall be limited to zero (0) percent opacity.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

Grid Casting

(e) Four (4) natural gas-fired grid curing ovens, known as EU 0200B through EU 0200E, to be installed, exhausting through Stacks 226 - 229, respectively, rated at 0.140 million British thermal units per hour each, total process capacity: 3,634 pounds of casted lead grid plates per hour, limited by the formation bottleneck to 1,886,884 pounds (71.1% of capacity) per month.

Pasting

(f) One (1) positive lead oxide bulk handing operation, known as EU 0300A, installed in 1983, last modified June 10, 1983, equipped with a Flex-Kleen Model 84 dust collector, exhausting through Stack 84 to be replaced by Stack 232, capacity: 1,526 pounds of positive lead oxide per hour, limited by the formation bottleneck to 689,752 pounds (61.9% of capacity) per month.

(g) One (1) positive oxide storage, known as EU 0300A, equipped with a Pneumatics Bin Vent HEPA filter, to be installed, exhausting through Stack 232, capacity: 2,088 pounds of positive lead oxide per hour, limited by the formation bottleneck to 1,191,581 pounds (78.2% of capacity) per month.

(h) One (1) negative lead oxide bulk handing operation, known as EU 0300B, installed in 1983, last modified June 10, 1983, equipped with a Flex-Kleen Model 84 dust collector, exhausting through Stack 85, capacity: 1,526 pounds of negative lead oxide per hour, limited by the formation bottleneck to 665,336 pounds (59.7% of capacity) per month.

(i) One (1) negative oxide storage, known as EU 0300Bn, equipped with a Pneumatics Bin Vent HEPA filter, to be installed, exhausting through Stack 233, capacity: 2,016 pounds of positive lead oxide per hour, limited by the formation bottleneck to 973,728 pounds (66.2% of capacity) per month.

(j) Removed from Service.

(k) One (1) paste mixing system, known as EU 0300C, equipped with a Tri Mer wet scrubber, to be installed, exhausting through Stack 231, capacity: 6,268 pounds of negative and positive lead oxide, expander, and dilute sulfuric acid per hour, limited by the formation bottleneck to 2,150,545 pounds (47.0% of capacity) per month.

(l) One (1) expander manufacturing operation, known as EU 0300D, installed in 1983, equipped with Farr Model 24 LS dust collector, exhausting through Stack 159, capacity: 312 pounds of lead oxide, carbon black, barytes, and barium sulfate per hour.

(m) One (1) grid pasting system, known as EU 0300E, equipped with a Sly Manufacturing scrubber, to be installed, exhausting through Stack 230, capacity: 11,663 pounds of positive and negative lead paste and lead grids per hour, limited by the formation bottleneck to 4,037,854 pounds (47.4%) per month.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Facility Description [326 IAC 2-8-4(10)]: Continued

(n) Four (4) humidity ovens, known as EU 0300 F, G, H and I, exhausting through Stacks 26, 27, 28 and 29, respectively, total process capacity: 2,012 pounds of lead plates per hour, limited by the formation bottleneck to 1,255,488 pounds (85.5% of capacity) per month.

(o) Four (4) natural gas-fired Universal curing ovens, known as EU 0300 J, K, L and M, exhausting through Stacks 179, 180, 193 and 194, respectively, rated at 0.800 million British thermal units per hour each, total process capacity: 2,012 pounds of lead plates per hour, limited by the formation bottleneck to 1,255,488 pounds (85.5% of capacity) per month.

(p) Four (4) natural gas-fired OSI universal ovens, known as EU 0500E through EU 0500H, to be installed, exhausting through Stacks 234, 235, 237 and 238, respectively, rated at 0.800 million British thermal units per hour each, total process capacity: 2,456 pounds of lead plates per hour, limited by the formation bottleneck to 1,532,544 pounds (85.5% of capacity) per month.

Three Process Operation

(q) Removed From Service.

(r) One (1) 3PO-plate processing operation, known as EU 0700B, installed in 1993, last modified October 26, 1993, equipped with an OSI dust collector, exhausting through Stack 152, capacity: 2,914 pounds of plate frames per hour, limited by the formation bottleneck to 1,010,672 pounds (47.5% of capacity) per month.

(s) One (1) 3PO-plate processing operation, known as EU 0700C, installed in 1993, last modified October 26, 1993, equipped with an OSI dust collector, exhausting through Stack 151, capacity: 2,914 pounds of plate frames per hour, limited by the formation bottleneck to 1,010,672 pounds (47.5% of capacity) per month.

(t) Removed From Service.

(u) One (1) 3PO-plate processing operation, known as EU 0700E, installed in 1995, equipped with a Torit dust collector, exhausting through Stack 127, capacity: 160 pounds of plate frames per hour, limited by the formation bottleneck to 55,573 pounds (47.5% of capacity) per month.

(v) One (1) 3PO-plate processing operation, known as EU 0700F, equipped with a Farr dust collector, exhausting through Stack 247, capacity: 8,473 pounds of plate frames per hour, limited by the formation bottleneck to 3,809,664 pounds per month (46.5% of capacity).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Facility Description [326 IAC 2-8-4(10)]: Continued

Three Process Operation

(w) One (1) 3PO-L plate assembly operation, known as EU 0800A, installed March 30, 1984, equipped with an American air filter dust collector, exhausting through Stack 140, capacity: 1,444 pounds of cured plates and small parts per hour, limited by the formation bottleneck to 548,720 pounds (52.1% of capacity) per month.

(x) One (1) 3PO-L plate assembly operation, known as EU 0800B, installed in 1988, last modified April 8, 1988, equipped with an American air filter dust collector, exhausting through Stack 166, capacity: 2,165 pounds of positive and negative plates and small parts per hour, limited by the formation bottleneck to 822,700 pounds (52.1% of capacity) per month.

(y) One (1) 3PO-L plate assembly operation, known as EU 0800C, installed in 1984, last modified March 30, 1984, equipped with an OSI #10 dust collector, exhausting through Stack 142, capacity: 2,165 pounds of cured plates and small parts per hour, limited by the formation bottleneck to 822,700 pounds (52.1% of capacity) per month.

(z) One (1) 3PO-MP assembly, known as EU 0800D, installed in 1993, last modified January 1, 1993, equipped with a Torit dust collector, exhausting through Stack 127, capacity: 2,404 pounds of cured plates and small parts and cell covers per hour, limited by the formation bottleneck to 67,112 pounds (3.8% of capacity) per month and 5.662 liters of cover adhesive per month.

(aa) One (1) 3PO-JC/D assembly, known as EU 0800E, installed in 1994, last modified December 5, 1994, equipped with a Torit dust collector, exhausting through Stack 247, capacity: 174 pounds of cured plates and small parts and cell covers per hour limited by the formation bottleneck to 56,550 pounds per month (44.5% of capacity) and 4.943 liters of cover adhesive per month.

(bb) One (1) 3PO-MCT assembly, known as EU 0800F, installed in 1999, equipped with a Farr 48D dust collector, exhausting through Stack 188, capacity: 3,813 pounds of lead plates and small parts and cell covers per hour, limited by the formation bottleneck to 1,652,300 pounds (59.4% of capacity) per month and 139.875 liters of cover adhesive per month.

(cc) One (1) L-cell cover adhesive station, known as EU 0800G, installed in 1982, exhausting through Stack 167, capacity: 4,000 pounds of L-cells per hour, limited by the formation bottleneck to 2,195,000 pounds of L-cells and covers per month (75.2% of capacity) and 185.5 liters of cover adhesive per month.

(dd) One (1) 3PO-L cell cover insert, known as EU 0800H, installed in 1984, last modified March 30, 1984, equipped with two (2) Torit dust collectors, exhausting through Stack 141, capacity: 600 pounds of assembled cells per hour, limited by the formation bottleneck to 153,600 pounds (35.1% of capacity) per month.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Facility Description [326 IAC 2-8-4(10)]: Continued

Three Process Operation

(ee) One (1) LCT 1700 Assembly with two jigs, known as EU 0800K, installed in December 2000, equipped with a Farr dust collector, exhausting through Stack 244, capacity: 1,302 pounds of plates and small parts and cell covers per hour, limited by the formation bottleneck to 282,100 pounds (29.7% of capacity) per month and 23.8 liters of cover adhesive per month.

Formation

(ff) One (1) tank dry formation, known as EU 0900A, installed in 1990, last modified March 5, 1990, equipped with a scrubber, exhausting through Stack 178, capacity: 200 pounds of lead plates per hour.

(gg) One (1) tank wet formation, known as EU 0900B, installed in 1990, capacity: 3,420 pounds of dry batteries per hour (fugitive).

(hh) One (1) tank wet formation, known as 0900C, to be installed, capacity: 2,215 pounds of completed dry cells per hour (fugitive).

Central Vac

(ii) One (1) central vacuum #2, known as Maint2000B, installed October 6, 1980, exhausting through Stack 129.

(jj) One (1) 3 process central vacuum, known as Maint2000C, installed in 1980, exhausting through Stack 130.

(kk) One (1) 3 process central vacuum , known as Maint2000D, installed in 1980, exhausting through Stack 131.

(ll) One (1) grid casting central vacuum #5, known as Maint2000E, installed November 19, 1999, exhausting through Stack 224.

(mm) One (1) pasting central vacuum, known as EU 2000F, to be installed, exhausting through Stack 242.

(nn) One (1) polyurethane battery topping, known as Misc, installed in 1990, exhausting through Stack 160, capacity: 30 gallons of perchloroethylene per month.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-5(1)]

D.2.1 Lead Emissions [326 IAC 12, (40 CFR Part 60.370 - 60.374, Subpart KK.]

Pursuant to 40 CFR Part 60.372, the grid casting curing ovens (EU 0200B - E and Maint2000E), the pasting operations (EU 0300A, B, Bn, C - M, 0500E - H and Maint2000F), the three process operations (EU 0700B, C, E, F, 0800A - H, K, and Maint2000C & D) and the Central Vac operations (Maint2000B) shall not emit any gases that contain in excess of 0.000437 grains of lead per dry standard cubic foot

of exhaust.

D.2.2 Opacity [326 IAC 12, (40 CFR Part 60.370 - 60.374, Subpart KK.]

Pursuant to 40 CFR Part 60.372, the grid casting curing oven exhaust stacks (226 - 229 and 224), the pasting operations exhaust Stacks (232, 85, 233, 230, 231, 159, 26- 29,179, 180, 193, 194, 234, 235, 237, 238 and 242), the three process operations exhaust Stacks (152, 151, 127, 247, 140, 166,142, 188, 167, 141, 244, 130 and 131) and the Central Vac operations exhaust Stack (129) shall be limited to zero (0) percent opacity.

D.2.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]

(a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rates from the facilities listed in this section shall not exceed the stated PM emission rates listed in the following table:

Operation	**Process Weight Rate** (tons per hour)	**Allowable PM Emission Rate** (pounds per hour)
Natural gas-fired grid curing ovens (EU 0200B through EU 0200E) Stacks 226 - 229	3,634 total	6.12 total
Positive lead oxide bulk handing (EU 0300A) Stack 84	1,526	3.42
Positive oxide storage (EU 0300A) Stack 232	2,088	4.22
Negative lead oxide bulk handing (EU 0300B) Stack 85 (0300B)	1,526	3.42
Negative oxide storage (EU 0300Bn) Stack 233	2,016	4.12
Paste mixing system (EU 0300C) Stack 231	6,268	8.81
Expander manufacturing (EU 0300D) Stack 159	312	1.18
Grid pasting (EU 0300 E) Stack 230	11,663	13.4
Humidity ovens (EU 0300 F, G, H, and I) Stacks 26 - 29	2,012 total	4.12
Natural gas-fired Universal curing ovens (EU 0300 J, K, L and M) Stacks 179, 180, 193 and 194	2,012 total	4.12
Natural gas-fired OSI Universal ovens (EU 0500E through EU 0500H) Stacks 234, 235, 237 and 238	2,456 total	4.71

Operation	Process Weight Rate (tons per hour)	Allowable PM Emission Rate (pounds per hour)
3PO-plate processing (0700B) Stack 152	2,914	5.28
3PO-plate processing (0700C) Stack 151	2,914	5.28
3PO-plate processing (0700E) Stack 127	160	0.755
3PO-plate processing (0700F) Stack 247	8,473	10.8
3PO-L plate assembly (0800A) Stack 140	1,444	3.30
3PO-L plate assembly (0800B) Stack 166	2,165	4.32
3PO-L plate assembly (0800C) Stack 142	2,165	4.32
3PO-MP assembly (0800D) Stack 127	2,404	4.64
3PO-JC/D assembly (0800E) Stack 247	174	0.798
3PO-MCT assembly (0800F) Stack 188	3,813	6.32
3PO-L cell cover insert (0800H) Stack 141	600	1.83
LCT 1700 assembly with two jigs (EU 0800K) Stack 244	1,302	3.08
Tank dry formation (0900A) Stack 178	200	0.877
Tank wet formation (0900B) Fugitive	3,420	5.87
Tank wet formation (0900C) Fugitive	2,215	4.39

(b) The pounds per hour limitations were calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.2.4 PM [326 IAC 2-2]

To avoid the requirements of 326 IAC 2-2, the hourly PM emissions from the individual emissions units shall not exceed the following:

Operation/Stack ID	Hourly PM Emission Limits (pounds per hour)
Natural gas-fired grid curing ovens (EU 0200B through EU 0200E) Stacks 226 - 229	0.0869 0.0869 0.0869 0.0869
Positive oxide storage (EU 0300A) Stack 232	0.1000
Negative lead oxide bulk handing (EU 0300B) Stack 85 (0300B)	0.0090
Negative oxide storage (EU 0300Bn) Stack 233	0.1201
Paste mixing system (EU 0300C) Stack 231	0.3474
Expander manufacturing (EU 0300D) Stack 159	0.0014
Grid pasting (EU 0300 E) Stack 230	0.3444
Humidity ovens (EU 0300 F, G, H, and I) Stacks 26 - 29	0.0310 0.0310 0.0310 0.0310
Natural gas-fired Universal curing ovens (EU 0300 J, K, L and M) Stacks 179, 180, 193 and 194	0.0310 0.0310 0.0310 0.0310
Natural gas-fired OSI Universal ovens (EU 0500E through EU 0500H) Stacks 234, 235, 237 and 238	0.0378 0.0378 0.0378 0.0378
3PO-plate processing (0700B) Stack 152	0.0565
3PO-plate processing (0700C) Stack 151	0.0565
3PO-plate processing (0700E) Stack 127	0.0092
3PO-plate processing (0700F) Stack 247	0.3303
3PO-L plate assembly (0800A) Stack 140	0.2662

Operation/Stack ID	Hourly PM Emission Limits (pounds per hour)
3PO-L plate assembly (0800B) Stack 166	0.3993
3PO-L plate assembly (0800C) Stack 142	0.0399
3PO-MP assembly (0800D) Stack 127	0.4433
3PO-JC/D assembly (0800E) Stack 247	0.0321
3PO-MCT assembly (0800F) Stack 188	0.7032
3PO-L cell cover insert (0800H) Stack 141	1.19
LCT 1700 assembly with two jigs (EU 0800K) Stack 244	0.072
Tank dry formation (0900A) Stack 178	0.880
Tank wet formation (0900B) Fugitive	30.1
Tank wet formation (0900C) Fugitive	19.5
Total	55.73

D.2.5 PM_{10} [326 IAC 2-8-4] [326 IAC 2-2]

(a) Pursuant to 326 IAC 2-8-4, the hourly PM_{10} emissions from the individual emission units shall not exceed the following:

Operation/Stack ID	Hourly PM_{10} Emission Limits (pounds per hour)
Natural gas-fired grid curing ovens (EU 0200B through EU 0200E) Stacks 226 - 229	0.0331 0.0331 0.0331 0.0331
Positive oxide storage (EU 0300A) Stack 232	0.0380
Negative lead oxide bulk handing (EU 0300B) Stack 85 (0300B)	0.0034

Operation/Stack ID	**Hourly PM_{10} Emission Limits** (pounds per hour)
Negative oxide storage (EU 0300Bn) Stack 233	0.0457
Paste mixing system (EU 0300C) Stack 231	0.1322
Expander manufacturing (EU 0300D) Stack 159	0.0005
Grid pasting (EU 0300 E) Stack 230	0.1311
Humidity ovens (EU 0300 F, G, H, and I) Stacks 26 - 29	0.0118 0.0118 0.0118 0.0118
Natural gas-fired Universal curing ovens (EU 0300 J, K, L and M) Stacks 179, 180, 193 and 194	0.0118 0.0118 0.0118 0.0118
Natural gas-fired OSI Universal ovens (EU 0500E through EU 0500H) Stacks 234, 235, 237 and 238	0.0144 0.0144 0.0144 0.0144
3PO-plate processing (0700B) Stack 152	0.0215
3PO-plate processing (0700C) Stack 151	0.0215
3PO-plate processing (0700E) Stack 127	0.0035
3PO-plate processing (0700F) Stack 247	0.1257
3PO-L plate assembly (0800A) Stack 140	0.1013
3PO-L plate assembly (0800B) Stack 166	0.1520
3PO-L plate assembly (0800C) Stack 142	0.0152
3PO-MP assembly (0800D) Stack 127	0.1687
3PO-JC/D assembly (0800E) Stack 247	0.0122

Operation/Stack ID	Hourly PM_{10} Emission Limits (pounds per hour)
3PO-MCT assembly (0800F) Stack 188	0.2677
3PO-L cell cover insert (0800H) Stack 141	0.4528
LCT 1700 assembly with two jigs (EU 0800K) Stack 244	0.0274
Tank dry formation (0900A) Stack 178	0.3350
Tank wet formation (0900B) Fugitive	11.4555
Tank wet formation (0900C) Fugitive	7.4198
Total	21.215

(b) Compliance with these PM_{10} emission limits will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) and 326 IAC 2-2 do not apply.

D.2.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements [326 IAC 2-8-5(a)(1)&(4)] [326 IAC 2-1.1-11]

D.2.7 Testing Requirements [326 IAC 2-8-5(a)(1)&(4)][326 IAC 2-1.1-11]

(a) Within 180 days of startup of EU 0700F, the Permittee shall perform lead and opacity testing of Stack 247 utilizing methods as approved by the Commissioner to demonstrate compliance with the NSPS Subpart KK requirements of Conditions D.2.1 and D.2.2.

(b) Within twelve (12) months after issuance of this permit, the Permittee shall perform lead and opacity testing of one (1) of the stacks in each group as specified in the following table utilizing methods as approved by the Commissioner to demonstrate compliance with the NSPS Subpart KK requirements of Conditions D.2.1 and D.2.2. These lead and opacity performance tests shall be repeated on a different stack for groups with multiple stacks at least once every two and one-half (2.5) years from the date of the last valid compliance demonstration of the group. In addition to these requirements, IDEM may require compliance testing when necessary to determine if these facilities are in compliance.

EMISSION UNITS GROUPED BY LIKE PROCESSES AND COLLECTION EQUIPMENT		
Group	**Emission Unit**	**Stack**
4	EU 0200B	226

Group	Emission Unit	Stack
	EU 0200C	227
	EU 0200D	228
	EU 0200E	229
5	EU 0300A	232
	EU 0300B	85
	EU 0300Bn	233
6	EU 0300C	231
7	EU 0300D	159
8	EU 0300E	230
9	EU 0300F	26
	EU 0300G	27
	EU 0300H	28
	EU 0300I	29
10	EU 0300J	179
	EU 0300K	180
	EU 0300L	193
	EU 0300M	194
	EU 0500E	234
	EU 0500F	235
	EU 0500G	237
	EU 0500H	238
11	EU 0700F	247
	EU 0800E	247
12	EU 0700B	152
	EU 0700C	151
13	EU 0800D	127
	EU 0700E	127
14	EU 2000A	113
	EU 2000F	242
	MAINT 2000C	130
	MAINT 2000D	131
	MAINT 2000B	129
15	EU 0800A	140
	EU 0800B	166
16	EU 0800C	142
17	EU 0800F	188
18	EU 0800G	167

Group	Emission Unit	Stack
	EU 0800K	244
19	EU 0800H	141

(c) The Permittee is not required to test these facilities for PM and PM_{10} by this permit. However, IDEM may require compliance testing when necessary to determine if these facilities are in compliance. If testing is required by IDEM, compliance with the PM and PM_{10} limits specified in Conditions D.2.3, D.2.4 and D.2.5 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-6(1)] [326 IAC 2-8-5(1)]

D.2.8 Particulate Matter (PM)

The PM control devices shall be in operation at all times when any of the facilities listed in Section D.2 are in operation.

D.2.9 Visible Emissions Notations

(a) Daily visible emission notations of Stack 226 - 229, 232, 85, 233, 231, 159, 230, 26 - 29, 179, 180, 193, 194, 234, 235, 237, 238, 127, 152, 151, 247, 140, 166, 142, 188, 141, 244 and 178 exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.2.10 Parametric Monitoring

(a) The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the pasting, three process, and Central Vac operations, at least once per day when the pasting, three process and Central Vac processes are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses associated these operations shall be maintained within the ranges specified in the following table or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall

be calibrated at least once every six (6) months.

Emission Unit	S/V ID	Pressure Drop (inches of water)
(EU 0300A)	84	3 - 8
(EU 0300A)	232	1 - 7
(EU 0300B)	85	3 - 8
(EU 0300Bn)	233	1 - 7
(EU 0300D)	159	2 - 7
(EU 0700B)	152	2 - 7
(EU 0700C)	151	2 - 7
(EU 0700E/0800D)	127	2 - 8
(EU 0700F/0800E)	247	1 - 7
(EU 0800A)	140	1 - 6
(EU 0800B)	166	1 - 6
(EU 0800C)	142	5 - 11
(EU 0800F)	188	1 - 6
(EU 0800H)	141	2 - 6 and 2 - 6
(EU 0800K)	244	6 - 12
(MAINT2000A)	113	6 - 12
(MAINT2000B)	129	6 - 12
(MAINT2000C)	130	6 - 12
(MAINT2000D)	131	6 - 12
(MAINT2000E)	224	6 - 12
(MAINT2000F)	242	6 - 12

(b) The Permittee shall record the water flow rate of the scrubbers at least once per day when the pasting and formation processes are in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the water flow rate shall be maintained within the ranges of water as specified in the following table or water flow rate ranges established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the water flow rate are outside of the above mentioned range for any one reading.

Emission Unit	S/V ID	Pressure Drop (inches of water)	Flow Rate (gallons per minute)
(EU 0300C)	231	4 - 10	Not Applicable
(EU 0300E)	230	3 - 8	30

(EU 0900A)	178	3 - 8	1.5

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

D.2.11 Filter Monitoring

Daily inspections shall be performed to verify the placement, integrity and particle loading of the HEPA filters associated with EU 0300A and 0300Bn, exhausting though Stacks 232 and 233. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.2.12 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the battery manufacturing operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.2.13 Scrubber Inspection

An inspection shall be performed each calendar quarter of the scrubber. Defective scrubber part(s) shall be replaced. A record shall be kept of the results of the inspection.

D.2.14 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.2.15 Scrubber Failure Detection

In the event that a scrubber failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-8-5(3)] [326 IAC 2-8-19]

D.2.16 Record Keeping Requirements

(a) To document compliance with Condition D.2.9, the Permittee shall maintain records of daily

visible emission notations of Stacks 226 - 229, 232, 85, 233, 231, 159, 230, 26 - 29, 179, 180, 193, 194, 234, 235, 237, 238, 127, 152, 151, 247, 140, 166, 142, 188, 141, 244 and 178 exhausts.

(b) To document compliance with Condition D.2.10, the Permittee shall maintain the following:

(1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure;

(B) Cleaning cycle: frequency and differential pressure, and

(C) Water flow rate for the scrubbers.

(2) Documentation of all response steps implemented, per event .

(3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.

(4) Quality Assurance/Quality Control (QA/QC) procedures.

(5) Operator standard operating procedures (SOP).

(6) Manufacturer's specifications or its equivalent.

(7) Equipment "troubleshooting" contingency plan.

(8) Documentation of the dates vents are redirected.

(c) To document compliance with Conditions D.2.11, D.2.12, and D.2.13, the Permittee shall maintain records of the results of the inspections required under Conditions D.2.11, D.2.12 and D.2.13 and the dates the vents are redirected.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: - Insignificant Activities

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour consisting of fifty-six (56) existing facilities rated at total of 56.10 million British thermal units per hour, including two (2) pasting boilers, exhausting through Stacks 163 and164, rated at 0.690 and 1.050 million British thermal units per hour, respectively.

Casting

(1) One (1) natural gas-fired boiler, installed in December 2000, exhausting through Stack 236, rated at 0.340 million British thermal units per hour.

Pasting

(2) One (1) natural gas-fired boiler, installed in December 2000, exhausting through Stack 239, rated at 0.340 million British thermal units per hour.

LCT Assembly

(3) One (1) natural gas-fired rapid air heater, installed in December 2000, exhausting through Stack 245, rated at 1.650 million British thermal units per hour.

Plate Storage Area

(4) One (1) natural gas-fired universal oven boiler, installed in December 2000, exhausting through Stack 225, rated at 0.340 million British thermal units per hour.

Charging

(5) One (1) natural gas-fired rapid air heater, installed in December 2000, exhausting through Stack 243, rated at 0.750 million British thermal units per hour.

(b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

(c) Three (3) electric LCT 1700 battery curing ovens, to be installed, exhausting through Stack 246, capacity: 1,302 pounds of plates and small parts and cell covers per hour, limited by the formation bottleneck to 282,100 pounds (29.7% of capacity) per month and 23.8 liters of cover adhesive per month.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-5(1)]

D.3.1 Particulate Matter Limitation (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (a) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (d)), particulate emissions from all facilities used for indirect heating purposes which were existing and in operation after September 21, 1983, shall in no

case exceed 0.6 pounds of particulate matter per million British thermal units heat input.

D.3.2 Volatile Organic Compounds (VOC)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.3.3 Volatile Organic Compounds (VOC)

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));

(B) The solvent is agitated; or

(C) The solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of

mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent is used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

D.3.4 Lead Emissions [326 IAC 12, (40 CFR Part 60.370 - 60.374, Subpart KK.]

Pursuant to 40 CFR Part 60.372, the three (3) LCT 1700 electric battery curing ovens shall not emit any gases that contain in excess of 0.000437 grains of lead per dry standard cubic foot of exhaust.

D.3.5 Opacity [326 IAC 12, (40 CFR Part 60.370 - 60.374, Subpart KK.]

Pursuant to 40 CFR Part 60.372, the three (3) LCT 1700 electric battery curing ovens exhaust Stack 246 shall be limited to zero (0) percent opacity.

Mail to: Permit Administration & Development Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015

C & D Technologies, Inc.
200 West Main Street
Attica, Indiana 47918

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.

2. I hold the position of _____ for _____.
(Title) (Company Name)

3. By virtue of my position with _____, I have personal knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____.
(Company Name)

4. I hereby certify that C & D Technologies, Inc., 200 West Main Street, Attica, Indiana 47918, completed construction of the one (1) 3PO-plate processing operation, known as EU 0700F, and three (3) electric LCT 1700 battery curing ovens on _____ in conformity with the requirements and intent of the modification to the Federally Enforceable State Operating Permit (FESOP) application received by the Office of Air Quality on December 14, 2000 and as permitted pursuant to Significant Permit Revision 045-13609, Plant ID No. 045-00008 issued on _____.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

_____
Signature

_____
Date

STATE OF INDIANA)
)SS
COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana on this _____ day of _____, 20 _____.

My Commission expires: _____.

_____
Signature

Name (typed or printed)

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Significant Permit Revision to a Federally Enforceable State Operating Permit

Source Background and Description

Source Name:	**C & D Technologies, Inc.**
Source Location:	**200 West Main Street, Attica, Indiana 47918**
County:	**Fountain**
SIC Code:	**3691**
Operation Permit No.:	**F 045-11285-00008**
Operation Permit Issuance Date:	**May 26, 2000**
Significant Permit Revision No.:	**SPR 045-13609-00008**
Permit Reviewer:	**Frank P. Castelli**

The Office of Air Quality (OAQ) has reviewed a significant permit revision application from C & D Technologies, Inc relating to the construction and operation of the following emission units and pollution control devices:

(a) One (1) 3PO-plate processing operation, known as EU 0700F, to be installed, equipped with a Farr dust collector, exhausting through Stack 247, capacity: 8,473 pounds of plate frames per hour, limited by the formation bottleneck to 3,809,664 pounds per month (46.5% of capacity).

In addition, three (3) natural gas-fired heaters rated at a total of 4.25 million British thermal units per hour have been added to the natural gas-fired combustion insignificant activity. Furthermore, the following new insignificant activity has been added:

(f) Three (3) electric LCT 1700 battery curing ovens, to be installed, exhausting through Stack 246, capacity: 1,302 pounds of plates and small parts and cell covers per hour, limited by the formation bottleneck to 282,100 pounds (29.7% of capacity) per month and 23.8 liters of cover adhesive per month.

Furthermore, the source requested that several stack designations be changed and certain stacks that were combined for construction covered by the FESOP F045-11285-00008 be duly noted in the revision.

The source has also removed EU 0700A and EU 0700D from service.

All of these requests are specifically addressed in the proposed changes at the end of this document. Only the changes in potential emissions from the addition of EU-0700F and the insignificant activity are considered.

NSPS Subpart KK Update

On October 17, 2000, the Federal Register, 65 FR 61744, announced that the NSPS Subpart KK emission grain loading limit for lead, which this source is subject to, have been expressed to one (1) additional significant decimal place. The grain loading of 0.00044 grains per dry standard cubic foot of exhaust air for paste mixing and 3-process operations was revised to 0.000437 grains per dry standard cubic foot of exhaust air. In addition, this same Federal Register announced that the grain loading of 0.000176 grains per dry standard cubic foot of exhaust air for grid casting was changed to 0.000175 grains per dry standard cubic foot of exhaust air.

The change in the NSPS allowables only requires a change in the conditions containing the allowable lead grain loading limits.

History

On December 14, 2000, C & D Technologies, Inc submitted an application to the OAQ requesting to add additional facilities to their existing plant and update the equipment list and conditions to reflect changes in stack designations. C & D Technologies, Inc was issued a Federally Enforceable State Operating Permit (FESOP) on May 26, 2000.

Formation Bottleneck

C & D Technologies, Inc has demonstrated that a bottleneck exists at the source such that certain processes described in the following section should be evaluated for PTE after controls based on this bottleneck. All cells leaving the source require charging the plates with an electrical current. This process is referred to as formation. The maximum capacity of formation is the lowest capacity of all the manufacturing processes and requires continuous operation, but additional space and tanks would be required to increase throughput capacity. The source has agreed, in the original FESOP, to throughput limitations based on this formation bottleneck. The proposed revision does not change these throughput limitations.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
246	3 LCT 1700 battery curing electric ovens (deemed an insignificant activity)	11.0	1.00	1,200	n/a
247	3 PO plate processing (EU 0700F)	32.0	4.67	50,000	68

Recommendation

The staff recommends to the Commissioner that the FESOP Significant Permit Revision be

approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 14, 2000. Additional information was received on January 16, 18 and 25, 2001.

Emission Calculations

See pages 1 - 4 of 4 of Appendix A of this document for detailed emissions calculations.

Potential To Emit of Revision

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the PTE before controls for this revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	**Potential To Emit** (tons/year)
PM	26.8
PM_{10}	26.9
SO_2	0.011
VOC	0.102
CO	1.56
NO_X	1.86

HAPs	**Potential To Emit** (tons/year)
Lead	0.839
Natural Gas Combustion HAPs	0.035
Total HAPs	0.874

Justification for Revision

The FESOP is being revised through a FESOP Significant Permit Revision. This revision is being performed pursuant to 326 IAC 2-8-11.1(f)(1)(E) for significant revision since the potential to emit PM_{10} from this revision is greater than twenty-five (25) tons per year.

County Attainment Status

The source is located in Fountain County.

Pollutant	Status
PM_{10}	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NO_X emissions are considered when evaluating the rule applicability relating to the ozone standards. Fountain County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Fountain County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	14.1
PM_{10}	15.5
SO_2	2.16
VOC	10.2
CO	21.7
NO_X	25.8
HAPs	9.39

(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

(b) These emissions are based upon Technical Support Document for F 045-11285-000008 issued on May 26, 2000.

Potential to Emit of Revision After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this FESOP revision.

	Potential to Emit (tons/year)						
Process/facility	**PM**	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_X**	**HAPs**
Proposed Revision	0.094	0.200	0.011	0.102	1.56	1.86	0.874
PSD Threshold Level	250	250	250	250	250	250	-
Part 70 Level	100	100	100	100	100`	100	10/25

This revision to an existing minor stationary source is not major because the emission increase is less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

This revision to the existing FESOP will **not** change the status of the stationary source because the emissions from the entire source will still be limited to less than the Part 70 major source thresholds.

Federal Rule Applicability

(a) The proposed revision which includes the addition of EU 0700F and the insignificant activity (3 electric ovens) is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.370 - 60.374, Subpart KK. This rule requires that:

(1) The three-process operation facilities shall not emit any gases that contain in excess of 0.000437 grains of lead per dry standard cubic foot of exhaust,

(2) The exhaust stacks shall be limited to zero (0) percent opacity.

None of the FESOP limits have to be revised because of this proposed revision.

(b) The existing FESOP will be updated to show the revision in the NSPS Subpart KK limits as follows:

(1) The paste mixing facilities shall not emit any gases that contain in excess of 0.000437 grains of lead per dry standard cubic foot of exhaust,

(2) The grid casting facilities shall not emit any gases that contain in excess of 0.000175 grains of lead per dry standard cubic foot of exhaust,

The information submitted with the application indicates that all emission units comply with the requirements of this NSPS. Stack testing will be required to verify compliance for Stack

247 which services EU 0700F.

(c) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting (NESHAPs), Subpart X (40 CFR 63.541) because C & D Technologies does not perform any of the activities that are considered secondary lead smelting pursuant to 40 CFR 63.541 and 63.542.

State Rule Applicability - Individual Facilities

326 IAC 2-2 (Prevention of Significant Deterioration)

This custom industrial battery manufacturing source is a minor PSD source since all criteria pollutants, including lead, are all under the applicable major PSD Threshold Levels. Therefore, the requirements of 326 IAC 2-2 are not applicable to this source.

To assure compliance with 326 IAC 2-2, limited hourly PM emission rates were calculated in the original FESOP for each facility by directly proportioning the controlled PTE of PM of each facility to a total of 55.8 pounds per hour of PM, equivalent to 244.5 tons per year of PM for all significant emission units. The hourly PM emission rate for the proposed 3PO-plate processing operation, known as EU 0700F, is 0.3303 pounds per hour which is the sum of the limited PM hourly emission rates for EU 0700A and EU 0700D (removed from service) of 0.1698 and 0.1604 pounds per hour, respectively.

326 IAC 2-8-4 (FESOP)

To assure compliance with 326 IAC 2-8-4, limited hourly PM_{10} emission rates have been re-calculated for each facility by directly proportioning the controlled PTE of PM of each facility to a total of 21.24 pounds per hour of PM_{10}, equivalent to 93.04 tons per year of PM_{10} for all significant emission units. The hourly PM_{10} emission rate for the proposed 3PO-plate processing operation, known as EU 0700F, is 0.1257 pounds per hour which is the sum of the limited PM_{10} hourly emission rates for EU 0700A and EU 0700D (removed from service) of 0.0646 and 0.0611 pounds per hour, respectively.

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the proposed 3PO-plate processing operation, known as EU 0700F, exhausting through Stack 247 shall not exceed 10.8 pounds per hour when operating at a process weight rate of 8,473 pounds per hour (4.24 tons per hour).

This allowable emission rate was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The baghouse shall be in operation at all times the proposed 3PO-plate processing operation is in operation, in order to comply with this limit. The PM emissions from proposed 3PO-plate processing operation after controls are 0.0006 pounds per hour which is less than the allowable PM emission rate of 10.8 pounds per hour. Therefore, proposed 3PO-plate processing operation is in compliance with this

rule.

326 IAC 15-1 (Lead Emission Limitations)

Pursuant to 326 IAC 15-1-2(b)(2) C & D Batteries, Attica shall comply with Subsection (c) and Section 3 of this rule. The C & D battery manufacturing operations are subject to the operation and maintenance programs designed to prevent deterioration to the control equipment performance as specified in 326 IAC 15-1-2(c) and the fugitive dust control measures cited in 326 IAC 15-1-3. The specific rules are as follows:

(a) 326 IAC 15-1-2(c)

Operation and maintenance programs shall be designed to prevent deterioration of control equipment performance. For sources listed in subsections (a)(8) through (b), these programs shall be submitted to the Office of Air Management on or before February 1, 1988. These programs will be incorporated into the individual source operation permits.

(b) 326 IAC 15-1-3 (Lead emission limitations: control of fugitive lead dust)

(1) No source shall create or maintain outdoor storage of bulk materials containing more than one percent (1.0%) lead by weight of less than two hundred (200) mesh size particles.

(2) All materials containing more than one percent (1.0%) lead by weight of less than two hundred (200) mesh size particles shall be transported in closed containers or shall be transported by enclosed conveying systems that are vented to the atmosphere through particulate matter control equipment or shall be transported wet.

(3) Control programs shall be designed to minimize emissions of lead from all non-process fugitive emission points. The programs shall include good housekeeping practices for the cleanup of spills and for minimizing emissions from loading and unloading areas as applicable. For sources listed in section 2 (a)(8) through 2(b) of this rule, these programs shall be submitted to the Department of Environmental Management, Office of Air Management, on or before February 1, 1988. These programs will be incorporated into the individual source operation permits.

State Rule Applicability - Insignificant Activities

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the three (3) electric LCT 1700 battery curing ovens exhausting through Stack 246 shall not exceed 3.08 pounds per hour when operating at a process weight rate of 1,302 pounds per hour (0.651 tons per hour).

This allowable emission rate was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The PM emissions from proposed three (3) electric LCT 1700 battery curing ovens are 0.044 pounds per hour which is less than the allowable PM emission rate of 0.651 pounds per hour. Therefore, proposed three (3) electric LCT 1700 battery curing ovens are in compliance with this rule.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to the 3PO-plate processing operation, known as EU 0700F, are as follows:

The 3PO-plate processing operation, known as EU 0700F, has applicable compliance monitoring conditions as specified below:

(a) Visible emissions notations of the EU 0700F shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

(b) The Permittee shall record the total static pressure drop across the baghouse controlling the 3PO-plate processing operation, known as EU 0700F, at least once per shift when the EU 0700F is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 1.0 to 7.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

(c) An inspection shall be performed each calender quarter of all bags controlling the operations at this source when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

(d) In the event that bag failure has been observed:

(1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion.

(2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouse for the 3PO-plate processing operation, known as EU 0700F must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-8 (FESOP).

Testing Requirements

In order to show compliance with the NSPS Subpart KK, a performance test of the lead grain loading from EU 0700F shall be performed within 180 days of startup.

Proposed Changes

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in bold):

A.2 Emissions Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(j) ~~One (1) mixing/pasting operation, known as EU 0300C, installed in 1982, last modified January 31, 1982, equipped with an AAF rotoclone scrubber, exhausting through Stack 158 to be replaced by Stacks 230 and 231, capacity: 5,675 pounds of positive and negative lead oxide, sulfuric acid/water and grids per hour, limited by the formation bottleneck to 2,443,087 pounds (59.0% of capacity) per month.~~ **Removed From Service.**

Three Process Operation

(q) ~~One (1) 3PO-plate processing operation, known as EU 0700A, installed in 1984, last modified August 6, 1984, equipped with Torit dust collector, exhausting through Stack 127, capacity: 2,914 pounds of plate frames per hour, limited by the formation bottleneck to 1,010,672 pounds (47.5% of capacity) per month.~~ **Removed From Service.**

(r) One (1) 3PO-plate processing operation, known as EU 0700B, installed in 1993, last modified October 26, 1993, equipped with an OSI dust collector, exhausting through Stack 152, capacity: 2,914 pounds of plate frames per hour, limited by the formation bottleneck to **116,667** ~~1,010,672~~ pounds (47.5% of capacity) per month.

(s) One (1) 3PO-plate processing operation, known as EU 0700C, installed in 1993, last modified October 26, 1993, equipped with an OSI dust collector, exhausting through Stack 151, capacity: 2,914 pounds of plate frames per hour, limited by the formation bottleneck to **116,667** ~~1,010,672~~ pounds (47.5% of capacity) per month.

(t) ~~One (1) 3PO-plate processing operation, known as EU 0700D, installed in 1995, last modified October 1, 1995, equipped with a Torit dust collector, exhausting through Stack 175, capacity: 2,754 pounds of plate frames per, hour limited by the formation bottleneck to 955,409 pounds (47.5% of capacity) per month.~~ **Removed From Service.**

(u) One (1) 3PO-plate processing operation, known as EU 0700E, installed in 1995, equipped with a Torit dust collector, exhausting through Stack **127** ~~175~~, capacity: 160 pounds of plate frames per hour, limited by the formation bottleneck to 55,573 pounds (47.5% of capacity) per month.

(v) One (1) 3PO-plate processing operation, known as EU 0700F, equipped with a Farr dust collector, exhausting through Stack 247, capacity: 8,473 pounds of plate frames per hour, limited by the formation bottleneck to 3,809,664 pounds per month (46.5% of capacity).

(~~y~~**z**) One (1) 3PO-MP assembly, known as EU 0800D, installed in 1993, last modified January 1, 1993, equipped with a Torit dust collector, exhausting through Stack **127** ~~176~~, capacity: 2,404 pounds of cured plates and small parts and cell covers per hour, limited by the formation bottleneck to 67,112 pounds (3.8% of capacity) per month and 5.662 liters of cover adhesive per month.

(~~z~~**aa**) One (1) 3PO-JC/D assembly, known as EU 0800E, installed in 1994, last modified December 5, 1994, equipped with a Torit dust collector, exhausting through Stack **247** ~~177~~, capacity: 174 pounds of cured plates and small parts and cell covers per hour limited by the formation bottleneck to 56,550 pounds per month (44.5% of capacity) and 4.943 liters of cover adhesive per month.

(~~dd~~**ee**) One (1) LCT 1700 assembly with two jigs, known as EU 0800K, ~~to be~~ installed **in December 2000**, equipped with a Farr dust collector, exhausting through Stack 244, capacity: 1,302 pounds of plates and small parts and cell covers per hour, limited by the formation bottleneck to 282,100 pounds (29.7% of capacity) per month and 23.8 liters of cover adhesive per month.

All subsequent emission units have been renumbered. These changes were also made in Section D.2.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour consisting of **fifty-six** ~~four~~ (5**6**~~4~~) existing facilities rated at total of **56.10** ~~51.85~~ million British thermal units per hour, including two (2) pasting boilers, exhausting through Stacks 163 and164, rated at 0.690 and 1.050 million British thermal units per hour, respectively.

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-8-4(11). A total of thirteen (13)

proposed natural gas-fired combustion facilities rated at total of 7.18 million British thermal units per hour are comprised of the eight (8) natural gas-fired grid curing and universal ovens listed under New Emission Units and the following five (5) new insignificant combustion units:

Casting

(1) One (1) natural gas-fired boiler, ~~to be~~ installed **in December 2000**, exhausting through Stack 236, rated at 0.340 million British thermal units per hour.

Pasting

(2) One (1) natural gas-fired boiler, ~~to be~~ installed **in December 2000**, exhausting through Stack 239, rated at 0.340 million British thermal units per hour.

LCT Assembly

(3) One (1) natural gas-fired rapid air heater, ~~to be~~ installed **in December 2000**, exhausting through Stack 245, rated at 1.650 million British thermal units per hour.

Plate Storage Area

(4) One (1) natural gas-fired universal oven boiler, ~~to be~~ installed **in December 2000**, exhausting through Stack 225, rated at 0.340 million British thermal units per hour.

Charging

(5) One (1) natural gas-fired rapid air heater, ~~to be~~ installed **in December 2000**, exhausting through Stack 243, rated at 0.750 million British thermal units per hour.

(f) Three (3) electric LCT 1700 battery curing ovens, to be installed, exhausting through Stack 246, capacity: 1,302 pounds of plates and small parts and cell covers per hour, limited by the formation bottleneck to 282,100 pounds (29.7% of capacity) per month and 23.8 liters of cover adhesive per month.

These changes were also made in Section D.3.

D.1.1 Lead Emissions [326 IAC 12, (40 CFR Part 60.370 - 60.374, Subpart KK)]

Pursuant to 40 CFR Part 60.372;

(a) the lead oxide manufacturing facilities, oxide mill EU 0011A, shall not emit any gases that contain in excess of 0.010 pounds of lead per ton of lead feed,

(b) the grid casting facilities (EU 0100A, EU 0100B and EU 0200A) shall not emit any gases that contain in excess of **0.000175** ~~0.000176~~ grains of lead per dry standard cubic foot of exhaust, and

(c) the central vac facility (Maint2000A) shall not emit any gases that contain in excess of **0.000437** ~~0.00044~~ grains of lead per dry standard cubic foot of exhaust.

D.2.1 Lead Emissions [326 IAC 12, (40 CFR Part 60.370 - 60.374, Subpart KK.]

Pursuant to 40 CFR Part 60.372, the grid casting curing ovens (EU 0200B - E and Maint2000E), the

pasting operations (EU 0300A, B, Bn, C - M, 0500E - H and Maint2000F), the three process operations (EU 0700~~A~~ **B, C,** E, **F,** 0800A - H, K, and Maint2000C & D) and the Central Vac operations (Maint2000B) shall not emit any gases that contain in excess of **0.000437** ~~0.00044~~ grains of lead per dry standard cubic foot of exhaust.

D.2.2 Opacity [326 IAC 12, (40 CFR Part 60.370 - 60.374, Subpart KK.]

Pursuant to 40 CFR Part 60.372, the grid casting curing oven exhaust stacks (226 - 229 and 224), the pasting operations exhaust Stacks (232, 85, 233, 230, 231, 159, 26- 29,179, 180, 193, 194, 234, 235, 237, 238 and 242), the three process operations exhaust Stacks (~~127,~~ 152, 151, ~~175,~~ **127**, **247,** ~~130,~~ 140, 166,142, ~~176, 177,~~ 188, 167, 141, 244, 130 and 131) and the Central Vac operations exhaust Stack (129) shall be limited to zero (0) percent opacity.

D.2.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]

(a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rates from the facilities listed in this section shall not exceed the stated PM emission rates listed in the following table:

Operation	**Process Weight Rate** (**pounds** ~~tons~~ per hour)	**Allowable PM Emission Rate** (pounds per hour)
Natural gas-fired grid curing ovens (EU 0200B through EU 0200E) Stacks 226 - 229	3,634 total	6.12 total
Positive lead oxide bulk handing (EU 0300A) Stack 84	1,526	3.42
Positive oxide storage (EU 0300A) Stack 232	2,088	4.22
Negative lead oxide bulk handing (EU 0300B) Stack 85 (0300B)	1,526	3.42
Negative oxide storage (EU 0300Bn) Stack 233	2,016	4.12
~~Mixing/pasting (EU 0300C) Stack 158~~	~~5,675~~	~~8.25~~
Paste mixing system (EU 0300C) Stack-231	6,268	8.81
Expander manufacturing (EU 0300D) Stack 159	312	1.18
Grid pasting (EU 0300E) Stack 230	11,663	13.4
Humidity ovens (EU 0300 F, G, H, and I) Stacks 26 - 29	2,012 total	4.12

Operation	**Process Weight Rate** (**pounds** ~~tons~~ per hour)	**Allowable PM Emission Rate** (pounds per hour)
Natural gas-fired Universal curing ovens (EU 0300 J, K, L and M) Stacks 179, 180, 193 and 194	2,012 total	4.12
Natural gas-fired OSI Universal ovens (EU 0500E through EU 0500H) Stacks 234, 235, 237 and 238	2,456 total	4.71
~~3PO-plate processing (0700A) Stack 127~~	~~2,914~~	~~5.28~~
3PO-plate processing (0700B) Stack 152	2,914	5.28
3PO-plate processing (0700C) Stack 151	2,914	5.28
~~3PO-plate processing (0700D) Stack 175~~	~~2,754~~	~~5.08~~
3PO-plate processing (0700E) Stack **127** ~~175~~	160	0.755
3PO-plate processing (0700F) Stack 247	**8,473**	**10.8**
3PO-L plate assembly (0800A) Stack 140	1,444	3.30
3PO-L plate assembly (0800B) Stack 166	2,165	4.32
3PO-L plate assembly (0800C) Stack 142	2,165	4.32
3PO-MP assembly (0800D) Stack **127** ~~176~~	2,404	4.64
3PO-JC/D assembly (0800E) Stack **247** ~~177~~	174	0.798
3PO-MCT assembly (0800F) Stack 188	3,813	6.32
3PO-L cell cover insert (0800H) Stack 141	600	1.83
LCT 1700 assembly with two jigs (EU 0800K) Stack 244	1,302	3.08
Tank dry formation (0900A) Stack 178	200	0.877
Tank wet formation (0900B) Fugitive	3,420	5.87

Operation	Process Weight Rate (**pounds** ~~tons~~ per hour)	Allowable PM Emission Rate (pounds per hour)
Tank wet formation (0900C) Fugitive	2,215	4.39

D.2.4 PM [326 IAC 2-2]

To avoid the requirements of 326 IAC 2-2, the hourly PM emissions from the individual emissions units shall not exceed the following:

Operation/Stack ID	Hourly PM Emission Limits (pounds per hour)
Natural gas-fired grid curing ovens (EU 0200B through EU 0200E) Stacks 226 - 229	0.0869 0.0869 0.0869 0.0869
Positive oxide storage (EU 0300A) Stack 232	0.1000
Negative lead oxide bulk handing (EU 0300B) Stack 85 (0300B)	0.0090
Negative oxide storage (EU 0300Bn) Stack 233	0.1201
Paste mixing system (EU 0300C) Stack 231	0.3474
Expander manufacturing (EU 0300D) Stack 159	0.0014
Grid pasting (EU 0300E) Stack 230	0.3444
Humidity ovens (EU 0300 F, G, H, and I) Stacks 26 - 29	0.0310 0.0310 0.0310 0.0310
Natural gas-fired Universal curing ovens (EU 0300 J, K, L and M) Stacks 179, 180, 193 and 194	0.0310 0.0310 0.0310 0.0310
Natural gas-fired OSI Universal ovens (EU 0500E through EU 0500H) Stacks 234, 235, 237 and 238	0.0378 0.0378 0.0378 0.0378
~~3PO-plate processing (0700A)~~ ~~Stack 127~~	~~0.1698~~

Operation/Stack ID	Hourly PM Emission Limits (pounds per hour)
3PO-plate processing (0700B) Stack 152	0.0565
3PO-plate processing (0700C) Stack 151	0.0565
~~3PO-plate processing (0700D) Stack 175~~	~~0.1605~~
3PO-plate processing (0700E) Stack **127** ~~175~~	0.0092
3PO-plate processing (0700F) Stack 247	**0.3303**
3PO-L plate assembly (0800A) Stack 140	0.2662
3PO-L plate assembly (0800B) Stack 166	0.3993
3PO-L plate assembly (0800C) Stack 142	0.0399
3PO-MP assembly (0800D) Stack **127** ~~176~~	0.4433
3PO-JC/D assembly (0800E) Stack **247** ~~177~~	0.0321
3PO-MCT assembly (0800F) Stack 188	0.7032
3PO-L cell cover insert (0800H) Stack 141	1.19
LCT 1700 assembly with two jigs (EU 0800K) Stack 244	0.072
Tank dry formation (0900A) Stack 178	0.880
Tank wet formation (0900B) Fugitive	30.1
Tank wet formation (0900C) Fugitive	19.5
Total	55.73

D.2.5 PM_{10} [326 IAC 2-8-4] [326 IAC 2-2]

(a) Pursuant to 326 IAC 2-8-4, the hourly PM_{10} emissions from the individual emission units shall not exceed the following:

Operation/Stack ID	**Hourly PM_{10} Emission Limits** (pounds per hour)
Natural gas-fired grid curing ovens (EU 0200B through EU 0200E) Stacks 226 - 229	0.0331 0.0331 0.0331 0.0331
Positive oxide storage (EU 0300A) Stack 232	0.0380
Negative lead oxide bulk handing (EU 0300B) Stack 85 (0300B)	0.0034
Negative oxide storage (EU 0300Bn) Stack 233	0.0457
Paste mixing system (EU 0300C) Stack 231	0.1322
Expander manufacturing (EU 0300D) Stack 159	0.0005
Grid pasting (EU 0300 E) Stack 230	0.1311
Humidity ovens (EU 0300 F, G, H, and I) Stacks 26 - 29	0.0118 0.0118 0.0118 0.0118
Natural gas-fired Universal curing ovens (EU 0300 J, K, L and M) Stacks 179, 180, 193 and 194	0.0118 0.0118 0.0118 0.0118
Natural gas-fired OSI Universal ovens (EU 0500E through EU 0500H) Stacks 234, 235, 237 and 238	0.0144 0.0144 0.0144 0.0144
~~3PO-plate processing (0700A)~~ ~~Stack 127~~	~~0.0646~~
3PO-plate processing (0700B) Stack 152	0.0215
3PO-plate processing (0700C) Stack 151	0.0215
~~3PO-plate processing (0700D)~~ ~~Stack 175~~	~~0.0611~~
3PO-plate processing (0700E) Stack **127** ~~175~~	0.0035

Operation/Stack ID	Hourly PM_{10} Emission Limits (pounds per hour)
3PO-plate processing (0700F) Stack 247	**0.1257**
3PO-L plate assembly (0800A) Stack 140	0.1013
3PO-L plate assembly (0800B) Stack 166	0.1520
3PO-L plate assembly (0800C) Stack 142	0.0152
3PO-MP assembly (0800D) Stack **127** ~~176~~	0.1687
3PO-JC/D assembly (0800E) Stack **247** ~~177~~	0.0122
3PO-MCT assembly (0800F) Stack 188	0.2677
3PO-L cell cover insert (0800H) Stack 141	0.4528
LCT 1700 assembly with two jigs (EU 0800K) Stack 244	0.0274
Tank dry formation (0900A) Stack 178	0.3350
Tank wet formation (0900B) Fugitive	11.4555
Tank wet formation (0900C) Fugitive	7.4198
Total	21.215

(b) Compliance with these PM_{10} emission limits will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) and 326 IAC 2-2 do not apply.

Compliance Determination Requirements [326 IAC 2-8-5(a)(1)&(4)] [326 IAC 2-1.1-11]

D.2.7 Testing Requirements [326 IAC 2-8-5(a)(1)&(4)][326 IAC 2-1.1-11]

(a) Within 180 days of startup of EU 0700F, the Permittee shall perform lead and opacity testing of Stack 247 utilizing methods as approved by the Commissioner to demonstrate compliance with the NSPS Subpart KK requirements of Conditions D.2.1 and D.2.2.

(b) Within twelve (12) months after issuance of this permit, the Permittee shall perform lead and opacity testing of one (1) of the stacks in each group as specified in the following table utilizing methods as approved by the Commissioner to demonstrate compliance with the

NSPS Subpart KK requirements of Conditions D.2.1 and D.2.2. These lead and opacity performance tests shall be repeated on a different stack for groups with multiple stacks at least once every two and one-half (2.5) years from the date of the last valid compliance demonstration of the group. In addition to these requirements, IDEM may require compliance testing when necessary to determine if these facilities are in compliance.

EMISSION UNITS GROUPED BY LIKE PROCESSES AND COLLECTION EQUIPMENT

Group	Emission Unit	Stack
4	EU 0200B	226
	EU 0200C	227
	EU 0200D	228
	EU 0200E	229
5	EU 0300A	232
	EU 0300B	85
	EU 0300Bn	233
6	EU 0300C	231
7	EU 0300D	159
8	EU 0300E	230
9	EU 0300F	26
	EU 0300G	27
	EU 0300H	28
	EU 0300I	29
10	EU 0300J	179
	EU 0300K	180
	EU 0300L	193
	EU 0300M	194
	EU 0500E	234
	EU 0500F	235
	EU 0500G	237
	EU 0500H	238
11	EU 0700**F** ~~A~~	**247** ~~127~~
	EU0800E	**247**
12	EU 0700B	152
	EU 0700C	151
13	~~EU0700D and 0700E~~ **EU0800D**	~~175~~ **127**
	EU 0700E	**127** ~~175~~

Group	Emission Unit	Stack
14	EU 2000A	113
	EU 2000F	242
	MAINT 2000C	130
	MAINT 2000D	131
	MAINT 2000B	129
15	EU 0800A	140
	EU 0800B	166
16	EU 0800C	142
~~17~~	~~EU 0800D~~	~~176~~
	~~EU 0800E~~	~~177~~
17~~18~~	EU 0800F	188
18~~19~~	EU 0800G	167
	EU 0800K	244
19~~20~~	EU 0800H	141

(c) The Permittee is not required to test these facilities for PM and PM_{10} by this permit. However, IDEM may require compliance testing when necessary to determine if these facilities are in compliance. If testing is required by IDEM, compliance with the PM and PM_{10} limits specified in Conditions D.2.3, D.2.4 and D.2.5 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-6(1)] [326 IAC 2-8-5(1)]

D.2.9 Visible Emissions Notations

(a) Daily visible emission notations of Stack 226 - 229, 232, 85, 233, ~~158,~~ 231, 159, 230, 26 - 29, 179, 180, 193, 194, 234, 235, 237, 238, 127, 152, 151, ~~175~~, **247,**140, 166, 142, ~~176, 177~~, 188, 141, 244 and 178 exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.2.10 Parametric Monitoring

(a) The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the pasting, three process, and Central Vac operations, at least once per day when the pasting, three process and Central Vac processes are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses associated these operations shall be maintained within the ranges specified in the following table or a range established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

Emission Unit	**S/V ID**	**Pressure Drop** (inches of water)
(EU 0300A)	84	3 - 8
(EU 0300A)	232	1 - 7
(EU 0300B)	85	3 - 8
(EU 0300Bn)	233	1 - 7
(EU 0300D)	159	2 - 7
~~(EU 0700A)~~	~~127~~	~~2 - 7~~
(EU 0700B)	152	2 - 7
(EU 0700C)	151	2 - 7
~~(EU 0700D)~~	~~175~~	~~9 - 14~~
(EU 0700E**/0800D**)	**127** ~~175~~	**2 - 8** ~~9 - 14~~
(EU 0700F/0800E)	**247**	**1 - 7**
(EU 0800A)	140	1 - 6
(EU 0800B)	166	1 - 6
(EU 0800C)	142	5 - 11
~~(EU 0800D)~~	~~176~~	~~1 - 7~~
~~(EU 0800E)~~	~~177~~	~~1 - 7~~
(EU 0800F)	188	1 - 6
(EU 0800H)	141	2 - 6 and 2 - 6
(EU 0800K)	244	6 - 12
(MAINT2000A)	113	6 - 12
(MAINT2000B)	129	6 - 12

Emission Unit	**S/V ID**	**Pressure Drop** (inches of water)
(MAINT2000C)	130	6 - 12
(MAINT2000D)	131	6 - 12
(MAINT2000E)	224	6 - 12
(MAINT2000F)	242	6 - 12

(b) The Permittee shall record the water flow rate of the scrubbers at least once per day when the pasting and formation processes are in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the water flow rate shall be maintained within the ranges of water as specified in the following table or water flow rate ranges established during the latest stack test. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the water flow rate are outside of the above mentioned range for any one reading.

Emission Unit	**S/V ID**	**Pressure Drop** (inches of water)	**Flow Rate** (gallons per minute)
~~(EU 0300C)~~	~~158~~	~~8 - 14~~	~~9~~
(EU 0300C)	231	**4** ~~6~~ - 10	Not Applicable
(EU 0300E)	230	3 - 8	30
(EU 0900A)	178	3 - 8	1.5

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

Record Keeping and Reporting Requirement [326 IAC 2-8-5(3)] [326 IAC 2-8-19]

D.2.16 Record Keeping Requirements

(a) To document compliance with Condition D.2.9, the Permittee shall maintain records of daily visible emission notations of Stacks 226 - 229, 232, 85, 233, ~~158,~~ 231, 159, 230, 26 - 29, 179, 180, 193, 194, 234, 235, 237, 238, 127, 152, 151, **247,** ~~175,~~ 140, 166, 142, ~~176, 177,~~ 188, 141, 244 and 178 exhausts.

(b) To document compliance with Condition D.2.10, the Permittee shall maintain the following:

(1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure;

(B) Cleaning cycle: frequency and differential pressure, and

(C) Water flow rate for the scrubbers.

(2) Documentation of all response steps implemented, per event .

(3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.

(4) Quality Assurance/Quality Control (QA/QC) procedures.

(5) Operator standard operating procedures (SOP).

(6) Manufacturer's specifications or its equivalent.

(7) Equipment "troubleshooting" contingency plan.

(8) Documentation of the dates vents are redirected.

(c) To document compliance with Conditions D.2.11, D.2.12, and D.2.13, the Permittee shall maintain records of the results of the inspections required under Conditions D.2.11, D.2.12 and D.2.13 and the dates the vents are redirected.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.4 Lead Emissions [326 IAC 12, (40 CFR Part 60.370 - 60.374, Subpart KK.]

Pursuant to 40 CFR Part 60.372, the three (3) LCT 1700 electric battery curing ovens shall not emit any gases that contain in excess of 0.000437 grains of lead per dry standard cubic foot of exhaust.

D.3.5 Opacity [326 IAC 12, (40 CFR Part 60.370 - 60.374, Subpart KK.]

Pursuant to 40 CFR Part 60.372, the three (3) LCT 1700 electric battery curing ovens exhaust Stack 246 shall be limited to zero (0) percent opacity.

~~Compliance Determination Requirement [326 IAC 2-8-5(a)(1)&(4)] [326 IAC 2-1.1-11]~~

~~D.3.4 Testing Requirements [326 IAC 2-8-5(a)(1)&(4)][326 IAC 2-1.1-11]~~

~~The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing when necessary to determine if the boilers are in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.3.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.~~

Conclusion

The construction of this proposed revision shall be subject to the conditions of the attached proposed FESOP Significant Permit Revision No. 045-13609-00008.

APPENDIX A: EMISSION CALCULATIONS

COMPANY NAME: C & D TECHNOLOGIES, INC.

ADDRESS, CITY, IN ZIP: 200 WEST MAIN STREET, ATTICA, INDIANA 47918

REVISION: F 045-13609-00008

REVIEWER: FRANK P. CASTELLI

DATE: DECEMBER 14, 2000

PROPOSED PM EMISSIONS

Process	EU	SV	Mfng Unit	max lbs/hr raw	max lbs/hr fin	% Pb Beq	max Beq/hr	AP-42 LB PM/Beq	% Process Emission	Max TPY Uncontrolled emission	Bottleneck Production Limitation lbs/month	Bottleneck Hour Limitation	Bottleneck Uncontrolled Emission-TPY	% Control Efficiency	Bottleneck Controlled Emission-TPY	
3PO	O700A	127	Processing 1	2914	2914	94.95	153	0.0292	46.5	9.126	1010672	4162	4.338	99.70	1.30E-02	removed
	0700D	175	Processing 4	2754	2754	94.95	145	0.0292	46.5	8.625	955409	4163	4.101	99.70	1.23E-02	removed
	0700F	247	Processing5	8473	8473	94.95	446	0.0292	46.5	26.535	3809664	5395	16.350	99.99	1.64E-03	added
	Insig	246	LCT 1700	1302	1302	100	65	0.0292	2.3	0.191	282100	2600	0.057	0	5.69E-02	added
									TOTAL EMISSION FROM 3PO PROCESS	**26.726**			**16.407**		**0.059**	

APPENDIX A: EMISSION CALCULATIONS
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REVISION: F 045-13609-00008
REVIEWER: FRANK P. CASTELLI
DATE: DECEMBER 14, 2000

PROPOSED LEAD EMISSIONS

Process	EU	SV	Mfng Unit	max Beq/hr	AP-42 LB Pb/Beq	% Process Emission	Gas or air flow rate (acfm)	Uncontrolled grain loading (grains/cu ft)	% Control Efficiency	AP-42 Grain loading of outlet air	Max TPY Controlled Emission	NSPS grain loading (grain/cu ft)	Potential to Emit Pb TPY
3PO	O700A	127	Processing 1	153	0.0106	46.5	9000	0.0098	99.70	2.94E-05	0.00990936	0.00044	0.1485
	0700D	175	Processing 4	145	0.0106	46.5	9000	0.0093	99.70	2.783E-05	0.00939122	0.00044	0.1485
	0700F	247	Processing5	446	0.0106	46.5	50000	0.0051	99.99	5.135E-07	0.00096287	0.000437	0.819375
	0800E		JC/D ASM	9	0.0106	46.5	50000	0.0001	99.99	1.036E-08	1.943E-05		
	Insign	246	LCT 1700	65	0.0106	2.3	1200	0.0016	0.00	0.0015424	0.0694099	0.000437	0.0198
TOTAL LEAD EMISSIONS FROM 0700F & 0800K													0.839175

0700A & 0700D were removed from service, 0700F was added and ducted into Stack 247 with 0800E
The insignificant activity contribution from the three(3) LCT 1700 battery curing ovens added

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: **C & D Technologies, Inc.**
Address City IN Zip: **200 West Main Street, Attica, IN 47918**
Revision: **045-13609**
Plt ID: **045-00008**
Reviewer: **Frank P. Castelli**
Date: **December 14, 2000**

Proposed New Emission Units	**mmBtu/hr rating**
One (1) Rapid Air Heating Unit	3.85
Two (2) Dayton Space Heaters	0.40
Total	4.25

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
4.25000	37.23

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.035	0.141	0.011	1.862	0.102	1.564

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name: **C & D Technologies, Inc.**
Address City IN Zip: **200 West Main Street, Attica, IN 47918**
Revision: **045-13609**
Plt ID: **045-00008**
Reviewer: **Frank P. Castelli**
Date: **December 14, 2000**

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	3.909E-05	2.234E-05	1.396E-03	3.351E-02	6.329E-05

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel	**Total HAPs**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	9.308E-06	2.048E-05	2.606E-05	7.074E-06	3.909E-05	**0.035**

Methodology is the same as page 3.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.