Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

March 25, 2004

CERTIFIED MAIL – Return Receipt Requested

Mr. Thomas T. Crandall
Director, Bay County Utility Services Department
3410 Transmitter Road
Panama City, Florida 32409

RE: Change in the Primary Responsible Official
Bay County Resource Recovery Facility
Facility ID.: 0050031

Dear Mr. Crandall:

The Department received your letter dated March 3, 2004, on March 22, which requested a change in the Primary Responsible Official. There is a Departmental form that needs to be completed and submitted to effect such a change. The correct form is DEP Form 62-213.900(8), Responsible Official Notification Form. Therefore, please complete this form and submit it to us and we will update our tracking system.

If there are any questions, please give Mr. Bruce Mitchell a call at 850/413-9198 or write to me at the above letterhead address.

Sincerely,

Trina L. Vielhauer
Chief
Bureau of Air Regulation

TLV/rbm

cc: Chalmous Beechem, Montenay Bay LLC
Jim Pennington, BAR
Sandra Veazey, NWD
Trina's file
Title V file } 3-25-04 BM
Bruce

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

March 3, 2004

CERTIFIED MAIL – Return Receipt Requested

Mr. C. Travis Windham, P.E.
Director, Bay County Public Utilities
3410 Transmitter Road
Panama City, Florida 32404

RE: Request for Approval of a Segregated Bulk Waste Material
Bay County Resource Recovery Facility
0050031-008-AV

Dear Mr. Windham:

The Department has evaluated Mr. Chalmous Beechem's letter received February 26th, which requested approval of a consolidated bulk waste material (labeled as off-spec/returned consumer packaged pharmaceuticals) to be incinerated at the Bay County Resource Recovery Facility as a segregated waste. Based on a review of the request, we feel that the waste stream is permitted to be incinerated under Specific Conditions A.5.1.8.(c), of the above referenced permit. Please note that the waste stream shall not exceed 5%, by weight, of the facility's total fuel; and, compliance with this limitation shall be determined by using a rolling 30-day average.

If there are any questions, please give Mr. Bruce Mitchell a call at 850/413-9198 or write to me at the above letterhead address.

Sincerely,

Trina L. Vielhauer
Chief
Bureau of Air Regulation

TLV/rbm

cc: Chalmous Beechem, Montenay Bay LLC
Jim Pennington, BAR
Sandra Veazey, NWD

3/3/04 cc: Bruce Mitchell
Reading File
Trina File

MONTENAY BAY LLC

ONYX

RECEIVED
MAR 22 2004
BUREAU OF AIR REGULATION

MBLLC/DEP-04-0128-RO

March 3, 2004

Ms. Sandra Veazey
Florida DEP
160 Governmental Center
Pensacola, Fl 32501-5794

SUBJECT: Title V FINAL Permit No.: 0050031-002-AV
Responsible Official

Dear Ms. Veazey:

In a letter from me dated June 14, 2001, I indicated that Clifton "Travis" Windham, P.E., Bay County Utility Services Department Director, was to be listed in your records as the Responsible Official for the Bay Resource Management Center.

Mr. Windham has retired from the position as Bay County Utility Services Department Director, effective 1/23/2004.

Please update your records to indicate Mr. Thomas T. Crandall, Bay County Utility Services Department Director, is the new Responsible Official for Bay Resource Management Center. Mr. Crandall meets the definition of Responsible Official as set forth in F.A.C. 62-213.302.

Mr. Crandall is in agreement with this change as indicated by his signature below.

Thomas T. Crandall 3/12/04
Thomas T. Crandall Date
Bay County Utility Services Department Director
3410 Transmitter Rd
Panama City FL 32409

6510 Bayline drive - Panama City, Florida 32404 - Tel.: (850) 785-7933 - Fax: (850) 784-1779

Please contact me at (850) 785-7933, x206 if you need further assistance.

Sincerely,

Chalmous Beechem
Operations Manager

cc: Jerry Gross, Montenay Bay, LLC
Clair Fancy, P.E., Bureau of Air Regulation, DEP
Scott Sheplak, P.E., Bureau of Air Regulation, DEP
Dave Beachler, URS Corporation
Thomas T. Crandall, Bay County

6510 Bayline drive - Panama City, Florida 32404 - Tel.: (850) 785-7933 - Fax: (850) 784-1779

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. C. Travis Windham, P.E.
Director, Bay County Public Utilities
3410 Tansmitter Road
Panama City, Florida 32404

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Karen Grindle ☐ Agent ☐ Addressee

B. Received by (Printed Name) Karen Grindle
C. Date of Delivery 3-5-04

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7001 1140 0002 1578 0690

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7001 1140 0002 1578 0690

OFFICIAL USE

Mr. C. Travis Windham, P.E. - Director

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

Sent To
Mr. C. Travis Windham, P.E. - Director
Street, Apt. No.; or PO Box No. 3410 Transmitter Road
City, State, ZIP+ 4 Panama City, Florida 32404

PS Form 3800, January 2001 See Reverse for Instructions

A.5.1.6. Subject to the conditions and limitations contained in this permit, the following other solid waste may be used as fuel at the facility:

(a) Confidential, proprietary or special documents (including but not limited to business records, lottery tickets, event tickets, coupons and microfilm);
(b) Contraband which is being destroyed at the request of appropriately authorized local, state or federal governmental agencies, provided that such material is not an explosive, a propellant, a hazardous waste, or otherwise prohibited at the facility. For the purposes of this section, contraband includes but is not limited to drugs, narcotics, fruits, vegetables, plants, counterfeit money, and counterfeit consumer goods;
(c) Wood pallets, clean wood, and land clearing debris;
(d) Packaging materials and containers;
(e) Clothing, natural and synthetic fibers, fabric remnants, and similar debris, including but not limited to aprons and gloves; or
(f) Rugs, carpets, and floor coverings, but not asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings.

[Rules 62-4.070(3), 62-213.410, and 62-213.440, F.A.C.]

A.5.1.7. Subject to the conditions and limitations contained in this permit, waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 3%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined by using a rolling 30-day average.
[Rules 62-4.070(3), 62-213.410, and 62-213.440, F.A.C.]

A.5.1.8. Subject to the conditions and limitations contained in this permit, the following other solid waste materials may be used as fuel at the facility (i.e., the following are authorized fuels that are non-MSW material). The total quantity of the following non-MSW material received as segregated loads and burned at the facility shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined by using a rolling 30-day average.

(a) Construction and demolition debris.
(b) Oil spill debris from aquatic, coastal, estuarine or river environments. Such items or materials include but are not limited to rags, wipes, and absorbents.
(c) Items suitable for human, plant or domesticated animal use, consumption or application where the item's shelf-life has expired or the generator wishes to remove the items from the market. Such items or materials include but are not limited to off-specification or expired consumer products, pharmaceuticals, medications, health and personal care products, cosmetics, foodstuffs, nutritional supplements, returned goods, and controlled substances.
(d) Consumer-packaged products intended for human or domesticated animal use or application but not consumption. Such items or materials include but are not limited to carpet cleaners, household or bathroom cleaners, polishes, waxes and detergents.
(e) Waste materials that:
    (i) are generated in the manufacture of items in categories (c) or (d), above and are functionally or commercially useless (expired, rejected or spent); or
    (ii) are not yet formed or packaged for commercial distribution. Such items or materials must be substantially similar to other items or materials routinely found in MSW.
(f) Waste materials that contain oil from:
    (i) the routine cleanup of industrial or commercial establishments and machinery; or
    (ii) spills of virgin or used petroleum products. Such items or materials include but are not limited to rags, wipes, and absorbents.

MONTENAY BAY LLC

ONYX

RECEIVED
FEB 26 2004
BUREAU OF AIR REGULATION

MBLLC/DEP-04-0224-Wasteapproval

February 24, 2004

Ms. Trina L. Vielhauer
Chief
Florida DEP, Bureau of Air Regulation
Twin Towers Office Building
Mail Station 5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJECT: Waste Approval Consideration
Title V Permit No.: 0050031-008-AV
Approval number 00204, off-spec pharmaceuticals

Dear Ms. Vielhauer:

I am submitting for consideration a waste stream consisting of off-spec pharmaceuticals, submitted by Specialty Disposal Services, Inc, per section A.5.1.8.(c) of permit. Amount delivered would be 10 tons per month, if approved. Enclosed, please find thirty pages of additional information. Final approval would be contingent upon evaluation of the first load of material.

Please contact me at (850) 785-7933, x206 if you need further assistance.

Sincerely,

Chalmous Beechem
Operations Manager

6510 Bayline drive - Panama City, Florida 32404 - **Tel.: (850) 785-7933 - Fax: (850) 784-1779**

Specialty Disposal Services, Inc.

facsimile transmittal

To: Mr. Beechem Fax: 850-784-1779

From: Alyson Date: 2/24/04

Re: Pages: 30 Including cover page

CC:

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

SDS would like to know if we can bring in a truckload of the following 3 items and what the disposal pricing would be.

Thank you -
Alyson

If transmission is unclear, please call (973) 402-9246 or fax (973) 335-5833

WASTE Manager Software

Waste Stream: phenobarbital tablets

BEST AVAILABLE COPY

Profile No.: phenobarbital

Alternate No.:

GENERATOR INFORMATION

Generator Name: Ranbaxy Pharmaceuticals

Address: 4001 Executive Park Court

Jacksonville, FL 32216

County:

EPA ID No: N/A

Contact: Peter Meehan

Telephone: (904)470-6011 Ext: Fax:

Billing Address:

Billing Contact:

Telephone: Ext:

SHIPPING INFORMATION

Non-Hazardous: ☐ DOT Hazardous: ☐ RCRA Regulated: ☐ State Hazardous: ☐

Shipping Name: NON HAZARDOUS CHEMICALS

DOT Hazard Class: UN/NA #: NONE Packing Group: NA EPA Hazard Class: ERG #: Guide Year: 2000

EPA Waste Codes: NONE

State Waste Codes:

Additional Description (Section J):

DOT Shipping Description: NON HAZARDOUS CHEMICALS, NONE, PGNA

Special Handling (Section 15):

CHARACTERISTICS

Reactivity

- ☐ DOT Explosive
- ☐ Pyrophoric
- ☐ Oxidizer
- ☐ Cyanides
- ☐ Sulfides
- ☐ Shock Sensitive
- ☐ Water Reactive
- ☐ Air Reactive
- ☐ Acid Reactive
- ☐ Alkaline Reactive
- ☐ Polymerizable

Physical State: Solid

Liquid 0.00 % Solid 100.00 %

Sludge 0.00 % Gas 0.00 %

Phases/Layers: Multi-Layered

Viscosity: N/A

Chlorine Content: 0 %

pH: 4.1 - 10 BTU / Lb:

Density: lbs/gal Specific Gravity:

Flash Point (F): Boiling Point (F): n/a

Color/Appearance:

Odor: ☐ None ☐ Mild ☐ Strong

Describe:

CONSTITUENTS

	Avg %	Min %	Max %
Phenobarbital	0.00	18.00	56.00
Excipients	0.00	44.00	82.00

OTHER COMPONENTS

PCB's: 0 ppm

Cyanides: 0.00 ppm Phenolics: 0.00 ppm

Sulfides: 0.00 ppm Dioxins: 0.00 ppm

Pesticides: 0.00 ppm Halogens: 0.00 %

ANNUAL REPORT CODES

Source Code: Point of Measure:

Form Code: Radioactive Mixed:

Origin Code: System Code:

METALS

☒ None ☐ TOTAL (ppm) ☐ TCLP (mg/L)

	Avg	Min	Max		Avg	Min	Max
Antimony	0.00	0.00	0.00	Lead	0.00	0.00	0.00
Arsenic	0.00	0.00	0.00	Mercury	0.00	0.00	0.00
Barium	0.00	0.00	0.00	Nickel	0.00	0.00	0.00
Beryllium	0.00	0.00	0.00	Selenium	0.00	0.00	0.00
Cadmium	0.00	0.00	0.00	Silver	0.00	0.00	0.00
Chromium	0.00	0.00	0.00	Thallium	0.00	0.00	0.00
Copper	0.00	0.00	0.00	Zinc	0.00	0.00	0.00

REGULATORY INFORMATION

Generating Process: old outdated pharmaceuticals DEA controlled material

Infectious or Biological Waste? No

NRC Regulated Radioactive? No

Is this waste regulated under Subpart CC (VOC>=500ppm)? No

Spent solvent? No

Is this waste regulated as an ozone depleting substance (40 CFR part 82)? No

Does the waste contain scap metal pieces greater than 2 inches in size? No

Is this waste TSCA Regulated PCB Waste (From source >50 ppm)? No

Is this waste subject to Benzene NESHAP Regulations (D018, U019)? No

Is this waste stored in drums? Yes

Is this waste pumpable? No

Generator's Certification:

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all material described by this profile.

Generator Signature: Date:

WASTE Manager Software

BEST AVAILABLE COPY

Waste Stream: Lorazepam tablets

Profile No.: Lorazepam

Alternate No.:

GENERATOR INFORMATION

Generator Name: Ranbaxy Pharmaceuticals

Address: 4801 Executive Park Court

Jacksonville, FL 32216

County:

EPA ID No: N/A

Contact: Peter Meehan

Telephone: (904)470-8011 Ext: Fax:

Billing Address:

Billing Contact:

Telephone: Ext:

SHIPPING INFORMATION

Non-Hazardous: ☐ DOT Hazardous: ☐ RCRA Regulated: ☐ State Hazardous: ☐

Shipping Name: NON HAZARDOUS CHEMICALS

DOT Hazard Class: UN/NA #: NONE Packing Group: NA EPA Hazard Class: ERG #: Guide Year: 2000

EPA Waste Codes NONE

State Waste Codes

Additional Description (Section J)

DOT Shipping Description NON HAZARDOUS CHEMICALS, NONE, PGNA

Special Handling (Section 15)

CHARACTERISTICS

Reactivity

- ☐ DOT Explosive
- ☐ Pyrophoric
- ☐ Oxidizer
- ☐ Cyanides
- ☐ Sulfides
- ☐ Shock Sensitive
- ☐ Water Reactive
- ☐ Air Reactive
- ☐ Acid Reactive
- ☐ Alkaline Reactive
- ☐ Polymerizable

Physical State: Solid

Liquid 0.00 % Solid 100.00 %

Sludge 0.00 % Gas 0.00 %

Phases/Layers: Multi-Layered

Viscosity: N/A

Chlorine Content: 0 %

pH: 4.1 - 10 BTU / Lb:

Density: lbs/gal Specific Gravity:

Flash Point (F): Boiling Point (F): n/a

Color/Appearance:

Odor: ☐ None ☐ Mild ☐ Strong

Describe:

CONSTITUENTS

	Avg %	Min %	Max %
Lozazepam	0.00	0.00	0.00
FILLERS and inerts	0.00	0.00	0.00

METALS

☒ None ☐ TOTAL (ppm) ☐ TCLP (mg/L)

	Avg	Min	Max		Avg	Min	Max
Antimony	0.00	0.00	0.00	Lead	0.00	0.00	0.00
Arsenic	0.00	0.00	0.00	Mercury	0.00	0.00	0.00
Barium	0.00	0.00	0.00	Nickel	0.00	0.00	0.00
Beryllium	0.00	0.00	0.00	Selenium	0.00	0.00	0.00
Cadmium	0.00	0.00	0.00	Silver	0.00	0.00	0.00
Chromium	0.00	0.00	0.00	Thallium	0.00	0.00	0.00
Copper	0.00	0.00	0.00	Zinc	0.00	0.00	0.00

OTHER COMPONENTS

PCB's 0 ppm

Cyanides 0.00 ppm Phenolics 0.00 ppm

Sulfides 0.00 ppm Dioxins 0.00 ppm

Pesticides 0.00 ppm Halogens 0.00 %

ANNUAL REPORT CODES

Source Code: Point of Measure:

Form Code: Radioactive Mixed:

Origin Code: System Code:

REGULATORY INFORMATION

Generating Process: old outdated pharmaceuticals DEA controlled material

Infectious or Biological Waste? No

NRC Regulated Radioactive? No

Is this waste regulated under Subpart CC (VOC>=500ppm)? No

Spent solvent? No

Is this waste regulated as an ozone depleting substance (40 CFR part 82)? No

Does the waste contain scrap metal pieces greater than 2 inches in size? No

Is this waste TSCA Regulated PCB Waste (From source >50 ppm)? No

Is this waste subject to Benzene NESHAP Regulations (D018, U019)? No

Is this waste stored in drums? No

Is this waste pumpable? No

Generator's Certification:

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all material described by this profile

Generator Signature: **Date:**

WASTE Manager Software

BEST AVAILABLE COPY

Waste Stream: Acetominophen with Codeine

Profile No. Acetominophen with

Alternate No.

GENERATOR INFORMATION

Generator Name: Ranbaxy Pharmaceuticals
Address: 4601 Executive Park Court
Jacksonville, FL 32216
County:
EPA ID No: N/A

Contact: Peter Meehan
Telephone: (904)470-6011 Ext: Fax:
Billing Address:
Billing Contact:
Telephone: Ext:

SHIPPING INFORMATION

Non-Hazardous: ☐ DOT Hazardous: ☐ RCRA Regulated: ☐ State Hazardous: ☐

Shipping Name: NON HAZARDOUS CHEMICALS
DOT Hazard Class: UN/NA #: NONE Packing Group: NA EPA Hazard Class: ERG #: Guide Year: 2000

EPA Waste Codes NONE	State Waste Codes	Additional Description (Section J)
DOT Shipping Description NON HAZARDOUS CHEMICALS, NONE, PGNA		Special Handling (Section 15)

CHARACTERISTICS

Reactivity
☐ DOT Explosive ☐ Pyrophoric ☐ Oxidizer ☐ Cyanides ☐ Sulfides
☐ Shock Sensitive ☐ Water Reactive ☐ Air Reactive ☐ Acid Reactive ☐ Alkaline Reactive ☐ Polymerizable

Physical State: Solid
Liquid 0.00 % Solid 100.00 %
Sludge 0.00 % Gas 0.00 %
Phases/Layers: Multi-Layered
Viscosity: N/A
Chlorine Content: 0 %
pH: 4.1 - 10 BTU / Lb:

Density: lbs/gal Specific Gravity:
Flash Point (F): Boiling Point (F): n/a
Color/Appearance:
Odor: ☐ None ☐ Mild ☐ Strong
Describe:

CONSTITUENTS

	Avg %	Min %	Max %
FILLERS and inerts	0.00	0.00	0.00
Acetominophen with Codeine	0.00	0.00	0.00

OTHER COMPONENTS

PCB's 0 ppm
Cyanides 0.00 ppm Phenolics 0.00 ppm
Sulfides 0.00 ppm Dioxins 0.00 ppm
Pesticides 0.00 ppm Halogens 0.00 %

ANNUAL REPORT CODES

Source Code: Point of Measure:
Form Code: Radioactive Mixed:
Origin Code: System Code:

METALS

☒ None ☐ TOTAL (ppm) ☐ TCLP (mg/L)

	Avg	Min	Max		Avg	Min	Max
Antimony	0.00	0.00	0.00	Lead	0.00	0.00	0.00
Arsenic	0.00	0.00	0.00	Mercury	0.00	0.00	0.00
Barium	0.00	0.00	0.00	Nickel	0.00	0.00	0.00
Beryllium	0.00	0.00	0.00	Selenium	0.00	0.00	0.00
Cadmium	0.00	0.00	0.00	Silver	0.00	0.00	0.00
Chromium	0.00	0.00	0.00	Thallium	0.00	0.00	0.00
Copper	0.00	0.00	0.00	Zinc	0.00	0.00	0.00

REGULATORY INFORMATION

Generating Process: old outdated pharmaceuticals DEA controlled material

Infectious or Biological Waste? No
NRC Regulated Radioactive? No
Is this waste regulated under Subpart CC (VOC>=500ppm)? No
Spent solvent? No
Is this waste regulated as an ozone depleting substance (40 CFR part 82)? No
Does the waste contain scrap metal pieces greater than 2 inches in size? No
Is this waste TSCA Regulated PCB Waste (From source >50 ppm)? No
Is this waste subject to Benzene NESHAP Regulations (D018, U019)? No
Is this waste stored in drums? No
Is this waste pumpable? No

Generator's Certification:

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all material described by this profile.

Generator Signature: **Date:**

Shortdated Product in Cage and Vault as of 02/12/2004

Cage Vault	Stock Location	Material Number	NDC Number	Material Description	Plant	Strg Loc	Batch Number	Unrest Stock	Blocked Stock	Expiry Date
C 2	922/U-Zone	1003393	6330474210	PHENOBARBITAL Tabs CIV 30mg x 1000 (D)	5400	JA02	4NC46N	3,090	0	1/1/2004
C 1	99011A	1005754	6330456105	APAP Codeine CIII Tabs 300/60mg x 500	5400	JA02	CPB220	992	0	2/29/2004
C 1	99011B	1005754	6330456105	APAP Codeine CIII Tabs 300/60mg x 500	5400	JA02	CPB221	995	0	2/29/2004
C 1	99021A	1005754	6330456105	APAP Codeine CIII Tabs 300/60mg x 500	5400	JA02	CPA222	993	0	1/31/2004
C 1	99021B	1005754	6330456105	APAP Codeine CIII Tabs 300/60mg x 500	5400	JA02	CPA218	995	0	1/31/2004
C 1	99022A	1005754	6330456105	APAP Codeine CIII Tabs 300/60mg x 500	5400	JA02	CPA221	987	0	1/31/2004
C 1	99023A	1005754	6330456105	APAP Codeine CIII Tabs 300/60mg x 500	5400	JA02	CPA217	782	0	1/31/2004
C 1	99031A	1005754	6330456105	APAP Codeine CIII Tabs 300/60mg x 500	5400	JA02	CPA220	991	0	1/31/2004
C 1	99032B	1005754	6330456105	APAP Codeine CIII Tabs 300/60mg x 500	5400	JA02	CPB218	383	0	2/29/2004
C 1	99041B	1003396	6330474401	PHENOBARBITAL Tabs CIV 100mg x 100 (D)	5400	JA02	5MA64M	1,492	0	2/1/2004
C 1	99042A	1005754	6330456105	APAP Codeine CIII Tabs 300/60mg x 500	5400	JA02	CPB219	420	0	2/29/2004
C 1	99051A	1005754	6330456105	APAP Codeine CIII Tabs 300/60mg x 500	5400	JA02	CPA219	994	0	1/31/2004
C 1	99062B	1005754	6330456105	APAP Codeine CIII Tabs 300/60mg x 500	5400	JA02	CPB222	994	0	2/29/2004
C 1	99091A	1005754	6330456105	APAP Codeine CIII Tabs 300/60mg x 500	5400	JA02	CPB223	993	0	2/29/2004
C	99111A	1003393	6330474210	PHENOBARBITAL Tabs CIV 30mg x 1000 (D)	5400	JA02	5MS12N	696	0	8/1/2004
C	99111B	1003395	6330474310	PHENOBARBITAL Tabs CIV 60mg x 1000 (D)	5400	JA02	5MW41N	762	0	9/1/2004
C	99112B	1003395	6330474310	PHENOBARBITAL Tabs CIV 60mg x 1000 (D)	5400	JA02	5MW41N	2,304	0	9/1/2004
C	99142A	1003394	6330474301	PHENOBARBITAL Tabs CIV 60mg x 100 (D)	5400	JA02	5MU41P	1,999	0	9/1/2004
C	99142B	1003395	6330474310	PHENOBARBITAL Tabs CIV 60mg x 1000 (D)	5400	JA02	5MW41N	2,046	0	9/1/2004
C	99151B	1003394	6330474301	PHENOBARBITAL Tabs CIV 60mg x 100 (D)	5400	JA02	5MU41P	4,071	0	9/1/2004
C	99152A	1003393	6330474210	PHENOBARBITAL Tabs CIV 30mg x 1000 (D)	5400	JA02	5MS12N	1,045	0	8/1/2004
C	99154A	1003392	6330474201	PHENOBARBITAL Tabs CIV 30mg x 100 (D)	5400	JA02	5MS12M	4,812	0	8/1/2004
C	99162B	1007938	6330420518	MIDAZOLAM CIV 2mg/ml x 4oz (118ml)	5400	JA02	H020561A	101	0	8/26/2004
C	99163A	1007938	6330420518	MIDAZOLAM CIV 2mg/ml x 4oz (118ml)	5400	JA02	E020357A	35	0	5/31/2004
C	99163A	1007938	6330420518	MIDAZOLAM CIV 2mg/ml x 4oz (118ml)	5400	JA02	H020562A	762	0	8/28/2004
C 1	99164B	1003391	6330474101	PHENOBARBITAL Tabs CIV 15mg x 100 (D)	5400	JA02	4ND27M	3,648	0	1/1/2004
C	99171B	1003392	6330474201	PHENOBARBITAL Tabs CIV 30mg x 100 (D)	5400	JA02	5MS12M	4,749	0	8/1/2004
C 1	99172A	1003391	6330474101	PHENOBARBITAL Tabs CIV 15mg x 100 (D)	5400	JA02	4ND27M	5,184	0	1/1/2004
C	99173A	1003392	6330474201	PHENOBARBITAL Tabs CIV 30mg x 100 (D)	5400	JA02	5MS12M	747	0	8/1/2004
C 1	99182B	1003391	6330474101	PHENOBARBITAL Tabs CIV 15mg x 100 (D)	5400	JA02	4ND27M	5,184	0	1/1/2004
C	99194A	1003392	6330474201	PHENOBARBITAL Tabs CIV 30mg x 100 (D)	5400	JA02	5MS12M	10,368	0	8/1/2004
C 1	99201A	1005753	6330456101	APAP Codeine CIII Tabs 300/60mg x 100	5400	JA02	CPI109	1,466	0	10/31/2003
C 1	99201B	1003674	5166078401	PHENOBARBITAL Tabs CIV 15mg x 100 (OHM)	5400	JA02	CPG105	4,304	0	8/31/2003
C 2	99204A	1003391	6330474101	PHENOBARBITAL Tabs CIV 15mg x 100 (D)	5400	JA02	4ND27M	10,194	0	1/1/2004
C 3	922/U-Zone	1003391	6330474101	PHENOBARBITAL Tabs CIV 15mg x 100 (D)	5400	JA02	4ND27M	15,552	0	1/1/2004
C 1	99211A	1005800	6330477201	LORAZEPAM CIV Tablets .5mg x 100	5400	JA02	1153371	2,940	0	9/30/2003
C 1	99212A	1003391	6330474101	PHENOBARBITAL Tabs CIV 15mg x 100 (D)	5400	JA02	4ND27M	4,036	0	1/1/2004
C	99213B	1003394	6330474301	PHENOBARBITAL Tabs CIV 60mg x 100 (D)	5400	JA02	5MW41M	5,184	0	9/1/2004
C	99251A	1003392	6330474201	PHENOBARBITAL Tabs CIV 30mg x 100 (D)	5400	JA02	5MS12M	2,058	0	8/1/2004
C	99254A	1003394	6330474301	PHENOBARBITAL Tabs CIV 60mg x 100 (D)	5400	JA02	5MW41M	9,018	0	9/1/2004
C	99254B	1003394	6330474301	PHENOBARBITAL Tabs CIV 60mg x 100 (D)	5400	JA02	5MW41M	10,368	0	9/1/2004
C	99264A	1003394	6330474301	PHENOBARBITAL Tabs CIV 60mg x 100 (D)	5400	JA02	5MW41M	10,368	0	9/1/2004

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Shortdated Product in Cage and Vault as of 02/12/2004

Cage Vault	Stock Location	Material Number	NDC Number	Material Description	Plant	Stg Loc	Batch Number	Unrest Stock	Blocked Stock	Expiry Date
C	99264B	1003394	6330474301	PHENOBARBITAL Tabs CIV 60mg x 100 (D)	5400	JA02	5MW41M	9,958	0	9/1/2004
C 1	99274A	1005800	6330477201	LORAZEPAM CIV Tablets .5mg x 100	5400	JA02	1187996	5,184	0	3/31/2004
C 2	99274B	1003396	6330474401	PHENOBARBITAL Tabs CIV 100mg x 100 (D)	5400	JA02	5MA64M	7,113	0	2/1/2004
C 2	922/U Zone	1003396	6330474401	PHENOBARBITAL Tabs CIV 100mg x 100 (D)	5400	JA02	5MA64M	9,110	0	2/1/2004
C	99281B	1003395	6330474310	PHENOBARBITAL Tabs CIV 60mg x 1000 (D)	5400	JA02	5MU41N	66	0	9/1/2004
C 1	99282B	1003391	6330474101	PHENOBARBITAL Tabs CIV 15mg x 100 (D)	5400	JA02	4ND27M	1,691	0	1/1/2004
C 1	99284A	1005800	6330477201	LORAZEPAM CIV Tablets .5mg x 100	5400	JA02	1187994	1,760	0	2/29/2004
C 2	99284B	1005800	6330477201	LORAZEPAM CIV Tablets .5mg x 100	5400	JA02	1187995	5,689	0	3/31/2004
V	103	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPG234	1,728	0	7/31/2004
V	104	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPF243	3,888	0	6/30/2004
V	105	1009025	6330491001	AMPHETAMINE Salts CII Tabs 20mg x 100	5400	JA02	CPE209	2,877	0	5/31/2004
V	106	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPF242	3,888	0	6/30/2004
V	109	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPE227	3,888	0	6/30/2004
V	110	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPF226	3,888	0	6/30/2004
V	111	1009022	6330490801	AMPHETAMINE Salts CII Tabs 5mg x 100	5400	JA02	CPE206	4,752	0	6/30/2004
V	112	1003382	6330467901	SECONAL Caps CII 100mg x 100			1286253	619	0	12/31/2004
V	113	1009026	6330491101	AMPHETAMINE Salts CII Tabs 30mg x 100	5400	JA02	CPE211	2,372	0	5/31/2004
V	114	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPF241	3,888	0	6/30/2004
V	115	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPF228	3,888	0	6/30/2004
V	116	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPE203	3,164	0	5/31/2004
V	119	1009022	6330490801	AMPHETAMINE Salts CII Tabs 5mg x 100	5400	JA02	CPE206	5,108	0	6/30/2004
V	202	1009026	6330491101	AMPHETAMINE Salts CII Tabs 30mg x 100	5400	JA02	CPE212	2,246	0	5/31/2004
V	203	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPF227	3,568	0	6/30/2004
V	206	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPG234	3,578	0	7/31/2004
V	207	1009026	6330491101	AMPHETAMINE Salts CII Tabs 30mg x 100	5400	JA02	CPE212	2,357	0	5/31/2004
V	208	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPF243	3,583	0	6/30/2004
V	209	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPF226	3,575	0	6/30/2004
V	210	1003372	6330430310	AMYTAL CII 5mL x 10 Vials (D)	5400	JA02	5MU43M	824	0	2/1/2004
V	216	1003398	6330474901	CODEINE Phosphate CII Tabs 60mg x 100	5400	JA02	5MU69M	516	0	10/1/2004
V	217	1003373	6330430325	AMYTAL CII 5mL x 25 Vials (D)	5400	JA02	5MU43N	212	0	2/1/2004
V	218	1009026	6330491101	AMPHETAMINE Salts CII Tabs 30mg x 100	5400	JA02	CPE211	1,673	0	5/31/2004
V	219	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPF228	3,576	0	6/30/2004
V	220	1009025	6330491001	AMPHETAMINE Salts CII Tabs 20mg x 100	5400	JA02	CPE209	3,510	0	5/31/2004
V	221	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPF241	3,556	0	6/30/2004
V	222	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPF242	3,570	0	6/30/2004
V	301	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPG233	7,208	0	7/31/2004
V	302	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPF229	7,452	0	6/30/2004
V	303	1009022	6330490801	AMPHETAMINE Salts CII Tabs 5mg x 100	5400	JA02	CPG229	8,694	288	7/31/2004
V	304	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPG231	7,466	0	7/31/2004
V	305	1009025	6330491001	AMPHETAMINE Salts CII Tabs 20mg x 100	5400	JA02	CPF235	7,362	0	6/30/2004
V	306	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPG230	6,274	0	7/31/2004
V	307	1009024	6330490901	AMPHETAMINE Salts CII Tabs 10mg x 100	5400	JA02	CPF225	4,703	0	6/30/2004
V	308	1009025	6330491001	AMPHETAMINE Salts CII Tabs 20mg x 100	5400	JA02	CPF236	5,881	0	6/30/2004

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SAP	EXP.	LOT #	DESCRIPTION	QTY	NDC
1003391	7/31/01	2MP70M	(D) PHENOBARBITAL Tabs CIV 15mg x 100	2	741-01
1003391	1/31/04	4ND27M	(D) PHENOBARBITAL Tabs CIV 15mg x 100	105	741-01
1003392	8/31/04	5MS12M	(D) PHENOBARBITAL Tabs CIV 30mg x 100	13	742-01
1003393	1/31/04	4NC46N	(D) PHENOBARBITAL Tabs CIV 30mg x 1000	31	742-10
1003394	1/31/03	3MJ34M	(D) PHENOBARBITAL Tabs CIV 60mg x 100	1	743-01
1003394	11/30/02	3MT45M	(D) PHENOBARBITAL Tabs CIV 60mg x 100	1	743-01
1003394	5/31/03	4MD85M	(D) PHENOBARBITAL Tabs CIV 60mg x 100	1	743-01
1009024	11/30/05	CPJ381	AMPHETAMINE SALTS CII TABS 10MG X 100	36	909-01
1009024	6/31/04	CPE201	AMPHETAMINE Salts CII Tabs 10mg x 100	129	909-01
1009024	5/31/04	CPE207	AMPHETAMINE Salts CII Tabs 10mg x 100	138	909-01
1009026	5/31/04	CPE210	AMPHETAMINE Salts CII Tabs 30mg x 100	239	911-01
1009022	5/31/04	CPE204	AMPHETAMINE Salts CII Tabs 5mg x 100	157	908-01
1003372	8/31/03	5MT93N	AMYTAL CII 5ML X 10 VIALS	12	303-10
1003372	2/29/04	5MU43M	AMYTAL CII 5ML X 10 VIALS	31	303-10
1005750	5/31/03	CPL103	APAP Codeine CIII Tabs 300/30mg x 100	5	562-01
1005752	2/29/04	CPB212	APAP Codeine CIII Tabs 300/30mg x 1000	1	562-10
1005752	3/31/04	CPC204	APAP Codeine CIII Tabs 300/30mg x 1000	48	562-10
1005752	3/31/04	CPC206	APAP Codeine CIII Tabs 300/30mg x 1000	355	562-10
1005752	3/31/04	CPC207	APAP Codeine CIII Tabs 300/30mg x 1000	24	562-10
1005752	3/31/04	CPC208	APAP Codeine CIII Tabs 300/30mg x 1000	5	562-10
1005752	3/31/04	CPC228	APAP Codeine CIII Tabs 300/30mg x 1000	5	562-10
1005752	3/31/04	CPC231	APAP Codeine CIII Tabs 300/30mg x 1000	88	562-10
1005752	3/31/04	CPC233	APAP Codeine CIII Tabs 300/30mg x 1000	36	562-10
1005752	4/30/04	CPC234	APAP Codeine CIII Tabs 300/30mg x 1000	169	562-10
1005752	4/30/04	CPC235	APAP Codeine CIII Tabs 300/30mg x 1000	112	562-10
1005752	4/30/04	CPC236	APAP Codeine CIII Tabs 300/30mg x 1000	10	562-10
1005752	8/31/05	CPH326	APAP Codeine CIII Tabs 300/30mg x 1000	1	562-10
1005751	10/31/02	CPJ102	APAP Codeine CIII Tabs 300/30mg x 500	1	562-05
1005753	4/30/05	CPD307	APAP Codeine CIII Tabs 300/60mg x 100	3	561-01
1005753	10/31/03	CPI108	APAP Codeine CIII Tabs 300/60mg x 100	4	561-01
1005753	10/31/03	CPI109	APAP Codeine CIII Tabs 300/60mg x 100	3	561-01
1005753	12/31/03	CPL108	APAP Codeine CIII Tabs 300/60mg x 100	2	561-01
1005753	12/31/03	CPL109	APAP Codeine CIII Tabs 300/60mg x 100	2	561-01
1003390	1/31/04	CPA204	APAP Codeine CIII Tabs 300/60mg x 500	4	561-05
1005754	1/31/04	CPA215	APAP Codeine CIII Tabs 300/60mg x 500	89	561-05
1005754	1/31/04	CPA216	APAP Codeine CIII Tabs 300/60mg x 500	20	561-05
1005754	1/31/04	CPA217	APAP Codeine CIII Tabs 300/60mg x 500	1	561-05
1005754	4/30/04	CPA220	APAP Codeine CIII Tabs 300/60mg x 500	24	561-05
1005754	2/29/04	CPB218	APAP Codeine CIII Tabs 300/60mg x 500	1	561-05
1005754	4/30/04	CPD220	APAP Codeine CIII Tabs 300/60mg x 500	31	561-05
1005754	1/31/04	CPD221	APAP Codeine CIII Tabs 300/60mg x 500	58	561-05
1005754	11/30/03	CPJ119	APAP Codeine CIII Tabs 300/60mg x 500	1	561-05
1003397	8/31/02	3MP13M	CODEINE Phosphate CII Tabs 30mg x 100	2	748-01
1003397	1/31/04	4NG42M	CODEINE Phosphate CII Tabs 30mg x 100	89	748-01
1003398	2/28/04	4NG43M	CODEINE Phosphate CII Tabs 60mg x 100	25	749-01
1005800	9/30/03	1153370	LORAZEPAM CIV Tablets .5mg x 100	5	772-01
1005800	9/30/03	1153371	LORAZEPAM CIV Tablets .5mg x 100	5	772-01
1005800	1/31/04	1187996	LORAZEPAM CIV Tablets .5mg x 100	4	772-01

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1005801	4/30/04	No label	LORAZEPAM CIV Tablets .5mg x 500	1	772-05
1005802	10/31/03	1158603	LORAZEPAM CIV Tablets 1mg x 100	1	773-01
1005802	10/31/03	1158604	LORAZEPAM CIV Tablets 1mg x 100	77	773-01
1005802	10/31/03	1158605	LORAZEPAM CIV Tablets 1mg x 100	4	773-01
1005803	9/30/03	1153372	LORAZEPAM CIV Tablets 1mg x 500	1	773-05
1005803	2/29/04	1184092	LORAZEPAM CIV Tablets 1mg x 500	6	773-05
1005803	1/31/05	1274671	LORAZEPAM CIV Tablets 1mg x 500	1	773-05
1005804	4/30/05	1299708	LORAZEPAM CIV Tablets 1mg x1000	1	773-10
1005805	10/31/03	1161219	LORAZEPAM CIV Tablets 2mg x 100	10	774-01
1005805	1/31/04	1177916	LORAZEPAM CIV Tablets 2mg x 100	1	774-01
1005805	1/31/04	1177918	LORAZEPAM CIV Tablets 2mg x 100	8	774-01
1005806	2/29/04	1187731	LORAZEPAM CIV Tablets 2mg x 100	2	774-01
1005805	2/29/04	1187733	LORAZEPAM CIV Tablets 2mg x 100	2	774-01
1005805	1/31/04	No label	LORAZEPAM CIV Tablets 2mg x 100	1	774-01
1005806	8/31/03	1150833	LORAZEPAM CIV Tablets 2mg x 500	1	774-05
1005806	9/30/03	1153379	LORAZEPAM CIV Tablets 2mg x 500	2	774-05
1005806	9/30/03	1153380	LORAZEPAM CIV Tablets 2mg x 500	1	774-05
1005806	1/31/04	1177919	LORAZEPAM CIV Tablets 2mg x 500	1	774-05
1007938	4/30/04	E020355A	MIDAZOLAM CIV 2mg/ml x 4oz (118ml)	6	205-18
1007938	5/31/04	E020356A	MIDAZOLAM CIV 2mg/ml x 4oz (118ml)	3	205-18
1007938	5/31/04	E020357A	MIDAZOLAM CIV 2mg/ml x 4oz (118ml)	28	205-18
1003390	4/30/04	5NF76M	MORPHINE SULFATE CII TABS 30MG X 100	294	708-01
1003371	3/31/04	5MF20M	OPIUM TINCTURE CII (118ML) 16OZ	4	203-02
1003371	1/1/05	BROKEN	OPIUM TINCTURE CII (118ML) 16OZ	1	203-02
1003370	3/1/05	1287416	OPIUM TINCTURE CII (118ML) 4OZ	1	203-01
1003370	8/31/02	4MG81M	OPIUM TINCTURE CII (118ML) 4OZ	5	203-01
1003370	5/31/04	5MJ36M	OPIUM TINCTURE CII (118ML) 4OZ	1	203-01
1003259	3/31/04	1128056	PENTA&NAL HCI Tabs CIV 50mg/0.5mg x 100	1	506-01
1003259	5/31/03	1129056	PENTA&NAL HCI Tabs CIV 50mg/0.5mg x 100	1	506-01
1003259	5/31/03	1129056	PENTA&NAL HCI Tabs CIV 50mg/0.5mg x 100	2	506-01
1003259	10/31/03	1158869	PENTA&NAL HCI Tabs CIV 50mg/0.5mg x 100	10	506-01
1003396	6/30/02	3MH51M	PHENOBARBITAL Tabs CIV 100mg x 100	6	744-01
1003396	2/28/04	5MA64M	PHENOBARBITAL Tabs CIV 100mg x 100	30	744-01
1003674	8/31/03	CPG105	PHENOBARBITAL Tabs CIV 15mg x 100 (OHM)	5	784-01
1003392	12/31/02	3NA63M	PHENOBARBITAL Tabs CIV 30mg x 100	3	742-01
1003392	1/31/04	4NC46M	PHENOBARBITAL Tabs CIV 30mg x 100	214	742-01
1003679	1/31/04	CPA213	PHENOBARBITAL Tabs CIV 30mg x 1000 (OHM)	24	785-10
1003679	5/31/03	CPE104	PHENOBARBITAL Tabs CIV 30mg x 1000 (OHM)	1	785-10
1003679	12/31/03	CPL104	PHENOBARBITAL Tabs CIV 30mg x 1000 (OHM)	10	785-10
1003676	8/31/03	CPG107	PHENOBARBITAL Tabs CIV 60mg x 100 (OHM)	116	786-01
1003678	5/31/03	CPD110	PHENOBARBITAL Tabs CIV 60mg x 1000 (OHM)	46	768-10
1003678	11/30/03	CPK101	PHENOBARBITAL Tabs CIV 60mg x 1000 (OHM)	1	786-10
1003678	11/30/03	CPL106	PHENOBARBITAL Tabs CIV 60mg x 1000 (OHM)	2	786-10
1003382	3/31/03	3MX97M	SECONAL Caps CII 100mg x 100	1	679-01

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TO BE DESTROYED				
SAP	EXP.	LOT #	DESCRIPTION	QTY
1009024	5/31/04	CPE201	AMPHETAMINE Salts CII Tabs 10mg x 100	50
1009025	5/31/04	CPE207	AMPHETAMINE Salts CII Tabs 20mg x 100	33
1005752	1/31/04	CPA212	APAP Codeine CIII Tabs 300/30mg x 1000	120
1005752	4/30/04	CPC235	APAP Codeine CIII Tabs 300/30mg x 1000	3
1005752	11/30/03	CPK117	APAP Codeine CIII Tabs 300/30mg x 1000	1
1005754	1/31/04	CPA202	APAP Codeine CIII Tabs 300/60mg x 500	18
1003397	10/31/04	5MU63M	CODEINE Phosphate CII Tabs 30mg x 100	1
1005800	1/31/04	1187996	LORAZEPAM CIV Tablets .5mg x 100	72
1005802	5/31/05	1308307	LORAZEPAM CIV Tablets 1mg x 100	1
1003390	10/31/03	1159782	MORPHINE Sulfate CII Tabs 30mg x 100	2
1003390	12/31/03	1171324	MORPHINE Sulfate CII Tabs 30mg x 100	3
1003390	1/31/04	1177627	MORPHINE Sulfate CII Tabs 30mg x 100	1
1003396	2/29/04	5MA64M	PHENOBARBITAL Tabs CIV 100mg x 100 (D)	3
1003391	1/31/04	4ND27M	PHENOBARBITAL Tabs CIV 15mg x 100 (D)	2
1003394	8/31/04	5MT61M	PHENOBARBITAL Tabs CIV 60mg x 100 (D)	7
1003676	8/31/03	CPG107	PHENOBARBITAL Tabs CIV 60mg x 100 (OHM)	2
1003395	5/31/03	4MD86N	PHENOBARBITAL Tabs CIV 60mg x 1000 (D)	3
1003395	8/31/04	5MT61N	PHENOBARBITAL Tabs CIV 60mg x 1000 (D)	4

Lilly

Eli Lilly and Company
Material Safety Data Sheet

Phenobarbital Tablets

Effective Date: 23-Sep-93

Section 1 - Chemical Product and Company

Manufacturer:
Eli Lilly and Company
Lilly Corporate Center
Indianapolis, IN 46285

Emergency Phone:
317-276-2000
CHEMTREC:
1-800-424-9300 (North America)
1-703-527-3887 (International)

Common Name: Phenobarbital Tablets

Chemical Name: 5-Ethyl-5-phenylbarbituric acid
Synonym(s): Phenobarbital; Phenobarbital Tablet Mix; J31; J32; J33; J37; 008797 Formulation; Fenobarbital
Lilly Item Code(s): TA1544; TA1545; TA1546; TA1574

See attached glossary for abbreviations.

Section 2 - Composition / Information on Ingredients

Ingredient	CAS	Concentration %
Phenobarbital	50-06-6	18 - 56
Excipients	NA	44 - 82

Contains no hazardous components (one percent or greater) or carcinogens (one-tenth percent or greater) not listed above.

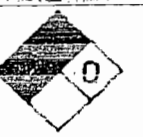
Drug Enforcement Administration Status: Controlled Substance, Schedule IV.

Exposure Guidelines: PEL and TLV not established.

Section 3 - Hazards Identification

Appearance: White to off-white powder finished as tablets
Physical State: Solid
Odor: Odorless

Emergency Overview



Special
sC = Suspect Carcinogen
R = Reproductive

Emergency Overview Effective Date: 18-Sep-93

Lilly Laboratory Labeling Codes:
Health 2 Fire 1 Reactivity 0 Special sC, R

Primary Physical and Health Hazards: Toxic. Suspect Carcinogen. Suspect Allergen. Nervous System and Reproductive Effects.

Caution Statement: Phenobarbital Tablets contains phenobarbital which is toxic and may cause liver cancer as determined in animals. Effects of exposure to phenobarbital may include tremors, nausea, vomiting, drowsiness, fatigue, decreased strength, fetal changes, and chemical dependency.

Routes of Entry: Inhalation and skin contact.

Potential Signs and Symptoms of Occupational Exposure: Tablets are intended for human consumption under guidance of a physician. Working with these uncoated tablets may result in exposure to dust containing phenobarbital. Based on clinical data, effects of exposure to the powder used to make tablets may include drowsiness, lethargy, nausea/vomiting, respiratory depression, drooping and fluttering of eyelids, disturbance of eye movement, and allergic reactions. Based on clinical data, developmental abnormalities, including congenital heart disease, facial abnormalities, and peripheral skeletal malformations, have been reported with pregnancies where phenobarbital or other anticonvulsants were used. Dependency may occur with prolonged exposure.

Medical Conditions Aggravated by Exposure: Hypersensitivity to phenobarbital.

Carcinogenicity: Phenobarbital Tablets - No carcinogenicity data found. Not listed as carcinogenic by IARC, NCI/NTP, ACGIH, or OSHA.
Phenobarbital - IARC Group 2B - Inadequate evidence of human carcinogenicity, sufficient evidence of animal carcinogenicity.

Section 4 - First Aid Measures

Eyes: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. See an ophthalmologist (eye doctor) or other physician immediately.

Skin: Remove contaminated clothing and clean before reuse. Wash all exposed areas of skin with plenty of soap and water. Get medical attention if irritation develops.

Inhalation: Move individual to fresh air. Get medical attention if breathing difficulty occurs. If not

breathing, provide artificial respiration assistance (mouth-to-mouth) and call a physician immediately.

Ingestion: Do not induce vomiting. Call a physician or poison control center. If available, administer activated charcoal (6-8 heaping teaspoons) with two to three glasses of water. Do not give anything by mouth to an unconscious person. Immediately transport to a medical care facility and see a physician.

Section 5 - Fire Fighting Measures

Flash Point: NAIF
UEL: NAIF
LEL: NAIF

Extinguishing Media: Use water, carbon dioxide, dry chemical, foam, or Halon.

Unusual Fire and Explosion Hazards: As a finely divided material, may form dust mixtures in air which could explode if subjected to an ignition source.

Hazardous Combustion Products: May emit toxic fumes when heated to decomposition.

Section 6 - Accidental Release Measures

Spills: Contain dry material by sweeping up or vacuuming. Vacuuming may disperse dust if appropriate dust collection filter is not part of the vacuum. Be aware of potential for dust explosion when using electrical equipment. Wear protective equipment, including eye protection, to avoid exposure (see Section 8 for specific handling precautions).

Section 7 - Handling and Storage

See Section 8 for appropriate personal protective equipment.

Section 8 - Exposure Controls / Personal Protection

See Section 2 for Exposure Guidelines.

Under normal use and handling conditions, no protective equipment is required. The following is recommended for a production setting:

Respiratory Protection: Use an approved respirator.

Eye Protection: Chemical goggles and/or face shield.

Ventilation: Laboratory fume hood or local exhaust ventilation.

Other Protective Equipment: Chemical-resistant gloves and body covering to minimize skin contact. If handled in a ventilated enclosure, as in a laboratory setting, respirator and goggles or face shield may not be required. Safety glasses are always required.

Other Handling Precautions: In production settings, airline-supplied, hood-type respirators are preferred. Shower and change clothing if skin contact occurs. Because this is a controlled substance, special handling and storage requirements must be observed to assure compliance with Drug Enforcement Administration regulations.

Section 9 - Physical and Chemical Properties

Boiling Point: NA
Melting Point: NAIF
Specific Gravity: NAIF
pH: NAIF
Evaporation Rate: NAIF
Water Solubility: Slightly soluble
Vapor Density: NAIF
Vapor Pressure: NAIF

Section 10 - Stability and Reactivity

Stability: Stable at normal temperatures and pressures.

Incompatibility: May react with strong oxidizing agents (e.g., peroxides, permanganates, nitric acid, etc.).

Hazardous Decomposition: May emit toxic fumes when heated to decomposition.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

Animal Toxicity Data Single Exposure

Data for the active ingredient, phenobarbital, are reported.

Oral: Phenobarbital - Rat, median lethal dose estimated less than 225 mg/kg, mortality, prostration, deep hypnosis, decreased breathing, labored breathing, incoordination, delayed intermittent fine tremors. Dog, median lethal dose 150 mg/kg.

Skin: Phenobarbital - NAIF

Inhalation: Phenobarbital - NAIF

Intravenous: Phenobarbital - Rat, median lethal dose 209 mg/kg.

Skin Contact: Phenobarbital - NAIF

Eye Contact: Phenobarbital - NAIF

Animal Toxicity Data Repeat Exposure

Data for the active ingredient, phenobarbital, are reported.

Target Organ Effects: Phenobarbital - Marked interruption of early brain growth. Liver effects (tumors).

Reproduction: Phenobarbital - Skeletal abnormalities.

Sensitization: Phenobarbital - NAIF

Mutagenicity: Phenobarbital - Generally considered negative for genotoxicity, but mixed and conflicting results have been obtained in both bacterial and mammalian systems.

Section 12 - Ecological Information

Specific ecological data are not yet available. Please refer to Section 6 for information regarding accidental releases and Section 15 for regulatory reporting.

Section 13 - Disposal Considerations

Waste Disposal: Because this is a controlled substance, the local Drug Enforcement Administration office must be notified for authority and instructions for disposal. Disposal must be in accordance with applicable federal, state, and local laws and regulations.

Section 14 - Transport Information

Regulatory Organizations:

DOT: Not Regulated

ICAO: Not Regulated

IMO: Not Regulated

Section 15 - Regulatory Information

Data have not yet been transferred to this section. See Section 16 for any available information.

Section 16 - Other Information

As of the date of issuance, we are providing available information relevant to the handling of this material in the workplace. All information contained herein is offered with the good faith belief that it is accurate. THIS MATERIAL SAFETY DATA SHEET SHALL NOT BE DEEMED TO CREATE ANY WARRANTY OF ANY KIND (INCLUDING WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE). In the event of an adverse incident associated with this material, this

safety data sheet is not intended to be a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for product literature which may accompany the finished product.

For additional information contact:
Eli Lilly and Company
Environmental Science and Hazard Communication
317-277-4259

For additional copies contact:
Eli Lilly and Company
1-800-LILLY-Rx (1-800-545-5979)

GLOSSARY:
(Abbreviations Used in Material Safety Data Sheets)

ACGIH = American Conference of Governmental Industrial Hygienists
BEI = Biological Exposure Index
CAS Number = Chemical Abstract Service Registry Number
CERCLA = Comprehensive Environmental Response Compensation and Liability Act (of 1980)
CHEMTREC = Chemical Transportation Emergency Center
CWA = Clean Water Act
DOT = Department of Transportation
EC = European Community
EINECS = European Inventory of Existing Chemical Substances
ELINCS = European List of New Chemical Substances
EP = Extraction Procedure as defined under RCRA Regulations
EPA = Environmental Protection Agency
HEPA = High Efficiency Particulate Air (Filter)
HSDB = Hazardous Substances Databank
IARC = International Agency for Research on Cancer
ICAO = International Civil Aviation Organization
IEG = Lilly Interim Exposure Guideline
IMO = International Maritime Organization
LEG = Lilly Exposure Guideline
LEL = Lower Explosive Limit
MSDS = Material Safety Data Sheet
NA = Not Applicable, except in Section 14 where NA = North America
NAIF = No Applicable Information Found
NCI/NTP = National Cancer Institute/National Toxicology Program
NIOSH = National Institute for Occupational Safety and Health
NOS = Not Otherwise Specified
OHS = Occupational Health Services
OSHA = Occupational Safety and Health Administration
PEL = Permissible Exposure Limit (OSHA)
RCRA = Resource Conservation and Recovery Act
RQ = Reportable Quantity
RTECS = Registry of Toxic Effects of Chemical Substances
SARA = Superfund Amendments and Reauthorization Act
STEG = Lilly Short Term Exposure Guideline

STEL = Short Term Exposure Limit
TLV = Threshold Limit Value (ACGIH)
TPQ = Threshold Planning Quantity
TSCA = Toxic Substances Control Act
TWA = Time Weighted Average/8 Hours Unless Otherwise Noted
UEL = Upper Explosive Limit
UN = United Nations

Material Safety Data Sheet

12601 Twinbrook Parkway
Rockville, MD 20852 USA

Telephone calls: (301) 881-0666
8:00am - 5:00pm EST Mon. - Fri.

Responsible Party: Roger Williams

ATTENTION!

USP Reference Standards are sold for chemical test and assay purposes only, and NOT for human consumption. The information contained herein is applicable solely to the chemical substance when used as a USP Reference Standard and does not necessarily relate to any other use of the substance described. (i.e. at different concentrations, in drug dosage forms, or in bulk quantities). USP Reference Standards are intended for use by persons having technical skill and at their own discretion and risk. This information has been developed by USP staff from sources considered reliable but has not been independently verified by the USP. Therefore, the USP Convention cannot guarantee the accuracy of the information in these sources nor should the statements contained herein be considered an official expression. NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE is made with respect to the information contained herein.

LORAZEPAM RELATED COMPOUND A (LIMIT TEST)

Catalog Number: 37032 **Package Size:** 25 mg **Revision Date:** February 2, 2001

EMERGENCY OVERVIEW - Reproductive Hazard.

Information on the chemical, physical and toxicological properties of this material is not readily available. Individuals working with this chemical should consider it to be potentially hazardous even if its actual hazards may be uncharacterized or unknown.

SECTION 1 - IDENTIFICATION

Common Name: Lorazepam Related Compound A **Formula:** C17H12Cl2N2O3

Synonym: Lorazepam acetate

Chemical Name: 7-Chloro-5-(o-chlorophenyl)-1,3-dihydro-3-acetoxy-2H-1,4-benzodiazepin-2-one

CAS Number: 2848-96-6 **RTECS Number:** n/f

Chemical Family: A Benzodiazepine derivative

Therapeutic Category: n/f

SECTION 2 - INGREDIENT INFORMATION

Principle Components	Percent	Exposure Limits
Lorazepam Related Compound A	Pure Material	n/f

SECTION 3 - HEALTH HAZARD INFORMATION

Usual Adult Dose: n/f

Adverse Effects: Adverse effects of lorazepam (a related compound) may include memory problems, anxiety, confusion, fast, pounding, or irregular heartbeat, slurred speech, changes in vision, changes in libido, constipation, diarrhea, dry mouth, headache, watering of mouth, nausea, vomiting, problems with urination, trembling, drowsiness, fatigue, dizziness, mental depression, muscle spasms or weakness, stomach cramps, false sense of well-being, and clumsiness. It is not known if this material causes the same effects. Possible allergic reaction to material if inhaled, ingested or in contact with skin.

n/f = not found

Overdose Effects: Overdose effects of lorazepam include continuing confusion, decreased reflexes, severe drowsiness, seizures, shakiness, slow heartbeat, slurred speech, troubled breathing, severe weakness, staggering, and coma.

Acute: Possible eye, skin, gastrointestinal and/or respiratory tract irritation.

Chronic: Possible hypersensitization.

Inhalation: May cause irritation. Remove to fresh air.

Eye: May cause irritation. Flush with copious quantities of water.

Skin: May cause irritation. Flush with copious quantities of water.

Ingestion: May cause irritation. Flush out mouth with water.

Medical Conditions Aggravated by Exposure: Hypersensitivity to material.

Cross Sensitivity: n/f

Pregnancy Comments: Some benzodiazepines have been reported to increase the risk of congenital malformations when used during the first trimester of pregnancy. Studies in rabbits have shown that lorazepam (a related compound) causes anomalies, fetal resorption and increased fetal loss. Chronic use or therapeutic use late in pregnancy may adversely affect the newborn, therefore this material is not recommended for use by pregnant women.

Pregnancy Category: n/f

SECTION 4 - FIRST AID MEASURES

General: Remove from exposure. Remove contaminated clothing. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention. If person is not breathing give artificial respiration. If breathing is difficult give oxygen. Obtain medical attention.

Overdose Treatment: Overdose treatment is generally supportive and may include:

1. If the person is conscious, induce vomiting mechanically or with emetics. Activated charcoal may be administered.
2. If patient is unconscious, perform gastric lavage with cuffed endotracheal tube.
3. Monitor respiration, pulse and blood pressure, and maintain an adequate airway.
4. Give intravenous fluids to promote diuresis and control blood pressure.
5. Control hypotension, if necessary, by intravenous administration of vasopressors such as dopamine, norepinephrine, or metaraminol.
6. Administer oxygen if respiration is depressed. Maintain adequate pulmonary ventilation.
7. After airway, ventilation, and intravenous access have been secured, administer flumazenil, a specific benzodiazepine receptor antagonist, to reverse sedative effects. Monitor patient for return of sedation. Flumazenil may precipitate seizures.
8. Do NOT use barbiturates to control excitation. Dialysis is of no known value. [USP DI 20th ed. 2000]

SECTION 5 - TOXICOLOGICAL INFORMATION

Oral Rat: LD50: n/f

Oral Mouse: LD50: n/f

Irritancy Data: n/f

Target Organ(s): n/f

sted as a Carcinogen? NTP: No IARC: No OSHA: No

Other: No

n/f = not found

SECTION 6 - FIREFIGHTING MEASURES

Flash Point:	n/f	**Upper Flammable Limit:**	n/f
Auto-Ignition Temperature:	n/f	Lower Flammable Limit:	n/f

Extinguisher Media: Water spray, dry chemical, carbon dioxide or foam as appropriate for surrounding fire and materials.

Fire and Explosion Hazards: This material is assumed to be combustible. As with all dry powders it is advisable to ground mechanical equipment in contact with dry material to dissipate the potential buildup of static electricity.

Firefighting Procedures: As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing.

SECTION 7 - PHYSICAL HAZARDS

Conditions to Avoid: Avoid exposure to light.

Incompatibilities: Oxidizing agents.

Decomposition Products: When heated to decomposition material emits toxic fumes of Cl- and NOx. Emits toxic fumes under fire conditions.

Stable? Yes **Hazardous Polymerization?** No

SECTION 8 - HANDLING / SPILL / DISPOSAL MEASURES

Handling: As a general rule, when handling USP Reference Standards avoid all contact and inhalation of dust, mists, and/or vapors associated with the material. Wash thoroughly after handling.

Storage: Store in tight, light-resistant container as defined in the USP-NF. This material should be handled and stored per label instructions to ensure product integrity.

Spill Response: Wear approved respiratory protection, chemically compatible gloves and protective clothing. Wipe up spillage or collect spillage using a high efficiency vacuum cleaner. Avoid breathing dust. Place spillage in appropriately labelled container for disposal. Wash spill site.

Disposal: Dispose of waste in accordance with all applicable Federal, State and local laws.

SECTION 9 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection: Use a NIOSH approved respirator, if it is determined to be necessary by an industrial hygiene survey involving air monitoring. In the event that a respirator is not required, an approved dust mask should be used.

Ventilation: Recommended

Gloves: Rubber

Eye Protection: Safety Goggles

Protective Clothing: Protect exposed skin.

SECTION 10 - PHYSICAL AND CHEMICAL PROPERTIES

NOTE: The data reported below is general information, and is not specific to the USP Reference Standard Lot provided!

Appearance and Odor: Off-white crystalline powder; odorless.

Melting Point: 265 - 267° C (decomposes)

Solubility in Water: Insoluble **Vapor Density:** n/f

 n/f = not found

LORAZEPAM RELATED COMPOUND A (LIMIT TEST)

Catalog Number: 37032 Package Size: 25 mg Revision Date: February 2, 2001

Boiling Point:	n/f	**Evaporation Rate:**	n/f
Specific Gravity:	n/f	**Reactivity in Water:**	n/f
Vapor Pressure:	n/f	**% Volatile by Volume:**	n/f

n/f = not found

PRODUCT #: L1764 NAME: (+-)-LORAZEPAM--DEA SCHEDULE IV ITEM

MATERIAL SAFETY DATA SHEET

Printed Saturday, May 09, 1998 10:25AM

Sigma Chemical Co.
P.O. Box 14508
St. Louis, MO 63178
Tel: 314-771-5765

Aldrich Chemical Co., Inc.
1001 West St. Paul
Milwaukee, WI 53233
Tel: 414-273-3850

Fluka Chemical Corp.
Industriestrasse 25
CH-9471 Buchs
Switzerland
Tel: 081 755 25 11
Night: 0041 71 228 360(

SECTION 1. - - - - - - - - - - CHEMICAL IDENTIFICATION- - - - - - - - - -

CATALOG #: L1764

NAME: (+-)-LORAZEPAM--DEA SCHEDULE IV ITEM

SECTION 2. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - - -

CAS #: 846-49-1

MF: C15H10Cl2N2O2

EC NO: 212-687-6

SYNONYMS

ALMAZINE * ATIVAN * 7-CHLORO-5-(O-CHLOROPHENYL)-1,3-DIHYDRO-3-HYDROXY-2H-1,4-BENZODIAZEPIN-2-ONE * 7-CHLORO-5-(2-CHLOROPHENYL)-1,3-DIHYDRO-3-HYDROXY-2H-1,4-BENZODIAZEPIN-2-ONE * 7-CHLORO-5-(2-CHLOROPHENYL)-3-HYDROXY-1H-1,4-BENZODIAZEPIN-2(3H)-ONE * O-CHLOROOXAZEPAM * O-CHLOROXAZEPAM * DELORMETAZEPAM * DEMETHYLLORMETAZEPAM * ENOTIVAL * LORAX * LORAZEPAM * NORLORMETAZEPAM * TAVOR * TEMESTA * WY 4038 * WYPAX *

SECTION 3. - - - - - - - - - - HAZARDS IDENTIFICATION - - - - - - - - - -

LABEL PRECAUTIONARY STATEMENTS

HARMFUL

HARMFUL IF SWALLOWED.

POSSIBLE RISK OF HARM TO THE UNBORN CHILD.

CALIF. PROP. 65 REPRODUCTIVE HAZARD.

TARGET ORGAN(S):

CENTRAL NERVOUS SYSTEM

WEAR SUITABLE PROTECTIVE CLOTHING.

DO NOT BREATHE DUST.

SECTION 4. - - - - - - - - - - FIRST-AID MEASURES- - - - - - - - - - -

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN.

IN CASE OF SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. CALL A PHYSICIAN.

IF INHALED, REMOVE TO FRESH AIR. IF BREATHING BECOMES DIFFICULT, CALL A PHYSICIAN.

IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.

SECTION 5. - - - - - - - - - - FIRE FIGHTING MEASURES - - - - - - - - - -

EXTINGUISHING MEDIA

WATER SPRAY.

CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.

SPECIAL FIREFIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

UNUSUAL FIRE AND EXPLOSIONS HAZARDS

EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

SECTION 6. - - - - - - - - - - ACCIDENTAL RELEASE MEASURES- - - - - - - - - -

WEAR RESPIRATOR, CHEMICAL SAFETY GOGGLES, RUBBER BOOTS AND HEAVY RUBBER GLOVES.

SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL.

AVOID RAISING DUST.

VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. - - - - - - - - - - HANDLING AND STORAGE - - - - - - - - - -

REFER TO SECTION 8.

SECTION 8. - - - - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION - - - - - -

NIOSH/MSHA-APPROVED RESPIRATOR.
USE ONLY IN A CHEMICAL FUME HOOD.
COMPATIBLE CHEMICAL-RESISTANT GLOVES.
CHEMICAL SAFETY GOGGLES.

SECTION 9. - - - - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - - - - -

APPEARANCE AND ODOR
SOLID.

PHYSICAL PROPERTIES
MELTING POINT: 166 TO 168°C
SOLUBILITY:
WATER -INSOLUBLE
ETHANOL -SOLUBLE
ACETONE -SOLUBLE
CHLOROFORM-SOLUBLE
METHANOL-SOLUBLE

SECTION 10. - - - - - - - - - - STABILITY AND REACTIVITY - - - - - - - - - -

STABILITY
STABLE.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
TOXIC FUMES OF:
CARBON MONOXIDE, CARBON DIOXIDE
NITROGEN OXIDES
HYDROGEN CHLORIDE GAS

HAZARDOUS POLYMERIZATION
WILL NOT OCCUR.

SECTION 11. - - - - - - - - - - TOXICOLOGICAL INFORMATION - - - - - - - - -

ACUTE EFFECTS
HARMFUL IF SWALLOWED.
EXPOSURE CAN CAUSE:
CNS DEPRESSION
OTHER SYMPTOMS INCLUDE DROWSINESS, LIGHT-HEADEDNESS, ATAXIA, HYPOTENSION, GASTROINTESTINAL AND VISUAL DISTURBANCES, SKIN RASHES, URINARY RETENTION, HEADACHE, CONFUSION, VERTIGO, CHANGES IN LIBIDO, BLOOD DYSCRASIAS AND JAUNDICE.

CHRONIC EFFECTS
POSSIBLE TERATOGEN.
OVEREXPOSURE MAY CAUSE REPRODUCTIVE DISORDER(S) BASED ON TESTS WITH LABORATORY ANIMALS.

RTECS #: DF0350000
3H-1,4-BENZODIAZEPIN-2-ONE,
7-CHLORO-5-(O-CHLOROPHENYL)-1,3-DIHYDRO-3-HYDROXY-

TOXICITY DATA

ORL-RAT LD50:4580 MG/KG	IYKEDH 8,680,77
IPR-RAT LD50:870 MG/KG	PHMGBN 10,345,73
SCU-RAT LD50:>10 GM/KG	YKYUA6 28,1475,77
IMS-RAT LD50:59 MG/KG	ARZNAD 21,1065,71
ORL-MUS LD50:1850 MG/KG	IYKEDH 8,680,77
IPR-MUS LD50:1810 MG/KG	JZKEDZ 1,5,74
SCU-MUS LD50:>10 GM/KG	JZKEDZ 1(1),5,74
IMS-MUS LD50:70 MG/KG	ARZNAD 21,1065,71
ORL-DOG LD50:>2 GM/KG	ARZNAD 21,1065,71
IMS-DOG LD50:>25 MG/KG	ARZNAD 21,1065,71

TARGET ORGAN DATA
BEHAVIORAL (GENERAL ANESTHETIC)
BEHAVIORAL (SOMNOLENCE)

BEHAVIORAL (HALLUCINATIONS, DISTORTED PERCEPTIONS)
BEHAVIORAL (ATAXIA)
BEHAVIORAL (ALTERATION OF CLASSICAL CONDITIONING)
VASCULAR (BP LOWERING) NOT CHARACTERIZED IN AUTONOMIC SECTION)
LUNGS, THORAX OR RESPIRATION (PLEURAL THICKENING)
GASTROINTESTINAL (NAUSEA OR VOMITING)
BLOOD (APLASTIC ANEMIA)
BLOOD (CHANGES IN BONE MARROW NOT INCLUDED IN ABOVE)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (CRANIOFACIAL)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (SKIN AND SKIN APPENDAGES)
SPECIFIC DEVELOPMENTAL ABNORMALITIES (MUSCULOSKELETAL SYSTEM)
EFFECTS ON NEWBORN (OTHER NEONATAL MEASURES OR EFFECTS)
EFFECTS ON NEWBORN (BIOCHEMICAL AND METABOLIC)
EFFECTS ON NEWBORN (BEHAVIORAL)
ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

SECTION 12. - - - - - - - - - - ECOLOGICAL INFORMATION - - - - - - - - - -

DATA NOT YET AVAILABLE.

SECTION 13. - - - - - - - - - - DISPOSAL CONSIDERATIONS - - - - - - - - - -

CONTACT THE DRUG ENFORCEMENT ADMINISTRATION CONCERNING THE DISPOSAL OF CONTROLLED SUBSTANCES.
OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. - - - - - - - - - - TRANSPORT INFORMATION - - - - - - - - - -

CONTACT SIGMA CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

SECTION 15. - - - - - - - - - - REGULATORY INFORMATION - - - - - - - - - -

EUROPEAN INFORMATION
HARMFUL
R 22
HARMFUL IF SWALLOWED.
R 63
POSSIBLE RISK OF HARM TO THE UNBORN CHILD.
S 36
WEAR SUITABLE PROTECTIVE CLOTHING.
S 22
DO NOT BREATHE DUST.
REVIEWS, STANDARDS, AND REGULATIONS
OEL-MAX
NOES 1983; HZD X6070; NIS 1; INF 34; NOS 3; TNE 1530; TFE 1062
U.S. INFORMATION
CALIFORNIA PROPOSITION 65:
THIS PRODUCT IS OR CONTAINS CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE DEVELOPMENTAL TOXICITY.

SECTION 16. - - - - - - - - - - OTHER INFORMATION - - - - - - - - - -

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. SIGMA, ALDRICH, FLUKA SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE OR PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE.

MSDS Number: CMPAP * * * * * Effective Date: 11/20/97

MSDS Material Safety Data Sheet

From: Mallinckrodt Inc.
675 McDonnell Blvd.
St. Louis, MO 63042

MALLINCKRODT

24 Hour Emergency Telephone: 314-539-1600
CHEMTREC: 1-800-424-9300
National Response in Canada
CANUTEC: 613-996-6666
Outside U.S. And Canada
Chemtrec: 202-483-7616

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

COMPAP(tm)

1. Product Identification

Synonyms: Acetaminophen; Paracetamol
CAS No.: 103-90-2
Molecular Weight: 151.20
Chemical Formula: C8H9NO2
Product Codes: 0090

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Starch	9005-25-8	< 10%	Yes
Acetaminophen	103-90-2	> 90%	Yes
Actual concentrations proprietary			

3. Hazards Identification

Emergency Overview

WARNING! HARMFUL IF SWALLOWED OR INHALED. OVERDOSAGE MAY AFFECT LIVER AND KIDNEYS. MAY CAUSE SKIN RASH OR ALLERGIC REACTION. MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR.

Potential Health Effects

Inhalation:
May produce an allergic response in sensitized individuals. Symptoms may include rash or wheezing.
Ingestion:
Severe overdosage may produce nausea, vomiting, perspiration, and general discomfort. Massive overdosage may produce damage to liver, kidneys, and central nervous system. Potentially toxic single dose: 10-15 grams; 25 grams is potentially fatal.
Skin Contact:
May produce allergic responses paralleling inhalation.
Eye Contact:
May cause mechanical irritation.
Chronic Exposure:
Repeated ingestion of toxic doses may produce cirrhosis of the liver.
Aggravation of Pre-existing Conditions:
Individuals exposed to alcohol or other drugs may be more susceptible to the toxic effects of this substance.

4. First Aid Measures

Inhalation:
Remove to fresh air. Get medical attention for any breathing difficulty.
Ingestion:
Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person.
Skin Contact:
Wash exposed area with soap and water. Get medical advice if irritation develops.
Eye Contact:
Wash thoroughly with running water. Get medical advice if irritation develops.

5. Fire Fighting Measures

Fire:
As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.
Explosion:
Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
Fire Extinguishing Media:
Water spray, dry chemical, alcohol foam, or carbon dioxide.
Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that

does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

7. Handling and Storage

Keep in a well enclosed container stored in a cool, dry place. Acetaminophen is capable of generating a static electrical charge. If process involves dumping Acetaminophen into flammable liquid, provide inert atmosphere in vessels or maintain flammable liquid below its flashpoint. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:
-OSHA Permissible Exposure Limit (PEL):
for starch: 15 mg/m3 total dust, 5 mg/m3 respirable fraction
-ACGIH Threshold Limit Value (TLV):
for starch: 10 mg/m3 (TWA), A4 - Not classifiable as a human carcinogen.

Mallinckrodt recommends an exposure limit of 5 mg/m3
Time Weighted Average (TWA) for acetaminophen.

Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices* , most recent edition, for details.

Personal Respirators (NIOSH Approved):
If the exposure limit is exceeded, a half-face dust/mist respirator may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece dust/mist respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator.
WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:
Gloves and lab coat, apron or coveralls.

Eye Protection:
Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:

White powder or granules.
Odor:
Odorless.
Solubility:
No information found.
Specific Gravity:
1.29
pH:
No information found.
% Volatiles by volume @ 21C (70F):
No information found.
Boiling Point:
No information found.
Melting Point:
No information found.
Vapor Density (Air=1):
No information found.
Vapor Pressure (mm Hg):
No information found.
Evaporation Rate (BuAc=1):
No information found.

10. Stability and Reactivity

Stability:
Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products:
In the presence of heat and water, substance will hydrolyze into acetic acid and p-aminophenol. Burning may produce carbon monoxide, carbon dioxide, nitrogen oxides.
Hazardous Polymerization:
Will not occur.
Incompatibilities:
No information found.
Conditions to Avoid:
No information found.

11. Toxicological Information

Acetaminophen: Oral rat LD50: 2404 mg/kg; investigated as a mutagen, tumorigen, reproductive effector.

--------\Cancer Lists\----------

Ingredient	NTP Carcinogen Known	NTP Carcinogen Anticipated	IARC Category
Starch (9005-25-8)	No	No	None
Acetaminophen (103-90-2)	No	No	3

12. Ecological Information

Environmental Fate:
No information found.
Environmental Toxicity:
No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

--------\Chemical Inventory Status - Part 1\--------

Ingredient	TSCA	EC	Japan	Australia
Starch (9005-25-8)	Yes	Yes	No	Yes
Acetaminophen (103-90-2)	Yes	Yes	Yes	Yes

--------\Chemical Inventory Status - Part 2\--------

Ingredient	Korea	--Canada-- DSL	NDSL	Phil.
Starch (9005-25-8)	Yes	Yes	No	Yes
Acetaminophen (103-90-2)	Yes	Yes	No	Yes

--------\Federal, State & International Regulations - Part 1\--------

Ingredient	-SARA 302- RQ	TPQ	-------SARA 311------- List	Chemical Catg.
Starch (9005-25-8)	No	No	No	No
Acetaminophen (103-90-2)	No	No	No	No

--------\Federal, State & International Regulations - Part 2\--------

Ingredient	CERCLA	-RCRA- 261.33	-TSCA- 8(d)
Starch (9005-25-8)	No	No	No
Acetaminophen (103-90-2)	No	No	No

Chemical Weapons Convention : No TSCA 12(b) : No CDTA: No
SARA 311/312: Acute: Yes Chronic: No Fire: Yes Pressure: No
Reactivity: No (Mixture / Solid)

Australian Hazchem Code: None allocated.
Poison Schedule: S2
WHMIS:
This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: 1 Flammability: 1 Reactivity: 0
Label Hazard Warning:
WARNING! HARMFUL IF SWALLOWED OR INHALED. OVERDOSAGE MAY AFFECT LIVER AND KIDNEYS. MAY CAUSE SKIN RASH OR ALLERGIC REACTION. MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR.
Label Precautions:
Avoid breathing dust.
Wash thoroughly after handling.
Keep container closed.
Avoid dust cloud in presence of an ignition source.
Use with adequate ventilation.
Label First Aid:
If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. Get medical attention for any breathing difficulty. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes.
Product Use:
Medication: Analgesic agent
Revision Information:
New 16 section MSDS format, all sections have been revised.
Disclaimer:
****

Mallinckrodt provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. MALLINCKRODT MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MALLINCKRODT WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.
****

Prepared by: Strategic Services Division
Phone Number: (314) 539-1600 (U.S.A.)

Mitchell, Bruce

From: Mancarella, Owen
Sent: Monday, February 23, 2004 10:07 AM
To: Mitchell, Bruce
Cc: White, Kevin M.; Allen, Andy; Brookins, Richard
Subject: Bay County Incinerator

Bruce,

I received a call this morning from Rick Hunt, Bay Co. Ass't Manager for Solid Waste - (850) 872-4785. He inquired if it was acceptable to burn euthanised animals from the county animal shelters in the Bay County Waste to Energy Incinerator.

Andy advised that we have been guided to pass requests to burn out-of-the-ordinary fuels to DARM. Would you please give Mr Hunt a call on this? Please let us know the outcome of this request. Thanks. Owen

Mitchell, Bruce

From: Mancarella, Owen
Sent: Monday, February 23, 2004 12:32 PM
To: White, Kevin M.
Cc: Mitchell, Bruce; Svec, Ed; Sheplak, Scott; Brookins, Richard; Allen, Andy
Subject: RE: Bay County Municipal Waste Incinerator

Kevin,

I called Richard Hunt back to convey all the inputs I got. He then wondered if there would be any issues about installing a separate animal crematory on the same property as the Waste to Energy Incinerator. I told him we would discuss this and if they wished to proceed with this to call us back at that time.

Any inputs from others would be welcomed. Thank you.

-----Original Message-----
From: Sheplak, Scott
Sent: Monday, February 23, 2004 11:12 AM
To: Mancarella, Owen
Cc: Vielhauer, Trina; Mitchell, Bruce; Svec, Ed
Subject: Bay County Municipal Waste Incinerator

Owen,

I spoke with Richard Brookins in the Panama City Branch Office (850/872-4375 x 108) this morning regarding the Bay County facility's burning of greyhound dogs. FINAL Title V Permit Number 0050031-008-AV prohibits the burning of segregated loads of "biological waste" (see Condition A.5.1.3.(b)). The definition of "biological waste" includes animals.

If you need any further help, please do not hesitate to contact me or Ed Svec at 850/921-8985

Scott

-----Original Message-----
From: Mitchell, Bruce
Sent: Monday, February 23, 2004 11:43 AM
To: Sheplak, Scott
Cc: Pennington, Jim; Vielhauer, Trina
Subject: FW: Bay County Incinerator

?

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Cc: White, Kevin M.; Allen, Andy; Brookins, Richard
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Andy advised that we have been guided to pass requests to burn out-of-the-ordinary fuels to DARM. Would you please give Mr Hunt a call on this? Please let us know the outcome of this request. Thanks. Owen

Mitchell, Bruce

From: Brookins, Richard
Sent: Monday, February 23, 2004 11:17 AM
To: Mancarella, Owen; Mitchell, Bruce
Cc: White, Kevin M.; Allen, Andy
Subject: RE: Bay County Incinerator

The incinerator cannot handle large animals from a "crematory" point of view. Large animals only get roasted, not cremated. I have recently received a call from Bay County Emergency Services questioning the permitting needed for a "real" animal crematory. I informed them that it was my understanding that the crematory providers would not ship a crematory until a permit was in place and that Industrial Equipment of Orlando (who provides most of the crematories used in the state) has this policy in place. Permit acquisition is part of selling the unit.

In short, dead animals are not an acceptable fuel for this facility. They have tried to cremate greyhounds from Ebro in the past and found the "roasting" effect. The practice was stopped after a few trial loads (this was around 1989-1990 timeframe)

Richard

-----Original Message-----
From: Mancarella, Owen
Sent: Monday, February 23, 2004 9:07 AM
To: Mitchell, Bruce
Cc: White, Kevin M.; Allen, Andy; Brookins, Richard
Subject: Bay County Incinerator

Bruce,

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Andy advised that we have been guided to pass requests to burn out-of-the-ordinary fuels to DARM. Would you please give Mr Hunt a call on this? Please let us know the outcome of this request. Thanks. Owen

-file-

8/18 copy to Bruce John Glenn

MONTENAY BAY LLC

ONYX

RECEIVED
AUG 18 2003
BUREAU OF AIR REGULATION

August 13, 2003

Mr. Scott Sheplak
Florida Department of Environmental Protection
2600 Blair Stone Road
MS5505
Tallahassee, Florida 32399-2400

Reference: Bay County Waste-to-Energy Facility No: 0050031
Permit No: 0050031-008-AV

Dear: Mr. Sheplak:

Please be advised that pursuant to the requirement for reporting Increments of Progress toward the State Compliance Plan, Montenay Bay LLC has recently issued a contract to Merrick Industries of Lynn Haven, Florida for the supply and installation of air pollution equipment including spray dryer absorbers, fabric filter baghouses, lime storage and slaking system, and carbon injection system.

This equipment is currently in its design stages and delivery is not anticipated until early 2004.

We understand this to meet the Increment of Progress milestone of "Award Contracts" contained in our permit.

If any additional information is required please contact me at 850-522-1142 X 203.

Sincerely,

J.J. Zebroski
Bay County Facility
APC Retrofit Manager

6510 Bayline drive - Panama City, Florida 32404 - **Tel.: (850) 785-7933 - Fax: (850) 784-1779**

-Brief- DL
xc: Larry George

MONTENAY BAY LLC

ONYX

RECEIVED
MAR 20 2003
BUREAU OF AIR REGULATION

MBLLC/DEP,FCP-03-034

March 11, 2003

Mr. Scott Sheplak
Florida DEP
2600 Blair Stone Road
MS5505
Tallahassee, Florida 32399-2400

Dear Mr. Sheplak:

Ref: Final Control Plan, Title V Draft Permit Number: 0050031-008-AV

Back in September of 2001 a Compliance Plan was submitted to the department. After receiving and reviewing the "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION", I realized that the Compliance Plan would not meet the requirements for a Final Control Plan. A preliminary design review has been prepared by Camp, Dresser, and McKee, excerpts from this report will meet the requirements for the Final Control Plan. Enclosed find two copies of the excerpts. If I may be of any further service, please do not hesitate to call 850-785-7933x206.

Thank you,

Chalmous Beechem
Operations Manager

Reviewed by Responsible Official _____ date 3/19/03
Clifton "Travis" Windham, PE
Utility Services Director
Bay County Utility Services Dept

6510 Bayline drive - Panama City, Florida 32404 - **Tel.: (850) 785-7933 - Fax: (850) 784-1779**

FINAL CONTROL PLAN
BAY RESOURCE MANAGEMENT CENTER
Title V DRAFT Permit Revision No. : 0050031-008-AV
Bay County

The Final Control Plan will be a SDA/FF baghouse and associated CEMS. Each is discussed in greater detail in the following excerpts taken from the Preliminary Design Report, written for the Bay County by Camp, Dresser, and McKee:

5.3.1.1.2 Spray Dry Absorber Type
5.3.1.1.3 Fabric Filter Type
5.3.1.1.4 Design Basis
5.3.1.3 Lime Storage and Feed System
5.3.1.4 Carbon Storage and Feed System
5.3.1.9 Continuous Emissions Monitoring (CEM) System

Also included are drawings for the SDA/FF baghouse, evaluation chart of emissions vs. subpart BBBB guidelines, and the project implementation schedule.

5.3.1.1.2 Spray Dry Absorber Type

SDAs are typically characterized as either upflow or downflow design. With an upflow design, the flue gas enters from the bottom of the vessel and exits from the top. Dual fluid (slurry and compressed air) nozzles are located near the bottom of the vessel and used to inject a finely atomized spray of lime and water. With a downflow design, the flue gas enters from the top of the vessel and exits from the bottom. A finely atomized spray of lime and water is injected near the top of the vessel using dual fluid nozzles or a rotary atomizer.

Upflow designs are more prone to build-up of lime deposits on the sidewalls and subsequent damage to the dual fluid nozzles when the deposits get too large and fall off the wall to the hopper below. Therefore, this type of design will not be considered for use at the Facility. Both dual fluid nozzles and rotary atomizers have been used

successfully to achieve the necessary atomizing of lime and water. Dual fluid nozzle systems use a considerable amount of compressed air to facilitate atomization while the rotary atomizer relies on a relatively large horsepower motor to achieve proper atomization. Most APC system vendors use one or the other means of atomization. Therefore, the type of atomizer employed for the Facility will be dependent on the selected APC system vendor.

5.3.1.1.3 Fabric Filter Type

There are three types of FF designs: pulse jet, reverse air and mechanical shaking. With a pulse jet design, dirty flue gas enters the bottom of the FF through an inlet plenum and passes through the outside of the fabric bags which are hung right side up from a tube sheet at the top of the FF. Ash and unreacted lime accumulate on the outside of the bags. A "pulse" of compressed air is periodically distributed down through the inside of each bag that causes the bag to flex, dislodging the accumulated material. With a reverse air design, dirty flue gas enters the bottom of the FF through an inlet plenum and passes through the inside of the fabric bags which are hung upside down from the top of the FF. Ash and unreacted lime accumulate on the inside of the bags. An external fan is used to periodically "reverse" the air flow through the FF to dislodge the accumulated material in a process similar to "back washing". The mechanical shaking design is similar to the reverse air design but use a mechanical mechanism to "shake" the bags and dislodge the accumulated material instead of reversing the air stream. In some cases, "deflation" air is used in combination with mechanical shaking to collapse the bags providing greater cleaning efficiency (shake/deflate design).

All three types of FFs have been used successfully on waste-to-energy applications with pulse jet designs being used the most frequently. Pulse jet FFs have been determined to be the most appropriate type for the Facility for several reasons. The individual compartments on a pulse jet FF can be cleaned on line (i.e., with the compartment in service) or off line. By comparison individual compartments are required to be taken off line for cleaning with the reverse air and mechanical shaking designs, effectively reducing the filtering area during the cleaning cycle. Pulse jet modules can also be shipped pre-assembled to minimize installation time and costs. Pulse jet units are also easy to operate and maintain and have the least amount of moving components. Sizing of the FF will be based on one compartment being off line for cleaning or bag replacement.

5.3.1.1.4 Design Basis

Based on the above analysis and for purposes of the preliminary design, CDM recommends that a downflow SDA (using either a rotary atomizer or dual fluid nozzles) and a pulse jet FF be installed and designed based on the following flue gas conditions at the outlet of each boiler:

Minimum Flue Gas Flow:	33,324 acfm at 375 F
	93,631 lb/hr

Future Normal Flue Gas Flow:	56,260 acfm at 425 F 147,040 lb/hr
Maximum Flue Gas Flow:	68,224 acfm at 475 F 168,776 lb/hr

The volumetric flow for the minimum and maximum conditions is based on conservative boiler exit temperatures of 375 F (clean condition) and 475 F (fouled condition), respectively. A flow diagram for the proposed flue gas system is provided on Drawing PID-1 in Appendix A. A general arrangement and elevation view of the SDA and FF equipment is provided on Drawings M-1 and M-2 in Appendix A.

5.3.1.3 Lime Storage and Feed System

5.3.1.3.1 Equipment Requirements

Lime storage, preparation and feed equipment are required to support operation of the SDAs. Pebble lime (CaO) will be stored on site in a silo and a paste slaker used to prepare a lime slurry ($Ca(OH)_2$). Grit will be removed from the slurry using a vibratory screen and the lime slurry stored in a mix tank. Lime slurry will be pumped from the storage tank to the SDA atomizers via a common header. The header will contain a return line back to the slurry storage tank in order to maintain a minimum lime slurry flow through the header to reduce lime build-up on the pipe walls. Two sets of slakers, grit screens and pumps will be provided for redundancy.

5.3.1.3.2 Design Basis

CDM recommends that the basis of design for the lime storage and feed system be as follows based on general industry practices:

- Pebble lime storage capacity – 7 days at maximum capacity
- Lime slurry storage tank capacity – 8 hours at maximum capacity
- Lime slaker and grit screen redundancy – 2 at 100 percent capacity
- Lime slurry pump redundancy – 2 at 100 percent capacity

A flow diagram for the proposed lime storage and feed system is provided on Drawing PID-2 in Appendix A. A general arrangement and elevation view of the lime storage and feed system is provided on Drawings M-3 and M-4 in Appendix A.

5.3.1.4 Carbon Storage and Feed System

5.3.1.4.1 Historical Emission Test Data

Below is a summary of the "uncontrolled" mercury emissions measured from the Facility's flue gas stack. The data represents an average of three test runs per unit.

Test Date	Unit 1	Unit 2
May 1989	0.260 mg/dscm	0.266 mg/dscm
April 1994	0.087 mg/dscm	0.136 mg/dscm
December 1994	0.098 mg/dscm	0.072 mg/dscm
December 1995	0.059 mg/dscm	0.152 mg/dscm
December 1996	0.082 mg/dscm	0.106 mg/dscm
December 1997	0.150 mg/dscm	0.111 mg/dscm
December 1998	0.148 mg/dscm	0.125 mg/dscm
December 1999	0.066 mg/dscm	0.064 mg/dscm
December 2000	0.036 mg/dscm	0.034 mg/dscm
December 2001	0.058 mg/dscm	0.073 mg/dscm

Review of the above historical stack test data shows a general decline in mercury emissions over the past 12 years consistent with efforts to reduce the amount of mercury used in consumer products such as batteries. However, since 1994, mercury emissions have exceeded the 0.070 mg/dscm standard applicable to the APC Retrofit Project during 12 of the 18 tests, although emissions over the past three years have generally been at or slightly below the mercury standard. It can be expected that "uncontrolled" mercury emissions will decline further in the future due to continued efforts to reduce the amount of mercury used in packaging and other consumer products. While the proposed SDA would likely decrease mercury emissions by 10-15 percent due solely to the drop in flue gas temperature, the regulatory standard for mercury emissions may also be tightened further due to concerns over the health

effects of this particular heavy metal. Two states, Massachusetts and New Jersey, have already established a significantly lower mercury standard of 0.028 mg/dscm. MWCs equipped with activated carbon injection systems have demonstrated that a standard of 0.028 mg/dscm is attainable on a consistent basis. It is, therefore, conceivable that other states and/or the USEPA will follow suit in the near future and lower allowable mercury emissions to this level.

The applicable mercury standard also specifies a requirement for 85percent removal but it only applies if it is less stringent than 0.070 mg/dscm standard. In other words, the removal requirement applies for conditions where the inlet or "uncontrolled" mercury emission is greater than 0.467 mg/dscm (i.e., 0.07/0.15). Based on the above historical data, it is unlikely that the percent removal standard will ever apply to the Facility.

Three dioxin tests have been performed to date at the Facility, one on Unit 1 and two on Unit 2. The dioxin emissions measured at the Facility to date are listed below:

Test Date	Unit 1	Unit 2
March 1988	--	599 ng/dscm
July 1996	474 ng/dscm	638 ng/dscm

The dioxin standard that will be applicable to the APC Retrofit Project will be 30 ng/dscm based on the current permitted MWC unit capacity (Subpart BBBB) regulations. If the County chooses to increase the permitted capacity of the Facility in the future and the Facility becomes subject to the Subpart Eb regulations for new or modified MWCs as a result, the applicable dioxin standard will be 13 ng/dscm. A 95-98 percent reduction in current dioxin emissions will be necessary to achieve compliance with the above standards. While the SDAs and FF will substantially reduce dioxin emissions, use of a carbon injection system is recommended in order to achieve compliance with the dioxin standard on a consistent basis, particularly the more stringent Subpart Eb limit.

5.3.1.4.2 Alternative Storage Systems

Two different types of carbon storage systems have been used successfully to date on MWCs. One system employs a common bulk carbon storage silo with individual feed hoppers for each unit. A common spare feed hopper is typically for redundancy. Each feed hopper is generally equipped with a surge bin and feeder. The other type of system employs a bulk bag (900 lb) dispensing unit that includes a bag lifting assembly and stand, surge bin and feeder. Three bulk bag dispensing systems would be needed for the Facility (one per unit plus a common spare) to provide the same degree of redundancy provided by a silo equipped with three individual hoppers and feed systems.

The capital cost of a storage silo system for the Facility is expected to be slightly more than a bulk bag dispensing system given the same degree of redundancy (i.e., three dispensing systems installed). The budget price to supply a 30-ton silo with three feed trains for the Facility is $275,000, excluding installation, foundations and an enclosure for the feeders and conveying equipment. The budget price to supply three bulk bag dispensing systems is $150,000, excluding the building enclosure, foundation and installation.

Based on information from carbon supplier Norit Americas, the current spot price for activated carbon delivered FOB to Bay County in bulk tanker loads is approximately 20 percent less than carbon shipped in 900 pound bulk bags on a flatbed truck ($0.46/lb versus $0.54/lb). Based on other similar facilities, the average usage rate of carbon is expected to be approximately 0.75 pound per ton of waste processed (or 200 pounds/day/unit at full load). The annual cost savings from purchasing carbon in bulk tanker shipments would be approximately $15,000.

At the expected carbon usage rate, the interval between bulk tanker (20 ton) shipments for a silo operation would be approximately 100 days while the 900-pound bulk bags would need to be changed out every four to five days for each unit. Carbon deliveries for a bulk bag system (22 bags/truck) would require off loading with a forklift and covered storage prior to use.

5.3.1.4.3 Alternative Injection Approaches

Activated carbon can be injected into the flue gas stream either dry (using a pneumatic blower) or wet (using a slurry mix tank and pump). Dry carbon is typically injected into the duct work either upstream of the SDA or immediately after the SDA and prior to the FF. The recommended location for dry injection is upstream of the SDA since it provides for a greater residence time and potentially better control efficiency and reagent utilization. Wet carbon is injected directly into the SDA through the rotary atomizer or dual fluid nozzle.

Both approaches provide similar control efficiencies for a given carbon usage rate. Housekeeping with both approaches can be problematic but cleanup of dry carbon spills is generally easier than slurry spills. Wet injection systems are also prone to build-up of carbon on the transport pipe walls leading to reduced flows and eventual plugging. A license fee to Babcock & Wilcox (B&W), which holds a patent for injection carbon into a spray dryer/baghouse system, would apply regardless of the type of system installed.

5.3.1.4.4 Design Basis

Based on the results of the above analysis and for purposes of the preliminary design, CDM recommends that a dry carbon injection system consisting of a common bulk carbon storage silo (designed to hold 1.5 bulk tanker loads or 30 tons) with three independent pneumatic conveying lines be installed as part of APC Retrofit Project

and that the carbon be injected into the duct work upstream of the SDAs for the following reasons.

- Installation of a carbon injection system will ensure that mercury emissions will be well below the current standard of 0.070 mg/dscm and provide additional flexibility in the event that the standard is reduced further in the future;
- Carbon injection also enhances the removal of dioxins. This would be beneficial in meeting the more stringent dioxin standard of 13 ng/dscm should the Facility's permitted capacity be increased in the future and the Facility subject to the more stringent Subpart Eb regulations;
- A future request to increase the permitted capacity of the Facility may be viewed more favorably by regulators and the community if a carbon injection system is installed at the Facility;
- Installation of a common carbon silo instead of separate bulk bag systems would eliminate the labor costs associated with handling and changing out the bulk bags every four to five days and also eliminate the need for covered space to store the bulk bags;
- The total cost for a silo system is expected to be comparable to a bulk bag system when labor costs, reagent costs and additional covered storage space are included;
- Installation of the carbon injection system could be accomplished more cost effectively as part of the larger retrofit project than as a stand-alone project at a future date;
- Use of a dry injection system is preferred over a wet system due to reduced maintenance and housekeeping needs; and
- Injection of the dry carbon into the duct work upstream of the SDA will provide for greater residence time and potentially greater control efficiency and reagent utilization.

The carbon system will be designed to meet a mercury standard of 0.028 mg/dscm and a dioxin standard of 13 mg/dscm. A flow diagram for the proposed carbon storage and system is provided on Drawing PID-3 in Appendix A. A general arrangement and elevation view of the carbon storage and feed system is provided on Drawings M-3 and M-4 in Appendix A.

5.3.1.9 Continuous Emissions Monitoring (CEM) System

5.3.1.9.1 Future CEM Requirements

Based on the results of CDM's regulatory review, the following parameters are required to be continuously monitored:

Scrubber Inlet Duct (Each Unit):	Sulfur Dioxide (SO_2) Oxygen (O_2)
Fabric Filter Outlet Duct (Each Unit):	Sulfur Dioxide (SO_2) Oxygen (O_2) Nitrogen Oxides (NO_x) Carbon Monoxide (CO) Opacity

As discussed in Section 3.4, the existing system does not meet all of the future CEM requirements. In order for this system to comply with the future requirements, inlet and outlet SO_2 analyzers and inlet O_2 analyzers would need to be added to the existing system. A second enclosure would be necessary since there is insufficient space in the existing CEM enclosure to locate the additional analyzers and sample preparation equipment. Additional analyzers and sample preparation equipment would also be needed to provide a measure of redundancy in order to ensure that the CEM availability criteria is achieved.

An alternative approach would be to install a totally new CEM system as part of the APC retrofit. The new system would include new sample probes, sample conditioners, sample lines, analyzers and a data logging system. Two options are available for conditioning the sample. In the past, sample conditioners have been housed in the CEM enclosure and a heated sample line used to convey the flue gas sample to the enclosure. More recently, CEM vendors have been offering to locate the sample conditioners at the probe location so that a smaller diameter sample line can be used since it does not need to be heat traced. All of this equipment needs to be kept in a climate-controlled enclosure at the stack.

The conditioners located at the probe extract a sample through a heated probe tube with a coarse filter, to a heated fine filter and onto a unit that dries the sample. The dryer consists of two concentric, large diameter tubes. The inner sample tube is a semi-permeable material that selectively allows water molecules to migrate into the outer tube while keeping the gases of interest unaffected. The dry air carries the moisture to a vent while the dry and clean sample gas is delivered to the analyzer or analyzers.

Two options are also available for analyzing the samples. One option includes the use of individual analyzers (single component) to measure each parameter similar to the current set-up. The other option involves the use of multi-component (or multi-gas) analyzers that are capable of measuring all of the parameters needed within a single analyzer. Regardless of the approach, separate analyzers would be required for each combustion unit.

Montenay Bay has indicated a preference for using a multi-component analyzer system with the sample conditioner located at the sample probe. Montenay installed a similar system at their York County, PA facility within the last two years and reportedly is very pleased with its performance. CDM considers this preference reasonable given the cost of either system is expected to be comparable.

Data logging would be similar regardless of the analyzer type used. Data would be compiled using a data logger located within the CEM enclosure and displayed in the main control room.

5.3.1.9.2 Design Basis

Based on the above analysis and for purposes of the preliminary design, CDM recommends that a new CEM system be installed as part of the APC Retrofit Project given the relative cost to upgrade the existing CEM system including provisions for a back-up system. Installing a new system would also allow the Facility to take advantage of recent advances in CEM technology. The new system would include multi-component analyzers with the sample conditioner located at the sample probe.

Consideration was also given to maintaining the existing CEM system as a back-up. However, the cost to add SO_2 and O_2 analyzers to the existing system and install another CEM enclosure was determined to be more expensive than installing a fifth multi-component analyzer as part of the new CEM system. The fifth analyzer would serve as a common spare to the four locations but would not be fully automatic. Operators will need to make some manual adjustments to scale settings and valving for the selected location.

Department of Environmental Protection

Division of Air Resource Management

RESPONSIBLE OFFICIAL NOTIFICATION FORM

Note: A responsible official is not necessarily a designated representative under the Acid Rain Program. To become a designated representative, submit a certificate of representation to the U.S. Environmental Protection Agency (EPA) in accordance with 40 CFR Part 72.24.

Identification of Facility

1. Facility Owner/Company Name: Bay County/Montenay Bay LLC	
2. Site Name: Bay Resource Management Center	3. County: Bay
4. Title V Air Operation Permit/Project No. *(leave blank for initial Title V applications)*: 0050031-008-AV	

Notification Type *(Check one or more)*

- ☐ **INITIAL:** Notification of responsible officials for an initial Title V application.
- ☐ **RENEWAL:** Notification of responsible officials for a renewal Title V application.
- ☒ **CHANGE:** Notification of change in responsible official(s).
  Effective date of change in responsible official(s) 1/24/2004

Primary Responsible Official

1. Name and Position Title of Responsible Official:
   Thomas T. Crandall/Bay County Utilities Director
2. Responsible Official Mailing Address:
   Organization/Firm: Bay County Utility Services Department
   Street Address: 3410 Transmitter Rd
   City: Panama City State: Florida Zip Code: 32409
3. Responsible Official Telephone Numbers:
   Telephone: (850) 872 - 4785 Fax: (850) 872 - 4805
4. Responsible Official Qualification *(Check one or more of the following options, as applicable)*:

[ ] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

[ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

[x] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

[ ] The designated representative at an Acid Rain source.

5. Responsible Official Statement:

I, the undersigned, am a responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this notification. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, I certify that I have authority over the decisions of all other responsible officials, if any, for purposes of Title V permitting.

Thomas T. Crandall — Signature

3/26/04 — Date

Mitchell, Bruce

From: Vielhauer, Trina
Sent: Wednesday, March 31, 2004 1:47 PM
To: Mitchell, Bruce
Subject: FW: Bay County Resource Recovery Facility

Bruce,
FYI

Trina

-----Original Message-----
From: Jill Lamb [mailto:jlamb@co.bay.fl.us]
Sent: Wednesday, March 31, 2004 1:33 PM
To: Vielhauer, Trina
Subject: Bay County Resource Recovery Facility

Dear Ms. Vielhauer:

We are in receipt of your letter dated March 25, 2004, regarding the correct DEP form 62-213.900(8), Responsible Official Notification Form, for Bay County Resource Recovery Facility.

The correct form was signed and mailed on March 26, 2004.

Thank you,

Jill Lamb
Staff Assistant I
Bay County Utility Services

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Thomas T. Crandall
Director
Bay Co Utility Services Dept
3410 Transmitter Road
Panama City, Fla 32409

COMPLETE THIS SECTION ON DELIVERY

A. Signature
x Sabrina Bruscoe ☐ Agent ☐ Addressee

B. Received by *(Printed Name)*

C. Date of Delivery
03-30-04

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number
(Transfer from service label) 7001 1140 0002 1578 0812

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7001 1140 0002 1578 0812

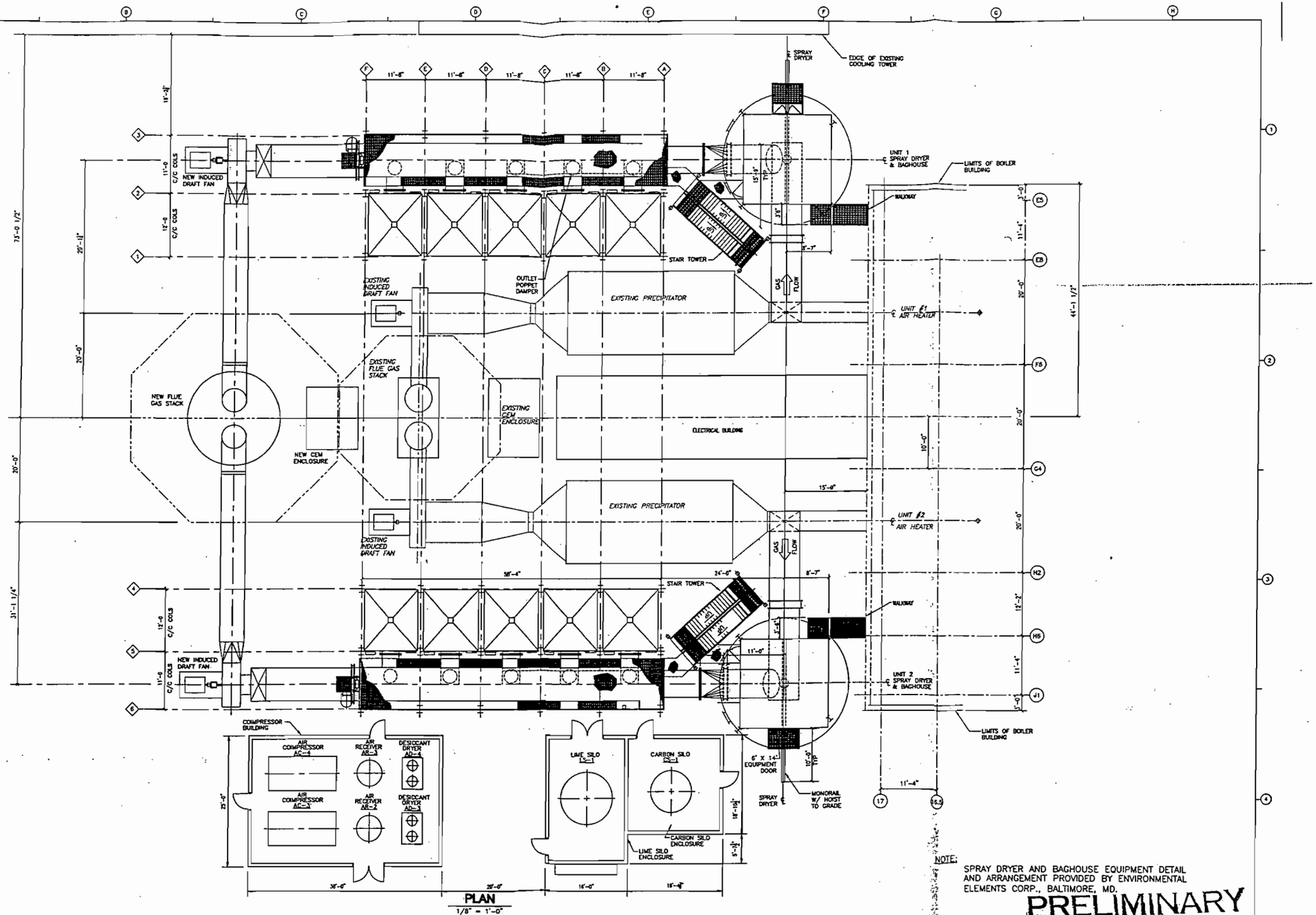
OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

Sent To Bay Co. Utility
Mr. Thomas T. Crandall, Director, Services Dept
Street, Apt. No.; or PO Box No. 3410 Transmitter Road
City, State, ZIP+ 4 Tallahassee, Fla 32409

PS Form 3800, January 2001 See Reverse for Instructions



NOTE:
SPRAY DRYER AND BAGHOUSE EQUIPMENT DETAIL AND ARRANGEMENT PROVIDED BY ENVIRONMENTAL ELEMENTS CORP., BALTIMORE, MD.

PRELIMINARY

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: SANTORO/T. LoRe
DRAWN BY: EBTTD/G. ZMEJKOO
SHEET CHK'D BY: T. LoRe
CROSS CHK'D BY: T.LoRe
APPROVED BY:
DATE: DEC 2002

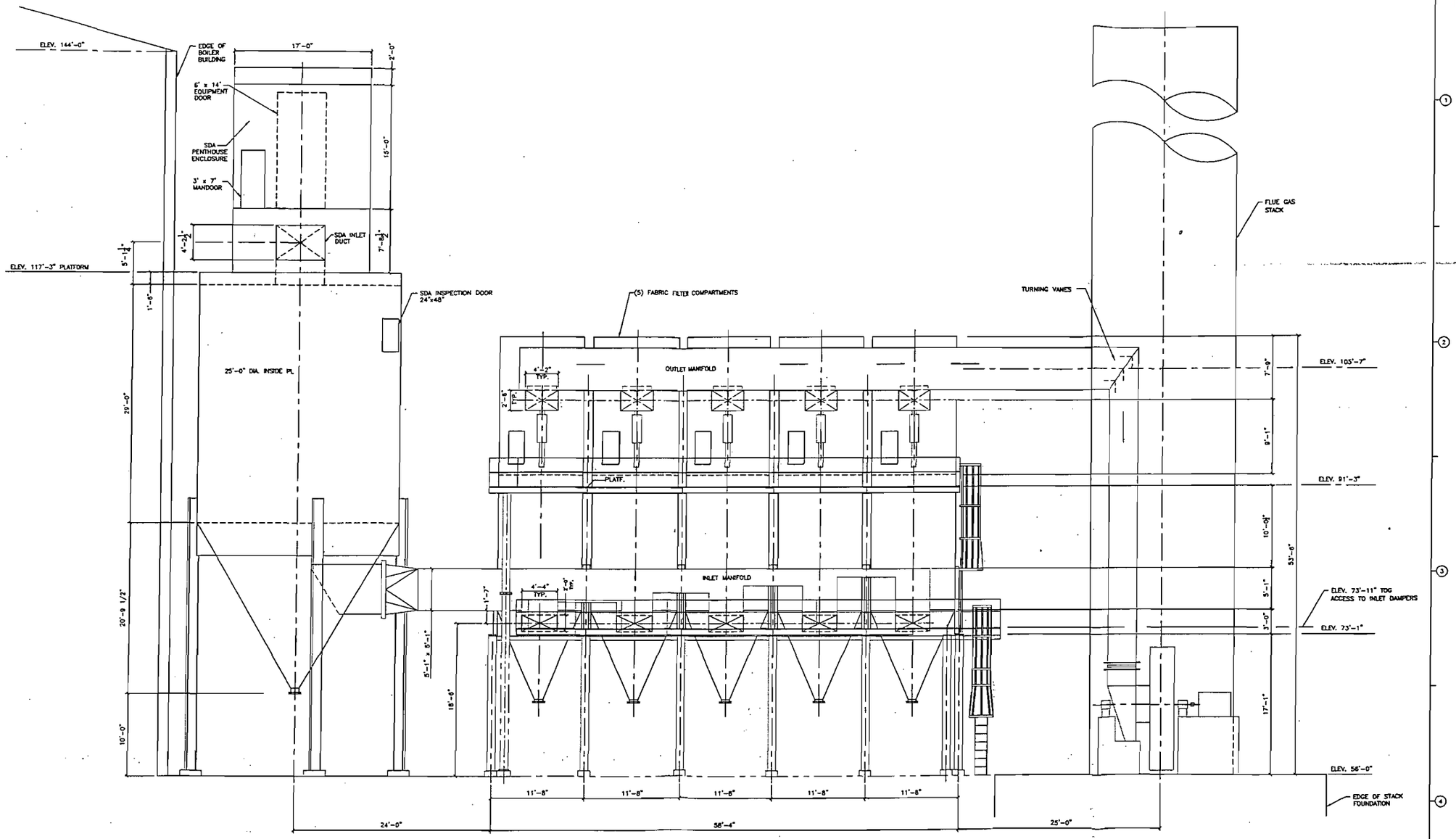
CDM Camp Dresser & McKee

BAY COUNTY RESOURCE RECOVERY FACILITY
BAY COUNTY, FLORIDA
AIR POLLUTION CONTROL RETROFIT PROJECT

PROCESS GENERAL ARRANGEMENT PLAN

PROJECT NO. 35783-6348
FILE NAME: MPRPL003.DWG

SHEET NO.
M-1



ELEVATION – LOOKING SOUTH
3/16" = 1'-0"

NOTES:

- EQUIPMENT DETAIL AND ARRANGEMENT PROVIDED BY ENVIRONMENTAL ELEMENTS CORP. BALTIMORE, MD.
- ACCESS PLATFORMS/STAIRWAYS AND FLY ASH HANDLING SYSTEM NOT SHOWN

PRELIMINARY

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: T. LoRe
DRAWN BY: G. Zmiejko
SHEET CHK'D BY: T. LoRe
CROSS CHK'D BY: T. LoRe
APPROVED BY:
DATE: DEC. 2002

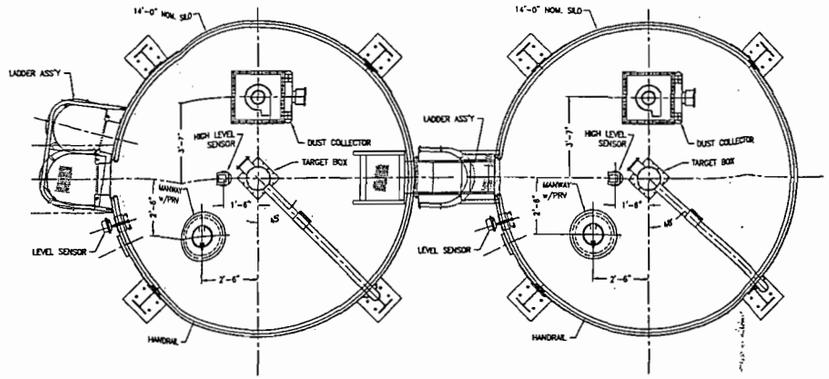
CDM Camp Dresser & McKee

BAY COUNTY RESOURCE RECOVERY FACILITY
BAY COUNTY, FLORIDA
AIR POLLUTION CONTROL RETROFIT PROJECT

PROCESS GENERAL ARRANGEMENT ELEVATION
SPRAY DRY ABSORBER AND FABRIC FILTER BAGHOUSE

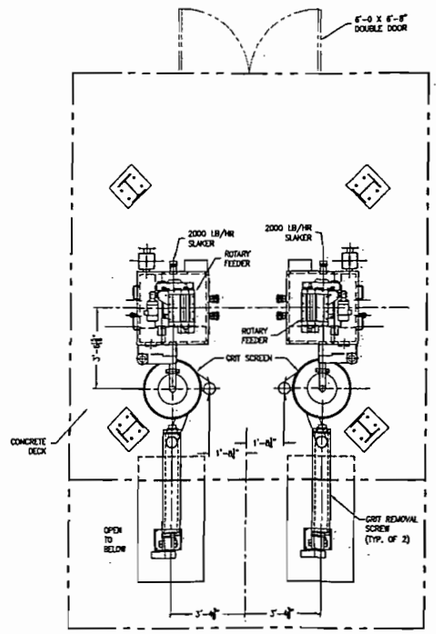
PROJECT NO. 35783-6348
FILE NAME: MPRELD02.DWG

SHEET NO.
M-2

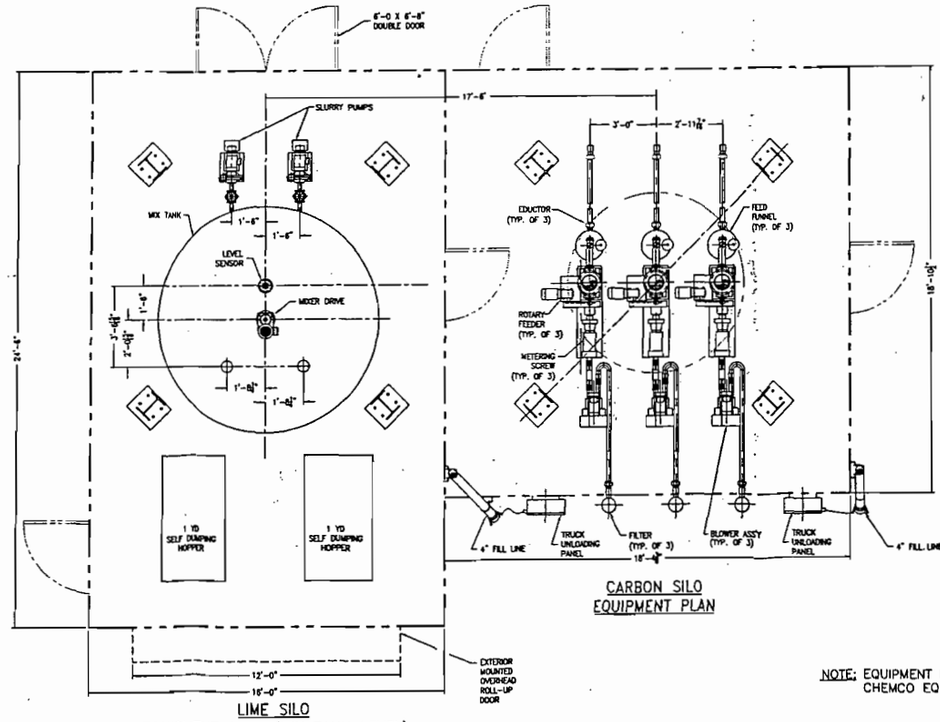


LIME SILO
ROOF PLAN

CARBON SILO
ROOF PLAN



LIME SILO
EQUIPMENT PLAN (SLAKER LEVEL)



LIME SILO
EQUIPMENT PLAN (MIX TANK LEVEL)

CARBON SILO
EQUIPMENT PLAN

NOTE: EQUIPMENT DETAIL AND ARRANGEMENT PROVIDED BY CHEMCO EQUIPMENT CO. MONONGAHELA, PA.

PRELIMINARY Scale: 3/8" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: T. LoRe
DRAWN BY: G.ZMEJKO
SHEET CHK'D BY: A. KUNSELL
CROSS CHK'D BY: T.LoRe
APPROVED BY:
DATE: DEC 2002

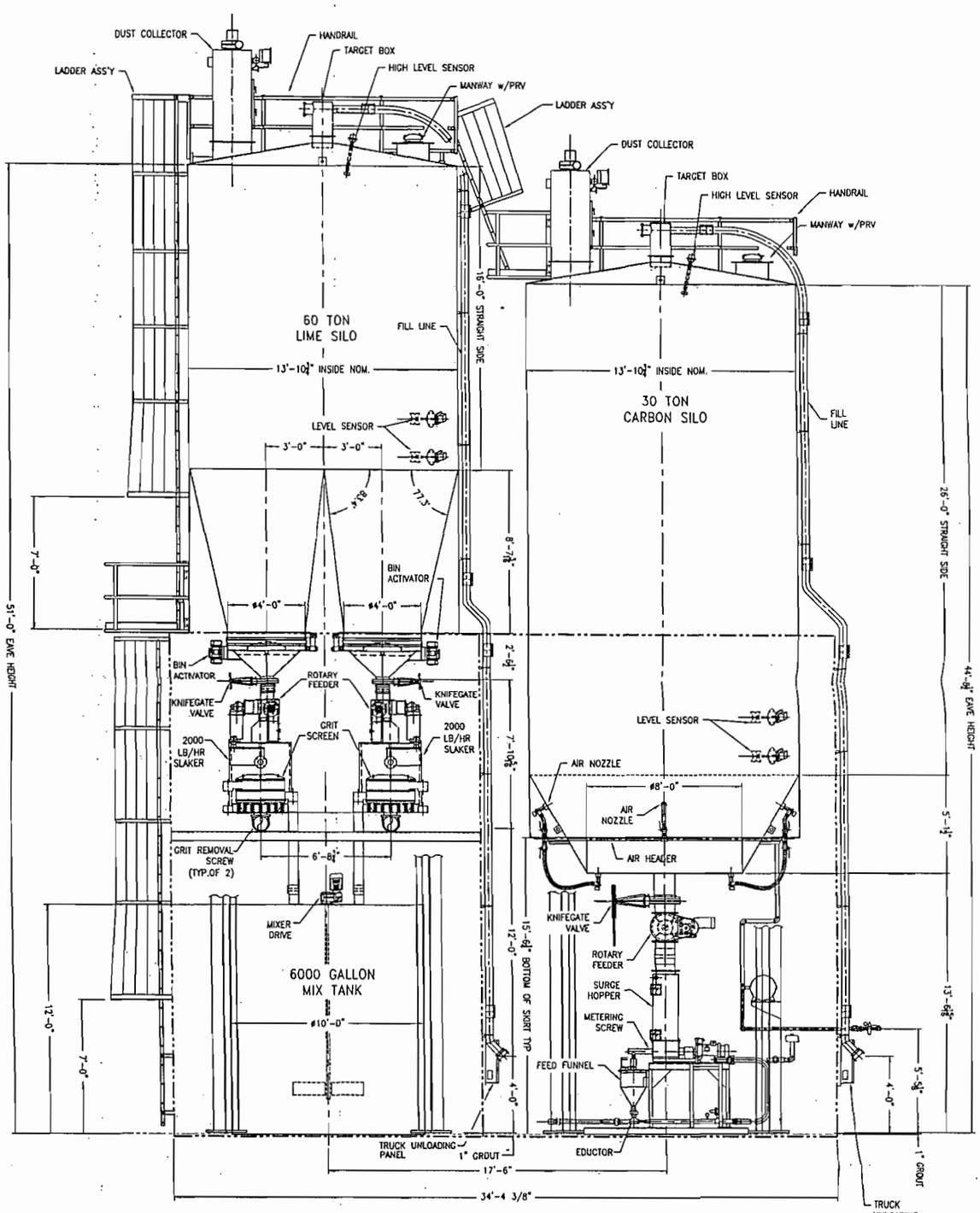
CDM Camp Dresser & McKee

BAY COUNTY RESOURCE RECOVERY FACILITY
BAY COUNTY, FLORIDA
AIR POLLUTION CONTROL RETROFIT PROJECT

PROCESS GENERAL ARRANGEMENT PLANS
LIME AND CARBON STORAGE & FEED SYSTEMS

PROJECT NO. 35783-8348
FILE NAME: MPRPL002.DWG

SHEET NO.
M-3



ELEVATION VIEW

NOTE: THIS VIEW IS FOR ELEVATION ONLY. SEE PLAN VIEWS FOR CORRECT ORIENTATION.

NOTE: EQUIPMENT DETAIL AND ARRANGEMENT PROVIDED BY CHEMCO EQUIPMENT CO. MONONGAHELA, PA.

PRELIMINARY

Scale: 3/8" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: E. LUNA
DRAWN BY: G. ZMIEJKO
SHEET CHK'D BY: A. MONSKEI
CHKD CHK'D BY: T.LUNA
APPROVED BY:
DATE: DEC. 2002

CDM Camp Dresser & McKee

BAY COUNTY RESOURCE RECOVERY FACILITY
BAY COUNTY, FLORIDA
AIR POLLUTION CONTROL RETROFIT PROJECT

PROCESS GENERAL ARRANGEMENT ELEVATIONS
LIME AND CARBON STORAGE AND FEED SYSTEMS

PROJECT NO. 35783-6348
FILE NAME: MPREL001.DWG

SHEET NO.
M-4

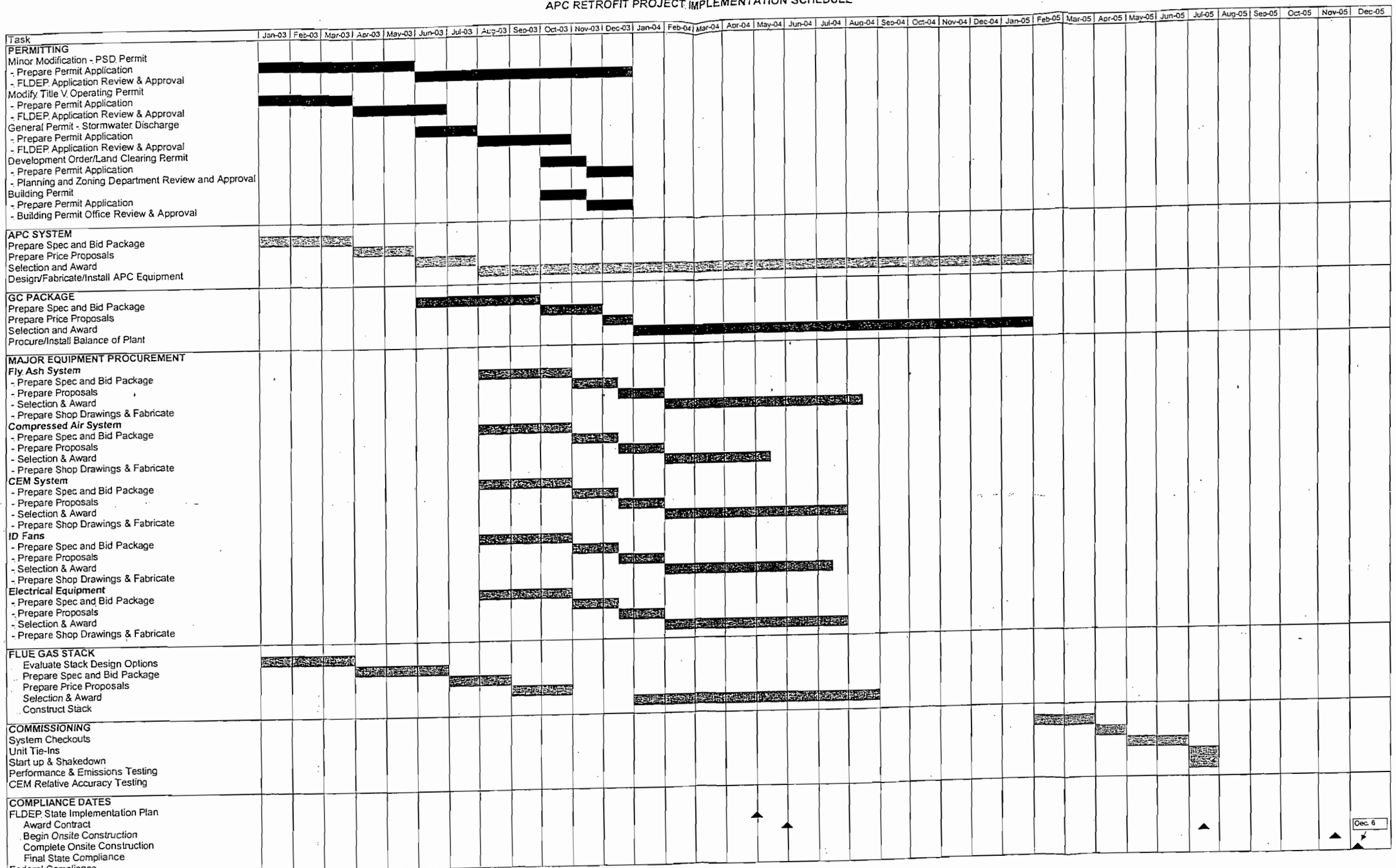
REVIEW OF MACT STATUS FOR BAY COUNTY
EVAULATION OF EMISSIONS VS. SUBPART BBBB GUIDELINES

Pollutant	Guideline for Class A Plants (Large Plant NSPS - Eb)	Bay County Permit Limits	Unit #1 Test Data	Unit #2 Test Data	Comments (Additional changes for Eb)
Dioxins & Furans	30 ng/dscm total mass @ 7% O2 [3, 4-hr avgs] Eb = 13 ng/dscm total mass *Annual test*	None	7/98 - 474 ng/dscm @7%02 total	7/96 - 636 ng/dscm @7%02 total	Retrofit ESP with upgraded controls (baghouse) (For Eb - similar changes will be needed +carbon injection)
Sulfur Dioxide	31 ppmv @ 7% O2, or 75% reduction [24-hr. geometric avg] Eb = 30 ppmv @ 7% O2 *CEM*	35.8 lbs/hr (135 ppm in stack) *Annual test*	May '89 Test - 13.13 lb/hr (54 ppmv @ 7% O2) December '93 Test - 24.76 lbs/hr (91.5 ppm @ 7% O2) 12/99 - 25.41 lbs/hr (~107ppm @7% O2)	May '89 Test - 31.87 lbs/hr (125 ppmv @ 7% O2) December '93 Test - 23.17 lb/hr (87.45 ppmv @ 7% O2) 12/99 - 25.28 lbs/hr (~91ppm @7% O2)	3hr averages indicate that 24-hr averages will be above EPA limit. Scrubber may be needed for SO2 (no additional changes needed for Eb)
Hydrogen Chloride	31 ppmv @ 7% O2, or 95% reduction Eb = 25 ppmv @ 7% O2 *Annual test*	None	May '89 Test - 55.78 lb/hr (462.5 ppmv @ 7% O2)	May '89 Test - 59.69 lb/hr (462.5 ppmv @ 7% O2)	Scrubber will be needed to meet HCl limits (no additional changes needed for Eb)
Total Particulate Matter	27 mg/dscm @ 7% O2 (0.012 gr/dcsf) Eb = 24 mg/dscm @ 7% O2 *Annual test*	6.8 lbs/r (0.03 gr/dscf in stack) *Annual test*	May '89 Test - 3.46 lb/hr (0.0195 gr/dscf @ 7% O2) December '93 Test - 5.58 lbs/hr (0.0240 gr/dscf @ 7% O2) 12/99 - 0.007 gr/dscf @ 7% O2	May '89 Test - 0.60 lb/hr (0.0038 gr/dscf @ 7% O2) December '93 Test - 3.82 lb/hr (0.0171 gr/dscf @ 7% O2) 12/99 - 0.017 gr/dscf @ 7% O2	PM is near/above MACT limits. Upgrade ESP to baghouse in order to meet standard consistantly. (no additional changes needed for Eb)
Opacity	10% [6 min.] Eb is same as BBBB *COM & Annual test*	15% [6 min.] *COM & Annual V.E.*	Qtr. II '94 - <1% exceedences during quarter 12/99 - 1.4%	Qtr. II '94 - <1% exceedances during quarter 12/99 - 1.0%	O.K. (no additional changes needed for Eb)
Cadmium compounds	0.040 mg/dscm @ 7% O2 Eb = 0.020 mg/dscm @ 7% O2 *Annual test*	None	No data	No data	Conduct test to determine emission rate
Lead compounds	0.490 mg/dscm @ 7% O2 Eb = 0.20 mg/dscm @ 7% O2 *Annual test*	0.10 lbs/hr (0.93 mg/dscm in stack) *Test Once/ 5-years*	May '89 Test - 0.041 lb/hr 12/99 - 0.036 lbs/hr (~0.401 mg/dscm)	May '89 Test - 0.084 lb/hr 12/99 - 0.075 lbs/hr (~0.851 mg/dscm)	Pb is near/above MACT limits. Upgrade ESP to baghouse in order to meet standard consistently. (no additional changes needed for Eb)
Mercury compounds	0.070 mg/dscm @ 7% O2, or 80% reduction - State regulation 0.080 mg/dscm @ 7% O2, or 85% reduction - EPA limit Eb is same as BBBB *Annual test - EPA & State regs*	0.18 lb/hr (17 mg/dscm in stack) *Test Once/ 5-years*	May '89 Test - 0.024 lb/hr April '94 Test - 0.00845 lb/hr (3.79 *10-5 gr/dscf @ 7% O2) 12/99- 0.0058 lbs/hr (~0.068 mg/dscm @ 7% O2)	May '89 Test - 0.026 lb/hr April '94 Test - 0.0144 lb/hr (5.95 *10-5 gr/dscf @ 7% O2) 12/99 - 0.0062lbs/hr (~0.0637 mg/dscm @ 7% O2)	Units now close to State limits. Percent removal should be determined . (no additional changes needed for Eb)
Nitrogen Oxides (mass burn rotary waterwall)	171 ppmv @ 7% O2 [24 hr.] Eb = 150 ppmv @ 7% O2 [24 hr.] *CEM*	26.9 lb/hr *Annual Test*	May '89 Test - 15.96 lb/hr (93 ppmv @ 7% O2) December '93 Test - 23.04 lbs/hr (118.5 ppm @ 7% O2) 12/99 test - 16.58 lbs/hr (~94 ppm @ 7% O2)	May '89 Test - 19.24 lbs/hr (105 ppmv @ 7% O2) December '93 Test - 18.2 lb/hr (95.79 ppmv @ 7% O2) 12/99 test - 21.79 lbs/hr (~92 ppm @ 7% O2)	O.K (For Eb - SNCR could be added to provide additional operating margin but it does not appear to be mandatory)
Carbon Monoxide (mass burn rotary waterwall) Rev. 3/13/2003	250 ppmv @ 7% O2 [24 hr.] Eb = 100 ppmv @ 7% O2 [24 hr.] *CEM*	82.6 lb/hr (800 ppm in stack) *CEM & Annu al Test*	May '89 Test - 15.96 lb/hr (93 ppmv @ 7% O2) Qtr. II '94 - <1% exceedances during quarter 12/99 test - 42.28 lb/hr (~339 ppm @ 7% O2)	May '89 Test - 19.8 lb/hr (183 ppmv @ 7% O2) Qtr. II '94 - <1% exceedances during quartar 12/99 test - 36.17 lb/hr (~311 ppm @ 7% O2)	Install combustion controls - secondary air fan end nozzles. (For Eb - similar controls needed, however, lower limit may also cause some additional load restrictions during wet fuel season)
Beryllium compounds	n/a	5 * 10 ^-6 lbs/hr *Test Once/ 5-years*	May '89 Test - 1.04 * 10^-6 lb/hr 12/99 - <2.5E-6 lbs/hr	May '89 Test - <5.0*10^-8 lb/hr 12/99 - <2.5E-6 lbs/hr	O.K.
Fluorides	n/a	0.15 lbs/hr *Test Once/ 5-years*	May '89 Test - 0.084 lb/hr (1.2 ppmv @ 7% O2) 12/99- <0.0077 lbs/hr	May '89 Test - 0.051 lb/hr (0.7 ppmv @ 7% O2) 12/99- <0.0073 lbs/hr	O.K.
Volatile organic compounds	n/a	7.1 lbs/hr *Test Once/ 5-years*	May '89 Test - 0.21 lb/hr (0.7 ppmv @ 7% O2) 12/99- 0.50 lbs/hr	May '89 Test - 0.45 lb/hr (1.3 ppmv @ 7% O2) 12/99- 0.66 lbs/hr	O.K.
Operating Practices					
Max. Load	110% of load during last dioxin/ furan test [4 hr.] Eb is same as BBBB *Continuous Monitoring*	110% of 88,000 lb/hr steam production (Note A)	110% of 88,000 lb/hr steam production [7-day average] *Continuous Monitoring*	--	O.K.
Baghouse Inlet Temperature	30 degree F. above max. temp. during last dioxin/furan stack test [4-hr] Eb is same as BBBB *Continuous Monitoring*		< or = 300 degree F. [4 hr.]	--	Evaluate operating temperature ranges
Fugitive Emissions	No visible emissions from buildings, ash transfer points or ash handling areas for more than 5% of the time Eb is same as BBBB *Annual test*		no limit	--	Impact of fugitive emissions to be determined. Ash Transfer area sited in 97 ash building required
Combustion Gas Temperature	no limit	Flue gas temp. @ exit of furnace > or = 673 degrees F. (Note B) *Continuous Monitoring*	-	--	No EPA limit
Operator Training	(1) -ASME certification of chief operator & shift supervisors. (2) - Site-specific training manual & training for all employees. Eb is same as BBBB		ASME certification of operator (ASME QRO-1989)	--	Develop operator training manual. Evaluate additional training & certification needed.
Carbon Usage (if used to meet dioxin/ furan or mercury limit)	(1) Feedrate is > or = level during Hg test or during dioxin/furan test [6-hr block] (2) Amount purchased is > or = required quarterly usage [quarter total] *Continuous Monitoring*		n/a	n/a	--

Notes:
"[ ]" - Refers to averaging period on which emission limit is based. If averaging period is not stated the limit is applied as a maximum not to be exceeded over the averaging period specified in the test method.
All emission limits stated in concentration (i.e., ppmv, or mass per unit volume) are corrected to /% excess oxygen
* - Each combustion unit must comply with most restrictive of limits (pre-April 1995 or post-April 1995) after April 1, 1995
APCD - Air Pollution Control Device
(A) - The Title V permit which will be issued will reduce the steam load to 66,667 lbs/hr of a 4-hour block average, and 65,333 lbs/hr on a 24-hour rolling

(B) - This limit is the surrogate for demonstrating that the furnace is at or above 1800 degrees F. for 1 second

FIGURE 6-1
APC RETROFIT PROJECT IMPLEMENTATION SCHEDULE



MONTENAY BAY LLC

ONYX

RECEIVED
MAR 22 2004
BUREAU OF AIR REGULATION

MBLLC/DEP-04-0128-RO

March 3, 2004

Copies

Ms. Sandra Veazey
Florida DEP
160 Governmental Center
Pensacola, Fl 32501-5794

SUBJECT: Title V FINAL Permit No.: 0050031-002-AV
Responsible Official

Dear Ms. Veazey:

In a letter from me dated June 14, 2001, I indicated that Clifton "Travis" Windham, P.E., Bay County Utility Services Department Director, was to be listed in your records as the Responsible Official for the Bay Resource Management Center.

Mr. Windham has retired from the position as Bay County Utility Services Department Director, effective 1/23/2004.

Please update your records to indicate Mr. Thomas T. Crandall, Bay County Utility Services Department Director, is the new Responsible Official for Bay Resource Management Center. Mr. Crandall meets the definition of Responsible Official as set forth in F.A.C. 62-213.302.

Mr. Crandall is in agreement with this change as indicated by his signature below.

Thomas T. Crandall 3/12/04
Thomas T. Crandall Date
Bay County Utility Services Department Director
3410 Transmitter Rd
Panama City FL 32409

6510 Bayline drive - Panama City, Florida 32404 - Tel.: (850) 785-7933 - Fax: (850) 784-1779

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

March 3, 2004

CERTIFIED MAIL – Return Receipt Requested

Mr. C. Travis Windham, P.E.
Director, Bay County Public Utilities
3410 Transmitter Road
Panama City, Florida 32404

RE: Request for Approval of a Segregated Bulk Waste Material
Bay County Resource Recovery Facility
0050031-008-AV

Dear Mr. Windham:

The Department has evaluated Mr. Chalmous Beechem's letter received February 26th, which requested approval of a consolidated bulk waste material (labeled as off-spec/returned consumer packaged pharmaceuticals) to be incinerated at the Bay County Resource Recovery Facility as a segregated waste. Based on a review of the request, we feel that the waste stream is permitted to be incinerated under Specific Conditions A.5.1.8.(c), of the above referenced permit. Please note that the waste stream shall not exceed 5%, by weight, of the facility's total fuel; and, compliance with this limitation shall be determined by using a rolling 30-day average.

If there are any questions, please give Mr. Bruce Mitchell a call at 850/413-9198 or write to me at the above letterhead address.

Sincerely,

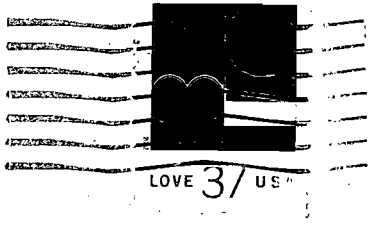
Trina L. Vielhauer
Chief
Bureau of Air Regulation

TLV/rbm

cc: Chalmous Beechem, Montenay Bay LLC
Jim Pennington, BAR
Sandra Veazey, NWD

MONTENAY BAY LLC.
ONYX
6510 Bayline drive
Panama City, Florida 32404

GMF BAY CO FL 324



Attn: Bruce Mitchell
Florida DEP, Bureau of Air Regulation
Twin Towers Office Building
Mail Station 5505
2600 Blair Stone Road
Tallahassee, FL 32399

32399+6542

[BAY COUNTY - RESOURCE RECOVERY FACILITY]
Filename: R:\6348\35783\MECH\MPRPL003.DWG Xref's: [C24X36H, CSTPL002,] Plotted by: ZMIEJKOG Time: 10/9/02 10:22:38 AM

N

NEW INDUCED DRAFT FAN

NEW FLUE GAS STACK

NEW CEM ENCLOSURE

EXISTING INDUCED DRAFT FAN

EXISTING FLUE GAS STACK

EXISTING CEM ENCLOSURE

OUTLET POPPET DAMPER

EXISTING PRECIPITATOR

SPRAY DRYER

EDGE OF EXISTING COOLING TOWER

STAIR TOWER

GAS FLOW

UNIT 1 SPRAY DRYER & BAGHOUSE

UNIT #1 AIR HEATER

LIMITS OF BOILER BUILDING

WALKWAY

ELECTRICAL BUILDING

UNIT #2 AIR HEATER

UNIT 2 SPRAY DRYER & BAGHOUSE

COMPRESSOR BUILDING

AIR COMPRESSOR AC-4

AIR COMPRESSOR AC-3

AIR RECEIVER AR-3

AIR RECEIVER AR-2

DESICCANT DRYER AD-4

DESICCANT DRYER AD-3

LIME SILO LS-1

CARBON SILO CS-1

CARBON SILO ENCLOSURE

LIME SILO ENCLOSURE

6' X 14' EQUIPMENT DOOR

MONORAIL W/ HOIST TO GRADE

NOTE:
SPRAY DRYER AND BAGHOUSE EQUIPMENT DETAIL AND ARRANGEMENT PROVIDED BY ENVIRONMENTAL ELEMENTS CORP., BALTIMORE, MD.

PRELIMINARY

PLAN
1/8" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: SANTORO/T. LoRe
DRAWN BY: BITTO/G. ZMIEJKO
SHEET CHK'D BY: T. LoRe
CROSS CHK'D BY: T.LoRe
APPROVED BY:
DATE: DEC 2002

CDM Camp Dresser & McKee

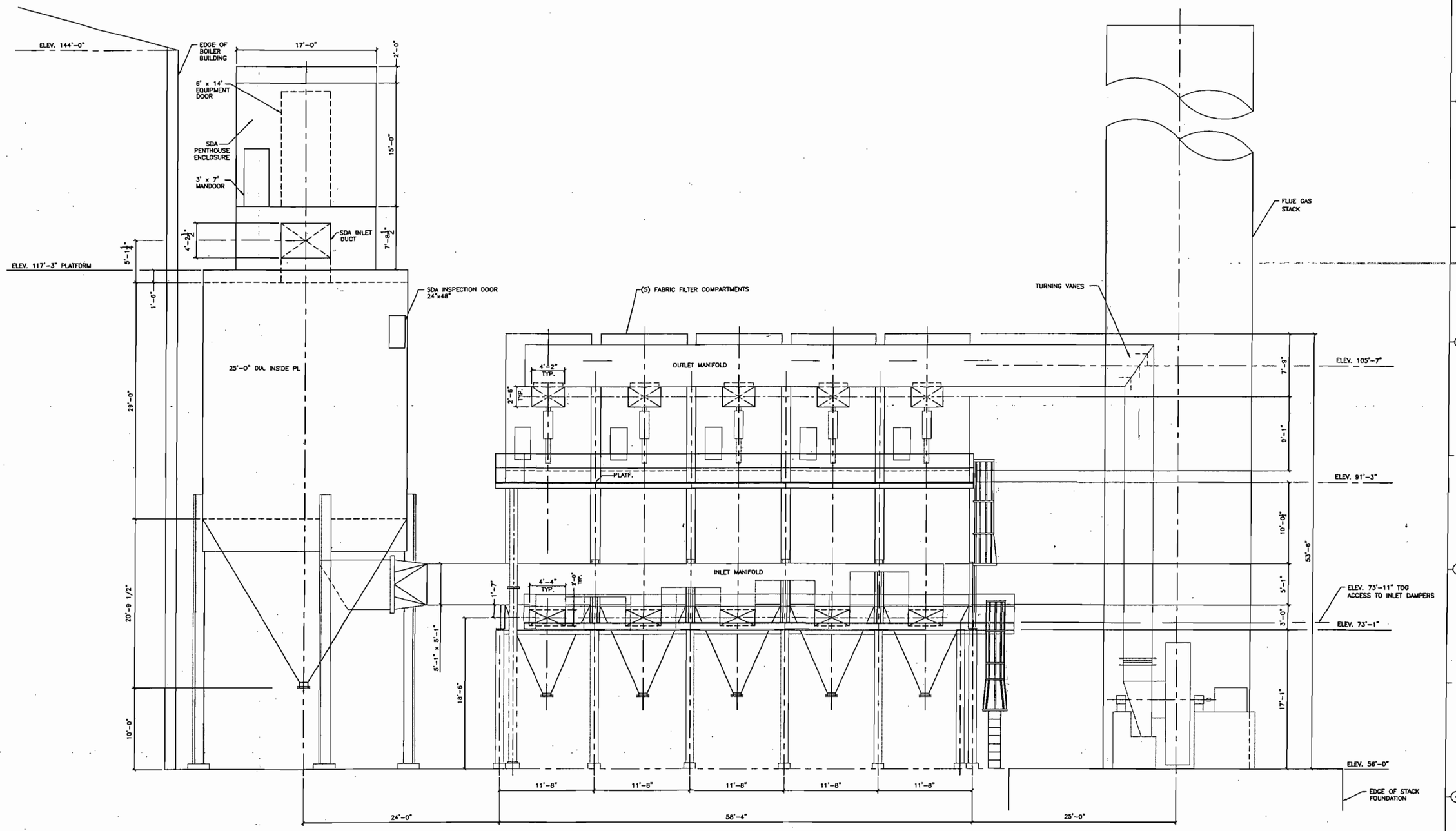
BAY COUNTY RESOURCE RECOVERY FACILITY
BAY COUNTY, FLORIDA
AIR POLLUTION CONTROL RETROFIT PROJECT

PROCESS GENERAL ARRANGEMENT PLAN

PROJECT NO. 35783-6348
FILE NAME: MPRPL003.DWG

SHEET NO.
M-1

[BAY COUNTY - RESOURCE RECOVERY FACILITY]
Filename: R:\6348\35783\MECH\MPRELD02.DWG Xref's: [C24X36H,] Plotted by: ZMEJKOG Time: 7/31/02 2:18:33 PM



ELEVATION – LOOKING SOUTH
3/16" = 1'-0"

NOTES:

- EQUIPMENT DETAIL AND ARRANGEMENT PROVIDED BY ENVIRONMENTAL ELEMENTS CORP. BALTIMORE, MD.
- ACCESS PLATFORMS/STAIRWAYS AND FLY ASH HANDLING SYSTEM NOT SHOWN

PRELIMINARY

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: T. LoRe
DRAWN BY: G. Zmiejko
SHEET CHK'D BY: T. LoRe
CROSS CHK'D BY: T. LoRe
APPROVED BY:
DATE: DEC 2002

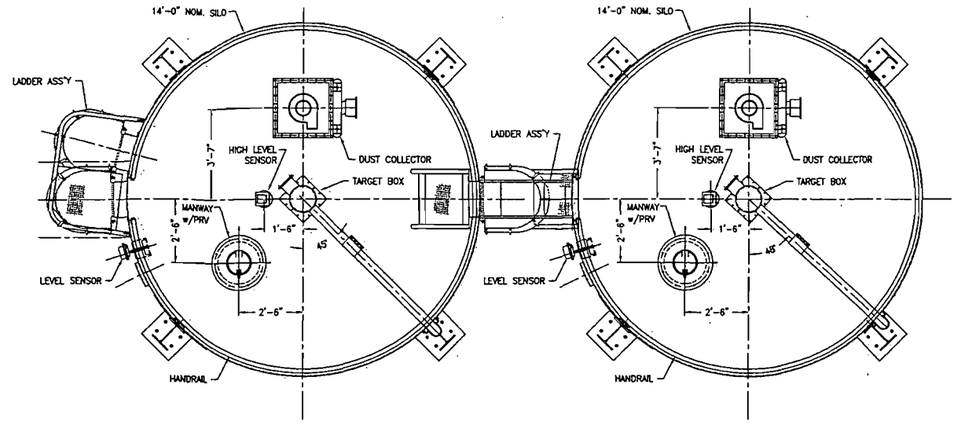
CDM Camp Dresser & McKee

BAY COUNTY RESOURCE RECOVERY FACILITY
BAY COUNTY, FLORIDA
AIR POLLUTION CONTROL RETROFIT PROJECT

PROCESS GENERAL ARRANGEMENT ELEVATION
SPRAY DRY ABSORBER AND FABRIC FILTER BAGHOUSE

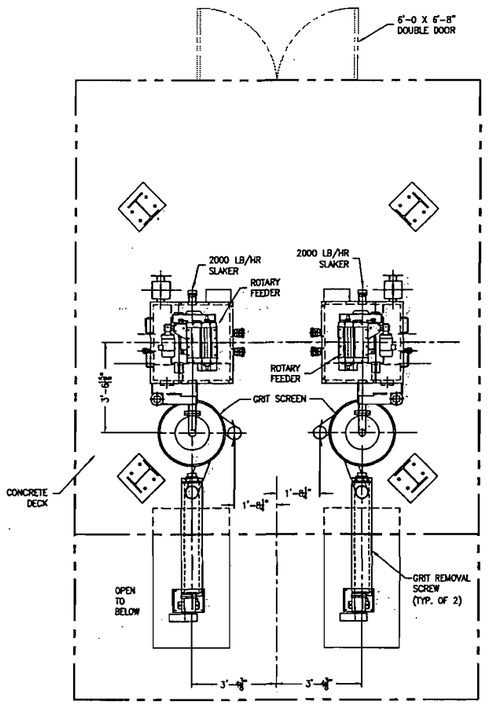
PROJECT NO. 35783-6348
FILE NAME: MPRELD02.DWG

SHEET NO.
M-2

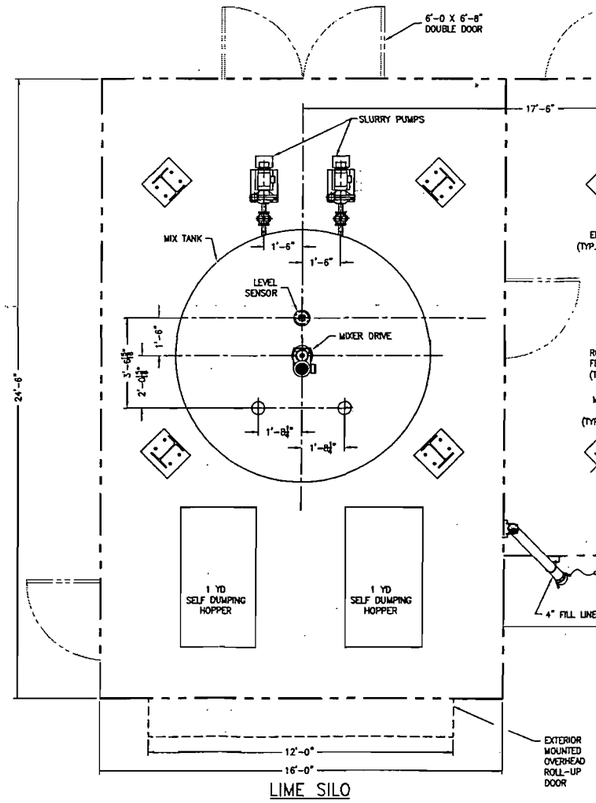


LIME SILO
ROOF PLAN

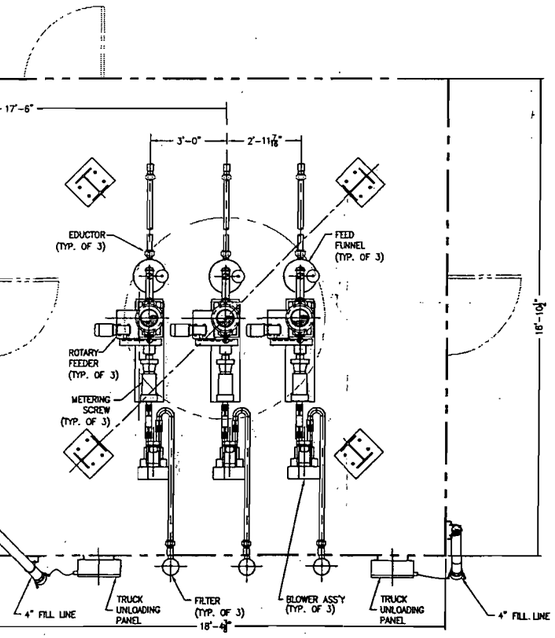
CARBON SILO
ROOF PLAN



LIME SILO
EQUIPMENT PLAN (SLAKER LEVEL)



LIME SILO
EQUIPMENT PLAN (MIX TANK LEVEL)



CARBON SILO
EQUIPMENT PLAN

NOTE: EQUIPMENT DETAIL AND ARRANGEMENT PROVIDED BY CHEMCO EQUIPMENT CO. MONONGAHELA, PA.

PRELIMINARY Scale: 3/8" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: T. LoRe
DRAWN BY: G.ZMIEJKO
SHEET CHK'D BY: A. KUKRETI
CROSS CHK'D BY: T.LoRe
APPROVED BY:
DATE: DEC 2002

CDM Camp Dresser & McKee

BAY COUNTY RESOURCE RECOVERY FACILITY
BAY COUNTY, FLORIDA
AIR POLLUTION CONTROL RETROFIT PROJECT

PROCESS GENERAL ARRANGEMENT PLANS
LIME AND CARBON STORAGE & FEED SYSTEMS

PROJECT NO. 35783-6348
FILE NAME: MPRPL002.DWG

SHEET NO.
M-3

[BAY COUNTY - RESOURCE RECOVERY FACILITY]
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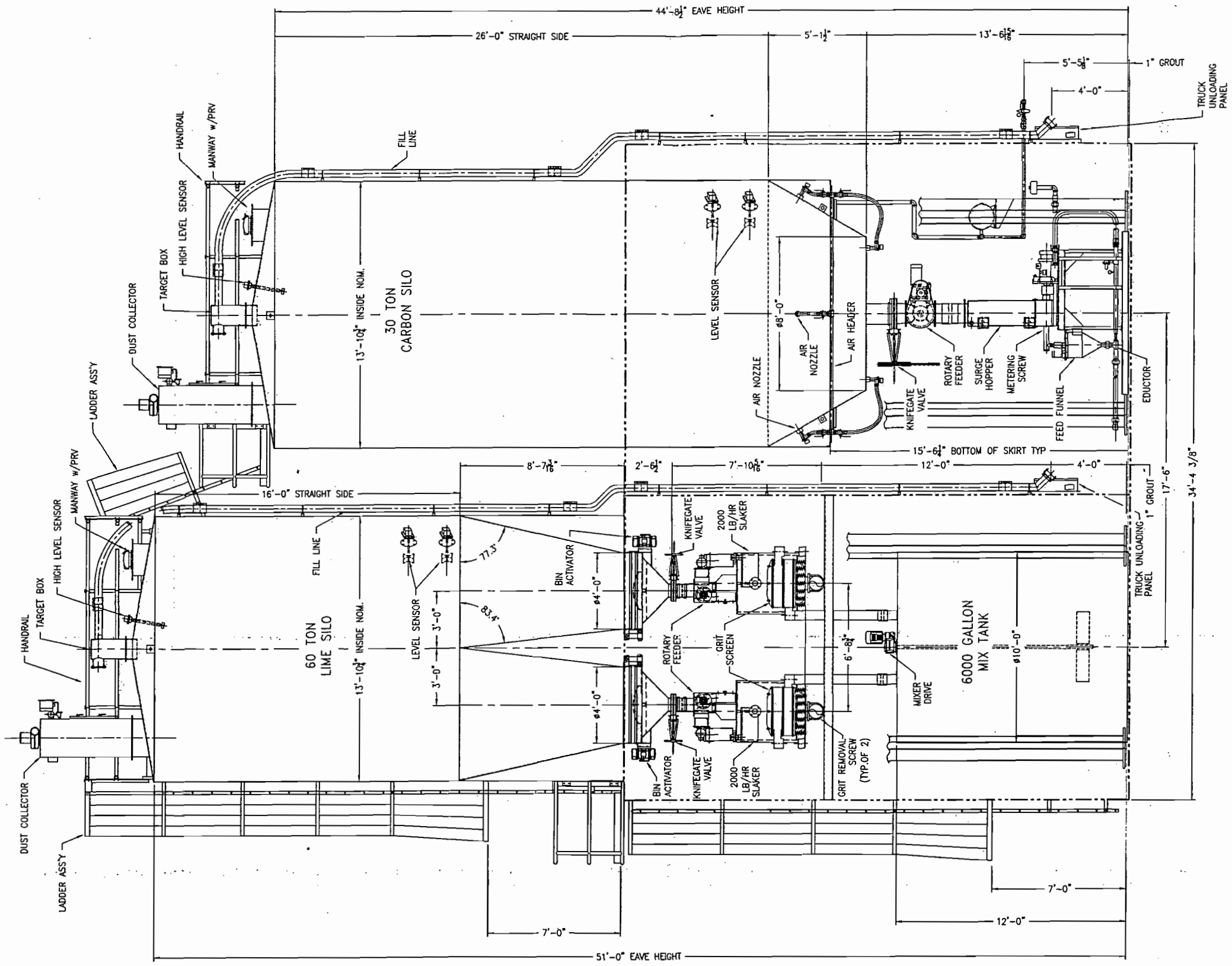

ELEVATION VIEW

NOTE: THIS VIEW IS FOR ELEVATION ONLY. FOR CORRECT ORIENTATION, SEE PLAN VIEWS.

NOTE: EQUIPMENT DETAIL AND ARRANGEMENT PROVIDED BY CHEMCO EQUIPMENT CO. MONONGAHELA, PA.

PRELIMINARY

Scale: 3/8" = 1'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: T. LoRe
DRAWN BY: G. ZMIEJKO
SHEET CHK'D BY: A. KUKRETI
CROSS CHK'D BY: T.LoRe
APPROVED BY:
DATE: DEC 2002

CDM Camp Dresser & McKee

BAY COUNTY RESOURCE RECOVERY FACILITY
BAY COUNTY, FLORIDA
AIR POLLUTION CONTROL RETROFIT PROJECT

PROCESS GENERAL ARRANGEMENT ELEVATIONS
LIME AND CARBON STORAGE AND FEED SYSTEMS

PROJECT NO. 35783-6348
FILE NAME: MPRELD01.DWG

SHEET NO.
M-4

REVIEW OF MACT STATUS FOR BAY COUNTY
EVAULATION OF EMISSIONS VS. SUBPART BBBB GUIDELINES

Pollutant	Guideline for Class A Plants (Large Plant NSPS - Eb)	Bay County Permit Limits	Unit #1 Test Data	Unit #2 Test Data	Comments (Additional changes for Eb)
Dioxins & Furans	30 ng/dscm total mass @ 7% O2 [3, 4-hr avgs] **Eb = 13 ng/dscm total mass** *Annual test*	None	7/96 - 474 ng/dscm @7%02 total	7/96 - 638 ng/dscm @7%02 total	Retrofit ESP with upgraded controls (baghouse) **(For Eb - similar changes will be needed +carbon injection)**
Sulfur Dioxide	31 ppmv @ 7% O2, or 75% reduction [24-hr. geometric avg] **Eb = 30 ppmv @ 7% O2** *CEM*	35.8 lbs/hr (135 ppm in stack) *Annual test*	May '89 Test - 13.13 lb/hr (54 ppmv @ 7% O2) December '93 Test - 24.76 lbs/hr (91.5 ppm @ 7% O2) 12/99 - 25.41 lbs/hr (~107ppm @7% O2)	May '89 Test - 31.87 lbs/hr (125 ppmv @ 7% O2) December '93 Test - 23.17 lb/hr (87.45 ppmv @ 7% O2) 12/99 - 25.28 lbs/hr (~91ppm @7% O2)	3hr averages indicate that 24-hr averages will be above EPA limit. Scrubber may be needed for SO2 **(no additional changes needed for Eb)**
Hydrogen Chloride	31 ppmv @ 7% O2, or 95% reduction **Eb = 25 ppmv @ 7% O2** *Annual test*	None	May '89 Test - 55.78 lb/hr (462.5 ppmv @ 7% O2)	May '89 Test - 59.69 lb/hr (462.5 ppmv @ 7% O2)	Scrubber will be needed to meet HCl limits **(no additional changes needed for Eb)**
Total Particulate Matter	27 mg/dscm @ 7% O2 (0.012 gr/dcsf) **Eb = 24 mg/dscm @ 7% O2** *Annual test*	6.8 lbs/r (0.03 gr/dscf in stack) *Annual test*	May '89 Test - 3.46 lb/hr (0.0195 gr/dscf @ 7% O2) December '93 Test - 5.58 lbs/hr (0.0240 gr/dscf @ 7% O2) **12/99 - 0.007 gr/dscf @ 7% O2**	May '89 Test - 0.60 lb/hr (0.0038 gr/dscf @ 7% O2) December '93 Test - 3.82 lb/hr (0.0171 gr/dscf @ 7% O2) 12/99 - 0.017 gr/dscf @ 7% O2	PM is near/above MACT limits. Upgrade ESP to baghouse in order to meet standard consistently. **(no additional changes needed for Eb)**
Opacity	10% [6 min.] **Eb is same as BBBB** *COM & Annual test*	15% [6 min.] *COM & Annual V.E.*	Qtr. II '94 - <1% exceedances during quarter 12/99 - 1.4%	Qtr. II '94 - <1% exceedances during quarter 12/99 - 1.0%	O.K. **(no additional changes needed for Eb)**
Cadmium compounds	0.040 mg/dscm @ 7% O2 **Eb = 0.020 mg/dscm @ 7% O2** *Annual test*	None	No data	No data	Conduct test to determine emission rate
Lead compounds	0.490 mg/dscm @ 7% O2 **Eb = 0.20 mg/dscm @ 7% O2** *Annual test*	0.10 lbs/hr (0.93 mg/dscm in stack) *Test Once/ 5-years*	May '89 Test - 0.041 lb/hr 12/99 - 0.036 lbs/hr (~0.401 mg/dscm)	May '89 Test - 0.084 lb/hr 12/99 - 0.075 lbs/hr (~0.851 mg/dscm)	Pb is near/above MACT limits. Upgrade ESP to baghouse in order to meet standard consistently. **(no additional changes needed for Eb)**
Mercury compounds	0.070 mg/dscm @ 7% O2, or 80% reduction - State regulation 0.080 mg/dscm @ 7% O2, or 85% reduction - EPA limit **Eb is same as BBBB** *Annual test - EPA & State regs*	0.18 lb/hr (17 mg/dscm in stack) *Test Once/ 5-years*	May '89 Test - 0.024 lb/hr April '94 Test - 0.00845 lb/hr (3.79 *10-5 gr/dscf @ 7% O2) 12/99- 0.0058 lbs/hr (~0.066 mg/dscm @ 7% O2)	May '89 Test - 0.026 lb/hr April '94 Test - 0.0144 lb/hr (5.95 *10-5 gr/dscf @ 7% O2) 12/99 - 0.0062lbs/hr (~0.0637 mg/dscm @ 7% O2)	Units now close to State limits. Percent removal should be determined. **(no additional changes needed for Eb)**
Nitrogen Oxides (mass burn rotary waterwall)	171 ppmv @ 7% O2 [24 hr.] **Eb = 150 ppmv @ 7% O2 [24 hr.]** *CEM*	26.9 lb/hr *Annual Test*	May '89 Test - 15.96 lb/hr (93 ppmv @ 7% O2) December '93 Test - 23.04 lbs/hr (118.5 ppm @ 7% O2) 12/99 test - 16.58 lbs/hr (~94 ppm @ 7% O2)	May '89 Test - 19.24 lbs/hr (105 ppmv @ 7% O2) December '93 Test - 18.2 lb/hr (95.79 ppmv @ 7% O2) 12/99 test - 21.79 lbs/hr (~92 ppm @ 7% O2)	O.K **(For Eb - SNCR could be added to provide additional operating margin but it does not appear to be mandatory)**
Carbon Monoxide (mass burn rotary waterwall)	250 ppmv @ 7% O2 [24 hr.] **Eb = 100 ppmv @ 7% O2 [24 hr.]** *CEM*	92.8 lb/hr (800 ppm in stack) *CEM & Annu al Test*	May '89 Test - 15.96 lb/hr (93 ppmv @ 7% O2) Qtr. II '94 - <1% exceedances during quarter 12/99 test - 42.28 lb/hr (~339 ppm @ 7% O2)	May '89 Test - 19.8 lb/hr (183 ppmv @ 7% O2) Qtr. II '94 - <1% exceedances during quarter 12/99 test - 38.17 lb/hr (~311 ppm @ 7% O2)	Install combustion controls - secondary air fan and nozzles. **(For Eb - similar controls needed, however, lower limit may also cause some additional load restrictions during wet fuel season)**
Beryllium compounds	n/a	5 * 10 ^-6 lbs/hr *Test Once/ 5-years*	May '89 Test - 1.04 * 10^-6 lb/hr **12/99 - <2.5E-6 lbs/hr**	May '89 Test - <5.0*10^-8 lb/hr **12/99 - <2.5E-6 lbs/hr**	O.K.
Fluorides	n/a	0.15 lbs/hr *Test Once/ 5-years*	May '89 Test - 0.084 lb/hr (1.2 ppmv @ 7% O2) **12/99- <0.0077 lbs/hr**	May '89 Test - 0.051 lb/hr (0.7 ppmv @ 7% O2) **12/99- <0.0073 lbs/hr**	O.K.
Volatile organic compounds	n/a	7.1 lbs/hr *Test Once/ 5-years*	May '89 Test - 0.21 lb/hr (0.7 ppmv @ 7% O2) **12/99- 0.50 lbs/hr**	May '89 Test - 0.45 lb/hr (1.3 ppmv @ 7% O2) **12/99- 0.66 lbs/hr**	O.K.
Operating Practices					
Max. Load	110% of load during last dioxin/ furan test [4 hr.] **Eb is same as BBBB** *Continuous Monitoring*	110% of 68,000 lb/hr steam production (Note A)	110% of 68,000 lb/hr steam production [7-day average] *Continuous Monitoring*	--	O.K.
Baghouse Inlet Temperature	30 degree F. above max. temp. during last dioxin/furan stack test [4-hr] **Eb is same as BBBB** *Continuous Monitoring*		< or = 300 degree F. [4 hr.]	--	Evaluate operating temperature ranges
Fugitive Emissions	No visible emissions from buildings, ash transfer points or ash handling areas for more than 5% of the time **Eb is same as BBBB** *Annual test*		no limit	--	Impact of fugitive emissions to be determined. Ash Transfer area sited in 97 ash building required
Combustion Gas Temperature	no limit	Flue gas temp. @ exit of furnace > or = 673 degrees F. (Note B) *Continuous Monitoring*	-	--	No EPA limit
Operator Training	(1) -ASME certification of chief operator & shift supervisors. (2) - Site-specific training manual & training for all employees. **Eb is same as BBBB**		ASME certification of operator (ASME QRO-1989)	--	Develop operator training manual. Evaluate additional training & certification needed.
Carbon Usage (if used to meet dioxin/ furan or mercury limit)	(1) Feedrate is > or = level during Hg test or during dioxin/furan test [8-hr block] (2) Amount purchased is > or = required quarterly usage [quarter total] *Continuous Monitoring*		n/a	n/a	--

Notes:
"[ ]" - Refers to averaging period on which emission limit is based. If averaging period is not stated the limit is applied as a maximum not to be exceeded over the averaging period specified in the test method.
All emission limits stated in concentration (i.e., ppmv, or mass per unit volume) are corrected to /% excess oxygen
* - Each comubstion unit must comply with most restrictive of limits (pre-April 1995 or post-April 1995) after April 1, 1995
APCD - Air Pollution Control Device
(A) - The Title V permit which will be issued will reduce the steam load to 66,667 lbs/hr of a 4-hour block average, and 65,333 lbs/hr on a 24-hour rolling

(B) - This limit is the surrogate for demonstrating that the furnace is at or above 1800 degrees F. for 1 second

FIGURE 6-1
APC RETROFIT PROJECT IMPLEMENTATION SCHEDULE