SWA
SOLID WASTE AUTHORITY
YOUR PARTNER FOR
SOLID WASTE SOLUTIONS

March 22, 2012

Mr. Jeff Koerner, PE
Program Administrator
Florida Department of Environmental Protection
Division of Air Resource Management
Office of Permitting & Compliance
2600 Blair Stone Road, MS #5505
Tallahassee, Florida 32399-2400

Re: Biosolids Pelletization Facility (BPF) – Train #1 & #2 Sludge Chutes
North County Resource Recovery Facility
Title V Air Operating Permit 0990234-022-AV

Dear Mr. Koerner:

The Solid Waste Authority of Palm Beach County (SWA) owns a Biolsolids Pelletization Facility (BPF) located at the North County Resource Recovery Facility (NCRRF) in West Palm Beach, Florida. This facility has two (2) sludge dryer trains (EU010 - Train #1 & EU011 -Train #2), and is operated by NEFCO under the Title V Air Permit 0990234-022-AV. As you are already aware, on January 24, 2012, there was an explosion on Train #2. To lessen the number of facility shutdowns and thus reduce the risk of future explosions, SWA is proposing a minor improvement in the design of the sludge chutes associated with EU010 and EU011.

Each sludge dryer train is allowed to operate continuously for 8760 hrs/yr with a capacity of 337.5 wtpd of sludge (20% solids). Each train has two chutes that deliver sludge from the weigh belts to the mixer feed screw via gravity. Attached you will find a material flow diagram, along with drawings that depict the dimensions and location of the sludge chutes.

Currently, the sludge chute dimensions are 18"x12", and the flange inlets to the mixer feed screw are 18"x18". This difference has caused sludge to bridge and plug the chute, resulting in material back-up and shutdown of the trains. SWA is proposing to increase the size of four (4) sludge chutes (2 chutes per train) from 18"x12" to 18"x18" to match the opening of the mixer feed screw. This will help prevent the plugging or bridging of sludge at the flange.

There will be no change in the permitted material throughput of the facility as a result of the chute design improvement. The processing rates for sludge are determined by the weigh belts, not the chutes. The size of the chutes has no effect on the sludge processing rate.

There will be no change in any air emissions as a result of this design improvement. Hence, the proposed improvement is not a modification, as defined in Rule 62-210.200(199), F.A.C. Based on the provisions of Appendix TV-6 and Rule 62-4.040(1)(b), F.A.C, the SWA has concluded that the proposed design improvements can be constructed without a permit revision or a new air construction permit. The SWA is sending this letter to the Department because the SWA would like the Department to confirm that a permit revision is not required.

We would appreciate your prompt consideration and concurrence on this matter. If you have any questions or need additional information, please contact Mary Beth Morrison at mmorrison@swa.org or at (561) 640-4000 ext. 4613

Sincerely,

Mark Hammond
Executive Director

Enclosures

cc: Lennon Anderson, (FDEP, SED)
Lee Heofert (FDEP, SED)
Marc Bruner, SWA
Ray Schauer, SWA
Jim Greer, SWA
Mary Beth Morrison, SWA
Amber Barritt, P.E., CDM Smith
Tom Yonge, Golder Associates, Inc.
David S. Dee, Esq.
Bill Hansen, NEFCO

NEFCO

Recycle, Renew, Restore

Justification for Enlarging Sludge Chutes From

Weigh Belts to Mixer feed Screws

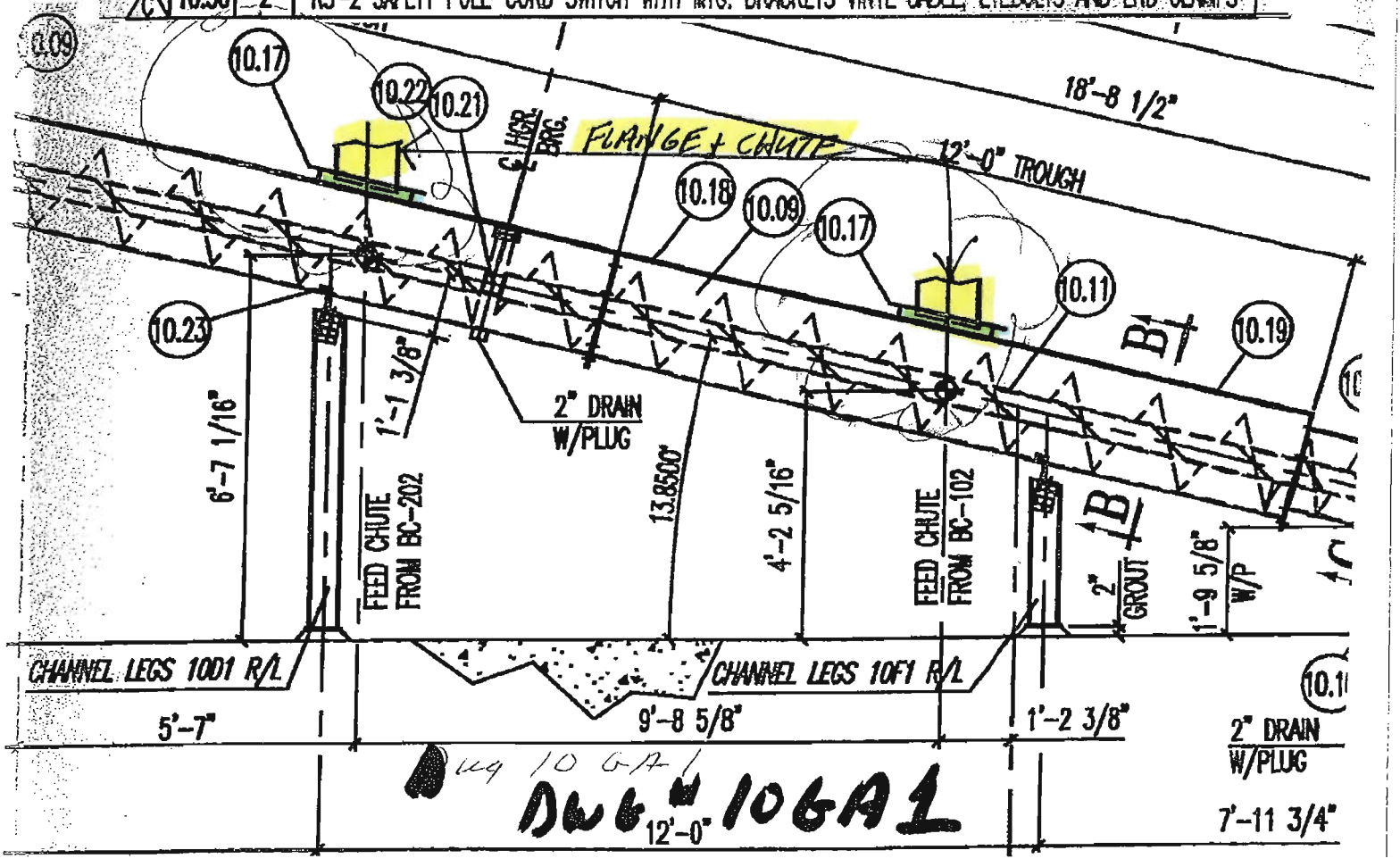
March 6, 2012

- The Sludge Chutes transfer the weighed sludge via gravity from the weigh belt to the mixer feed screw. See attached drawings for both Trains (dwg # A-9GA1 & B-9GA1.
- Existing chutes (two per train) dimensions are currently 18 inches by 12 inches.
- The flange inlet to mixer feed screws are 18 inches by 18 inches. See attached drawing (drw # 10 GA1).
- The processing rates (tons per hour) for sludge are determined by the weigh belts only not the chutes. The chutes (or size of the chutes) have no effect whatsoever on the sludge processing rates. Additionally, the process air flow as related to the Title V permit is not affected or related in any way to the chutes or the size of the chutes. The chutes only purpose is to allow gravity drop of the sludge cake from the overhead weigh belts to the mixer feed screw below.
- The purpose of enlarging the chutes on one side by 6 inches is to prevent sludge from plugging or bridging in the chutes and to match the 18 inch by 18 inch flange dimension on the mixer feed screw. The existing 12 inch chute dimension doesn't match the 18 inch flange mounted on the mixer feed screw and has caused sludge to bridge or plug in the chute. When the sludge bridges or plugs in the chute it will result in the sludge backing-up and causing a disruption to the process and for the process to be shutdown.

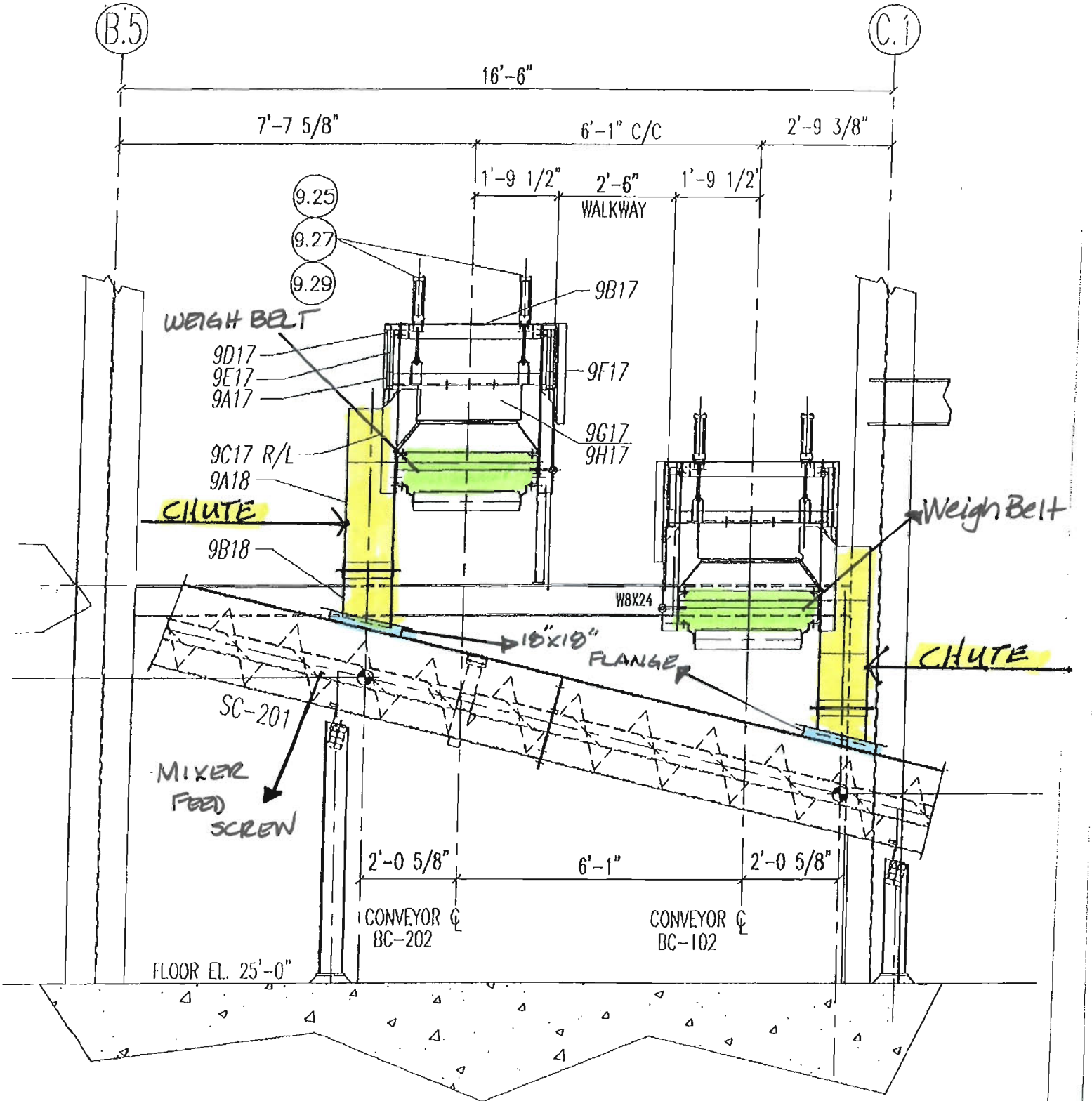
Any questions contact John Bohmann at NEFCO. Cell 561-613-1203

BILL OF MATERIALS

ITEM	QTY.	DESCRIPTION
10.13	1	18" DIA. RH SECTIONAL SCREW X 18'-4 1/2" LONG, 18" DIA. FULL PITCH, MOUNTED TO 5" SCH 40 PIPE, CWBS, 3-BOLT CONNECTION AT DRIVE END, B&D FOR 3 7/16" DIA. SHAFTS, 2-BOLT CONNECTION AT DISCHARGE END, 12" BARE PIPE, ALL 304SS
10.14	1	14" 304SS 10 GA. SHROUD X 2'-0" LONG, BOLTED
B 10.15	1	18" 12 GA. 304SS SEMI-FLANGED COVER X 1'-3 13/16" LG. WITH ONE BUTTSTRAP, GALV. SPRING CLAMPS
B 10.16	10	18" 12 GA. 304SS SEMI-FLANGED COVER X 5'-0" LG. WITH ONE BUTTSTRAP, GALV. SPRING CLAMPS
FLANGE → 10.17	2	18" 12 GA. 304SS SEMI-FLANGED COVER X 5'-0" LG. WITH FITTED INLET FLANGE & COVER PLT, GALV. SPRING CLAMPS
10.18	1	18" 12 GA. 304SS SEMI-FLANGED COVER X 5'-0" LG. WITH TWO BUTTSTRAPS, GALV. SPRING CLAMPS
10.19	1	18" 12 GA. 304SS SEMI-FLANGED COVER X 3'-11" LG. WITH ONE BUTTSTRAPS, GALV. SPRING CLAMPS
10.20	1	14" 12 GA. 304SS SPECIAL SEMI-FLANGED COVER X 5-0" LG., GALV. SPRING CLAMPS
10.21	3	18" STYLE 226 304SS HANGER, 3 7/16" HARD IRON BEARINGS WITH STELLITE BUSHING
10.22	3	3 7/16" DIA. 304SS COUPLING SHAFT, 3-BOLT, STELLITE SLEEVE
10.23	6	18" GALVANIZED SUPPORT SADDLE
B 10.24	23	7/8" DIA. X 6 1/2" LG. 304SS COUPLING BOLTS WITH LOCKNUT
B 10.25	1	PROXIMITY SWITCH - SIEMENS BERO 3RG4 WITH TARGET AND GUARD
10.26	LOT	1/8" X 2 1/2" RED RUBBER COVER GASKETING
10.27	LOT	SILICONE FLANGE GASKET MATERIAL
10.28	LOT	SS ASSEMBLY BOLTS
10.29	1	MANUAL SLIDE GATE ASSEMBLY WITH HANDWHEEL
C 10.30	2	RS-2 SAFETY PULL-CORD SWITCH WITH MTG. BRACKETS VINYL CABLE, EYEBOLTS AND END CLAMPS

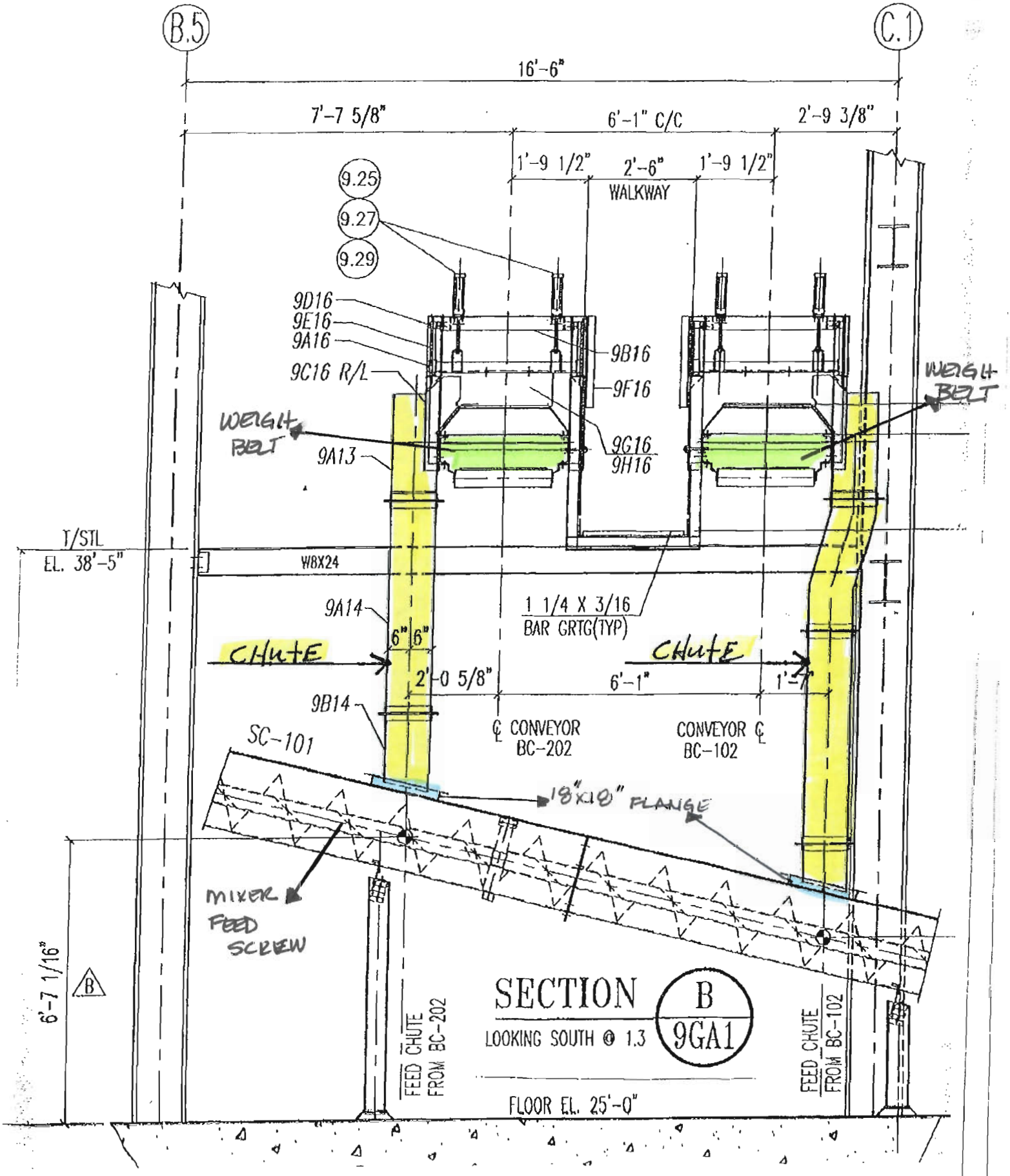


DWG 10GA1

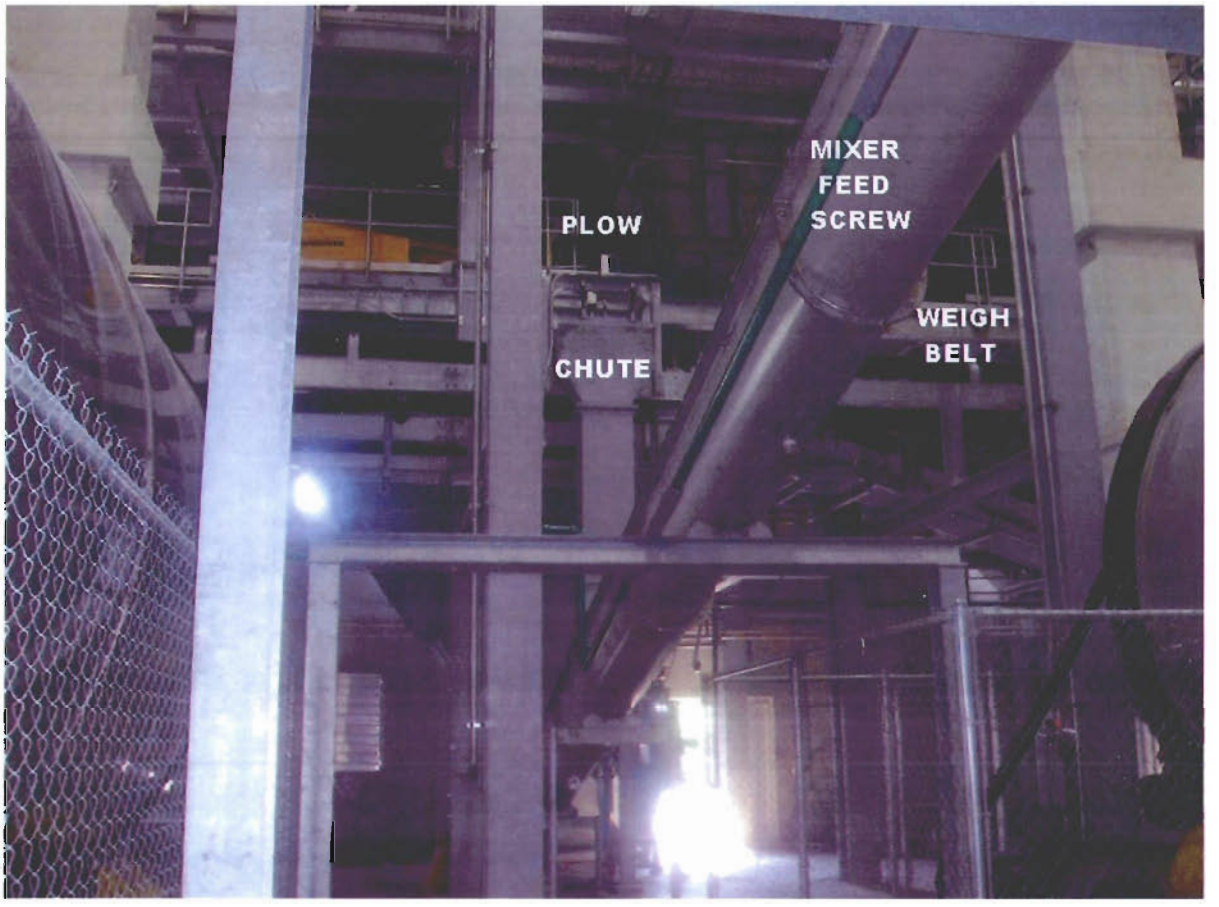


SECTION A
LOOKING SOUTH @ 1.5
9GA1

Submittal 0011.01-008B



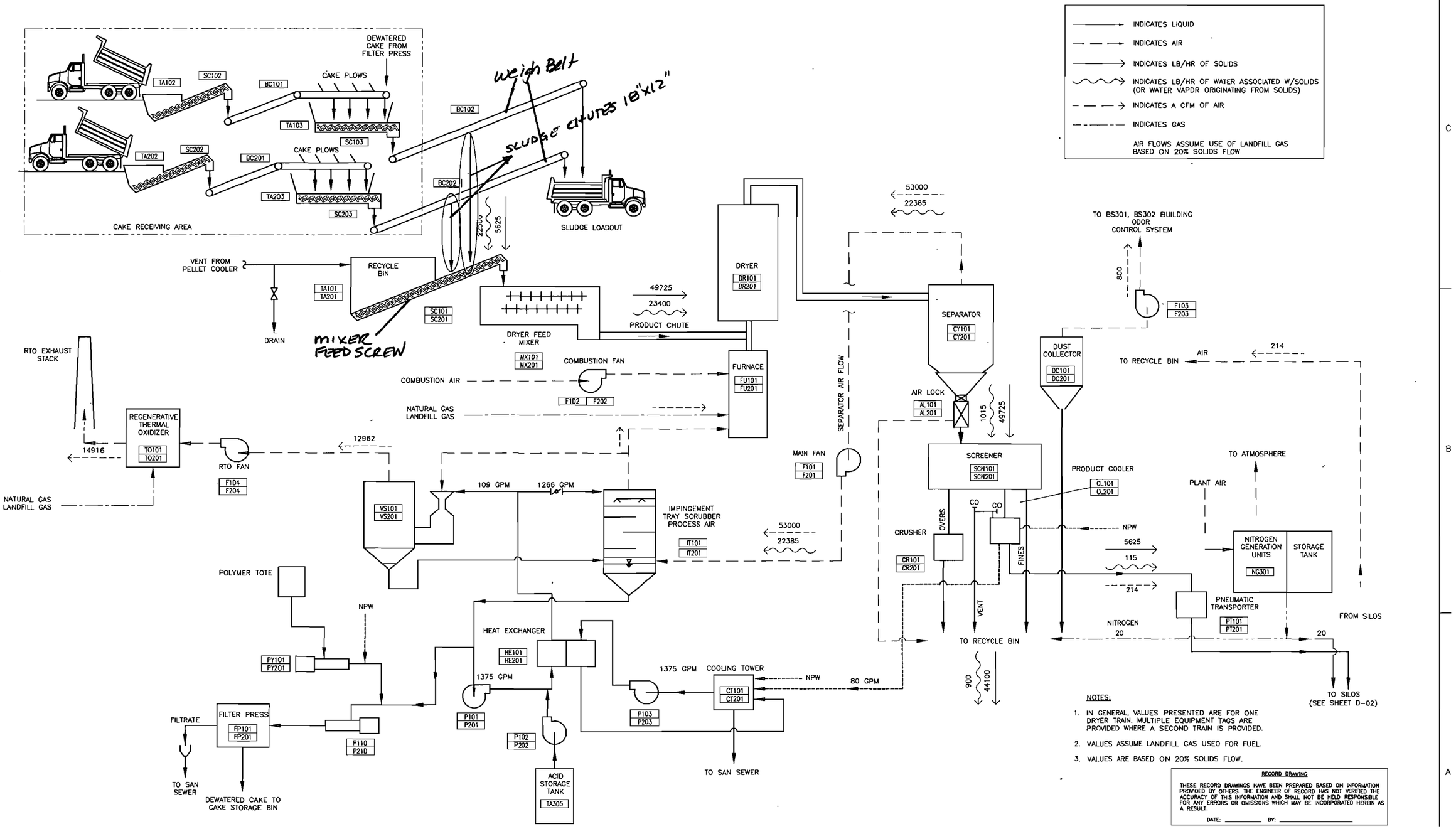
RECYCLE (MIXER FEED) SCREW CONVEYOR



3.4.1.5 MIXER

TPI Engineered Systems provided the mixers or "pug mills." These stainless steel mixers mix wet cake intensively with dry recycle, break up cake clumps, and create the free flowing, uniform mix that is added to the dryer. The mixer speed and paddle angles are adjustable.

The mix should be sampled regularly, and the cake, recycle and mixer speeds adjusted as necessary. Mix samples should be analyzed for moisture content several times a day, at least until operators are proficient with visual observation of the mix.



NOTES:

1. IN GENERAL, VALUES PRESENTED ARE FOR ONE DRYER TRAIN. MULTIPLE EQUIPMENT TAGS ARE PROVIDED WHERE A SECOND TRAIN IS PROVIDED.
2. VALUES ASSUME LANDFILL GAS USED FOR FUEL.
3. VALUES ARE BASED ON 20% SOLIDS FLOW.

RECORD DRAWING

THESE RECORD DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE ENGINEER OF RECORD HAS NOT VERIFIED THE ACCURACY OF THIS INFORMATION AND SHALL NOT BE HELD RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.

DATE: _____ BY: _____

HDR
HDR ENGINEERING INC.
8404 INDIAN HILLS DRIVE
OMAHA, NE 68114-4098
TEL 783-591-5400

ISSUE	DATE	DESCRIPTION
0	8/11/09	RECORD DRAWING

PROJECT MANAGER	E. DeLaFOREST	CHK BY:
ARCHITECTURAL	R. ANDREW	
STRUCTURAL	J. GRUBER	
CIVIL	R. TRAVIS	
PROCESS	E. DeLaFOREST	DH
MECHANICAL	B. SPOTT	
ELECTRICAL	R LARSON	
	M. HENKEL	
PROJECT NUMBER	000000000024020	

PE NAME: Edward J. DeLaForest
PE # 62369
CA # 4213

BIOSOLIDS PROCESSING FACILITY

SWA SOLID WASTE AUTHORITY — Solid Waste Authority of Palm Beach County

MATERIAL FLOW DIAGRAM
RECORD DRAWING

0 1" 2"

FILENAME	00D-01.DWG
SCALE	NONE

SHEET D-01