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December 18, 2012

Darleen Groner
Operating Facilities Unit Chief
Missouri Department of Natural Resources
Hazardous Waste Program
P.O. Box 176
1738 Elm Street (lower level)
Jefferson City, MO 65102-0176

Mr. Ken Herstowski
US EPA Region 7
Air and Waste Management Division
901 North Fifth Street
Kansas City, KS 66101

RE: Lone Star Cape Girardeau Class 2 Permit Modification Application (MOD II-12-12)
Treatment In Bulk Containers

Dear Ms. Groner and Mr. Herstowski:

Lone Star, Inc., Cape Girardeau (LSI), is submitting this Class 2 permit modification request (Phase 2) to add the ability to “treat” hazardous waste in containers within the existing Truck Unloading Area. The proposed modification would allow receiving hazardous waste with higher solids content (sludge-like) in bulk containers (e.g., tank trailers or roll-offs). The waste would require the use of additional equipment to mix the site’s hazardous waste fuels (HWF) with the higher solids content (sludge-like) waste to be received in order to make the resulting mixture amenable to mixing with the HWF and pumping into the cement kiln system. The operation is considered “treatment” since it would modify the physical characteristics of the waste to make it more amenable to storage in the bulk storage tanks. The activity will take place in the existing Bulk Truck Unloading Area that is a permitted hazardous waste container storage area. No new waste codes are involved, only similar wastes with higher solids content.

In addition, change is requested to the Waste Analysis Plan to provide additional efficiencies in receiving and approving waste streams being received at the facility.

We believe that these changes to the facility’s permit will constitute a Class 2 permit modification requiring Missouri Department of Natural Resources approval. As a Class 2 modification, and per 40 CFR 270.42(b) and 10 CSR 25-7.270(1), the permittee must submit a modification request that describes the changes to be made to the permit conditions, explains why the modification is needed, and provides the required information. In addition, a notice of the modification request is to be made to the facility mailing list and must be published in a major local newspaper of general circulation. LSI previously completed these requirements with the Phase 1 portion of this project in 2011. A public meeting was noticed and held on November



Ms. Darlene Groner
Mr. Ken Herstowski
December 18, 2012

30, 2011 at the Marquette Natatorium located at 2701 South Sprigg Street. As you will recall, no members of the public (other than plant employees) attended the meeting or made comment.

The attached document discusses the proposed changes and addresses each of the main sections of the current permit application.

If you have any questions or wish to discuss this further, please feel free to call Bradley Meyr at 573-335-8878 or me at 630-406-9705.

Sincerely,

SCHREIBER, YONLEY & ASSOCIATES

A handwritten signature in black ink, appearing to read "Gary S. King". The signature is stylized and cursive.

Gary S. King, P.E.
Senior Associate Engineer

GSK:bah
X:\LONCPG 110171\LSI Phase 2 Permit Mod 12-12.docx

1. GENERAL FACILITY DESCRIPTION

The LSI cement manufacturing plant and HWF management facility (facility) is proposing to add the following RCRA-permitted operations or units:

- Addition of ancillary equipment to allow receiving bulk containers (truck tankers, portable tanks, and/or roll-off containers) of Hazardous Waste Derived Fuel (HWDF) that require fluidization of the wastes to allow pumping them from the container. A mixing unit will be inserted into the container and HWDF is pumped into the container while the mixing unit operates to fluidize the solids prior to pumping them out. Existing pumps will be used to pump the liquids both in and out of the containers. The operation is considered “treatment” as processing code T04 since it would modify the physical characteristics of the waste to make it more amenable to storage in the bulk storage tanks. The proposed operation will occur within the existing permitted Truck Unloading Area which includes secondary containment for the largest container.

A copy of the modified pages of the Part A form are included in the following pages. The modified pages include:

- A revised “RCRA Subtitle C Identification Form (EPA Form 8700-12, 8700-13 A/B, 8700-23), pages 1 through 4. The changes on these pages include a new modification amendment number in section 1 of the form, and an updated signature in section 14.
- Modified pages from the Hazardous Waste Permit Information Form. Section 8 of page 3 of 6 adds a new process code, T04, to reflect the processing of up to 48,000 gallons per day of blended fuel made up of eight (8) 6,000 gallon containers (tankers and/or roll-offs). Section 13 on page 6 of 6 include an explanation of the newly proposed treatment process.

Since the operation will occur within an existing permitted area, no further changes are needed to the maps and drawings in the Attachments to the Part A form.

Mixing Unit Operation

The fluidization process consists of a cover for the container during processing and a mount for the actual mixing unit. The mixing unit consists of a mixer with opposable propellers that enter the container vertically, then rotate as needed in the waste where the unit mixes the thin HWDF liquid with the heavier, sludge-like received waste. See Figures 15-5 and 15-6 for an example of the unit operating in a roll-off container and a truck tanker, respectively. When not in use, the fluidization unit and lid will be stored in a storage container inside the Truck Unloading Area secondary containment. The storage container will be treated as a 90-day generator container, subject to weekly inspections under the large quantity generator rules. At least every 90 days, the fluidization unit storage container will be rendered RCRA-empty of waste materials that may have dripped of the mixing unit.

The container with the high solids waste will be opened briefly to take a sample of the received waste. After the material has been analyzed and approved according to the Waste Analysis Plan,

all connections will be secured and visually inspected, diluents will be added to the container and filled to the desired level. The liquid level will be monitored during filling using the site glass or will utilize level indicators on the unit's lid to prevent overflow.

Once the diluents have been added, the fluidization unit will be started and the agitation process will begin. The agitation time will be determined by bench study blending tests and visual inspection through the inspection port. Once the blending is complete, the blended material will be pumped into the alternate fuel storage tanks.

The liquified material will be pumped from the container into one of the hazardous waste storage tanks through the fill and drain tube using the existing pump and piping system and the procedures will be the same as existing procedure for the hazardous waste liquids system.

Once the pump removes all of the material capable of being removed the fluidization unit's lid will be removed and a visual inspection will be executed to ensure that the container is RCRA empty and there is no residual material that will drip from the inside of the lid or unit. Once it has been determined that the container box is RCRA empty the fluidization unit will be hoisted up and the container will be closed securely and moved. At the end of processing, the fluidization unit will be lowered back into its storage container or placed in another waste container for processing.

SEND COMPLETED FORM TO The Appropriate State or Regional Office	United States Environmental Protection Agency RCRA SUBTITLE C IDENTIFICATION FORM			
1. Reason for Submittal MARK ALL BOX(ES) THAT APPLY	Reason for Submittal: <input type="checkbox"/> To provide an Initial Notification (first time submitting site identification information / to obtain an EPA ID number for this location) <input type="checkbox"/> To provide a Subsequent Notification (to update site identification information for this location) <input type="checkbox"/> As a component of a First RCRA Hazardous Waste Part A Permit Application <input checked="" type="checkbox"/> As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment # MOD-II-12-12) <input type="checkbox"/> As a component of the Hazardous Waste Report (if marked, see sub-bullet below). <input type="checkbox"/> Site was a TSD facility and/or generator of >1,000 kg of hazardous waste, >1 kg of acute hazardous waste, or >100 kg of acute hazardous waste spill cleanup in one or more months of the report year (or State equivalent LQG regulations)			
2. Site EPA ID Number	EPA ID Number: MOD 981 127 319			
3. Site Name	Name: Lone Star Industries, Inc.			
4. Site Location Information	Street Address: 2524 South Sprigg Street			
	City, Town, or Village: Cape Girardeau	County: Cape Girardeau		
	State: Missouri	Country: USA	Zip Code: 63703	
5. Site Land Type	<input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Tribal <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other			
6. NAICS Code(s) for the Site (at least 5-digit codes)	A. 327310		C.	
	B.		D.	
7. Site Mailing Address	Street or P.O. Box: PO Box 968			
	City, Town, or Village: Cape Girardeau			
	State: Missouri	Country: USA	Zip Code: 63702	
8. Site Contact Person	First Name: Bradley	MI: T.	Last Name: Meyr	
	Title: Alternate Fuels Facility Manager			
	Street or P.O. Box: PO Box 968			
	City, Town, or Village: Cape Girardeau			
	State: Missouri	Country: USA	Zip Code: 63702	
	Email Address: bradley.meyr@buzziunicemusa.com			
	Phone Number: 573-335-8878	Ext.:	Fax: 573-335-5591	
	9. Legal Owner and Operator of the Site	A. Name of Site's Legal Owner: Lone Star Ind. dba Buzzi Unicem USA		Date Became Owner: 01/01/2004
Owner Type: <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Tribal <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other				
Street or P.O. Box: 100 Brodhead Road				
City, Town, or Village: Bethlehem		Phone: 610-882-5000		
State: Pennsylvania		Country: USA	Zip Code: 18017	
B. Name of Site's Operator: Same as above		Date Became Operator: 01/01/2004		
Operator Type: <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Tribal <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other				

10. Type of Regulated Waste Activity (at your site)

Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

A. Hazardous Waste Activities; Complete all parts for 1 through 10.

- Y N 1. **Generator of Hazardous Waste**
If "Yes", choose only one of the following – a, b, or c.
- a. LQG: Generates, in any calendar month, 1,000 kg/mo (2,200 lbs./mo.) or more of hazardous waste; **or** Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lbs./mo) of acute hazardous waste; **or** Generates, in any calendar month, **or** Accumulates at any time, more than 100 kg/mo (220 lbs./mo) of acute hazardous spill cleanup material.
- b. SQG: 100 to 1,000 kg/mo (220 - 2,200 lbs./mo/) of non-acute hazardous waster
- c. CESQG: Less than 100 kg/mo (220 lbs./mo.) of non-acute hazardous waste;

If "Yes" above, indicate other generator activities in 2-4.

- Y N 2. **Short-Term Generator** (generate from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section.
- Y N 3. **United States Importer of Hazardous Waste**
- Y N 4. **Mixed Waste (hazardous and radioactive) Generator**

- Y N 5. **Transporter of Hazardous Waste**
If "Yes", mark all that apply.
- a. Transporter
- b. Transfer Facility (at your site)
- Y N 6. **Treater, Storer, or Disposer of Hazardous Waste** Note: A hazardous waste Part B permit is required for these activities.
- Y N 7. **Recycler of Hazardous Waste**
- Y N 8. **Exempt Boiler and/or Industrial Furnace.** If "Yes", mark all that apply.
- a. Small Quantity On-site Burner Exemption
- b. Smelting, Melting, and Refining Furnace Exemption
- Y N 9. **Underground Injection Control**
- Y N 10. **Receives Hazardous Waste From Off-site**

B. Universal Waste Activities; Complete all parts 1-2

- Y N 1. **Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal waste managed at your site. If "Yes", mark all that apply:**
- | | <u>Generate</u> | <u>Accumulate</u> |
|---------------------------------|--------------------------|-------------------------------------|
| a, Batteries | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Pesticides | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Mercury containing equipment | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Lamps | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Other (specify)_____ | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Other (specify)_____ | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Other (specify)_____ | <input type="checkbox"/> | <input type="checkbox"/> |

- Y N 2. **Destination Facility for Universal Waste**
Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities; Complete all parts 1-4

- Y N 1. **Used Oil Transporter**
If "Yes", mark each that applies.
- a. Transporter
- b. Transfer Facility
- Y N 2. **Used Oil Processor and/or Re-refiner**
If "Yes", mark all that apply.
- a. Processor
- b. Re-refiner
- Y N 3. **Off-Specification Used Oil Burner**
- Y N 4. **Used Oil Fuel Marketer**
If "Yes", mark all that apply.
- a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
- b. Marketer Who First Claims the Used Oil Meets the Specifications

D. Eligible Academic Entities with Laboratories—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262 Subpart K

You can **ONLY** Opt into Subpart K if:

- you are at least one of the following: a college or university; a teaching hospital that is owned by or has a formal affiliation agreement with a college or university; or a non-profit research institute that is owned by or has a formal affiliation agreement with a college or university; AND
- you have checked with your State to determine if 40 CFR Part 262 Subpart K is effective in your state

Y N 1. Opting into or currently operating under 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories
See the item-by-item instructions for definitions of types of eligible academic entities. Mark all that apply:

- a. College or University
- b. Teaching Hospital that is owned by or has a formal written affiliation agreement with a college or university
- c. Non-profit Institute that is owned by or has a formal written affiliation agreement with a college or university

Y N 2. Withdrawing from 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories

11. Description of Hazardous Wastes (See instructions on page 22.)

A. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

see Part A						

B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes. Please list the waste codes of the State-regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

see Part A						

12. Notification of Hazardous Secondary Material (HSM) Activity

Y N Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 261.2(a)(2)(ii), 40 CFR 261.4(a)(23), (24), or (25)?

If "Yes", you must fill out the Addendum to the Site Identification Form: Notification for Managing Hazardous Secondary Material.

13. Comments

14. Certification I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. For the RCRA Hazardous Waste Part A Permit Application, all operator(s) and owner(s) must sign (see 40 CFR 270.10(b) and 270.11).

Signature of operator, owner, or an authorized representative	Name and Official Title (type or print)	Date Signed (mm/dd/yyyy)
	Lawrence Hoffis, Senior VP, Operations	

10. Map

Attach to this application a topographic map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements. (See Figure A.1 in Attachment A.1)

11. Facility Drawing

All existing facilities must include a scale drawing of the facility (see instructions for more detail). (See Figures A.2, A.3, and A.4 in Attachment A.1)

12. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail). (See Attachment A.2)

13. Comments

Further explanation of Section 7

Line Number	Process Code	Description	Permitted volume/rate	Basis (These values do not act as limits)
1*	S01	Container Storage Room	50,160 gallons	734 55-gal drum equiv.
2	T01	Treatment (agitation) and storage in the Blend Tanks	240,000 gallons per day treatment / 240,000 gallons storage	Six (6) 40,000 gallon storage tanks assuming one tank volume per day
3	T01	Treatment (agitation) and storage in the Burn Tanks	300,000 gallons per day treatment / 300,000 gallons storage	Two (2) 150,000 gallon storage tanks assuming one tank volume per day
4	T01	Treatment and storage in one (1) 1,100 gallon Disperser (Mix) Tank	45,500 gallons per day treatment / 1,100 gallons storage	Based on processing 20,000 gallons per day of drums plus adding 25,500 gallons of HWF to disperse the solids
5	S01	Container storage in the Bulk Truck Unloading Area	30,000 gallons	Four (4) bulk tankers in the four (4) bays
6	T81	Combustion of HWF in the cement kiln system (rotary kiln and calciner)	56,580 pounds per hour	Maximum assumed rates to these locations: Kiln – 26,700 pounds per hour Calciner – 29,880 pounds per hour
7	X02	Processing HWF through the eight (8) inline grinders ancillary to the blend/burn storage tanks plus a truck wash tank grinder and a Mix Tank grinder.	834,900 gallons per day	Truck unloading (3) = 275,000 gpd; Blend tank transfers (1) = 300,000 gpd; Feeding HWF to rotary kiln (2) = 80,000 gpd; Feeding HWF to calciner (2) = 86,400 gpd; Truck wash tank (1) = 48,000 gpd Mix tank grinder (1) = 45,500 gpd
8	X02	Processing Drums (Drum Augering)	20,000 gallons per day	363 55-gallon drum equivalents per day.
9*	S01	Container Staging Area	14,080 gallons	256 55-gal drum equiv.
10*	S01	Solids Processing Area	16,720 gallons	304 55-gal drum equiv.
11	X99	Solidifying non-liquifiable wastes for injection into the kiln	4,500 gallons per day	1285 pails per day
12	X99	Truck wash agitation	48,000 gallons per day	Bristol truck wash unit
13	T04	Bulk solids container fluidization	48,000 gallons per day	Eight (8) 6,000 gallons containers per day (truck tankers and/or roll-off containers)

* While the maximum permitted inventory in each area represented by Line Numbers 1, 9, and 10 of Section 7 of this form is limited to the volumes shown in Section 7, LSI elects to maintain the inventory of these 3 container storage areas at less than or equal to 54,000 gallons in total.

2. WASTE ANALYSIS PLAN

Addition of the proposed fluidization treatment process does not impact the Waste Analysis Plan for the facility. No new waste codes will be associated with this operation and no additional pre-qualification or fingerprint testing is required to allow wastes to be received within the limits of the hazardous waste management permit. The existing waste acceptance procedures and compatibility testing will be implemented to ensure that use of the on-site blended fuel is compatible with the waste to be fluidized.

LSI also proposes to modify their drum sampling methods as identified in the Waste Analysis Plan. The current WAP specifies that 100% of the drums on a truck load will be sampled and that the individual drum samples will be mixed in 10-drum composites for analysis. LSI is proposing to allow portions of all the composite samples in a truck load to be further composited in the laboratory prior to running the fingerprint analyses. This allows greater efficiencies in the laboratory while maintaining portions of the 10-drum composite samples for further analysis in the event that additional analysis on the 10-drum composite samples is needed. This compositing on a truck load basis is comparable to what would happen in the event of a tanker being filled from drums at the generator's location. The second paragraph of Section 2.2.13 of the current application is proposed to be modified to read as follows (proposed new language underlined):

Containers of hazardous waste are sampled prior to receipt to ensure that the waste is representative of the waste stream. Individual core samples of liquids and sludges in tank trucks are taken using a coliwasa or similar sampling device as shown in Figure 2.1. Liquid samples from trucks may also be taken with methodologies that provide a representative sample from an external circulation of the truck. For containers of solids, a tube is inserted into the material, and the sample is then pushed out into a sample container. For each shipment of 55-gallon drums, each individual container is sampled and individual samples are grouped in lots of ten for a composite analysis. These composite samples may be further composited on a truck load basis for conducting the fingerprint analyses. For larger portable containers such as totes, the containers are sampled individually, and the samples are composited with samples from other portable containers received from the same generator. At least 10% of the small containers (typically ≤ 6 gallons each) are randomly selected for sampling and compositing.

In addition, LSI proposes to conduct PCB analyses on composites of drum samples that may contain more than 10 drums as long as the analytical detection limit and number of drum samples composited still allow determination if an individual drum may contain greater than 50 ppm PCBs. For example, if the detection limit for a particular matrix is 2 ppm, up to 25 drums could be composited and still allow detection of an individual drum that may contain more than 50 ppm PCBs. In this example, if the composite analysis detects more than 2 ppm of PCBs, individual drum samples will be further analyzed to identify the drum that may contain greater than 50 ppm PCBs. The fourth paragraph of Section 2.2.13 is proposed to be modified as follows to reflect this procedure (proposed new language underlined):

Bulk tanker PCB analyses are conducted individually. PCB analyses of the 55-gallon drum samples are normally performed on a composite of each lot of 10 samples, with an acceptance criterion of 5 ppm or less PCB(s), to ensure that each individual drum is below 50 ppm PCB. If PCB concentrations can be verified at lower concentrations, the PCB analysis may be conducted on a larger composite sample as long as an individual drum can be identified at greater than 50 ppm. ~~If all drum samples pass the PCB analyses, all of the composite samples from that shipment are merged into a single composite sample, and the other analyses listed in Table 2.1 may be performed on the single composited sample as needed.~~ The other composite samples, such as totes, are analyzed for PCBs individually.

3. SECURITY

Addition of the fluidization treatment process does not change the security requirements for the facility. The operation will take place in the existing Truck Unloading Area and no new or additional security provisions are required.

4. INSPECTIONS

No changes to the inspection procedures are required with the addition of the fluidization treatment process. Since the proposed operation will occur within an existing operating area, the existing requirements to inspect and document the bulk containers at least weekly remains in place. The rinse unit and its holder will be included within the equipment that is being inspected within the existing area, and the other pumps, piping and hoses will also be inspected within the existing form requirements.

5. PREPAREDNESS AND PREVENTION

No changes to this section will be required with the addition of the fluidization treatment process. The area where the operation will occur is currently provided with adequate fire prevention and the waste to be processed does not bring along any additional hazards. The containers are closed during the fluidization operation to minimize excess emissions and flammable vapors from entering the work space.

6. CONTINGENCY PLAN

No changes to the Contingency Plan are required since this proposed change does not introduce new types of waste, hazards, or waste handling locations.

7. MANIFEST SYSTEM RECORDKEEPING AND RECORDING

No changes to manifest procedures are required with the addition of this proposed system since the types of wastes handled are the same as currently handled.

8. ACCIDENTAL IGNITION PRECAUTIONS

No additional changes to the facility are required with the operation of the proposed fluidization unit. The grounding and bond precautions are the same as currently implemented in the Truck Unloading Area. Smoking and open flames are not allowed within the area, and the container that is being processed is closed during the operation.

9. TRAFFIC PATTERNS

No changes to the facility are required to address changes in traffic patterns. The containers will be delivered to the facility in the same manner as currently experienced.

10. LOCATION STANDARDS

This proposed change does not change the location standards issues. Since the operation will occur within the existing Truck Unloading area, flood provision issues are not changed. Also, there are no changes to the seismic standard preparations.

11. TRAINING PROGRAM

This proposed change will not cause the training program at LSI to change with regard to hazardous waste compliance issues. Additional operations training will be provided to the applicable employees regarding operation of the fluidization unit in addition to emphasizing the need to keep the container being treated closed and minimizing flammable vapor discharge.

12. CLOSURE PLAN

No changes to the Closure Plan are required with the addition of the proposed fluidization unit process. The proposed changes do not add permitted storage volume or additional specified equipment. Each item is considered to be within the category of “ancillary equipment” to the tank system and is therefore included within that portion of the closure cost estimate.

13. INSURANCE

The insurance requirements for the facility will not change with the proposed change.

14. STATE FINANCIAL ASSURANCE

Since the closure cost estimate is not proposed to be changed with the addition of the fluidization process, the financial assurance documents do not need to be updated either.

15. CONTAINER STORAGE

Container storage is not changed by this proposed change. The Truck Unloading Area is currently permitted for the storage of up to 30,000 gallons in the 4 truck unloading bays. These same unloading bays will be used to place the containers that will be processed with the fluidization unit.

LSI is proposing to “treat” hazardous waste in containers within the existing permitted Truck Unloading Area. The process will allow receiving hazardous waste with higher solids content (sludge-like) in bulk containers (e.g., tank trailers, portable tanks, or roll-offs). The mixing unit adds the site’s hazardous waste fuels (HWF) with the higher solids content (sludge-like) waste to be received in order to make the resulting mixture amenable to mixing with the HWF in the existing tank system, and then pumping the mixture into the cement kiln system.

Mixing Unit Operation

The fluidization process consists of a cover for the container during processing and a mount for the actual mixing unit. The mixing unit consists of a mixer with opposable propellers that enter the container vertically, then rotate as needed in the waste where the unit mixes the thin HWF liquid with the heavier, sludge-like received waste. See Figures 15.5 and 15.6 for an example of the unit operating in a roll-off container and a truck tanker, respectively. When not in use, the fluidization unit and lid will be stored in a storage container inside the Truck Unloading Area secondary containment. The storage container will be treated as a 90-day generator container,

subject to weekly inspections under the large quantity generator rules. At least every 90 days, the fluidization unit storage container will be rendered RCRA-empty of waste materials that may have dripped of the mixing unit.

The container with the high solids waste will be opened briefly to take a sample of the received waste. After the material has been analyzed and approved according to the Waste Analysis Plan, all connections will be secured and visually inspected, diluents will be added to the container and filled to the desired level. The liquid level will be monitored during filling using the site glass or will utilize level indicators on the unit's lid to prevent overflow.

Once the diluents have been added, the fluidization unit will be started and the agitation process will begin. The agitation time will be determined by bench study blending tests and visual inspection through the inspection port. Once the blending is complete, the blended material will be pumped into the alternate fuel storage tanks.

The liquified material will be pumped from the container into one of the hazardous waste storage tanks through the fill and drain tube using the existing pump and piping system and the procedures will be the same as existing procedures for the hazardous waste liquids system.

Once the pump removes all of the material capable of being removed the fluidization unit's lid will be removed and a visual inspection will be executed to ensure that the container is RCRA empty and there is no residual material that will drip from the inside of the lid or unit. Once it has been determined that the unloaded container is RCRA empty the fluidization unit will be hoisted up and the container will be securely closed and moved. At the end of processing, the fluidization unit will be lowered back into its storage container or placed in another waste container for processing.

16. AIR EMISSIONS

SUBPART BB AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

Pursuant to the requirements of 40 CFR 264.1050, the air emissions standards for equipment leaks apply to the new piping and controls associated with the fluidization unit at the LSI facility that comes in contact with organic chemicals. The hazardous waste that will be managed in the proposed unit are the same types of wastes currently handled and includes organic chemicals that range in concentration up to 95%.

The addition of the fluidization unit to the facility's operations will cause additional items to be monitored as part of the existing/approved Subpart BB monitoring program. These items include valves, flanges, and all equipment connections where there is potential for a leak. These new items will be inspected and monitored consistent with the current Subpart BB compliance program. All items to be inspected will be tagged to readily distinguish them from other pieces of equipment. Updated process flow diagrams showing the subject equipment and tag numbers and a modified Subpart BB inspection checklist (for the valves) will be updated and submitted to the Department within 30 days after startup of the fluidization unit as a Class I modification.

SUBPART CC AIR EMISSION STANDARDS FOR CONTAINERS

The management of air emissions from the storage of bulk containers within the Truck Unloading Area is currently managed under the LSI air emissions management program. Due to the size of the bulk containers ($> 0.46 \text{ m}^3$, or > 121 gallons), the containers are subject to the existing Container Level 2 requirements since they are considered to be in light material service. While the containers undergo the fluidization process, they are not subject to the Container Level 3 standards since those standards apply only to containers used for a waste stabilization process, and stabilization does not include the fluidization process.

17. WASTE MINIMIZATION

The proposed fluidization unit will not impact the LSI Waste Minimization program.

18. TANKS

The proposed fluidization unit does not add any tanks to the LSI facility, although the equipment may be considered to be ancillary to the existing tank system.

19. POTENTIAL SWMUs

The addition of the fluidization unit will not create an additional solid waste management unit at the LSI facility since the operation takes place in an existing permitted storage area.

20. HABITUAL VIOLATOR DISCLOSURE

The addition of the proposed fluidization process does not impact the current disclosure associated with the current permit.

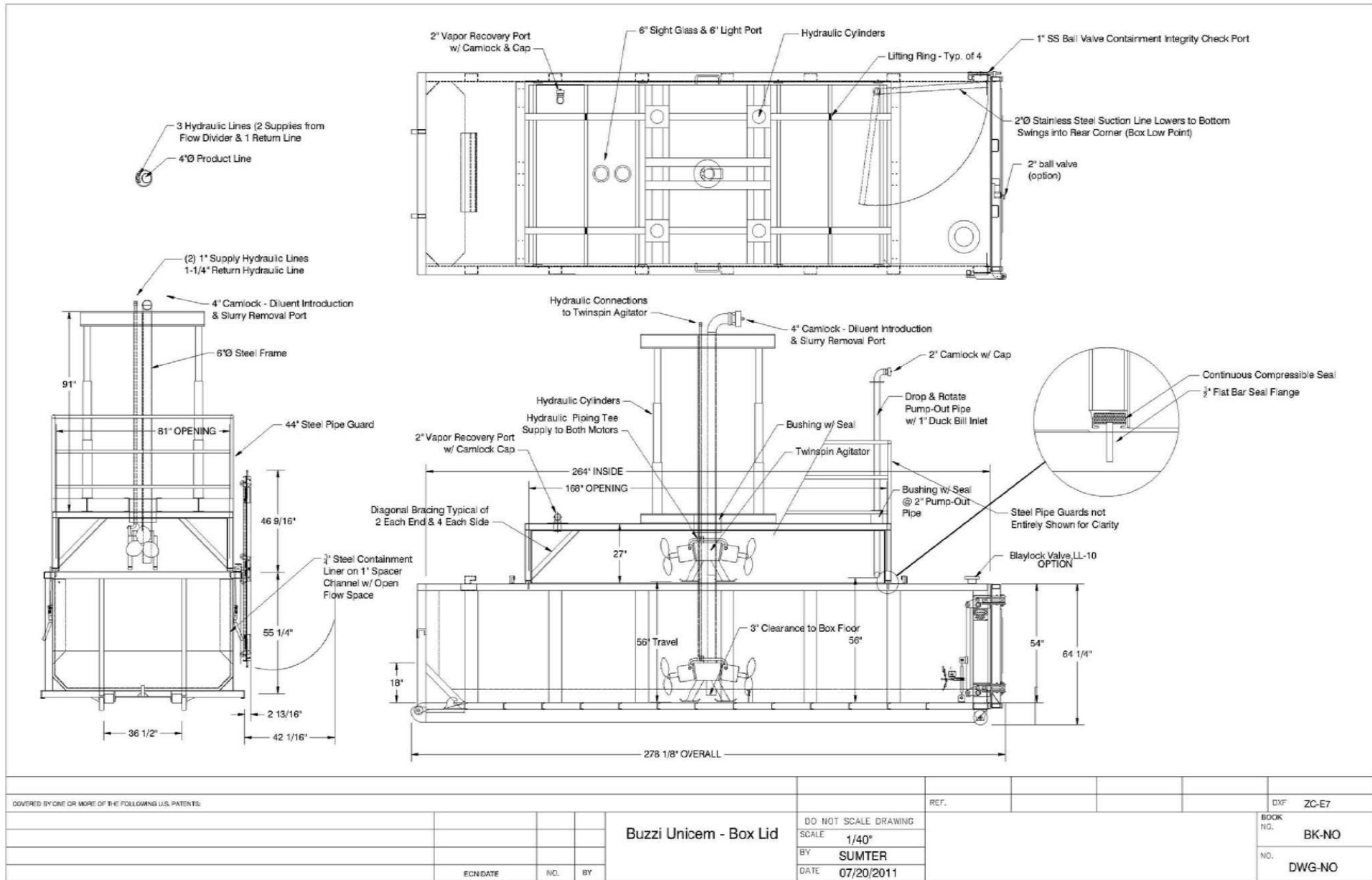
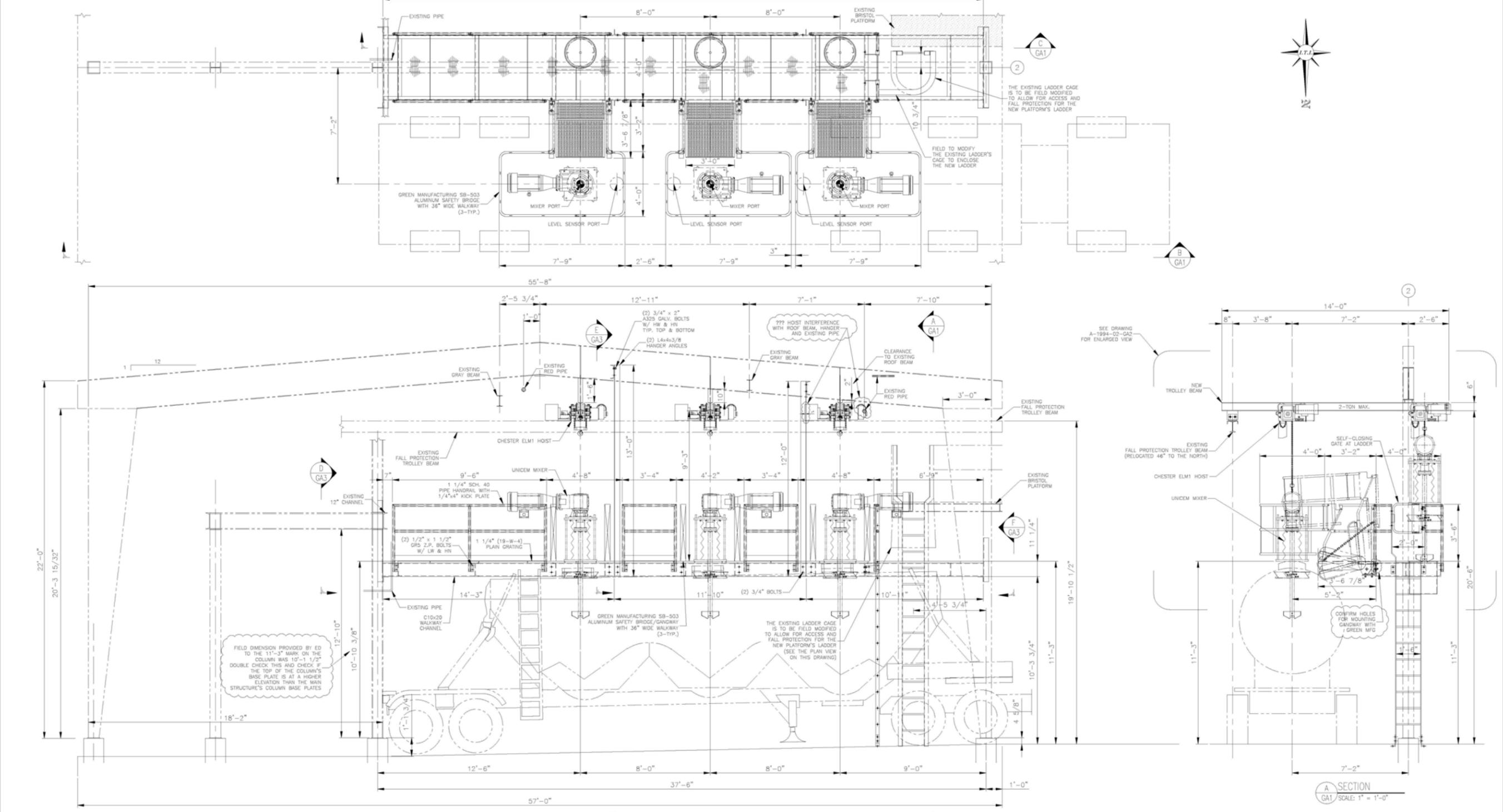


Figure 15-5



FIELD DIMENSION PROVIDED BY ED TO THE 11'-3" MARK ON THE COLUMN WAS 10'-1 1/2". DOUBLE CHECK THIS AND CHECK IF THE TOP OF THE COLUMN'S BASE PLATE IS AT A HIGHER ELEVATION THAN THE MAIN STRUCTURE'S COLUMN BASE PLATES.

THE EXISTING LADDER CAGE IS TO BE FIELD MODIFIED TO ALLOW FOR ACCESS AND FALL PROTECTION FOR THE NEW PLATFORM'S LADDER.

FIELD TO MODIFY THE EXISTING LADDER'S CAGE TO ENCLOSE THE NEW LADDER.

B SECTION
GA1 SCALE: 1" = 1'-0"

A SECTION
GA1 SCALE: 1" = 1'-0"

C SECTION
GA1 SCALE: 1" = 1'-0"

FOR REVIEW
09/28/12
APPROVED BY: _____

Figure 15.6

CUSTOMER	BUZZI UNICEM	 IMPERIAL TECHNOLOGIES, INC. 4155 Marietta Rd., NE - Canton, Ohio 44705 Ph: (330) 491-3200 Fax: (330) 491-3204
LOCATION	CAPE GIRARDEAU, MO	
CUSTOMER P.O.#	11634	SUMNER TRANSPORT & BUZZI UNICEM USA MIXER PLATFORM GENERAL ARRANGEMENT
JOB NO.	420808-1994-02	
SCALE	3/8" = 1'-0"	
DRAWN	08/28/12 EMS	
CHECKED		
APPROVED		

NO REVISION BY DATE
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