

SARASOTA COUNTY GOVERNMENT

Public Utilities Department - Solid Waste Division

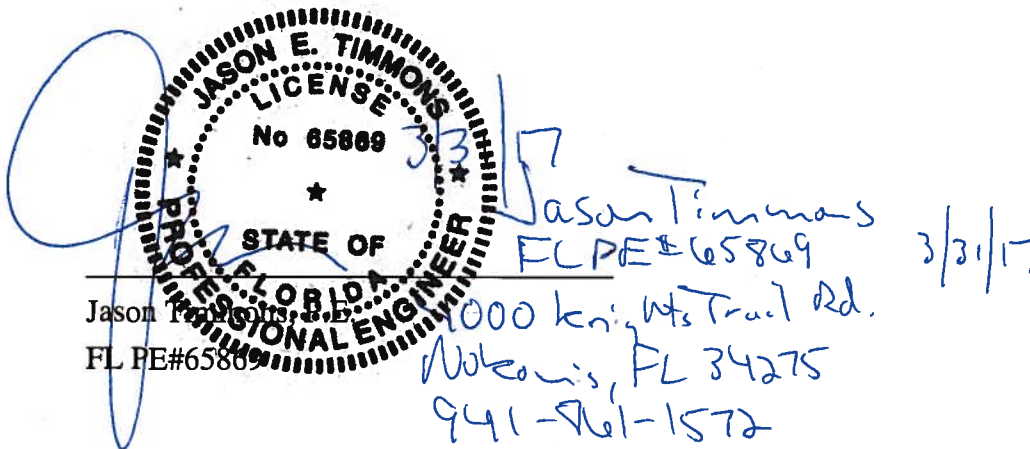
TO: Lois Rose, Manager Solid Waste – Landfill Operations

FROM: Jason Timmons, P.E., Solid Waste Engineer

DATE: March 31, 2017

SUBJECT: Phase I Closure Cover Liner Repair

On March 24, 2017, Comanco Environmental Corporation (Comanco) performed liner repairs on the final cover liner at the Central County Solid Waste Disposal Complex Phase I Landfill. Comanco extrusion welded one patch of GSE 40-mil smooth LLDPE (Roll #108176957) and vacuum box tested the repair. Startup trial welds were performed and passed the strength requirements. Sarasota County staff observed the repairs and nondestructive tests performed by Comanco. The repairs were completed and tested in accordance with accepted industry standards. The repair and trial weld test reports are attached as well as photos of the work performed for reference and a copy of the GSE Certification Reports for Roll #108176957.



Attachments

Comanco Trial Weld and Vacuum Box Testing Logs

Photographs

GSE LLDPE Liner Certifications



Figure 1 – Damaged area prepared for repair.



Figure 2 – Placement and preparation of patch for extrusion weld.



Figure 3 – Extrusion welding.



Figure 4 – Vacuum box testing final repair



GSE Environmental, LLC

ROLL TEST DATA REPORT



Report Date: Sep/2/2014

Sales Order No.	Customer Name	Project Location	Product Name	BOL Number
			LDS-040AE-BBB-B-00	

Roll Number	Average Thickness ASTM D5199 (mils)	Minimum Thickness ASTM D5199 (mils)	Break Strength ASTM D6983 (psi)	Break Strength ASTM D6983 (psi)	Break Elongation ASTM D6983 (%)	Break Elongation ASTM D6983 (%)	Tear Resistance ASTM D1004 (lbs)	Tear Resistance ASTM D1004 (lbs)	Puncture Resistance ASTM D4633 (lbs)	Density ASTM D1505 (g/cc)	Carbon Black Content ASTM D4218 (%)	Carbon Black Dispersion ASTM D5596 (Vol %)
108176957	41	39	214	195	944	910	28	25	101	0.933	2.4	10

Laboratory Manager

This test report shall not be reproduced, except in full, without written approval of the laboratory.

19103 Gundle Road Houston, TX 77073

September 3, 2014

RE: GSE 40 mil smooth LLDPE Geomembrane – Roll Number 108176957
Project: Sarasota Bee Ridge Landfill

Certification of Compliance

The undersigned, being qualified and authorized to do so, hereby certifies that the GSE 40 mil smooth LLDPE Geomembrane meets the following:

- Resin Density of > 0.915 and < 0.926 g/cm³ when tested in accordance to ASTM D1505
- Resin Melt index of ≤ 1.0 g/10 minutes when tested in accordance to ASTM D1238
- Resin /Sheet Oxidative Induction Time (OIT) of ≥ 100 minutes when tested in accordance to ASTM D3895

Sincerely,



Miguel Garcia
GSE Technical Support