

Haley Griffith (adpce.ad)

Subject: RE: Georgia Pacific Consumer Operations Permit 292-S3N - CQA Report Clarification Response

From: Bardella, Tony L <Tony.Bardella@terracon.com>

Sent: Monday, July 14, 2025 1:49 PM

To: Richard Bennett (adpce.ad) <richard.bennett@arkansas.gov>

Cc: McCormick, Dave C. <Dave.McCormick@terracon.com>; Ross, Sarah M <sarah.ross@gapac.com>; Chavis, Dana M <dana.chavis@gapac.com>; Johnson, Rachel M <rachel.johnson2@gapac.com>

Subject: Georgia Pacific Consumer Operations Permit 292-S3N - CQA Report Clarification Response

Richard,

Please see the attached response to your questions sent on June 30 and the follow up call July 9, regarding clarifications to the Georgia-Pacific North Landfill Closure CQA Report.

Thank you,

Tony Bardella

Staff Engineer | Solid Waste Services



25809 I-30 South | Bryant, Arkansas 72022

D (501) 943-1049 | M (501) 794-9466

Tony.Bardella@terracon.com | Terracon.com



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25809 I-30 South
Bryant, Arkansas 72022
P (501) 847-9292
F (501) 847-9210
Terracon.com

July 10, 2025

Arkansas Energy & Environment
5301 Northshore Drive
North Little Rock, Arkansas 72118

Attn: Richard Bennett, Engineer, PE
E: Richard.Bennett@arkansas.gov

Re: Georgia-Pacific Consumer Operations
Solid Waste Permit: 292-S3N, AFIN: 02-00013
CQA Report – North Landfill Final Closure

Dear Mr. Bennett,

Please see your comments and our responses below regarding your email sent June 30, 2025, requesting clarifications on the North Landfill Closure CQA Report dated May 2024.

1. CQA Report Figure 2 appears to show existing contours not final contours, at any rate they do not match the approved grades found in Doc ID 80812, Drawing 4, (PDF page 23 of 130) (for example the 200 ft elevation line and the 130 ft elevation line)

Figure 2 shows an aerial of the site prior to construction. Figure 3 shows the top of final cover contours after construction. The contours shown are at a maximum of approximately 181.2ft and below max permitted contours of approximately 204ft. Due to the site closing early, the landfill was not filled up to permitted elevations.

2. CQA Report Table 1 (pdf page 173 of 593 has criteria for Passing #200 >50%, Doc ID 80812 (Pdf page 61 of 130) has it as >30%

This was a typo in the CQA Report, and ">30%" is the correct spec. All samples met project requirements.

3. CQA Report Note 1 on Figure 4 says that an additional 18 inches of clay was placed on the original 18 inches of cover due to a failed test BUT I have looked at various points and I do not see a 3 ft thick layer. I would like to talk about this.

This was a general statement to explain that instead of retesting failed material on the east slope, there was a new 18" layer of clay placed over the material that failed testing. While much of the area does show 3ft+ of material placed, some areas do show less than 3ft but over 18" of clay due to how the area was graded prior to the placement of the passing 18" clay layer on the east slope.

4. PDF page 349 of 593, seems they failed the thickness test unless I am reading it wrong, need to call the consultant.

The specifications for 40 mil textured geomembrane allow the average roll thickness to be as low as 38 mil, with a single individual sample being as low as 34 mil. All rolls meet this requirement in the manufacturer's quality certification pages.

5. PDF page 349 of 593, seems they failed the OIT test (and used the wrong method) unless I am reading it wrong, need to call the consultant.

The minimum requirement for Standard OIT is 100 minutes, and results were 160-167 minutes. The material was tested for Standard OIT under the new ASTM D8117 standard that replaced D3895 in the GRI GM 17 specification for LLDPE Smooth and Textured Geomembranes. The standard was changed under Revision 14, dated 3/7/21. Both D3895 and D8117 measure Standard OIT using Differential Scanning Calorimetry; however, D8117 was adopted as the new standard due to it being a more targeted and reliable method for geomembrane materials. Note 2 on Table 3A of the CQA Plan states, "Test to be performed according to the latest test method as approved by the certifying engineer."

6. PDF page 385 of 593, looks like they failed the min thickness.

The specifications for 40 mil textured geomembrane allow the average roll thickness to be as low as 38 mil, with a single individual sample being as low as 34 mil. All rolls meet this requirement, except roll GTB0108130058. Roll GTB0108130058 was not used and not sent to the site. An additional conformance sample was taken on the next roll in this lot to confine the failed material. Roll GTB0108130058 was the first roll in Lot DPJ810820 so a sample prior to this roll was not required.

7. In general, where do we get the shear and peel values for heat and extrusion welds?

These values were taken from Table 3B of the CQA Plan under the Trial Seams and Destructive Seam Testing sections. The values used in this table come from the GRI GM 19a specification.

Please contact me if you have any questions or concerns.

Sincerely,
Terracon Consultants, Inc.



Tony Bardella
Senior Staff Engineer



Dave McCormick
Department Manager, P.E.