



November 29, 2021

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Ted Silvestri
Yakima Health District
1210 Ahtanum Ridge Drive
Union Gap, WA 98902

Dear Mr. Silvestri:

We received your November 1, 2021, certified letter (“Letter”) on behalf of Yakima Health District (“YHD”) outlining concerns you have identified at our Limited Purpose Landfill (“LPL”) located at 41 Rocky Top Road, Yakima, WA 98908 (the “Facility”). We have taken a number of measures to address your concerns about odor, blowing trash, waste acceptance, ground waste, after hours activities, and the next cell. We have engaged our engineering consultant, Parametrix, to weigh in on technical points (“Parametrix Memo”), included below as Attachment A.

Odor

We are aware that YHD has received a number of odor complaints concerning the Facility. DTG, YHD, and the Washington Department of Ecology (“Ecology”) have previously discussed odor complaints, and DTG has taken and continues to take measures to mitigate and prevent odor development and nuisance odor migration. These measures include: 1) continuing to ensure only approved waste types are accepted; 2) using cover soil with low rock content to increase compaction; 3) increasing inspection frequency to identify and quickly repair sloughing and cracking; and 4) adding ten additional monitoring points to our quarterly landfill gas monitoring.

Although cracking should not occur, sometimes cracks do form caused by side slopes that are too steep, using cover material that does not compact sufficiently or that is insufficiently compacted, or waste placement. Because DTG is ultimately responsible for the condition of the landfill, we take these issues seriously prior to and when they arise. Since taking control of the facility, we have worked to ensure that side slopes are constructed according to the 2008 and 2015 approvals. We have also worked to ensure appropriate cover material is used and that it is compacted sufficiently. We will continue with these measures.

Additionally, some side slope areas are ready for final cover, and we would like to begin this process according to the approved closure plan. YHD and Ecology identified cracking and odor generation coming from areas that may be ready for final cover. Before DTG seeks YHD’s approval to move forward with final cover for these areas, DTG will have the areas tested to identify the odor. We will also take subsurface temperature readings. And finally, we would like to confirm with YHD an appropriate way to document the materials and methods used to achieve final cover, including material used and vegetation planted.

Blowing Trash

You have identified wind blown litter inside and outside the facility as an issue. We have increased the number of full time employees working litter patrol, and we have also recently purchased and installed six sections of 24' x 15' Bull brand litter fence to use at the working face. These fence sections were recently assembled and put into service, and we expect them to have a material affect on reducing the amount of windblown litter leaving the working face. In September, we began installing fencing around the base of the active area. We expect to complete this project by the end of the year and that this, in conjunction with the portable Bull fencing at the working face, will minimize fugitive litter.

Waste Acceptance

We continue to follow the waste acceptance procedures developed for our approved Operations Plan, dated June 2020, to ensure only approved waste types are accepted at the Facility. All incoming loads are inspected to prevent unacceptable waste from entering the Facility, and loads of unacceptable waste are rejected. No residual from source separated recyclables have been accepted for disposal. Because only approved waste types have been accepted at the Facility while under DTG's control, we believe these procedures are effective.

You identified material that appears wetter than what has historically been disposed of in the Facility as being a concern. We have identified the source of these loads as coming from a customer that employed size-reduction measures (further addressed in the section on Ground Waste) to mixed construction and demolition ("C&D") material. During the size-reduction process, water was misted onto the material to minimize dust. Since this was identified as a concern, we have told the customer that we will no longer accept size-reduced material or materials that contain excessive additional moisture, even if the material is otherwise acceptable.

As we have already done with the customer identified above, DTG proposes to either continue rejecting excessively moist loads of otherwise acceptable material, or at our discretion and if we think reasonable, spread and dry the loads of otherwise acceptable material prior to disposal. Please see Attachment B for proposed edits to the Operations Plan to add additional procedures for excessively wet loads.

Ground Waste

You identified size-reduced material as being a concern because a) increased surface area increases the speed material breaks down; b) it is more likely to behave like municipal solid waste ("MSW"); and c) it makes it difficult to determine if it is acceptable material. As noted above and to fully address these concerns, we will no longer accept loads of otherwise acceptable size-reduced material.

However, size reduction is a natural and required part of the operation of a landfill to maximize air space and increase compaction. Acceptable material will be reduced in size as it is moved with and compacted by the operating equipment. Please see Attachment B for proposed changes to the facility Operations Plan to address loads of otherwise acceptable size-reduced material.

After Hours Activities

You have received reports of evening and/or night truck traffic in the secured area of the LPL. No material is or has been disposed of in the LPL outside of operating hours. Although we had previously allowed customers to drop full trailers of acceptable material at night in the upper parking lot of the office area for next day disposal, we no longer allow customers to do this to avoid the impression that this may be improper after hours activity.

Next Cell

You identified several issues to address before we begin disposing of waste into the next cell. These include 1) confirming the hydrogeological report reflects the waste types and volume entering the landfill and that it covers the area of the next cell; 2) justifying the continued approval using an alternative liner design given the increased amount of waste and its moisture content; 3) the need for gas monitoring wells; 4) the process for preventing unacceptable waste from entering the landfill; and 5) the need for an additional groundwater monitoring well below the next cell.

Hydrogeological Report

You suggest that we need to confirm the hydrogeological report accepted in the permit application process a) accounts for a change in waste type accepted for disposal; b) accounts for a change in the volume of material accepted for disposal; and c) covers the area of the next cell. There has not been a change in waste types, any increase in volume was accounted for in the 2008 and 2015 approvals, and the entire facility footprint was included in the 2008 and 2015 permitting process.

As discussed above, we appreciate that there was a visual change in waste types because some loads of otherwise acceptable material were size-reduced and misted during the size reduction process to minimize dust generation. But, as noted above, because there has not been a change in waste types and we are no longer accepting size-reduced loads of otherwise acceptable material or loads with excessive moisture added to them for disposal, the assumptions used in the hydrogeological reports from the 2007 and 2015 permit applications remain valid. Furthermore, Material Texture Number 19 was used in the Hydrologic Evaluation of Landfill Performance (HELP) Model to estimate leachate quantities. Even modest material changes to the waste being disposed of at the Facility should remain valid because the modelled MSW has a higher leachate generation potential than the acceptable materials. *See Parametrix Memo.*

Any increase in annual waste disposal volume does not change the assumptions that were used in the 2007 and 2015 permit application hydrogeologic report. The report assumed full capacity of the Facility, as noted in the Parametrix Memo. The report was based on a full landfill and therefore there is no change in the modeling conditions. However, we do appreciate that as the fill rate changes, financial assurances based on the Facility life span will be updated accordingly, as required annually in consultation with YHD and Ecology.

The permit application submitted in 2007 and approved in 2008 clearly shows the parcel to be used for LPL, including the proposed phase development, which includes the area to be developed for the next cell. See Attachment C – Figure 1 Site Plan, included in the December 2007 Limited Purpose Landfill Permit Application (“LPL Application”). Furthermore, the application submitted and approved in 2015 clearly shows the existing LPL area, as well as the LPL expansion area. See Attachment D – Figure 1 Site Plan, included in the April 2015 Limited Purpose Landfill Permit Application (“LPL Expansion Application”). There is no question that the entire Facility area identified in the 2007 and 2015 applications, comprising both parcels, is approved for LPL.

Alternative Liner Design Landfill

You request a justification of the continued approval of an alternative liner design for the Facility, or whether the prescriptive liner, with attendant leak detection and leachate collection, should be installed in the next cell. As noted above, there has not been a change in waste type of material accepted for disposal at the Facility. Any change in visual form is attributable to size-reduction and dust mitigation of otherwise acceptable material. And as noted above and in the Parametrix Memo, even a modest change in material type accepted for disposal would not change the modeling because the modelled MSW has a higher leachate generation potential.

In order to prevent any further confusion or concern, we are no longer accepting size-reduced otherwise acceptable material that has had additional moisture added to it. Therefore, because the assumptions made during the 2007 and 2015 permitting process still hold true, a re-evaluation of the liner design is not needed.

Gas Monitoring Wells

The suggestion that gas monitoring wells may be needed is also likely attributable to moisture content and size reduction of otherwise acceptable waste disposed of at the Facility. And as addressed above, because we are no longer accepting size-reduced or intentionally wetted otherwise acceptable material, we are not putting any additional moisture above assumptions into the landfill. We are therefore no more likely to generate excess gas than previously evaluated during the 2007 and 2015 permitting processes.

Furthermore, surface monitoring over the life of the Facility has never shown any indication of being anywhere near the action threshold for landfill gas (“LFG”). At your request, we added ten additional monitoring points to be included in quarterly LFG monitoring. As shown in the monitoring reports included as Attachment E, surface levels of LFG are virtually non-existent.

However, as noted above, a technical consultant will come on site to take samples and attempt to identify the cause of the odor along the NNW slope of the current cell. Additionally, DTG is open to installing monitoring points of compliance around the perimeter of the facility to detect odor above the action threshold. We will work with YHD and our consultant on an acceptable plan to proceed with the above.

Unacceptable Waste Prevention

As previously addressed, only acceptable waste types have been disposed of at the Facility under DTG's control. To avoid the confusion created by accepting size-reduced otherwise acceptable material, DTG is no longer accepting such size-reduced material. To prevent acceptable material with higher than typical moisture content, DTG will either reject loads, or if we think it reasonable, spread and dry the acceptable material prior to disposal.

Additional Groundwater Monitoring Well

The evaluation of whether an additional groundwater monitoring well is needed is also likely premised on the belief that excessively wet material is being disposed of at the Facility. Because we are taking measures identified above to reject otherwise acceptable material that has had additional moisture content added to it or to allow such acceptable material to dry prior to disposal, we believe that the assumptions in the hydrogeological report remain valid. However, we will engage our technical consultants to identify an appropriate location for an additional groundwater monitoring well for YHD and Ecology's approval.

Cell Development

One final point that was not identified in your Letter is the development and construction of the next cell. DTG has begun development of the next cell in accordance with the 2008 and 2015 approvals for side slope, setback, etc. in a progression generally following the Attachment B Filling Plans of the 2021 Annual Financial Assurance Memo dated March 11, 2021, attached below as Attachment F.

DTG is committed to being a good steward of the Facility and a good neighbor to the surrounding residents. We are also committed to increasing economic opportunity in the Yakima region as an employer, recycler, aggregate supplier, and solid waste disposal site.

Regards,



John Martin
Associate General Counsel

Attachment A

MEMORANDUM

DATE: November 29, 2021
TO: John Martin
FROM: Ian Sutton, PE
SUBJECT: Current LPL Permit Applicability
CC:
PROJECT NUMBER: 553-8472-001
PROJECT NAME: Yakima LPL

This memorandum is intended to clarify the applicability of the current limited purpose landfill (LPL) permit to the current LPL operation, in response to the Yakima Health District (YHD) letter from November 1, 2021.

Hydrogeological Report

The Hydrologic Evaluation of Landfill Performance (HELP) Model was used to estimate leachate generation quantities to compare the presumptive design to an arid alternative design. The HELP Model results are included in Appendix D of the current permit documentation. The HELP Model used the Material Texture Number 19 for the modeling of the waste. This material is a standard municipal solid waste (MSW) parameter. MSW was used for modeling because the model does not have a material option for the drier, non-putrescible construction demolition material (C&D) which is consistent with the materials disposed of in an LPL. If there are modest material changes to the C&D waste being disposed of in the LPL, the previous modeling should remain valid since the modelled MSW will have a higher leachate generation potential than the accepted materials at the LPL.

Pertaining to the modelled moisture content of the waste, no specific moisture content was provided. The model generates the moisture content based on the material type (in this case MSW and not C&D) and assumes near steady-state values and runs the first year of the simulation to improve the initialization to steady-state. Soil water content at the end of this year of initialization are used as the initial values for the simulation period. The simulation applies the climate information specific to the location.

The HELP Model also used an assumed average 100-foot final placed waste thickness. The rate at which the material is accumulated is not a factor in the modeling. The model only considers the landfill material column. Changes to the rate at which material is accepted at the site is more of a consideration for Financial Assurance and landfill expansion planning which is reviewed annually.

Size Reduced and Intentionally Wetted Waste

The C&D material was modeled as MSW, so size reduction of C&D prior to transport to the site will not impact the model results. Additionally, the C&D material is typically size reduced during placement in the LPL to provide compaction and preserve air space. The larger concern is likely to make sure that pre-disposal size reduced C&D can be distinguished as acceptable material for the LPL.

Intentional wetting of the pre-disposal size reduced C&D material for dust control prior to transport to the LPL does add moisture into the LPL. If the added moisture remains less than that of typical MSW, then the modeling should still be relevant.

However, if material will no longer be size reduced with intentional wetting of the material for dust control prior to transport to the LPL, concerns should be lessened for increased leachate and landfill gas potential at the site.

Attachment B