

ASPHALT INSPECTION FORM

Darling Ingredients - Tacoma, Washington Facility

Facility No.: 25455514, Cleanup Site No.: 8475, VCP Project No.: SW1317

Asphalt inspection is a requirement in the Corrective Action Plan (Tetra Tech 2020) and as part of Washington Department of Ecology's (Ecology's) No Further Action (NFA) designation for the Darling Ingredients facility at 2041 Marc Avenue in Tacoma, Washington.

This inspection form was developed as a basic guide for conducting an inspection of the asphalt cap at the facility to help identify areas that may be of potential concern. Areas identified may require more frequent monitoring, additional inspection, possibly repair by a qualified asphalt contractor to maintain asphalt integrity. Maintenance of asphalt cracks is critical to prevent further damage and/or limit pathways for contaminant migration to, or mobilization of existing contaminants in, the subsurface.

GENERAL INSPECTION INFORMATION			
Company Conducting Inspection:	<input checked="" type="checkbox"/> Tetra Tech <input type="checkbox"/> Darling Ingredients	Date: 2-29-2024	Time: 0900
Inspection Conducted By:	Weather at Time of Inspection:		
Natalie J. Morrow, LG, LHG	_40_ Temperature (°F)		
Signature:	<input type="checkbox"/> Sunny <input type="checkbox"/> Partly Sunny <input checked="" type="checkbox"/> Mostly Cloudy <input type="checkbox"/> Overcast <input type="checkbox"/> Raining <input checked="" type="checkbox"/> Rain within Past 24 hours		

ASPHALT INSPECTION	
<p><i>Complete the following questions and document areas identified on the attached map. If unsure, document and describe the condition(s) to the best of your ability. Additional consultation with an asphalt specialist may be needed for areas identified as a concern.</i></p>	
1. General Asphalt Surface Conditions at Time of Inspection:	
<input type="checkbox"/> Wet <input checked="" type="checkbox"/> Wet with Pounded Water <input type="checkbox"/> Mostly Wet with Dry Patches <input type="checkbox"/> Dry <input type="checkbox"/> Mostly Dry with Wet Patches	
2. Areas of Pounded Water, Indications Pounded Water in the Past, or Moisture/Water Evident in Cracks? If yes, document these areas below and on the attached map.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>Were areas with ponded water present or were there indications of recent ponded water (e.g., asphalt staining, sediment accumulation, prior observations)? If so, describe general observations.</p> <p><i>Several areas with standing water along truck route, particularly along south portion of truck route. On-site personnel pumped water from the area for this site visit – there had been so much rain recently that water flowed over from the excavation area for the new rendering building and onto the truck route. Water was pumped back to the excavation area. Asphalt in ponded water areas appeared in good condition.</i></p>	
For the areas identified, are there indications of asphalt degradation (cracking, loose rock, sand, broken asphalt, etc.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>List the location(s) of the areas identified that indicate potential degradation and describe the condition observed. Locate the locations on the map.</p> <p><i>Surface conditions appeared relatively unchanged since the 2023 asphalt inspection. Minimal truck traffic on site due to rendering plant being shut down from a fire; a new plant is under construction. See attached map and photograph log. Alligator cracks and some linear cracks observed primarily on the north side of the workshop and lunchroom buildings. The north gate with weigh scale is the main site entry for haul trucks in and out of the facility.</i></p> <p><i>Note: Crack locations on attached map are approximate.</i></p>	
3. Cracking – Were any of the following types of cracking observed?	
If yes, document cracks below and on the attached map.	
Alligator Cracks? (Resemble chicken wire or alligator skin and are caused by repeated traffic loading). If yes, how many? Alligator cracking in multiple areas, mostly on the north side of the workshop and lunchroom buildings in high traffic area. See attached map.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Shrinkage Cracks? (Caused by temperature variations that can expand and contract pavement, leading to stress and cracking). If yes, how many? Discuss the location and characteristics of features identified:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Reflective Cracks or Opening Along Joints? (Occurs when the pavement overlay was done in unsecured conditions, leading to openings of joints, which can allow water to get to the underlying aggregate and cause pavement damage). Possible reflective cracks – shorter limited and one longer linear crack on north side of shop along truck route. Multiple areas of asphalt patches. Crack spacing and joints along asphalt patch edges did not appear to have lateral expansion such that underlying asphalt layer or soil was evident.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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Edge Cracks? <i>(Occur due to poor shoulder support, frost action, or inadequate drainage. Usually begin as hairline cracks that can be seal coated.)</i> <i>Minor along edge or alligator cracking near asphalt edge near well MW-2.</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Cracks within Wheel Paths? <i>North side of workshop and lunchroom buildings along main truck route in and out of facility.</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Cracks from Swell?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Edge Cracks/Failure? <i>Some cracked concrete on corner of pad near south exit gate.</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Crack Seals Present? Identify location of crack sealant areas and describe their condition (good, worn, lifting, cracked, etc.). <i>Long linear crack adjacent to truck route on north side of workshop appeared to have been sealed at one time due to gray discoloration present along the crack. Facility manager said traditional asphalt sealant has been used in the past but peels up when power washed with hot water.</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
How many areas of the above types of cracking were identified? <i>Two primary areas along truck route north of workshop and lunchroom buildings, and one minor area of alligator cracking near truck shop at northeast corner of truck route.</i>	# of Areas <u> 3 </u>
List the location(s) of the cracks identified and describe the condition and pattern observed (hairline, linear, circular, etc.). Locate the crack areas on the map. <i>See map. Cracks observed appeared to be linear and alligator cracking. Multiple locations of asphalt joints along asphalt patches but appeared in good condition.</i>	
4. Potholes identified?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
How many potholes were identified? <i>One area with three or four very small, shallow pits in asphalt observed adjacent to the concrete between office building and rendering building. The pits were in asphalt – no soil or gravel present.</i>	# of Areas <u> 1 </u>
List the location(s) of the potholes identified and describe the condition observed. Locate the potholes on the map. <i>Adjacent to concrete pad between the office building and rendering plant.</i>	
5. Other Issues?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Asphalt lifting? (e.g., due to tree roots or another subsurface feature). If yes, describe and locate on the map.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Asphalt gaps? (e.g., significant gaps around features such as drains, bollards, gutters, posts, foundations, etc. that allows water to drain to the subsurface). If yes, describe and locate on the map.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Rutting from Vehicles or Equipment? If yes, describe and locate on the map. <i>Some linear depression of asphalt along truck wheel travel path but concrete was in good condition except for those features noted above.</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Discoloration, fading, wear that may indicate a future area of concern? If yes, describe and locate on the map.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Vegetation Growing in Cracks/Micro-Cracks or Along Asphalt Edges that Could Lead to Cracking? If yes, describe and locate on the map. <i>Small tufts of grass are growing in the crack between the well surface completion concrete and asphalt at groundwater monitoring well MW-1 on the north side of the workshop. Minor amounts of grass were also observed growing along the north base of the workshop and asphalt.</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Other Observations? <i>Note: Truck route has multiple layers of asphalt.</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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6. Were areas identified that require potential follow-up with the facility manager, more frequent monitoring, or asphalt maintenance contractor?	___Yes <input checked="" type="checkbox"/> No
<p>If yes, discuss which areas require follow up and the type of recommended follow-up. <i>Darling occasionally contracts with Reed Asphalt to repair potholes and other asphalt concerns at the facility. Darling will consult and coordinate with Reed Asphalt, or similar contractor, to evaluate asphalt concerns on a periodic and as needed basis.</i></p> <p><i>Crack seals, alligator cracking, and other linear cracks noted during the 2023 and 2024 should be included in future asphalt inspection by Darling's asphalt contractor. Recommend implementing maintenance suggested by the asphalt contractor, if any.</i></p>	

FORM DISTRIBUTION
Provide a copy of this completed and signed inspection form to the following. A copy of the completed form will be submitted to Ecology as part of the NFA requirement.
Washington Department of Ecology: Site Manager – Danielle Gibson – danielle.gibson@ecy.wa.gov (360-409-6164)
Darling Ingredients personnel: Tacoma Facility Manager – Charles Berg - cberg@darlingii.com (253-572-3922) William “Billy” Holmes – Director Environmental Affairs Manager - bholmes@darlingii.com (972-541-7120) Jon Elrod – VP of Environmental Affairs - jelrod@darlingii.com
Environmental Consultant Tetra Tech, Inc.: Natalie Morrow natalie.morrow@tetrattech.com
406-327-5235 direct 406-370-8170 cell 406-543-3045 main office

SITE MAP

Darling Ingredients - Tacoma, Washington Facility

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ASPHALT INSPECTION PHOTOGRAPH LOG
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South exit gate concrete pad.



South portion of truck route, looking east. Area being pumped from sump in two locations to remove water from asphalt in truck route area to expose surface for asphalt inspection. Area flooded by rainwater prior to inspection due to recent precipitation events and water from excavation area that flowed into the area.

ASPHALT INSPECTION PHOTOGRAPH LOG

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South portion of truck route, looking east. Area being pumped to remove water from asphalt in truck route area to expose surface. Area flooded due to recent rain events. Rainwater being pumped to former rendering plant footprint. South asphalt appears older (rougher) than asphalt near lunchroom; less traveled by truck traffic.



South portion of truck route. Looking east. Asphalt patch apparent in truck travel path.

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South portion of truck route, looking east, near adjacent to former UST removal area (under lunchroom building).



East portion of truck route. Looking north. Older asphalt under awning; some alligator cracking and rougher texture than newer asphalt surrounding east and south of awning.

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Northern portion of truck route, looking west. Former UST basin is under lunchroom. Asphalt patch running down south and middle portion of truck route, alligator cracking on right side of patch near telephone pole and stretching from lunchroom to workshop. Alligator cracks in area east of northeast corner lunchroom that extends along north side of lunchroom.

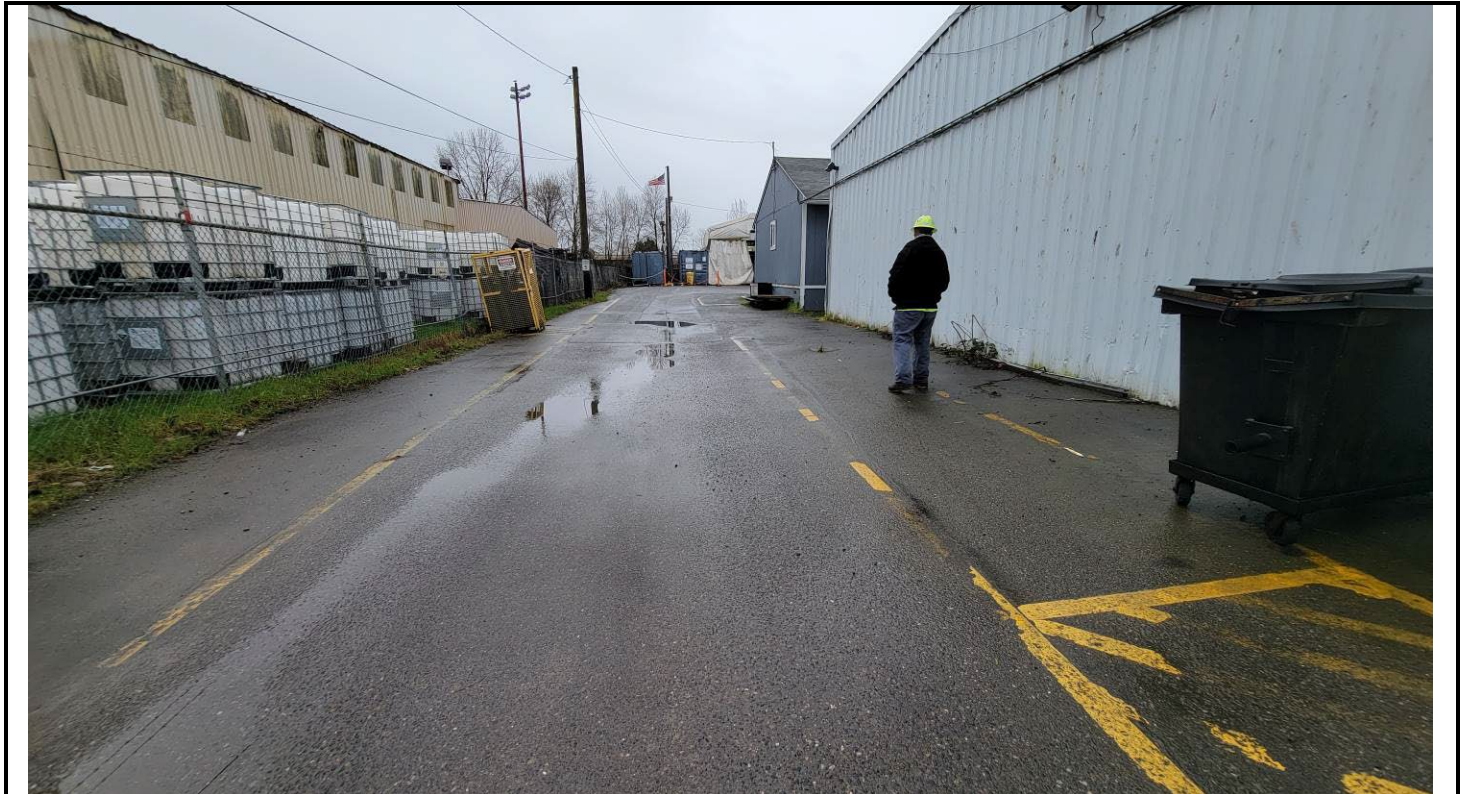


Northern truck route. Looking west. Shows some linear cracks near well MFG-2 (right) and alligator cracks near MFG-1 (middle left).

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Northern truck route. Looking east. Linear cracks that may have received patch material in the past along north side of workshop and near well MFG-1. Alligator cracks near well MFG-1 in truck wheel lanes.



Weigh scale area. Looking west. Miscellaneous small linear cracks near truck scale and car port. Drain cut from building to weigh scale ramp on south side of ramp.