



# Minnesota Pollution Control Agency

520 Lafayette Road North | St. Paul, MN 55155-4194 | 651-296-6300 | 800-657-3864 | 651-282-5332 TTY | [www.pca.state.mn.us](http://www.pca.state.mn.us)

November 25, 2009

TO: INTERESTED PARTIES

RE: Asbury Asphalt Cement Bulk Storage Facility

Enclosed is a revised Environmental Assessment Worksheet (EAW) for the proposed Asbury Asphalt Cement Bulk Storage Facility project (Project) in Chippewa County. An EAW for the proposed Project was prepared and put on public notice in February 2009. Due to subsequent modifications made by the Project proposer related to water use and wastewater disposal, a revised EAW has been prepared and is being re-noticed for review and comment on the modifications. The areas of the revised EAW containing the modifications have been highlighted to facilitate the review process.

The revised EAW was prepared by the Minnesota Pollution Control Agency (MPCA) and is being distributed for a 30-day review and comment period pursuant to the Environmental Quality Board (EQB) rules. The comment period will begin the day the EAW availability notice is published in the EQB Monitor, which will likely occur in the November 30, 2009, issue. Written comments on the EAW should be submitted to Karen Kromar and will be accepted until 4:30 p.m. on December 30, 2009.

In addition to the revised EAW, the MPCA's draft Aboveground Storage Tank – Major Facility Permit (AST Permit) will also be available for public comment from November 30, 2009, until January 15, 2010. Written comments on the AST Permit should be submitted to Sandra Johnson and will be accepted until 4:30 p.m. on January 15, 2010. Sandra Johnson can be reached at 651-757-2469. A public information meeting regarding the AST Permit will be held on January 7, 2010, at 7:00 p.m. at the Granite Falls City Council Chambers, 641 Prentice Street.

Environmental review staff will be available to answer questions pertaining to the revised EAW.

Comments received on the revised EAW will be used by the MPCA in evaluating the potential for significant environmental effects from this project and deciding on the need for an Environmental Impact Statement (EIS).

Requests for an EIS were received on the previously issued EAW for the Project; therefore, the MPCA Citizens' Board (Board) will make the final decision on the need for an EIS. The Board meets once a month, usually the fourth Tuesday of each month, at the MPCA office in St. Paul. The Project will likely be presented to the Board in early 2010. Ten days prior to the scheduled Board meeting, a Board packet will be mailed to each individual who submitted written comments. The Board meetings are open to the public and interested persons may offer testimony on Board agenda items. A listing of Board members is available on request by calling 651-757-2025.

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Please note that comment letters submitted to the MPCA do become public documents and will be part of the official public record for this project.

If you have any questions on the revised EAW, please contact Karen Kromar at 651-757-2508.

Sincerely,



Craig Affeldt  
Supervisor, Environmental Review Unit  
St. Paul Office  
Regional Division

CA:mbo

Enclosure

# ENVIRONMENTAL ASSESSMENT WORKSHEET

**Note to reviewers:** The Environmental Assessment Worksheet (EAW) provides information about a project that may have the potential for significant environmental effects. This EAW was prepared by the Minnesota Pollution Control Agency (MPCA), acting as the Responsible Governmental Unit (RGU), to determine whether an Environmental Impact Statement (EIS) should be prepared. The project proposer supplied reasonably accessible data for, but did not complete the final worksheet. Comments on the EAW must be submitted to the MPCA during the 30-day comment period which begins with notice of the availability of the EAW in the *Minnesota Environmental Quality Board (EQB) Monitor*. Comments on the EAW should address the accuracy and completeness of information, potential impacts that are reasonably expected to occur that warrant further investigation, and the need for an EIS. A copy of the EAW may be obtained from the MPCA by calling 651-757-2101. An electronic version of the completed EAW is available at the MPCA Web site <http://www.pca.state.mn.us/news/eaw/index.html#open-eaw>.

1. **Project Title:** Asbury Asphalt Cement Bulk Storage Facility
2. **Proposer:** Duininck Brothers, Inc.      3. **RGU:** Minnesota Pollution Control Agency
- Contact Person** Jason Ver Steeg      **Contact Person** Karen Kromar
- and Title** Director of Engineering      **and Title** Planner Principal
- Address** P.O. Box 208      **Address** 520 Lafayette Road North  
Prinsburg, Minnesota 56281      St. Paul, Minnesota 55155-4194
- Phone** 320-978-6011      **Phone** 651-757-2508
- Fax** 320-978-4978      **Fax** 651-297-2343
- E-mail** [jasonv@dbimn.com](mailto:jasonv@dbimn.com)      **E-mail** [karen.kromar@state.mn.us](mailto:karen.kromar@state.mn.us)

4. **Reason for EAW Preparation:**

EIS Scoping	<input type="checkbox"/>	Mandatory EAW	<input checked="" type="checkbox"/>	Citizen Petition	<input type="checkbox"/>	RGU Discretion	<input type="checkbox"/>	Proposer Volunteered	<input type="checkbox"/>
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If EAW or EIS is mandatory give EQB rule category subpart number and name: Minn. R. 4410.4300, subp. 10 Storage Facilities

5. **Project Location:**      **County** Chippewa      **City/Twp** Granite Falls Township
- S 1/2 SE 1/4      **Section** 3      **Township** 116      **Range** 39
- GPS Coordinates:**      N 44 52' 44"      W 95 31' 44"
- Tax Parcel Numbers** 04-103-4101, 04-103-4400, 04-103-4303

**Figures, Attachments and Appendices to the EAW:**

- Attachment 1: County map showing the general location of the project
- Attachment 2: U.S. Geological Survey Map of site and surrounding area
- Attachment 3: Aerial photograph of current site
- Attachment 4: Aerial photograph of current site with site plan overlaid
- Attachment 5: Minnesota Department of Natural Resources (DNR) Natural Heritage and Nongame Research Program Correspondence
- Attachment 6: Natural Resources Conservation Service soils information
- Attachment 7: Site plan showing all significant project and natural features
- Attachment 8: Site map with tile lines and drainage patterns
- Attachment 9: Map of wells within 2.2 miles of site
- Attachment 10: Material Safety Data Sheet
- Attachment 11: Chippewa County correspondence
- Attachment 12: Granite Falls Township correspondence
- Attachment 13: Air Permit Assessment Memorandum
- Attachment 14: Risk and Odor Evaluation Memorandum
- Attachment 15: State Historic Preservation Office correspondence
- Attachment 16: Risk Assessment Screening Spreadsheet (RASS)
- Attachment 17: Hydrogen Sulfide Odor Evaluation

**6. Description:**

**a. Provide a project summary of 50 words or less to be published in the *EQB Monitor*.**

Duininck, Inc. (Duininck) is proposing to construct a storage tank and associated equipment to load, store, and unload asphalt cement in Section 3 of Granite Falls Township, Chippewa County, with the possible addition of up to three more tanks in the future (Project). The proposed initial tank would have a capacity of 3,971,000 gallons. An EAW for the proposed Project was prepared and put on public notice in February 2009. Due to subsequent modifications made by the Project proposer related to water use and wastewater disposal, a revised EAW has been prepared and is being re-noticed for review and comment on the modifications. The areas of the revised EAW containing the modifications have been highlighted to facilitate the review process.

**b. Give a complete description of the proposed project and related new construction. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities.**

Duininck is proposing to construct a storage tank, along with associated piping and loading racks to be used for loading, storing, and unloading asphalt cement at a location in the S½ of the SE¼ of Section 3, Granite Falls Township, Chippewa County. The proposed initial tank has a capacity of 3,971,000 gallons; however, Duininck may wish to expand this to as many as four total tanks of the same size. This EAW includes all four tanks, and the term “Project” used throughout the EAW refers to the entire potential project, including all four tanks and associated piping, loading racks, and other appurtenances.

The site on which the tanks would be constructed encompasses 19.5 acres, part of which was formerly the location of a grain elevator; the grain elevator has since been removed. The remainder of the site is cropland. Because of the previous use of a portion of the site for the grain elevator operation, there is a

rail siding at the north edge of the property. The siding is currently used by Burlington Northern Santa Fe railroad for storage and switching of rail cars. This siding would be used by Duininck for delivery of asphalt cement. Of the 19.5 acres, approximately 15 acres would initially be affected by site construction, which would generally include grading the site for proper drainage, and constructing a secondary containment berm around the proposed tank construction area. The secondary containment area would be designed to accommodate all four potential tanks - approximately 161,604 square feet in area. A driveway would be constructed coming in from 100<sup>th</sup> Street to the south. Additionally, a berm would be constructed to the west of the driveway to help screen the operation from the view of neighboring properties. A small mechanical control building would be constructed west of the tank area to house pumps and controls needed to load and unload the stored material. **A small restroom will also be housed in this building.**

After site preparation, the initial tank would be constructed, including foundation, associated pumping and piping, and steel erection. The proposed tank is a circular, vertical tank, 130 feet in diameter and 45 feet high. Construction activities would generate minimal waste. Soil excavated to create a flat bottom to the secondary containment area would be used to construct the side berms of the containment area; any excess would be stockpiled on site and used as a screening barrier.

The proposed Project will be in operation from April to November of each year (operating season). During the winter months, asphalt cement would be unloaded from train cars by direct pumping via a pipe from the train car to the storage tank. **Steam will be used to heat the rail cars to facilitate the filling process.** The asphalt cement is pumped into the bottom of the tank. As the tank is filled, an air release valve at the top of the tank expels the excess air from the tank. Unloading of product from train car to tank is anticipated to occur less than six times per year. An average of ten times per day during the operating season, asphalt cement would be unloaded from the tank into tanker trucks. This process is usually done utilizing gravity. A pipe emerging from the tank is connected to the unloading rack, which has a discharge pipe that extends downward inside a hatch at the top of the tanker truck. The valves at the tank and discharge pipe are then opened and the asphalt cement flows by gravity into the tanker truck. The process for filling a tanker truck in this manner takes approximately 15 minutes.

The asphalt cement for the proposed Project would be purchased based on availability and pricing and stored in the tank(s) until needed for construction projects. The tank(s) would be heated to 350 degrees Fahrenheit from approximately April through November. The tank(s) would not be heated during the winter months.

Location and site maps for the proposed Project are included as Attachments 1-8.

**c. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.**

The purpose of the Project is to construct a storage facility for asphalt cement, which is produced year round as a byproduct of refining crude oil into gasoline, diesel fuel, and fuel oil. However, as very little road construction is conducted during the winter months in Minnesota and surrounding states, the demand for asphalt cement during the winter months is greatly diminished as compared to the summer months. The ability to store the product in bulk creates opportunity for a more even supply and demand scenario and greater flexibility for the Project proposer throughout the year.

- d. Are future stages of this development including development on any other property planned or likely to happen?  Yes  No

If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

As described earlier, Duininck may expand the operation to include a total of as many as four tanks of the same size as the initial tank (3,971,000 gallons). Duininck does not have immediate plans to construct additional tanks, nor do they know when this may occur. However, the secondary containment area is being designed to accommodate the four tanks. Future addition of tanks will require a modification of the facility's MPCA Aboveground Storage Tank -Major Facility Permit (AST Permit). Any change in the product being stored in the tanks would also require a modification of the AST Permit, and may require additional environmental review at the time it is proposed.

- e. Is this project a subsequent stage of an earlier project?  Yes  No

If yes, briefly describe the past development, timeline and any past environmental review.

NA

7. Project Magnitude Data

Total Project Area (acres) 19.5 or Length (miles) \_\_\_\_\_

Number of Residential Units: Unattached NA Attached NA Maximum Units Per Building: NA

Commercial/Industrial/Institutional Building Area (gross floor space): total square feet NA

The 130-foot diameter tank will have a footprint of 13,267 square feet. Also, a mechanical building of less than 2,000 square feet will be built to house the pumps, controls, restroom, etc.

Indicate area of specific uses (in square feet):

Office NA Manufacturing NA

Retail NA Other Industrial NA

Warehouse NA Institutional NA

Light Industrial NA Agricultural NA

Other Commercial (specify) NA

Building height If over 2 stories, compare to heights of nearby buildings

The tank height will be 45 feet, while the height of the mechanical building will be less than 25 feet.

Buildings in the area are generally one or two-story farm houses, along with barns and sheds.

8. Permits and approvals required. List all known local, state and federal permits, approvals and financial assistance for the project. Include modifications of any existing permits, governmental review of plans, and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure. All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minn. R. 4410.3100.

**TABLE 1**

<b>Unit of Government</b>	<b>Type of Application</b>	<b>Status</b>
Chippewa County	Rezoning Request	Application to be submitted
Chippewa County	Conditional Use Permit	Application to be submitted
Chippewa County	Septic System Permit	Application to be submitted
MPCA	Aboveground Storage Tank - Major Facility Permit (AST Permit)	Application submitted
MPCA	National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Stormwater Permit	Application to be submitted

9. **Land use. Describe current and recent past land use and development on the site and on adjacent lands. Discuss project compatibility with adjacent and nearby land uses. Indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazards due to past site uses, such as soil contamination or abandoned storage tanks, or proximity to nearby hazardous liquid or gas pipelines.**

The majority of the 19.5-acre site is currently being used to grow agricultural crops. On the northern portion of the site, there are some remnants of the old grain elevator that was previously located at the site. These remnants include a 20-foot by 14-foot concrete pad, a 24-foot diameter circular concrete pad and a 60-foot by 15-foot scale, mostly covered by dirt and gravel. Attachment 3 shows the current condition of the site. These remnants will be removed and disposed of or recycled prior to construction of the Project. There are no hazardous liquids or gas pipelines in proximity to the site. The past use of the site for grain storage, and the current use as described, do not present any known potential for environmental hazards.

Adjacent to the site to the east and south the land is row cropped. Immediately to the west of the site there is additional row cropping, then two farmsteads and County State Aid Highway (CSAH) 5. Row cropping on the site and adjacent lands has occurred for at least 25 years. There is another farmstead just west of CSAH 5. The locations of the three farmsteads, located within a 1,500-foot radius of the site, are depicted in Attachment 4. Distances from site landmarks to the farmsteads are summarized in the table below.

**TABLE 2**

<b>Homeowner</b>	<b>Distance from Property Line (in feet)</b>	<b>Distance from Secondary Containment Berm (in feet)</b>	<b>Distance from Loading/Unloading Area (in feet)</b>
Haroldson	199	922	877
Sandberg	207	710	702
Muhl	768	1269	1271

Associated with the previous use of the site for grain storage, there is a railroad siding present at the north edge of the site. When the grain elevator was operating, this siding was used to load grain onto train cars for regional distribution. The grain elevator is now gone, but the siding is still used by Burlington Northern Santa Fe for storage and switching of rail cars. Additionally, trains pass through on the main line just north of the siding several times each day. The Project’s proposed usage of the railroad and siding for delivery of asphalt cement would be intermittent, estimated at less than six rail deliveries to the site per year, and would not significantly increase the volume of train traffic that is experienced by area residents (currently two to three trains per hour).

Asphalt cement would be hauled away from the site mainly by trucks. The haul route would utilize CSAH 5, which is ¼-mile to the west of the site. CSAH 5 is a paved road which experiences a significant volume of traffic (820 vehicles per day in 2004). Hauling during operation of the Project will generate an average of ten trucks per day during the operating season.

Construction of the proposed Project is subject to the Chippewa County Zoning Ordinance. The Project proposer will apply for a rezoning of the district to “I-2 Heavy Industrial District.” If the site is rezoned, a Conditional Use Permit is required, with special conditions as specified by the county.

**10. Cover Types. Estimate the acreage of the site with each of the following cover types before and after development:**

	Before	After		Before	After
Types 1-8 wetlands	0	0	Lawn/landscaping	0	0.32
Wooded/forest	0	0	Impervious Surfaces	0.01	2.17
Brush/grassland	2.80	12.79	Stormwater pond	0	0
Cropland	16.1	4.22	Other (dirt road)	.59	0
			<b>TOTAL</b>	19.5	19.5

**11. Fish, Wildlife, and Ecologically Sensitive Resources.**

- a. **Identify fish and wildlife resources and habitats on or near the site and describe how they would be affected by the project. Describe any measures to be taken to minimize or avoid impacts.**

The site is, for the most part, tillable land. A small portion in the northwest corner of the site is bare grassland with a dirt driveway that, at one time, served the grain elevator. The site does not support much wildlife due to the lack of adequate habitat, although an occasional rabbit, field mouse, snake, or bird will appear in the area. Construction may temporarily disturb their patterns, but no long-term adverse impacts to wildlife resources or habitats are anticipated from the Project.

- b. **Are any state (endangered or threatened) species, rare plant communities or other sensitive ecological resources on or near the site?**  Yes  No

**If yes, describe the resource and how it would be affected by the project.**

**Describe any measures that will be taken to minimize or avoid adverse impacts. Provide the license agreement number (LA-\_\_\_\_\_) and/or Division of Ecological Resources contact number (ERDB 20080646) from which the data were obtained and attach the response letter from the DNR Division of Ecological Resources. Indicate if any additional survey work has been conducted within the site and describe the results.**

The DNR Natural Heritage and Nongame Research program performed a review of the Minnesota Natural Heritage Information System (see Attachment 5). That review showed no occurrence of rare species or other significant natural features within a one-mile radius of the Project site.

- 12. Physical Impacts on Water Resources. Will the project involve the physical or hydrologic alteration (dredging, filling, stream diversion, outfall structure, diking, and impoundment) of any surface waters such as a lake, pond, wetland, stream or drainage ditch?**  Yes  No

If yes, identify water resource affected and give the DNR Public Waters Inventory (PWI) number(s) if the water resources affected are on the PWI.

Describe alternatives considered and proposed mitigation measures to minimize impacts.

NA

13. **Water Use. Will the project involve installation or abandonment of any water wells, connection to or changes in any public water supply or appropriation of any ground or surface water (including dewatering)?**  Yes  No

If yes, as applicable, give location and purpose of any new wells; public supply affected, changes to be made, and water quantities to be used; the source, duration, quantity and purpose of any appropriations; and unique well numbers and DNR appropriation permit numbers, if known. Identify any existing and new wells on the site map. If there are no wells known on site, explain methodology used to determine.

The Project will include the installation of a water supply well on site. The location of the well is shown on Attachment 7. The water from the well will be used to generate steam in order to heat the rail cars to facilitate storage tank filling activities during the winter months and to supply water to a small restroom facility to be constructed on site. The total estimated water use of the Project, considering all four tanks and the restroom, will be approximately 8,800 gallons per day, or 700,000 gallons per year. A DNR Water Appropriation Permit is not required because the estimated amount of water pumped from groundwater is below the DNR permit thresholds of 10,000 gallons per day or one million gallons per year. The DNR recommends that the Project proposer conduct detailed record keeping and/or install a timing device on the well to document water use.

14. **Water-related land use management districts. Does any part of the project involve a shoreland zoning district, a delineated 100-year flood plain, or a state or federally designated wild or scenic river land use district?**  Yes  No

If yes, identify the district and discuss project compatibility with district land use restrictions.

NA

15. **Water Surface Use. Will the project change the number or type of watercraft on any water body?**  Yes  No

If yes, indicate the current and projected watercraft usage and discuss any potential overcrowding or conflicts with other uses.

NA

16. **Erosion and Sedimentation. Give the acreage to be graded or excavated and the cubic yards of soil to be moved:** 15 (est.) acres; 50,000 (est.) cubic yards. Describe any steep slopes or highly erodible soils and identify them on the site map. Describe any erosion and sedimentation control measures to be used during and after project construction.

As shown in the attached soils map (Attachment 6) and the chart in Item 19.b., there are no steep slopes or highly erodible soils on the site. Thus, the probability of erosion after exposing the soil is "slight," according to the Natural Resources Conservation Service (see Attachment 6). To further minimize erosion possibilities, best management practices (BMPs) will be implemented to control soil erosion during and

after Project construction. The BMPs will be identified in a Stormwater Pollution Prevention Plan (SWPPP), which will be prepared and implemented for the site prior to construction. The SWPPP is an enforceable part of the MPCA's NPDES/SDS Permit. Specific BMPs will likely include the use of silt fencing, vegetated swales, inlet protection, and the development of a stormwater management system. Additionally, the Project proposer will work with the tank manufacturer to incorporate BMPs relative to the tank construction into the SWPPP.

## 17. Water Quality – Surface-water Runoff.

- a. **Compare the quantity and quality of site runoff before and after the project. Describe permanent controls to manage or treat runoff. Describe any storm-water pollution prevention plans.**

Completion of the Project will add approximately 2.2 acres of impervious surface to the site. As part of the NPDES/SDS Construction Stormwater Permit, a permanent stormwater management system will be required. Because of the sandy nature of the site, treatment will likely include a stormwater management area, which will be designed to contain and infiltrate all runoff from a ½-inch rainfall event within 48 hours, at a minimum. For larger rainfall events, flows will discharge into an existing five-inch tile that runs near the proposed stormwater management area south of the circle drive, or will discharge into the ditches of the driveway, which direct flows to the west toward Palmer Creek. The stormwater management area is shown on Attachment 7. The five-inch tile and tile intakes are shown in Attachment 8, which also depicts the current drainage pattern of the site.

Since the bottom of the secondary containment area is permeable, a significant portion of the stormwater falling within the boundaries of the containment area will infiltrate into the subsurface. There will be a pipe installed into the secondary containment area that outlets directly into the stormwater pond or basin, if necessary. The pipe will be equipped with a valve that will allow the operator to discharge the stormwater only when the valve is open; otherwise the valve will be closed in order to contain material in the event of a leak or spill.

- b. **Identify routes and receiving water bodies for runoff from the site; include major downstream water bodies as well as the immediate receiving waters. Estimate impact runoff on the quality of receiving waters.**

Currently, runoff from the northeast 12 acres of the site flows to a tile intake along the north end of the site. Runoff from another 4.69 acres flows to a different tile intake near the southwest corner of the site. These two intakes are connected by a five-inch tile flowing from the north intake to the southwest. From there, a five-inch tile takes the runoff south, across the township road, then west, across CSAH 5, and eventually outlets to Palmer Creek (see Attachment 8). Of the remaining 2.78 acres of the site, runoff from 1.7 acres drains to the south end of the site, into the township road ditch and to the west, crossing CSAH 5 through a culvert and eventually flowing to Palmer Creek. The remaining 1.07 acres drains over the ground to the southeast, mostly infiltrating into the subsurface, but also eventually reaching another tile system that connects with the aforementioned system and flows to Palmer Creek. Palmer Creek generally follows the railroad southwest about 3.3 miles where it discharges into the Minnesota River.

After construction, the majority of the drainage would be directed to the permanent stormwater management system as previously described. The stormwater management system is expected to sufficiently control the quantity of runoff, and the quality of the discharge to receiving waters may actually improve after construction of the Project, as sediment and nutrients in the runoff from site usage will be controlled.

## 18. Water Quality – Wastewater.

### a. Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.

A small restroom facility will be constructed on site. Wastewater from the restroom facility is not expected to exceed 125 gallons per day during the operating season and will be discharged to a septic system also to be constructed on site. The septic system is subject to a Chippewa County Septic System permit.

Steam will be used to heat the rail cars. The steam will be generated using a steam generator in conjunction with the hot oil coil system that is used to heat the storage tanks during the operating season. Water from the well installed at the site will be routed to the heater and steam generator and then sent to the area of the rail cars via an insulated four-inch diameter tube. Boiler treatment chemicals will be added to the water to prevent scaling. The four-inch tube is then separated into one-inch diameter tubes that hook directly to the rail cars. The steam flows through a system of coils situated between the inner and outer shell of the rail car, heating the asphalt. Approximately 65 percent of the steam will be captured and recycled through the system, and approximately 35 percent will be discharged to the atmosphere as a vapor. This vapor discharge does not require an NPDES/SDS industrial discharge permit. In order to prevent scaling on the steam generating equipment, the water in the system must be drained periodically (this is referred to as blowdown water). The expected volume of blowdown water is approximately 6,000 gallons per year. The blowdown water will contain dissolved solids (i.e., minerals) and trace amounts of boiler treatment chemicals. The blowdown water will be stored in a 6,000-gallon, sealed, concrete underground storage tank and subsequently pumped out and trucked to the Willmar Wastewater Treatment Facility (WWTF) for disposal. An industrial discharge permit will not be required because the wastewater will be treated at a facility already permitted to accept such waste.

### b. Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies (identifying any impaired waters), and estimate the discharge impact on the quality of receiving waters. If the project involves on-site sewage systems, discuss the suitability of site conditions for such systems.

The blowdown water will be stored in a 6,000-gallon, sealed, concrete underground storage tank that will be registered with the MPCA. This water will contain dissolved solids and trace amounts of boiler treatment chemicals and will be transported for disposal at the Willmar WWTF. The boiler treatment chemicals contain sodium hydroxide, sodium sulfite, and cyclohexylamine. These are standard water treatment chemicals that are used in small quantities and are significantly diluted in the process water. The nearest surface water is Palmer Creek, located ½-mile to the west. Groundwater in the area is present at an average depth of approximately 24 feet. If the underground storage tank were to develop a leak, it would be repaired or replaced.



**20. Solid Wastes, Hazardous Wastes, Storage Tanks.**

- a. Describe types, amounts and compositions of solid or hazardous wastes, including solid animal manure, sludge and ash, produced during construction and operation. Identify method and location of disposal. For projects generating municipal solid waste, indicate if there is a source separation plan; describe how the project will be modified for recycling. If hazardous waste is generated, indicate if there is a hazardous waste minimization plan and routine hazardous waste reduction assessments.**

There would be very little, if any, solid waste generated. Any waste would be municipal solid waste that would be disposed of in a dumpster and picked up by a local garbage hauler. Asphalt cement itself is considered a hazardous material when in liquid form. A Material Safety Data Sheet is included as Attachment 10.

- b. Identify any toxic or hazardous materials to be used or present at the site and identify measures to be used to prevent them from contaminating ground water. If the use of toxic or hazardous materials will lead to a regulated waste, discharge or emission, discuss any alternatives considered to minimize or eliminate the waste, discharge or emission.**

As stated previously, asphalt cement is considered a hazardous material when in liquid form. It is maintained in its liquid form through heat. It must be kept at 350 degrees Fahrenheit in order to be sufficiently fluid to handle. Once it becomes cooler, it quickly begins to solidify. Asphalt cement is a very thick substance – virtually solid at ambient temperatures. Thus, in the event of a spill, instead of seeping through the soil into the ground water, it hardens and stays at the surface, and can be cleaned up relatively easily. The secondary containment berms keep any spilled product from moving overland past the limits of the containment. In addition, the MPCA's AST Permit requires weekly visual monitoring of the tank(s) to check for releases. This involves a visual observation around the entire circumference of the tank and secondary containment area to check for any evidence of a release. The Permit also requires monthly in-service inspections of each tank in accordance with American Petroleum Institute standards. This involves a close visual inspection of the tank's exterior surface for releases and conditions that could lead to a release, such as shell distortion, edge settlement, and corrosion.

The transfer area would be built on an asphalt pad, and would incorporate a containment area designed to contain 100 percent of the capacity of the largest transport vehicle compartment used for transfers in the event of a spill. Additionally, the Project proposer will create and maintain written procedures for the prevention of releases during substance transfer operations into and out of each tank at the facility. The written procedures include discussions of vehicle positioning; location and use of spill boxes and response materials; assignment of responsibility; the need for physical presence, observation and communication; emergency shut-off techniques; and spill reporting and response procedures.

All piping would be inspected for leaks on a regular basis. The frequency and method of inspection will depend on whether the pipe is above-ground or buried, but in any case would comply with the requirements of the MPCA Major Facility Permit.

Because asphalt cement hardens quickly upon release, and given the additional monitoring and containment safeguards described above, the risk of ground-water contamination from the product proposed to be stored at the site appears to be minimal.

**c. Indicate the number, location, size and use of any above or below ground tanks to store petroleum products or other materials, except water. Describe any emergency response containment plans.**

Initially, one circular, vertical above ground tank, 130 feet in diameter and 45 feet high, would be constructed to store approximately 3,971,000 gallons of asphalt cement. This tank would be surrounded by a secondary containment area required to hold 110 percent of the volume of the tank, in the unlikely event of a tank rupture. Additionally, this secondary containment area would be designed to accommodate an additional three tanks of the same volume in the event of future expansion.

If a spill were to occur, emergency personnel would be contacted immediately if there was any risk to public health. Additionally, the Minnesota Duty Officer would be notified if the spill was greater than five gallons. Any spill that did occur would likely be contained within the secondary containment area and would be immediately cleaned up. The cause of the spill would then be assessed and a written report submitted to the MPCA. Any damage to tanks, piping, containment areas, etc. must be repaired to prevent any recurrence of a release prior to returning to service. A spill response plan would be developed for the site prior to the beginning of operations.

As discussed in item 18, blowdown water from the rail car steaming process will be stored in a 6,000-gallon, sealed, concrete underground storage tank. The boiler treatment chemicals contain sodium hydroxide, sodium sulfite, and cyclohexylamine. These are standard water treatment chemicals that are used in small quantities and are significantly diluted in the process water.

- 21. Traffic. Parking spaces added:** 2 **Existing spaces (if project involves expansion):** NA  
**Estimated total average daily traffic generated:** 10 trucks per day  
**Estimated maximum peak hour traffic generated and time of occurrence:**

Peak hauling would rarely exceed 40 trucks per day. Peak hauling would normally occur during daylight hours, but could periodically occur during nighttime hours.

**Indicate source of trip generation rates used in the estimates.**

The loading rack operation can accommodate a maximum of four trucks per hour, making it the limiting factor for peak hauling. A ten-hour day operating at constant maximum loading rack capacity would yield 40 trucks per day. The estimated average is based on previous and anticipated levels of typical product usage throughout the construction season.

Duininck intends to pave the stretch of township road (100<sup>th</sup> Street) from the site entrance to CSAH 5. In addition to decreasing needed maintenance for this stretch of road, this measure will effectively eliminate fugitive dust emissions from hauling operations. Duininck would also install any necessary cautionary signage. Once trucks reach CSAH 5, they may turn either direction (north or south) depending upon their ultimate destination. No additional road improvements are necessary. See Attachments 11 and 12 for correspondence from Chippewa County and Granite Falls Township regarding these roads.

- 22. Vehicle-related Air Emissions. Estimate the effect of the project's traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts.**

The proposed Project would result in an average of approximately one truck coming and going from the site every hour, about ten times per day, during the operating season. The trucks will likely be kept idling during the filling process. The trucks will generally be diesel-powered 18-wheeler tanker trucks that would have the capacity to haul approximately 26 tons of product. This increase in traffic will not lead to a high concentration of pollutants in the air. Thus, the effect that the traffic generated by this Project will have on air quality in the area will be negligible.

- 23. Stationary Source Air Emissions. Describe the type, sources, quantities and compositions of any emissions from stationary sources of air emissions such as boilers, exhaust stacks or fugitive dust sources. Include any hazardous air pollutants (consult *EAW Guidelines* for a listing), any greenhouse gases (such as carbon dioxide, methane, and nitrous oxides), and ozone-depleting chemicals (chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons or sulfur hexafluoride). Also describe any proposed pollution prevention techniques and proposed air pollution control devices. Describe the impacts on air quality.**

Potential sources of air emissions from the proposed Project include the storage tanks themselves, the loading rack and the storage tank heater. The tank(s) and the loading rack would be a source for emissions of volatile organic compounds, including polycyclic aromatic hydrocarbons (PAHs), and also including some hazardous air pollutants (HAPs); hydrogen sulfide; carbon monoxide; nitrogen oxide; particulate matter (PM); and PM<sub>10</sub> (particulate matter less than 10 microns). The heater to be used for keeping the asphalt cement in a liquid form during the non-winter months would also be a potential source of some HAPs. These potential air emissions from the various stationary sources were calculated for purposes of determining the need for an air emissions permit for the proposed Project (Air Permit Assessment, Attachment 13) as well as for purposes of conducting air dispersion modeling to assess potential health and odor impacts (Risk and Odor Evaluation, Attachment 14).

Based on the proposed Project's potential emissions, an air permit is not required; however, air modeling and a risk assessment screening evaluation determined that uncontrolled emissions from the loading rack could potentially result in PAH concentrations above health benchmark levels for indirect (non-inhalation) pathways (i.e., ingestion). In addition, using hydrogen sulfide as a marker for odor due to its very low odor threshold, the modeling results predicted that odor levels at the nearest residence would exceed odor and nuisance thresholds. Finally, the evaluation showed that the potential hydrogen sulfide concentrations could exceed the Minnesota Ambient Air Quality Standards (MAAQS). Of the three emissions sources (tanks, heater, and loading rack), the loading rack was responsible for the highest emissions, and the modeled impacts from that source alone were above levels of concern. Modeled impacts from the other sources were below levels of concern when considered apart from the loading rack. Please see Attachments 13 and 14 for a detailed summary of emissions calculations and risk and odor evaluations.

Duininck has agreed to install control equipment on the loading rack designed to mitigate the emissions associated with loading and unloading operations. The control equipment will consist of a vapor recovery system that routes vapors resulting from the filling of trucks and storage tanks to a carbon adsorption system. The control equipment will have a control efficiency for hydrogen sulfide of 99 percent and for PAHs of 98 percent. At this level of control efficiency, new modeling results (provided as Attachment 16, Risk Assessment Screening Spreadsheet and Attachment 17, Hydrogen Sulfide Odor Evaluation), which

take into account the proposed control equipment, indicate that health risk benchmarks for PAHs, and the odor thresholds and MAAQS for hydrogen sulfide would not be exceeded as a result of air emissions from the proposed Project.

The MPCA will include conditions in the AST Permit that will require the installation, operation, and maintenance of the vapor recovery and carbon absorption system to control emissions from the loading rack.

24. **Odors, noise and dust. Will the project generate odors, noise or dust during construction or during operation?**  Yes  No

**If yes, describe sources, characteristics, duration, quantities or intensity and any proposed measures to mitigate adverse impacts. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life. (Note: fugitive dust generated by operations may be discussed at item 23 instead of here.)**

As discussed above, the air modeling performed for this Project showed that uncontrolled emissions from the loading rack would potentially result in exceedance of odor thresholds at the nearest residence. This problem would be mitigated by the installation the carbon adsorption and vapor recovery system, which would be a requirement of the AST Permit.

Duininck is proposing to pave the township road and driveway into the facility, which will eliminate the potential for fugitive dust emissions that could be a nuisance to area residents. There will be some noise generated by the truck hauling, as well as loading/unloading operations. Several measures are being taken to mitigate this: the westernmost tank will be set back approximately 1,000 feet from the nearest residence; a berm will be constructed on the west side of the property to provide a visual and sound screen between the operation and the nearest residence; finally, the drive into the site will be in a circular formation, eliminating the need for backup horns to be used on a regular basis. There is one residence located at the intersection of 100<sup>th</sup> Street and CSAH 5, at a distance of approximately 150 feet from each roadway. Two residences are located on CSAH 5, north of the 100<sup>th</sup> Street intersection, located at distances of 230-260 feet from CSAH 5. On CSAH 5, there is the possibility of exhaust braking by trucks traveling from the south as they approach the 100<sup>th</sup> Street intersection. Trucks traveling from the north will stop initially at the railroad crossing located just north of the residences on CSAH 5, likely eliminating exhaust braking at the 100<sup>th</sup> Street intersection. There would be no exhaust braking by trucks traveling on 100<sup>th</sup> Street as the distance from the facility to the stop sign is very short.

25. **Nearby resources. Are any of the following resources on or in proximity to the site?**

- a. **Archaeological, historical, or architectural resources?**  Yes  No\*
- b. **Prime or unique farmlands or land within an agricultural preserve?**  Yes  No
- c. **Designated parks, recreation areas, or trails?**  Yes  No
- d. **Scenic views and vistas?**  Yes  No
- e. **Other unique resources?**  Yes  No

**If yes, describe the resource and identify any project-related impacts on the resources. Describe any measures to minimize or avoid adverse impacts.**

\*See Attachment 14 for correspondence from Minnesota Historical Society State Historic Preservation Office.

26. **Visual impacts. Will the project create adverse visual impacts during construction or operation? Such as glare from intense lights, lights visible in wilderness areas and large visible plumes from cooling towers or exhaust stacks?**  Yes  No
27. **Compatibility with plans and land use regulations. Is the project subject to an adopted local comprehensive plan, land use plan or regulation, or other applicable land use, water, or resource management plan of a local, regional, state or federal agency?**  Yes  No

**If yes, describe the plan, discuss its compatibility with the project and explain how any conflicts will be resolved. If no, explain.**

Construction of the proposed Project is subject to the Chippewa County Zoning Ordinance (Ordinance). The site and surrounding area is zoned “A1 – Agricultural Preservation District.” According to Section 3, “Ag Preservation District” of the Ordinance, “Industrial & Industrial Storage Uses” are allowed as a conditional use in the district. The Ordinance defines “Industrial Storage Uses” to “include facilities used for the collective storage of agricultural or non-agricultural related products.” Chippewa County zoning personnel have recommended to Duininck that they apply for a rezoning of the district to “I-2 Heavy Industrial District.” Section 4.2.7.4.5 allows “extracting, processing, and storage of sand, gravel, stone, or other raw materials” in an I-2 district as a conditional use. If the site is rezoned, a Conditional Use Permit is required, with special conditions as specified by the county. The public will have the opportunity to comment on zoning issues at county re-zoning hearings or Conditional Use Permit hearings upon completion of the EAW.

28. **Impact on infrastructure and public services. Will new or expanded utilities, roads, other infrastructure or public services be required to serve the project?**  Yes  No

**If yes, describe the new or additional infrastructure or services needed. (Note: any infrastructure that is a connected action with respect to the project must be assessed in the EAW; see *EAW Guidelines* for details.)**

No new or expanded utilities, roads, or other infrastructure or public services will be required to serve the Project. However, Duininck is voluntarily offering to pave the township road (100<sup>th</sup> Street) from the site entrance to CSAH 5 for the purposes of minimizing road maintenance and eliminating fugitive dust.

29. **Cumulative potential effects. Minn. R. 4410.1700, subp. 7, item B requires that the RGU consider the “cumulative potential effects of related or anticipated future projects” when determining the need for an environmental impact statement. Identify any past, present or reasonably foreseeable future projects that may interact with the project described in this EAW in such a way as to cause cumulative potential effects. (Such future projects would be those that are actually planned or for which a basis of expectation has been laid.) Describe the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects (or discuss each cumulative effect under appropriate item(s) elsewhere on this form).**

The site itself has been used for crop production or grassland for at least the past 25 years, as has the surrounding land. Prior to that, the site was the location of a grain elevator. In addition to cropland, grassland and roads, there are three residences within a half mile (west) of the site, as well as a small electrical substation approximately ¼-mile west-southwest of the site.

Environmental impacts from past and present land use in the vicinity of the site is likely limited to the potential contribution of sediments and nutrients to surface water from row cropping. Air quality impacts from the increased traffic will be negligible as the traffic generated by the Project will not contribute significantly to the concentration of pollutants in the air. In addition, modeling results indicate that the installation of a control technique on the loading rack to address potential emissions will reduce the potential hydrogen sulfide odors by 95 percent or greater. Therefore, any impacts from previous or current usage of the site or surrounding land would not be expected to interact with potential impacts from the proposed Project to create cumulative impacts.

**30. Other Potential Environmental Impacts. If the project may cause any adverse environmental impacts not addressed by items 1 to 28, identify and discuss them here, along with any proposed mitigation.**

NA

**31. Summary of issues. List any impacts and issues identified above that may require further investigation before the project is begun. Discuss any alternatives or mitigative measures that have been or may be considered for these impacts and issues, including those that have been or may be ordered as permit conditions.**


The MPCA will include conditions in the AST Permit that will require the installation, operation, and maintenance of the vapor recovery and carbon absorption system to control emissions from the loading rack. Additional issues with respect to the rezoning of the site and the need for any special conditions in a conditional use permit will be addressed by Chippewa County.

**RGU CERTIFICATION.**

I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages, or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minn. R. 4410.0200, subps. 9b and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

**Name and Title of Signer:**

  
\_\_\_\_\_  
Craig Affeldt, Supervisor, Environmental Review Unit  
St. Paul Office  
Regional Division

**Date:**

11-23-09

The format of the Environmental Assessment Worksheet was prepared by the staff of the Environmental Quality Board at the Minnesota Department of Administration, Office of Geographic and Demographic Analysis. For additional information, worksheets or for *EAW Guidelines*, contact: Environmental Quality Board, 658 Cedar Street, St. Paul, Minnesota, 55155, 651-201-2492, or at their Web site <http://www.eqb.state.mn.us>.