

## STATEMENT OF BASIS

PERMITTEE: Dakota Petroleum Transport Solutions, LLC

FACILITY: Dakota Plains Holdings, Inc. Intermodal Facility

PERMIT NO.: ND0031119

RESPONSIBLE OFFICIAL: Gabe Claypool, President & Chief Operating Officer  
3895 88<sup>th</sup> Ave NW  
New Town, ND 58763  
(952) 473-9950

FACILITY CONTACT: Steve Sollom, Project Engineer  
Pinnacle Engineering  
11541 95<sup>th</sup> Avenue North  
Minneapolis, MN 55369  
(763) 315-4501

PERMIT TYPE: Minor, Indian country, New Permit, Industrial Stormwater

This Statement of Basis is for a new National Pollutant Discharge Elimination System (NPDES) permit for the discharge of storm water from the Dakota Plains Holdings Intermodal Facility to an unnamed tributary of the Missouri River.

### **Background Information:**

The planned Dakota Plains Holdings Intermodal Facility will consist of an approximate 9,000 foot access and rail loop track where the high speed loadout of crude oil to rail cars will occur. The general flow of crude oil through the facility will be to transport crude oil transfer trucks from the oil fields to the facility, unloading them to above ground storage tanks (ASTs). The ASTs will also be filled via pipeline(s) in the future. Crude oil will be temporarily stored in the ASTs before being transferred to rail cars. A double track loop is designed to allow for two trains with 120 cars each to be stored onsite at one time. Existing ladder tracks to the north of the facility have been used for the transloading of crude oil from trucks directly to rail cars. This activity will cease when the loop tracks, tanks, and loadout building are constructed and become operational. Construction of a new transloading facility has the potential to increase transloading efficiency while incorporating enhanced control measures for fire suppression and secondary containment of spills.

The Dakota Plains Holdings Intermodal Facility is being constructed immediately adjacent to the southeast border of New Town, ND (located at 3895 88<sup>th</sup> Avenue NW, latitude 47°58'21" N and longitude 102°29'8" W). The facility will be large and a majority of it will be pervious. The impervious areas will include truck unloading areas, ASTs, the rail load building, and maintenance buildings. The transfer of crude oil from tanker trucks to ASTs occurs at the receiving stations located over an impervious surface. The transfer takes place on an elevated platform which drains to an oil/water separator prior to entering the storm drainage system. Access to the area is restricted to a single roadway. Crude oil from transfer trucks is will be stored in two 3,780,000 gallon ASTs. Tanks are built with a fixed external roof, an internal floating roof and are contained within a clay liner and berm. All precipitation that runs off from the AST tank farm will be collected in secondary containment and visually inspected for the presence of oil before being released into the stormwater ditch via two valves and a piping system.

Transfer of crude oil from ASTs to rail cars occurs within an enclosed building that surrounds the track platform. Residual precipitation from rain or snowmelt from the rail cars is processed by an oil/water separator before being discharged into the stormwater discharge. In the event of a fire, a fire suppression system can be activated which releases a foam which mixes with makeup water to flood the rail loadout building. Activation of the fire suppression system activates a bypass valve which circumvents the oil water separator and stormwater system such that fire suppression system water/foam will be impounded for collection and treatment offsite, since this water would contain surfactants which the stormwater collection system is not designed to efficiently treat.

### **Stormwater Flow and Treatment Systems:**

All stormwater discharges from the main industrial activities on site eventually drain to Outfall 001 prior to discharging to an unnamed wetland on site. In the permit application, the point of permit compliance was proposed to be an outlet at the western border of the facility after the site drained through a series of wetlands onsite. The point of compliance has since been moved to recognize that the wetlands onsite are not part of the stormwater treatment system. While the wetlands will likely provide some level of pollutant removal, the point of compliance (i.e., Outfall 001) is the point at which water is discharged from Basin #1 on the northwestern corner of the site to the unnamed wetlands.

All transloading activities occur at the southeastern portion of the site. Runoff from truck and rail loading pads passes through two oil water separators before entering the storm drainage system. Each of these areas is designed with an overflow protection valves. In the event of a large spill, the oil separator will be filled with oil and will flow into a manhole, which has an oil stop valve that works by density; diverting flow to three 10,000 underground storage tanks (USTs) for rail loading containment and one 10,000 gallon USG for truck unloading containment.

Once water is discharged from the secondary containment fuel tank farm, it commingles with stormwater runoff from the truck and rail loading areas into a settling basin (Basin #2). From Basin #2, stormwater runs off to the north into the drainage ditch which circumnavigates the facility. This water travels counterclockwise around the site before reaching a second settling basin (Basin #1) on the northwest corner of the facility. Basin #1 discharges via a 18" corrugated metal pipe to an unnamed wetland. This pipe is Outfall 001.

A smaller portion of the industrial area which excludes runoff from the tank farms and transloading areas flows west and travels clockwise around the facility before eventually reaching Basin #1. This runoff flows through two settling basins (Basin #3 and Basin #4) prior to reaching Basin #1.

### **Industrial Designation:**

This facility is defined as Sector P: Motor Freight Transportation Facilities, Petroleum Bulk Bulk Oil Stations and Terminals. This facility is characterized by the Standard Industrial Code (SIC) 5171, Petroleum Bulk Stations and Terminals. Pursuant to federal regulations at 40CFR§122.26, activities under this industrial designation are subject to industrial stormwater permitting.

### **Effluent Limitations:**

Effluent limitations for this facility are similar in nature to those imposed for industrial facilities covered under Sector P of EPA's 2008 Multi-Sector General Permit (MSGP). However, these are expanded to include numeric effluent limits which apply end-of-pipe as the individual permit application provides enhanced

specificity from which to develop more appropriate controls. Effluent limits which apply end-of-pipe are applied to Outfall 001 prior to the discharge to the unnamed wetlands on-site, and are as follows:

Effluent Characteristic	Daily Maximum
Settleable Solids, mL/L <u>b/</u>	0.5
* Oil and Grease, mg/L	10.0

\* The concentration of oil and grease shall not exceed 10 mg/L in any sample. If a visible sheen is detected in settling basins, capture of oil and grease via booms or other appropriate mechanisms should be initiated rapidly (e.g., within 15 minutes) to reduce the discharge of oil and grease.

A settleable solids limit was applied to prevent the discharge of pollutants which could be sorbed onto the sediment particles. The primary mechanism for pollutant removal is settling, with the settling of particles defined by the proper operation and maintenance of settling basins. The concentration of settleable solids thus serves as a surrogate for pollutant reduction for pollutants sorbed on the solid particles. Often a Total Suspended Solids (TSS) limit is applied for this purpose. However, this permit authorizes the discharge of pollutants in stormwater as opposed to process water and the settling basins are passive in nature to accommodate the variability in flow from variable precipitation events. To address this variability, a settleable solids limit was included as opposed to TSS as settleable solids can be directly tested on site with immediate feedback. This is similar to the approach taken for coal mines in EPA’s effluent guidelines for the coal mining point source category (see 40 CFR Part 434), which defines an effluent limit of 0.5 mL/L settleable solids as being feasible in terms of pollutant removal performance for small settling basins. The coal mining effluent guideline also prescribes the use of several settling basins in a series as opposed to the use of a single settling basin at the outfall. The design of the Dakota Plains Holdings Intermodal Facility is consistent with this approach, whereby industrial activities drain to a minimum of three settling basins prior to reaching Outfall 001.

The limitation of 10 mg/L is commonly used in EPA permits as an indicator of oil contamination recognizable through the presence of a visible sheen. If a visible sheen is detected in Basin 1 or in the discharge from Outfall 001, the permittee is required to immediately sample the effluent for oil and grease and take control measures to reduce the discharge of oil and grease through booms or other physical separation techniques.

**Non-numeric Effluent Limits:**

The Dakota Plains Holdings Intermodal Facility has several control measures in place to contain spills and prevent contaminated runoff. These include an elevated platform which discharges to an oil water separator for truck unloading, a secondary containment system which surrounds the AST tank farm, a covered area for train fueling, three underground storage tanks which collect diverted runoff in the case of an accidental oil spill, and a fire suppression system in the train loading area. Each of these systems serves a purpose in collecting spills and preventing contaminated runoff. However, they are only effective when they are maintained properly and when employees on site have the knowledge, skills, and abilities to maintain them properly. Therefore, the bulk of the requirements in this permit focus on the need for employee training, weekly inspections, and proper operation and maintenance of systems on-site. This permit requires the use of a Stormwater Pollution Prevention Plan (SWPPP) to document compliance with the permit non-numeric effluent limits. These limits are in Part 3 of the permit and are as follows:

3.1. Good Housekeeping includes procedures to maintain a clean and orderly facility. You must:

- 3.1.1. Maintain stormwater settling basins and fire water collection basins, drainage areas, conveyance systems, loading and unloading areas, waste handling/disposal areas, and perimeter areas impacted by off-facility materials or storm water run-on to prevent the discharge of pollutants in stormwater runoff and to address concerns prior to precipitation events. Any identified debris, wastes, and spilled, tracked, or leaked materials shall be cleaned and disposed of properly;
- 3.1.2. Implement controls to reduce or prevent material tracking (e.g., sediment, debris) offsite;
- 3.1.3. Cover all stored industrial materials (including salt used for deicing that can be readily mobilized by contact with storm water);
- 3.1.4. Maintain all material storage vessels (e.g., for used oil, spent solvents, paint wastes, hydraulic fluids) to prevent contamination of stormwater and plainly label them (e.g., "Used Oil," "Spent Solvents," etc.). Consider storing the materials indoors; installing berms/dikes around the areas; minimizing runoff of stormwater to the areas; using dry cleanup methods; and treating and/or recycling collected stormwater runoff; and
- 3.1.5. Contain all stored non-solid industrial materials (such as liquids and powders) that can be transported or dispersed via wind dissipation or contact with storm water.

3.2. Identification of Potential Pollutant Sources and Best Management Practices. You must:

- 3.2.1. Address the following potential sources of pollutants and implement Best Management Practices (BMPs) to reduce the potential of these sources to contribute pollutants to storm water discharges: earth and soil moving; waste hauling and loading or unloading; outdoor storage of significant materials, (including daily, interim, and final cover material stockpiles as well as temporary waste storage areas), and storage/management/cleanup of sand used for locomotive traction areas.
- 3.3. Preventative Maintenance. Preventative maintenance BMPs generally include the regular inspection and maintenance of facility equipment and systems used outdoors (such as process machinery, collection systems, storage containers, etc) to prevent spills and leaks from occurring due to age, use, malfunction, or damage. You must:
- 3.3.1. Identify all equipment used outdoors that may spill or leak pollutants and establish a schedule to perform maintenance of identified equipment and systems. The schedule shall be either periodic or based upon more appropriate intervals such as hours of use, mileage, and age. This includes but is not limited to lock valves for fire suppression systems, locomotive track pans, secondary containment features for above ground storage tanks;
  - 3.3.2. Establish a schedule to perform maintenance of identified equipment and systems. The schedule shall either be periodic or based upon more appropriate intervals such as hours of use, mileage, age, etc;
  - 3.3.3. Maintain velocity dissipation and settling structures on Outfalls 001 such that the discharge does not create deleterious impacts to receiving waters and wetlands from erosion, sedimentation, and undercutting;

- 3.3.4. Maintain stormwater settling basins to reduce nuisance algal growth, to maintain at least ½ of the design capacity by removing accumulated sediment, and to maintain hydraulic head consistent with the design as needed to maintain effective sediment removal efficiency;
  - 3.3.5. Maintain stormwater conveyance channels to minimize erosion and maintain channel integrity;
  - 3.3.6. Maintain oil/water separators and coalescing plate separators by inspecting and maintaining consistent with manufacturer specifications, removing sludge buildup and accumulated oil in a manner to maintain effective functioning condition, and cleaning coalescing plates before they get “blinded” or coated with silt or solids; and
  - 3.3.7. Establish procedures for prompt maintenance and repair of equipment and systems when conditions exist that may result in the development of spills or leaks or failure of collection, recapture, and diversion systems.
- 3.4. Spill Prevention and Response Procedures. You must:
- 3.4.1. Develop and implement spill response procedures. Response procedures must include notification of appropriate facility personnel, emergency agencies, and regulatory agencies, and procedures for stopping, containing and cleaning up spills. Measures for cleaning up hazardous material spills or leaks must be consistent with applicable Resource Conservation and Recovery Act (RCRA) regulations at 40 CFR Part 264 and 40 CFR Part 265;
  - 3.4.2. Provide preventative measures to prevent spills from discharging from the facility. These must include barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;
  - 3.4.3. Maintain absorbent booms or other appropriate equipment on site and in the proper location so that if a sheen is recognized at any of the facility settling basins or discharging to the wetland areas bisected by the facility, a rapid remedial action can be taken (e.g., with 15 minutes);
  - 3.4.4. Identify and describe all necessary and appropriate spill response equipment, location of spill response equipment, and spill response equipment maintenance procedures;
  - 3.4.5. Identify and train appropriate spill response personnel; and
  - 3.4.6. Maintain a list of spills and leaks that occurred during the year and the actions taken to remediate the impacts from those spills and leaks and document them in the semi-annual Comprehensive Facility Inspection.
- 3.5. Material Handling/Waste Management. You must:
- 3.5.1. Prevent or minimize handling of materials or wastes that can be readily mobilized by contact with storm water during a storm event;
  - 3.5.2. Divert run-on from material handling, waste management, and fueling areas;
  - 3.5.3. Contain non-solid materials or wastes that can be dispersed via wind erosion during handling; and

- 3.5.4. Clean all spills of materials/wastes that occur during handling in accordance with the spill response procedures required in Part 3.4.
- 3.6. Employee Training. You must:
- 3.6.1. Establish a facility point of contact or list of contacts responsible for complying with this permit. This person should be familiar with the day-to-day operations at the facility, the facility SWPPP, and facility site-map. The facility point of contact should have access to as-built diagrams which specify the design and maintenance of settling basins, outfall structures, oil/water separators, fire suppression systems, and leak detection systems;
- 3.6.2. Prepare or acquire appropriate training materials which describe the inspection procedures required by this permit, applicable recordkeeping requirements, the structural BMPs on site and how they need to be maintained, and spill response and reporting requirements;
- 3.6.3. Identify which personnel shall be trained, their responsibilities, and the type of training they shall receive;
- 3.6.4. Provide a training schedule; and
- 3.6.5. Maintain documentation of all completed training classes and the personnel who received training.
- 3.7. Record Keeping and Quality Assurance. You must:
- 3.7.1. Keep and maintain records of inspections, spills, BMP related maintenance activities, corrective actions, visual observations, etc.; and
- 3.7.2. Develop and implement management procedures to ensure that the appropriate staff implements all requirements of this permit.
- 3.8. Identification of Discharges other than Storm Water. You must evaluate the storm water conveyance system on the site for the presence of discharges other than storm water. Where dry weather discharges are observed, you must perform illicit discharge detection and elimination procedures and provide information in the annual report on the results of any evaluations, the method(s) used, the date of the evaluation(s), and the on-site drainage points that were directly observed during the evaluation(s).
- 3.9. Weekly Inspections. You must inspect the site at least once every 7 days. Weekly inspections should focus on Good Housekeeping Procedures (see Part 3.1), Preventative Maintenance BMPs (see Part 3.3), Spill Prevention and Response Procedures (see Part 3.4), and Material Handling/Waste Management (see Part 3.5). Weekly visual inspections must be performed to look for any visual sheens indicative of oil and grease accumulating along the perimeter of the site including the stormwater conveyance ditch which circumnavigates the site, the settling basins on site, and all wetlands areas bisected by the railroad tracks within the facility. The areas inspected, the inspector providing weekly inspections, and the date of inspection must be documented in a log book. If during a weekly inspection, a visible sheen is recognized in the wetlands bisected by the railroad tracks within the facility, at one of the settling basins, or within the stormwater conveyance ditch which circumnavigates the site, capture of oil and grease via booms or other appropriate mechanisms should be initiated rapidly (e.g., within 15 minutes) to reduce the discharge of oil and grease.

- 3.10. Comprehensive Facility Inspections. In addition to weekly inspections, qualified personnel identified by the operator shall make a comprehensive inspection of their storm water management system, at least twice per year (in the spring and fall). These comprehensive inspections must be documented with documents retained on site as part of the Stormwater Pollution Prevention Plan (See Part 4). Qualified personnel are those who possess the knowledge and skills to assess conditions and activities that could impact storm water quality at the facility, and who can also evaluate the effectiveness of BMPs selected. You must:
- 3.10.1. Inspect material handling areas, disturbed areas, areas used for material storage that are exposed to precipitation, and other potential sources of pollution identified in Parts 3.1-3.7 for evidence of, or the potential for, pollutants entering the drainage system. Structural storm water management measures, sediment and control measures, and other structural pollution prevention measures must be observed to ensure that they are operating correctly. A visual inspection of equipment needed to prevent pollutant discharges, such as spill response equipment, shall be made to confirm that it is readily available and in proper working order;
  - 3.10.2. Conduct repairs or maintenance as identified during the inspection; and
  - 3.10.3. Produce a report summarizing the inspection, personnel making the inspection, the date(s) of the inspection, significant observations, and actions taken in accordance with Part 3.10.2. The report must be retained for at least three years after the date of the inspection. Significant observations include the locations of discharges of pollutants from the site; locations of previously unidentified sources of pollutants; locations of BMPs needing maintenance or repair; locations of spills or direct discharges of process water; locations of failed BMPs that need replacement; and locations where additional BMPs are needed. The report must also document any incidents of noncompliance observed.

### **Discharge Prohibitions:**

The following discharges are not authorized by this permit: vehicle/equipment wash water (including tank cleaning operations), surfactants commingled in water from fire suppression systems, and discharges from the cleanout of oil/water separators. Such discharges must be authorized under a separate NPDES permit, discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or recycled on-site.

### **Water Quality Considerations:**

Additional water quality based effluent limits have not been applied to discharges from Outfall 001. The rationale for this is that there are not pollutant generating activities which are exposed to stormwater runoff on-site outside of contamination from oil and grease and the by-products thereof which could cause or contribute to a violation of water quality standards. Pesticides, herbicides, soil and conditioners, and fertilizers will not be used on-site. Data provided in the permit application support this assertion with nitrogen and phosphorus levels noted as being below detection limits.

The oil and grease limitation of 10 mg/L is commonly used in EPA permits and in Tribal permits as a concentration which can have detrimental impacts to impact aquatic life. Should a sheen be recognized in the discharge, the permittee will immediately be required to sample and analyze the concentration of oil and grease in addition to taking immediate corrective action measures. A requirement to sample benzene upon the recognition of a visible sheen was also added given the close proximity of the City of New Town and the

potential to impact sources of drinking water downstream of the wetlands on-site. A review of crude oil material safety data sheets (MSDS) indicates that benzene, toluene, and xylene would be in concentrations ranging from 0-2.0%. As long as the facility is meeting a 10mg/L, it is anticipated that benzene discharged from Outfall 001 will not adversely impact drinking water sources. This is in part due to the fact that the receiving waters are not used as a drinking water source. However, a monitoring limit has been put in the permit for benzene to determine if there is reasonable potential for benzene discharged in the permit to cause or contribute to a violation of water quality standards. The MSDS for crude oil indicates that benzene, toluene, and xylene may be present in crude oil. Of these three pollutants, benzene has the greatest potential to impact downstream sources of drinking water in low concentrations.

A requirement to inspect the entire stormwater system once every 7 days was included in the permit (see Part 3.9). This weekly inspection requires the facility operator to visually inspect for sheens and take rapid and appropriate remedial response should a sheen be recognized. This weekly inspection will help recognize and address pollutant discharges which could impact the adjacent wetlands on the facility associated with the general maintenance of railroad tracks, trucks, and trains which enter the facility.

### **Endangered Species Act (ESA) Requirements**

Section 7(a) of the Endangered Species Act requires federal agencies to insure that any actions authorized, funded, or carried out by an Agency are not likely to jeopardize the continued existence of any federally-listed endangered or threatened species or adversely modify or destroy critical habitat of such species.

As part of the permit certification for the construction of the facility, a review was conducted by the operator in conjunction with the United States Fish and Wildlife Service and North Dakota Game and Fish Department regarding the presence of rare species, sensitive habitat, and threatened or endangered species located within approximately one mile of the project site. This review did identify known occurrences of natural communities within the search area. Animals and plants identified were: Grey wolf (*Canis Lupis*), Whooping crane (*Grus americana*), Piping Plover (*Charadrius melodus*), and least tern (*Sterna antillarum*). Critical habitat of Piping Plover is associated with Lake Sakakawea; however, both agencies believed that, given the project details, the proposed project would not have an adverse affect on any known occurrence of rare features. The agencies inquiry letters are available as part of the administrative record for the site's wetlands dredge and fill permit issued by the Army Corps of Engineers (Reference: Specific communication with staff of the U.S. Fish & Wildlife Service or National Marine Fisheries Service. Letter sent to USFWS and ND GF on February 18, 2013).

### **National Historic Preservation Act (NHPA) Requirements**

Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. § 470(f) requires that federal agencies consider the effects of federal undertakings on historic properties.

As part of the operator's application for a wetlands dredge and fill permit for the facility construction, a Class I Literature Review was prepared for the Site in order to identify known cultural resources within the nine (9) sections that surround or contain the Site. Considering the amount of agricultural activities on the site, the ACOE and Three Affiliated Tribes (TAT) were also consulted concerning the level that the project site can be considered "disturbed." The conclusion of the Class I Literature Review determined that it was not anticipated that any known historical sites would be directly impacted by the proposed project. The review also determined that the proposed project did have potential to directly impact any currently unknown archaeological sites within the project area. It was noted that the current land use does not typically preserve archaeological sites, however, significant features may exist below the plow zone. As a result, the review recommended that an

archaeological monitor be present during initial ground disturbing activities, and that such activities be conducted in coordination with the TAT Historic Preservation Office.

### **Miscellaneous**

Public notice was provided in the Mountrail County Record on Friday, July 13. Tribal outreach and public notice was also coordinated through Glenda Embry, public relations officer for the Three Affiliated Tribes. No comments were received during the public comment period.

The effective date for this permit will be September 1, 2013, and the expiration date for the permit will be June 30, 2018.

Permit drafted by Greg Davis, 8P-W-WW, May 8, 2013. Revised on August 22, 2013.

Permit reviewed by Robert Shankland, SEE, 8P-W-WW, May 14, 2013