



2610 OLD RED TRAIL STE. C
MANDAN, ND 58554-1447
701-667-1800

RECEIVED

September 19, 2011

SEP 21 2011

North Dakota Public Service Commission
Darrell Nitschke
Executive Secretary
600 E. Boulevard Avenue Dept. 408
Bismarck, ND 58505-0489

PUBLIC SERVICE COMMISSION

Re: Case No. PU-07-184

Contract No. PU-599-10

Dear Mr. Nitschke,

The State of North Dakota, acting through its North Dakota Public Service Commission (NDPSC), Division of Public Utilities, has engaged Keitu Engineers & Consultants, Inc. to perform consulting services for post-construction siting inspections. A final report was sent to you electronically via email. Enclosed is an original and copy of the final report for the post-construction inspection of Case No. PU-07-184.

The Executive Summary identifies items that still need attention by the Commission staff and siting applicant to ensure that the facilities for the project have been constructed in compliance with items identified by the ND Public Service Commission. Once these items are addressed, the Commission can act on final closeout of the construction phase of the project.

Should Commission staff or the NDPSC have any questions, please contact me for assistance.

Sincerely,

A handwritten signature in cursive script that reads "Timothy Spilman".

Timothy Spilman
Project Manager

Enclosures

Dakota Gasification Company Post Construction Inspection 14-inch CO2 Pipeline crossing of the Lake Sakakawea McKenzie County to Williams County in ND

Prepared by Timothy Spilman, Project Manager, Keitu Engineering & Consultants, Inc.
Final Report

Executive Summary

Dakota Gasification Company (DGC) filed an application for a route permit authorizing construction of approximately 11,400 feet of 14-inch pipeline to transport CO2 produced at the Great Plains Synfuels Plant to the oil-producing areas in southeastern Saskatchewan. The pipeline project was a water crossing across Lake Sakakawea from McKenzie County to Williams County, North Dakota to replace an existing pipeline. This post construction report is to help the Commission with verification that Order's set for by them are completed by Dakota Gasification Company. This post construction report addressed the Orders in File PU-07-184.

No documentation of a preconstruction conference being held prior to commencement of any construction was found in Commission file for PU-07-184 as required for Order # 4. The preconstruction conference was to ensure DGC fully understood the conditions set forth in the order. DGC at the public hearing (Docket #6) testified that it understood conditions of the Commission.

No record of the 404 permit was found in the Commission PU-07-184 file. DGC should provide a copy of the 404 permit to the Commission as part of completion of Order # 5. Bud Kuhn with the Corp conducted a final site inspection of the areas and found them to be satisfactory (docket # 34). Since Mr. Kuhn conducted a final inspection, the 404 permit had to have been issued.

A storm water permit is required prior to the start of construction. DGC is to file a Storm Water Prevention Plan to the ND Health Department. The storm water prevention plan is used with a hearing for the ND Health Department to issue a storm water permit. Commission file PU-07-184 has no record of the storm water permit. DGC should provide the Commission with a copy of the storm water permit as part of completion of Order #5.

DGC letter of October 30, 2008 (docket #34) noted that the North Dakota State Land Department (NDSLDD) had not completed their final inspection. No documentation was found in the Commission Case File PU-07-184 stating that the NDSLDD completed their final inspection. DGC should provide the Commission with documentation that NDSLDD completed their final inspection and everything was satisfactory as part of completion of Order #5.



**PU-07-184 Post-Construction Report
Dakota Gasification 14-inch CO2 Pipeline
Lake Sakakawea Crossing
September 19, 2011**

The pipeline was hydrostatically tested in accordance with applicable regulations. No record that the pressure test was to the MAOP of 2700 psig as stated in the application and testimony at the public hearing. Also, no record of when the pipeline was placed back into service was found in the Commission file for PU-07-184. Final tie-ins were completed on October 12, 2007. DGC should provide the Commission with the final in service date of the pipeline and a record of the pressure test for the Commission's records as part of Order #8.

A post construction inspection of the shores on both sides of the lake crossing occurred on September 15, 2011 by Keitu Engineers & Consultants, Inc. The south shoreline had a large marker sign that had been overturned. This sign should be repositioned upright and anchored. On the north shore of the crossing the main "Do not dredge" sign was found lying on the ground and needs to be repaired. During inspection of the north shore, a large amount of 4" mill wrap pipe was found lying within the crossing right-of-way. The pipe found on the north shore should be cut, loaded, and hauled away as part of DGC's obligation to continue maintenance of the ROW. Maintenance and repair of the two shoreline signs must be complete and the shoreline retired pipe removed to complete Order #16.

On October 8, 2008 DGC authored a letter to the Commission (docket #31). It said that during construction of the pipeline, 15 trees (Green Ash/Poplar) were removed from the staging area on the north bank of Lake Sakakawea. These were the only trees and scrubs removed during the project. These trees were replaced downstream at a campground as request by the US Army Corps of Engineers (Corps). Replacement trees were two for everyone removed. Fifteen Ohio buckeye (4 feet) and 15 Amur Maples (6 to 8 feet) were planted in the campground. A map that identified the tree planting locations was submitted as an enclosure to the letter. The letter was almost a year after the project was completed. No documentation was found about the survival rate of replacement trees in Case File PU-07-184. DGC needs to provide the Commission a survival rate of the replacement trees and shrubs for three years after planting and have a survival rate of over 75% for completion of Order #18 & #22.

The North Dakota Game and Fish Department (NDGFD) (docket #16.040) in a letter on May 30, 2007 to DGC discussed the North Dakota Legislature enactment of the aquatic nuisance species (ANS) law in 2005, with its penalties, and its importance to prevent the importation and spread of ANS into or within North Dakota. No documentation of NDGFD inspections were found in the Commission Case No. PU-07-184. DGC should provide the Commission with all NDGFD inspection information for the Commission to determine if Order #20 and part of Order #5 were followed.

Dakota Gasification Company (DGC) has complied with all other Order requests of the Commission.

Preliminary Statement

On May 11, 2007, Dakota Gasification Company (DGC) filed an application for a route permit authorizing construction of approximately 11,400 feet of 14-inch pipeline to transport CO₂ produced at the Great Plains Synfuels Plant to the oil-producing areas in southeastern Saskatchewan. The proposed construction crossed across Lake Sakakawea from McKenzie County to Williams County, North Dakota and replaced an existing pipeline crossing.

The State of North Dakota, acting through its North Dakota Public Service Commission, Division of Public Utilities, has acquired Keitu Engineers & Consultants, Inc. to perform consulting services for post-construction siting inspections. This report addresses the Orders established by the NDPSC and issues established in File No. PU-07-184.

The Commission orders:

1. DGC's application for a waiver of procedures and time schedules is granted.

Dakota Gasification Company (DGC) notified the Commission of its intent to file for a waiver of procedures and time schedules in the application for a certificate of Corridor Compatibility and Route Permit (Docket #2). DGC requested 1) a reduced one year time period, 2) Waiver separate filings of applications, 3) approval of a one mile corridor, 4) Hold hearing on combined application, 5) Find that design and location will cause minimal adverse effects, 6) Designate and approve the request for reconstruction of pipeline and issue corridor certificate and route permit. The planned time schedule was spelled in section 1.4 of the application. The PSC acknowledged DGC's letter of intent and granted shortened time period for filing in Docket #4. The PSC granted waiver of time scheduled and allowed waiver of procedures with the issuing of the Certificate of Corridor Compatibility and the Route Permit on June 27, 2007 (Docket #17). Order #1 has been completed.

2. Certificate of Corridor Compatibility Certificate Number 97 designating a transmission facility corridor is issued to DGC.

Construction occurred within the Corridor based on comparing as-built drawings with the proposed. Order #2 has been completed.



PU-07-184 Post-Construction Report
Dakota Gasification 14-inch CO2 Pipeline
Lake Sakakawea Crossing
September 19, 2011

3. Route Permit Certificate Number 107 designating a transmission facility route is issued to DGC.

The route was followed as described prior to construction. Alignment was maintained using shore-based laser. The shore-based laser installation was noted on Daily Progress Reports under Notes. Order #3 has been completed.

4. A preconstruction conference shall be held prior to commencement of any construction, and shall include a DGC representative, the construction supervisor, and Commission staff to ensure that DGC fully understands the conditions set forth in this order.

No documentation of a preconstruction conference being held prior to commencement of any construction was found in Commission file for PU-07-184 as required for Order # 4. DGC at the public hearing (Docket #6) testified that it understands the conditions of the Commission orders.

5. DGC shall comply with the rules and regulations of all other agencies having jurisdiction over any phase of the proposed pipeline, and shall obtain all other necessary licenses and permits, and shall provide copies of all licenses and permits to the Commission prior to construction of the pipeline.

The application for the corridor certificate and route permit for the pipeline identified correspondence and conditional approvals of the US Army Corp of Engineers (COE), US Fish and Wildlife Service (FWS), NDSHPO, ND Game and Fish Department, ND Parks and Recreation Department, and ND lands Department.

DGC applied for a 404 permit from the United States Corps of Engineers (Corp) on April 20, 2007. A copy of a Public Notice of pending permit evaluation from the Corps was filed with the Commission as a late filed exhibit (docket #16-030). No record of a public hearing was found in Commission File for PU-07-184. It was identified that the project area would impact an approximate 26-acre area, resulting from the excavation and discharge of approximately 78,000 cubic yard of material from and in Lake Sakakawea. No woodlands or grasslands were impacted. No mitigation or alternatives were proposed with this project. The Daily Progress Report of July 26 identified that DGC contractor received a permit to dig. No record of the 404 permit was found in the Commission PU-07-184 file. DGC should provide a copy of the 404 permit to the Commission. Bud Kuhn with the Corp conducted a final site inspection of the areas and found them to be satisfactory (docket # 34). For Mr. Kuhn to perform a final inspection, the 404 permit had to have been issued.

On May 21, 2007 the US Fish and Wildlife Service (USFWS) responded with a letter to the US Corps of Engineers Public Notice for the 404 permit (docket #16.20). They issued the following comments with respect to construction. A post construction discussion follows each item:



**PU-07-184 Post-Construction Report
Dakota Gasification 14-inch CO2 Pipeline
Lake Sakakawea Crossing
September 19, 2011**

1. The USFWS recommend that all barges and water borne construction equipment be thoroughly cleaned and inspected by North Dakota Game and Fish Department staff biologist prior to being launched to ensure that no invasive/exotic species are accidentally introduced into the Lake. This item is address as Order #20. See Order #20.
2. Construction activities should be conducted in a manner that will avoid/minimize impacts to the existing habitat in the project area. The following recommendations are intended to reduce construction related impacts.
 - a) Sites spoil disposal area so as to avoid native prairie and woody vegetation. No site soil occurred on this project. Soil was kept within the construction ROW and all used in the restoration of the site.
 - b) Avoid construction in lake during the fish spawning period (April 15 to June 1). Construction started on July 9th, 2007 with construction being completed October 12, 2011. Construction did not occur during the fish spawning period.
 - c) Install and maintain erosion control measures, such as silt fences or erosion control blankets, throughout project construction. Daily Progress Reports (docket #21-29) mentioned the use of silt fence and reinstalling silt fences during the project. A sea curtain was also used. In the October 22, 2007 Daily Progress report it mentioned that extra rock was added on the ROW slope of the high bank on the north side of the project. A good faith effort was made to install and maintain erosion control measures.
 - d) Reseed disturbed areas immediately after construction to reduce erosion. According to the Daily Progress reports of October 27th and 29th, the topsoil was spread on the ROW. On October 30th, the project was complete (seeding). Corp of Engineers inspected the area one year after construction and found reseeded disturbed areas to be satisfactory.

The USFWS determined that the project as proposed was not likely to adversely affect threatened or endangered species, or adversely modify designated critical habitat for the threatened piping plover. The USFWS also did not object to the Corps granting the 404 permit (docket #16.20).

DGC provided the NDSHPO office and Commission with a Class I and Class III Cultural Resources Inventory Reports that was submitted and approved by the State Historical Society in 1998 when the pipeline crossing was initially installed. The original report was authored by Powers Elevation Co., Inc. of Aurora, CO. This report inventoried cultural resources within the one-mile corridor on U.S. Army Corps of Engineers land in McKenzie and Williams Counties. The corridor did encompass some historical sites as identified in the Class III Cultural Resources Inventory. The proposed route avoided any such sites. This report was acceptable to the NDSHPO office.

The North Dakota Game and Fish Department received notification of the Dakota Gasification Company's pipeline crossing of Lake Sakakawea prior to construction. The North Dakota Game and Fish Department (NDGFD) (docket #16.040) in a letter on May 30, 2007 to DGC discussed the North Dakota Legislature enactment of the aquatic nuisance species (ANS) law in 2005, with its penalties, and its importance to prevent the importation and spread of ANS into or within North Dakota. The letter gave Lynn Schlueter (701-662-3617), Special Project Biologist for the



**PU-07-184 Post-Construction Report
Dakota Gasification 14-inch CO2 Pipeline
Lake Sakakawea Crossing
September 19, 2011**

NDGFD, as a contact person to perform equipment inspections or for any additional information regarding ANS. See Order #20 for additional post construction discussion.

In addition, the NDGFD suggested the implementing of the following recommendations to minimize impacts to fish and wildlife resources during construction. A post construction discussion follows each item:

1. Efforts should be made to prevent the destruction of woody vegetation, and any unavoidable losses of trees and shrubs should be replaced with similar species on a 2:1 basis. On October 8, 2008 DGC authored a letter to the Commission (docket #31). It said that during construction of the pipeline, 15 trees (Green Ash/Poplar) were removed from the staging area on the north bank of Lake Sakakawea. These were the only trees and scrubs removed during the project. These trees were replaced downstream at a campground as request by the US Army Corps of Engineers (Corps). Replacement trees were two for everyone removed. Fifteen Ohio buckeye (4 feet) and 15 Amur Maples (6 to 8 feet) were planted in the campground. This recommendation was followed based on the October 8th, letter.
2. Erosion control measures should be implemented to minimize the opportunity for sediments to enter the waterway. Daily Progress reports (docket #21-29) documented the use of silt fences and reinstallation of them throughout construction. Based on Daily Progress report documentation, this recommendation was be followed.
3. The active work area shall be confined by silt curtains while work is being conducted with Lake Sakakawea. Daily Progress reports (docket #21-29) documented the use of a 400 feet sea curtain. It was first used on July 27. Based on Daily Progress report documentation, this recommendation was followed.
4. We request the work not take place within the river from April 15 to June 1 to protect the fisheries resource. Construction started on July 9th, 2007 with construction being completed October 12, 2011. This recommendation was followed.
5. Any disruption or displacement of the streambed and banks other than the planned alterations must be restored to pre-project conditions. No disruption or displacement of streambed and banks occurred during construction. Corp of Engineers inspected the area one year after construction and found the land restored to pre-construction conditions (Docket #34).

The North Dakota Parks and Recreation Department reviewed the DGC project to relocate the pipeline crossing of Lake Sakakawea (docket #16.10). They found that the project as defined did not affect state park lands that they manage or Land and Water Conservation Fund recreation projects that they coordinate.

A storm water permit is required prior to the start of construction. DGC is to file a Storm Water Prevention Plan to the ND Health Department. The storm water prevention plan is used with a hearing for the ND Health Department to issue a storm water permit. Commission file PU-07-184 has no record of the Storm Water Permit. The Commission should request a copy of the storm water permit from DGC as part of completion of Order #5.



**PU-07-184 Post-Construction Report
Dakota Gasification 14-inch CO2 Pipeline
Lake Sakakawea Crossing
September 19, 2011**

The lay down/staging area was owned by the North Dakota School Lands Trust. Daily Progress Report reported on October 24, 2007 reported reclamation work on this land occurring. DGC letter of October 30, 2008 (docket #34) said the reclamation of the staging/construction areas had been completed. The letter also noted that the North Dakota State Land Department (NDSLDD) had not completed their final inspection. No documentation was found in the Commission Case File PU-07-184 stating that the NDSLDD completed their final inspection. DGC should provide the Commission evidence that the NDSLDD (Mike Haupt at 701-328-2800) completed its final inspection and everything was satisfactory.

6. DGC shall inform the Commission of its intent to start construction on the pipeline prior to the commencement of construction, and once construction has started, DGC shall keep the Commission updated of construction activities on a weekly basis.

DGC informed the Commission of its intent to start construction on May 11, 2007 in the consolidated application for the Certificate of Corridor Compatibility and the Route Permit. In the application, DGC listed a July 16 date as a start date with a completion of October 12th, 2007 as a completion date. At the public hearing, DGC (Rick Nelson) said construction would start July 9th, 2007 should approvals be granted. Actual construction was started on July 9, 2007 with construction completed on October 12th and the project 100% complete on 10-30-2007 based on the documentation of the last Daily Progress Report. DGC provided the Commission with daily progress report for the project (Docket #21-29). The Commission received daily progress report for July 9 through September 16th on September 19th, 2007. Reports were sent normally within a week of the close of week of construction. Daily Progress reports were thorough and complete. Order #6 has been completed.

7. The pipeline shall be buried to a minimum depth from the ground surface to the top of the pipe of 72 inches across the lakebed.

According to the application (docket #02), the trench depth was to be checked with hydrographic surveying equipment. In reviewing the Daily Progress Reports (Docket #21-29), on September 15, 2007 periodic soundings and top of the pipe probes were used to monitor the horizontal and vertical alignment of the pipeline. Trench "plugs" were placed 250 feet apart for the purpose of fixing the pipes in proper orientation and to prevent movement or displacement during subsequent backfilling operations. After the backfilling of the trench, hydrographic surveying occurred of the bottom of the lake (finished on 9-29-11) to complete the as-built profile. In the Daily Progress Report for 10-02-2007, backfilling of the marine trench had insufficient cover was indicated and that minimum depth of 72 inches across the lakebed must occur. Based on final as-built drawings and Daily Progress reports, a minimum depth of 72 inches from ground surface to the top of the pipe is at least 72 inches across the lakebed. Order #7 has been completed.



PU-07-184 Post-Construction Report
Dakota Gasification 14-inch CO₂ Pipeline
Lake Sakakawea Crossing
September 19, 2011

8. DGC shall construct and operate the pipeline in the manner described in its Application and at the hearing, and in accordance with all applicable safety requirements.

DGC was to construct and maintain the pipeline in accordance with CFR 49, Part 195 Transportation of Hazardous Liquids by Pipeline. In reviewing the Daily Progress reports, DGC contracted Pentzien, Inc. as the general contractor from Omaha, NE. Daily Progress Reports had detailed construction information to assist with Order #8. Construction started on July 9th, 2007 with construction being completed October 12, 2011. Construction followed the “controlled depth tow” method of construction as DGC had said during the public hearing. The trench depth was checked with hydrographic surveying equipment. Silt curtains were used to mitigate the movement of silt. The excavation material was returned to the trench. Welders were qualified. Field welds were radio graphed. The pipeline was hydrostatically tested in accordance with applicable regulations. No record the pressure test was to the MAOP of 2700 psig as in the application and said in testimony at the public hearing. The pressure test was to be conducted for 8 hours as mentioned in the hearing. The new pipeline was located 100 feet to the west of the old line as verified using the as-built drawings. The old pipeline was removed from the site and hauled away to Tioga, ND. No record of when the pipeline was placed back into service was found in the Commission file for PU-07-184. Final tie-ins were completed on October 12, 2007. DGC should provide the Commission with the final in service date of the pipeline.

Pipeline safety system evaluations were conducted prior to construction. During construction weekly safety meetings were held. On September 22, 2007 a construction worker had a minor eye injury with a foreign object becoming lodged and removed from his eye. No lost time due to injury occurred. An August 9th safety meeting covered eye protection.

DGC has constructed the pipeline in the manner identified in the application; late exhibits and testimony at the public hearing based on records found in Commission file PU-07-184. Bud Kuhn of the US Army Corps of Engineers preformed a final inspection of the site areas on October 29, 2007 and verified that restoration of the shorelines were satisfactory. DGC should provide the Commission with the final in service date of the pipeline and a final record of the pressure test for the Commission’s records as part of Order #8 completion. A letter can be submitted with a summary of description what was tested, actual pressure, length of time tests occurred, final pressure, and dates. The letter should state that all new materials and equipment was tested and has proper pressure rating.

9. DGC shall promptly report to the Commission the presence in the permit area of any critical habitat of threatened or endangered species, or of bald or golden eagles that DGC becomes aware of and which were not previously reported to the Commission.

The pallid sturgeon is the only endangered fish species with potential for aquatic habitats crossed by the Lake Sakakawea. The construction schedule Dakota Gasification has proposed for the Lake Sakakawea crossing (mid-July to late October) avoided the spawning periods of the pallid sturgeon.



**PU-07-184 Post-Construction Report
Dakota Gasification 14-inch CO2 Pipeline
Lake Sakakawea Crossing
September 19, 2011**

Sensitive species potentially present along or near the proposed route include the interior least tern and piping plover. The tern and plover are known to nest and raise young on sandbars and long sparsely vegetated beaches of Lake Sakakawea. No active nesting had been documented near the proposed pipeline crossing at Lake Sakakawea. The Daily Progress Reports (Docket #21-29) for this project did not note critical habitat of threatened or endangered species, or of bald or golden eagles. Therefore, no report was required to the Commission. Order #9 has been completed.

- 10. All cultural resource mitigation plans must be submitted to the North Dakota State Historical Preservation Officer for approval prior to the start of any fieldwork and construction activity. If any cultural resource, paleontological, archeological, historical, or gravesite is discovered during construction, it shall be marked, preserved and protected from further disturbances until a professional examination can be made by the State Historical Society, a report of such examination is filed with the Commission, and clearance to proceed is given by the Commission.**

No cultural resource studies were performed for this reconstruction project. However, Class I and Class III Cultural Resources Inventory Reports were submitted and approved by the state Historical society when the pipeline crossing was initially installed. This report inventoried cultural resources within the one mile corridor on US Army Corps of Engineers land in McKenzie and Williams Counties. The nearest cultural resource was to be over 200 feet away from the ROW of the project. Reviewing the Daily Progress Reports (Docket #21-29) for this project, no cultural resource was discovered during construction. Order # 10 was followed.

- 11. All crossings of graded roads shall be bored unless the responsible governing agency specifically permits DGC to open cut the road. All pre-existing roads and lanes used during construction shall be restored to a condition that will accommodate their previous use, and areas used as temporary roads during construction shall be restored to their original condition.**

No road crossings were required for this project. Therefore, no boring of roads occurred. Krenz road was used during construction (north shore). According to the Daily Progress Reports (dockets #21-29) for October 24th through October 30th, Scoria rock was hauled off the staging area and was spread on Krenz road. Based on the Daily Progress Reports, the road used during construction was restored to at least its original condition. The daily progress reports also mentioned a cattle guard was installed on September 12th and 3-wire fencing was installed around ROW on October 29th with additional fencing occurring on October 30th. Order #11 has been completed.

- 12. Construction shall be suspended when weather conditions are such that construction activities will cause irreparable damage, unless adequate protection measures approved by the Commission are taken.**

Construction occurred during the months of July, August, September, and October. Weather during these months is usually ideal for construction. Daily Progress Reports described the weather condition and temperature. Reviewing the daily construction reports, only on July 27, 2007 did the weather affect construction efforts. High winds occurred that day the construction crew was unable to hold the 400 foot sea curtain in place on the lake. The crews worked along the shore the remaining part of the day due to the winds. No weather conditions occurred that could cause irreparable damage to the pipeline construction during this project. Order #12 has been completed.

- 13. To the extent available, at least 12 inches of topsoil over and along trench areas where cuts must be made shall be stripped and segregated from the subsoil and be replaced only after the subsoil is replaced.**

Topsoil was to be preserved to the extent practical. Mixing of topsoil with subsoil was prevented by stripping topsoil from either the full work area or from the trench and subsoil storage area (ditch plus spoil side method). Where topsoil was segregated, the windrow of subsurface soil was returned to the trench leaving sufficient space for the return of the topsoil windrow. Daily Progress Reports (docket #21-29) for the October 22 through 29 noted the spreading of the top soil as a separate activity. Completion of spreading of the top soil was completed on October 29th, 2007 for the project. Order #13 has been completed.

- 14. Reclamation along the right-of-way (ROW) shall be continuous and coordinated with the construction.**

Construction ROW was 200 feet in width. The Daily Progress Reports (Docket #21-#29) were reviewed to verify that reclamation along the right-of way was continuous and coordinated with the construction. Final water backfilling occurred on October 2nd, 2007 with the backfill of the marine trench where insufficient cover existed. Final construction along the shoreline occurred on October 12 with the tie-in of the new line to the existing line. The retired old pipeline was removed and backfilled by October 16th. On October 22nd, extra rock on the slope on the north side which had a high bank occurred. South shore was completed and inspected by Bob Weir, DGC project manager, on October 23rd. On October 24th reclamation of the staging areas was occurring. Top soil was spread over the ROW on October 27th and October 29th. Seeding of the ROW was done on October 29th or 30th, 2007. On October 30th the last daily progress report said the project was 100% complete and everything was off the ROW. On May 8, 2008 DGC authored a letter (docket #31) informing the Commission that tree planting was completed. Based on Daily Progress Reports, the reclamation along the ROW was continuous and coordinated with the construction. Permanent ROW will be 50 feet in width. Order #14 has been completed.



15. Reclamation, fertilization and reseeding are to be conducted by DGC according to the National Resources Conservation Service recommendations, unless otherwise specified by the landowner and approved by the Commission.

All lands disturbed were returned to their land use prior to construction. All areas of natural vegetation within the ROW were reclaimed with agency-recommended seed mixtures. No agricultural lands were taken out of production. Order #15 has been completed.

16. DGC's obligation for reclamation and maintenance of the ROW shall continue throughout the life of the pipeline.

On October 30, 2008 DGC sent a letter to the Commission with pictures (Docket #34) of the ROW. The letter informed the Commission that the reclamation of the staging/construction area was complete. Pictures of the reclamation about one year after construction were enclosed with the letter. Inspection of the pictures showed the natural vegetation had grown back. Bud Kuhn, US Army Corps of Engineers, inspected the reclamation on October 30th, 2008 and found the reclamation to be satisfactory.

A post construction inspection of the shores on both sides of the lake crossing occurred on September 15, 2011 by Keitu Engineers & Consultants, Inc. The south shoreline had a large marker sign that had been overturned. This sign should be repositioned upright and anchored. On the north shore of the crossing the "Do not dredge" sign was found lying on the ground and needs to be repaired. During inspection of the north shore, a large amount of 4" mill wrap pipe was found lying within the crossing right-of-way. This pipe size is smaller diameter pipe than what was retired by Dakota Gasification during the replacement of the CO₂ River crossing. The pipe found on the north shore should be cut, loaded, and hauled away as part of DGC's obligation to continue maintenance of the ROW. Keitu verified that all other reclamation was complete and satisfactory. Maintenance and repair of the two shoreline signs must be complete and the shoreline retired pipe removed to complete Order #16.

17. The width of any clear cuts through any wooded areas and shelterbelts shall be kept at a maximum of 50 feet, to the extent possible.

No shelterbelts or wooded areas were part of the construction ROW. Order #17 has been completed.

- 18. DGC shall plant replacement trees and shrubs on a two-to-one basis for each tree or shrub destroyed in the construction process. The Commission will monitor the survival rate of replacement tree and shrub plantings for a period of three years after planting, and may order additional plantings if survival rates are less than 75%. DGC will be required to provide information to the Commission as to the location of tree planting sites and the number of plantings at each site.**

On October 8, 2008 DGC authored a letter to the Commission (docket #31). It said that during construction of the pipeline, 15 trees (Green Ash/Poplar) were removed from the staging area on the north bank of Lake Sakakawea. These were the only trees and scrubs removed during the project. These trees were replaced downstream at a campground as request by the US Army Corps of Engineers (Corps). Replacement trees were two for everyone removed. Fifteen Ohio buckeye (4 feet height) and 15 Amur Maples (6 to 8 feet height) were planted in the campground. A map that identified the tree planting locations was submitted as an enclosure to the letter. The letter was almost a year after the project was completed. No documentation was found about the survival rate of replacement trees in Commission Case File PU-07-184. DGC needs to provide the Commission a survival rate of the replacement trees and shrubs for three years after planting and have a survival rate of over 75% for completion of Order #18.

- 19. DGC shall provide the Commission with a copy of the design specifications for the construction of the pipeline showing the location of the pipeline as built.**

The pipeline and associated facilities are designed, constructed, operated and maintained in strict accordance with the requirements of the U.S. Department of Transportation Pipeline Safety Regulations Code of Federal Regulations (GFR) Title 49, Part 195, Transportation of Hazardous Liquids by Pipeline, as well as other applicable codes, regulations, and standards in the United States.

On November 21, 2007 DGC sent a letter (docket #30) with enclosures of as-built drawings for the Dakota Gasification Company (DGC) CO2 Pipeline Lake Sakakawea Crossing. Design information was given on the drawings. Design specifications were also given in the application (docket #2) and in the in the public hearing testimony of DGC employees (docket # 14). DGC provided the Commission with design specifications for the construction of the pipeline showing the location of the as built (docket #30). Order #19 has been completed.

- 20. Aquatic nuisance species (ANS) are a major concern of the North Dakota Game and Fish Department (the Department). The contractor, including any and all subcontractors or other involved in this project, are required to take appropriate and reasonable precautions to prevent the introduction of ANS to the state's waters or the movement of ANS within North Dakota or between North Dakota waters. These ANS precautions extend to any and all vehicles, vessels, trailers, pumps and such equipment that will be used in the waters of the state. The contractor will provide the Department a reasonable opportunity to inspect all vehicles, vessels, pumps, and equipment that will be used in the waters of the state prior to those items being launched or placed in the waters of the state.**

The US Department of the Interior Fish and Wildlife Service (docket #16.020) in a letter on May 21, 2007 recommended that all barges and water borne construction equipment be thoroughly cleaned and inspected by the North Dakota Game and Fish Department staff biologists prior to being launched to ensure that no invasive/exotic species are accidentally introduced into Lake Sakakawea.

The North Dakota Game and Fish Department (NDGFD) (docket #16.040) in a letter on May 30, 2007 to DGC discussed the North Dakota Legislature enactment of the aquatic nuisance species (ANS) law in 2005, with its penalties, and its importance to prevent the importation and spread of ANS into or within North Dakota. The letter gave Lynn Schlueter (701-662-3617), Special Project Biologist for the NDGFD, as a contact person to perform equipment inspections or for any additional information regarding ANS.

DGC contracted Pentzien, Inc. as the general contractor from Omaha, NE. No records were noted in the Daily Progress Reports of the inspect of vehicles, vessels, pumps, trailers, or equipment that was used in the waters of the state prior to those items being launched or placed in the water of the state. From Daily Progress Reports, the following are dates with items that should be considered for NDGFD inspections before being launched:

7-20-07	Unloaded 2 loads of barge components
7-23-07	3 loads of Flexi-Float pontoons at New Town
7-24-07	Assembled 3000 barge and Burl Joe at New Town, ND
7-25-07	Completed 3000 barge and Burl Joe at New Town, ND. Received truck with survey boats at New Town.
7-26-07	Pushed barge 3000 from New Town, ND to job site (launched and pushed in water), launched skiff (skiff boat required inspection before launch)
7-27-07	Sea Curtain used (possible inspection required), began excavation with 3000 barge (excavation equipment –possible inspection required)
7-28-07	Moved 2 Manitowoc pontoons down to the water edge (inspection required for the pontoons)
8-27-07	3900 barge in water (inspection should have occurred prior to launching)
8-30-07	Launched Decator
9-11-07	Divers used to install slings (sling inspection)



PU-07-184 Post-Construction Report
Dakota Gasification 14-inch CO₂ Pipeline
Lake Sakakawea Crossing
September 19, 2011

No documentation of NDGFD inspections were found in the Commission Case No. PU-07-184. The DGC should provide the Commission with all NDGFD inspection information for the Commission to determine if Order #20 was followed.

21. The authorization granted by the route permit is subject to modification by order of the Commission if deemed necessary to further protect the public or the environment.

Should the Commission deem necessary in the future to modify the corridor certificate and route permit it can do so if deemed necessary to further protect the public or the environment. Case File No. PU-07-184 does not contain any information that the Commission should deem necessary to modify the Certificate of Corridor Compatibility (Number 97) and Route Permit (Number #107) of June 27, 2007. Order #21 has been complied with.

22. After the corridor and route certificates have been issued and all costs of hearings, publication, and any other related expense have been paid from the application fee, the Commission shall refund all but \$5,000.00 of the remaining application fee. If the balance of the application fee at the time is less than \$5,000.00, the Commission shall retain the entire amount. When construction and reclamation are complete and when the Commission has concluded that DGC's tree mitigation project is satisfactory, the remaining balance of the application fee shall be refunded.

Under N.D. Administrative Code § 69-06-01-05, after all siting permits and certificates are issued by the Commission and after all notice and hearing costs and expenses are paid, the Commission will refund to the applicant all of the application fee paid by the applicant except \$5,000 or the amount of the fee remaining if that amount is less than \$5,000. On June 4, 2008 the Commission issued an interim refund check of \$47,141.52 to Dakota Gasification Company (DGC). On November 2, 2010 the Commission contracted Keitu Engineers & Consultants, Inc. for post-construction inspection services.

On May 8, 2008 DGC sent a letter to the Commission (docket #31) stating that tree planting had been completed and enclosed a map of the planting locations. No tree survival rate monitoring documentation was found in Commission case file PU-07-184. DGC needs to provide the Commission a survival rate of the replacement trees and shrubs for three years after planting and have a survival rate of over 75% for completion of Order #22.