# NPDES PERMIT NO. OK0044890
# STATEMENT OF BASIS

FOR THE DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

**APPLICANT**

Southern Star Central Gas Pipeline, Inc.
2018 Line V Pipeline Replacement Project
4700 Highway 56
P.O. Box 20010
Owensboro, Kentucky 42304

**ISSUING OFFICE**

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**DATE PREPARED**

February 6, 2018

**PERMIT ACTION**

It is proposed that the facility be issued a first-time NPDES permit for a 5-year term in accordance with regulations contained in 40 Code of Federal Regulations (CFR) 122.46(a).

40 CFR CITATIONS: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations, revised as of February 2, 2018.

## DOCUMENT ABBREVIATIONS

For brevity, Region 6 used acronyms and abbreviated terminology in this Statement of Basis document whenever possible. The following acronyms were used frequently in this document:

| | |
|---|---|
| BAT | Best Available Technology Economically Achievable |
| $BOD_5$ | Biochemical oxygen demand (five-day unless noted otherwise) |
| BPJ | Best professional judgment |
| CFR | Code of Federal Regulations |
| cfs | Cubic feet per second |
| COD | Chemical oxygen demand |
| COE | United States Corp of Engineers |
| CPP | Continuing Planning Process |
| CWA | Clean Water Act |
| DMR | Discharge monitoring report |
| ELG | Effluent limitation guidelines |
| EPA | United States Environmental Protection Agency |
| ESA | Endangered Species Act |
| F&WS | United States Fish and Wildlife Service |
| HT | Hydrostatic Testing |
| IP | Procedures to Implement the Oklahoma Surface Water Quality standards |
| mg/L | Milligrams per Liter (one part per million) |
| MGD | Million gallons per and Intrastate Surface Waters |
| MQL | Minimum quantification level |
| NPDES | National Pollutant Discharge Elimination System |
| OAC | Oklahoma Administrative Code |
| ODEQ | Oklahoma Department of Environmental Quality |
| O&G | Oil and grease |
| OWQS | Oklahoma Surface Water Quality Standards |
| OWRB | Oklahoma Water Resources Board |
| RP | Reasonable potential |
| SIC | Standard industrial classification |
| s.u. | Standard units (for parameter pH) |
| SWQB | Surface Water Quality Bureau |
| TMDL | Total maximum daily load |
| TRC | Total residual chlorine |
| TSS | Total suspended solids |
| µg /L | Micrograms per Liter (one part per billion) |
| WET | Whole effluent toxicity |
| WQMP | Water Quality Management Plan |
| WQS | Water Quality Standards |

## I. PROPOSED CHANGES FROM PREVIOUS PERMIT

None

## II. APPLICANT LOCATION & ACTIVITY

Under the SIC code 4922, Southern Star Central Gas Pipeline, Inc., operates a natural gas transmission pipeline.

As described in the application, the Edmond Compressor Station is located at 6724 North Air Depot Blvd. Edmond, Oklahoma County, Oklahoma.

## III. PROCESS AND DISCHARGE DESCRIPTION

The purpose of the project is to replace sections of the existing Oklahoma City to Dilworth natural gas pipeline. The sections of pipeline to be replaced were originally constructed using an acetylene welding process that is outdated and has been found to create brittle welds. This process can also result in "icicles" in the interior of the weld which inhibits internal line inspection. The project is part of an ongoing effort to modernize Southern Star's existing natural gas transmission system.

The project consists of seven replacement sections. Totaling approximately 74,000 linear feet located within Logan and Oklahoma County, OK. Work will consist of the installation of new 20 and 24 inch diameter pipeline that will be offset approximately 25 feet from the existing pipeline. The existing pipeline will be removed after the new pipeline is placed in service. A hydrostatic test will be required on each of the seven replacement sections prior to tie-in with the existing system. As a result, the water will only contact new pipeline. It is anticipated that water will be obtained from and discharged to the same water-body for all outfalls. Water will be discharged through energy dissipaters.

No additives will be used in the test and no additional pollutants other than those previously-existent in the source water are anticipated upon discharge.

The discharge points showing outfall number, discharge coordinates: latitude and longitude, county, average flow rate in millions gallons per day (GPM), receiving water, and the waterbody identification numbers are shown in the following table:

| Outfall Reference Number | Discharge Coordinates Latitude Deg° Min' Sec" Longitude Deg° Min' Sec" | County | Average Flow gpm | Receiving Water | Waterbody ID # |
|---|---|---|---|---|---|
| 001 | 35° 30' 58.81" N 97° 24' 30.14" W | Oklahoma | 3,500 | Manmade pond to North Canadian River in the Lower North Canadian River Basin | OK520520000010_30 |
| 002 | 35° 31' 13.96" N 97° 24' 31.09" W | Oklahoma | 3,500 | North Canadian River in the Lower North Canadian River Basin | OK520520000010_30 |
| 003 | 35° 31' 18.34" N 97° 24' 28.77" W | Oklahoma | 3,500 | North Canadian River in the Lower North Canadian River Basin | OK520520000010_30 |

| Outfall Reference Number | Discharge Coordinates Latitude Deg° Min' Sec" Longitude Deg° Min' Sec" | County | Average Flow gpm | Receiving Water | Waterbody ID # |
|---|---|---|---|---|---|
| 004 | 35° 43' 16.76" N 97° 24' 20.90" W | Oklahoma | 3,500 | Manmade pond to Cowbell Creek in the Deep Fork River Basin | OK520710010110_00 |
| 005 | 35° 59' 3.85" N 97° 23' 20.97" W | Logan | 3,500 | Cimarron River in the lower Cimarron River Basin | OK620900030010_00 |
| 006 | 35° 59' 14.85" N 97° 23' 22.44" W | Logan | 3,500 | Cimarron River in the lower Cimarron River Basin | OK620900030010_00 |
| 007 | 36° 8' 41.59" N 97° 23' 8.93" W | Logan | 3,500 | East Beaver Creek in the lower Cimarron River Basin | OK620900030250_00 |

The designated uses for waterbody identification number, OK520520000010_30 and OK620900030010_00 are Aesthetic, Agriculture, Warm Water Aquatic Community (WWAC), Fish Consumption, Primary Body Contact Recreation (PBCR), and Emergency Water Supply (EWS). The designated uses for waterbody identification number, OK520710010110_00 are Aesthetic, Agriculture, Warm Water Aquatic Community (WWAC), Fish Consumption, Primary Body Contact Recreation (PBCR). The designated uses for waterbody identification number, OK620900030250_00 are Aesthetic, Agriculture, Warm Water Aquatic Community (WWAC), Fish Consumption, Primary Body Contact Recreation (PBCR), and Public and Private Water Supply (PPWS).

The facility provided an estimate of the daily maximum and average for some pollutants. These estimates are applicable to all outfalls:

| Pollutants | Max Concentration, mg/l | Average Concentration, mg/l |
|---|---|---|
| TSS | 30 | NA |
| Oil & Grease | 15 | NA |
| Flow (gpm) | NA | 3,500 |
| pH | 6.5-9.0 | NA |

## IV. REGULATORY AUTHORITY/PERMIT ACTION

In November 1972, Congress passed the Federal Water Pollution Control Act establishing the NPDES permit program to control water pollution. These amendments established technology-based or end-of-pipe control mechanisms and an interim goal to achieve "water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water;" more commonly known as the "swimmable, fishable" goal. Further amendments in 1977 of the CWA gave EPA the authority to implement pollution control programs such as setting wastewater standards for industry and established the basic structure for regulating pollutants discharges into the waters of the United States. In addition, it made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions. Regulations governing the EPA administered NPDES permit program are generally found at 40 CFR §122 (program requirements & permit conditions), §124 (procedures for decision making), §125 (technology-based standards) and §136 (analytical procedures). Other parts of 40 CFR provide guidance for specific activities and may be used in this document as required.

It is proposed that the permit be issued for a 5-year term following regulations promulgated at 40 CFR 122.46(a). An NPDES Application for a Permit to Discharge (Form 1) and Form 2D, dated December 21, 2017, were received on January 8, 2018, and was deemed administratively incomplete on January 16, 2018. Submission of Form 2E for outfalls was requested on January 30, 2018. Resubmission of application with Form 2E dated, January 31, 2018, was received February 2, 2018. . Application was determined to be administratively complete, and a letter was mailed on February 5, 2018.

## V. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

A. OVERVIEW of TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITION FOR PERMIT ISSUANCE

Regulations contained in 40 CFR §122.44 NPDES permit limits are developed that meet the more stringent of either technology-based effluent limitation guidelines, numerical and/or narrative water quality standard-based effluent limits, on best professional judgment (BPJ) in the absence of guidelines, and/or requirements pursuant to 40 CFR 122.44(d), whichever are more stringent. Technology-based effluent limitations are established in the proposed draft permit for, TSS, Oil and grease. Water quality-based effluent limitations are established in the proposed draft permit for pH.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

Regulations promulgated at 40 CFR §122.44 (a) require technology-based effluent limitations to be placed in NPDES permits based on ELGs where applicable, on BPJ in the absence of guidelines, or on a combination of the two. In the absence of promulgated guidelines for the discharge, permit conditions may be established using BPJ procedures. EPA establishes limitations based on the following technology-based controls: BPT, BCT, and BAT. These levels of treatment are:

BPT - The first level of technology-based standards generally based on the average of the best existing performance facilities within an industrial category or subcategory.

BCT - Technology-based standard for the discharge from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and O&G.

BAT - The most appropriate means available on a national basis for controlling the direct discharge of toxic and non-conventional pollutants to navigable waters. BAT effluent limits represent the best existing performance of treatment technologies that are economically achievable within an industrial point source category or subcategory.

Effluent Limitations

There are no published ELG’s for this type of activity. Permit limits are proposed based on BPJ. Since hydrostatic test water discharges are batch discharges of short term duration, limits in this Permit will be expressed in terms of daily maximum concentrations rather than in terms of mass limitations, as allowed by 40 CFR 122.45(e) and (f). Limitations for Oil & Grease, TSS, and pH are proposed in the permit. The proposed limitations for TSS are 30mg/l average, 45 mg/l

maximum; and Oil & Grease is 15 mg/l maximum. The draft permit will not propose mass limits since the flow is variable and intermittent. Concentration limits will be protective of the stream uses

## B. WATER QUALITY SCREENING

### 1. General Comments

The Clean Water Act in Section 301 (b) requires that effluent limitations for point sources include any limitations necessary to meet water quality standards. Federal regulations found at 40 CFR 122.44(d) state that if a discharge poses the reasonable potential to cause an in-stream excursion above a water quality criterion, the permit must contain an effluent limit for that pollutant. If the discharge poses the reasonable potential to cause an in-stream violation of narrative standards, the permit must contain prohibitions to protect that standard.

The narrative and numerical stream standards are provided in OWQS, as amended (OAC 785:45), and implementation criteria contained in OACs 785:46 and 252:690, promulgated by the OWRB, effective as of September 11, 2017, and Department of Environmental Quality (DEQ), respectively. This is to ensure that no point-source will be allowed to discharge any wastewater which: (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation which threatens human health.

### 2. Reasonable Potential

EPA develops draft permits to comply with State WQS, and for consistency, attempts to follow OWQS, OWQS implementation criteria in OAC 785:46 and OAC 252:690, and the CPP document where appropriate. However, EPA is bound by the State's WQS, not State guidance, including the OWQS implementation, in determining permit decisions. EPA performs its own technical and legal review for permit issuance, to assure compliance with all applicable State and Federal requirements, including State WQS, and makes its determination based on that review.

In the RP screening process, the 95$^{th}$ percentile effluent concentration, or estimate thereof if the effluent data set is not sufficiently large to determine it directly, is used to compute an instream concentration according to the regulatory mixing zone equations defined in OAC 785:46. The computed instream concentrations are then compared with the applicable criteria to determine whether RP is exhibited. If RP is exhibited, in accordance with 40 CFR 122.44(d)(1)(vi) and OAC 252:690, a wasteload allocation and criterion long term average is computed for each applicable criterion. Water quality-based permit limitations are calculated for each pollutant exhibiting RP for all applicable criteria. The most stringent of the resulting monthly average permit limitations is established in the draft permit for each pollutant requiring such limitations.

The applicant proposes to draw water from North Canadian River, Cowbell Creek, Cimarron River, and East Beaver Creek. Hydrostatic test water will only contact new pipe, therefore there is no potential for residual hydrocarbons. In addition, no chemical additives will be put into the hydrostatic test discharge water. As a result, no contaminants are expected to be present in the hydrostatic test water discharge at amounts that would pose a reasonable potential to exceed State WQS.

It is anticipated, that the hydrostatic test water is to be discharged into the same water body from which it was taken. As a result, intake credits are authorized for all outfalls, to account for in-situ waterbody conditions for only TSS.

3. Reasonable Potential-Calculations

a. pH

The daily minimum and daily maximum permit limits of 6.0 standard units to 9.0 standard units on hydrostatic test permits are developed by other EPA Regions and States. OAC 785:45-5-12(f)(3) states, "pH values shall be between 6.5 and 9.0 in waters designated for fish and wildlife propagation; unless pH values outside that range are due to natural conditions." The water quality–based daily minimum pH limit of 6.5 is more stringent than the technology-based daily minimum pH limit of 6.0 standard units. As a result, the Oklahoma Water Quality Based limits of 6.5 standard units to 9.0 standard units are established in the proposed permit.

b. Narrative Limitations

1. Aesthetic Standards(OAC 785:45-5-19)

According to OWQS, OAC 785:45-5-12(f) (4) which states that narrative protection for aesthetic standards will propose that surface waters shall be maintained so that oil, grease, or related residue will not produce a visible film or globules of grease on the surface or coat the banks or bottoms of the watercourse; or cause toxicity to man, aquatic life, or terrestrial life. A narrative condition prohibiting the discharge of any visible sheen of oil or globules of oil or grease will be included in the proposed permit. In addition, the technology-based limit of 15 mg/l for Oil and Grease should assure that the narrative criterion is maintained.

2. Agriculture (OAC 785:45-5-13)

The levels of chloride, sulfate and total dissolved solids in the test water should be the same as in the receiving water. Hydrostatic testing should not result in significant increases in levels of chloride, sulfate or total dissolved solids in the test water above levels contained in the fill water.

2. Public and Private Water Supplies (OAC 785:45-5-10)

Test water being discharged from hydrostatic testing should not contain substances listed in Raw Water Numerical Criteria (785:45-5-10(1)) and Water Column Criteria to protect for the consumption of fish, flesh and water (785:45-5-10(6)) at levels which would have reasonable potential to violate numerical criteria.

3. Fish and Wildlife Propagation (OAC 785:45-5-12)

Test water being discharged from hydrostatic testing should not contain substances listed in Toxic Substances (785:45-5-12(f)(6)) and Water Column Criteria to protect for the consumption of fish, flesh and water (785:45-5-10(6)) at levels which would have reasonable potential to violate numerical criteria.

Warm Water Aquatic Community means a subcategory of the beneficial use category "Fish and Wildlife Propagation" where the water quality and habitat are adequate to support climax fish communities. (OAC 785:45-5-12(c).

4. Agriculture/Livestock and Irrigation (OAC 785:45-5-13)

The levels of chloride, sulfate and total dissolved solids in the test water should be the same as in the receiving water. Hydrostatic testing should not result in significant increases in levels of chloride, sulfate or total dissolved solids in the test water above levels contained in the fill water.

5. Primary Body Contact Recreation (OAC 785:45-5-16)

Hydrostatic test wastewater should not contain coliform bacteria, Escherichia coli, and Enterococci at significant levels.

6. Emergency Public and Private Water Supplies (OAC 785:45-5-11)

(a) During emergencies, those waters designated Emergency Public and Private Water Supplies may be put to use.
(b) Each emergency will be handled on a case-by-case basis, and be thoroughly evaluated by the appropriate State agencies and/or local health authorities.

7. Fish Consumption (OAC 785:45-5-20)

Test water being discharged from hydrostatic testing should not contain substances listed in fish tissue levels (785:45-5-20(b)) and Water Column Criteria to protect for the ingestion of fish and shellfish by humans (785:45-5-20(b)) at levels which would have reasonable potential to violate numerical criteria.

C. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

Following regulations promulgated at 40 CFR122.44(l)(2)(ii), 122.44(d), and 130.32(b)(6), the draft permit limits are based on either technology-based effluent limits pursuant to 40 CFR122.44(a), on the results of or on State Water Quality Standards and requirements pursuant to 40 CFR122.44(d), or on the results of an established and EPA approved Total Maximum Daily Load (TMDL), whichever are more stringent.

Numerical water quality based limitations have been placed in the permit for pH. Narrative standards for oil, grease, or related residue have been placed in the proposed permit. A technology-based limit of 15 mg/l for Oil and Grease should assure that the narrative criterion is maintained.

D. WHOLE EFFLUENT TOXICITY LIMITATIONS

There are no chemical specific limitations in the draft permit and the applicant has stated that no chemical additives are being added to the HT water. There does not appear that the discharge will have a potential for toxicity. The draft permit does not propose any biomonitoring.

E. FINAL EFFLUENT LIMITATIONS

See the draft permit for limitations.

F. MONITORING FREQUENCY

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity 40 CFR 122.48(b) and to assure compliance with permit limitations 40

CFR 122.44(i)(1). The monitoring frequencies are based on BPJ, taking into account the nature of the discharge

For ALL outfalls, monitoring for flow, TSS, Oil & Grease, and pH shall be daily by grab sample, when discharging.

## VI. FACILITY OPERATIONAL PRACTICES

A. WASTE WATER POLLUTION PREVENTION REQUIREMENTS

The permittee shall institute programs directed towards pollution prevention. The permittee will institute programs to improve the operating efficiency and extend the useful life of the treatment system.

B. OPERATION AND REPORTING

The permittee must submit Discharge Monitoring Report's (DMR's) quarterly, beginning on the effective date of the permit, lasting through the expiration date of the permit or termination of the permit, to report on all limitations and monitoring requirements in the permit.

Electronic Reporting Rule

The EPA published the electronic reporting rule in the federal register (80 FR 64063) on October 22, 2015. The rule became effective on December 21, 2015. One year after the effective date of the final rule, NPDES regulated entities that are required to submit DMRs (including majors and non-majors, individually permitted facilities and facilities covered by general permits) must do so electronically. All DMRs shall be electronically reported effective December 21, 2016, per 40 CFR 127.16. If you are submitting on paper before December 21, 2016, you must report on the Discharge Monitoring Report (DMR) Form EPA. No. 3320-1 in accordance with the "General Instructions" provided on the form. No additional copies are needed if reporting electronically, however when submitting paper form EPA No. 3320-1, the permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D. to the EPA and other agencies as required. (See Part III.D.IV of the permit.). To submit electronically, access the NetDMR website at www.epa.gov/netdmr and contact the R6NetDMR@epa.gov in-box for further instructions. PA and authorized NPDES programs will begin electronically receiving these DMRs from all DMR filers and start sharing these data with each other.

Sufficiently Sensitive Analytical Methods (SSM)

The permittee must use sufficiently sensitive EPA-approved analytical methods (SSM) (under 40 CFR part 136 or required under 40 CFR chapter I, subchapters N or O) when quantifying the presence of pollutants in a discharge for analyses of pollutants or pollutant parameters under the permit. In case the approved methods are not sufficiently sensitive to the limits, the most SSM with the lowest method detection limit (MDL) must be used as defined under 40 CFR 122.44(i)(1)(iv)(A). If no analytical laboratory is able to perform a test satisfying the SSM in the region, the most SSM with the lowest MDL must be used after adequate demonstrations by the permittee and EPA approval.

## VII. IMPAIRED WATER - 303(d) LIST AND TMDL

According to the 2014 edition of the 303(d) list of impaired waters, the receiving stream for Outfall 001, 002 & 003, North Canadian River, (OK520520000010_30) on the Lower North Canadian River Basin is listed as impaired for Warm Water Aquatic Community (WWAC) and Primary Body Contact Recreation (PBCR) with causes listed as Enterococcus, E. Coli, and Dissolved Oxygen. A TMDL for bacteria was established in E. Coli in 2010. Bacteria from MS4s are believed to be the major source. Potential sources of WWAC impairment are unknown. A TMDL to address the cause (dissolved oxygen) of the WWAC impaired use is underway, scheduled, or will be scheduled. The receiving stream for Outfall 004, Cowbell Creek (OK520710010110_00) is not listed as impaired. The receiving stream for Outfall 005 & 006, Cimarron River (OK620900030010_00) is listed as impaired for Warm Water Aquatic Community (WWAC), Fish Consumption and Primary Body Contact Recreation (PBCR) with causes listed as Enterococcus, turbidity, and lead. Major sources for impairment due to bacteria are described as non-point sources (commercially raised farm animals, pets, deer, and septic tanks) MS4s. A TMDL for bacteria and turbidity was established in 2012. Major sources for impairment due to bacteria are described as non-point listed as livestock, pets, deer and septic tank loads. Major sources for impairment due to turbidity are described as due to a nonpoint sources listed as natural erosion processes, including the weathering of soil, rocks, and uncultivated land; geological abrasion; other natural phenomena and anthropogenic activities in riparian corridors. Potential sources of Fish consumption impairment are Highway/Road/Bridge Runoff (Non-construction Related), Municipal Point Source Discharges and unknown sources. A TMDL to address the cause (lead) of the Fish consumption impaired use is underway, scheduled, or will be scheduled The receiving stream for Outfall 007, East Beaver Creek (OK620900030250_00), is not listed as impaired.

In light of the nature of the facility and its' operations, the discharger is not likely to contribute to bacteria, lead, TSS, and dissolved oxygen excursions; Therefore, no additional requirements beyond the previously described technology-based or water quality-based effluent limitations and monitoring requirements, are established in the proposed permit.

## VIII. ANTIDEGRADATION

The OWRB- OWQS, antidegradation policy, OAC 785:46, Subchapter 13, sets forth the requirements to protect designated uses through implementation of the State WQS. The limitations and monitoring requirements set forth in the proposed permit are developed from the State WQS and are protective of those designated uses. Furthermore, the policy sets forth the intent to protect the existing quality of those waters, whose quality exceeds their designated use. The permit requirements are protective of the assimilative capacity of the receiving waters, which is protective of the designated uses of that water.

There are no antidegradation restrictions listed in Appendix A of the OWQS for Lower North Canadian River, Cimarron River, East Beaver Creek, and Cowbell Creek to which the facility discharges. As a result, no further protection beyond the Tier1 level (maintenance and protection of designated uses, as herein described).

## IX. ANTIBACKSLIDING

The proposed permit is consistent with the requirements and exemption to meet Antibacksliding provisions of the Clean Water Act, Section 402(o) and 40 CFR Part 122.44(i)(B), which state in

part that interim or final effluent limitations must be as stringent as those in the previous permit, unless information is available which was not available at the time of permit issuance. Since this is a first time individual NPDES permit for this discharge, antibacksliding does not apply.

## X. ENDANGERED SPECIES

The effects of EPA's permitting action are considered in the context of the environmental baseline. The environmental baseline is established by the past and present impacts of all Federal, State, or private actions and other human activities in an action area; the anticipated impacts of all proposed Federal projects in an action area that have already undergone formal or early ESA §7 consultation; and the impact of State or private actions that are contemporaneous with the consultation in process (50 CFR §402.02). Hydrostatic test water discharges occur after a pipeline has already been put in place following earth disturbing activities that have had to have received appropriate federal, state, and local authorizations putting the construction of pipeline itself into the environmental baseline. The scope of the evaluation of the effects of the discharge authorized by this permit was therefore limited to the effects related to the authorized discharge.

According to the most recent county listing available at US Fish and Wildlife Service (USFWS), IPAC-Information, Planning, and Conservation System Website http://ecos.fws.gov/ipac/, three species in Grant County are listed as Endangered or Threatened. These species are Least tern *(Sterna antillarum)*, Whooping Crane (*Grus americana*), Red Knot (*Calidris canutus rufa*), the Arkansas River Shiner (*Notropis Girardi*) and Piping Plover *(Charadrius melodus.* Based on the following discussion, EPA has determined that the issuance of this permit will have no effect on these federally listed threatened or endangered species.

### LEAST TERN *(Sterna antillarum)*

The Least tern populations have declined due to habitat destruction by permanent inundation, destruction by reservoir releases, channelization projects, alterations of Natural River or lake dynamics resulting in vegetational succession of potential nesting sites, and recreational use of potential nesting sites. Issuance of this permit is found to have no impact on the habitat of this species, as none of the aforementioned listed activities is authorized by this permitting action.

### WHOOPING CRANE *(Grus americana)*

The tallest bird in North America, the Whooping Crane breeds in the wetlands of Wood Buffalo National Park in northern Canada and spends the winter on the Texas coast at Arkansas National Wildlife Refuge near Rockport. Cranes live in family groups made up of the parents and 1 or 2 offspring. In the spring, Whooping Cranes perform courtship displays (loud calling, wing flapping, and leaps in the air) as they get ready to migrate to their breeding grounds. Whooping Cranes are endangered because much of their wetland habitat has been drained for farmland and pasture. Whooping Cranes are nearly 5 feet tall. They eat Blue crabs, clams, frogs, minnows, rodents, small birds, and berries. They are found in large wetland areas. Cranes are considered sacred in many parts of the world. In China, they are a symbol of long life.

The overall decline of whooping cranes has been attributed to habitat loss, direct disturbance

and hunting by humans, predation, disease, and collisions with manmade features (CWS and USFWS 2005). The main threat to whooping cranes in the wild is the potential of a hurricane or contaminant spill destroying their wintering habitat on the Texas coast. Collisions with power lines and fences are known hazards to wild whooping cranes. The primary threats to captive birds are disease and parasites. Based on information available, EPA believes that this permit issuance will not affect the whooping crane.

**PIPING PLOVER *(Charadrius melodus)***

A small plover has wings approximately 117 mm; tail 51 mm; weight 46-64 g (average 55 g); length averages about 17-18 cm. Inland birds have more complete breast band than Atlantic coast birds. The nonbreeding plovers lose the dark bands. In Laguna Madre, Texas, non-breeding home ranges were larger in winter than in fall or spring. The breeding season begins when the adults reach the breeding grounds in mid- to late-April or in mid-May in northern parts of the range. The adult males arrive earliest, select beach habitats, and defend established territories against other males. When adult females arrive at the breeding grounds several weeks later, the males conduct elaborate courtship rituals including aerial displays of circles and figure eights, whistling song, posturing with spread tail and wings, and rapid drumming of feet. The plovers defend territory during breeding season and at some winter sites. Nesting territory may or may not contain the foraging area. Home range during the breeding season generally is confined to the vicinity of the nest. Plovers are usually found in sandy beaches, especially where scattered grass tufts are present, and sparsely vegetated shores and islands of shallow lakes, ponds, rivers, and impoundments.

Food consists of worms, fly larvae, beetles, crustaceans, mollusks, and other invertebrates. The plovers prefer open shoreline areas, and vegetated beaches are avoided. It also eats various small invertebrates. It obtains food from surface of substrate, or occasionally probes into sand or mud.

Destruction of habitat, disturbance and increased predation rates due to elevated predator densities in piping plover habitat are described as the main reasons for this species' endangered status and continue to be the primary threats to its recovery. The remaining populations, whether on the breeding or wintering grounds, mostly inhabit public or undeveloped beaches. These populations are vulnerable to predation and disturbance.

Research of available material finds that the primary cause for the population decreases leading to threatened or endangered status for these species is destruction of habitat. Issuance of the permit will have no effect on this species, in that the discharge is not expected to contain these chemicals.

**RED KNOT (*Calidris canutus rufa*)**

The red knot has a wing span of 20 inches, some knots fly more than 9,300 miles from south to north every spring and repeat the trip in reverse every autumn, making this bird one of the longest-distance migrants in the animal kingdom. Surveys of wintering knots along the coasts of southern Chile and Argentina and during spring migration in Delaware Bay on the U.S. coast indicate that a serious population decline occurred in the 2000s.

The knot's unique and impressive life history depends on suitable habitat, food and weather conditions at far-flung sites across the Western Hemisphere, from the extreme south of Tierra del Fuego to the far north of the central Canadian Arctic. Knots need to encounter these favorable habitat, food and weather conditions within narrow seasonal windows as the birds hopscotch along migration stopovers between wintering and breeding areas.

Research of available material finds that the primary cause for the population decreases leading to threatened or endangered status for these species is climate change and coastal development.

**ARKANSAS RIVER SHINER (*Notropis Girardi*)**

The Arkansas River shiner (ARS) is a small, streamlined minnow with a small, dorsally flattened head, rounded snout, and subterminal mouth. The ARS is silver in appearance with a dark blotch at the base of the dorsal (top) fin. Adults attain a maximum length of about 2 inches. The species is listed as threatened in Logan County (Outfalls 005, 006, & 007).

The ARS historically inhabited wide, shallow, sandy bottomed rivers and larger streams of the Arkansas River basin. The species is considered a habitat generalist, with no obvious selection for any particular habitat (i.e., main channel, side channel, backwaters, and. The ARS is considered an annual species, with less than ten percent of the population surviving to spawn a second year. ARS release their eggs and sperm in open flowing water which drift downstram. ARS have been shown to successfully reproduce from May through September when stream flow exists; however, peak reproduction may take place at moderate to higher flows

The fish is extremely dependent upon flood flows from June through August to successfully spawn. Declining streamflows have now restricted its probable range in Kansas to a few stream reaches within the Lower Arkansas, Salt Fork Arkansas and Cimarron basins. The fish occurs in the upper reaches of the Cimarron River only during high streamflow events.

Arkansas River Shiner is a producer of semi-buoyant eggs, and may be particularly susceptible to modification of natural flow patterns. The decline of *Notropis girardi* in the upper mainstream Arkansas River could be attributed to anthropogenic reduction of high summer flows apparently needed to stimulate reproduction. Issuance of the permit may affect but not likely to adversely affect this species, in that the intake and hydrostatic test water discharge may result in reduced stream flows.

Based on information available, EPA believes that the issuance of this permit may affect but is not likely to adversely affect the Arkansas River Shiner. Furthermore, issuance of this species will have no effect on the Least tern *(Sterna antillarum),* Whooping Crane (*Grus americana*), Red Knot (*Calidris canutus rufa*) and Piping Plover *(Charadrius melodus*). The proposed issuance contains controls to limit the quantity of pollutants which are discharged. The discharge water will not be treated with biocides or other additives. The proposed permit has limits for Oil & Grease, Total Suspended Solids, flow and pH. The proposed permit is written to include limitations and monitoring requirements on those parameters as conditions in permit. In addition, there is no designated critical habitat located in outfall areas.

The standard reopener clause in the permit will allow EPA to reopen the permit and impose additional limitations if it is determined that changes in species or knowledge of the discharge would require different permit conditions.

Operators have an independent ESA obligation to ensure that any of their activities do not result in prohibited "take" of listed species. Section 9 of the ESA prohibits any person from "taking" a listed species, e.g., harassing or harming it, with limited exceptions. See ESA Sec 9; 16 U.S.C. §1538. This prohibition generally applies to "any person," including private individuals, businesses and government entities. Operators who intend to undertake construction activities in areas that harbor endangered and threatened species may seek protection from potential "take" liability under ESA section 9 either by obtaining an ESA section 10 permit or by requesting coverage under an individual permit and participating in the section 7 consultation process with the appropriate FWS or NMFS office. Operators unsure of what is needed for such liability protection should confer with the appropriate Services.

## XI. HISTORICAL AND ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

The permittee has preliminarily determined, in an assessment for cultural and biological resources, that the project will not impact any historical and/or archeological preservation, but has yet to receive concurrence from the SHPO. Prior to permit issuance, SHPO concurrence with no impact on historical and/or archeological sites shall be sent to EPA.

## XII. PERMIT REOPENER

The permit may be reopened and modified during the life of the permit if relevant portions of the Oklahoma WQS are revised or remanded. In addition, the permit may be reopened and modified during the life of the permit if relevant procedures implementing the WQS are either revised or promulgated. Should the State adopt a new WQS, and/or develop a TMDL, this permit may be reopened to establish effluent limitations for the parameter(s) to be consistent with that approved State standard and/or water quality management plan, in accordance with 40 CFR §122.44(d). Modification of the permit is subject to the provisions of 40 CFR §124.5.

## XIII. VARIANCE REQUESTS

No variance requests have been received.

## XIV. COMPLIANCE HISTORY

This is a first-time permit issuance.

## XV. CERTIFICATION

The permit is in the process of certification by the Oklahoma Department of Environmental quality following regulations promulgated at 40 CFR 124.53. A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service and to the National Marine Fisheries Service prior to the publication of that notice.

## XVI. FINAL DETERMINATION

The public notice describes the procedures for the formulation of final determinations.

## XVII. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

A. APPLICATION

An NPDES Application for a Permit to Discharge (Form 1) and Form 2D, dated December 21, 2017, were received on January 8, 2018, and was deemed administratively incomplete on January 16, 2018. Submission of Form 2E for outfalls was requested on January 3, 2018. Additional information dated, January 31, 2018, was received February 2, 2018. Letter requesting USFWS clearance was requested on January 31, 2018. Application was determined to be administratively complete, and a letter was mailed on February 5, 20.

B. REFERENCES

"Implementation of the Oklahoma Water Quality Standards," Oklahoma Water Resources Board, Title 785, Chapter 46, effective as of September 11, 2015.

Oklahoma Water Quality Standards, (Title 785, Chapter 45) promulgated by the Oklahoma Water Resources Board including all amendments which are effective as of September 11, 2017.

https://ecos.fws.gov/ipac/location/EBEXIUWTJBATRPBHKSFYI6GPHI/resources

https://ecos.fws.gov/ipac/location/Q44KEPQG5BF5TNQIVN75DDPNYY/resources

https://ecos.fws.gov/ipac/location/I23NAIOSMVEGJEC75CLJONVWNM/resources

https://ecos.fws.gov/ipac/location/URA2XD24SBD47MOGMFL3Q5N6MI/resources

https://ecos.fws.gov/ipac/location/URJR3FBU6RHU3BD3D35MQIFLQI/resources

C. 40 CFR CITATIONS

Sections 122, 124, 125, 133, and 136

D. MISCELLANEOUS CORRESPONDENCE

Letter from Dorothy Brown, EPA, to Mr. Shawn Patterson, dated February 5, 2018, informing applicant that its' NPDES application received January 31, 2018, was administratively complete.

E-mails from Gregory Blanford, Southern Star Central Gas Pipeline to Nichole Young, EPA, 1/30/2018 & 1/31/2018 on additional facility information.