COOK • INLET • KEEPER

Protecting Alaska's Cook Inlet watershed and the life it sustains

March 3, 2004

Dockets Facility
U.S. Department of Transportation, Room PL-401
400 Seventh Street, SW
Washington, DC 20590-0001

DeWitt Burdeaux
Pipeline Safety Specialist
U.S. Department of Transportation
P.O. Box 25082 (DTI-60)
Oklahoma City, OK 73125-5050

RE: Docket No. RSPA-98-4868 (gas), Notice 3 and RSPA-03-15864 (liquid), Notice 1

Dear Mr. Burdeaux:

Cook Inlet Keeper ("Keeper") is a nonprofit, membership organization dedicated to protecting Alaska's Cook Inlet watershed and the life it sustains. Please accept these comments on behalf of Keeper and its membership on the proposed rulemaking covering "Safety Regulation of Gas and Hazardous Liquid Gathering Lines" (68 Federal Register 67129). Note that I bring 20 years of work experience in the private, governmental, and non-profit sectors to these comments, and that I have been a licensed professional engineer for over ten years. In recent years, I have actively worked to prevent pipeline releases by writing comments on RSPA rulemakings, providing public education on pipeline issues both locally and nationally, and serving on the Technical Hazardous Liquid Pipeline Safety Standards Committee (THLPSSC) since 1995. I also serve on the board of the National Pipeline Reform Coalition, a network of diverse stakeholders interested in improving pipeline safety and environmental protection.

Keeper is pleased the Office of Pipeline Safety (OPS) has initiated this important rulemaking, and that OPS held a public meeting on this issue in Anchorage. Currently unregulated gathering, production, and produced water pipelines need to be addressed to protect public safety and the environment. Such progress is essential, as much of our nation's oil and gas field pipeline infrastructure is aging and requires ongoing maintenance and upgrading, and as financial pressures squeeze pipeline operators so that some might choose not to invest sufficiently in safety and environmental needs. Regulatory oversight provides more than just standards that

308 G Street, Suite 217, Anchorage, Alaska 99501 • Phone: (907) 929-9371 • Fax: (907) 929-1562
www.inletkeeper.org

must be met – it also provides enforcement to help level the playing field among operators, release reporting data to set priorities, and the resources of the National Transportation Safety Board to help with accident cause investigation.

These comments discuss General Background, The Need for Regulation, and Recommended OPS Actions.

I. General Background

The 1992 reauthorization of the pipeline safety law required the Secretary of the U.S. Department of Transportation (DOT) to define the terms "gathering line" and "regulated gathering line" (49 USC 60101(b)). Congress also required in the 1992 reauthorization for the first time that safety standards include environmental protection as part of their development (49 USC 60102(b)). In the 1996 reauthorization, however, Congress told DOT that it only needed to define "regulated gathering line…*if appropriate*" (emphasis added) (49 USC 60101(b)(2)(A)). Keeper contends -- based on the information discussed in the next section and other information within OPS' capabilities to collect -- that the 1992 Congress was correct in not "caveating" its requirement that OPS define "regulated gathering line" since there is ample evidence that these lines need regulation to protect public (including worker) safety and to protect the environment.

The pipeline safety law contains a longstanding exclusion from the terms "transporting gas" and "transporting hazardous liquid" for onshore production facilities (49 USC 60101). In an OPS rulemaking process that was discussed with the THLPSSC in 1984 and 1985,[1] there were varying opinions on the definition of gathering lines, with some participants considering a gathering line to extend to the well head and others saying that lines from the well head were "production" lines and thus excluded from regulation by the statute. Several participants expressed concerns about the cost of such regulation. Additionally, the final rule's preamble states that "there is no information in the record indicating a pressing safety need to regulate flow lines."[2] As a result, 49 CFR 195.1(b)(6) (now 49 CFR 195.1(b)(7)) was amended in 1985 "to clearly indicate that onshore flow lines are considered part of production facilities and are excluded from the applicability of the Part 195 regulations."[3] This 1985 rulemaking is problematic for two reasons: 1) Congress since has provided OPS with the authority to address environmental protection; and 2) There now is evidence (discussed in the next section) showing "a pressing safety need to regulate flow lines."

For natural gas pipelines, there currently is no definition of a "production facility." As a result, again companies can consider large lengths of pipelines as non-gathering lines, and thus unregulated in rural areas. Likewise, there is confusion among operators and OPS as to when natural gas gathering lines end and transmission lines begin.

---

[1] Amdt. 195-33; Docket No. PS-79. Federal Register notice (undated) obtained from Dewitt Burdeaux. Effective date of the final rule is October 21, 1985.

[2] The preamble states that "Flow lines are found at production sites and are used to move produced hydrocarbons from a well to a point where gas, oil and water are separated."

[3] Amdt. 195-33, op. cit.

Congress prohibited a "regulated gathering line" definition for hazardous liquid lines to include pipelines less than 6" in diameter, operated at low stress, *and* located in rural areas not unusually sensitive to environmental damage. (49 USC 60101(b)(2)(B)(ii)).

Note that in 49 USC 60101(b)(2)(A), Congress asked DOT to determine the "types of lines that *functionally* are gathering…" (emphasis added), language that should help guide OPS' decisions in this rulemaking.

II. The Need for Regulation

In this section, Keeper discusses data and information from Alaska and elsewhere that present a compelling case for broader regulation of pipelines upstream from transmission lines. As discussed in more detail in the next section, Keeper encourages OPS to collect similar data from other states with oil and gas production operations.

II. A. Cook Inlet

In 2001-2, Keeper analyzed pipeline releases from Cook Inlet watershed oil and gas production and transmission operations. These releases all have the potential to adversely impact the environment, which is why there is required reporting of these liquid spills from both oil and gas pipelines to the Alaska Department of Environmental Conservation (ADEC). Gas releases from gas pipelines upstream of transmission lines, which can adversely impact safety, are not reported to ADEC.

Keeper's comprehensive report (available at www.inletkeeper.org/pipelines.htm and entered into the record for these two dockets) involved collection of data on pipeline releases from 1997-2001 regardless of pipeline type. Relevant findings from the 70 pipeline releases in this region over the 5-year period include:

- Over one release per month from all pipelines (see Appendix 2)
- Four releases of produced water and/or condensate from gas field pipelines, which may be from gathering, production, or produced water lines (see Appendix 2)
- 7 of the largest 8 releases were from Swanson River Oil/Gas Field pipelines, with release quantities ranging from 1,134 gallons to 228,648 gallons (see Appendix 2)
- 41% of the 66 oil pipeline releases occurred at the Swanson River Oil/Gas Field (see Table 1), which represents only 19% of the oil pipeline mileage in the database
- 14% of the oil pipeline releases came from offshore to onshore pipelines, with most containing oil, gas, and produced water (see Table 1)
- Third-party damage caused only 2% of the pipeline releases in the database (see Table 1)

The release reports to ADEC used in this analysis are not required to contain information from operators on the type of pipeline upstream of crude oil transmission lines (i.e., are they gathering, production, or produced water lines?) from which the releases occur. There are approximately 60 miles of Swanson River Field pipelines and approximately 311 miles of oil pipelines in the Cook Inlet region (25 miles inactive).

A Keeper 2003 update of this analysis (http://www.inletkeeper.org/pdf/200310rptupdate.pdf and entered into the record for these two dockets) with an additional year's worth of data shows:

- 10 oil pipeline releases in 12 months
- 50% of the oil pipeline releases occurred at the Swanson River Oil/Gas Field
- 1 release from a gas field pipeline
- 0 releases from offshore to onshore pipelines
- 0 releases caused by third-party damage

Table 1, below, shows the number of reported releases from non-transmission pipelines compared to the total number of pipeline releases during the period of analysis. *The high percentage of oil/gas field pipeline releases (44% from 1997-2001) and (55% from 9/15/02-9/15/03) indicates the extent of the problem of releases from non-transmission pipelines.*

Table 1
Number of Non-Transmission Pipeline Releases Compared to Total Pipeline Releases

Type of Non-Transmission Pipeline	1997-2001	9/15/02 - 9/15/03
Oil	27	5
Gas	4	1
Total Pipeline Releases Reported	70	11

Keeper also is concerned about a structural source for potential contamination of Cook Inlet -- operators currently can choose to do onshore oil-water separation to avoid regulation of offshore pipelines. Forest Oil's Osprey platform's multi-phase pipeline to shore apparently is unregulated by OPS, and thus poses an unnecessary risk of oil release into Cook Inlet. This facility began operations in 2002.

Similarly, Keeper is concerned that the lack of definitional clarity and regulation for natural gas pipelines upstream of transmission lines can result in direct contamination of Cook Inlet from natural gas condensates and produced water. As shown in Appendix A, which is a slide from the December 16, 2003 presentation by Cook Inlet Gas Producers (http://www.cycla.com/opsiswc/docs/s8/p0066/328,7,Cook Inlet Regulated Gas Pipelines; Slide 7), the underwater gas transmission line (i.e., CIGGS), which is downstream of regulated lines, is considered "non-regulated" by OPS. This is nonsensical, given the downstream nature of this pipeline from regulated lines and its transmission line functional characteristics. Likewise, the 5+ mile Marathon line from Wolf Lake to Beaver Creek and then to the Enstar line *functions* like a transmission line and should be regulated as such.[4]

II. B. North Slope

According to an August 14, 2003 memo to the docket (RSPA-2003-15864-1),

> The North Slope has 3,000 pipelines known as well lines that are 2 to 8 inches in diameter; 500 pipelines referred to as flow lines that are 6 to 60 inches in diameter with three phase/gas, water, and crude; and 12 pipelines known as transportation lines that are 2 to 24 inches in diameter, which move oil, gas, and product. *The [OPS] Team observed that most [North Slope] pipelines are referred to as production pipelines and are not considered by the operators to be jurisdictional.* (emphasis added)

[4] One serious risk from long distance pipelines in Alaska is the possibility that pipelines can cause major forest fires.

Given that many North Slope pipelines were built following issuance of the 1985 regulation that defined onshore production facilities, it is not surprising that the operators designed their facilities to avoid regulatory jurisdiction and oversight. What is the safety and spill record for these facilities, however? A recent report by ADEC shows that on the North Slope (excluding process water) 83% of reported spills (averaging 395 spills/year) representing 75% of the volume (averaging 59,208 gallons/year) came from transportation infrastructure, including 359 spills from FY96-02 of crude oil.[5] This report also provides information on process water spills, which includes produced water spills. 86% of the process water spills representing 96% of the volume comes from oil exploration and production facilities. Of the process water spills from FY96-02, the North Slope had 240 spills (67%) representing 1.3 million gallons (94%).

BP Exploration also submitted North Slope spill data to the docket (RSPA-1998-4868-141). These data show 57 spills from unregulated production well/flow lines over a five year period (volumes are not listed), including a 6000 gallon spill at a caribou crossing reported on May 27, 2003 (the spill had been ongoing for some time). Additionally, the BP submittal states that there were no hazardous liquid spills from DOT-regulated transmission pipelines. Clearly, these data show the release-prevention value of regulation and regulatory oversight.

II. C. Other States

Keeper has not systematically collected data from other areas on rural gathering lines and unregulated production and produced water lines. As discussed in the next section, Keeper recommends that OPS do some systematic data collection itself. Nevertheless, Keeper urges OPS to consider the following information Keeper has collected:

- Virginia safety concern - A January 20, 2004 unregulated gathering line rupture, see Appendix B.
- Texas environmental concerns - *Railroad Commission gets funds to study rural gathering lines, Information will be used to craft regulation proposal*, Ralph K.M. Haurwitz, Austin American-Statesman, February 21, 2002: "Many landowners contend that aging gathering lines are springing more and more leaks, harming soil, streams and underground water;" *Petroleum interests' money helps put state regulators in office*, Ralph K.M. Haurwitz and Jeff Nesmith, Austin American-Statesman, July 24, 2001: "However, neither the Railroad Commission nor the Office of Pipeline Safety regulates rural gathering lines, which feed crude oil and natural gas from wells to larger pipelines. Doug Beveridge, secretary of the Texas Land & Mineral Owners Association, says that's a mistake, especially in a state like Texas, where leaks from gathering lines threaten land, streams and water supplies. "We've always been so driven by petroleum dollars," said Beveridge, who is also vice president of minerals for the King Ranch in South Texas. "Our statutory and case law are pro-production. It's been good for the state, but I think we're looking at the beginning of the sunset of the industry. What kind of a Texas is it going to be if we don't start cleaning up this mess now?""; and Appendix C.
- New Mexico safety concern - There are two large diameter high stress gathering pipelines that run near Blanco Elementary School on HWY 64. One is a 16" diameter

[5] *Statewide Summary of Oil and Hazardous Substance Spill Data (Fiscal Years 1996-2002) Provisional Report*, Alaska Department of Environmental Conservation, Division of Spill Prevention and Response, November 2003, pp. III-21 and III-23.

gathering line operated by Burlington that has a maximum allowable operating pressure of 945 psig; the second one is a 24" diameter gathering line operated by El Paso Field Services which operates at 500 psig.

- Colorado safety concern - *Proposals address gas pipeline issues, Counties, industry draft plan targeting safety and land use*, Gargi Chakrabarty, Rocky Mountain News, December 10, 2003: "To ease concerns about building gas pipelines on private property and the overall safety of the lines, Colorado counties have joined with the energy industry to develop a set of regulatory guidelines…[W]e found a large portion of pipelines, mainly gathering lines that deliver gas from producing areas to processing plants, weren't being regulated by any agency."

III. Recommended OPS Actions

1) Perform release data analysis in other oil and gas production states. OPS needs to perform the labor-intensive release and spill data collection and analysis work that Keeper has done in states other than Alaska with appropriately low release reporting thresholds (California may be such a state). This work will demonstrate the extent of the gathering, production, and produced water pipeline release problem, particularly for hazardous liquids because of the generally greater availability of environmental contamination data.

2) Ensure that all pipelines causing release impacts are covered by regulations. As discussed in previous sections, due to an OPS administrative rulemaking in the 1980's, certain infrastructure since has been designed to avoid OPS regulations and regulatory oversight. Given the 1992 Congressional mandate to develop standards that protect the environment, this rulemaking may need to undergo review and updating, particularly as it applies to new facilities. Additionally, as discussed in THLPSSC meetings several years ago, the definition of "unusually sensitive areas" (USAs) needs review and updating so it addresses the factors missing including historic and cultural uses such as subsistence. These uses likely are important when regulating lines upstream of transmission lines, particularly in Alaska.

3) Recommend changes to Congress, as appropriate, to address pipeline problems uncovered in the data analysis. In 49 USC 60101(b)(2)(B)(ii), Congress specifically excluded pipelines less than 6 inches in diameter, operated at low pressure, and located in rural areas not unusually sensitive to environmental damage. Should the data analysis show as it appears to show in Alaska that this limitation results in preventable environmental damage, OPS needs to recommend that Congress change this provision.

4) Consider using functionality as the primary characteristic distinguishing gathering and transmission lines. From an engineering standpoint and to avoid regulatory confusion, long-distance lines with operator controls similar to transmission lines should be regulated as transmission lines (e.g., the CIGGS line under Cook Inlet and the Wolf Lake to Enstar pipelines in the Kenai National Wildlife Refuge in Alaska).

5) Protect workers as though they are the public. Releases from gathering, production, and produced water pipelines need to be prevented as they pose safety risks especially for workers.

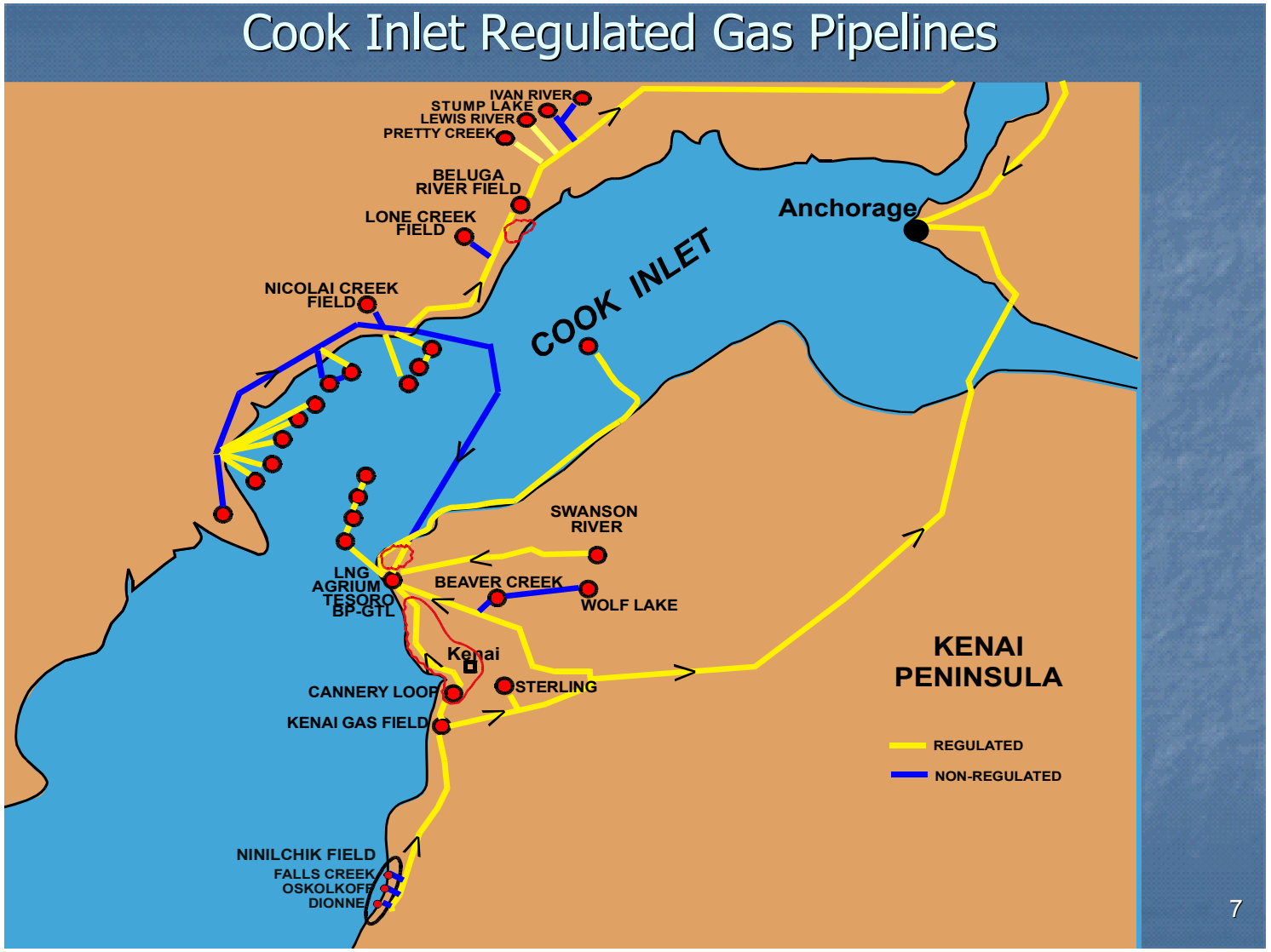
Conclusion

Thank you very much for your attention to Cook Inlet Keeper's comments. We look forward to providing additional input into future regulatory initiatives associated with these currently-unregulated pipelines.

Sincerely,

Lois N. Epstein, P.E.
Senior Engineer

Appendix A


Cook Inlet Regulated Gas Pipelines
IVAN RIVER
STUMP LAKE
LEWIS RIVER
PRETTY CREEK
BELUGA RIVER FIELD
LONE CREEK FIELD
NICOLAI CREEK FIELD
COOK INLET
Anchorage
SWANSON RIVER
LNG
AGRIUM
TESORO
BP-GTL
BEAVER CREEK
WOLF LAKE
Kenai
CANNERY LOOP
STERLING
KENAI GAS FIELD
KENAI PENINSULA
REGULATED
NON-REGULATED
NINILCHIK FIELD
FALLS CREEK
OSKOLKOFF
DIONNE
7

Appendix B

Gas pipeline explosion rocks Wise, shoots flames into air

By O'DONNA RAMSEY, Staff Writer January 22, 2004
http://www.zwire.com/site/news.cfm?newsid=10848146&BRD=1283&PAG=461&dept_id=158544&rfi=6

Several trucks parked at A&G Coal Co.'s office were destroyed by the explosion and fire.

The flames were so high that a corrections officer in the watchtower at Wallens Ridge State Prison in Big Stone Gap saw it.

People began flooding the county's central dispatch center with telephone calls around 4:45 a.m., reporting the explosion, according to sheriff's Major Gene Vanover.

The incident occurred a short distance outside the town's corporate limits near the Wells Bottom section. Equitable Production Co. owned the six-inch pipeline, which was buried about four to five feet beneath the ground, several feet from A & G Coal Co.'s office building.

No one was injured but the building sustained damage from fire, smoke and water, officials say. The fire also destroyed three of the company's vehicles, which were parked beside the area where the pipeline was located.

Wise Fire Department arrived on the scene within seven minutes of receiving the call, and firefighters spent the next hour dousing the A & G building with water inside and out to keep it from burning.

Fire Chief Conley Holbrook said it was a good thing firefighters were able to get the scene fast because the flames had already begun to break through the inner walls on one corner of the building. "In five more minutes, the building would have been down," he said.

The ground was shaking and the roar of the fire was so loud that, even while standing on a hill across the road from the flame, they could not hear each other speak.

"It's sort of a weird feeling," he said. "It was like standing next to a jet engine."

Firefighters were on the scene only to protect the surrounding structures and made no attempt to extinguish the pipeline fire. As long as gas was traveling through the pipeline, Holbrook said, the fire would continue to burn. The fire died down after Equitable turned off the gas.

At the scene late Tuesday morning, officials with the pipeline company and the state Department of Mines, Minerals and Energy were investigating the explosion. A & G Coal employees also milled about the property assessing damages.

The steel pipe, blackened by the flames, was sticking up out of the ground, and small whiffs of smoke rose from the dirt surrounding the crater. Wooden

utility poles were left leaning from the force of the blast, and burned television cable, power and telephone lines lay on the ground.

The company's charred trucks sat in a row close by the explosion site, and a plastic wheelbarrow near the building had been melted.

A Virginia Department of Transportation employee worked to clear debris, consisting mostly of dirt and rock, from the highway.

Equitable spokesman Jim Nellis said Tuesday the company is in the process of investigating the cause of the explosion. The investigation could take a couple of weeks or longer, he said.

The pipeline involved, Nellis explained, is a transmission line that carries gas from natural gas wells to larger lines that then transport the gas to companies that sell it to consumers.

The fracture in the line did not cause anyone to be without natural gas, he said, because companies usually have gas stored up for their customers. This particular line services East Tennessee Natural Gas, he noted.

According to spokesman Mike Abbott, DMME also will conduct an investigation into the explosion. The agency mainly will be looking to see if any state regulations were violated, he noted. So far it has found nothing to indicate the company violated any regulations.

A DMME inspector was on the scene Tuesday and Wednesday, and the agency also will receive incident reports on the cause of the explosion after Equitable has the fractured pipe analyzed, he said.

Abbott said the pipeline was installed sometime in the 1980s.

The only injury in this case happened to a firefighter, Adam Cox, who sprained his ankle after apparently stepping into a ditch.

Appendix C

http://www.austin360.com/local/partners/aas/specialreports/pipelines/23pipegathering.html

Unregulated rural lines stain the land at oil's source
By Ralph K.M. Haurwitz and Jeff Nesmith
American-Statesman Staff
Monday, July 23, 2001

CHARLOTTE Oil made many Texans rich. It's also killing grass and polluting creeks at the Hindes Ranch.

The beef and dairy operation 35 miles south of San Antonio is crisscrossed by gathering lines pipelines no more than 8 inches wide that carry crude oil and natural gas from production fields to larger lines feeding refineries and other collection points. The decades-old gathering lines at the Hindes Ranch have sprung hundreds of leaks during the past 15 years, said Bob Hindes, who owns and operates the ranch.

Hindes has photographs to back up his claim. You can also tell by the dozens of brown patches, some of them 60 feet long, amid the grasses and wildflowers.

"It makes a mess," Hindes said. "The ground's real soaked with salt water and oil. The grass won't grow for years. We've had spills that would run half a mile down the creeks."

The ranch's oil rights were sold off before Hindes bought the land, and the out-of-state oil producer is not required by any law, regulation or government agency to meet safety or environmental standards on rural gathering lines.

The federal Office of Pipeline Safety does not regulate such lines. Nor do many state pipeline agencies, including the Texas Railroad Commission. Gathering lines in urban areas, by contrast, are subject to regulation by the federal and state pipeline agencies.

Federal officials estimate that there are more than 200,000 miles of rural gathering lines. That would be enough to reach three-fourths of the way to the moon. Texas alone has 43,000 miles of such lines.

The General Accounting Office, the investigative arm of Congress, warned lawmakers 23 years ago that incidents involving rural gathering lines were on the rise and that regulation was warranted. Lawmakers and regulators have declined to act despite mounting evidence of the hazard.

For example, Koch Industries Inc. had more than 300 spills into water supplies in six states from 1990 to 1997, mostly from unregulated gathering lines, according to the U.S. Department of Justice.

"We discovered that 80 percent of the spills were caused by corrosion," said Michael Goodstein, a senior attorney for the Justice Department, which with the State of Texas prosecuted Koch under the Clean Water Act.

The company had a better record with its larger-diameter, regulated lines, Goodstein said.

A 1998 Railroad Commission investigation of Koch's pipeline system in Texas reached a similar conclusion. It found that gathering lines accounted for a third of Koch's Texas mileage but nearly two-thirds of what would have been considered safety violations if the lines were regulated.

The problems the commission found included testing and documentation deficiencies, as well as shortcomings in corrosion protection, line marking, protection of valves against vandalism and other matters.

The staff of Texas' Sunset Advisory Commission, a legislative panel that reviews state agencies, recommended last year that the Railroad Commission regulate rural gathering lines.

A report by the sunset commission staff reached an unusually blunt conclusion: "State regulation of pipelines does not adequately protect the public."

The Railroad Commission opposed the recommendation, and the Legislature declined to compel the agency to regulate rural gathering lines.

The environmental and safety risks posed by the lines,

which operate at low pressure in generally isolated areas, do not warrant the dramatic increase in funding that would be needed to regulate them, said Michael Williams, chairman of the Railroad Commission.

"We don't have a real history of gathering lines breaking, exploding or posing a danger to ground water," Williams said. "That doesn't mean it's never occurred."

Hindes isn't the only rancher with problems. The Texas Land & Mineral Owners Association says more and more landowners are discovering leaks as gathering lines age.

"There's no pressure-testing of these lines," said Doug Beveridge, secretary of the association and vice president of minerals for the King Ranch, which covers an area in South Texas larger than Rhode Island. "There's no requirement for the type of steel they put into these lines. No one even knows where they are. We've wondered forever for our ranch where are all the lines?"

Unlike the Hindes Ranch, the King Ranch benefits from the oil production, receiving one-eighth of the royalties under the terms of a 1933 lease. ExxonMobil, which holds the lease, generally seals leaks promptly, Beveridge said. Some ranches have numerous leaseholders, even dozens, making it difficult to assign blame and to obtain repairs.

Beveridge worries about leaks that he can't see.