Improving Pipeline Safety Through Streamlined Repair Permitting

Background

On December 1, 2000, the Office of Pipeline Safety (OPS) published its final rule on Pipeline Integrity Management in High Consequence Areas (for Hazardous Liquid Operators with 500 or More Miles of Pipeline). This rule, which took effect on March 31, 2001, is the culmination of months of work by OPS, the affected industry, and other concerned interests. It addresses a broadly shared commitment to provide the public living near pipelines with renewed assurance that their safety is in good hands and that sensitive environmental values are being protected. The rule contains both the specific requirements and the flexibility needed to improve public safety and to protect the environment.

In addition to new requirements for periodic integrity assessments and data analyses for pipelines in "high consequence areas" (e.g., highly populated or environmentally sensitive areas), one major element of the rule is a new requirement for "prompt remedial action" by a pipeline operator to address all pipeline integrity issues raised by these assessments and analyses. As part of this general requirement of "prompt" repair, the rule also specifies time frames in which an operator must complete repair of certain significant conditions on the pipeline. Depending on the severity of the condition or the risk it poses to public safety or the environment, the repair time frames specified in the rule are immediate repair conditions, 60-day conditions, or 6-month conditions. For pipeline conditions not specified in the rule, the operator determines the schedule for evaluation and repair, based on general risk factors set forth in the rule and pipeline-specific factors developed by the operator.

Time Delays Associated with Permitting Can Compromise Pipeline Safety

Unfortunately, the new rule's public policy of encouraging the speedy repair of dangerous pipeline conditions, consistent with industry best practices to improve pipeline safety, collides with a different practical reality: the significant environmental permitting requirements of federal, state or local agencies that can be triggered by these pipeline safety projects. For example, projects that discharge dredged or fill material from pipeline excavations into the "waters of the United States" (per the Clean Water Act) require a Section 404 permit from the Army Corp of Engineers (COE). Generally, the COE may issue two types of permits: an individual permit or a nationwide permit (NWP). An individual permit is required for activities that result in more than a de minimis impact on the environment. Individual permits may require public review and can take a year or more to obtain. The COE's NWP Program, by contrast, is intended to provide quick approval of permits for classes of projects that have been determined by COE to have only a de minimis impact on the environment. Regardless of the permit type, however, the applicant is required to meet several conditions intended to protect endangered species and cultural resources.

Under some NWPs, a project applicant can commence work without notifying the COE, provided that all nationwide permit conditions are met. Certain NWPs, however, require the applicant to submit a pre-construction notification (PCN) to the COE. A PCN can in turn trigger extensive federal agency (EPA, Fish and Wildlife, BLM, etc.), state agency (coastal commission, state water board, state fish and game), and local review as part of the approval process, in spite of the fact that the NWP program is intended to expedite permit issuance. Within the PCN process, COE coordinates interagency review. Thus, in the end, final environmental permit approval can take one year or more, thereby undermining the intent of the NWP Program as a whole.

These permitting delays have important ramifications for pipeline It is unlikely that safety-critical pipeline repair projects, required by OPS's new rule to be completed within 6 months or less, can in fact be accomplished within the specified time frames when agency review and site specific permitting is triggered. A pipeline integrity management program may identify a potentially hazardous condition in a pipeline segment, but investigating and remedying the situation will generally involve excavation activities that trigger COE or other types of permits. The extensive permitting process can delay pipeline repair projects beyond the time allowed under OPS rules (e.g., immediate to 6 months) – timeframes based on quickly remedying potentially hazardous situations.

Pipeline Safety and Permitting Should be Compatible

If prior agency approval is required before excavation activities can begin (e.g., the PCN process is triggered), public safety *and* the environment in a "high consequence area" could be seriously compromised in the interim, or pipeline throughput reduced as the pipeline lowers pressure or shuts down pending repair, which will affect supplies to the public. This unnecessary clash between the policies of improving pipeline safety and ensuring reliable energy supplies on one hand, and protecting the environment through the permitting process on the other, should be addressed by Congress in the pending pipeline safety reauthorization bill. The current permitting process must be evaluated and streamlined to rationalize and shorten the time requirements of federal, state, or local permitting agencies. The result would be that important safety conditions are promptly addressed as required by the OPS repair deadlines, and good safety management practices, while appropriately protecting the environment.

Legislative Recommendations

On the federal level, OPS should evaluate the current permitting processes that can be triggered by pipeline repairs, with initial emphasis on the Section 404 process. It should evaluate ways to streamline the environmental permitting process to expedite addressing potentially hazardous conditions in pipelines. For this evaluation, it is critical that OPS include federal agencies such as the COE, EPA, Fish and Wildlife Service, National Marine Fisheries Service, Bureau of Land Management, etc. In addition, key state

agencies should be consulted. Also, local agencies that have jurisdiction in pipeline operating areas should be included

Many excavation, repair and remediation activities are the same throughout the industry. The best management practices used by the industry should be pre-reviewed and administrative permits developed, such as a Nationwide Pipeline Safety Permit or Habitat Conservation Plan, so that pipeline safety and environmental protection objectives can be met simultaneously *and expeditiously* by pipeline operators.

Pipeline repair activities that:

1. Follow these best management practices; and
2. Notify OPS that they will be using these practices on a specific repair project as part of their pipeline integrity management plan,

will considered to have a "permit by rule," and no further permit applications or approvals will be required under federal law. Once the repair is completed, OPS will be notified that the project was completed in compliance with the best management practices.

For any project that is not able to comport with best management practices, the operator should prepare a site-specific management plan for the repair activity. This plan should be submitted to appropriate permitting agencies and OPS. The operator should then be allowed to proceed with repair activity under the "safe harbor" provided by the plan if agency approvals are not obtained within a reasonable time frame. During any necessary permit review, OPS can act as an ombudsman between the permitting agency and the company submitting the pipeline repair plan.

Case Study – Pipeline Repair in California

Project Overview: In California, a pipeline company initiated a project in 1999 to repair a 6-inch petroleum product pipeline carrying gasoline, diesel, and jet fuel. The pipeline crosses a seasonal stream, dry creek bed. The project involved repairing the pipeline's external coating, and repairing an eroded creek bank along a 45-foot section where the pipeline crossed the creek bed. This type of repair project is similar to other maintenance and repair projects the pipeline company currently undertakes about 2 to 3 times per year within each of its pipeline systems.

Overview of Permitting Process: The project took 14 months to permit. Permitting involved 4 different federal and state regulatory agencies. The U.S. Army Corps of Engineers was the lead agency for permitting. They were involved because the seasonal stream, dry creek bed is considered part of the 'waters of the United State', and repair of the eroded bank would impact those waters. The U.S. Fish and Wildlife service was also involved due to the potential presence along the creek bed of the federally listed endangered species, the California Red Legged Frog. California agencies involved were the California Department of Fish and Game and the California Regional Water Quality Review Board.

Six different federal and state permits were required for the project – 4 which required agency review and approval prior to construction, and 2 that did not. The permits were:

- A streambed Alteration Agreement with the California Department of Fish and Game (that included a California Environmental Quality Act review as part of the approval process)
- A California Red Legged Frog (CRLF) Programmatic consultation with the U.S. Fish and Wildlife Service
- A Clean Water Act Section 404 Notification to COE which triggered pre-construction review and approval by COE,
- A Water Quality Certification Exemption from the California Regional Water Quality Control Board. (that included a California Environmental Quality Act review as part of the approval process).
- Two Nationwide (general) permits from that U.S. Army Corps of Engineers (that were included in the approved COE permit).

Approximately 40 permit conditions were included within the 6 permits. Permit conditions addressed the following general areas:

- Protecting soil and water from contamination during repair activities,
- Biological monitoring and protection for the CRLF,
- Protection of the stream bed contours, and
- Prohibiting debris or other unsuitable materials as fill in streambed or band reconstruction.

The potential presence of sensitive resources such as endangered species was the critical path for permitting time required. No species were actually found at this site but measures were taken to address their potential presence. If endangered species had been found in the immediate vicinity of the work area, the permitting time could have been considerably longer.

Lessons from Case Study: There are a number of ways to improve the permitting process. Fourteen months is too long to permit a relatively straightforward pipeline repair activity. It is not possible meet the OPS rule repair time limit (e.g. immediate to 6 months) at locations where environmental permitting (with its extensive agency interactions) is required.

Ways to streamline the permitting process include:

- Streamlining the COE permitting process to expedite pipeline repairs while protecting the environment. Agency pre-review and approval of relatively routine activities prior to their commencement is not necessary. An alternative approach is to develop a best set of management practices to protect the environment during repair activities, possibly similar to a Habitat Conservation Plan or a Nationwide permit, that includes all jurisdictional agencies. Repair activities that use these best management practices would not require prior review and approval.

- COE permitting in states such as California is sequential i.e. the Corp reviews, then requests consultation with the U. S. Fish and Wildlife Service, and then the COE requests a water quality certification from the California Regional Water Quality Control Board. Each agency approves a permit before they pass the ball to the next regulatory agency. Instead there should be a parallel review process. For projects that don't qualify to use best management practices, OPS could act as an ombudsman to resolve permitting issues among the various agencies – and improve the safety of pipelines.

- Alternatively, for projects that require agency review, a site-specific plan for conducting the pipeline repair could be developed and submitted to the appropriate agencies for their review. If agencies did not respond after an appropriate interval – consistent with time requirements in the recent OPS rule - the repair project could proceed under the 'safe harbor' of the conditions proposed in the applications.