Attachment P

Responses to Supplemental Information Requests

Contents

Response to SIR-1, Section 3.7(3)

Estimated daily wage levels are included in the table below:

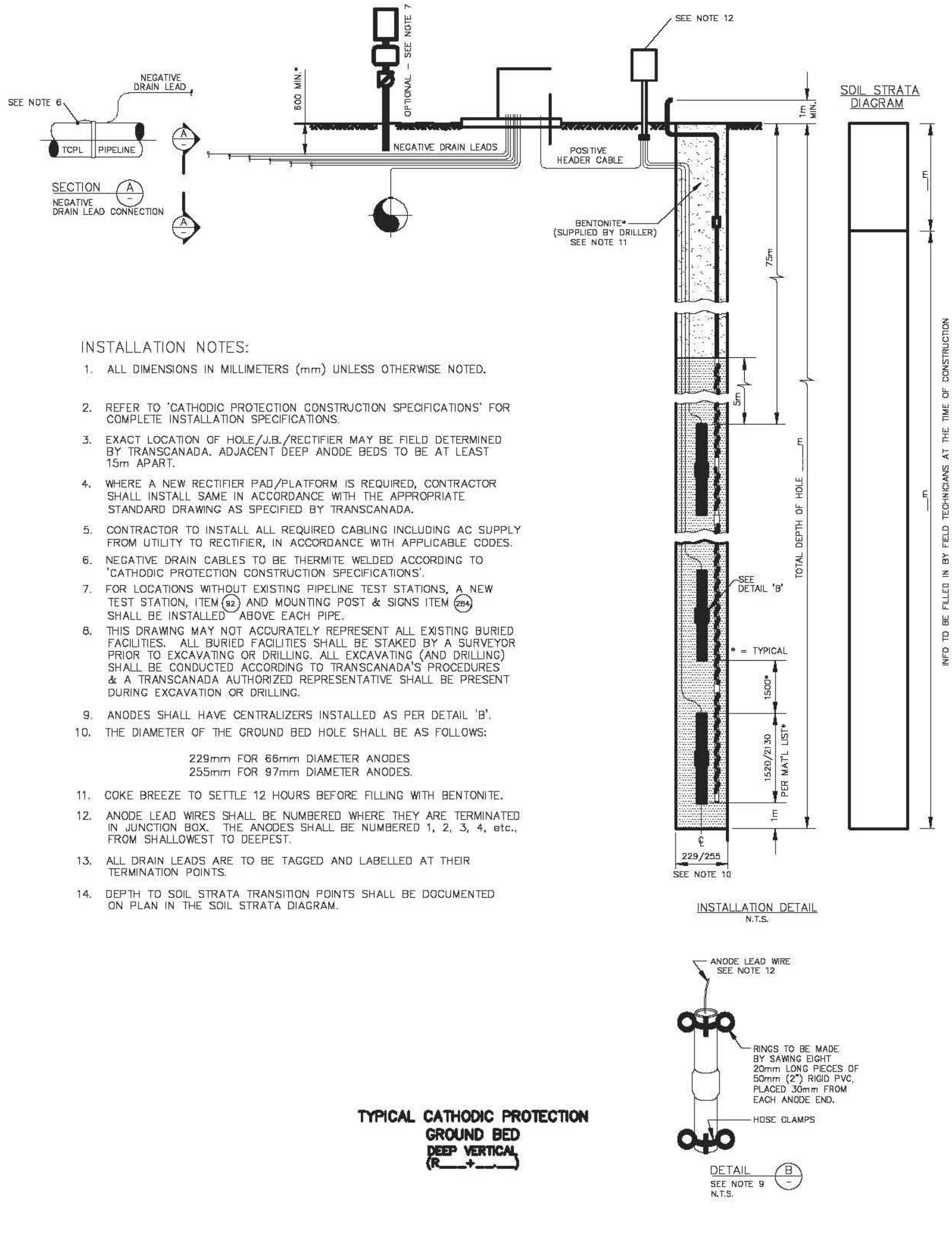
Job Title	Min. Daily Wage	Max. Daily Wage
Construction Labor		
Supervision	$650	$1,200
Operators	$330	$440
Welder helpers and welders	$390	$750
Laborers	$300	$350
Construction Management		
Construction management supervision	$670	$880
Construction inspectors	$530	$970
Surveyors	$600	$970
Field office administration	$470	$580

Response to SIR-1 Section 3.7(9)(c)

Although much of the route in Montana is remote and access can be poor particularly in winter, Keystone will be able to effectively respond in the event of a pipeline emergency. To prevent and quickly identify emergencies, the pipeline will be continuously monitored, regardless of weather conditions. As discussed in Section 1.3.2, 1.5.1.2, and 1.5.6. Keystone will monitor the pipeline from a remote operations center using its SCADA system. Information from sensors along the route will be relayed to the control center at 5 second intervals. Keystone will also conduct routine aerial surveys (discussed in Sections 1.3.2 and 1.5.6) 26 times per year, not to exceed a 3 week interval. Local Keystone contractors also will conduct routine visual inspections of the ROW from road crossings. To address poor access in the event of an emergency, as part of its emergency preparedness planning Keystone will pre-position emergency contractors and equipment, accounting for potential seasonal access constraints. In the event that there is an emergency along the ROW, remotely operated valves and pump stations will be shutdown from the operations center, thereby isolating the affected segment and limiting spill volume. Finally, emergency responders will access the spill site using whatever means necessary (e.g., trucks, ATVs, snowmobiles, helicopters). The ERP will identify potential access constraints and identify transportation equipment required to ensure a prompt response.

Response to SIR-1.5

Diagram of Rectifiers and Anode Ground Beds



Response to SIR-1.19

Keystone will employ multiple safeguards to prevent and minimize impacts from a potential pipeline release. Broadly, these safeguards encompass routing (e.g., minimize stream crossings; avoidance of sensitive waterbodies, when feasible), material selection (e.g., steel grade, pipeline coating), engineering design (e.g., valve locations), pre-operational testing (e.g., hydrostatic testing, non-destructive testing of welds), continuous operational monitoring (e.g., SCADA, aerial surveillance, leak detection systems, in-line inspection tools), and emergency preparedness (e.g., Emergency Response Plan, pre-positioned personnel and equipment, on-going integrity management planning). Consequently, the chance of a spill occurring is low. Keystone has conservatively estimated (i.e., over-estimated risk) that the chance of a pipeline incident is no more than one spill in 8,400 years for any given mile of pipe. If a spill did occur, the volume is likely to be relatively small (i.e., 3 barrels or less) and would likely be contained within the pipeline trench. The simultaneous probability of a spill occurring, its location being in immediate proximity to surface water, and being of sufficient volume capable of escaping the trench and reaching a flowing stream is very low.

In the unlikely event of a pipeline release did reach surface waters (e.g., flowing streams, wetlands), Keystone would initiate its Emergency Response Plan, immediately notify the appropriate federal and state agencies, and Keystone teams would be immediately deployed to contain and cleanup the spill. The ERP contains detailed information on response times, personnel, training, and equipment that would be deployed in an emergency. Montana-specific details will be developed when the route is finalized, but prior to initiating pipeline operation.

If a spill affected surface waters, the appropriate remedial measures will be implemented to meet federal and state standards designed to ensure protection of human health and environmental quality. Remedial actions may include continued deployment of booms on surface waters, washing of rocky shorelines, controlled burns, excavation and removal of contaminated soils along shorelines and other affected areas, and allowing the contaminated soil to recover through natural environmental fate processes (e.g., evaporation, biodegradation). Decisions concerning site-specific remedial methods and extent of the cleanup will account for state-mandated remedial cleanup levels, potential effects to sensitive receptors, volume and extent of the contamination, potential violation of water quality standards, and the magnitude of adverse impacts caused by remedial activities. Corrective remedial actions will be dictated by federal regulations and enforced by the USEPA and PHMSA and the appropriate state agencies.

Response to SIR-1.28

Initial routing of the Keystone XL pipeline was performed in the office through use of maps and GIS. This desktop analysis represents the first phase of the route selection process used by Keystone. After initial routes were identified, personnel performed a preliminary survey from public roads. This second phase resulted in further refinement of the initial selected route alternatives.

- Abutting Keystone XL Project with the Foothills Pipeline ROW in Canada would allow at least a portion of the construction disturbance associated with the Project to overlap with areas temporarily or permanently disturbed during Foothills Pipeline construction. This would reduce the area of construction on new, previously undisturbed lands (greenfields construction), and correspondingly reduce new impacts to soils, vegetation, and wildlife in the area. Incremental disturbance would be noticed by landowners along the Foothills Pipeline ROW; however, new landowners impacted by construction of an additional pipeline would be limited. The need for new permanent access roads would also be minimized, limiting available roadways thus minimizing access and congestion on surrounding lands.
- Construction limitations at Fort Peck Reservoir are primarily related to avoiding permitting or scheduling constraints on surrounding lands. Permits to cross the Fort Peck Indian Reservation, following the Northern Border ROW would cause significant delays in the desired timeline, and surface disturbance is not allowed in the Charles M Russsell National Wildlife Refuge to the southwest of the proposed crossing on Alternative B.
- In Montana, the Western Alternative is essentially the same as Alternative B. The Western Alternative roughly follows Alternative B to Tripp County South Dakota, diverging there and travelling in a southeastern direction through Nebraska, Kansas, and northern Oklahoma to meet the northern terminus of Phase 1 of the Keystone XL Project at Cushing, Oklahoma.
- See the table on the following page for miles of new and existing pipe required for each alternative of the Steele City segment. Construction of a new pipeline will disturb approximately 14 acres per mile of pipe. Each 100 miles of pipeline construction translates into approximately 1,400 additional acres of disturbance and associated environmental and landowner impacts. Connection to existing pipelines (i.e., the Keystone Cushing Extension) will cause limited or no new disturbance.

Route Option	Route and the Corresponding Alternative	Mileage (new pipe construction)	Mileage (connection to Keystone Cushing Extension)
Western	Western Alternative – direct line to Cushing, Oklahoma	1,110	0
Segment A	Eastern route through Montana, North Dakota, South Dakota, and Nebraska, to connect to the Keystone Cushing Extension at Steele City	920	298
Segment A1A	Eastern route through Montana, North Dakota, South Dakota, and Nebraska, to connect to the Keystone Cushing Extension at Steele City, avoiding BIA lands.	951	298
Segment B	Eastern route through Montana, South Dakota, and Nebraska, to connect to the Keystone Cushing Extension at Steele City.	850	298

Response to SIR-1.35

Landscape "feathering" is a technique that is particularly effective for linear projects in areas with relatively dense vegetation. There are only a few places on the Keystone XL Project where it would be useful, but it should be kept in the "toolbox" for potential use. The concept is to avoid sharp, linear visual breaks such as may occur when clearing a pipeline corridor through a mature forest, for example. Rather than cutting and clearing all trees and shrubs in the easement and leaving everything else, the margin between the cleared area and the dense vegetation would be treated more selectively. For example, some larger trees beyond the easement would be removed while smaller trees and shrubs would be retained. Also, some areas outside the easement would be harvested to simulate a more natural pattern of open and vegetated areas. If necessary, young trees or shrubs might be planted to reduce the contrast between the mature forest and the cleared easement. A landscape architect, visual analyst or horticulturist should participate in the process to implement the feathering technique.