Docket No. 272 - Development and Management Plan Inspection

The Connecticut Light and Power Company Certificate of Environmental Compatibility and Public Need for the construction of a new 345-kV electric transmission line and associated facilities between Scovill Rock Switching Station in Middletown and Norwalk Substation in Norwalk, Connecticut, including reconstruction of portions of existing 115-kV and 345-kV electric transmission line, the construction of Beseck Switching Station in Wallingford, East Devon Substation in Milford, (and Singer Substation in Bridgeport), modifications at Scovill Rock Switching Station and Norwalk Substation, and the reconfiguration of certain interconnections.

Underground Line Watercourse and Railroad Crossings

Date: December 12, 2007

Inspector: Gregory Sommer & Margaret Washburn

Location: <u>Crossings of Watercourses and Railroads in Segments 3, 4a and 4b</u>

Rain Event: 0.46" of precipitation was reported since the previous inspection, with 0.29" of the

total recorded on 12/09 (Bridgeport, CT NOAA data).

Areas of Inspection	Observation	Recommended Action	Corrected Action
Access Roads and Adjacent Roadways Saugatuck River	On the east side of the Saugatuck River, the stone construction entrance to the adjacent paved parking lot off Imperial Ave. has been refreshed. Sediment tracking was not an issue. 12/12/07	Continue to maintain construction entrance to reduce sediment migration from the work area. Continue to sweep the parking lot area as necessary. 12/12/07	Continue to monitor.
Ash Creek	Temporary work zone/ lane closures remain along Old Post Road near Ash Creek as crews continue the HDD. Heavy equipment were on-site within the protected work zone. A significant amount of drilling mud was noted on the roadway. 12/12/07	Monitor the work area for tracking or slurry residue as activity increases. Minimize unnecessary impacts. See erosion control section for more details. While drilling mud spills here during active work, the contractor states that crews clean it up regularly. 12/12/07	Contractor stated that drilling mud spills on the pavement are swept regularly.
Housatonic River	A temporary staging area is in place on the west side of the Housatonic River in a parking lot behind a shopping plaza. Heavy equipment were onsite. 12/12/07	Monitor the work area for tracking or slurry residue as activity increases. Minimize unnecessary impacts. See the erosion control and spills/material storage sections for more detail. 12/12/07	Continue to monitor.
Vault Openings and Trench Construction Saugatuck River	On the east side of the Saugatuck River, the drilling rig has been	Monitor and maintain sediment and erosion controls. 12/12/07	Not Applicable (NA)

Areas of Inspection	Observation	Recommended Action	Corrected Action
	relocated from the lay- down yard into the adjacent asphalt parking lot. 12/12/07		
Ash Creek	Drilling continues on the southwest side of Ash Creek. Crews expect to pull conduits through next week. 12/12/07	Monitor carefully for drilling fluid releases and continue to address as specified in the monitoring plan provided in the D&M. Contractors have been monitoring pressure and making regular visual inspections of the creek. 12/12/07	NA
Housatonic River	Drilling has temporarily stopped along the Housatonic River. The reamer is stuck under the river. The drilling rig currently located at the Saugatuck River will be brought in to help dislodge the reamer. Crews were assembling conduit sections on the east side. 12/12/07	Monitor carefully for drilling fluid releases and continue to address as specified in the monitoring plan provided in the D&M. Contractors have been monitoring pressure and making regular visual inspections of the river. 12/12/07	NA
Erosion and Sediment Controls Saugatuck River	Any exposed soils have potential for airborne dust migration. Contractors are aware of the potential. On the east side of the Saugatuck River, crushed stone has been placed throughout the staging area to reduce tracking and dust. 12/12/07	Prevent dust migration by implementing the dust control measures. 12/12/07	Crushed stone was placed throughout staging area.
	Hay mulch was applied over previously exposed soils on the west side of the Saugatuck River near sta. #236. 12/12/07 Minor sediment is accumulating along the shoulder of Riverside Avenue as vac trucks and other vehicles exit the work area. 11/21-12/12/07	Ensure that catch basins located down gradient of areas where vehicles are exiting the work zone have gutter buddy/silt sack (or similar) in place. Sweep roadway as necessary. 11/21-12/12/07	Needs attention. Contractor stated they will install crushed stone and/or geo-textile fabric over the ruts to control tracking and minimize further impacts.

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	Silt fence, haybales and mulch remain in place around the drill pits on the west side of the Saugatuck River.12/12/07	Continue to monitor and maintain the controls to ensure they adequately contain the area. 12/12/07	Continue to monitor
	On the east side of the Saugatuck River, sagging sections of silt fence have been repaired. 12/12/07	Continue to monitor and maintain the controls. Identify areas of potential high flow or run-off and reinforce controls when necessary. 12/12/07	Sagging silt fence has been repaired.
Ash Creek	Catch basins near Ash Creek have been protected and surrounded with hay bales, including the basin adjacent to the northeast drilling pit. On the west side of the river leaves, debris, and runoff/ slurry material has accumulated along the curb line near a protected catch basin. 12/12/07	Continue to monitor and maintain sediment control measures. Remove accumulations of drilling mud/slurry and other debris when feasible. Contractors state the area is cleaned regularly as spills are common during active work. 12/12/07	Contractors state the area is cleaned regularly. Continue to provide attention.
Housatonic River	Perimeter controls are fully in place around the work area on the west side of the Housatonic River. 12/12/07	Continue to monitor the area and maintain the controls to ensure they adequately contain the area. 12/12/07	Continue to monitor.
	The dirt berm around the drilling pit has been built-up and appears to be slightly higher than during the previous inspection. 12/12/07	Continue to monitor the area. Ensure adequate capacity for drilling materials as well as stormwater run-off. 12/12/07	The berm was reinforced and the contractor stated they would reduce the level of mud in the pit at the end of each work day.
	Haybales and silt fence remain in place as an added precaution to contain a frac-out area within the pavement on the east side of the Housatonic River. 12/12/07	Continue to monitor the area. 12/12/07	NA at this time
	On the eastern bank, a haybale check dam has been installed along the	Extend controls to encompass all exposed soil. 12/12/07	Haybales were installed. More controls could be

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	south side of the staging area to prevent run-off to an adjacent resource area. 12/12/07		used.
	On the east side of the Housatonic River; an area along the west side of the staging area has been regraded to accommodate the drilling rig. The newly graded dirt berm has generated a large area of exposed soil with no controls between the work and an adjacent resource area. 12/12/07	Temporarily stabilize exposed soils with hay mulch and add controls. Permanently stabilize area when feasible. 12/12/07	Needs attention.
Inland Wetland and Watercourse encroachment and mitigation	The HDD of the Saugatuck River and associated wetlands in Westport continues. Clean-up continues for frac outs within the river. 12/12/07	Continue to implement the approved monitoring plan for the crossing of the Saugatuck River provided in the D&M plan. 12/12/07	NA
	The HDD of Ash Creek and associated wetlands in Fairfield and Bridgeport continues. 12/12/07	Continue to implement the approved monitoring plan for the crossing of Ash Creek provided in the D&M plan 12/12/07	NA
	The HDD of the Housatonic River and associated wetlands in Stratford and Milford continues. 12/12/07	Continue to implement the approved monitoring plan for the crossing of the Housatonic provided in the D&M plan. 12/12/07	NA
	On the east side of the Housatonic River, an area along the west side of the staging area has been regraded to accommodate the drilling rig. The grading has created a dirt berm adjacent to a wetland resource area. 12/12/07	Install erosion control measures between the dirt berm and the adjacent resource area. See crosion controls section for more details. 12/12/07	Needs attention
Staging, Storage, and Parking Areas Saugatuck River	A staging area remains on either side of the Saugatuck River to	See erosion control section for more details. Contain all material within	NA at this time.

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	accommodate the HDD activities. On the east side of the river, the staging area is within a gravel parking area. On the west side, staging is within a paved parking lot of a church. 12/12/07	the established limits of both yards. 12/12/07	
	On the east side of the river, several hoses are being used in the HDD operation and are located outside of the contained, silt fence limits of the staging area. Hoses also appear to be placed under the silt fence at one point. 10/25-12/12/07 The contractor states a natural berm here will provide additional containment.	Wherever feasible, relocate hoses within the staging area, using the silt fence to protect surrounding areas from potential spills or leaks. When hoses need to leave the contained area, construct forked or Y-shaped stakes to prop the hoses over the silt fence rather than under the controls. 10/25-12/12/07	Continue to monitor and evaluate.
Ash Creek	A temporary work zone has been established along Old Post Road on both sides of Ash Creek to accommodate the HDD activities. 12/12/07	See erosion control and spills/material storage sections for more details. Contain all material within the established limits of work zone. 12/12/07	NA at this time.
Housatonic River	A staging area has been established within a paved parking lot in the back of a shopping plaza on the west side of the Housatonic River to accommodate the HDD activities. A drill pit/work area is also located to the east of the River within a paved access. 12/12/07	Contain all material within the established limits of work zone. Further containment and planning may be necessary here. See erosion control and soils sections for more details. 12/12/07	Continue to monitor:
Soils	Soils are exposed as part of the drill set-up and excavations at each HDD. Drilling slurry (bentonite clay) is used in the process. 12/12/07	Monitor for dust as previously indicated. See the spills and material storage section. 12/12/07	NA
	Drilling work continues on the second hole at the	Continue to monitor the amount of slurry in relation	Requires regular attention and

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	Saugatuck River. The drilling pit within the east side staging yard was adequately sized for the drilling operations. 12/12/07	to the size of the pit to ensure adequate storage capacity. Also consider impacts from future storm events and run-off. 12/12/07	monitoring.
	On the west side of the Saugatuck River, hay mulch has been placed on exposed soil in the park adjacent to the river. This area is no longer being used. 12/12/07	Continue to provide soil stabilization. 12/12/07	Hay mulch has been placed on exposed soils.
	The drilling pits have been excavated on both sides of Ash Creek. 12/12/07	Continue to monitor the amount of slurry in relation to the size of the pit to ensure adequate storage capacity. Also consider impacts from future storm events and run-off. 12/12/07	NA
	Drilling pits are excavated on both sides of the Housatonic River. Drilling pits on the west side of the Housatonic River have a small dirt/sand berm around portions of the perimeter. Drilling mud is less than 6" from overtopping the pit in some locations. 12/5-12/12/07	Ensuring adequate storage capacity for drilling muds is essential. Impacts from storm events and related run-off must also be considered. A large amount of stormwater could result in a serious discharge from the pit to the resource area. Consider expanding the pit, additional containment, or a contingency plan for large storms 12/12/07	Needs evaluation. Contractor states that they will reduce the level of mud in the pits at the end of each workday.
State species of concern, threatened and endangered species.	According to the D&M plan, state-listed species are not located in this work area.	None.	NA
Vegetative clearing (including trees to save or danger trees noted) or stabilization	Although not marked on the D&M, a row of hedges/shrubs was removed (9/18) from the west side of the river near sta. #235+75. The contractor states that the property owner removed the shrubs in preparation for the HDD work. 12/5-	If shrubs were removed by the property owner prior to HDD work, then discuss and reach an agreement with the property owner regarding the final restoration measures. 12/5- 12/12/07	Contractor states the property owner removed the shrubs. Needs evaluation during restoration.

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	Shrubs were removed from the west side of the river near sta. #234+50 as per the D&M Plan 12/12/07	When work is completed, restore the area as indicated in the D&M plan. 12/12/07	NA at this time.
Dewatering	Dewatering activities were not observed at this time. However vac trucks were used to attend to some frac-outs. 12/12/07	Continue to ensure that material is contained appropriately and treated according to the groundwater handling plan as referenced in the D&M. 12/12/07	NA
Blasting	No blasting has been proposed. 12/12/07	None 12/12/07	NA
Spills and Material Storage	Reserve spill cleanup materials/kits were observed in the staging area. 12/12/07	Continue to bring spill kits to active work sites. 12/12/07	NA
	A few spills of the drilling fluid were noted in each location (especially near the west side of the Housatonic River), which were attributable to the disconnecting of hoses. 12/12/07	Use caution when disconnecting hoses to prevent incidental slurry spills. Properly clean and dispose of spilled material. Material at the Housatonic was swept up. 12/12/07	Continue to monitor.
Saugatuck River	Slurry material was previously spilled in the staging area on the east side of the Saugatuck River. Stone has been spread throughout the yard making it difficult to determine if the spilled materials have been properly removed. 12/12/07	Remove and properly dispose of slurry material where possible to minimize unnecessary impacts. 11/21-12/12/07	Stone was installed in the yard and all material should be removed during restoration.
	Sand material has been stockpiled near the entrance to the staging area on the east side of the Saugatuck River: Silt fence has been installed around the stockpile. 12/12/07	Maintain erosion controls to properly contain the stockpiled material. 12/12/07	Silt fence was installed around the stockpile.

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	On the east side of the Saugatuck River, sediment from the small frac-out that had previously occurred near the access driveway adjacent to the staging area, had been cleaned up. The sand bern was replaced with silt fencing and hay bales. 12/12/07	Maintain erosion controls and continue to monitor the area. 12/12/07	Sediment from the frac-out has been cleaned up and contained with silt fence and hay bales.
Ash Creek	The slurry material regularly falls/drips on the pavement on the east side of Ash Creek adjacent to the drilling pit when active work occurs. 12/12/07	The catch basin remains protected and the contractor states they are providing regular attention here to clean the area. 12/12/07	The contractor states they are providing regular clean-up here.
Housatonic River	On the west side of the Housatonic River excavated asphalt, soil, and other debris has been temporarily stockpiled near the perimeter of the protected work zone. The contractor has removed some of this material and indicated that this debris had been placed there by others. 12/12/07	Continue to ensure the work area is fully contained with perimeter controls. Minimize activities in this area to avoid unnecessary impacts. 12/12/07.	Portions of the debris were removed.
	The large drill pit on the west side of the Housatonic River is intended to facilitate drilling activities and project sequencing. The contractor indicated that some slurry must remain in the pit overnight during cold weather to prevent the equipment from freezing but they will reduce slurry levels at the end of each workday. 12/12/07	Continue to monitor the amount of slurry in relation to the size of the pit to ensure adequate storage capacity. Also consider impacts from future storm events and run-off. 12/12/07	Contractor states that the level of slurry in the pit will be lowered at the end of each workday to provide additional capacity.
Additional Observations	On the east side of the Housatonic River, piles of asphalt debris were observed at the parking	None. 12/12/07	NA

Areas of Inspection	Observation	Recommended Action	Corrected Action
	lot under I-95. This appears to be due to others. 12/12/07		

Next likely scheduled		
inspection:	Thursday, December 20, 2	2007

I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statements made in this document or its attachments may be punishable as a criminal offense in accordance with Section 22a-6 under Section 53a-157 of the Connecticut General Statutes.

 Field Inspector:
 Gregory Sommer & Margaret Washburn, BSC Group

 Reviewer:
 Diana Walden, BSC Group



On the east side of Ash Creek silt fence and hay bales remain to prevent sediment from entering the creek near the water valve.



On the west side of Ash Creek, drilling continues. Adjacent catch basin remains protected. Slurry spills are common during active work but contractors state that the area is cleaned regularly.



Crushed stone has been placed over the staging area on the east side of the Saugatuck River to reduce sediment tracking.



Hay mulch has been spread over exposed soils in the park area along Riverside Avenue. In the background, clean-up efforts from several drilling frac-outs continue along the Saugatuck River.



On the east side of the Housatonic River, a dirt berm has been re-graded and has been pushed closer to the wetlands. No silt fence or hay bales were observed between the exposed soil and the wetlands. Stabilize exposed soils and add controls.



On the east side of the Housatonic River, a hay bale barrier has installed to trap sediment before it reaches the adjacent resource area. Controls should be extended to contain all exposed soil.



On the west side of the Housatonic River some drilling slurry has been spilled on the pavement when various hoses were disconnected. The spill was cleaned up and only residual material remained.



On the west side of the Housatonic River, the dirt berm around the drilling pit has been built-up and appears to be slightly higher than during the previous inspection. Slurry levels and capacity of the pit need to be monitored carefully.