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Crosson, Kirk (ENE)

From: Keen, Lilian (ENE)
Sent: August 24, 2012 4:08 PM
To: Crosson, Kirk (ENE)
Subject: FW: CN Hornepayne spill - Final Update of Spill Response Activities

Kirk,

...last email update from Aaron Stadnyk. [REDACTED] and didn't get the chance to update the IR. Will do so when I get back.

Lilian


Lilian Keen

Senior Environmental Officer/Agente principale de l'environnement
 Ministry of the Environment/Ministère de l'environnement
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CN Res

From: Aaron B Stadnyk [mailto:Aaron.Stadnyk@cn.ca]
Sent: August 24, 2012 10:16 AM
To: Keen, Lilian (ENE)
Subject: RE: CN Hornepayne spill - Final Update of Spill Res

Hi Lilian,

As we discussed yesterday, the following email summarizes the final spill response activities that were completed to address the diesel fuel spill, which occurred at the CN Hornepayne yard.

In cooperation with CN personnel, KGS used an excavator to extend and deepen the collection trench to the immediate north side of the service track, where the spill had occurred. Based on historical information, groundwater flow is to the north. Therefore, by extending the north collection trench we were able to cutoff any further migration of the free product to the north. Final dimensions of the north collection trench were approximately 45 ft in length (running parallel with the track), by 4 ft in width, and at an approximate depth of 4.5 ft to 5 ft below ground surface (bgs). Please note, based on the ongoing groundwater monitoring completed at the Site by KGS, the depth to groundwater is greater than 7.5 ft bgs. Based on observations of the excavation of the trench, native clay was encountered starting at a depth of 3.5 ft bgs and continues down to the water table. At no point, during the spill response activities, was groundwater observed.

During the excavation activities completed between Tuesday through Thursday, a total of approximately 200 gallons of free product with some surface water run-off, flowed into the trench and was removed by vacuum truck for off-Site disposal. By approximately 12:00 (noon) Thursday, free product was not observed to be recharging within the trench at a measurable rate. KGS then installed a total of 4 wet wells within the trench for future inspections and free product removal, as needed. The trench was then backfilled with clean rail ballast material.

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The vertical wet wells included the following:

- three(3) perforated PVC pipes (4 inch ID) installed vertically
- one (1) perforated corrugated PVC culvert pipe (24 inch ID)

CN personnel will inspect the wet wells throughout the next days and weeks, and as required the vac truck will be called in to remove any cumulated free product. KGS will also be on-Site at the beginning of September to perform quarterly monitoring and Site inspections, and will inspect the wet wells for free product.

Along the south side of the tracks, KGS delineated the impacted area and excavated approximately 30 tonnes of impacted rail ballest and soil material. This impacted material was stockpiled on Site, in the secure soil storage cell. The material was stored and wrapped in a poly liner. This material will be dealt with in combination with future work at the Site. The soil cell is located within the yard and is inspected quarterly as part of the yards monitoring program and CofA requirements.

Please let me know if you have any comments or questions regarding the spill response activities completed.

Thank you .

Aaron Stadnyk
CN Environment
416-575-3647

From: Aaron B Stadnyk
Sent: Tuesday, August 21, 2012 9:54 PM
To: 'Lilian.Keen@ontario.ca'
Subject: Re: CN Hornepayne spill

Hi Lilian,

This afternoon we continued to monitor the collection trenches for the presence of free product. KGS reported that free product was very minimal (approximately 1 cm in depth). Once the free product was removed, the trenches did not recharge with free product to the same depth as previously observed.

Due to logistics issues at the yard, we were not able to get track protection to excavate any additional test pits. Therefore, first thing tomorrow morning we will excavate an upgradient and downgradient test pit to ensure the integrity and thickness of the native clay layer. Basically, to ensure we have vertical containment. The planned depth of the test pits will be to 5 ft below ground surface.

At this point, we have not seen any evidence that would lead us to believe that more than 200 to 300 L of fuel impacted the soil at the point of the spill. I will update you again, once we've excavated the additional test pits tomorrow.

Please give me a call if you have any questions or comments.

Thank you,
Aaron

2012/08/28

001927

From: Aaron B Stadnyk
Sent: Tuesday, August 21, 2012 02:16 PM
To: Keen, Lilian (ENE) <Lilian.Keen@ontario.ca>
Subject: RE: CN Hornepayne spill

Hi Lilian,

Based on the initial information I received from the Site contacts responding to the spill, the quantity was estimated at 200 L. However, I have KGS on-Site now estimating a more accurate quantity. Based on my first conversations with KGS today, there is not a significant quantity of fuel migrating into the collection trenches, as would be expected if the spilled quantity was 2000L (500 gallons). Based on the volume of soil excavated, and the presence of native clay at a depth of approximately 2.0 ft, the quantity of fuel spilt on the adjacent grounds would appear to be approximately 200 to 300 L.

It was observed that some of the fuel overflowed from the fuel tank and was fortunately containerized within a the hull or belly pan of the generator rail car. Only at a point where the fuel overtopped the sides of the belly pan, did it impact the ground. The fuel within the belly pan was absorbed with oil absorbent booms and pads. Some residual was removed by the vac truck.

Currently we are attempting to excavated two additional test pits to confirmed vertical and lateral delineation of the spill. If we encounter additional free product in these trenches, I will update you immediately.

I will send you another email this evening with a daily update of the excavation activities, regardless.

Please let me know if you have any questions or comments.

Thank you.
Aaron

Aaron Stadnyk
CN Environment
Environmental Coordinator – Ontario
416-575-3647

From: Keen, Lilian (ENE) [<mailto:Lilian.Keen@ontario.ca>]
Sent: Tuesday, August 21, 2012 1:17 PM
To: Aaron B Stadnyk
Subject: CN Hornepayne spill

Hi Aaron,

Thank you for providing me with an update on the remediation of the spill at the CN rail yard in Hornepayne.

The CANUTEC report indicates a diesel spill of 500 gallons (approx 2000L) as opposed to 200L reported to SAC. Can you please confirm the correct volume?

Thank you!

Lilian

Lilian Keen

Senior Environmental Officer/Agente principale de l'environnement

2012/08/28


001928

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ALHPFR10

Crosson, Kirk (MOECC)

From: Crosson, Kirk (MOECC)
Sent: July-12-16 1:54 PM
To: 'frederic.gauthier@cn.ca'
Cc: Dorscht, Ron (MOECC)
Subject: FW: CN Order follow-up Hornepayne Yard

CN.

I have not received an application for the soil processing site or confirmation of registration for the staff house stand-by generator. Please provide an update on this matters.

Thank you

Kirk Crosson
Ontario Ministry of the Environment & Climate Change

From: Crosson, Kirk (MOECC)
Sent: June-07-16 1:28 PM
To: 'Aaron Stadnyk' (Aaron.Stadnyk@cn.ca)
Subject: Order follow-up Hornepayne Yard

Hi

I am just following up on Provincial Officer's Orders 7178-A4LLDN and 1356-A4LJSA as the compliance dates have passed and I have not received any information on the work items

I look forward to your reply

Kirk Crosson
MOECC Sault Ste. Marie

**PHASE IV REMEDIAL ACTION PLAN
WEST END AREA
CN HORNEPAYNE YARD**

- The work is located outside the Town of Hornepayne in a wooded area, and there are no local residences that might be affected by noise or dust associated with the construction. Nevertheless, construction activities will be limited to normal daylight working hours, and potable water will be used to suppress dust as required.
- All contaminated soils to be excavated during construction will be placed in one of two treatment areas adjacent to the retention lagoon. The treatment areas will be constructed to divert all drainage to the retention lagoons. Amendments (ie: nutrients and organic matter) will be added, and the soils aerated to promote bioremediation.

Operation

- During operation of the system, a suitably qualified and trained CN Facility Maintenance personnel or an outside contractor will conduct weekly inspections and maintenance of all system components. The weekly inspections will include:
 - A visual inspection of the retention lagoon complete with an estimation of the area and thickness of any hydrocarbons present,
 - Inspection and maintenance of the belt skimmer and above ground storage tank (AST) assembly including measurement of the volume of hydrocarbons recovered,
 - Inspection of the discharge control works.
 - Preparation and submission of a weekly inspection report.
- The above ground storage tank (AST) has been sized (25,000 litres) to provide one months storage capacity at the maximum design recovery rate of the belt skimmer (36 litres per hour). As part of the weekly inspection, the maintenance personnel will be responsible for arranging for the removal of recovered hydrocarbons via tanker truck on a regular basis. The tanker truck operator will be fully trained in CNs standard fuel transfer and spill contingency plans. To prevent overflowing of the AST, a high level sensor will be installed. The sensor will disable the belt skimmer until the AST has been drained.
- Samples of the discharge water will be collected at the discharge control gate on a seasonal basis. The samples will be analysed for benzene, toluene, ethylbenzene, xylene, total purgeable hydrocarbons and total extractable hydrocarbons.
- All results will be compiled into monthly reports to be retained on site. An annual report will also be prepared complete with all information collected, an assessment of the system performance, and any recommended modifications to the operating plan. The annual report could be forwarded through CNs Environmental Office to the appropriate regulatory authorities, if requested.

**PHASE IV REMEDIAL ACTION PLAN
WEST END AREA
CN HORNEPAYNE YARD**

- To facilitate the flow of liquid hydrocarbons to the retention lagoon and provide hydrodynamic control of the groundwater, a series of underdrains will be installed beneath the trackage. The underdrains will be installed 0.5 to 1.0 metres below the water table.

ENVIRONMENTAL PROTECTION

A series of measures will be implemented both during construction and operation of the remedial system to ensure the remedial action does not have a detrimental effect on the environment. These measures include:

Construction

- Construction of the discharge control works (discharge control gate, lined ditch, lagoon weir assembly) will be completed prior to the initiation of any works within the contaminated area.
- Prior to the start of excavation into the contaminated zone, or at any time that evidence of hydrocarbons are observed seeping into the works, the discharge control gate will be closed, and maintained closed until laboratory analysis of water samples from the discharge trench confirm that the water is suitable for release to Jackfish Creek. Should dewatering of the works be necessary prior to receipt of the laboratory results, the excess water will be pumped to the existing pollution control facilities for treatment and disposal.
- An emergency response spill kit complete with sorbent booms and pads will be on-site at all times during construction and operation, and personnel will be trained in its use. Floating skimmers and the CN vacuum truck stationed at Hornepayne Yard will also be available for use, if required, during construction and operation
- Typically with these types of systems, there is an initial high flow of groundwater and liquid hydrocarbons during the construction and the initial operation phases. This initial high flow of fluids diminishes rapidly over time as the surrounding area is dewatered. Measures to be implemented to control this initial high flow include:
 - The location of the retention lagoon has been selected to minimize the direct interconnection of the lagoon with the more permeable granular fills underlying the trackage. The lagoon will be built primarily within the less permeable silt materials which will limit the volume of seepage from the fill materials to be encountered during construction.
 - The underdrains will be temporarily capped following installation and will not be opened until construction is complete. The underdrains will then only be opened gradually over time in a sequence controlled by the rate of liquid hydrocarbon flow to the lagoon (ie: successive underdrains will only be opened when the rate of flow from previously opened underdrains has diminished). The timing and sequence of underdrain opening will be determined on the basis of site observation of the conditions.