

CN Rail spill estimate: 5,000 litres

Officials probe cause of mishap that spilled diesel fuel into Squamish Estuary

November 14, 2012 Squamish Chief David Burke dburke@squamishchief.com

The immediate response to last week's spill of diesel fuel from a CN Rail locomotive that had its fuel tank punctured by a broke piece of track in the Squamish Estuary earned praise this week. But questions about why it happened and how to prevent similar occurrence in the future remained unanswered.

On Tuesday (Nov. 13), CN Rail spokesperson Emily Hamer told The Chief that officials estimate that between 1,100 and 1,500 gallons (4,600 to 5,700 litres) of diesel fuel spilled onto the tracks and into the estuary when the six-axle locomotive had its fuel tank punctured last Thursday (Nov. 8) at around 7:10 a.m.

"It's not possible to determine the exact amount that was spilled," Hamer said, adding that CN officials believe the amount "was on the low end" of the 1,100- to 1,500-gallon estimate.

Work to minimize the impact of the spill on CN's tracks just north of Squamish Terminals began shortly after the first call came in to the Squamish Fire Department. Containment measures for fuel from the spill began with the crew of the train itself, Christina Moore, District of Squamish spokesperson.

Quantum Murray, a hazardous materials company, arrived on site by 7:30 a.m., Moore said. Containment booms were put in place to ensure the diesel fuel didn't migrate, Hamer said on Thursday. Absorbent pads were used to soak up the fuel and trenches are being built to collect the fuel, she said.

"We are meeting every effort to protect waterways," Hamer said.

B.C. Ministry of Environment officials were on the scene when the cleanup was taking place last week, Moore said. Hamer said federal Ministry of Environment officials and, because the mishap occurred in a rail transportation corridor, Transport Canada has been made aware of the situation.

The spill was small in comparison to the 29,000 litres of bunker C fuel spilled into Howe Sound and the estuary after a mishap involving the Norwegian freight vessel Westwood Anette in August 2006.

Still, local environmental watchdog John Buchanan, who visited the site several times after the spill, voiced concern about the CN spill's impact on the sensitive estuary ecosystem, especially if significant amounts of diesel remains on the ground and in the soil the next time a tide high enough to inundate the area rolls in.

Buchanan on Tuesday (Nov. 13) estimated the portion of the estuary inside the containment booms was 80 feet long and 40 feet wide. He said that in addition to removing contaminated soil under the CN Rail tracks — which has been done — clean-up crews should also be digging into the affected parts of the estuary to remove contaminated soil there.

“They need to do that now, before either it starts to rain or you get a high tide that covers the area,” Buchanan said. “And this is spawning season, so there's lots happening right now.”

He added, “Herring spawning season is six weeks away. Herring eggs are very sensitive to environmental contamination.”

Edith Tobe, executive director of the Squamish River Watershed Society, also voiced concern about the spill's impact on the estuary, a unique and highly productive ecosystem that supports a wide variety of migrating shore birds, riparian plants and small mammals.

“Containment' is a really curious term,” she said.

Dan Esler of the Centre for Wildlife Ecology in the Faculty of Biology at Simon Fraser University on Friday (Nov. 9) said that based on official accounts of the cleanup work, it seemed that crews were doing all they could to minimize the spill's impact.

“I see that they've deployed contaminant booms to contain the movement of the fuel. That's really all you can do to try and clean it up,” said Esler, a wildlife population ecologist who has studied the impacts of other spills including the Exxon Valdez crude-oil spill in Alaska in 1989.

“It also seems that they were able to get on it right away. A 20-minute response time is terrific — that's exactly what you would hope for.”

Asked whether removing the soil and sedge grass affected by the spill would be a good move, Esler said, “I'm not really a remediation expert so I hesitate to say, but that probably would be more damaging than the contaminant [diesel fuel] itself.”

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Hamer said about 50 feet of rail track was torn up and the subsurface soil dug up to remove much of the spilled diesel fuel. The contaminated soil was then trucked to a toxic waste removal facility. The tracks were then restored, she said.

Still, crews were still on site on Tuesday, when Hamer said the cleanup was “well underway.”

Buchanan said the actual cleanup has gone well, but raised questions about how the accident happened and its aftermath.

“I liked the spill response — what they did on the main site, and I've been to many, many spills, that was a good spill response. But having said that, we need to investigate how the accident happened,” Buchanan said.

Buchanan, a former B.C. Rail employee who now inspects passenger rail cars for VIA Rail, said he thinks CN's use of large, six-axle locomotives on the line might be at least partly to blame. When B.C. Rail was operating the line it used smaller, four-axle switching locomotives on that section of track, he said.

“Those [six-axle] units can't make the turns on that track, so you're having more stresses put on the track. I believe that's the root cause of this,” he said. “CN needs to either look at redesigning that track, or do more regular maintenance on the track.”

Buchanan said he also thinks CN could add catchment drains on either side of the track to catch any fuel that might leak into the estuary.

He also raised concerns about CN's actions in the spill's aftermath. On Saturday at 7:17 a.m. — just as it was getting light — Buchanan went to the CN Rail yard to check on the status of the damaged locomotive.

The unit was being moved, but Buchanan said he noticed that fuel was flowing out of the damaged fuel tank. He immediately pulled out his camera and started videotaping. After he got home, he posted the video clip showing liquid flowing out of the damaged fuel tank to a list of email contacts, including The Chief.

“It was really pouring out when it was moving,” he said.

Buchanan said he yelled and asked the engineer to stop the train and the driver complied.

“He told me they had permission to move it and according to his information, a temporary fix had been made,” he said. Buchanan said he then went back to the spill site, got some absorbent pads, returned to the rail yard and after asking permission, plugged the leak.

“Hopefully they did a proper temporary repair and moved it on its way,” he said, adding that he phoned in a complaint about the rail-yard incident to the B.C. Ministry of Environment's Report All Poachers and Polluters (RAPP) line.

“Who knows how much fuel spilled out when they were moving it?”

— With files from Rebecca Aldous, The Chief