

Burlington Northern Livingston Shop Complex

Site Response Section



Update

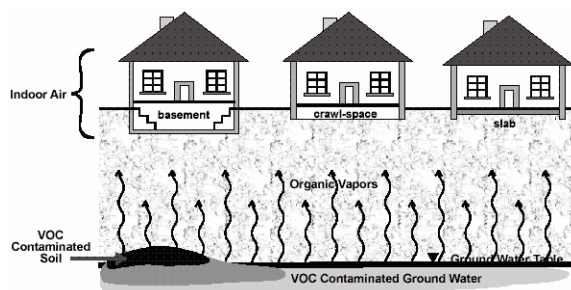
October 2009

Rail Yard News

DEQ is issuing this Update to keep you informed about the investigation and cleanup of contamination associated with the Burlington Northern Livingston Shop Complex. The Montana Department of Environmental Quality (DEQ) has required the BNSF Railway Company (BNSF) to characterize volatile organic compounds (VOCs) in soil vapors and indoor air in buildings and around the rail yard and to develop plans for systems to prevent VOC vapors from entering some impacted buildings. However, BNSF invoked a dispute resolution process regarding DEQ's requests to develop these systems because it disagrees with DEQ's decisions regarding

whether any buildings require these systems. As part of the dispute resolution, BNSF requested that final site-specific cleanup levels be developed. DEQ is soliciting public comment on the cleanup levels and the comment period ends **Friday, October 23, 2009**. In addition, DEQ required BNSF to install additional petroleum product recovery and bioventing wells north and south of the rail lines. Finally, DEQ provided oversight as BNSF tested a VOC treatment technology first in a lab and then in the field. DEQ will hold a public meeting to provide information about these activities on **October 22, 2009**.

Livingston Indoor Air Investigation



Vapor Intrusion Illustration

DEQ has required BNSF to sample indoor air and soil vapor in almost 200 homes and businesses between 2005 and 2009 to determine where vapors from contaminated soil and groundwater from the Facility might be entering buildings in and around the rail yard.



Summa canister for sampling indoor air

The investigation also included over 100 soil gas probes and several outdoor air samples.

Data from this investigation indicates that vapors are moving from the contaminated soil and groundwater at the Facility into buildings within the rail yard and nearby.

Therefore, DEQ directed BNSF to take steps to prevent vapors from entering several buildings at the rail yard as well as some nearby homes and businesses. One way BNSF can reduce vapors is to install an in-home VOC-gas protection system. This works much the same way as a radon-protection system. BNSF could also seal concrete cracks, put down barriers, and use ventilation systems.

Public Meeting
October 22, 2009
7:00 pm
Livingston Community Room

DEQ directed BNSF to install and maintain the protection systems at no cost to the home or business owner.

However, in January 2009, BNSF disputed DEQ's decisions regarding vapor intrusion and has now brought these issues to federal court. As part of the dispute resolution, BNSF requested site-specific cleanup levels to replace the site-specific screening levels it had previously developed. Since this was allowed under the 2001 Record of Decision (ROD) and the 2005 Spring Statement of Work (SOW), DEQ granted BNSF's request and indicated how BNSF was to develop the cleanup levels. Since BNSF did not develop the cleanup levels in the manner required by DEQ, consistent with the ROD and the SOW, DEQ developed the September 2009 Final Draft Risk Assessment Amendment

itself. DEQ is currently soliciting public comment on this document, and the comment period will end at midnight on **October 23, 2009**. Official comments need to be submitted to DEQ in writing and may be delivered to a DEQ representative during the meeting or comments may be submitted to **Project Manager Aimee Reynolds, at areynolds@mt.gov or PO Box 200901, Helena, MT 59620-0901**.

Once the cleanup levels are finalized, DEQ will determine which buildings require protection systems. DEQ will also determine whether additional buildings require sampling this winter. DEQ will provide further information regarding the cleanup levels and the vapor intrusion investigation during the **October 22, 2009** public meeting.

Petroleum Product Recovery

In 2007, DEQ required BNSF to construct a major product recovery system. The 2007 phase consists of 20 multi-use wells in the middle of the railroad tracks where most of the petroleum contamination is found as well as a new treatment plant located on the rail yard that separates the petroleum from the groundwater pumped out of the ground and treats the groundwater before it is discharged. In 2008, DEQ required that BNSF expand the system to include 20 more multi-use wells located south of the main line and seven additional bioventing wells located north of the rail lines.

Petroleum, groundwater, and air are removed from the ground and piped under the tracks to the new treatment plant. Removing air from the ground promotes biologic activity that breaks down the petroleum in the soils. The treatment plant also includes filters that clean the vapors from the air as it is removed from the

ground. To date, DEQ estimates that the system has removed over 17,400 gallons of product from the ground.



Mainline product recovery piping

Want more information about remedial activities at the Burlington Northern Livingston Shop Complex? Come to a public meeting at 7 p.m., Thursday, October 22, 2009, in the Community Room of the City/County Building, 414 East Callender St., Livingston.

VOC Treatment Pilot Test

In 2008, BNSF conducted testing of sodium permanganate treatment of the VOC contamination in groundwater. The first tests, conducted in a laboratory, showed how much permanganate BNSF needs to inject to safely treat the groundwater. During the next step, BNSF injected permanganate into the groundwater near the area of highest VOC concentrations. The tests showed that the permanganate can reduce the VOC concentrations without creating other contamination problems. BNSF must conduct additional investigation and testing before DEQ can determine if full scale treatment is appropriate. If the treatment is successful, this could significantly speed up

the remediation of the VOC contamination in the groundwater.



Permanganate mixing

What's Next?

DEQ will soon finalize the cleanup levels for VOCs in indoor air and then decide which buildings will require mitigation and whether additional indoor air sampling will be required. DEQ also anticipates that BNSF will submit a work plan proposal to change and enhance the bioventing system. In order to move forward with potential permanganate treatment, DEQ has required BNSF to submit reports on the VOC investigation and pilot testing, and DEQ anticipates that BNSF will submit a work plan proposal for additional investigation and testing.

BNSF is also required to conduct several other activities. These activities include, among other things, investigating and evaluating cleanup options for surface soil contamination in the rail yard and investigating possible VOC contamination in the bedrock aquifer. DEQ intends to continue to focus on the ongoing cleanup at the same time as the investigations so that the cleanup moves forward as quickly as possible.

Background

The BN Livingston Facility is located in and adjacent to Livingston. It includes the Livingston rail yard, shop complex, C&P Packing, the cinder pile area, and some of the surrounding area. Soil and groundwater have been impacted by solvents, petroleum, heavy metals, and asbestos. Indoor air has been impacted by VOCs.

Questions? Concerns?

Contact Aimee Reynolds, DEQ Project Manager:

Phone (406) 841-5065 (direct)
(800) 246-8198 (Superfund hotline)
Fax (406) 841-5050
Email: areynolds@mt.gov

Or come to a public meeting:

7 p.m., Thursday, October 22, 2009
Community Room of the City/County Building, 414 East Callender St., Livingston

For More Information

You can review documents related to the Livingston Shop Complex, at the locations listed opposite. Recently approved documents are also available online at:

<http://deq.mt.gov/StateSuperfund/BNLivingston.asp>

Persons with disabilities who need an alternative accessible format of this information, or who require some other reasonable accommodation in order to participate in the public meeting should contact DEQ at least 3 days before the meeting.

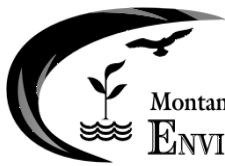
Information Located At

Livingston-Park County Library

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Montana Department of Environmental Quality

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