

# STATE OF ALASKA

SEAN PARNELL, GOVERNOR

## DEPT. OF ENVIRONMENTAL CONSERVATION

### DIVISION OF SPILL PREVENTION AND RESPONSE CONTAMINATED SITES PROGRAM

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File No: 1525.38.048

December 8, 2010

Chris Wilbur  
City & Borough of Sitka  
113 Jarvis Street  
Sitka, AK 99835

Re: Conditional Approval of Carson and Dorn Inc.'s "Site Investigation Work Plan" and "Bioremediation Plan", dated November 2010 for Harrigan Centennial Hall

Dear Mr. Wilbur:

The Contaminated Sites Program (CSP) within the Department of Environmental Conservation (DEC) has recently reviewed the subject work plans. Both work plans issued by Carson and Dorn Inc. (C&D) satisfy our request for remedial and site investigation work plans established in our May 26, 2010 letter. The following serves as DEC's approval of both work plans under the conditions described below.

#### **Harrigan Centennial Hall Site Investigation Work Plan**

CSP received this work plan on November 22, 2010. In the work plan, C&D provided a preliminary conceptual site model and proposed to evaluate soil gas and groundwater near and within the former location of the footprint of the former leaking underground storage tank (LUST). Soil gas probes would be installed in the footprint of tank 1 and roughly 10 feet north of tank 1 and within 5 feet of Harrigan Centennial Hall. The soil probes would be advanced with a slide hammer or bucket auger to a predetermined depth. Following full advancement of the boring the probe tip would be attached to a barb fitting to collect the gas sample while utilizing a vacuum pump. The proposed work is approved with the following modifications:

1. C&D will follow the procedures for soil gas sampling, analysis and reporting defined in DEC's vapor intrusion guidance, dated July 2009.
2. One soil probe will be installed within 5 feet of Harrigan Centennial Hall and will be advanced to the same depth as the buildings foundation. The second soil probe shall be advanced to the depth of the former 1,000 gallon LUST.

3. The soil gas probe will be pulled back to expose the inlets after the predetermined depth is reached.
4. During sampling, hydrated bentonite or other surface seal will be utilized to seal the probe, rod, and/or tubing and inhibit ambient air from intruding during sample collection.
5. Sampling and purging flow rates shall be monitored and range between 100 to 2,000 milliliters per minute.
6. Sample tubing shall be of small diameter (i.e. ¼ inch) and made of material such as nylon, stainless steel, or Teflon.
7. C&D will document leak test results and take photos of sample train and soil gas probe.
8. C&D will test collected samples at a NELAP approved laboratory for volatile organic compounds by EPA test method TO-15.
9. C&D will also evaluate levels of oxygen and carbon dioxide in purge and/or leak test samples and report results.
10. C&D will update the preliminary conceptual site model (CSM) based on the results of the sampling effort and provide the updated CSM in their final report.

#### **Harrigan Centennial Hall Bioremediation Plan**

CSP received this work plan on November 22, 2010. Within the plan, C&D provided details of the construction of the bioremediation cell. This cell is 17 feet wide, 14 feet wide long, and has an average soil depth of 12 inches. The bioremediation cell is lined and covered with a 10 millimeter reinforced poly liner. The cell meets CSP requirements for distance criteria for public water systems. On May 19, 2010 the cell was fertilized with high nitrogen fertilizer and the was tilled on May 11, May 19, May 28, June 1, June 15, and June 16, 2010. C&D proposes to till the cell at a similar frequency in 2011. In September 2011, C&D proposes to collect four soil samples plus one duplicate based on establishing a grid system. The soil samples would be analyzed for DRO and RRO by Department approved methods. If soil sample results meet 18 AAC 75.341 Table B2 default values for DRO and RRO then the bioremediation cell will be closed. The proposed work is approved provided that soil samples will be analyzed for VOC by EPA solid waste method 8260B in addition to DRO and RRO.

If you have any questions about this approval letter, please do not hesitate to contact me at (907) 269-7699 or you can reach me via email at [Todd.Blessing@alaska.gov](mailto:Todd.Blessing@alaska.gov).

Sincerely,



Todd Blessing

Environmental Program Specialist