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Waste Management Division  
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September 12, 2008

BRUCE HOWARD  
RUTLAND MASONIC ASSOCIATION  
51 WASHINGTON STREET  
RUTLAND, VERMONT 05701

RE: Sites Management Activity Complete, Rutland Masonic Temple, SMS Site #98-2385  
Rutland, Vermont

Dear Mr. Howard:

The Sites Management Section (SMS) reviewed the June 12, 2008 report titled, "*Groundwater Monitoring Report for Rutland Masonic Temple, Rutland, Vermont*" prepared by KAS, Inc. for groundwater sampling conducted at the Rutland Masonic Temple on May 1, 2008. The SMS also reviewed information contained in the site file. With this information, the SMS can now make the following conclusions:

- During the May 1998 removal of a 1,000 gallon fuel oil underground storage tank (UST), subsurface contamination was observed. Volatile organic compounds (VOCs) were measured with a photoionization detector (PID). Readings of the soils ranged from 10 to 134 parts per million (ppm). The UST was reported to have numerous holes. The soils were observed to be coarse sands and gravel; silty clay was encountered at 8', the limit of the excavation. No groundwater was encountered at 8'. Contaminated soils were backfilled. Additional investigation was required by the SMS.
- On November 11, 1998, 4 groundwater monitor wells were installed in order to evaluate potential contamination related to the UST. The wells were completed to 13'. Elevated PID readings ranging from 0.8 to 55 ppm and fuel odors were noted in the well cuttings at MW-1 down gradient of the tank pit. A maximum PID reading of 4.8 ppm and a slight fuel odor was noted in the well cuttings at MW-2, adjacent and up gradient to the tank pit. No above background PID readings or odors were noted at MW-3 or -4, the down gradient and the up gradient wells respectively.
- On November 20, 1998 MW-2, -3, and -4 were sampled for fuel oil related VOCs using EPA methods 8021B and 8100M. MW-1 had 0.35' feet of free product in it. All EPA 8021B method compounds were noted in MW-2, with 1,2,4- and 1,3,5-trimethylbenzene and naphthalene above the Vermont Groundwater Enforcement Standards (VGES). Toluene was noted at 1.2 ppb in MW-3. MW-2 had 9.29 ppm total petroleum hydrocarbons (TPH). TPH does not have a water standard but is used as general indicator of petroleum contamination.
- Regular free product recovery visits were conducted for monitor well MW-1 and later MW-2 between November 1998 and April 2000. During this time approximately 1.7 gallons of fuel

Over



oil were removed from MW-2 and 1.9 gallons from MW-1. April 7, 2000 was the last date of measurable free product in MW-2 (0.18'). A trace of product was reported in MW-1 on that date.

- Annual and then biennial groundwater sampling was conducted in MW-1 and -2 following the removal of free product from April 2001 until May 2008. Dissolved benzene, trimethylbenzene, and naphthalene above the VGES were found in MW-1, but the levels have decreased with time and on May 1, 2008 only benzene (18.9 µg/L) was found above the VGES. Contaminant levels also decreased in MW-2 following the removal of free product. The last VGES exceedence was April 30, 2004 for trimethylbenzene (386 µg/L). On May 1, 2008 ethylbenzene was found below the VGES.
- MW-3 and -4 were sampled starting in November 1998. MW-4 never contained contamination and sampling was discontinued after May 2002. MW-3 was sample 12 times and generally had benzene, trimethylbenzene, and/or naphthalene below the VGES with only 4 low level exceedences of the benzene standard.
- PID screening of the Masonic Temple basement found no VOCs. Soils and groundwater near the former tank location, the basement of Bardwell House (a senior center), and utility corridors were identified as potential sensitive receptors. In March 1999 nearby utility manholes and the basement of the Bardwell House were screened for VOCs using a PID and none were detected. All area buildings are on municipal water and sewer. No other at risk sensitive receptors were identified. No unacceptable risk to human health and the environment is present due to any residual contamination remaining in the ground from the removed UST.
- The four groundwater monitoring wells were properly closed to eliminate possible conduits for contaminant migration into the subsurface. This closure involved removal of the protective well cover, filling the wells with a grout material to prevent fluid migration in the borehole, and finishing to the surrounding grade.

Based on the above, the SMS is assigning this site a Site Management Activity Completed (SMAC) designation. This SMAC designation does not release the Rutland Masonic Association, of any past or future liability associated with the petroleum contamination onsite. It does, however, mean that the SMS is not requesting any additional work in response to the 1998 UST removal.

Please feel free to call with any questions.

Sincerely,



George Desch, P.E.

Chief, Sites Management Section

CC: Rutland Selectboard ✓  
Rutland Health Officer ✓  
DEC Regional Office (via electronic mail) ✓  
Angela Rogers, KAS, Inc. (via electronic mail) ✓