Vapor Sentinel ™ Remote Monitoring Technology Demonstration
November 2, 2022

Client: Jennifer Borski, WDNR
Property: Golden Flame Restaurant
                2604 Custer St
                Manitowoc, WI

1.0 Remote Monitoring Technology Demonstration

The Wisconsin Department of Natural Resources (WDNR) has expressed an interest in evaluating the benefits of a telemetry monitoring system for a vapor mitigation system (VMS). Protect Environmental (Protect) has identified the Vapor Sentinel Remote Monitoring (VSRM) system as a viable candidate for evaluating telemetry technology. The VSRM equipment provides real-time monitoring of the blower-induced pressure and amperage draw, as well as environmental conditions including temperature, relative humidity, and barometric pressure. Data is viewable via the Vapor Sentinel portal. Monitoring can be customized with site-specific alarm conditions to notify responsible parties and stakeholders when operating conditions are outside of acceptable ranges. Full details of the system features are available at VaporSentinel.com and in the attached document.

2.0 Vapor Sentinel Remote Monitoring System – Equipment and Installation

The project calls for monitoring of one mitigation system associated with the site at the address referred to as Susie's Restaurant (former) BRRTS #02-36-000516. This address is known to be currently operated as the Golden Flame Restaurant. The mitigation currently consists of a single blower (AMG Eagle) drawing from two extraction points in the basement of the building. The blower is externally mounted on the west side of the building over the exterior stairwell to the basement. Protect has limited knowledge of the system installation, operation, and performance of the system in mitigating identified vapor intrusion risks. Protect assumes no liability or responsibility for the system and its performance.

Protect will coordinate with WDNR staff for property access for the installation of a Vapor Sentinel Remote Monitoring Controller (VSRM-C), which will include scheduling and oversight of a licensed electrician to install power to the VSRM-C. Protect staff will document operating conditions (induced pressure) of the system prior to and following the installation of the VSRM-C. Protect staff will oversee the initialization of the VSRM-C to verify connectivity via the cellular communication hardware to the cloud-based data portal, and verify that designated WDNR staff have access to the data stream.

$0.00 Project Costs

Protect will provide WDNR with the technology demonstration consisting of the above described work scope at no cost to the WDNR for a two-year period. The Vapor Sentinel telemetry system shall be installed in series with the VMS fan, negating the need for additional power connection and allowing for monitoring of the total power utilization for the VMS system. The Vapor Sentinel telemetry system consumes nominal power, specifically less than $10/year in electrical cost at $0.20/kWh. A one-time, $100 reimbursement for power consumption of the Vapor Sentinel telemetry hardware will be made to the property owner by Protect. As part of the demonstration agreement, Protect and the manufacturer of Vapor Sentinel Remote Monitoring systems (Vapor Products Group) retain the right to utilize the resulting monitoring data for demonstration and marketing purposes. Protect assumes no responsibility for the ongoing operation or performance of the existing VMS. At the end of the two-year demonstration period, WDNR will have the opportunity to extend the deployment of the VSRM equipment at a rate to be determined at that time. If WDNR does not extend the demonstration period Protect Environmental will remove the installed system at no cost.

We appreciate this opportunity to demonstrate the value of the Vapor Sentinel Remote Monitoring equipment in the ongoing stewardship of vapor mitigation projects.

Sincerely,

Paul Melillo
Director, National Accounts

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