



Incinerator Ash Cell Closure

Location: Ferndale, Washington
Owner: RECOMP of Washington
Contact: Tom Bubanich
360-384-1057
Year: 1989
Area: 3 AC
History: MSW Incinerator Ash cell
New Use: Material & Equipment Storage



Project Description

The incinerator ash cell closure was the first use of MatCon. Dr. Ronald Terrel was requested to provide a capping solution using asphalt for the closure by Chuck Wilder who was the owner of Wilder Construction Company and the president of the National Asphalt Paving Association at the time. Wilder had purchased the municipal solid waste incinerator operation and was under direction to close the ash storage portion of the site in accordance with RCRA requirements. Dr. Terrel designed the asphalt to be durable and impermeable resulting in a successful cap that was approved by the regulators. Immediately following construction, the cap was also used as a liner for temporary storage of the incinerator ash generated by the ongoing operations at the facility. Over the years, the site has been used for storage of vector waste, equipment, and trailers.

Core samples were taken in both 1989, 1999 and 2009 and tested for permeability. Those tests demonstrated that the permeability was determined to be less than 1×10^{-8} cm/s--the same as when the MatCon material was originally placed. A complete site inspection was conducted in 2009 on the 20th anniversary of its construction and documented a total of only 3000 linear feet of cracking on the site. The predominant cause of this cracking was the use of "cold joints" during construction. Cold joints were formed when the MatCon was allowed to cool beyond the point where it could coalesce and be compacted with the hot material that was placed adjacent to it. Cold joints generally occur when paving is stopped for the day and resumed the following morning. Cold joints are no longer used in MatCon caps. Instead, a patented joint technique has been developed that forms a complete seal between panels without a propensity to separate and form a "crack". Additionally, joint temperatures are measured and documented as part of MatCon's stringent quality assurance program.

The MatCon cap at the RECOMP Site has been inspected on several occasions since the initial construction (1999, 2004 and 2009). Copies of the inspection reports and SITE Report are available for review.