

CASE HISTORY: FLY ASH CAP, NOVA SCOTIA POWER LINED WITH A GEOSYNTHETIC CLAY LINER (GCL), BENTOFIX GEOMEMBRANE CNSL.

Photo courtesy of Nova Scotia Power.

BACKGROUND: Faced with finding an alternative to clay, Nova Scotia (NS) Power selected a Geosynthetic Clay Liner (GCL), to close their fly ash containment cell during the summer of 2004. The challenge was to find a liner which would meet or exceed the properties of a compacted clay liner (CCL), but to find a liner that could be installed by a local general contractor without the help of outside labour forces. Bentofix Geomembrane CNSL not only provided NS Power with a material that provided a low permeability of 5×10^{-13} cm/sec but also provided NS Power to close an area of 100,000 sq.m. within a month compared to 20,000 sq.m. done the previous year with a compacted clay liner. Each truckload of Bentofix provided 6,474 sq.m. of material compared to over 160 truckloads of clay to cover this same area (based on a 50cm thick clay / 40 sq.m. per truckload). Arrow Construction with the help of their supplier, Terrafix Geosynthetics, provided initial assistance to satisfy both the owner, NS Power, and the contractor, with a proper quality control and assurance (QA/QC) procedure, but also provided the equipment (two spreader bars) to increase the installation time.

Since the late 1980s, GCLs have been specified and used by design engineers, agencies and owners as an alternative to soil barriers in various applications. For further information on GCLs to close your landfill and/or other lining applications such as ponds please contact your local Arrow representative in Atlantic Canada or visit www.bentofix.com