**Section 816.530 Testing of Poz-O-Tec Liners and Caps and Poz-O-Tec Monofills**

The owner or operator shall implement the following material testing procedures for testing Poz-O-Tec liners and caps and Poz-O-Tec Monofills:

a) Creation and Sampling of Test Pad

1) The owner or operator shall construct a test pad in accordance with 35 Ill. Adm. Code 811.507(a), unless such construction is waived by the Agency pursuant to subsection (b) of that Section;

2) The test pad shall be allowed to cure for 56 days at 73° Fahrenheit (or equivalent cure);

3) After curing, fifty samples shall be taken using a 4 inch diameter coring bit; and

4) The specimens shall be trimmed to proctor cylinder size utilizing an abrasive blade masonry saw and tested for unconfined compressive strength and coefficient of permeability as described in subsection C below. Of the specimens taken from the pad, 20 shall be analyzed for their coefficient of permeability and 30 shall be analyzed for their unconfined compressive strength.

b) Collection of Production Samples

The owner or operator shall collect samples from the production of Poz-O-Tec in the following manner:

1) Utilizing a large scoop, five gallon buckets of freshly produced material shall be collected at uniform intervals during construction of the test pad and shipped to a laboratory for analysis.

2) Five proctor cylinder specimens shall be prepared from each bucket of freshly produced material. Three of these five cylinders shall be tested for unconfined compressive strength and the other two shall be tested for permeability.

3) Additional uncured samples shall be taken as necessary for preparation and testing to determine moisture content, lime content, the ratio of fly ash to sludge and in-place density. Testing for these parameters shall be conducted in accordance with standard test methods.

c) Strength and Permeability Testing

1) Uncured samples shall be taken to a laboratory, placed into proctor cylinders, compacted to simulate field conditions, cured in sealed containers for 56 days at 73° (or equivalent cure) and tested for coefficient of permeability and unconfined strength using the following test methods, which are incorporated by reference in 35 Ill. Adm. Code 810.104:

A) U.S. Army Corps of Engineers Engineering Manual 1110-2-1906 Appendix VII, Falling-Heal Permeability Test with Permeameter Cylinder.

B) ASTM Method D5102; Standard Method for Unconfined Compressive Strength of Cohesive Soils.

2) Field samples shall be tested using the same methods as specified in subsection (c)(1) above.

d) Data Correlation

Laboratory data and field data shall be compared to determine any statistically significant differences using standard statistical correlation methodologies.

e) Subsequent Testing

Upon completion of field verification, as described above in (c)(2), the owner or operator of the site shall conduct quality control/quality assurance testing by taking monthly samples of freshly produced Poz-O-Tec materials and sending those samples to a laboratory where they shall be formed into proctor cylinder specimens for testing. Two of those samples shall be tested for their coefficient of permeability, three for unconfined compressive strength, and one each for the parameters set forth in subsection (b)(3) above. Laboratory testing for permeability and strength must be conducted in accordance with the test methods referenced in subsection (c). Test results must demonstrate a coefficient of permeability of less than or equal to 1 x 10-7 cm/sec using a geometric average of the permeability testing results and an unconfined compressive strength of greater than or equal to 150 psi using an arithmetic average of the strength testing results.