

Introduction to the GAI Program

(<http://www.geosynthetic-institute.org/GAI/intro.html>)

1.0 Geosynthetic Accreditation Institute (GAI)

The Geosynthetic Accreditation Institute (GAI) is the second of the five individual institutes to become activated under the auspices of GSI. In January of 1995, GAI set out on a mission to accredit geosynthetic test laboratories. Accreditation is defined as the formal recognition that a testing laboratory is competent to carry out specific tests which are individually accredited. This program is a test-by-test accreditation program which is based on site audits and annual proficiency tests. Details are described in the next section.

2.0 The Laboratory Accreditation Program

The Geosynthetic Accreditation Institute-Laboratory Accreditation Program (GAI-LAP) was initiated following numerous requests to accredit the operations of testing laboratories within the geosynthetic community. The program is intended to insure that the specific laboratory is capable of properly rendering the tests that they contract to perform. The essence of the program is to accredit geosynthetic testing laboratories for performing consensus standardized test methods insofar as equipment, documentation and testing protocol is concerned. It is important to note that, this program is not meant to certify individual test results.

The program to be described was first requested by state and regional Environmental Protection Agency regulators, during a series of courses taught nationally in 1988 (on liner systems) and again in 1990 (on cover systems). Subsequently, a survey of GSI member organizations listed the lack of geosynthetic laboratory accreditation as a severe shortcoming of the industry.

The GAI framed the accreditation programs around the following three international known standards; ISO 9000 Quality Management Systems-Requirements, ISO 17025 General requirements for the competence of testing and calibration laboratories and ISO 17011 Conformity Assessment – General requirements for accreditation bodies accrediting conformity assessment bodies. Although the GAI-LAP models itself after these standards it does not profess to be affiliated with either ISO or their standards. Rather the program is a hybrid one using the above as models but tailored to the immediate needs of the geosynthetic testing community.

It is anticipated that the GAI-LAP will have a two fold effect on geosynthetic testing. First, it will give credibility to those laboratories that are properly equipped and prepared to do the respective tests. Second, it will eliminate those laboratories that are not equipped to do specific tests. As an ancillary benefit it will require laboratories to prepare a quality manual, write test-specific standard operating procedures and prepare test reports for each test method for which accreditation is desired.

The intent of the LAP is to prevent errors and inaccuracies by utilizing an approved plan and procedures. By so doing, it is hoped that the funds expended in geosynthetic testing are being spent with clear objectives in mind. The intent of this endeavor is to have a system in place which will aide communication between all parties involved. In addition, it is intended that a paper trail of document communications will occur between the parties involved. The program is rigorous in comparison to the current state-of-the-practice in geosynthetics laboratory testing. It should be mentioned that despite its voluntary nature, competitive pressures may make accreditation seem like a necessity. This is particularly true for laboratories that do federally funded work or who are involved with international work.

The cost of this program is partially supported by the laboratories that seek accreditation. The remainder is by the GSI member organizations through their annual membership fees. The costs are identical for independent laboratories, manufacturers laboratories, and research and development laboratories irrespective of their affiliation in other accrediting programs or in GSI membership. The accreditation process is outlined by the following flow chart.

Details of this program and a complete directory can be obtained from:

Dr. George R. Koerner
 Geosynthetic Institute
 475 Kedron Ave.
 Folsom, PA 19033-1208
 U. S. A.
 Tel: (610) 522-8440
 Fax: (610) 522-8441

3.0 GAI-LAP Flow Chart

