The Building Performance Institute (BPI):
What is it and How Does a Contractor Become BPI Accredited?

The Building Performance Institute (BPI) is an organization that sets professional standards for heating, shell[1] and general contracting firms and the technicians that are employed by those firms. BPI is also a testing and certifying organization.

Accreditation vs. Certification

Contracting firms must receive **accreditation** from the Building Performance Institute before they can participate in the **Home Performance with ENERGY STAR®** program[2]. To be eligible for accreditation the contracting firm must meet the following requirements:

- Carry minimum of $1 million liability insurance
- Have valid worker's compensation insurance
- Must have all equipment necessary to perform required diagnostic and safety tests and inspections
- Must agree to comply with BPI technical standards
- Must use a quality assurance system that is okayed by BPI. The quality assurance system must include all of the following:
- Some type of job documentation system (paper or electronic data storage)
- Semi-annual reporting to BPI
- BPI Specialist supervision of jobs. That is, all jobs done by the contracting firm must be reviewed and inspected by the on-staff BPI certified technician. Therefore contracting firm must have at least one **BPI Certified Specialist Technician** on staff

Certification of Technicians

As noted above, a contracting firm must have at least one BPI Certified Specialist technician on staff. The Building Performance Institute has 2 specialty areas for technicians.

1) **Heating System Specialist**
   A heating specialist has demonstrated his/her expertise to the Building Performance Institute through written and field tests in the following areas:
   Heating system science, combustion safety science, load and sizing of heating systems, distribution system design, ducted system diagnostics, heat exchanger inspection, combustion gas analysis, duct repair and sealing, combustion appliance vent repair, ventilation system installation, heating appliance clean and tune, gas oven clean and tune, post-installation inspection, mechanical system durability

2) **Shell Specialist** (Specializes in insulation, air-sealing and window replacements)
   A Shell specialist has demonstrated his/her expertise to the Building Performance Institute through written and field tests in the following areas:
   Indoor air quality assessment, indoor moisture sources and solutions, thermal & pressure boundary evaluation, advanced blower door applications, air sealing and dense-pack insulation techniques, duct diagnostics, insulation techniques and applications, window and door inspections, minimum ventilation requirements (ASHRAE 62-89, BPI) ventilation system options

[1] Shell contracting firms install insulation, windows and do air sealing work.
[2] For more information about the **Home Performance with ENERGY STAR®** program visit www.GetEnergySmart.org

Be aware that before a technician can apply for certification in either of these two specialties they must first become certified as a Building Analyst by completing the Building Analyst training and passing both a written test and field exam. That is, certification as a Building Analyst/Auditor is a prerequisite to become certified as either a Shell or Heating Specialist.

Building Analyst/Auditor:
Expertise in the following areas must be demonstrated to BPI to receive this certification:

- Health and safety issues related to combustion appliances and indoor air quality
- Fundamentals of Building Science (the house as a system)
- Knowing how to use a blower door and other diagnostic equipment such as a digital manometer
- Knowing how to identify and correct building performance problems.
- Basic knowledge of mechanical and distribution systems
- Knowing how to do combustion safety testing.
- Knowledge of how to detect and correct building air leakage problems
- Knowledge of base load, heating load and cooling load energy usage
- Know how to calculate heat loss analysis under existing and improved conditions
- Knowing how to calculate cost benefit analysis for proposed work.

What is the benefit of accreditation for the contractor?

- Accreditation proves to customers, and fellow contractors, that his/her firm has a high degree of technical skill, and has demonstrated that skill by passing rigorous written and "hands-on" field tests administered by the Building Performance Institute
- Only BPI certified contractors are eligible to participate in the **Home Performance with ENERGY STAR®** program[3]. This means that they benefit from the marketing and communication efforts conducted by the New York State Energy Research and Development Authority (NYSERDA) to promote the **Home Performance with ENERGY STAR®** program to home owners throughout New York State. NYSERDA promotes this program through the following methods.
  - Steve Thomas, of *This Old House* acts as the program spokesman
  - The program is promoted by TV, radio and print stories
  - Leads are generated and contractor lists are provided via a toll free number and the internet.

NYSERDA also provides many other incentives to contracting firms to obtain the required training and equipment required to become a BPI certified contractor. To learn more about what incentives are available go to www.getenergysmart.org, then click Energy $mart Contractors, then click Residential Contractors, and then click Program Overview.

[3] For more information about the **Home Performance with ENERGY STAR®** program visit www.GetEnergySmart.org