

**Equivalent QAPP Illustrative Example: Review and Documentation for
Applying Assessment Factors in
Collecting, Identifying and Evaluating Existing Literature**

Project Title/Approvals/Dates: *Protocols for Wind-Resistant Residential Roof Upgrades (Protocols)*

Names/Signatures/Dates: deleted from example for brevity

Key Personnel and Responsibilities: deleted from example for brevity

Project Objectives/Decisions Needed: These Protocols are intended to provide practical guidance on improving or maintaining roofs for single and multifamily housing that withstand high winds. The Protocols will be written for multiple audiences and will be based on existing information.

The Protocols are intended for use by the building industry, including energy-efficiency and rehabilitation professionals and contractors, and others engaged in residential retrofit, renovation or remodeling efforts. The Protocols are also intended for voluntary adoption by federal, state, tribal and local weatherization assistance programs; federally funded housing programs; and industry standards organizations; and private sector home performance contracting organizations. The process for reviewing and documenting how the assessment factors are to be applied to references is described.

To assess the quality and relevance of the existing information for use in the Protocols, the Agency will consider the factors described in *A Summary of General Assessment Factors for Evaluating the Quality of Scientific and Technical Information* (EPA 100/B-03/001, June 2003). The assessment factors are:

- Soundness
- Applicability and Utility
- Clarity and Completeness
- Uncertainty and Variability
- Evaluation and Review

General Assessment Factor	Definition
Soundness (AF 1)	The extent to which the scientific and technical procedures, measures, methods or models employed to generate the information are reasonable for, and consistent with, the intended application.
Applicability and Utility (AF 2)	The extent to which the information is relevant for the Agency's intended use.
Clarity and Completeness (AF 3)	The degree of clarity and completeness with which the data, assumptions, methods, quality assurance, sponsoring organizations and analyses employed to generate the information are documented.

Uncertainty and Variability (AF 4)	The extent to which the variability and uncertainty (quantitative and qualitative) in the information or in the procedures, measures, methods or models are evaluated and characterized.
Evaluation and Review (AF 5)	The extent of independent verification, validation and peer review of the information or of the procedures, measures, methods or models.

All content within the Protocols will be collected from existing material that is derived from a government resource; has been peer-reviewed; or has gone through a nationally accredited standard organization, such as the American National Standard Institute (ANSI) and the American Society of Testing and Materials (ASTM). All content will be reviewed and documented by subject matter experts using the assessment factors before being finalized in the first draft.

Project Organization and Responsibilities: Previously recognized, qualified experts will be used to review the material and will identify new subject matter experts through a competitive process. The responsible official (RO) will keep a spreadsheet of all experts and reviewers and will have the spreadsheet available for the duration of the development of the Protocols as well as for one year after the completion of the Protocols. The RO will update the list as new experts are asked to review the content. The RO will also keep a list of all staff involved with the development of the Protocols.

The RO will provide citations for all reference materials within the body of the document and will keep a spreadsheet of all of the references used. The RO will update the spreadsheet as new references are used.

Use of Information: The Protocols are intended to be used as a means to provide practical guidance on ways to improve the wind-resistance of roofs during home upgrades, retrofits or remodeling. The Protocols will apply to single family as well as multifamily housing, which includes partially detached homes, townhouses and apartment buildings, and can range from a small building with less than four units to high-rises or apartment complexes with hundreds of units. The Protocols will be distributed outside the Agency.

Review and Documentation of Assessment Factors: As discussed, all content within the Protocols will be collected from existing material that is derived from a government resource; has been peer-reviewed; or has gone through a nationally accredited standard organization, such as the American National Standard Institute (ANSI) and the American Society of Testing and Materials (ASTM). All content will be reviewed by subject matter experts before being finalized in the first draft.

The following spreadsheet/check list will be completed in order to document the review process for applying the five assessment factors. There may be conflicting content available for use in the Protocols. It is possible that some of the references may be older and do not incorporate the newest information on technology, standards and practices. While not likely, there also may be conflicting information in the literature/references. In the occurrence of conflicting content of those references which meet the assessment factors, this will be discussed by the subject matter experts, and the subject matter experts will then come to a consensus on which reference(s) to use. The consensus will be documented in the Remarks section of the attached table.

Document Title	General Assessment Factor: How and Where Considered					Remarks
	AF 1	AF 2	AF 3	AF 4	AF 5	
See spread sheet for ID						
# 1						
# 2						
...						