WAC 246-247-130 Appendix C—ALARACT compliance demonstration. Purpose. An ALARACT demonstration is used for inspection or audit purposes, and to demonstrate compliance with the substantive ALARACT technology standard as required by this chapter. An ALARACT demonstration is used to evaluate the adequacy of control technology on existing emission units and to choose control technologies for proposed nonsignificant modifications of emission units. The bases for the ALARACT demonstration requirements are the ALARACT standards given in WAC 246-247-040 and the definition of ALARACT given in WAC 246-247-030. It is the applicant's responsibility to demonstrate the effectiveness of their ALARACT determination to the department. The department may adjust this demonstration procedure on a case-by-case basis, as needed, to ensure compliance with the substantive standard.

Scope. The ALARACT demonstration includes the abatement technology and indication devices, from entry of radionuclides into the ventilated vapor space to release to the environment. The facility shall evaluate the existing control system in relation to applicable technology standards, and other control technologies that have been successfully operated for similar applications.

Technology Standards. The ALARACT demonstration and the emission unit design and construction must meet, as applicable, the technology standards shown below if the unit's potential-to-emit exceeds 0.1 mrem/yr TEDE to the MEI. If the potential-to-emit is below this value, the standards must be met only to the extent justified by a cost/benefit evaluation.

ASME/ANSI AG-1, Code on Nuclear Air and Gas Treatment (where there are conflicts in standards with the other listed references, this standard shall take precedence)

ASME/ANSI N509, Nuclear Power Plant Air-Cleaning Units and Components

ASME/ANSI N510, Testing of Nuclear Air Treatment Systems

ANSI/ASME NQA-1, Quality Assurance Program Requirements for Nuclear Facilities

40 C.F.R. 60, Appendix A, Methods 1, 1A, 2, 2A, 2C, 2D, 4, 5, and 17

ANSI/HPS N13.1-1999, Sampling and Monitoring Releases of Airborne Radioactive Substances from the Stacks and Ducts of Nuclear Facilities (for emission units constructed or significantly modified after October 15, 2004).

The following standards and references are recommended as guidance only:

ANSI/ASME NQA-2, Quality Assurance Requirements for Nuclear Facilities

ANSI N42.18, Specification and Performance of On-Site Instrumentation for Continuously Monitoring Radioactivity in Effluents

ERDA 76-21, Nuclear Air Cleaning Handbook

ACGIH 1988, Industrial Ventilation, A Manual of Recommended Practice, 20th ed., American Conference of Governmental Industrial Hygienists

ALARA References. "Health Physics Manual of Good Practice for Reducing Radiation Exposure to Levels that are As Low As Reasonably Achievable (ALARA)," PNL-6577, June, 1988; prepared for the USDOE by Pacific Northwest Laboratories (Battelle Memorial Institute).

"A Guide to Reducing Radiation Exposure to As Low As Reasonably Achievable (ALARA)," DOE/EV/1830-T5, April, 1980, R.L. Kathren and

J.M. Selby; prepared for the USDOE by Pacific Northwest Laboratories (Battelle Memorial Institute).

"A Practical Method of Performing Cost-Benefit Analysis of Occupational and Environmental Protective Measures," WHC-SA-0484-FP, March, 1989, G.F. Boothe and D.E. Webb; prepared for the USDOE by Westinghouse Hanford Company.

[Statutory Authority: RCW 70.98.050. WSR 04-18-094, § 246-247-130, filed 9/1/04, effective 10/2/04. Statutory Authority: Chapters 70.98 and 70.94 RCW and chapter 173-480 WAC. WSR 94-07-010, § 246-247-130, filed 3/4/94, effective 4/4/94.]