GALE-09 Change Log

Internal Release Date November 1, 2009

Boiling Water Reactor Gaseous Effluent (BWRGE) Subprogram:

- A review of recent reactor operational experience was performed and the following updates to the GALE BWRGE source code were made:
  - Plant capacity factor was increased from 0.8 to 0.9 (80% to 90%).
  - Radioiodine release rates from various buildings during normal operations were increased by multiplying by 1.125.
  - Radioiodine release rates from various buildings during extended shutdown were decreased by multiplying by 0.5.
  - Carbon-14 release rate was increased from 9.5 Ci/yr to 10.7 Ci/yr.

Boiling Water Reactor Liquid Effluent (BWRLE) Subprogram:

- A review of recent reactor operational experience was performed and the following updates to the GALE BWRLE source code were made:
  - Plant capacity factor was increased from 0.8 to 0.9 (80% to 90%).
  - Unexpected release rate was decreased from 0.1 Ci/yr to 0.014 Ci/yr.

Pressurized Water Reactor Gaseous Effluent (PWRGE) Subprogram:

- A review of recent reactor operational experience was performed and the following updates to the GALE PWRGE source code were made:
  - Plant capacity factor was increased from 0.8 to 0.9 (80% to 90%).
  - Tritium release rate was decreased from 0.4 Ci/yr/MW(t) to 0.27 Ci/yr/MW(t).
  - Argon-41 release rate was decreased from 34 Ci/yr to 6 Ci/yr.
  - Carbon-14 release rate was decreased from 7.3 Ci/yr to 5.9 Ci/yr.

Pressurized Water Reactor Liquid Effluent (PWRLE) Subprogram:

- A review of recent reactor operational experience was performed and the following updates to the GALE PWRGLE source code were made:
  - Plant capacity factor was increased from 0.8 to 0.9 (80% to 90%).
  - Tritium release rate was decreased from 0.4 Ci/yr/MW(t) to 0.27 Ci/yr/MW(t).
  - Unexpected release rate was decreased from 0.16 Ci/yr to 1.6x10-4 Ci/yr.
  - Condensate demineralizer DF for “Other Radionuclides” was changed from 50 to 10.