

15.7 Radioactive Release from Subsystems and Components

The information in this section of the reference ABWR DCD, including all subsections, figures and tables, is incorporated by reference with the following supplements.

15.7.6 COL License Information

15.7.6.1 Radiological Consequences of Non-Line Break Accidents

The following site-specific supplements address COL License Information Item 15.9.

Radwaste System Failure Accident (Liquid Radwaste Tank Accident)

The STP 3 & 4 site-specific Exclusion Area Boundary (EAB) short-term release (accident) χ/Q is $1.96E-04 \text{ sec/m}^3$. Table 15.7-7 of the reference ABWR DCD provides radwaste system failure EAB doses as a function of χ/Q . The STP 3 & 4 thyroid and whole body doses associated with a radwaste system failure are a fraction of the 10 CFR 100 criteria and are provided below:

| Meteorology (sec/m ³) | Distance (m) | Thyroid Dose (Sv) | Whole Body Dose (Sv) |
|-----------------------------------|--------------|-------------------|----------------------|
| 1.96E-04 | EAB | 4.1E-02 | 3.4E-05 |

Fuel Handling Accident

Table 15.7-11 of the reference ABWR DCD provides fuel handling accident (FHA) EAB doses as a function of χ/Q . The STP 3 & 4 thyroid and whole body doses associated with a FHA are within the guidelines of 10 CFR 100 criteria and are provided below:

| Meteorology (sec/m ³) | Distance (m) | Thyroid Dose (Sv) | Whole Body Dose (Sv) |
|-----------------------------------|--------------|-------------------|----------------------|
| 1.96E-04 | EAB | 1.1E-01 | 1.8E-03 |

Fuel Cask Drop Accident

Table 15.7-14 of the reference ABWR DCD provides fuel cask drop accident EAB doses as a function of χ/Q . The STP 3 & 4 thyroid and whole body doses associated with a fuel cask drop accident are within the guidelines of 10 CFR 100 criteria and are provided below:

| Meteorology (sec/m ³) | Distance (m) | Thyroid (Sv) | Whole Body (Sv) |
|--------------------------------------|-----------------|-----------------|--------------------|
| 1.96E-04 | EAB | 8.0E-03 | 1.4E-05 |