

Format for COLA FSARs

The ESBWR and AP1000 Design Centered Working Groups (DCWGs) are developing a standard format for the Final Safety Analysis Reports (FSARs) that will be submitted with the Combined License Applications (COLAs) for NRC review. The purpose of this document is to describe the format of the preliminary sample FSAR sections in order to aid individuals in reviewing the samples that are being provided for NRC feedback. These examples include links to the DCDs from content that references the DCDs.

The FSAR is being formatted as follows:

- Generally, the DCD and Early Site Permit (ESP), if applicable, will be incorporated by reference. A statement to this effect will be made at the beginning of each applicable section or subsection. The statement will also indicate if there are any departures from the DCD, any variances from the ESP, or any supplemental information added to complete the COLA. A COLA section may include the full text of the DCD or ESP if it is determined to be necessary for contextual clarity. This “full-text approach” is expected to be needed infrequently.
- FSAR content will be categorized based on its purpose for inclusion. Content categories, described in Attachment 1, will be indicated by side headings (“left margin annotations”) at the left of the body text.
- In general, side headings that identify standard (STD) information (i.e., same for all applicants) will have no plant-unique identifiers. However, if the information is unique to a particular applicant, that applicant’s plant name (or abbreviation) will be shown. For example, if the side heading is “COL 4.2.1,” the text that appears to the right of this side heading addresses DCD COL Information Item 4.2.1, and the same information is being submitted by all COL applicants. However, if the side heading is “NAPS COL 4.2.1,” the text that appears in the body of the COLA addresses DCD COL Information Item 4.2.1, for which the response is unique to North Anna.
- The text with which each side heading is associated will be separated by lines from the text that precedes and follows it, so that it is clear where the text associated with a side heading begins and ends.

Draft copies of North Anna FSAR Chapter 11 and Bellefonte Chapters 10 and 15 are provided to illustrate the format described above. These are draft documents that have not been verified. They are provided to illustrate the proposed formatting for the FSAR. To aid in your review, what follows are specific explanations for some of the content in the North Anna Chapter 11 and Bellefonte FSAR Chapters 10 and 15 formats.

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ESBWR Example: North Anna Chapter 11, Radioactive Waste Management

1. The first line on page 11-1 is:

11.0 RADIOACTIVE WASTE MANAGEMENT

FSAR Chapter 11 follows the format of DCD Chapter 11.

2. Under “11.1 SOURCE TERMS,” is the statement:

“This section of the referenced DCD is incorporated by reference with no departures or supplements.”

This statement is used throughout the FSAR to incorporate the DCD without any departures or supplements. A similar statement is used to incorporate the ESP, when applicable.

The red text in the statement (“This section of the referenced DCD”) is a link to the associated DCD text.

3. Under “11.2 LIQUID WASTE MANAGEMENT SYSTEM,” is the statement:

“This section of the referenced DCD is incorporated by reference with the following departures and/or supplements.”

This statement is used throughout the FSAR to incorporate the DCD, and identify departures and/or supplements to the DCD. A similar statement is used to incorporate the ESP, when applicable.

The red text in the statement (“This section of the referenced DCD”) is a link to the associated DCD text.

4. The first side heading on page 11-1 is “STD COL 11.2.6-2:”

The side heading indicates that the body text addresses ESBWR DCD COL Information Item 11.2.6-2 with a response that is the same for all COL applicants. Lines appear above and below the associated text to distinguish the information from other information that is not associated with this COL Item.

Instructions are also provided to identify the specific location of the DCD that is associated with this new text. In this case, the instructions explain that the next to the last paragraph of DCD Subsection 11.2.1 is replaced with new text that creates a license commitment.

5. The second and third side headings and associated text are similar to those described above.

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6. In Subsection 11.2.6, “COL Information,” a cross-reference is provided to indicate the COLA section or subsection that addresses each COL Information Item. The red text in the statement (e.g., “Section 11.2.2.1”) is a link to the associated COLA text.
7. The remaining side headings and associated text in the Chapter 11 are similar to those described above.

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AP1000 Example: Bellefonte Chapter 10, “Steam and Power Conversion,” and Chapter 15, “Accident Analyses” Explanations

The AP1000 DCWG Chapters 10 and 15 begin with a Table of Contents (ToC) which identifies each X.Y section and each subsection that is different from the DCD. The ToC also identifies any Tables or Figures that are different from the DCD, i.e., supplements and departures. Each item in the ToC is linked to the actual section.

Each section begins with a standard statement addressing incorporation of the DCD. The red text in this statement is a link to the associated DCD section. The DCD revision pertinent to the link is identified in the FSAR Chapter 1. Other links are also identified in red. However, because all sections are not yet complete some links are not yet active.

Left margin annotations are used similar to the ESBWR COLA, i.e., COL (information item with number), DEP (departure with tracking number), CDI (conceptual design information) or SUP (supplemental information). Both the COL and CDI items are a special type of supplemental information. Variances from the ESP if referenced are identified as VAR (variances) or SUP (supplemental information).

These differences are also identified as either STD (standard, generic to several AP1000 applicants) or plant-specific (BLN for the AP1000 reference plant).

Each difference is separated from the other identified difference by separator lines above and below the difference. Each difference will be accompanied by a left margin identifier,

Several Technical Reports (TRs) have been submitted that will also be referenced by COL and DEP items. The actual changes from these TRs are not repeated but only referenced with active links to the TRs that would be included on the application CD.

Please note that the technical information in these examples is not final and may change.

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Category	Options for Side Heads	Application
ESP	(Plant Name) ESP	Assigned to a heading or sub-heading from the ESP.
Departures from the DCD	STD DEP X.Y.Z-# (Plant Name) DEP X.Y.Z-#	Assigned to a departure from the DCD. The ‘STD DEP’ option is assigned to a departure that is identical for all parallel applicants. The other options are site-specific. Each departure is sequentially numbered based on the FSAR subsection (X.Y.Z) that contains the departure. Each subcategory of departure is numbered separately (i.e., a subsection could contain a DEP X.Y.Z-1 and GG DEP X.Y.Z-1).
Information to address generic DCD COL Items	STD COL # (Plant Name) COL #	Assigned to information that has been added to address a COL Item that is contained in the generic DCD. The ‘STD COL’ option is assigned to information that is identical for all parallel applicants. The other options are site-specific. The side head includes the COL Item number that was assigned by the DCD.
Replacement of Conceptual Design Information	STD CDI (Plant Name) CDI	Assigned to actual design information that replaces the generic DCD’s conceptual design information. The ‘STD CDI’ option is assigned to information that is identical for all parallel applicants. The other options are site-specific. The side head is not numbered.
Information to address ESP COL Items	(Plant Name) ESP COL #	Assigned to information that addresses an ESP’s FSER COL Item. The options are site-specific. The side head for each response includes the COL Item number assigned by the FSER.
Variances from the ESP	(Plant Name) VAR X.Y.Z-#	Assigned to a variance from the ESP. Each variance is sequentially numbered based on the FSAR subsection (X.Y.Z) that includes the variance.
Information to address ESP Permit Conditions	(Plant Name) PC #	Assigned to information that has been added to address an ESP permit condition. The side head for each response includes the condition number assigned by the permit.
Miscellaneous Supplemental Information	STD SUP (Plant Name) SUP	Assigned to new information that does not fit into the other categories. The ‘STD SUP’ option is assigned to information that is identical for all parallel applicants. The other options are site-specific. The side head is not numbered.

Notes:

It is possible that the same information may be assigned more than one category.

The method for presenting supplemental information that will be in tables and figures will be similar to the method described above.