

**DG-1145**  
**PRE-WORKSHOP 7 COMMENTS**  
**COMBINED LICENSE APPLICATION INFORMATION REQUIREMENTS**

During the first 6 workshops on Draft DG-1145, the timing and applicability of information requirements were discussed in several technical areas. Industry addressed these requirements in several pre-workshop and "Blue Card" comments. During Workshop 5, the Staff commented that COLA guidance should identify the information required for a reasonable assurance finding vs. what information would be available at the time of application. Industry presented tables at Workshop 6 that identified several instances where the information required is either 1) not appropriate for a COL application or 2) not available at the time of application submittal but would be available later. The following revised table identifies examples of information requirements in these categories identified in the draft-for-comment version of DG-1145 published September 6, 2006. Revisions to the earlier table are shown in red and italics. It should be noted that the examples are typical and the availability of information may vary for different applications. Further review of DG-1145 may result in additions to the table. The table is draft but it provides a basis for further discussion of these issues.

## COL INFORMATION TIMING - DRAFT

9/15/2006

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I.02-1	C.I.2.3.3	<i>C.I.2.3.3-1</i>	B (4)	Submit 2 consecutive years of met data. <i>NRC states approach acceptable but text still requires 2 years data prior to docketing.</i>	1 year prior to submittal, 2nd complete after submittal	Submit 1st yr with application, 2nd year as COLA supplement
I.03-1 <i>DELETE</i>	C.I.3.6.3(1)(a)	<i>C.I.3.6.3-1</i>	P (3)	Submit types of materials and material specifications (including heat numbers), for base metals, weldments, fittings and safe ends. <i>Removed Heat numbers.</i>	Types of materials and specifications for most components available by application, heat numbers available during construction	Submit material types w/application, heat numbers available on site before fuel load for inspection
I.03-2	C.I.3.6(3)(b)	<i>C.I.3.6.3-3</i>	P(3)	Requires application include material properties including toughness (J-R curves), tensile (stress-strain curves) data at temperatures near the upper range of normal operating temperatures. <i>Accepted per App. 1 but text not modified.</i>	Representative properties available at application; as-built properties available during construction.	Submit representative properties with application; as-built material properties available on-site before fuel load for inspection.
I.03-3	C.I.3.6.3(2)(a)	<i>C.I.3.6.3-5,-6</i>	P(4)	This section requires that the application include as-built drawings of pipe geometry, etc. <i>Accepted per App. 1 but text not modified.</i>	As-built drawings will be completed during construction. <i>Design piping isometrics available in application.</i>	As-built drawings would be made available as they are completed on site for inspection.
I.03-4	C.I.3.9.2.4	<i>C.I.3.9.2.4-1</i>	P(5)	This section implies that the pre-operational flow-induced testing of reactor internals would be complete at the time of COLA. Based on the workshop discussion, we understand this applies to later plants referencing results from an operating plant. <i>Clarified in App. 1 but text not changed.</i>	Applicable to follow-on plants. Provide results of operating plant testing.	Provide results in COLA.

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I.03-5	C.I.3.13.1.4	<i>C.I.3.13.1.4-1</i>	P(5)	Requires preservice inspection test results. <i>Accepted per App. 1 but text not changed.</i>	Test requirements, criteria available at COLA. Results available during construction.	Provide requirements in COLA, test results available onsite during construction.
I.04-1 <i>DELETE</i>	C.I.4 (presentation)	<i>C.I.4-2</i>	B(2)	First bullet, first slide. This bullet identified the COL Information item that any changes to the referenced design be identified to the Staff. As discussed in the workshop, the final fuel design and loading pattern may not be available until after the application and possibly after the COL is issued. In this case, the final design would be submitted as a license amendment request under the Tier 2* change process after the COL is issued. Does the staff agree that the design in the generic DCD is the required design until the license amendment request is approved, and the COL may be issued based on the approved fuel design described in the generic DCD? <i>Accepted</i>	For COLAs referencing a certified design, the fuel design in the generic DCD is the COLA design. During construction, the final design and loading pattern will be developed.	Reference the DCD for the application. Submit License Amendment Request when the final design is complete.
I.05-2 <i>DELETE</i>	C.I.5.2.4.1	<i>C.I.5.2.4.1-2</i>	P(5)	This section provides a list of information required to be included in the application. Four of the 9 items would not be available at COLA. <i>Accepted</i>	Some of the items are available at COLA, others will become available during construction	Provide available information, remainder will be available on site during construction.
I.05-3 <i>DELETE</i>	C.I.5.3.2.2	<i>C.I.5.3.2.2-1</i>	P(5)	Section requires a comparison to operating procedures. <i>Accepted</i>	Operating procedures will not be available at COLA.	Provide requirement in COLA that procedures will address limits.



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I.06-1 <i>DELETE</i>	C.I.6.2.3.4 C.I.6.2.4.4 C.I.6.2.5.4		P(5)	Section requires test results and periodic updates for containment tests <i>Accepted</i>	Testing will not be complete at COLA or before the COL is issued.	Provide test requirements in COLA.
I.06-2 <i>DELETE</i>	C.I.6.4.5		P(5)	Section requires test results for habitability systems. <i>Accepted</i>	Testing will not be performed until after the COL is issued.	Test requirements provided in the COLA. Test results available onsite as tests are completed.
I.08-2	C.I.8.3.2.1	<i>C.I.8.3.2.1-1</i>	P(5)	This section requires battery characteristic curves to be included in the application. <i>REJECTED. NRC wants before license is issued.</i>	Design requirements for safety-related batteries would be available at COLA.	Application to include the design requirements, battery characteristics to be available on site as they become available.
I.08-3 <i>DELETE</i>	C.I.8.4.1	<i>C.I.8.4.1-1</i>	P(5)	Section requires description of procedures and training. <i>Accepted</i>	Functional requirements for operator actions available at COLA	General description in COLA, remainder available for inspection during construction.
I.08-4	C.I.8.4.1	<i>C.I.8.4.1-2</i>	P(5)	Requirement to identify local power sources and transmission paths that could be made available to resupply power plant following a SBO. <i>REJECTED. NRC wants info before COL issued.</i>	Requirements for AAC sources can be described but transmission and power sources may be under the control of a TSO and not available at the time of COLA.	Describe requirements in COLA, contracts for AAC supply to be developed during construction and available on site.
I.10-1 <i>DELETE</i>	C.I.10.2.3.3 C.III.1.10.2.3	<i>C.I.10.2.3.3-1</i>	P(3) B(5)	This section requires pre-service inspection procedures and acceptance criteria for turbine rotors. <i>Accepted</i>	General requirements for the procedures, including acceptance criteria, would be known at the time the application is filed. Procedures and criteria would be developed during	General requirements to be included in the application. Procedures and acceptance criteria made available during construction.

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					construction.	
I.13-1 <i>DELETE</i>	C.I.13.1.2.1	<i>C.I.13.1.2.1-1</i>	P(3)	This section requires an applicant to provide an organization chart for the operating organization. The detailed organization won't be known at the time the application is filed. A high level organization chart would be available then and more details filled in during construction. This position is consistent with SRP 13.1-13.2, Rev. 5 dtd 7/05 <i>Accepted</i>	General organization description available for application, detailed description available during construction.	Provide general organization in the application, make detailed org chart available for inspection during construction.
I.13-2 <i>DELETE</i>	C.I.13.5	<i>C.I.13.5-1</i>	B(3)	The introduction to this section requires identification of persons (by position) who are responsible for writing and approving procedures. This level of detail would not be known at the time the application is submitted. <i>Accepted</i>	General description of the position and experience requirements for procedure writers and approvers available at time of application. Specific responsibilities would become available during construction	General description in COLA, remainder available for inspection during construction.



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I.13-3 <i>DELETE</i>	C.I.13.5.2.1	<i>C.I.13.5.2.1-2</i>	B(3)	Guidance requires that each procedure performed by licensed operators be identified by title and included in a described classification system. This level of detail will not be known at the time of application.	Procedure types could be classified.	Classification of types of procedures could be included in the application and the details developed during construction and available for inspection.
I.13-4	C.I.13.5.2.1A	<i>C.I.13.5.2.1-3</i>	B(3)	<i>Accepted</i> Requires identification of the groups responsible for procedure development, maintenance and format. This level of detail would not be known at the time of application. <i>Accepted per App. 1 - text not changed.</i>	The part of the organization responsible would be available and the details would become available during construction.	Part of the organization responsible identified from the high level organization chart in the application. Detailed assignments made available on site as they are defined.
I.13-5	C.I.13.5.2.1	<i>C.I.13.5.2.1-2</i>	B(3)	Section 13.5.2.1, third sentence: The general format and content of each class of procedures should be described. <i>Accepted per App. 1 - text not changed</i>	The general content will be available at the time the COLA is filed. Format would be developed as part of a writer's guide after the COL is issued	COLA would include a description of the general content of each class of procedure. Writer's guide available during construction.
I.14-1	C.I.14.2.2	<i>C.I.14.2.2-3</i>	P(3)	SAR should describe how and to what extent the applicant's plant operating and technical staff will participate in each major test phase. <i>Accepted per App. 1 but text not changed.</i>	General requirements for plant staff participation defined prior to application; detailed requirements defined in procedures prior to commencement of preop testing	Submit general requirements in COLA, detailed procedures available for inspection on site prior to to commencement of preop testing.

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I.14-2 <i>DELETE</i>	C.I.14.2.4	<i>C.I.14.2.4-1</i>	P(4)	The wording in the section implies that the details of administrative control procedures will be known at the time the COLA is submitted. <i>Accepted</i>	Admin Control procedures will be developed during construction.	The COLA could contain a description of the requirements for development of these procedures and the procedures would be available on site as they are completed.
I.14-3	C.I.14.2.8	<i>C.I.14.2.8-1</i>	P(4)	This section requests a description of how operating and test experience is incorporated into the development of test procedures. <i>Accepted per App. 1 - text not changed.</i>	Recent operating and test experience would be reviewed just prior to writing the test procedures during construction.	The COLA could include a commitment to review operating experience and the test procedures would be available on site as they are completed.
I.14-4	C.I.14.2.11	<i>C.I.14.2.11-1</i>	P(4)	This section requires that each "test" required to be completed before fuel load or designed to satisfy ITAAC should be cross referenced and provided with the application. <i>Accepted per App. 1 - text not changed.</i>	The test procedures and even a detailed listing of the tests would not typically be available prior to COLA	These test procedures would be available on site as they are completed.
I.14-5 <i>DELETE</i>	C.I.14.2.11	<i>C.I.14.2.11-3</i>	P(4)	This section requires the sequential test schedule for each SSC be provided with the application <i>Accepted</i>	The detailed test schedule would not typically be available prior to COLA.	Test schedules will be available on site as they are completed.
I.17-1	C.I.17.5.1	<i>C.I.17.5.1-3</i>	B(3)	This section requires that the planned sharing of personnel between units be addressed in the COLA. <i>REJECTED</i>	Decisions related to sharing personnel would not be finalized at the time of COLA. This level of detail should not be required in the COLA	General QA program requirements described in the COLA. If a decision is made to share personnel, it would be documented in administrative procedures prior to fuel load.



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I.17-2	C.I.17.6 (1.1.5)	????	P(3)	This item requires a listing of SSCs explicitly mentioned in the EOPs. EOPs will not be available at time of COLA. <b>NOT ADDRESSED</b>	A general description of how the EOPs will be addressed in the Maintenance Rule program available at the time of application.	Provide a general description in the COLA. EOPs and the requested listing would be available on site for inspection during construction.
I.17-3 <b>DELETE</b>	C.I.17.6	<b>C.I.17.6-4</b>	B(3)	General content issues for the COLA. Guidance included requirements for information on several aspects of the MR program that would not exist at the time of application. <b>Accepted</b>	General description of the program including requirements available at the time of application. Other aspects would be developed after the license is issued.	General description in COLA, remainder available for inspection during construction.
I.17-4 <b>DELETE</b>	C.I.17.6	<b>C.I.17.6-7</b>	B(5)	The site personnel qualification and functional descriptions level of detail is much greater than that specified in C.13.1. For example, the listing includes titles like Shift Supervisors, Shift Technical Advisors, Reactor Operators, etc. instead of licensed operators and non-licensed operators. <b>Accepted</b>	General position descriptions would be available in the application. Detailed position descriptions would become available during construction.	Provide general requirements for positions in the application and detailed procedures would be available on site as they become available.
I.17-5 <b>DELETE</b>	C.I.17.6	<b>C.I.17.6-8</b>	B(5)	This section requires detailed training procedures for Maintenance Rule personnel. <b>Accepted</b>	General training requirements would be available at the time of COLA.	General requirements discussed in the application, detailed procedures available on site as they become available.
I.17-6 <b>DELETE</b>	C.I.17.6	<b>C.I.17.6-9</b>	B(5)	This section requires detailed descriptions of site procedures and database descriptions for Maintenance Rule implementation <b>Accepted</b>	Program requirements consistent with the description in C.IV.4 available in the	Program requirements provided in COLA, detailed descriptions available on site as they become available.



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					application.	
I.18-1 <i>DELETE</i>	C.I.18	<i>C.I.18-1</i>	B(5)	This section states that by the time of application, the first 11 elements should be complete. <i>Accepted</i>	Fewer than 11 elements will be complete. Those not completed in DCD are covered by DAC.	Application will describe completed elements. Others will be available as completed during construction.
II.01-1 <i>DELETE</i>	C.II.1.4	<i>C.II.1.4-1</i>	B(4)	This section requires that the PRA realistically reflect the actual plant design at the time the COLA is submitted. <i>Accepted</i>	The plant design will not be complete at the time the COLA is submitted.	The PRA should reasonably reflect the plant design as it exists at the time the COLA is submitted.
III.01-1	C.III.1.10.16.2	<i>N/A Submitted after W/S 6</i>	N/A	This section requires manuals, reports, etc., identified in the Tech Spec Admin Controls Sections to be submitted with the application. <i>Not addressed - guidance still requires submittal of these documents.</i>	Tech Spec requirements to develop these documents will be included in the application but the details needed to complete the documents won't be known.	Provide the Admin Controls section in the application and develop the programs during construction. This is consistent with the approach taken for regulatory required programs.
III.03-1	C.III.3	<i>C.III.3-5</i>	P(2)	Some required environmental information will not be available at the time the COLA is submitted. An example is the final routing of transmission lines <i>REJECTED</i>	Preliminary information available at time of application. Final information would be developed during construction.	Submit preliminary information with COLA. Updated information available during construction for NRC inspection.

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III.04-1	C.III.4.3	C.III.4-2	P(2)	<p>In Section C.III.4.3, the staff says it intends to include license conditions for COL action or information items that a COL applicant "cannot address" before the license is issued. COL applications must, and therefore will, address all required COL items. For items that refer to actions that will take place after the license is issued, COLAs will contain commitments to complete those activities at the appropriate point in the construction or operation of the plant. These commitments are expected to be inspected as part of the NRC construction inspection program and typically do not rise to the level of significance that would call for creation of a license condition. Why does the staff intend to create a suite of license conditions, rather than rely on its CIP, for COL Items that refer to actions that will take place after the license is issued?</p> <p><i>Not completely addressed.</i></p>	COL Action and Information items identified in generic DCD and ESP and required information to be developed available for the COLA. Information required to document completion would be available at various times during COLA review and construction.	Identify required information in COLA with a commitment to complete the actions. Documentation of completion available during review or construction.
III.05-1 <i>DELETE</i>	C.III.5.1	C.III.5.1-3	B(5)	<p>This section states that "detailed design information should be submitted early in the COL application phase". Specifically for I and C systems, at the time of application or shortly thereafter, sufficient as-built and procurement information is available for NRC review to assure that DAC are satisfied.<i>Accepted</i></p>	As discussed with the Staff, the development process for I and C designs will proceed beyond the COL application date and even beyond COL issuance	Identify the information that is available in the COLA and supplement the application information after submittal as design details are completed.



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III.05-2 <b>DELETE</b>	C.III.5.1	<b>C.III.5.1-4</b>	P(5)	<p>The first paragraph states that sufficient as-built and as-procured information to address DAC should be available at the time of the COL application submittal, or shortly after and that this detailed design information should be submitted during the COL application phase. This implies an unrealistic expectation of the level of detail of information available at the time of submitting the application. Further, in some design areas, as-built and as-procured information may not be available until after the COL review is completed. It should not be expected that applicants procure I&amp;C equipment, valves, etc. prior to receipt of the COL. As-built information may not be available until the construction phase; which is authorized by the COL. In other forums, NRC has consistently and correctly recognized that DAC may be completed after the COL is issued. We recommend that the first two sentences of this paragraph be deleted.</p> <p><b>Accepted</b></p>	Some DAC completion information will be available. Remainder will be completed during construction.	Describe DAC completion information available at the time of application. Remainder available on site as it is completed.