

NEI 10-07 [Revision 1]

**Industry Guideline for
Effective Pre- Application
Interactions With Agencies
Other Than NRC During the
Early Site Permit Process**

January 2013

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Nuclear Energy Institute

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ACKNOWLEDGEMENTS

This document, NEI 10-07, *Industry Guideline for Effective Interactions With Agencies Other Than NRC During the Early Site Permit Process*, was developed by the NEI Early Site Permit Task Force – consisting of a broad cross section of nuclear utility representatives with experience in the preparation of approved Early Site Permits (ESPs) and nuclear utility representatives actively working to prepare ESPs and vendor representatives. On July 15, 2010 the Task Force met with staff of the U.S. Nuclear Regulatory Commission (NRC), U.S. Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (USACE), Bureau of Reclamation, and Virginia Department of Environmental Quality to discuss the need for and purposes of this guidance. Subsequently, on September 11, 2012 the Task Force again met with the staff of the NRC, EPA and USACE as well as representatives of the U.S Fish and Wildlife Service (USFWS) and Advisory Council on Historic Preservation (ACFP). The input of these agencies was highly valuable in constructing this document. We appreciate the time and effort of the individuals who contributed to the development of this guideline.

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EXECUTIVE SUMMARY

The purpose of NEI 10-07 is to provide a logical, consistent, and workable framework to guide interactions between prospective applicants and the wide range of federal, state, and local agencies other than NRC that become involved in the licensing and permitting processes at the time an Early Site Permit (ESP) application is being developed for submittal to the United States (U.S.) Nuclear Regulatory Commission (NRC). Raising and addressing siting issues to the maximum extent practicable at the earliest possible stage of the ESP process will benefit all participants by providing for a more effective and efficient process. In this regard, it is important that common expectations among all parties are established from the outset. Standardization of the approach taken for conducting pre-application interactions has significant potential value in establishing these common expectations.

Background

This guidance is developed based on and consistent with the requirements of Title 10 Code of Federal Regulations (CFR) Part 52, Subpart A, as well as the lessons learned from the four early site permits that were approved by the NRC between 2007 and 2009 for the Clinton, Grand Gulf, and North Anna, and Vogtle sites. Insights and lessons learned from two more recent applications submitted in 2010 (the Victoria County Station site¹ and PSEG Site) have also been incorporated. Additionally, this document reflects information provided by several federal and state agencies during two NRC public meetings held on July 15, 2010 and September 11, 2012, in Rockville, Maryland.

Objectives

The primary goal of this guidance is to improve the effectiveness of pre-application interactions by preparing applicants and encouraging federal, state, and local agency participation in the ESP application process. The receipt of input from federal, state, and local agencies prior to the submittal of an ESP application to the NRC has the potential to provide significant efficiencies for all involved in the ESP process. As discussed during the two NRC public meetings, this document focuses on providing applicants and stakeholders a common framework for interactions in advance of ESP applications and highlights the benefits of such interactions.

Summary

The NRC's Environmental Impact Statement (EIS) is prepared as part of the ESP review process and is based on a number of sources that include: the applicant's Environmental Report (ER); consultation with certain agencies; and the National Environmental Policy Act (NEPA) scoping process. Given these bases, an applicant's early interactions with non-NRC regulatory and resource agencies can yield tangible benefits for both the applicant and the NRC. Other agencies are a source of data and information for the applicant's ER. They can help to identify issues of site-specific, local, or regional significance that warrant additional focus in the ER or lead to changes in

¹ Although the Victoria application was subsequently withdrawn in 2012 for reasons having to do with the economic viability of the project, much was learned from the progress the application had made up to that point.

the proposed design or layout. Taken cumulatively, pre-application interactions with other agencies can be viewed as an informal predecessor to the NEPA scoping process, whereby the applicant identifies and addresses relevant issues prior to initiation of the NRC's EIS development. Making the most of this pre-scoping opportunity can lead to enhanced dialogue with both the NRC and other agencies, fewer requests for additional information (RAIs) during the ESP review, a reduced number of design and licensing document revisions, a streamlined ER review and EIS development schedule, and lower overall costs for the applicant. Furthermore, when significant environmental issues are identified and addressed by the applicant and the NRC at the ESP stage, the potential for new and significant information to arise at the Combined License (COL) application stage is likely to be diminished.

In addition to the benefits that can be realized during the NRC's ESP review process, pre-application interactions are advantageous for both the applicant and those agencies with permitting authority over one or more aspects of the proposed project. Permitting agencies are likely to gain a better appreciation of the project attributes and the proposed timeline, allowing them to allocate resources effectively and provide meaningful input regarding potentially significant issues. Additionally, agencies will benefit from an improved understanding of the NRC's ESP review process, which will aid in the identification of regulatory interfaces, illuminate opportunities to apply the NRC's EIS in permitting processes, and assure agencies that the finality of issues addressed by the NRC at the ESP stage (per 10 CFR 51.50(c)(1) and 52.39) does not encroach upon their regulatory authority. Applicants will be made aware of the anticipated permitting scope, lead times, and need for additional data collection (i.e., beyond that required to prepare the ER in accordance with NRC guidance), enabling them to more effectively and efficiently meet the agencies' expectations. The development of good working relationships that will facilitate future permitting activities is a less tangible, but equally important, benefit of early interactions between applicants and non-NRC permitting agencies. Pre-application interactions are a "win-win" for permitting agencies and applicants.

To facilitate the establishment of common expectations on the conduct of pre-application interactions, this document discusses the objectives of these interactions, their scope, and the identities and roles of the various participants. With due consideration of project-specific objectives and constraints, applicants are encouraged to develop an interaction plan for conducting pre-application interactions with other agencies. Such an interaction plan should outline the agencies to be contacted, the purposes and desired outcomes of the individual interactions, and the desired timeline for implementing the plan. Information to develop the plan is available from a variety of sources, including recently submitted ESP / COL applications, in-house and competitor nuclear and non-nuclear fleet permitting information, industry contacts, NEI working groups and task forces, and legal and contractor staff. Upon initiating interactions with the various agencies, the process is likely to expand, with some agencies suggesting others to contact for information on specific issues, infrastructure, or resource areas.

In order to "close the loop" on pre-application interactions, applicants should take advantage of NRC pre-application readiness assessments (conducted in accordance with Regulatory Guide (RG) 1.206 Section C.IV.7) to discuss significant or challenging issues identified by other agencies with the NRC. Insights gained during the NRC pre-application readiness assessments should be used to evaluate and refine the scope of the ongoing pre-application interactions with other agencies.

Appendix A of this document provides context for the process in which these interactions are conducted by providing a summary of general information relevant to and the regulatory basis for an ESP application. Appendix B provides a list of federal, state, and local agency contacts for the benefit of prospective applicants. Appendix C provides a summary of the previously discussed July 15, 2010, NRC public meeting. Appendix D provides a summary of the September 11, 2012, public meeting along with links to a significant amount of information provided at that meeting by four federal agencies (other than the NRC) addressing the role of each agency in the ESP process.

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DEFINITIONS

Combined License (COL) means a combined construction permit and operating license with conditions for a nuclear power facility, issued under 10 CFR Part 52.

Early Site Permit (ESP) means a Commission approval issued under 10 CFR Part 52, for a site for one or more nuclear power facilities. An Early Site Permit addresses site suitability issues, environmental protection issues, and plans for coping with emergencies, independent of the review of a specific nuclear plant design.

Environmental Impact Statement (EIS) means a detailed written statement prepared by the NRC to meet the requirements of section 102(2)(C) of the National Environmental Policy Act (NEPA) of 1969, as amended. The contents of the NRC's draft EIS for the issuance of an ESP will be in accordance with 10 CFR 51.75(b).

Environmental Report (ER) is a report required by 10 CFR 50.50(b) to be included in each application for an ESP. The ER contains a description of the proposed action and a statement of its purposes, characterization of the affected environment, and analyses of the potential environmental impacts associated with the proposed action. The applicant's environmental report is a source of information used by the NRC in preparing an EIS to meet the requirements of NEPA section 102(2)(C).

Generic Design Control Document (DCD) is the document containing the Tier 1 and Tier 2 information and generic technical specifications that is incorporated by reference into a design certification rule.

Limited Work Authorization (LWA) is authorization from the NRC to an applicant to conduct certain construction activities pursuant to 10 CFR 50.10(e)(1), for LWA-1, or 10 CFR 50.10(e)(3)(i), for LWA-2.

Multi-agency interactions are interfaces with federal, state, and local agencies other than the NRC during the preparation of an ESP.

New and Significant Information refers to additional information or changed circumstances that result in the need to reevaluate (at the LWA or COL application stage) applicable environmental issues that were resolved in the ESP proceeding. "New" refers to information that was both: 1) not considered in preparing the ESP-ER or Final EIS; and 2) not generally known or publicly available during the preparation of the Final EIS. For new information to be "significant," it must be material to the issue being considered; that is, it must have the potential to affect the finding or conclusions of the NRC Staff's evaluation of the issue (see 72 FR at 49431).

Pre-application refers to the time period prior to the submittal of an ESP application.

Site Safety Analysis Report (SSAR) contains the technical information required by 10 CFR Part 52.17(a) (1) to be submitted by an applicant as a fundamental component of any ESP application.

EFFECTIVE PRE-APPLICATION INTERACTIONS

1 INTRODUCTION

This guidance is developed based on and consistent with the requirements of Title 10 Code of Federal Regulations (CFR) Part 52, Subpart A, as well as the lessons learned from the four early site permits that were approved by the NRC between 2007 and 2009 for the Clinton, Grand Gulf, and North Anna, and Vogtle sites. Insights and lessons learned from the two more recently submitted applications for the Victoria County Station site and PSEG Site have also been incorporated.

It is worth noting the substantive change that has occurred in the industry's approach to interactions with other agencies over the relatively short period since the issuance of the first four Early Site Permits (ESP). Past practice was to view the breadth and depth of such interactions in terms of threshold levels for meeting the Nuclear Regulatory Commission (NRC)'s guidance. This tended to be a limited exercise confined within the NRC's regulatory framework. Currently, applicants are beginning to adopt the philosophy that robust pre-application interactions with multiple agencies can complement the NRC's review process and benefit all involved. This results in interactions with other agencies as a standalone endeavor warranting well thought out and actively managed interaction plans.

The primary goal of this guidance is to improve the effectiveness of pre-application interactions by preparing applicants and encouraging federal, state, and local agency participation in the ESP application process. The receipt of input from federal, state, and local agencies prior to the submittal of an ESP application to the NRC has the potential to provide significant efficiencies for all involved in the ESP process. As discussed at the July 15, 2010, NRC public meeting, this document focuses on providing applicants and stakeholders a common framework for interactions in advance of ESP applications and highlights the benefits of such interactions.

1.1 BACKGROUND

The ESP process, offered under Title 10 Code of Federal Regulations (CFR) Part 52, Subpart A, was promulgated by the NRC in 1989 to address industry concerns with the former licensing process under 10 CFR Part 50. Previously, the licensing process required large expenditures of time and money by applicants well before key site specific environmental, safety, and emergency planning issues could be resolved. As envisioned, the ESP process is meant to resolve these issues well in advance of when a decision is made to build a nuclear power facility and before substantial capital is invested in the construction of a new nuclear facility. For many of these issues, resolution will require the involvement of a wide range of state and federal agencies in addition to NRC. This document is focused on providing guidance specific to aid in the conduct of these interactions. More general information on the ESP process and its regulatory basis can be found in Appendix A.

When the decision is made to proceed with the licensing and construction of a nuclear power plant, having a preapproved site can dramatically shorten the time to complete the project. The time required to build and start up a new plant can be shortened further by referencing the ESP along with a certified design in a combined license (COL) application. The NRC introduced the ESP and the COL concepts as part of a more effective licensing process (10 CFR Part 52) for new nuclear power plants. Congress affirmed and strengthened the new licensing process in the 1992 Energy Policy Act.

Historically, the NRC reviewed proposed sites and designs in combination and approved the site/design combination simultaneously. Part 52 provides for the option to secure separate early approvals for proposed sites, designs or both. In particular, the Part 52 ESP process reflects the longstanding Commission objective to decouple siting from design and is central to the early resolution of safety and environmental issues. This is a principal policy objective of Part 52. **In this process, the early and often involvement of all affected federal, state, and local agencies in addition to NRC will be key to achieving resolution later on, not just for the purpose of obtaining an ESP from NRC, but also in securing the various other permits and approvals that will be required to build a nuclear power plant.** The figure below graphically illustrates how an effective interaction plan will work.

Closing the Loop on Pre-application Interactions

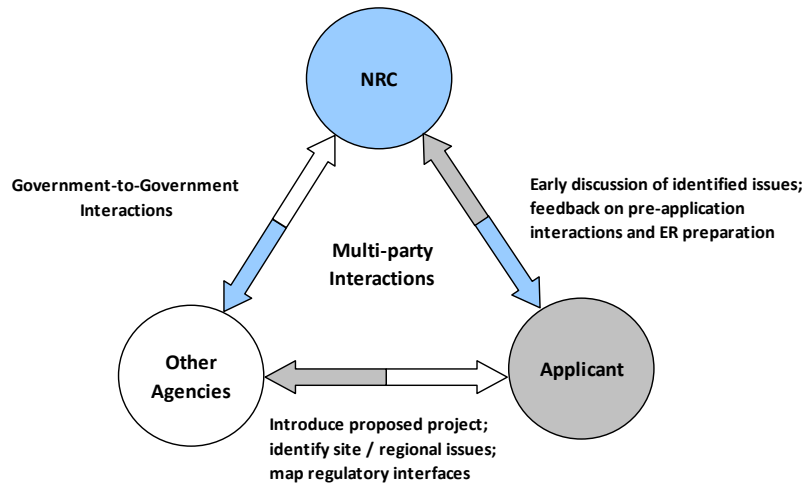


Figure 1 – Closing the Loop on Pre-Application Interactions

1.2 PURPOSE AND SCOPE

The purpose of NEI 10-07 is to provide a logical, consistent, and workable framework to guide interactions between prospective applicants and the wide range of federal, state, and local agencies other than NRC that become involved in the licensing and permitting processes at the time an ESP application is being developed for submittal to NRC. This approach is intended to support reducing uncertainties and minimize outstanding siting issues as early in the process as possible to preclude delays in the licensing process later on.

Standardization of pre-application interactions has significant benefits to all parties involved by providing for a more effective and efficient process.

Addressing other agency (non-NRC) interactions early in the ESP process can have a substantial positive effect on subsequent NRC interactions because the more issues are addressed with other agencies, the less likely other-agency issues are to arise during the NRC review process. If the NRC can be assured that early and substantive dialogue on other agency issues has been conducted prior to submittal of the application, NRC review of an application can proceed with greater confidence and certainty. Hence, in this way, effective pre-application interactions with other agencies, in turn, facilitate effective pre-application interactions with the NRC by providing assurances *prior to the application review* that NRC expectations for a minimum of surprises *during the review* will be met.

The appropriate time to begin pre-application interactions with other agencies is once a site is selected and publicly announced. Prior to this time, such activities would be pre-mature. However, engagement in these activities should not wait until permits are being formally requested from the agencies to which the prospective applicant is reaching out. The true value of interacting with these agencies prior to submitting an ESP application is in precluding surprises during permitting processes from disrupting NRC review of the application.

The nature of this guidance for pre-application interactions with agencies other than NRC regarding an ESP is consistent with NRC's guidance for pre-application interactions regarding a COL application in RG 1.206 Section C.IV.7.

1.3 AGENCY ROLES AT THE PRE-APPLICATION PHASE

The agencies with which the applicant will likely initiate pre-application interactions can generally be categorized by the need(s) the interactions will satisfy, as follows:

1. **Initiation of Informal Consultation**: It is the NRC's expectation that applicants will initiate informal consultation with agencies that the NRC must² consult prior to issuing a decision on whether to grant an ESP. Typically, consultation will include the US Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration (NOAA) Fisheries Service (formerly the National Marine Fisheries Service), if applicable based on the site location, and the State Historic Preservation Office (SHPO). Additionally, the NRC will seek to consult with potentially affected Native American tribes or other native organizations.

The NRC will consult (informally and formally, as necessary) with the USFWS and the NOAA Fisheries Service, if applicable, in accordance with Section 7 of the Endangered Species Act (ESA) of 1973, as amended. Where applicable,

² Formal consultation may not be required in certain cases, such as when informal consultation under the Endangered Species Act (ESA) yields no resource agency concerns. In such cases, the NRC can choose to voluntarily initiate formal consultation.

interaction with the NOAA Fisheries Service will also address the requirements of the section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act of 1976 (as amended by the Sustainable Fisheries Act of 1996), which mandates consultation when the proposed action could potentially impact essential fish habitat (EFH). Pre-application letters requesting feedback on the presence of federally threatened and endangered (T&E) species or critical habitat that could be impacted by the proposed project will generally suffice for initiating the applicant's informal consultation. However, when potentially significant issues are identified, the applicant should seek additional information from the applicable agency or agencies. The applicant's letters and the agency responses are typically included as attachments to the ESP application Environmental Report (ER).

The SHPO will be consulted under Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. In accordance with 36 CFR 800.8(c), the NRC may fulfill its NHPA consultation obligations via the process required by the National Environmental Policy Act (NEPA) of 1969, as amended, for the preparation of an Environmental Impact Statement (EIS). In exercising this option, the NRC would use the EIS scoping process described at 10 CFR 51.28 to identify interested parties beyond the SHPO, including potentially affected Native American tribes or other native organizations.

Face-to-face interactions with the SHPO will generally prove beneficial as a supplement to written correspondence, especially when agency feedback is requested regarding the scope and methodology for conducting cultural resource investigations. The applicant should also work with the SHPO to identify a list of potentially affected tribal / native organizations for inclusion in the ESP application ER. Based on the SHPO interactions and applicant preference, the applicant can determine if / when to initiate discussions with the potentially affected organizations.

The applicant should not view the described informal consultation activities as merely "checking a box" to meet the NRC's expectations for an adequate ER. Rather, such interactions will provide useful information for developing the scope of field surveys, identifying criteria for facility design or layout (e.g., impact avoidance or mitigation), and assessing resources of concern in the ER.

2. **Identification of Regulatory Interfaces**: In accordance with the 2008 update to the Memorandum of Understanding between the US Army Corps of Engineers (USACE) and the NRC (ML082540354), the NRC will likely request USACE involvement as a Cooperating Agency³ in the development of an EIS when the project is anticipated to require a USACE individual permit (i.e., rather than a general permit or a nationwide permit). The applicant should conduct interactions with the USACE early in the pre-application stage to identify the agency's role in the project.

³ National Environmental Policy Act (NEPA) of 1969, as amended, and the Council on Environmental Quality (CEQ) implementing regulations at 40 CFR 1500 et seq.

Beyond the USACE, the applicant should attempt to identify agencies with potential permitting requirements to understand agency requirements and facilitate subsequent communication with the NRC. Such agencies will typically include (but not be limited to) the state entities responsible for granting Clean Water Act (CWA) Section 401 water quality certifications and implementation of the requirements of the Coastal Zone Management Act (CZMA) of 1972, as amended (if applicable). Applicants should engage the applicable agencies early in the pre-application stage to ensure that agency and NRC expectations will be satisfied.

3. **Data Collection**: Pre-application interactions provide opportunities for collecting data and information to characterize the potentially affected environment, as guided by NUREG-1555 (the Environmental Standard Review Plan (ESRP)) and experience developed by other applicants during the preparation of recent COL and ESP application ERs.
4. **Engagement of Permitting Agencies**: Interactions with other agencies are essential in compiling a list of the environmentally related authorizations required by federal, state, regional, local, and affected Native American tribal agencies for the ESRP ER. Applicants should initiate pre-application interactions with respect to other agencies' permitting / authorization processes concurrent with pre-application interactions with the NRC. In particular, applicants seeking to commence pre-construction and / or nuclear construction activities in the near term should establish a working relationship with the applicable agencies.
5. **Identification of Significant Issues and Important Agencies / Entities**: An important goal of pre-application interactions with other agencies is the identification of issues of site-specific, local, or regional significance that could warrant additional focus in the ER (and subsequently the EIS) and potentially lead to changes in the proposed infrastructure design or layout. The applicant can view this exercise as an informal predecessor to the NEPA scoping process that will be initiated by the NRC prior to development of the draft EIS.

As an example, consider a popular wildlife viewing area that is not officially designated as a park or wildlife management area, but which is nonetheless highly valued by the local community for its ecological diversity and economic benefit as a visitor attraction. The existence of such an area might go undetected if the applicant's data collection activities were limited to internet searches for officially designated parks. However, through pre-application interactions with other agencies, the recreational and economic value of the area could become known to the applicant, allowing the potential impacts associated with construction and operation of a nearby nuclear facility to be evaluated (to a level of detail commensurate with the potential significance of the impacts) in the ER. If appropriate, the applicant could also assess options for relocating roads, pipelines, or other infrastructure to avoid or mitigate the potential impacts on the wildlife viewing area.

In order to make the most of pre-application interactions and identify issues of significance to the proposed project, the applicant should work with each of the contacted organizations to identify other interested agencies or entities that could have purview or an interest in the project. For example, as previously discussed, the SHPO can help to identify potentially affected tribal / native organizations. Similarly, permitting agencies will typically experience jurisdictional overlap with other agencies in certain resource areas (e.g., wetlands and waterways). In the area of socioeconomics, county level officials are often able to identify community organizations with unique knowledge of low-income, minority, or subsistence communities.

Note that a given agency can be identified in one or more of the contexts described above, as is often the case with a state's lead environmental agency. Such an agency could be responsible for issuing the state's CWA Section 401 certification, have the authority to issue permits across all media (i.e., land, air, water and waste), keep records or administer programs that provide data that will support ER preparation, and / or be aware of significant regulatory, legal, or resource issues unique to the site or region.

2 GENERAL PROCESS DESCRIPTION AND GUIDANCE

2.1 OBJECTIVES OF OTHER AGENCY PRE-APPLICATION INTERACTIONS

2.1.1 Efficiency of Process

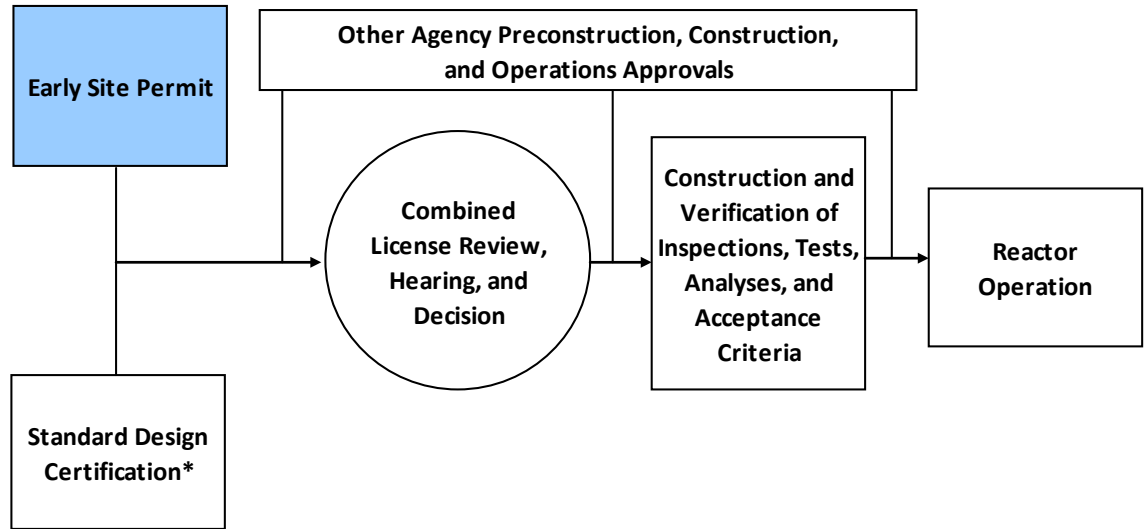
Under the NRC's regulations in 10 CFR Part 52, the agency issues an ESP for approval of a site for one or more nuclear power facilities separate from an application for a construction permit or combined license. Such permits are good for 10 to 20 years and can be renewed for an additional 10 to 20 years. The NRC review of an ESP application addresses site safety issues, environmental protection issues, and plans for coping with emergencies, independent of the review of a specific nuclear plant design.

Successful completion of the ESP process resolves many site related safety and environmental issues and determines if a site is suitable for possible future construction and operation of a nuclear power plant. 10 CFR Part 52 allows a prospective applicant to achieve finality on certain issues early in the licensing process of a nuclear power facility. The provisions of Subpart A of 10 CFR Part 52 apply to an applicant seeking an ESP separate from an application for a construction permit or for a combined license for a facility.

The ESP application may specify a reactor design; however it is not required by the NRC regulations. If a reactor design is not specified in the ESP application, the application may provide a set of plant parameters that are expected to envelope the design of a reactor or reactors that might be later deployed at the site – essentially establishing a surrogate plant as the basis for the ESP. The set of

enveloping plant parameters is defined as the Plant Parameter Envelope (PPE). The development of a PPE is addressed in NEI 10-01.

Relationship Between Early Site Permits, Standard Design Certifications, Combined Licenses, and Other Agency Approvals



* or equivalent information

Figure 2. NRC Permitting Relationships

This process makes it possible to bank sites, thereby improving the effectiveness of the nuclear power plant licensing process by enabling issues to be resolved before large resource commitments are made. This process is ideal for proposed sites that the applicant may not plan to use in the near term.

Pre-application interactions with federal, state, local and other agencies and organizations add to the value of the ESP process by taking action and building bridges early on to reduce the potential for unexpected issues to arise later. The true value of interacting with these agencies prior to submitting an ESP application is in precluding surprises from disrupting NRC review of the application. The types of surprises that might occur include: conflicts in agency processes, missing or partial information, misunderstood information, and resource issues in permitting agency organizations. Any of these possibilities has the potential to delay the NRC's review of the ESP application or the issuance of permits that are needed from other agencies.

Applicants can build mutual understanding by introducing new methodologies and special features that the agencies might not already be familiar with well before both the submittal of the ESP application and the subsequent permitting processes in

which these methodologies/features will need to be understood. In addition to preparing the agencies, effective and early pre-application activities will also pave the way for enhanced public and stakeholder participation in the subsequent processes.

2.1.2 Early Identification of Site-Specific Issues

As discussed in Section 1.3, an important goal of pre-application interactions with other agencies is the identification of issues of site-specific, local, or regional significance that could warrant additional focus in the ER (and subsequently the EIS) and / or lead to changes in the proposed infrastructure design or layout. Failure to identify and appreciate the scope of such issues early on can result in rework, difficulties in obtaining necessary permits, schedule delays, additional NRC requests for additional information (RAIs), contested hearing implications, and challenges to the workability of the preferred site. These or other unfavorable outcomes will often have tangible cost and schedule consequences; additionally, there is the potential for less obvious project impacts, including damage to working relationships or the erosion of stakeholder support. It is important to identify possible issues at the pre-application phase to minimize the likelihood of potentially costly surprises during the NRC's ESP and COL application reviews, other agencies' permitting processes, or facility construction and operation. See Subsections 2.2.1 through 2.2.4 for additional discussions on planning for and conducting pre-application interactions with an eye toward exposing site-specific issues.

2.1.3 Optimizing the value of the ESP

The 10 CFR Part 52 COL application process becomes more effective and efficient when the COL application references both an ESP and a certified standard plant design (Design Certification Document (DCD)) because there is less new information for the NRC to review. Environmental and safety issues resolved by prior regulatory actions (ESP process and DCD rulemaking) are not reconsidered during the COL application review, except under demonstrated "changed conditions". For example, the ER submitted with a COL application must evaluate information that meets the NEPA threshold of "new and significant"⁴ in comparison to the ER/EIS issued at the ESP stage. Similarly, the ESP Site Safety Analysis Report (SSAR) is incorporated into the COL application provided there is a demonstration that the SSAR bounds the technology specific COL application. A PPE-based ESP provides an opportunity for the COL applicant to gain flexibility while bringing closure to site safety issues.

An ESP provides an opportunity to work with other stakeholders at an early point to identify and gain closure on site environmental issues that have challenged applicants in the past. These previous issues could continue to challenge some COL applicants. Unique site issues may be identified in a number of ways. Ideally, the detailed site investigations conducted by the applicant identify any site issues so they can be resolved in the application. Frequently, however, new

⁴ See definition of New and Significant Information

issues may be identified by external stakeholders or by federal agencies cooperating with the NRC review of the application.

Resolution of these issues is needed for the NRC to approve the application and may involve:

- additional site investigation,
- detailed modeling, and/or,
- development and demonstration of detailed mitigation plans.

In addition to resolving environmental issues, an ESP can be an important financial risk mitigation strategy as it can confirm the viability of the site prior to the expenditure of significant resources. These additional activities can disrupt project schedules causing expensive delays. The ESP allows for the early identification and closure of site issues, prior to a large financial commitment (e.g., purchase of long lead time components).

Another benefit of the ESP is that it provides a vehicle for state and local governments, as well as other external stakeholders, to get involved early in the process of siting a nuclear reactor. The applicant is able to gauge the level of support for or opposition to the project from the local community. An understanding of the NEPA process, as well as permitting and local processes, is needed to optimize the benefit received from the ESP.

2.1.4 Confirming the Availability and Adequacy of Information

Applicants rely upon myriad sources of information when developing the ER and applicable permitting applications, generally falling into the following categories:

- Data and information from publicly available sources, such as technical publications and white papers, databases, and a variety of internet resources.
- Information obtained directly from governmental entities (e.g., tax parcel information), regulatory and resource agencies (e.g., lists of species of concern or USACE jurisdictional determinations), community organizations (e.g., the existence of subsistence populations), or private companies (e.g., anticipated transmission routing from the regional transmission operator or meteorological data from existing regional power plants).
- Reactor and balance-of-plant vendor information and DCDs.
- Applicant technical analyses (e.g., calculations and design documents) and field surveys; this category includes information developed for the current project, as well as applicable environmental records and data for co-located existing units.

Pre-application meetings help applicants determine the scope of information collection and analyses that will be required to complete the ER or future permitting applications. Agencies can also provide information for inclusion in the ESP application. For instance, the value of impingement and entrainment

studies and monitoring completed for the cooling water intake structure of a co-located existing facility in completing the ER or permitting applications can vary widely, depending on site-specific conditions. Early interactions with the permitting authority can help characterize the adequacy of such information, shedding light on the need for additional data collection or technical studies.

Agencies are also often uniquely positioned to help identify additional or updated information sources, given their in-depth knowledge of specific resource areas. Having knowledge about the universe of available resources will help applicants make informed decisions regarding the adequacy of the information immediately at hand. Furthermore, relying on data sources identified by agencies will typically align the content of the application documents with the agencies' needs and expectations.

Pre-application interactions are an avenue for applicants to solicit feedback regarding the availability and adequacy of the information that will be used in preparing the ER and permitting applications. They also are an opportunity for agencies to gauge the maturity of the applicant's design and comment on the corresponding meaningfulness of the agencies' input. As an example, an applicant's planned evaluation of several potential haul path routes in the ER might be adequate absent the presence of protected species or critical habitat. However, if a protected species is known to exist in an area, a resource agency might request refined design documents prior to offering an official opinion. Understanding an agency's needs can help focus additional near term work in the areas of interest, recognizing that an applicant's objectives will dictate the desired level and timing of resource expenditures at the ESP stage. Garnering such understanding will foster the development of permitting and construction timelines that recognize the relationship between additional data collection, design work, permitting lead times, and construction start dates.

2.1.5 Establishing a Common Understanding of the Project

Pre-application interactions provide an opportunity to make other agencies aware of the known physical and regulatory / legal elements that define the proposed project, as well as the applicant's objectives and the envisioned project timeline. Establishing a good understanding of these factors will allow other agencies to shape their responses to information requests and prepare for the role they will play in the project (i.e., assure sufficient resources, implement training programs, etc.). This understanding will also inform the applicant of the agencies' likely roles in the project (including the scope and timing of expected permits), identify potential issues or conflicts with the site or project, and allocate resources effectively.

The project's physical elements include the entire breadth and approximate locations of infrastructure and land improvements that will be required to construct and operate the plant, including offsite items (e.g., a cooling water intake structure, barge canal improvements, heavy haul roads, pipeline corridors, transmission lines, etc.) and those elements that will be erected for use during construction (e.g., concrete batch plants, temporary roads and parking areas,

ponds to handle excavation dewatering, etc.). Physical elements also include expected resource needs, such as the proposed cooling water source(s) and anticipated withdrawal rate(s). Regulatory and legal elements include items like water rights, land options or easements, and coordination agreements with development authorities, in addition to the universe of known permits likely to be required from other agencies.

Presenting an adequate account of these elements, tailored to focus on the agency's interests, will facilitate the identification of project components within the agency's purview and lead to definition of the agency's consulting and / or permitting scope on the project. Additionally, it will allow the agency to provide meaningful feedback regarding the supplemental information (i.e., in addition to that being collected to develop the ESP ER) that will need to be collected or prepared by the applicant to support the agency's permitting processes. Knowledge of the attributes of the proposed project is generally necessary for the agency to identify potential resource or regulatory conflicts that could arise from project permitting and implementation.

The applicant's objectives and the project timeline are closely linked and generally are a function of whether the applicant intends to "bank" a site for a period of time or use the ESP as the basis for a near term COL application. The project timeline accounts for anticipated milestones that include but are not limited to: pre-application interactions; the desired dates for initiation of pre-construction activities; the approximate ESPA submittal date; a generic representation of the NRC's review schedule and the anticipated ESP issuance timeframe; the COLA submittal target; major infrastructure start and completion dates; and the expected commercial operation date (COD). For an applicant intending to bank a site, the level of detail included in the schedule would likely be significantly reduced.

Gaining an understanding of the applicant's objectives and the envisioned project timeline will aid the agency in providing meaningful feedback regarding the permitting lead times. This understanding is required to support the initiation of pre-construction or construction activities and allow the agency to allocate resources for application reviews. Also, where the agency could have a role in the NRC's issuance of the ESP, an early understanding of the approximate project timeline will facilitate the agency's preparations, planning and interactions with the NRC. Examples of this are: as a cooperating agency for EIS development, as the agency responsible for a coastal zone consistency determination, or as the agency issuing a Clean Water Act Section 401 certification. The following subsections discuss additional potential benefits of working with agencies to establish an understanding of the applicant's objectives and the expected project timeline.

2.1.5.1 Understanding applicant and agency resource allocation

Based on the ESP process and the applicant's objectives and timeline, it is possible for varying levels of information regarding the site and the

surrounding environment to be gathered during development and support of the ESP application. Realistic expectations regarding the information that will be available to form the bases for the agencies' input can be formed from an understanding the project timeline and the resulting willingness of the applicant to commit additional resources at the ESP stage of the project. Consider the example of an applicant wishing to bank a site who has not defined the final location of offsite corridors for water intake and blowdown pipelines. An agency unaware of the applicant's objectives might perceive a request for input on one or more aspects of these proposed corridors to be inadequate (e.g., administratively incomplete) or wholly inconsistent with the agency's typical permitting processes. However, upon completion of a pre-application meeting, the same agency would understand that general feedback is desired to identify potential conflicts, areas of concern, future permitting requirements, etc., likely resulting in a substantially different type of response.

In turn, the agency would be able to provide feedback to the applicant with respect to additional information that would be required at the time of permitting or future consultation. This includes whether the introduction of such information is likely to have a large or small impact on the responses provided by the agencies at the ESP pre-application stage.

Furthermore, the strain on agency resources should not be underestimated. Alignment on issues of project objectives and timelines will facilitate agency planning (e.g., with respect to the expected timing of permit applications) and generally benefit the establishment of good working relationships with time-constrained regulators, officials, and representatives.

2.1.5.2 Identifying potential conflicts between different agency requirements

The ESP process is potentially unfamiliar, in form and / or concept, to many of the regulatory and resource agencies that could ultimately be involved over the course of a project. In particular, the closure of NRC review on certain environmental aspects, followed by a review for new and significant information at the COL stage, can appear counterintuitive in light of an agencies' typical or traditional means of reviewing and approving permit applications.

Accordingly, it is important for the applicant to work with the applicable agencies to ensure their understanding of the ESP process and to solicit input regarding perceived conflicts with the agencies' authority and the NRC review process. As with the example of the 2008 update to the Memorandum of Understanding between the US Army Corps of Engineers and the NRC (ML082540354), pre-application interactions could identify the need for early agency-to-agency interaction during the

ESP process to avoid potential legal or regulatory inconsistency during future permitting activities.

2.2 STRATEGY FOR PRE-APPLICATION INTERACTIONS

This section provides applicants with tools that will aid in planning for and conducting pre-application interactions. With due consideration of project-specific objectives and constraints, applicants are encouraged to develop a plan for conducting pre-application discussions with other agencies. Such an interaction plan should outline pre-application needs, tailored to meet the needs of the applicant, in areas such as the following:

- pre-application consultations and data needs outlined in NUREG-1555 and the applicable agencies / organizations (including agencies that will potentially cooperate in preparation of the NRC's EIS).
- a list of non-NRC permits, consultations, approvals, and authorizations anticipated to be required for facility construction and operation, as well as the corresponding agencies / organizations.
- the roles and responsibilities of those individuals tasked with planning and conducting the interactions.
- general guidance and objectives for conducting pre-application interactions (see Subsection 2.2.4).
- the timeline for implementing the plan, considering the desired ESP application submittal date.

Upon initiating interactions with the various agencies, the process is likely to become iterative, with some agencies suggesting others to contact for information on specific issues, infrastructure, or resource areas.

Recognizing that each project will have unique objectives and circumstances, it is anticipated that outreach programs will be implemented at varying breadths and depths. ESP applicants contemplating near term COL applications might be motivated to engage regulatory agencies by the opportunity to initiate early permitting discussions. In contrast, applicants intending to bank a site in advance of the decision to seek a COL will need to balance the benefits of resource expenditures against a potentially more limited ESP budget. Regardless of the extent to which pre-application contact programs are pursued, the information presented in the sections that follow is intended to help applicants get the most out of each interaction.

2.2.1 Project and Site Specific Issues

Applicants should not harbor illusions that simply scheduling and arriving at meetings with other agencies will result in effective communication. Rather, it is essential for applicants to understand that the volume and meaningfulness of information provided by the agency will be commensurate with the quality of project information made available to them prior to and during the meeting. With this in mind, it is incumbent upon applicants to proactively prepare for interactions, conservatively assuming that agency representatives will have no prior knowledge of the site or proposed project. The preparation and use of pictures, diagrams, timelines and tables to convey information can greatly facilitate these meetings.

A primary goal of pre-application interactions is to ascertain information regarding regulatory considerations, sensitive resources, and engineering or safety constraints specific to the preferred ESP site and region. The applicant's focus should be on "painting a picture" of the site and project for the agency participants. In addition to developing an interaction plan containing information similar to that described in Section 2.2, applicants should prepare an information package or presentation characterizing the site location, topography, and land cover, as well as the proposed construction disturbance and potential impacts to known resources. To the extent that it is available, the layout and high-level design of the proposed facility and infrastructure (e.g., haul paths, intake structures, pipelines, transmission corridors, etc.) should be included. The package / presentation should also describe the proposed project timeline and objectives in a manner that is consistent with the project's public disclosures to date. When applicable for the particular agency, applicants should be prepared to discuss known data regarding site ecology, hydrology, cultural resources, etc.

See Subsection 2.2.4 for additional information on planning and conducting pre-application interactions.

2.2.2 Timing of Agency Interactions

Perhaps the best way to describe the appropriate timeframe for pre-application interactions with other agencies is the old axiom – early and often. Of course there is such a thing as too early. It would not be appropriate to begin engaging in pre-application activities prior to the completion of site selection. The appropriate time to begin pre-application interactions with other agencies is once a site is selected and publicly announced. Prior to this time, such activities would be pre-mature. However, engagement in these activities should not wait until permits are being formally requested from the agencies to which the prospective applicant is reaching out. The true value of interacting with these agencies prior to submitting an ESP application is in precluding surprises during permitting processes from disrupting an NRC review of the application. It should be noted that there may be reasons to delay the commencement of interactions in some cases beyond the initial time of site selection, such as in cases where there is a lack of available information to make the interactions meaningful. Nevertheless,

once a prospective applicant has concluded that meaningful interactions are possible, they should be vigorously pursued.

The manner in which such interactions are conducted prior to an ESP application is consistent with NRC guidance regarding a COL application in RG 1.206 Section C.IV.7.

2.2.3 Identification of Agency Contacts

Prospective applicants have several sources of information at their disposal to inform the development of an agency interaction plan. These sources include (but are not limited to):

- Permit / consultation lists from recent industry ESP and COL applications, with particular focus on applications for sites located within the desired geopolitical (e.g., state, county) and resource (e.g., watershed, air quality district) areas.
- Interviews or discussions with recent applicants, either directly or via NEI working groups and task forces.
- Permit / consultation lists from the applicant's operating fleet or a another applicant or licensee's fleet, if available.
- Permit lists from operating or planned non-nuclear electricity generating projects within the jurisdiction of the applicable permitting bodies.
- Discussions with regulators or agency officials regarding likely permitting or consultation interfaces with other federal, state, and local agencies.
- State and local (e.g., city and county) officials and regulatory / resource agency contacts (see Section 1.3 for additional discussion).
- Recommendations from local legal counsel.
- Information from the Owner's Engineer and / or the ESP or COL application support contractor.

A generic list of typically contacted agencies is provided in Appendix B. It should be noted that the list in Appendix B is not intended to be all-inclusive or serve as an applicant's sole source of information, owing largely to the fact that permitting / consultation requirements will be specific to the site location. For example, agency interactions in the Western U.S. require a different range of stakeholder and resource priorities to be established than in the Eastern U.S. Rather, applicants are encouraged to take advantage of all available information sources to develop a comprehensive agency interaction plan. Appendix D includes links to various sources of information provided by four Federal Agencies (other than NRC) that attended a September 11, 2012 public meeting with NRC and industry that provide useful roadmaps of the relevant processes of each of these agencies.

2.2.4 Planning and Conducting Agency Interactions

When planning for pre-application meetings, the applicant should attempt to consider the interaction from the agency's perspective and develop an understanding of the likely gaps between the applicant's goals and the agency's assumed grasp of the NRC's regulatory framework and the attributes of the proposed project. Recognizing that bridging these gaps and laying the foundation for meaningful future communication should be primary goals of the contact, the following items (supplemented, as necessary by the applicant) provide a useful framework for planning and conducting pre-application interactions:

- If it is the first meeting between the parties, briefly profile the company and / or the development organization as an introduction.
- Describe the benefits of the project and offer comparisons between nuclear and other electricity generation options.
- Explain the regulatory framework of 10 CFR Part 52 and the ESP process, including the meaning of an LWA and / or a PPE, as applicable for the proposed project. Improving agencies' understanding of the Part 52 process will minimize the potential for conflicts or inconsistent conclusions between the NRC's review and concurrent / future non-NRC permitting activities (see Section 2.1.5.2).
- Discuss the NRC's development of an EIS, including the opportunity for the agency and the public to comment during the scoping phase and after issuance of the draft EIS. Of particular importance will be explaining that the closure of environmental issues at the ESP stage is merely an initial step. This step is followed by the applicant's review to determine if any new and significant information exists at the COL stage and NRC's subsequent review of this information. Such discussions will help agencies reconcile the apparent discrepancy that can arise from the perceived finality of environmental review at the ESP stage with the fact that their respective permitting processes remain incomplete or uninitiated.
- Prepare a summary document providing regulatory citations and references to additional guidance to leave with the agency. An NRC contact should be provided.
- Use the explanation of the ESP process as context to broadly define the goals of the project along the ESP timeline. That is, the agency should understand whether an applicant is planning to bank the site for an extended period of time or apply for a COL in the near-term upon receipt of the ESP.
- Use maps and drawings to locate the site, define its prominent features, and present the preliminary site layout. Describe additional conceptual design elements (e.g., water source(s) and expected consumptive use) and project attributes, as available and applicable to the agency in question. Provide the project milestone schedule, including the expected ESP application submittal

date, the general NRC review process, the anticipated ESP issue date, and beyond (if applicable).

- Define your understanding of the agency's scope of interaction for the project. Develop a comprehensive list of required permits and information that will be requested from the agency, focusing on the combination of regulatory requirements and specific project attributes driving the need for the same. Respectfully present this understanding to the agency to demonstrate proactive interest in the process; request feedback to garner a holistic understanding of the near term and future actions that could be required by both parties.

It is imperative that the agency understands what types of information will be available at various stages of the project and the resulting affect on the timing of the requested input / action from the agency. Likewise, it is important for the applicant to confirm the scope of permitting / consultation activities that will ultimately be required by agency. If the agency is a consulting agency (e.g., the SHPO), feedback should be solicited on the scope and methodology of surveys or investigations to be conducted in support of the ESP process. The applicant should also aim to characterize the supplemental information (i.e., in addition to that collected for ESP development) that will likely be required to support later permitting activities.

- Solicit feedback from the agency about potential public concerns, local or regional resource conflicts, additional agency interactions, specific information needs, etc., that could arise during permitting or implementation of the project. The foundation of that discussion will include the project goals, the preliminary layout and conceptual design elements, the anticipated milestone schedule, and the agency's likely role in the project. If applicable, discuss variations in the maturity of the conceptual design that could hamper the agency's ability to provide feedback on potential issues; examine when / if additional information will be prepared during the ESP application process to support the receipt of additional input from the agency.
- Discuss opportunities for the agency to reference, incorporate, or tier off of the NRC's EIS in their own permitting processes, noting that the resulting efficiency of process would be advantageous for both the agency and the applicant.
- Request a single point of contact (SPOC) with the agency and offer one from the applicant's organization to facilitate future interactions and follow up on questions or identified issues.
- It is advisable to reach out to the SPOC periodically to provide project updates even in the absence of an immediate need to work closely with the agency. It is also helpful to send SPOCs from the major agencies a link to the project's page on the NRC website upon docketing of the ESP application.

Depending on the breadth and depth of information to be discussed and the organization of the agency, it might be possible to cover several aspects of the agency's involvement in the project in a comprehensive meeting. However, it will often be necessary to arrange meetings with particular branches or divisions of an agency to address the relevant topics. As discussed above, requesting a SPOC for communicating with the agency will aid in determining the appropriate approach and handling meeting logistics.

2.3 MULTI-PARTY INTERACTIONS

The bulk of pre-application interactions will be conducted between prospective applicants and single entities. However, whether conducted at the request of the applicant or one or more agencies, multi-party meetings can be an efficient and effective means of reaching alignment on topics of interest to multiple stakeholders.

Similarly, involving the NRC in other agency discussions as an observer or participant can garner efficiencies by keeping the NRC informed, promoting real time feedback regarding potential issues, facilitating agency communication, and demonstrating an applicant's proactive approach to pre-application interactions.

Community outreach meetings, while a valuable part of pre-application activities, are beyond the scope of this document.

2.3.1 Interactions involving applicant and multiple other agencies

Multi-party meetings should be considered when more than one regulatory and / or resource agencies have purview over the same project element(s). Typical examples of such overlapping interests include:

- Agencies sharing jurisdiction via separate regulatory mandates. For example, the US Army Corps of Engineers, the US Coast Guard, the state permitting agency, and a local navigation district exercising authority over a proposed barge offloading facility.
- Federally delegated permitting processes, such as National Pollutant Discharge Elimination System (NPDES) and air quality permitting. In these examples, the state is generally the primary permitting body, with the US Environmental Protection Agency (EPA) maintaining ultimate authority and potentially becoming involved in complex or contentious cases.
- Cases where one authorization is contingent upon the issuance of another. For instance, the issuance of a federal permit (e.g., a Section 404 wetlands permit) requiring the prior approval of a state Clean Water Act (CWA) Section 401 water quality certification.
- Interest in a common resource, such as a species of concern, critical habitat, park or wildlife management area, impaired water body, etc.
- When a memorandum of agreement (MOA) could be required between the parties, as is potentially the case when potential impacts to cultural resources require mitigation

measures to be condoned by the State (or Tribal) Historic Preservation Officer and captured in an agency's permitting documents.

From the above examples, it can be seen that multi-party interactions are often related to interwoven permitting processes, generally making them more common for prospective ESP applicants with near term LWA or COL aspirations. However, those applicants aiming to bank a site and remain flexible on seeking a COL and other approvals should not overlook the potential benefits of multiple party interactions. Indeed, if significant issues are identified that challenge the site selection, the plant design, or the ability to later construct or operate a nuclear at the preferred site, convening multiple agencies can facilitate resolution at the pre-application stage.

Although meeting with several agencies at once can yield economic efficiencies, prospective applicants are generally advised not to view multi-agency interactions as a means of economizing their pre-application efforts. Rather, it is preferable to meet with agencies individually to establish working relationships and an understanding of an agency's authority, protocols, and preferred practices for engaging other entities. Upon garnering this information, subsequent meetings become potential opportunities to involve additional parties.

Prior to requesting or participating in multi-party meetings, prospective applicants should carefully consider the anticipated dynamic of the interaction and how involving certain parties might limit open communication. Additionally, the agencies' public participation and notification requirements should be fully understood before committing to disclose project-specific information in a multi-agency discussion.

2.3.2 Interactions involving NRC and other agencies

Prior to and during its NEPA review, the NRC will conduct agency-to-agency interactions to collect data, confirm information in an applicant's ER, and conduct informal or formal consultations. The majority of the time, these government-to-government (or "G-to-G") meetings will not involve prospective or active applicants, nor will the meeting results be made immediately available to the applicant or the public. Closed meetings of this type are an important means for the NRC to obtain information from other agencies during their independent review.

Despite the usually well-defined division between applicant and NRC interactions with other agencies, there are potential situations where combined involvement can be beneficial. Consider these examples:

- When one or more entities is likely to be a cooperating or participating agency in preparing the NRC's EIS, it is likely that early interaction between all of the parties will facilitate more effective development of the ER and have associated cost and schedule benefits during the NRC's review.
- Where another agency requests a site visit to discuss survey methodology or endorses a specific evaluation methodology that the applicant intends to use in

developing the ER, NRC reviewers can benefit from observing the applicant-agency interaction firsthand.

- In the event that the applicant identifies significant or challenging issues during pre-application interactions with other agencies, convening a meeting with the applicable agencies and the NRC can promote alignment and early resolution.

In requesting NRC involvement in a pre-application interaction, keep in mind that it is the NRC's prerogative to decline the request or offer. Similarly, an applicant should consider how the NRC's involvement might change the tone or focus of a meeting with another agency, potentially rendering the interaction less effective with respect to the original objectives.

Regardless of the circumstances surrounding a potential meeting with the NRC and one or more other agencies, applicants should be cognizant of and fully consider the Commission Policy Statement on Staff Meetings Open to the Public (Federal Register: May 28, 2002 (Volume 67, Number 102)). In cases where the NRC is invited to actively participate in an interaction with an applicant and another agency, it is likely that the referenced policy will dictate that the meeting be preceded by a Federal Register notice announcing that it is open to the public. In the event that the NRC is offered the opportunity to attend a prescheduled meeting with another agency as an observer, it is plausible to assume that the meeting will follow the other agency's policies on open meetings. However, applicants should be aware of the possibility for such prescheduled interactions with other agencies to become NRC public meetings (likely with the concurrence of the other agency or agencies) once the NRC has accepted an offer to attend. Considering this possibility, it is recommended that the NRC staff be informally queried regarding the potential need or desire for public participation prior to extending an offer to the NRC to be involved in any capacity.

2.4 NRC PRE-APPLICATION SITE VISIT

The NRC will conduct a pre-application site visit, in accordance with RG 1.206, Section C.IV.7, related to the environmental portion of the ESP application. The purpose of this visit is to assess the applicant's readiness and progress toward submitting an ESP application. The visit also allows the NRC review team to begin gathering information regarding the applicant's plans for the ESP application and to become familiar with the site and its vicinity. In addition, the NRC can elect to visit the alternative sites (i.e., those sites evaluated in the ER as alternatives to the preferred site for which the ESP is being sought).

Before the site visit, the NRC and the applicant will usually work together to develop an agenda. The applicant is generally responsible for meeting and visit logistics, excluding NRC travel and transportation arrangements. To aid in planning, the NRC will typically provide the applicant a list of the attendees (comprised of staff from different technical disciplines, the project manager, and leads). In addition, the NRC will share a list of topics of interest to the review team members. This list may include:

- Environmental Report timeline, approach, and status.
- Environmental site characterization timeline, process, and status.

- Status of federal, state, and local permitting process.
- Site selection process and evaluation of alternative sites.
- Need for power and alternative energy generation sources (note that the applicant can elect to forego evaluation of these topics at the ESP stage, per 10 CFR 51.50(b)(2)).
- Cultural resources, socioeconomics, and environmental justice.
- Land use.
- Radiological issues and accidents.
- Threatened and endangered species.
- Aquatic and terrestrial resources.
- Meteorology.
- Hydrology.
- Geology.
- Transmission lines.
- Site and alternative site tours.

The NRC pre-application site visit (or visits) could be conducted from over a year to several months prior to the applicant's planned ESP application submittal date, depending on the ER preparation schedule. The NRC review team would not expect the application to be fully developed at the first site visit. However, the NRC staff would identify some of the issues or challenges in the applicant's development efforts, including site data collection, data analysis, and external agency coordination necessary to meet the proposed submission date. The NRC may elect to conduct additional pre-application assessments specifically to visit alternative sites or to evaluate the completeness of draft ER sections closer to the ESP application submittal date.

The ultimate goal of NRC's pre-application site visit is to confirm that the applicant is capable of submitting the application as planned, so that NRC staff can allocate adequate resources and manpower to review the application when it is submitted. The NRC's May 23, 2007, presentation titled *Pre-Application Siting Interactions for New Reactors* provides additional information regarding the objectives, timing, and conduct of NRC pre-application readiness assessments (ML071490022).

The NRC's pre-application site visits provide a chance to obtain feedback on the draft ER and improve the shared understanding of the site and region, thereby facilitating the NRC's review process. Accordingly, applicants are encouraged to thoroughly prepare for and actively participate in the meetings, recognizing that the benefits realized will be commensurate with the willingness to engage the NRC team. The payback on investment becomes even greater when the proposed project involves complex or novel issues. For example, consider the following excerpt from the NEI document titled *NEI Position Paper: SMR Pre-Application Engagement* discussing licensing strategy for small modular reactors (SMRs):

“With the advent of new, smaller reactor concepts, utilizing existing or unique active and passive systems, conventional or different fuels, and conventional or different coolants, the existing regulatory guidance is not completely applicable or complete. This leads to greater uncertainty and risk for licensing applicants

expecting to deploy these new technologies if the content and acceptance criteria are only confirmed during the course of the regulatory review... a well-planned approach to the licensing application process in the pre-application phase affords an efficient regulatory review process and provides regulatory certainty.”

The NRC’s pre-application visits offer a forum for applicants to address “known” project uncertainties, such as those highlighted in the above excerpt. They also provide an avenue to update the NRC regarding previously unidentified issues that become known via pre-application discussions with other agencies. Feedback from NRC staff regarding the breadth and depth of completed and proposed interactions can be used to refine the applicant’s pre-application interaction plan (see Section 2.2).

By fostering early disclosure and discussion of challenging issues and facilitating improvement of an applicant’s pre-application program for other agency outreach, the NRC’s pre-application visits provide an opportunity to “close the loop” on pre-application interactions.

APPENDIX A – GENERAL INFORMATION AND REGULATORY BASIS

A.1 Background

In April 1989, the Nuclear Regulatory Commission (NRC) published 10 CFR Part 52 to govern the issuance of early site permits, standard design certifications, and combined licenses for nuclear power facilities. 10 CFR Part 52 does not create new substantive requirements; rather it provides a licensing process to resolve, with finality, safety and environmental issues early in the licensing process of a nuclear power facility. Since publishing the original rule, the NRC and the industry have conducted various activities related to its implementation including the review and approval of four early site permits. In August of 2007, NRC published a revised 10 CFR Part 52, incorporating the experience gained over nearly two decades.

After issuing the original 1989 rule, NRC had always intended to update it after gaining some experience using the standard design certification process. NRC embarked on this process with a proposed revision in 2003. However, in response to stakeholder input and additional experience gained, including the additional insights gained from NRC staff's review of the first three early site permit applications, NRC decided not to proceed with the 2003 proposal. Instead, a second revision was proposed in March 2006. This proposal was successfully promulgated into the current August 2007 rule.

The revised 10 CFR Part 52 rulemaking addressed several topics specific to the early site permit process. Key topics addressed included the following:

- ***The level of finality and certainty provided for by an approved early site permit application.*** In this regard NRC decided not to require updating of early site permit information prior to submittal of a combined operating license application, but did make changes to allow early site permit holders the flexibility to make voluntary changes through the license amendment process. NRC also made specific changes to 10 CFR Part 52.39 to describe the different aspects of early site permit finality and describe how NRC treats matters resolved in the early site permit proceeding in subsequent proceedings on applications referencing the early site permit.
- ***The likelihood that future early site permit applicants might not know the specific type of reactor or reactors to be built at a given site.*** The 2007 revised rule included changes to 10 CFR 52.17(a)(1) to remove requirements that would be difficult to address without a specific design and add requirements that better define expectations for what must be considered in an early site permit.
- ***Clarification of the definition of terms applicable to an early site permit.*** Specifically, the terms site characteristics, site parameters, design characteristics, and design parameters were revised in the 2007 rulemaking. These terms are of fundamental importance to the construction of an early site permit using the plant parameter envelope approach described in the main body of this document.
- ***Clarification of the information that NRC must include in the early site permit when it is issued.*** The 2007 revised rule made several changes to 10 CFR 52.24 to achieve consistency with parallel provisions in 10 CFR Part 50 and elsewhere in 10 CFR Part 52.
- ***Clarification of requirements for applicants to request a limited work authorization after receiving an early site permit.*** The 2007 revised rule amended 10 CFR 52.17(c) to

require applicants intending to use an early site permit as the basis for a limited work authorization request to identify and describe the specific activities that the applicant intends to perform in the early site permit application

- ***Clarification of the finality of NRC decisions relating to an Early Site Permit.*** The 2007 rule clarified in 10 CFR 50.39 the finality of an ESP, specifying certain conditions under which the Commission can change or impose new site characteristics, design parameters, or terms and conditions, including emergency planning requirements.

The revised rule was put to the test in the review and approval of a fourth early site permit (for the Vogtle site) in August of 2009. However, since the Vogtle early site permit was based on a specific design, the utility of the rule in preserving finality and certainty while at the same time allowing applicants to preserve flexibility by not choosing a specific design at the early site permit stage was not tested. It is the purpose of this document to provide guidance that will help applicants who have not chosen a specific design achieve that utility with their early site permit application. The remainder of the information in this Appendix is intended to provide more fundamental information useful to all prospective applicants – regardless of whether or not they have chosen a specific design

A.2 Early Site Permit Purpose and Scope

Applicants interested in early site permits are responsible for preparing a plant-specific application for an early site permit. The early site permit application includes the following information:

- Site description and general location of each proposed facility
- Population profiles of the area surrounding the site
- Assessment of site features affecting the plant design; major systems, structures, and components that bear significantly on site acceptability. Alternatively, if a specific plant design is not selected, the applicant may establish a plant parameters envelope (PPE) that would accommodate one or more designs
- Seismic, meteorological, hydrologic, and geologic characteristics of the site
- Characteristics of the facilities proposed for the site
- A redress plan, if site preparation activities are planned
- An environmental report focusing on the environmental effects on the site of construction and operation of one or more reactors which have characteristics that fall within site parameters
- Emergency Plan requirements - three options are available to the applicant ranging from identification of significant impediments and preliminary identification of agencies whose support would be required to implement an effective plan to a complete and integrated plan

An applicant may apply for an early site permit without filing a construction permit under 10 CFR Part 50 or a combined license under 10 CFR Part 52 for the site. Early site permit procedures do not replace those in 10 CFR Part 52.

An early site permit is valid for 10 to 20 years and may be renewed for another 10 to 20 years. It may continue to be valid beyond the date of expiration if it is referenced in a proceeding on a construction permit or a combined license application. A site for which an early site permit

has been issued may be used for purposes other than those described in the permit after review and possible modification of the original permit by the NRC. If a permit holder informs the NRC that the site is no longer intended for a nuclear power plant, then the NRC will terminate the permit following any required redress.

A.3 Qualifications of Applicants

Any person (as defined in 10 CFR Part 50.2) who may apply for a construction permit or a combined license may file an application for an early site permit. The applicant may not be a citizen, national or agent of a foreign country, or entity, which is owned, controlled or dominated by an alien, a foreign corporation or a foreign government. The applicant need not be a utility company nor the entity that will subsequently build and operate a power plant. The financial qualifications of an early site permit applicant are required to be commensurate with early site permit responsibilities only. An early site permit applicant need not own the site, but must have legal control over its use. As for other licenses, early site permits can be amended to add or substitute another qualified applicant.

A.4 Regulatory Bases

In addition to administrative information on the applicant, the early site permit application must include three major elements: a site safety analysis report (SSAR), an environmental report (ER), and emergency planning information

The specific regulatory bases for the Site Safety Analysis Report include:

- Atomic Energy Act
- NRC Regulations - 10 CFR Parts 50, 52 and 100
- NRC Regulatory Guide - 1.70, *Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants*
- NRC Regulatory Guide - 4.7, *General Site Suitability Criteria for Nuclear Power Stations*
- NRC Regulatory Guide – 1.206, *Combined License Applications for Nuclear Power Plants*
- NUREG-0800, *Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants.*
- NRC Regulatory Guide - 1.183, *Alternate Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors*

The specific regulatory bases for the Environmental Report include:

- National Environmental Policy Act (NEPA)
- NRC Regulations - 10 CFR Parts 51 and 52
- NRC Regulatory Guide 4.2, *Preparation of Environmental Reports for Nuclear Power Stations*
- NUREG-1555, *Environmental Standard Review Plans*
- State Environmental Statues, as applicable.

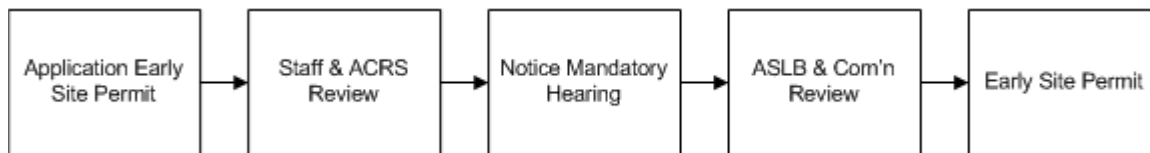
The specific regulatory bases for the emergency planning information include:

- NRC Regulations - 10 CFR Parts 50 and 52

- NUREG-0396, *Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants*
- NUREG-0654, *Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*
- NRC Regulatory Guide - 1.101, *Emergency Planning and Preparedness for Nuclear Power Plants*

The Early Site Permit process defined by these regulations and shown below in Figure A.1 is comprised of a number of activities by the applicant and the NRC. The process begins with the filing of the application, which must include: (1) a description of the site; (2) an assessment of the site features affecting facility design, including an analysis of major systems, structures, and components that bear significantly on site acceptability; and (3) the seismic, meteorological, hydrologic and geologic characteristics of the site. The application must be accompanied by a complete environmental report focusing on the environmental effects of construction and operation of the facility. An assessment of the benefits of the proposed action is not required. The application must identify any physical characteristics of the site that might impede the development of a suitable emergency plan, and it may also propose major features of emergency plans or provide complete and integrated emergency plans for NRC review and approval.

Figure A.1
The Early Site Permit Process



The ESP application will be reviewed by the NRC staff and also by the NRC's Advisory Committee on Reactor Safeguards (ACRS). The ACRS will provide a report to the NRC on their conclusions related to those portions of the application, which concern safety.

An applicant may wish to perform site preparation activities such as clearing, grading and construction of temporary access roads and temporary construction support facilities. In such a case, the applicant must provide a plan for redress of the site in the event the activities are performed but the site permit expires before an application for a construction permit or a combined license for the site is filed. The applicant must demonstrate that there is reasonable assurance that redress carried out under the plan will achieve an environmentally stable and aesthetically acceptable site suitable for any use that conforms to local zoning laws.

Because an ESP is considered a partial construction permit, it is subject to the procedural requirements of 10 CFR Part 2 which are applicable to construction permits, including the requirements for docketing and issuance of a Notice of Hearing. All hearings conducted on applications for early site permits are adjudicatory proceedings conducted in accordance with Subpart G of 10 CFR Part 2. The role of the Atomic Safety and Licensing Board in the ESP process is also delineated in 10 CFR Part 2. In the hearing process, the presiding officer is required to determine whether, taking into consideration the site criteria contained in 10 CFR Part 100, a

nuclear reactor or reactors having characteristics that fall within the parameters of the site can be constructed and operated without undue risk to the health and safety of the public.

Upon the conclusion of the hearing held on the ESP application and upon receiving the report from the ACRS, the NRC will determine whether the ESP meets the applicable standards and requirements of the Atomic Energy Act and the Commission's regulations. If so, the Commission will issue an ESP, containing such conditions and limitations as the Commission deems appropriate and necessary.

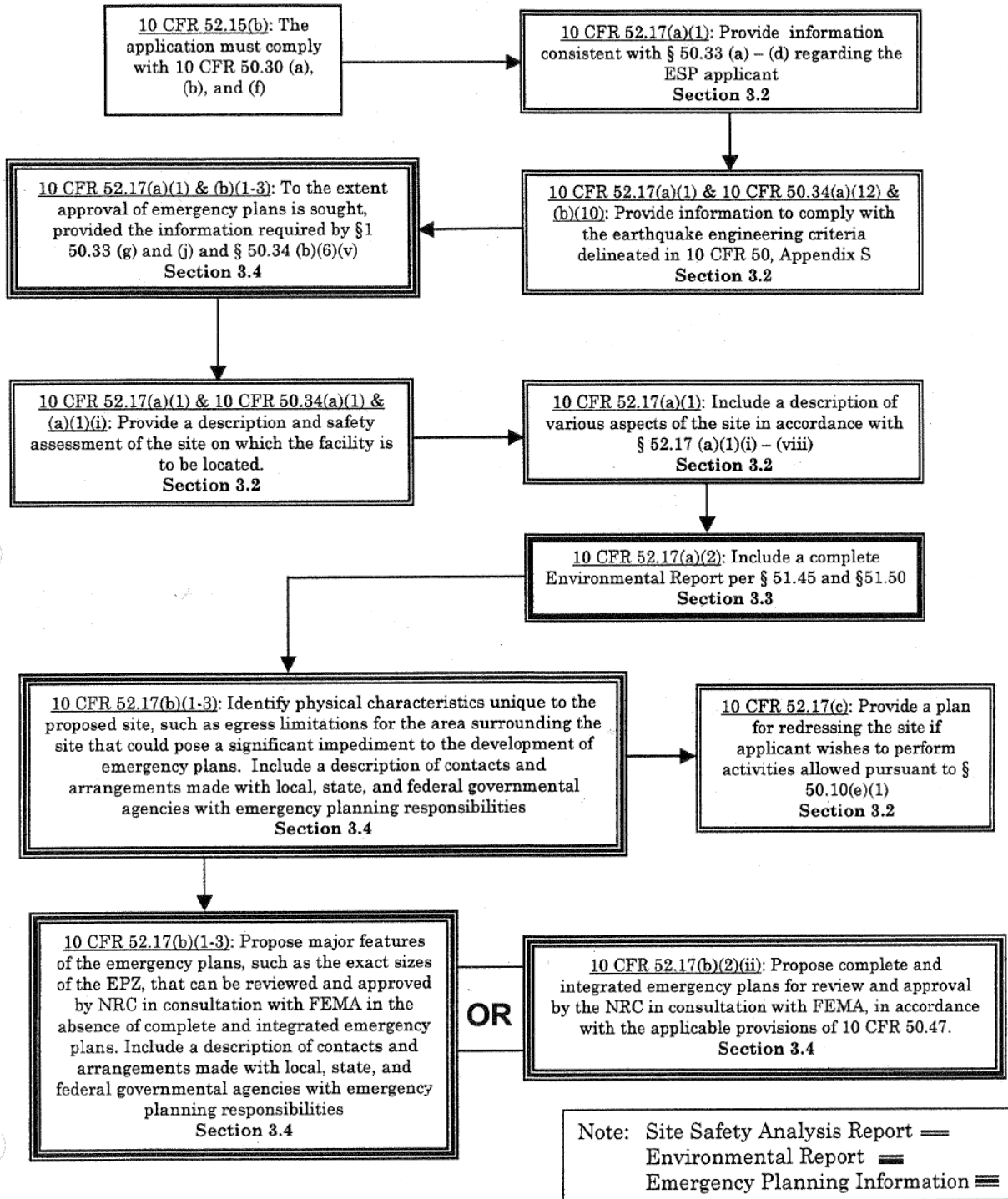
The findings of the NRC in granting the early site permit are final and not reexamined as part of the COL review. In consideration of a COL application, the Commission must only find that the terms of the ESP have been met. This finding presumably would be incorporated in the Commission conclusion to issue a COL.

An ESP is valid for not less than 10 nor more than 20 years from the date of issuance as the applicant may request. An ESP continues to be valid beyond its date of expiration in any proceeding on a construction permit or a COL application which references the ESP and is docketed before the date of expiration of the permit or, if a timely application for renewal of the permit has been filed, before the NRC has determined whether to renew the permit. An ESP also continues to be valid beyond the date of expiration in any proceeding on an operating license application which is based on a construction permit which references the ESP during its valid term and in any hearing held pursuant to 10 CFR Section 52.103 before operation begins under a combined license which references the ESP.

An ESP may be renewed for a period of not less than 10 nor more than 20 years. A renewal application must be filed by the permit holder not less than 12 nor more than 36 months prior to the end of the initial term. An ESP, either original or renewed, for which a timely application for renewal has been filed remains in effect until the NRC has determined whether the permit should be renewed. The Commission will grant the renewal if it determines that the site complies with the Atomic Energy Act, the Commission's regulations and orders in effect at the time the site permit was originally issued, and any new requirements that the Commission may wish to impose if it determines (1) that there is a substantial increase in overall protection of the public health and safety to be derived from the new requirements and (2) that the direct and indirect costs of implementation of those new requirements are justified in view of the increased protection they would provide.

Requirements for the content of an ESP application are found in various sections of 10 CFR Parts 50, 51, 52 and 100. An overview of these requirements is shown in Figure A.2.

**FIGURE A.2
EARLY SITE PERMIT APPLICATION REQUIREMENTS**



Note: Additionally, 10 CFR 52.17(a)(1)(x) requires that an application contain information demonstrating that site characteristics are such that adequate security plans and measures can be developed

APPENDIX B – LIST OF FEDERAL AGENCY CONTACTS

Federal, State, and Local Agency Contact List

	Agency	Contact	Web Access Link
Federal Agencies	National Oceanic and Atmospheric Agency (NOAA) - National Marine Fisheries Service (NMFS)	Appropriate regional contacts can be found by using the NMFS website and directing to the proper region	http://www.nmfs.noaa.gov/
	U.S. Fish and Wildlife Service (USFWS)	Appropriate regional contacts can be found by using the USFWS Office Directory website and directing to the proper region	http://www.fws.gov/ http://www.fws.gov/offices/
	National Oceanic and Atmospheric Agency (NOAA) – Ocean and Coastal Resource Management (OCRM)	Director, NOAA 301-713-3155 ext. 123 donna.wieting@noaa.gov	http://coastalmanagement.noaa.gov/ http://coastalmanagement.noaa.gov/backmatter/contacts.html
	U.S. Army Corps of Engineers (USACE)	Appropriate technical/regional contacts can be found using the USACE contacts website and directing to the proper contact	http://www.usace.army.mil/Pages/default.aspx http://www.usace.army.mil/ContactUs/Pages/default.aspx
	Federal Aviation Administration (FAA)	The appropriate contact can be found using the FAA contacts website and directing to the proper contact	http://www.faa.gov/ http://www.faa.gov/contact/
	U.S. Coast Guard (USCG)	The appropriate contact can be found using the USCG contacts website and directing to the proper contact	http://www.uscg.mil/ http://www.uscg.mil/global/mail/info_pg.asp
	U.S. Environmental Protection Agency (EPA)	Appropriate regional contacts can be found by using the EPA regional contacts website and directing to the proper region	http://www.epa.gov/ http://www.epa.gov/aboutepa/postal.html#regional
	U.S. Department of Transportation (DOT)	General Information Main Switchboard: 202-366-4000 For individual DOT agencies use the third link and direct to the appropriate agency	http://www.dot.gov/ http://www.dot.gov/contact.html http://www.dot.gov/DOTagencies.htm
	U.S. Department of Energy (DOE)	State and other offices and facilities, as well as national laboratories, can be reached from the DOE website	http://www.energy.gov/
	U.S. Department of Interior, Bureau of Reclamation	Appropriate regional contacts can be found by using the website and directing to the proper region	http://www.usbr.gov/

	Agency	Contact	Web Access Link
	Advisory Council on Historic Preservation	Appropriate contacts for information on the Council's role with respect to the National Historic Preservation Act can be found on the Council's website	www.achp.gov
	U.S Department of Interior, Bureau of Land Management	Appropriate regional contacts can be found by using the website and directing to the proper region	http://www.blm.gov/wo/st/en.html
	U.S. Nuclear Regulatory Commission (NRC)	Appropriate contact information can be found by using the NRC contact webpage and directing to the proper contact	http://www.nrc.gov/ http://www.nrc.gov/about-nrc/contactus.html
State	State Environmental Agency	Appropriate contact and links for each state may be obtained from the U.S. EPA's website	http://www.epa.gov/epahome/state.htm
	State Department of Transportation	Appropriate contact and links for each state may be obtained from the U.S. DOT's website	http://ntl.bts.gov/tools/statedot.html
	State Historic Preservation Officer (SHPO)	Appropriate contact and links for each state's SHPO may be obtained from the National Advisory Council on Historic Preservation's website	http://www.ncshpo.org/find/index.htm
	State Department of Labor and Licensing and Regulations	Appropriate contact and links for each state's labor office may be obtained from the U.S. Department of Labor's website	http://www.dol.gov/whd/contacts/state_of.htm
	State Parks and Wildlife Department	Appropriate contact and links for each state's park and wildlife office may be obtained from the National Park Services's website	http://www.nps.gov/nrcr/programs/lwcf/contact_list.html
Local	Local Emergency Planning Committee	A link to each local government's LEPC can be found in the U.S. EPA's LEPC Database (Information about SARA Title III, Tier II reports can be obtained through these contacts)	http://yosemite.epa.gov/oswer/lepcedb.nsf/HomePage?openForm
	County/Local Environmental Agency	These contacts would be obtained via a search of each State or local government's website	
	County/Local Labor Agency	These contacts would be obtained via a search of each State or local government's website	
	County/Local Historic Agency	These contacts would be obtained via a search of each State or local government's website	
	County/Local Economic Agency	These contacts would be obtained via a search of each State or local government's website	

APPENDIX C – SUMMARY OF 7/15/2010 MEETING

Summary of the Topics Discussed During the July 15, 2010 Meeting on Effective Multi-Agency Pre-Application Interactions during the ESP Process

Brent Clayton, Chief of the Environmental and Technical Support Branch at the Nuclear Regulatory Commission (NRC), welcomed the Environmental Protection Agency (EPA), the U. S. Army Corps of Engineers (the Corps), the Bureau of Reclamation and the Commonwealth of Virginia Department of Environmental Quality (VDEQ) and the Nuclear Energy Institute (NEI) to the meeting. The purpose of the meeting was to open a dialogue between the nuclear industry and Federal and State Agencies, other than the NRC, from which the applicant may need a permit. The EPA handout listed agencies from which an applicant may need a permit (ML102000585). The list is meant to be illustrative and is not all inclusive. From the list it can be seen that a number of Federal and State permits will be required to construct and operate a nuclear power plant.

Jack Cushing, explained the NRC's ESP licensing process (ML102000579). The purpose of the ESP is to resolve siting issues with the NRC before construction. The NRC suggested that applicants should engage other agencies when developing their ESP application to allow the other agencies to address issues early in the licensing process. If the applicant has taken into account the other agencies concerns at the ESP stage, then the permitting process should be smoother for the permits required from those agencies at the combined license stage.

Marthea Rountree EPA, explained EPA's role in the environmental impact statement (EIS) review process. Under section 309 of the Clean Air Act, EPA reviews and rates all EISs. As necessary EPA meets with the lead agency to resolve significant issues. EPA has regulatory authority under several statutes including the Clean Air Act, Clean Water Act and Safe Drinking Water Act. EPA has delegated authority to various states under the Clean Air and Clean Water Acts. EPA has an oversight role and veto authority under the Clean Water Act for the Section 404 permits that are issued by the U.S. Army Corps of Engineers (USACOE). The applicant should engage the permitting authority; either the State or EPA early in the process to ensure the concerns the agencies may have are identified and addressed in the applicant's environmental report.

Following EPA's presentation, Kim McLaughlin from the USACOE, discussed the Corps role and regulatory responsibility. The USACOE per the Memorandum of Understanding with the NRC, may be a cooperating agency with the NRC on its EISs for new reactors. The Corps is responsible for issuing Section 404 Clean Water Act permit for disturbing wetland areas and Section 10 River and Harbors Act permit for impacts to navigable waters. Ms. McLaughlin recommended that applicants engage the USACOE early in developing their application. In particular, engaging the USACOE in developing the purpose and need for the USACOE's permit action. Also the applicant should understand the USACOE requirements for the making the determination of the least damaging practicable alternative (LEDPA). The applicant should engage the USACOE at the local level at the earliest stages of the project to ensure it has taken into account the USACOE responsibility to ensure that impacts to wetlands are minimized.

Mr. Michael Murphy, from the Virginia Department of Environmental Quality (VDEQ), provided a State's perspective on the ESP process. Mr. Murphy said that the ESP process, along with the Coastal Zone Management Act, did allow the State and the applicant to work out issues such as water use early in the licensing process. As a result, the review was more efficient at the COL stage. Early interaction is also important between the NRC as the lead agency and other State and Federal agencies. Mr. Murphy also mentioned that interactions during the review, such as coordinating the State and NRC meetings with the public, aided the public's understanding of the project and the different roles of the State and the NRC. The NRC found that VDEQ was very effective in coordinating the review by the various State agencies.

Cathy Cunningham, from the Bureau of Reclamation, described the Bureau's role. The Bureau of Reclamation is best known for the dams, and power plants, it constructed in the 17 western states. The Bureau supplies some of the water to a large portion of the Western States. The Bureau is also the second largest producer of hydroelectric power in the western United States. The Bureau's mission is to assist in meeting the increasing water demands of the West while protecting the environment. The Bureau would have a role in ESP, if an applicant proposed to use water supplied by the Bureau. The NRC invited the Bureau to participate, so that in the event that an applicant would need to engage the Bureau, the Bureau would understand the ESP process. Ms. Cunningham asked the NRC if they knew of any applicants that planned to use water the bureau controls. The NRC staff responded that it was unaware of any applicant that that planned to do so. The NRC staff referred the Bureau to the NRC's website that lists potential applicants (<http://www.nrc.gov/reactors/new-reactors.html>).

Rod McCullum, from NEI, thanked the agencies for attending and describing their roles and responsibilities. Mr. McCullum described the role of the NEI ESP task force, which includes developing guidance for the industry on how to prepare an ESP application includes multi-agency interactions (ML102000484). The guidance to the industry includes:

- Identification of Federal Agency and the point of contact
- Timing of Federal and State agency interactions (early and often)
- Identification of the types of State agencies that need to be involved
- Interactions between applicant, and Federal and State Agencies
- Effective communications between all agencies and applicant

The industry would like to improve the efficiency of the environmental review process by avoiding to the extent practical multi-agency review of the same or similar information. Because up to 20 years can elapse between the issuance of an ESP and it being referenced in a combined license application, there is a possibility of new and significant information. The new and significant information would need to be addressed by the NRC in its combined license EIS. The industry is aware that the NRC's permitting process with a combined license that references an ESP is different than other Federal and State Agencies permitting processes. At the ESP stage the industry would like to resolve siting issues with other agencies. Then at the combine license stage, absent new and significant information that could change the environmental impact, the agencies would rely on the analysis performed at the ESP stage. If there was new and significant

information impacting a resource area at the combined license stage then the impact to that resource would be evaluated in the combined license EIS.

Mr. McCullum, concluded by stating that the NEI ESP task force is interested in producing guidance on effective multi-agency interactions. The discussion at this meeting was a starting point and the task force welcomes additional dialogue.

APPENDIX D – SUMMARY OF 9/11/2012 MEETING

Meeting Summary of the Public Meeting on September 11, 2012, To Discuss NEI10-07 "Effective Multi-Agency Pre-Application Interactions during the Early Site Permit Process"

On September 11, 2012, the U.S. Nuclear Regulatory Commission (NRC) staff held a Category 2 public meeting at the NRC headquarters in Rockville, Maryland to discuss how applicants for a new reactor license or permit should engage Federal and State Agencies, when preparing an application. Participants in the meeting included staff from the U. S. Environmental Protection Agency, the U.S. Army Corp of Engineers, U.S. Fish and Wildlife Service, Advisory Council on Historic Preservation and the Nuclear Energy Institute (NEI). A representative of each agency discussed their agency's role, and an NEI representative summarized the guidance in NEI10-07 for pre-application interactions with Federal agencies. A detailed summary of the discussion is included in this Appendix. Additional details can be found in the materials that were provided at the meeting which are available in the NRC Agency-wide Documents and Management System (ADAMS) and include the following:

- Meeting notice and Agenda (ML12222A361)
- NEI slides "Industry Guidance for Effective Pre-Application Interactions with Agencies other than the U.S. Nuclear Regulatory Commission during the Early Site Permit Process" (ML12257A340)
- EPA Slides "Industry Guidelines for Effective Pre-Application Interactions" (ML12257A299)
- EPA Handouts "Required Government Approvals" (ML12257A327)
- EPA Handouts "EPA NEPA Points of Contact" (ML12257A308)
- Army Corps of Engineers Slides "Overview USAGE Permit Application Review Process" (ML12258A126 and ML12258A154)
- US Fish and Wildlife Service Handouts "Biological Assessment Format and Checklist" (ML12263A219 and ML12263A228)
- Advisory Council on Historic Preservation (ACHP) Slides and Industry Guidelines Overview (ML12257A450 and ML12258A114)

The purpose of the meeting was to discuss the guidance Nuclear Energy Institute (NEI) had developed NEI 10-07 "Interactions with Agencies other than the U.S. Nuclear Regulatory Commission during the Early Site Permit Process (ADAMS Accession No.ML112980112)."

Mr. Scott Flanders, Director of the Division of Site Safety and Environmental Analysis at the U.S. Nuclear Regulatory Commission (NRC), welcomed the Environmental Protection Agency (EPA), the U.S. Army Corps of Engineers (USACE or Corps), the U.S. Fish and Wildlife Service (FWS), the Advisory Council on Historic Preservation (ACHP) and the Nuclear Energy Institute (NEI) to the meeting. Mr. Flanders stated that the meeting was important to the work of the NRC and should help the applicants for a new reactor license

know how to effectively engage the other Federal agencies early in their project development so that the environmental report submitted to the NRC has factored in the concerns of the other Federal agencies. This early interaction with other Federal agencies should make the review process for all agencies more efficient.

Mr. Jack Cushing, Senior Project Manager, Division of Site Safety and Environmental Analysis at the NRC, provide the background for the meeting. The guidance in NEI 10-07 was developed in response to a public meeting held on July 15, 2010, (ML102030348) that discussed effective multi-agency pre-application interactions. On August 12, 2011, NEI submitted NEI10-07 for NRC review and endorsement. The feedback received in the September 11, 2012, meeting will be used to update NEI 10-07. NEI will then submit a revision to the NRC. The NRC will then complete its review of NEI 10-07.

The Nuclear Energy Institute

Mr. Rod McCullum, Director Used Fuel Programs, Nuclear Generation Division, Nuclear Energy Institute, thanked the agencies for attending and describing their roles and responsibilities. Mr. McCullum stated that while the guidance in NEI 10-07 was written by the NEI Early Site Permit Task Force, the guidance would also apply to a combined license or a limited work authorization permit including small modular reactors. Mr. McCullum's presentation (ML12257A340) described the role of the NEI early site permit task force, which includes the guidance developed in NEI 10-07 for the industry on how to interact with Federal agencies other than the NRC.

The purpose of NEI 10-07 is to provide a logical, consistent, and workable framework to guide interactions between prospective applicants and the wide range of federal, state, and local agencies other than NRC that become involved in the licensing and permitting processes at the time an early site permit (ESP) application is being developed for submittal to the NRC. Raising and addressing siting issues to the maximum extent practicable at the earliest possible stage of the ESP process will benefit all participants by providing for a more effective and efficient process.

The areas of pre-application include:

- Initiation of Informal Consultation
- Identification of Regulatory Interfaces
- Data Collection
- Engagement of Permitting Agencies
- Identification of Significant Issues

Mr. McCullum described the NRC's pre-application visit(s) which can occur months to a year prior to submittal of the application. The NRC environmental pre-application visit is conducted in accordance with RG 1.206 Section C.IV.7.2.

During the discussion that followed, Ms. Marthea Rountree, Environmental Engineer NEPA

Compliance Division at the EPA stated she had a list of NEPA points of contact for EPA (ML12257A308). The EPA handout listed agencies from which an applicant may need a permit (ML12257A327). The list is meant to be illustrative and is not all inclusive. From the list, it can be seen that a number of Federal and State permits will be required to construct and operate a nuclear power plant. Each of those agencies has regulatory requirements that an applicant should consider when developing their project. Mr. McCullum thanked her and stated that he would include the updated contact list in the revision to NEI 10-07.

Mr. Josh Trembley from Exelon Corporation stated that in his experience it would be helpful if the NRC engaged the State agencies to explain the NRC's licensing process during the pre-application stage. Mr. Cushing from the NRC stated that engaging the State and other Federal agencies during pre-application phase is part of the NRC process in RG 1.206. In order to start the engagement with other agencies earlier, the applicant would have to request pre-application interactions earlier.

The Environmental Protection Agency

Ms. Marthea Rountree explained EPA's role in the environmental impact statement (EIS) review process. Under Section 309 of the Clean Air Act, EPA reviews and rates all Draft EISs. The rating summarizes EPA's level of concern regarding environmental impact and adequacy of the EIS. As necessary EPA meets with the lead agency to resolve significant issues. EPA has regulatory authority under several statutes including the Clean Air Act, Clean Water Act and Safe Drinking Water Act. EPA has delegated authority to various states under the Clean Air and Clean Water Acts. EPA has an oversight role and veto authority under the Clean Water Act for the Section 404 permits that are issued by the Corps. EPA also has authority to issue generally applicable environmental radiation standards that other federal and state organizations must follow when developing requirements for their areas of radiation protection.

The applicant should engage the permitting authority; either the State or EPA, early in the process to ensure the concerns the agencies may have are identified and addressed in the applicant's environmental report. Ms. Rountree provided a list of important NEPA web pages:

- CEQ: <http://www.whitehouse.gov/ceq>
- CEQ NEPA net: <http://www.nepa.gov/nepa/nepanet.htm>
- EPA NEPA Program: <http://www.epa.gov/compliance/nepa/index.html> §309 Reviewers Guidance for New Nuclear Power Plant Environmental Impact Statements

US Army Corps of Engineers

Following EPA's presentation, Ms. Amy Klein, Regulatory Program Manager, U.S. Army Corps of Engineers presentation discussed the USACE's role and regulatory responsibility. Ms. Klein's presentation is available in ADAMS at Army Corps of Engineers Slides "Overview USACE Permit Application Review Process" (ML12258A126 and

ML12258A154).

The USACE, per the Memorandum of Understanding with the NRC, may be a cooperating agency with the NRC on its EISs for new reactors. The USACOE is responsible for implementing Section 404 Clean Water Act Permit which regulates the discharge of dredge or fill material into waters of the U.S., including wetlands, Section 10 of the Rivers and Harbors Act for work or structures affecting navigable waters and under Section 103 of the Marine Protection, Research and Sanctuaries Act for the transport of dredged material for the purpose ocean disposal. Although her presentation was focused on regulatory processes, some project proposals may also impact other USACE business lines and require coordination and approval, such as:

- Flood Control Projects such as dams or levees
- Navigation Channels
- Hydropower
- Real Estate
- Environmental restoration projects

Ms. Klein recommended that applicants engage the Corps early in developing their application. The applicant should engage the Corps at the district level at the earliest stages of developing its project to ensure it has taken into account the Corps responsibilities. Pre-application meetings can help streamline the permit process by alerting the applicant to potentially time consuming concerns that are likely to arise during the evaluation of their project. For example, engagement with the Corps may identify aquatic resource mitigation (avoidance, minimization, and compensation), Endangered Species Act, historic properties, or tribal concerns.

These meetings can be informal phone calls or interagency meetings depending on the scope of the proposal and the development stage it is in. The process, including the Clean Water Act Section 404(b)(1) guidelines, is explained in Ms. Klein's presentation. In particular, engaging the Corps in developing the purpose and need for the Corps' permit action and in understanding requirements for making the determination of the least environmentally damaging practicable alternative (LEDPA) would make the Corps' review process more efficient. In the discussion that followed, Mr. Cushing mentioned that because the Corps and the NRC cooperate on the EIS, the alternative analysis would ideally satisfy both the NRC's standard of no site being "obviously superior" and the Corps LEDPA standard in order to receive a permit from both agencies without delay that could incur if the Corps requires additional information to complete its alternatives analysis.

US Fish and Wildlife Service

Deborah Mead of the U.S. Fish and Wildlife Service (FWS) presentation discussed the Endangered Species Act Section 7 Consultation requirements. Ms. Mead's presentation is available in ADAMS at U.S. Fish and Wildlife Service Handouts "Biological Assessment Format and Checklist" (ML12263A219 and ML12263A228). One of the most effective

methods of streamlining Section 7 consultation is for the FWS, action agencies, and applicants to coordinate early and often throughout the consultation and design processes. The guidance in her presentation is designed to assist consultation participants in conducting the appropriate level of coordination at the appropriate times in the consultation process. The guidance presented in the Section 7 Structured Coordination Process document is optional and is not intended to supersede the procedures presented in the Endangered Species Consultation Handbook (March 1998); however, the document strongly recommends that the coordination steps be implemented to help ensure the establishment of a complete administrative record and a smooth consultation process. Section 7 Consultation is the responsibility of the Federal agency proposing, permitting, or funding the proposed action. Given that this is NRC's role with respect to ESP's, Mr. Trembley expressed industry's view that applicants could benefit from more open communications from the NRC regarding timing and opportunities for applicant involvement in the ESA Section 7 Consultation process.

Ms. Mead mentioned that the agency and the applicant should engage the FWS regarding any species proposed for listing that may become listed during the review period for the permitting action before the NRC. This can help avoid delays caused by species that are listed late in NRC's review process.

Advisory Council on Historic Preservation

Mr. John Eddins and Mr. Tom McCulloch from the Advisory Council on Historic Preservation discussed the Section 106 Consultation under the National Historic Preservation Act (NHPA). The NHPA does not mandate preservation, but incorporates a process for addressing the needs of a growing society without sacrificing the unique and irreplaceable identities or our communities. Federal agencies are the entities that must comply with Section 106 of NHPA. The ACHP oversees the Section 106 process and developed and interprets the Section 106 regulations, "Protection of Historic Properties" (36 CFR 800).

Federal agencies comply with Section 106 by following the four-step process set forth in the Section 106 regulations. The four steps include:

- (1) Establish undertaking and initiate the Section 106 process
- (2) Identify historic properties
- (3) Assess effects to historic properties
- (4) Consult to resolve adverse effects

The heart of Section 106 process is consultation with identified stakeholders who are invited into review as consulting parties. Consultation is defined as the process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the Section 106 process.

Limitation on Delegating Section 106 Consultation to Applicants

Based on a memorandum issued by the ACHIP in 2000 and subsequent interpretation of the

applicability of that memorandum to all federal agencies, it has been the ACHP's position that, pursuant to a delegation under 36 CFR 800.2(c)(4), applicants for federal assistance, permit, licenses, or approvals, and their authorized representatives may consult with the State Historic Preservation Officers (SHPOs) and Tribal Historic Preservation Officers (THPOs) to perform the first three steps:

- initiate the Section 106 review process;
- identify and evaluate historic properties;
- assess effects.

The federal agency; however, remains responsible for participating in the consultation process when:

- it is determined that the Criteria of Adverse Effect apply to an undertaking;
- there is a disagreement between the applicant or their authorized representatives and the SHPO/THPO regarding identification and evaluation, and/or assessment of effects;
- there is an objection from consulting parties or the public regarding findings and determinations, the implementation of agreed upon provisions, or their involvement in a Section 106 review;
- there is the potential for a foreclosure situation or anticipatory demolition as specified in Section 110(k) of the National Historic Preservation Act.

Under the Section 106 regulations (Section 36 CFR 800.2(a)), federal agencies are responsible for all findings and determinations and the adequacy of documents and studies prepared by non-federal parties including consultants working for the agency or for applicants for federal authorization or assistance.

Issues related to project timing and coordination of Section 106 review

Often projects are sponsored by private entities with early planning and analysis carried out before active federal involvement. There are often problems in compiling sufficient information about potential for effects to historic properties early enough to inform site selection to avoid potential effects to significant historic properties. After federal involvement is underway, the assignment to applicants of responsibilities for initiation of the Section 106 process and compiling information about the presence of historic properties can cause problems for SHPOs/THPOs, tribes and other consulting parties and stakeholders.

Tribal Consultation

Federal agencies have an obligation to engage in government-to-government consultation with federally recognized tribes, but often do not energetically coordinate with tribes to achieve a mutually agreed upon definition of government-to-government consultation. This can lead to roadblocks in eliciting the concerns of tribes about properties of religious and

cultural significance that might be affected by the undertaking. Tribes often are not content to consult directly with project proponents and often do not wish to share with proponents information about historic properties of religious and cultural significance that they wish to be held in confidence.

Based on our experience with a range of Section 106 cases the central point is to consult EARLY, EARLY, EARLY.

Alternative Site Evaluations

Andy Kugler of NRC expressed the NRC's position that applicants should be engaging other agencies to request information about alternative sites. Mr. Trembley responded that, while industry does agree that such interactions might be appropriate during site selection or if a sensitive issue is identified that requires follow-up, applicants typically obtain the necessary "reconnaissance level" information from agency websites and published documents in lieu of direct interactions. This approach recognizes that agencies are resource-constrained and often challenged to expend a lot of time engaging applicants early for the preferred site, let alone for sites that the applicant does not intend to license.

Andy Kugler stated that the NRC does engage other agencies on alternative sites and visits the sites when evaluating those sites in the EIS. If the applicant has not taken the step to engage the other agencies about the alternative sites there is a possibility that the NRC will find issues that the applicant will need to address during the review. Depending on the issues, the site selection process may need significant rework.

Closing Remarks

Mr. McCullum from NEI expressed appreciation to the Federal agencies for their insights into engaging their agencies and he felt it was a valuable meeting and that the insights will be incorporated into NEI 10-07.

Jack Cushing thanked everyone for attending the meeting and describing their agency's role and responsibility and informing the industry how they can interact with their agency prior to submitting an application. The early interactions should result in a more efficient review. The result of the meeting will be that NEI will incorporate the insights from the meeting into NEI 10-07 and submit a revision to the NRC for final review.