

## **Attachment 2: Staff Guidance for the Socioeconomic and Environmental Justice Analysis for New Reactor Environmental Impact Statements COL/ESP-ISG-026**

### **Background**

While preparing the Environmental Impact Statements (EISs) for the first group of combined license (COL) and early site permit (ESP) applications, the U.S. Nuclear Regulatory Commission (NRC or Commission) staff identified a number of issues that necessitate changes to staff guidance.

The guidance in this attachment includes both clarifications and changes. Clarifications address cases in which the Environmental Standard Review Plan (ESRP) already addresses the issue but the staff has determined it would be useful to provide some clarification. Changes address cases in which the ESRP does not address the issue. For changes, the guidance includes a “Reason for Changes” to explain why new guidance is being developed.

### **Rationale**

The purpose of this guidance is to clarify certain aspects of the NUREG-1555. This guidance clarifies NUREG-1555, Part 2.5.1 (Environmental Description, Demography). It also applies to the socioeconomic characterization of alternative sites discussed in NUREG-1555, Section 9.3 in the context of a “reconnaissance level” analysis. This guidance either provides clarifications on sections that could be subject to misinterpretation, or provides clarification to sections where standard practices have evolved over time. Because an applicant may use the ESRP to help ensure the Environmental Report (ER) in a new reactor application meets the agency’s needs, it is important to point out that none of the clarifications in this guidance impose new analytical requirements. In fact, several of the clarifications included in this guidance reduce or eliminate analytical steps recommended by the 2000 ESRP ([NRC 2000](#)) and its 2007 update ([NRC 2007a](#)).

### **Staff Guidance**

#### **ESRP Section 2.5.1 - DEMOGRAPHY**

**Issue Discussion:** The changes to the Demography section involve a detailed description of the information requirements for analyzing and presenting demographic data in EISs. There is no change in the resource burden needed by the staff to perform demographic analyses under the new approach. Instead, this revised guidance is an accurate characterization of how the staff currently interprets and applies the guidance under NUREG-1555. The technical language included below is strictly a clarification of the current ESRP in the context of how the staff’s processes have evolved over time.

**Reason for Changes:** In the past, the staff relied upon use of the decennial census from the U.S. Census Bureau (USCB or Census) because it was the main federal source for data that was disaggregated to the census block group level. (A census block is the smallest geographically defined area for which census data are gathered, and a census block group is the smallest geographically identified area for which the Census develops detailed demographic data.) With the latest decennial census, the USCB stopped including survey estimates of

poverty data. However, the another data series, the American Community Survey Five-Year Summary (ACS), tracks census block group level data estimates for poverty on a five year moving average, based upon survey data. For poverty data, this is the only source for census block group data. Because of this change in demographic sources, the reviewer should in the EIS use the ACS Five-year Summary file estimates for all race ethnicity and poverty information.

However, it is acceptable to use the decennial Census if it has been recently released and after confirming that there is no significant change when compared to the ACS information.

The ACS Five-Year Summary data are available at [www.census.gov](http://www.census.gov) through the American FactFinder page at <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml> for highly disaggregated geographical areas or through the ACS website at <http://www.census.gov/acs/www> for census block group data. Instructions on how to use the ACS 5-Year Summary data is available using the ACS 5-year Technical Documentation Manual ([USCB 2010](#)).

The following language fully replaces the language in the Data and Information Needs section of ESRP 2.5.1 and provides information for the REVIEW PROCEDURES section. It also provides input for the EVALUATION FINDINGS section of ESRP 2.5.1:

### **Beginning of change**

#### Data and Information Needs

Socioeconomic and demographic conditions could change as a result of implementing the proposed action. The level of detail in the EIS should be commensurate with the reasonably foreseeable magnitude of the potential impact. The staff's environmental justice (EJ) analysis of the proposed site and all alternative sites should encompass a circle with a 50 mile radius centered upon the power block(s) of that site. The reviewer should consider this 50-mile radius as a starting point that establishes the outer limit of all potential impacts and that a detailed analysis of the majority of impacts will constitute a much smaller area within the 50 mile radius. The staff should begin with the applicant's ER, verify the accuracy and relevance of that data, and supplement it with such additional data as the staff may deem necessary for the full discussion of all important impact categories of the affected area. The source for demographic data should be the ACS 5-Year Summary Data on race, ethnicity, and poverty, which includes the demographic categories below at the Census block group level. If the applicant submitted the decennial census information the reviewer will compare the ACS information to the decennial information. If the ACS information indicates large deviations from the decennial census, the reviewer should discuss those differences in the EIS but still use ACS information.

Demographic data to be collected must include the following categories:

1. Race (Not Hispanic or Latino)
  - (1) White
  - (2) African American or Black
  - (3) American Indian or Alaska Native
  - (4) Asian
  - (5) Native Hawaiian or Other Pacific Islander (NHOP)

- (6) "Other" Race (including races not mentioned above and Two or More Races)
2. Ethnicity
  - (1) Hispanic or Latino (of any race)
3. Aggregate minority
4. Low-income populations (individuals or households at or below the poverty level)

Other general demographic and socioeconomic characteristics of the affected area should be included to provide the full characterization of the proposed site and region. For example:

1. Gender
2. Age
3. Educational attainment
4. Income levels
5. Employment and unemployment
6. Employment by industry
7. Migrant workers (see Census of Agriculture, Table 7. Hired Farm Labor, "Number of farm workers working less than 150 days" and other related information in this table)
8. Vehicle access for households

When deviating from the ACS as the data source, the reviewer should provide a discussion in the EIS as to why the alternative data source is **preferable** **acceptable**, and should use data sources that are:

1. most up to date
2. developed by a federal, state, or academic institution
3. able to be disaggregated across
  - a. demographic sub-groups (see demographics list, above)
  - b. geopolitical boundaries
4. linked to a geographic information system for mapping purposes for areas down to the Census block group level
5. readily accessible to the general public, preferably at no charge

**End of change**

Issue Discussion: This Interim Staff Guidance (ISG) offers definitions of several terms used in the socioeconomics section of the EIS. These definitions are either a clarification of the language that currently exists in the ESRP or are new definitions offered where none had been provided.

“*Aggregate minority*” has often been mistakenly calculated for demographic purposes as either the Total Population minus “White,” or by summing the populations of all non-white racial group total populations. Both of these approaches ignore the fact that the Hispanic or Latino population, while a minority category, is not a racial category. The demography section of Chapter 2 of the EIS should include the following statement:

For EIS purposes, “Aggregate Minority Population” should be calculated as the total population minus people who identified themselves as “White, Not Hispanic, or Latino.”

The relevant regions for analysis are included in this ISG because there has been no standardized nomenclature used in the past for discussions of the various areas that could be potentially affected. For analytical work, the socioeconomic reviewer should limit the discussion to:

1. the “*50 mile region*,” which is an area defined by a circle with a 50-mile radius centered on the power block(s) of the proposed site; and
2. the “*economic impact area*,” which is a specific subset of counties or other politically defined areas where the staff expects (1) the construction/operations work force would be principally drawn and reside, (2) the majority of the stresses to community services by a change of residence of construction/operations workers would occur, and (3) the majority of other economic impacts of the proposed project would occur. The reviewer should avoid using the acronym, EIA, as a substitute for “economic impact area” because the acronym carries numerous conflicting definitions.

Deletions: NUREG-1555 contains guidance recommending the inclusion of sector charts (see ESRP Section 2.5.1, pages 4 through 7). Given that these charts were originally intended for use in emergency planning and are found in the applicant’s Safety Analysis Report (SAR), and that the staff does not perform any impact analyses based upon sectors, the staff has determined that the charts are not necessary for the purposes of the EIS. The reviewer should also note that this deletion should also be performed in the appropriate appendix, where the tabular data for the sector analysis has been made available.

Clarification: The reviewer should establish a social and economic impact area that is relevant to the environmental review and avoid creating an unnecessary nexus between the safety analysis and those of the environmental work. Discussions of the demographic baseline in terms of “Exclusion Area Boundary,” “2-mile radius,” “5-mile radius,” and “10-mile radius,” have specific meanings in the context of the safety review, which are not relevant to the environmental review. However, there may be special cases where it makes sense to discuss the demographic information in safety terms. The environmental and the safety review both look at demographic information, and the reviewers should discuss their findings.

## STAFF GUIDANCE FOR THE ENVIRONMENTAL JUSTICE ANALYSIS FOR NEW REACTOR ENVIRONMENTAL IMPACT STATEMENTS

### Background

In 2007, the Commission ruled in favor of issuing an ESP for the North Anna ESP Site, with one Commissioner dissenting ([NRC 2007b](#)). The basis for the dissent was the lack of specificity in the EJ discussion in the EIS. The staff subsequently determined that, while the ESRP was fully compliant with the Commission's policy statement on the treatment of EJ matters in licensing actions ([NRC 2004](#)), the presentation of the staff's analysis should have been more extensive.

### Rationale

The purpose of this portion of the ISG is to ensure that in all permit actions, the staff's analysis of EJ issues is supported by a level of detail sufficient to describe the basis for the staff's conclusions.

### Staff Guidance

The following list comprises the set of specific clarifications or revisions will preserve and refine the NRC's EJ analytical process within the spirit of applicable Commission guidance documents and the [Council on Environmental Quality \(CEQ\)](#) guidance they reference:

- LIC-203, Revision 3, Appendix D ([NRC 2013](#)), referencing CEQ guidance ([CEQ 1997](#)) with respect to the process by which Census data should be used to identify and locate potentially affected minority or low-income populations. The ESRP does not provide guidance on this process and refers the reviewer to these earlier documents. The language in the CEQ guidance has led to interpretations in the past that can understate minority and low-income populations in the 50-mile region. This guidance clarifies this process to provide a more detailed EJ assessment.
- LIC-203, Revision 3, Appendix D, directs the reviewer to "obtain the most recent 10-year demographic data (census data) for the 50-mile radius and surrounding communities." The ESRP identifies the use of "current decade census data, and where available, more recent data." This indicates that the reviewer should consider more recent data than the decennial Census when such data are available. The source for demographic data should be the ACS 5-Year Summary Data on race, ethnicity and poverty, at the Census block group level. If the applicant submitted the decennial census information the reviewer will compare the ACS information to the decennial information. It is acceptable for the reviewer to use the decennial Census if it has been recently released and after confirming that there is no significant change when compared to the ACS information.
- The ESRP does not explicitly state the geographic scale of the census data analysis should be the census block group level. The ESRP does not contain the phrase "block group" anywhere within the 2007 update, and in the EJ Section 2.5.4, the word "block" appears only once (it only discusses the data *availability* of block data in the [Data and Information Needs](#) discussion). LIC-203, Revision 3, Appendix D recommends the use of census block group data. However, that discussion is useful to the reviewer only if they research the ESRP's reference documents. This guidance establishes the scale of analysis within the ESRP.

- LIC-203, Revision 3, Appendix D, and the CEQ guidance document spend a great deal of time carefully explaining the need for a two-part assessment of impacts: effects on human health, and effects on the environment. This language is absent in the ESRP and was identified in the Commission's North Anna ESP decision as an information area that could have been expanded upon. This guidance makes that two-part assessment an explicit part of the ESRP.

The 2007 ESRP update shows the EJ discussion as a final section of the socioeconomics section of the EIS. Current practice has moved the EJ discussion to its own section in the EIS, immediately following the socioeconomics discussion.

The discussion of baseline socioeconomic impacts in an EIS for an ESP or COL application can typically be found in Chapter 2 Affected Environment, in the following sections. Potentially affected minority and low-income populations, including subsistence consumption of fish and wildlife, migrant populations, and minority and low-income communities with unique characteristics should be described.

## 2.6 Environmental Justice Populations

### 2.6.1 Methodology and Analysis

### 2.6.2 Scoping and Outreach

- Minority and Low-income populations
- Subsistence Consumption of Fish and Wildlife
- Communities with Unique Characteristics
- Migrant Populations

### 2.6.3 Environmental Justice Summary

## ESRP Section 2.5.4 - ENVIRONMENTAL JUSTICE

The following guidance fully replaces the REVIEW PROCEDURES section of the guidance in the ESRP.

### **Beginning of change**

#### III. REVIEW PROCEDURES

The reviewer's analysis of minority and low-income populations should be closely linked with the impact-assessment review of environmental issues described by the ESRP Sections 4.1.1 through 4.6, 5.1.1 through 5.6, 7.1, and 7.3 to establish the environmental pathways, if any, by which minority and low-income populations could be disproportionately affected. The **Environmental Justice (EJ)** reviewer should enlist the assistance of the human health impacts reviewer in preparing and/or reviewing any statements concerning human health effects on minority and low-income populations. The analysis of important demographic groups (e.g., migrant populations), environmental concerns (e.g., Native American cultural sites), or data sources (e.g., social science studies on minority and low-income populations performed by an academic institution) may provide useful information. Commensurate with the significance of this information, the reviewer should incorporate it into the EIS and advise the Environmental Project Manager (EPM) and the relevant safety reviewer of the existence of this new information. To analyze the population distribution within the 50-mile region of the proposed site, the reviewer should:

1. review and verify the applicant's methods for identifying and describing minority and low-income ~~(EJ)~~ populations in the ER
  - a. assess sources for the basic demographic data
  - b. determine how the applicant estimated populations within 80 km (50 mi) of the site
  - c. determine how the applicant extrapolated population projections to three years beyond the full commercial operation of the proposed project
2. supplement the demographic data in the ER with new and significant information as necessary
3. perform reconnaissance level verification of the EJ population and other relevant demographic data in the ER and any supplemental data gathered by the staff with:
  - a. internet verification through
    - i. Federal, state, local, and academic data bases
    - ii. websites for affected communities within the 50 mile region of the proposed and alternative sites
    - iii. newspapers and other publications
    - iv. other on-line resources deemed important by site-specific characteristics

- b. on-site verification through
  - i. interviews with local community leaders in the affected areas, such as
    - 1. mayors, county or city administrators, chiefs of fire and police
    - 2. utility managers, road management administrators, county or city planners
    - 3. school boards and/or administrators
    - 4. Chambers of Commerce and Economic Development organizations
  - ii. Interviews with local community organizations
    - 1. Churches and philanthropic organizations
    - 2. Minority- and ethnicity-based service or advocacy organizations
- 4. supplement the demographic information in the ER based on new information gathered during reconnaissance and on-site verification
  - a. develop the staff's baseline demographic description of EJ populations for the EIS that includes
  - b. a summary description of the EJ population review process, including
    - i. descriptions of all extrapolation techniques in sufficient detail that the demographic review process is fully reproducible
    - ii. explanations for all limiting assumptions of the analysis
    - iii. identification of any unique EJ population and/or community characteristics, such as high transient population (daily or seasonal) or new EJ communities.
  - c. such other discussion as necessary to characterize the unique characteristics of the affected EJ population(s)
- 5. report the final assessment of potentially affected minority and low-income populations in the EIS
  - a. provide information in text identifying areas the staff believes key human health and other environmental pathways that may affect EJ populations
  - b. develop relevant tables, maps, and graphs to fully characterize the EJ population demographic characteristics of the Region and economic impact area

The staff should take care to ensure that all of these steps are discussed in the description of the process used to determine EJ impacts. For baseline purposes, the discussion should not



include any determination of impacts, only the potential for impacts to occur to EJ populations and affected pathways.

The staff's preferred source for demographic data is the ACS 5-Year Summary Data for all race, ethnicity, and poverty data. When collecting demographic data for EJ populations, the staff will compile information in a similar manner as described in Section 2.5.1 Demography Data and Information Needs of Attachment 2 of this ISG. The NRC EJ demographic analysis must be based on the analysis performed in Section 2.5.1.

The NRC's process for identifying minority and low-income populations is based upon the CEQ's guidance and NRC's "Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions". Under current NRC staff guidance, a minority or low-income community is identified by comparing the percentage of the minority or low-income population in the impacted area to the percentage of the minority or low-income population in the County and the State. If the percentage in the impacted area significantly exceeds that of the State or the County percentage for either the minority or low-income population then EJ will be considered in greater detail ([69 FR 52048](#)). The following language should be included in the EIS discussion of the methodology used to identify minority and low-income populations of interest:

"If a census block group meets either of the two criteria discussed below for any of the identified minority or low-income populations, that census block group is considered a minority or low-income population block ~~group warranting~~ **warranting** further investigation. The two criteria are whether:

- the minority, ethnic, or low-income population that resides in the census block group exceeds 50 percent of the total population for that census block group; or
- the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. The percentage of the minority, ethnic, or low-income population in the census block group is at least 20 percentage points greater than the minority or low-income population's percentage in the County and the State."

LIC-203, Revision 3, Appendix D, and CEQ guidance discuss the need for a two-part assessment of impacts to minority and low-income populations consisting of the ~~assessment~~ **assessment** of human health effects and environmental effects. The Methodology and Analysis portion of this section of the EIS should include a discussion of the process used to assess human health and environmental effects as an integral part of the EJ review. The reviewer should look to recent EISs for permitting actions to find suitable language as a guide for including it in the Methodology discussion.

### Scoping and Outreach

Scoping and outreach are a central aspect of Executive Order 12898 ([E.O. 12898](#)) and the staff should describe in several paragraphs the steps taken to identify EJ populations, document concerns, and provide opportunities for public involvement. This discussion should be supported by trip reports, telephone logs, and other documentation as necessary to support the process and conclusions.

### Subsistence Consumption of Fish and Wildlife (E.O. 12898, Sec. 4–4) and Communities with Unique Characteristics

Subsistence consumption of fish and wildlife is one of the key food pathways affecting human health identified by Executive Order 12898 through which minority and low-income populations may be affected. This section of the EIS should document the process by which the staff reached its subsistence-related conclusions. If the proposed project is located adjacent to existing reactors then the process should include a review of recent Radiological Environmental Monitoring program (REMP) reports on existing operating reactor, reconnaissance level searches of journal articles, and other reports, on-site investigations and interviews, and site visit personal observations.

### Migrant Populations

| Migrant populations, especially migrant farm workers, ~~often~~may have unique food and environmental pathways by which they may be affected by the proposed action. This section of the baseline EJ review should provide a brief explanation of the staff's findings with regard to this demographic group. Related information on the possible number of migrant workers per county can be found in the Census of Agriculture, Table 7. Hired farm Labor, "Number of farm workers working less than 150 days" and other related information in Table 7

### **End of change**

## ESRP Section 4.4.3 - ENVIRONMENTAL JUSTICE CONSTRUCTION IMPACTS

### **Background**

The following subsections form the typical layout for the discussion of construction-related impacts to potentially affected EJ populations in an EIS. The staff should revise this layout as needed for the complete and transparent discussion of impacts and mitigating measures.

#### 4.5 Environmental Justice Impacts

##### 4.5.1 Human Health Effects

Subsistence ~~Consumption~~Consumption of Fish and Wildlife

##### 4.5.2 Environmental Effects

4.5.2.1 Soil

4.5.2.2 Water

4.5.2.3 Air

4.5.2.4 Noise

##### 4.5.3 Socioeconomic Impacts

##### 4.5.4 Special Conditions and Unique Characteristics

##### 4.5.5 Summary of Environmental Justice Impacts

While the staff's changes to the guidance for the construction-related impacts on EJ populations and communities are not as extensive as those found in the baseline discussion above, the staff determined the extent of the changes still warranted a full replacement of the existing text in this guidance.

The following guidance fully replaces the REVIEW PROCEDURES discussion in the guidance of the ESRP.

### **Beginning of change**

#### III. REVIEW PROCEDURES

To determine which impacts are likely to be of concern and, therefore, what environmental impact areas should be discussed, the reviewer should take the following steps:

1. Coordinate with the other environmental resource reviewers of ESRP Sections 4.1 through 4.6 to ensure that the appropriate impact areas are being discussed.
2. Examine the record of public comments received during scoping to determine whether environmental impact areas are being discussed appropriately with respect to environmental justice.
3. Analyze the potential human health and environmental effects on minority and low-income populations.

- a. Briefly describe human health pathways by which any environmental impact during construction may result in disproportionate environmental impacts on minority or low-income ~~populations~~ **population blocks** (including cultural and economic factors).
- b. Assess (qualitatively or quantitatively, as appropriate) the degree to which each minority or low-income population **block** may experience disproportionately high and adverse human health or environmental (including socioeconomic) effects during construction as compared to the general population.
- c. Assess (qualitatively or quantitatively, as appropriate) the significance of environmental impacts on each minority and low-income population **block**. Significance is determined by considering the disproportionate exposure, multiple-hazard, and cumulative hazard conditions outlined in the CEQ guidance.
- d. Discuss any mitigative measures for which credit is being taken to reduce EJ concerns.

**End of change**

## ESRP Section 5.8.3 - ENVIRONMENTAL JUSTICE OPERATIONS IMPACTS

### **Background**

The following subsections form the typical layout in the EIS for the discussion of operations-related impacts to potentially affected EJ populations. The staff should revise this layout as needed for the complete and transparent discussion of impacts and mitigating measures.

#### 5.5 Environmental Justice Impacts

##### 5.5.1 Health Effects

Subsistence ~~Consumption~~Consumption of Fish and Wildlife

##### 5.5.2 Environmental Effects

5.5.2.1 Soil

5.5.2.2 Water

5.5.2.3 Air

5.5.2.4 Noise

##### 5.5.3 Socioeconomic Impacts

##### 5.5.4 Special Conditions and Unique Characteristics

##### 5.5.5 Summary of Environmental Justice Impacts

While the staff's changes to the guidance for the operations-related impacts on EJ populations and communities are not as extensive as those found in the baseline discussion above, the staff determined the extent of the changes still warranted a full replacement of the existing text.

The following guidance fully replaces the REVIEW PROCEDURES discussion in the guidance of the ESRP.

### **Beginning of change**

#### III. REVIEW PROCEDURES

To determine which impacts are likely to be of concern and, therefore, what environmental impact areas should be discussed, the reviewer should take the following steps:

1. Coordinate with the other environmental resource reviewers of ESRP Sections 5.1 through 5.8 to ensure that the appropriate impact areas are being discussed.
2. Examine the record of public comments received during scoping to determine whether environmental impact areas are being discussed appropriately with respect to environmental justice.
3. Analyze the potential human health and environmental effects on minority and low-income populations.

- a. Briefly describe human health pathways by which any environmental impact during operations may result in disproportionate environmental impacts on minority or low-income ~~populations~~ **population blocks** (including cultural and economic factors).
- b. Assess (qualitatively or quantitatively, as appropriate) the degree to which each minority or low-income population **block** may experience disproportionately high and adverse human health or environmental (including socioeconomic) effects during operations as compared to the general population.
- c. Assess (qualitatively or quantitatively, as appropriate) the significance of environmental impacts on each minority and low-income population **block**. Significance is determined by considering the disproportionate exposure, multiple-hazard, and cumulative hazard conditions outlined in the CEQ guidance.
- d. Discuss any mitigative measures taken to reduce EJ concerns.

**End of change**

## ESRP Section 9.3 - ALTERNATIVE SITES GUIDANCE

### **Socioeconomic Guidance**

The reviewer should refer to the section of this guidance that deals with alternative sites in general for an overall assessment of the clarifications to the existing ESRP that are being made. In the context of the socioeconomic impacts anticipated at each alternative site, the following specific direction should be applied.

The Data and Information Needs subsection of ESRP 9.3 states:

“ . . . The following data or information should be obtained: . . . (2) A description of the geographic area considered by the applicant, including (from the ER): . . . economic, demographic, and community characteristics (ESRP Sections 2.5.1 through 2.5.3)”

The reviewer should interpret this guidance to mean that the EIS discussion for each alternative site should include an analysis at the appropriate level of discussion for each of the socioeconomic topic areas listed in the representative table of contents for Chapters 4.4, 4.5, 5.4, and 5.5 of the EIS. The reviewer should interpret “appropriate level of discussion” to mean that, given the ESRP’s and this guidance’s direction for reconnaissance level analyses, each topic area should be discussed at a level that provides the reader with sufficient information to reach a significance level conclusion. The reviewer should ensure that for each topic area for the proposed site where a greater than minor impact was identified, the analogous topic area for each alternative site addresses similar concerns and conditions. For example, with regard to traffic impacts during construction, which tends to have a noticeable adverse impact near the site, the reviewer should provide a well-reasoned estimation of existing and projected traffic conditions, such that a comparison between the proposed site and the alternative site can be made.

Table 9.3-2 in the ESRP (Evaluation of Alternative Sites) provides a single row for describing the socioeconomic and EJ characteristics for each alternative site. The socioeconomic impact assessment is complex and unique in an EIS for the following reasons:

1. While some impacts are adverse, other categories of impacts may be beneficial
2. The same category may have impact levels that are adverse in some locations and beneficial in others
3. Impact levels can vary in magnitude in different areas in the 50 mile region
4. Impact levels can vary temporally for the same location for the same category during the same phase of the project (for example, the staff typically assesses traffic impacts for the period of peak construction employment, which is a relatively short period of time during construction, and even within the peak employment period, traffic impacts are limited to only those hours when workers commute)

The reviewer should take care to subdivide this row into a sufficient number of categories to fully characterize the differences between impact categories and the differences within categories

between the proposed and alternative sites. For categories with other than SMALL impact subdivide the row .

The process for determining whether an alternative site is in fact environmentally preferable to the proposed site (or if an alternative generating technology or design would be environmentally preferable) is deferred to a separate discussion in this guidance.

### **Environmental Justice Guidance**

The guiding principle behind the discussion of EJ impacts at the alternative sites in an EIS is that the level of detail for the identification of minority and low-income populations is the same as that done for the proposed site, except for the need for on-site interviews and visits. The staff should take care to address any specific human health risk pathways, characteristics, or other unique characteristics that define the proposed site to assess the magnitude (if any) of those same concerns at each alternative site. The investigation is done at the reconnaissance level, which recognizes that available EISs from other recent actions (nearby Federal major actions—including other reactor licensing actions and license renewal reviews) offer opportunities for incorporation by reference, so long as the methodology employed by those other reviews is sufficiently rigorous for the staff to rely upon them. Environmental justice assessments for alternative sites are done at the census block group level.



## VI. REFERENCES

1. [10 CFR 50.10](#): Code of Federal Regulations, Title 10, *Energy*, “License Required; Limited Work Authorization.”
2. [Council on Environmental Quality \(CEQ\). 1997](#): “Environmental Justice: Guidance Under the National Environmental Policy Act.” CEQ Guidance, December 10, 1997, Washington, D.C.
3. [Executive Order \(E.O.\) 12898](#): 59 FR 7629. February 16, 1994. “Federal Actions to Address Environmental Justice in Minority and Low-Income Populations.” *Federal Register*. U.S. Office of the President.
4. [Nuclear Regulatory Commission \(NRC\). 2000](#): *Environmental Standard Review Plan – Standard Review Plans for Environmental Reviews for Nuclear Power Plants*. NUREG-1555. Washington, D.C.
5. [Nuclear Regulatory Commission \(NRC\). 2004](#): 69 FR 52040. August 24, 2004. “Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions.” *Federal Register*. U.S. Nuclear Regulatory Commission.
6. [Nuclear Regulatory Commission \(NRC\). 2007a](#): *Environmental Standard Review Plan – Standard Review Plans for Environmental Reviews for Nuclear Power Plants*. NUREG-1555, Revision 1. Washington, D.C.
7. [Nuclear Regulatory Commission \(NRC\). 2007b](#): U.S. Nuclear Regulatory Commission (NRC), Memorandum and Order (CLI-07-27) in the Matter of Dominion Nuclear North Anna, LLC. (Early Site Permit for North Anna ESP Site), November 20, 2007. Docket No. 52-008-ESP, Washington, DC. Agencywide Documents Access and Management System (ADAMS) Accession No. ML082521051.
8. [Nuclear Regulatory Commission \(NRC\). 2011](#): Memorandum from Brent Clayton to Scott Flanders, “Revision 1- Addressing The Construction and Preconstruction Activities, Greenhouse Gas Issues, General Conformity Determinations, Environmental Justice, the Need For Power, Cumulative Impact Analysis And Cultural/Historical Resources Analysis Issues in Environmental Impact Statements.” ADAMS Accession No. ML110380369.
9. [Nuclear Regulatory Commission \(NRC\). 2013](#): Office of Nuclear Reactor Regulation (NRR), ~~Office~~ Office Instruction Number LIC-203, Revision 3, “Procedural Guidance for Preparing Categorical Exclusions, Environmental Assessments, and Considering Environmental Issues.” ADAMS Accession No. ML12234A708.
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