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Chapter IV. Application Guidelines and Criteria

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# Introduction

## ***Background***

EFSEC has established general and specific guidelines in Chapter 463-42 WAC for the preparation of Applications for Site Certification (ASC) pursuant to Chapter 80.50 RCW. This chapter of the Potential Site Study for the Starbuck Power Project provides Starbuck Power Company (SPC) with these guidelines, and where appropriate, with more detailed criteria regarding responses to the information requirements of those guidelines. For each section of Chapter 463-42 WAC, SPC is to provide the information requested in the guidelines of the WAC section and subsection. For some WAC sections and subsections, the guidelines provided within the text of the WAC section are detailed enough that additional criteria are not required.

The guidelines and criteria in this section are presented within the general recommended format of the ASC (see Chapter III for the full outline of the recommended ASC format.) By preparing the ASC in conformance with the recommended format and by providing the information requested in the guidelines and criteria presented in this chapter, SPC can provide EFSEC with (1) a clear understanding of the proposed project, and (2) SPC's assessment of the project's potential impacts. This approach will assist in streamlining the review of the ASC and preparation of the Draft Environmental Impact Statement EFSEC will develop jointly with the Bonneville Power Administration (NEPA/SEPA Draft EIS).

As described in Chapter III, the ASC format preferred by EFSEC is different from that of previous ASCs and consists of the following:

- Cover letter and accompanying material.
- ASC Part I—this will consist of an Environmental Report that will follow the general format of an EIS.
- ASC Part II—this will consist of technical appendices that provide additional information in response to Chapter 463-42 WAC.

These guidelines and criteria identify the minimum information to be included in the ASC, expanding upon the requirements of Chapter 463-42 WAC. They also identify applicable NEPA requirements and other relevant regulatory requirements. In some sections of these guidelines and criteria, one or more of these three categories (Chapter 463-42 WAC, NEPA or Other) may not have requirements applicable to the Starbuck Power Project. For completeness, the phrase “not applicable” has been included under the appropriate category.

Although SPC may provide additional information (within the basic format presented in Chapter III of this PSS), SPC should provide the information requested in these guidelines and criteria to present the Council with an ASC that is as complete and responsive as possible.

The remainder of this chapter of the Potential Site Study consists of three sections:

- A: Cover Letter—Guidelines and Criteria
- B: ASC Part I—Guidelines and Criteria for the Environmental Report
- C: ASC Part II—Guidelines and Criteria for the Technical Appendices

## **General Guidance**

In addition to the WAC guidelines and criteria presented in the remainder of this chapter, SPC should note the following:

**WAC 463-42-010 Purpose and scope.** *This chapter sets forth guidelines for preparation of applications for energy facility site certification pursuant to chapter 80.50 RCW.*

*The application shall provide the council with information regarding the applicant, the proposed project design and features, the natural environment, the built environment, and plans for project termination and site restoration. This information shall be in such detail as determined by the council to enable the council to go forward with its application review.*

- A. By complying with the other guidelines and criteria presented in this chapter of the Potential Site Study, SPC will be in compliance with and no specific response will be needed for WAC 463-42-010.

**WAC 463-42-045 General – Where filed.** *Applications for site certification shall be filed with the council at the council office.*

**WAC 463-42-105 General – Graphic material.** *It is the intent that material submitted pursuant to these guidelines shall be descriptive and shall include illustrative graphics in addition to narration. This requirement shall particularly apply to subject matter that deals with systems, processes, and spacial relationships. The material so submitted shall be prepared in a professional manner and in such form and scale as to be understood by those who may review it.*

- A. By complying with the other guidelines and criteria presented in this chapter of the Potential Site Study, SPC will be in compliance with and no specific response will be needed for WAC 463-42-105.

**WAC 463-42-690 Amendments to applications, additional studies, procedure.**

*(1) Applications to the council for site certification shall be complete and shall reflect the best available current information and intentions of the applicant.*

See Section A (ASC Cover Letter – Guidelines and Criteria) for comments.

*(2) Amendments to a pending application must be presented to the council at least thirty days prior to the commencement of the adjudicative hearing, except as noted in subsection (3) of this section.*

(3) *Within thirty days after the conclusion of the hearings, the applicant shall submit to the council, application amendments which include all commitments and stipulations made by the applicant during the adjudicative hearing.*

(4) *After the start of adjudicative hearings, additional environmental studies or other reports shall be admitted only for good cause shown after petitions to the council or upon request of the council, or submitted as a portion of prefiled testimony for a witness at least thirty days prior to appearance.*

Finally, the following WACs do not apply to the Starbuck Power Project initial ASC, and a response is not necessary.

**WAC 463-42-665 Detailed site restoration plan – Terminated projects.** *When a project is terminated, a detailed site restoration plan shall be submitted within twelve months after termination or within twelve months after the effective date of this section, whichever occurs later. An extension of time may be granted for good cause shown. The site restoration plan shall address the elements required to be addressed in WAC 463-42-655, in detail commensurate with the time until site restoration is to begin. The council may take or require action as necessary to deal with extraordinary circumstances.*

**WAC 463-42-675 Site preservation plan – Suspended projects.** *In the event that construction is suspended, a plan for site preservation shall be prepared at the earliest feasible time and the council shall be advised of interim concerns and the measures being taken to remedy those concerns. The site preservation plan shall address environmental, and public health and safety concerns, the scope of proposed monitoring and the provisions for funding or bonding to meet site preservation costs. It shall describe measures that will be taken to preserve the site or otherwise protect all segments of the public against risks or danger resulting from the site. The preservation plan shall also address options for preservation and the costs and benefits associated with those options. The council may take or require action as necessary to deal with extraordinary circumstances.*

**WAC 463-42-680 Site restoration – Terminated projects.** *In the absence of a council determination as to the level of site restoration, restoration of the site to a reasonable approximation of its original condition prior to construction shall be required.*

## **ASC Requirements and Scoping**

Jones & Stokes has assisted EFSEC with public and agency meetings and in contacting non-governmental organizations. However, it is important to note that scoping has not yet taken place for either NEPA or SEPA. Since one of the purposes is to identify alternatives after scoping is completed, SPC may be required to identify and assess the potential impacts of alternatives not included in the SPC application.

Chapter IV. Application Guidelines and Criteria

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# A: ASC Cover Letter – Guidelines and Criteria

## *COVER LETTER*

### **WAC Requirements**

**WAC 463-42-025 General – Designation of agent.** *The applicant shall designate an agent to receive communications on behalf of the applicant.*

- A. Provide the name, address, telephone number, fax number, and e-mail address of the individual with authority to speak for Starbuck Power Company, LLC (SPC). This should be the individual who is to receive communications for the project, and who will represent SPC at Council proceedings for the Starbuck Power Project.

**WAC 463-42-065 General – Full disclosure by applicants.** *It is recognized that these guidelines can only be comprehensive in a relative sense. Therefore, and in addition to the other guidelines contained herein, the council adopts the basic guideline that an applicant for site certification must identify in the application all information known to the applicant which has a bearing on site certification.*

- A. Provide a statement that SPC has, to the best of their knowledge, included in the ASC all information known to them at the time of submittal of the ASC, that has a bearing on site certification.

**WAC 463-42-115 General – Specific contents and applicability.** *It is recognized that not all sections of these guidelines apply equally to all proposed energy facilities. If the applicant deems a particular section to be totally inapplicable the applicant must justify such conclusion in response to said section. The applicant must address all sections of this chapter and must substantially comply with each section, show it does not apply or secure a waiver from the council. Information submitted by the applicant shall be accompanied by a certification by applicant that all EFSEC application requirements have been reviewed, the data have been prepared by qualified professional personnel, and the application is substantially complete.*

- A. Provide a request for a waiver, including justification, from specific sections of Chapter 463-42 WAC that are not applicable to the Starbuck Power Project.
- B. Provide a statement certifying that SPC has reviewed all EFSEC application requirements, that the data have been prepared by qualified professional personnel, and that the application is substantially complete.

***WAC 463-42-690 Amendments to applications, additional studies, procedure.***

*(1) Applications to the council for site certification shall be complete and shall reflect the best available current information and intentions of the applicant.*

- A. By providing adequate responses to the criteria for WAC 463-42-065 and WAC 463-42-115, no criteria are required for WAC 463-42-690(1).

Note: Subsections (2), (3), and (4) of this WAC are addressed in the Introduction to Chapter IV.

***NEPA Requirements***

Not applicable.

***Other Requirements***

Not applicable.

***ACCOMPANYING MATERIAL***

***WAC Requirements***

***WAC 463-42-055 General – Form and number of copies.***

*(1) Applications shall be on 8-1/2 by 11" sheets, in loose-leaf form with a hard cover binder. Applicants shall supply thirty-five copies of the application to the council, two copies to each county, two copies to each city, and one copy to each port district in which the proposed project would be located. In addition, one copy shall be supplied to each intervenor on admission to the proceedings. Information later submitted shall be by page-for-page substitutions suitable for insertion in the application binder, bearing the date of the submission.*

- A. Where appropriate, SPC may use 11- by 17-inch pages for graphics (such as route maps).
- B. Provide with the cover letter a camera-ready copy of the entire ASC and a total of 100 copies of the ASC to the Council.

*(2) An applicant shall also provide the council copies of its application in a digital format for use in personal computers. Digital format shall be determined by the council in consultation with its consultants and the applicant.*

- A. Provide a digital copy of the text of the ASC in Word 2000 format and a digital copy of the entire document in PDF format.

**WAC 463-42-035 General – Fee.** *The statutory fee shall accompany an application and shall be a condition precedent to any action by the council. Payment shall be by a cashier's check payable to the state treasurer.*

- A. Provide a cashier's check payable to the state treasurer for the amount of \$25,000 (see WAC 463-58-030). As noted in WAC 463-58-030, this deposit fee will be applied toward the costs of processing the application.

**WAC 463-42-362 Built environment – Land and shoreline use.**

**(1) The relationship to existing land use plans and to estimated population** – *As part of the application, the applicant shall furnish copies of adopted land use plans and zoning ordinances, including the latest land use regulation and a survey of present land uses within the following distances of the immediate site area:*

*(a) In the case of thermal power plants, twenty-five miles radius;*

- A. Provide a copy of each adopted land use plan and zoning ordinance for land within a 25-mile radius of the center of the generation plant site.

*(b) In the case of petroleum refineries ten miles radius;*

Not applicable to the Starbuck Power Project.

*(c) In the case of petroleum or LNG storage areas or underground natural gas storage, ten miles radius from center of storage area or well heads;*

Not applicable to the Starbuck Power Project.

*(d) In the case of pipe lines and electrical transmission routes, one mile either side of center line.*

- A. Provide a copy of each adopted land use plan and zoning ordinance for land within a 2-mile-wide corridor centered on the proposed alignment of the transmission line route from the Starbuck Power Project switchyard to the Lower Monumental Dam switchyard. Where this corridor overlaps with the 25-mile radius noted in the requirements of WAC 463-42-362(1)(a), only one copy of the plans is necessary.

**NEPA Requirements**

Not applicable.

**Other Requirements**

Not applicable.

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## **B: ASC Part I – Guidelines and Criteria for the Environmental Report**

### ***Table of Contents***

#### ***WAC Requirements***

Not applicable.

#### ***NEPA Requirements***

Not applicable.

#### ***Other Requirements***

- A. Provide a detailed table of contents for the Environmental Report and for Part II, Technical Appendices.

### **1.0 Summary**

#### **1.1 WAC Requirements**

Not applicable.

#### **1.2 NEPA Requirements**

- A. Provide a summary that briefly states the proposed project’s objectives, specifying the purpose and need, the major conclusions, significant areas of controversy and uncertainty, if any, and how the project meets the public interest. Identify the issues to be resolved, including the environmental choices to be made among alternative courses of action and the effectiveness of mitigation measures. Include a summary of the proposal, impacts, alternatives, mitigation measures, and significant adverse impacts that cannot be mitigated.

#### **1.3 Other Requirements**

Not applicable.

## **2.0 Proposed Action and Alternatives**

### **2.1 Introduction**

#### **2.1.1 WAC Requirements**

**WAC 463-42-015 General – Description of applicant.** *The applicant shall provide an appropriate description of the applicant's organization and affiliations for this proposal.*

- A. Provide this information in Section 2.1 (Introduction) of the ASC.

**WAC 463-42-012 General – Organization – Index.** *Except as may be otherwise approved by the council and except as otherwise provided below with respect to applications covering nuclear power plants, the contents of the application shall be organized in the same order as these guidelines.*

- A. The Council recommends that SPC organize the application in the manner presented in this Potential Site Study (see Chapter III, Application Format).
- B. Section 2.1.2 of the ASC is to consist of a cross-reference table. This table is to list each section of Chapter 463-42 WAC and indicate which section of the ASC provides SPC's response to that section of Chapter 463-42 WAC.

*(1) To aid in the council's review under SEPA and chapter 463-47 WAC, WAC 463-42-302 through 463-42-382 are similar to the elements required in an environmental impact statement.*

No response necessary.

*(2) In the case of an application covering a nuclear power plant, the environmental report prepared for the nuclear regulatory commission may be substituted for the comparable sections of the site certification application, provided that the environmental report is supplemented as necessary to comply with this chapter and that an index is included listing these guidelines in order and identifying where each applicable guideline is addressed.*

Not applicable to the Starbuck Power Project.

#### **2.1.2 NEPA Requirements**

- A. Provide a list of key individuals who contributed to preparation of the ASC and what each person's responsibility was.

### 2.1.3 Other Requirements

Not applicable.

## 2.2 Description of the Proposed Action

### 2.2.1 WAC Requirements

**WAC 463-42-125 Proposal – Site description.** *The application shall contain a description of the proposed site indicating its location, prominent geographic features, typical geological and climatological characteristics, and other information necessary to provide a general understanding of all sites involved, including county or regional land use plans and zoning ordinances.*

- A. Provide a general description of the proposed locations of project facilities, including the generation plant, the natural gas pipeline, the water pipeline, and the electrical transmission line. This should include a brief description of key geographic features, climatological features, surrounding land use, and designations of the project facility locations in applicable land use plans and zoning ordinances.
- B. Briefly describe the land uses surrounding the plant site, and include the distances to the nearest residences and other local sensitive resources such as parks.
- C. Provide graphics that show the regional location of the proposed project and more detailed graphics that show the location of key project facilities. These graphics are not to be at the level of detail of Criterion D.
- D. Show the proposed alignment and the construction corridor of the natural gas pipeline, the water pipeline, and the transmission line on a map with a scale large enough to locate the alignment in the field.
- E. Show the proposed operation and maintenance corridor for each of the project facilities on the same scale map as provided for Criterion D.

**WAC 463-42-145 Proposal – Construction on site.** *The applicant shall describe the characteristics of the construction to occur at the proposed site including the type, size, and cost of the facility; description of major components and such information as will acquaint the council with the significant features of the proposed project.*

- A. Plant Site Arrangement – provide a written description of the plant layout, and provide plan view drawings, and project elevations drawings.
- B. Project Configuration and Performance – identify primary components and their subsystems and a summary narrative description of the operation of the project.

- C. Combustion Turbines (CT) – describe the machines to be used, provide performance data, describe emission and noise control included, provide a heat and mass balance flow diagram, and identify the key subsystems. Compare the proposed system to the latest state-of-the-art machines. If it is not the latest commercially-available type, explain why.
- D. Heat Recovery Steam Generators (HRSG) – indicate the number of HRSGs to be installed, describe the HRSGs and their operating parameters, describe the emission control equipment, and how blowdown from the HRSGs would be handled.
- E. Steam Turbine (ST)– describe the steam turbine to be used, provide operating parameters, and identify the primary components.
- F. Electric Generators – describe the CT-driven generator and ST-driven generator, and identify associated auxiliary equipment.
- G. Steam System – describe the steam system and provide a piping diagram and operating parameters.
- H. Condenser and Cooling Water System – information regarding this system is to be provided in response to the criteria listed for WAC 463-42-165 and WAC 463-42-175.
- I. Electrical Interconnection – describe the system to transmit power from the site and provide a plant one-line diagram.
- J. Ancillary Systems – describe plant ancillary systems such as fire control, instrument/service air, instrumentation and control, and backup power supplies.
- K. Natural Gas Fuel System – describe the system, including pipe specifications, from point of interconnection; list applicable codes; describe safety features; provide operating characteristics and procedures; provide a piping diagram to interconnection point; describe control and safety features; and describe construction and inspection methods.
- L. Capital Costs – provide the total capital cost for the project with specific entries for such items as major components, land, IDC, contingency, engineering, construction, and regulatory process.
- M. Describe and provide plan and elevation view drawings for all buildings to be constructed for the project.
- N. Describe site preparation activities, cuts and fills required, spoils management, final site contours. Also describe the purpose, type, and approximate quantity of any filling or grading proposed. Indicate the source(s) of fill material.
- O. Describe the access roads to be used or developed for the plant site including required regulatory or other required design standards. Indicate the extent of upgrading of

existing roads and the construction of new roads, if any, including construction methods.

- P. Describe the size, type, and purpose of storage tanks to be developed on the plant site. Provide design criteria for the tanks, including control and safety features.
- Q. Describe the location and size of temporary lay-down, staging, and parking areas to be used during construction.
- R. Describe the type, quantity, and purpose of any hazardous materials to be used, stored, and/or generated on site, both for construction and operation, and provide information on control and safety features.
- S. Describe the transportation systems, modes, and routes to be used to transport materials, equipment, and facility components to the site. Include railways, roads, air, and waterways, as applicable, and discuss any new facilities required.

**WAC 463-42-155 Proposal – Energy transmission systems.** *The applicant shall discuss the criteria utilized as well as describe the routing, the conceptual design, and the construction schedule for all facilities identified in RCW 80.50.020 (6) and (7) which are proposed to be constructed.*

- A. Provide detailed maps that show the construction and operational corridors of transmission lines associated with the project. Include the locations of access roads, laydown areas, and culverts that may be required.
- B. Provide graphics that illustrate the design and dimensions of the transmission line towers.
- C. Describe the proposed transmission line system including length, width of construction corridor, capacity, tower design and dimensions, materials used for tower construction, construction schedule and workforce, and the locations of laydown areas and access roads.
- D. Identify unique construction techniques required for construction of the transmission line system.
- E. Identify how materials will be brought to the construction sites.

**WAC 463-42-165 Proposal – Water supply system.** *The applicant shall describe the location and type of water intakes and associated facilities.*

- A. Identify and describe the location, source, and conveyance system for water.
- B. Identify the peak and average use rates in gallons per minute.
- C. Identify the construction methods and timing for the conveyance system. Include the results of a structural analysis of the SR 261 bridge over the Tucannon River with regard to the stress of installing the pipeline on the bridge.

- D. List facilities and utilities that are in the vicinity of the pipeline alignment and describe measures to be taken to avoid impacts to other facilities and utilities in the vicinity of construction.
- E. Describe the applicable water rights; if new water rights are issued, include a description of the mitigation agreed to in the water right.
- F. Describe water quality of the source.
- G. Describe the water treatment requirements and methods.

**WAC 463-42-175 Proposal – System of heat dissipation.** *The applicant shall describe both the proposed and alternative systems for heat dissipation from the proposed facilities.*

- A. Describe the proposed system including equipment, makeup water, water treatment, operating characteristics and flow rates under anticipated normal/average conditions and worst case scenario, and a water balance diagram.
- B. Provide a diagram of the proposed system showing operating parameters.
- C. Identify the energy requirements for system operations.
- D. Describe and compare the alternatives investigated. Include size, water use, power requirements, costs, and plume size.

**WAC 463-42-185 Proposal – Characteristics of aquatic discharge systems.** *Where discharges into a watercourse are involved, the applicant shall identify outfall configurations and show proposed locations.*

Not applicable to the Starbuck Power Project.

**WAC 463-42-195 Proposal – Wastewater treatment.** *The applicant shall describe each wastewater source associated with the facility and for each source, the applicability of all known, available, and reasonable methods of wastewater control and treatment to ensure it meets current waste discharge and water quality regulations. Where wastewater control involves collection and retention for recycling and/or resource recovery, the applicant shall show in detail the methods selected, including at least the following information: Waste source(s), average and maximum daily amounts and composition of wastes, storage capacity and duration, and any bypass or overflow facilities to the wastewater treatment system(s) or the receiving waters. Where wastewaters are discharged into receiving waters, the applicant shall provide a detailed description of the proposed treatment system(s), including appropriate flow diagrams and tables showing the sources of all tributary waste streams, their average and maximum daily amounts and composition, individual treatment units and their design criteria, major piping (including all bypasses), and average and maximum daily amounts and composition of effluent(s).*

- A. Provide a summary description of project wastewater streams, treatment, and discharge.

- B. Include information on discharge location, retention pond size and design, and anticipated infiltration and evaporation rates.
- C. If wastewater is to be used or recycled for plant operations, describe the basic uses and volumes and, if appropriate, treatments.
- D. A more detailed description of these facilities and procedures is to be presented in Part II of the ASC, Appendix D.

**WAC 463-42-205 Proposal – Spillage prevention and control.** *The applicant shall describe all spillage prevention and control measures to be employed regarding accidental and/or unauthorized discharges or emissions, relating such information to specific facilities, including but not limited to locations, amounts, storage duration, mode of handling, and transport.*

- A. Provide a summary description of the project’s Spill Prevention and Control Plan. The detailed plan, which is to cover each facility and stage (construction, operation, and maintenance), is to be presented in Part II of the ASC, Appendix E.

**WAC 463-42-215 Proposal – Surface-water runoff.** *The applicant shall describe how surface-water runoff and erosion are to be controlled during construction and operation to assure compliance with state water quality standards.*

- A. The detailed responses to this WAC are addressed in Section 3.3.1 (Water Resources, WAC Requirements).
- B. Present a summary of the more detailed surface water runoff control information referred to above in Criterion A.

**WAC 463-42-225 Proposal – Emission control.** *The applicant shall demonstrate that the highest and best practicable treatment for control of emissions will be utilized in facility construction and operation. In the case of fossil fuel power plants and petroleum refineries, the applicant should deal with products containing sulphur, NO<sub>x</sub> volatile organics, CO, CO<sub>2</sub>, aldehydes, particulates, and any other emissions subject to regulation by local, state, or federal agencies. In the case of a nuclear-fueled plant, the applicant should deal with optional plant designs as these may relate to gaseous emissions.*

- A. The detailed response criteria to this WAC are addressed in Section 3.2.1 (Air Quality, WAC Requirements).
- B. Present a summary of the more detailed emission information referred to in Criterion A.

**WAC 463-42-235 Proposal – Construction and operation activities.** *The applicant shall: Provide the proposed construction schedule, identify the major milestones, and describe activity levels versus time in terms of craft and noncraft employment; and describe the proposed operational employment levels.*

- A. At a minimum, include the following schedules for the plant, natural gas pipeline, transmission line, and water line and well:
  - 1. Design
  - 2. Site Preparation
  - 3. Construction
  - 4. Major Component Delivery
  - 5. Start-Up Testing
  - 6. Commercial Operation
- B. For the construction workforce, provide the average composition by skill and indicate by month the anticipated peak workforce.
- C. Estimate where the construction workforce will originate, where they will be housed, how they will travel to the site, and where they will park their vehicles.
- D. Define the normal working hours and number of shifts planned for construction. If more than one shift is anticipated, indicate how the daily workforce would be divided between the shifts.
- E. Provide the construction costs, including anticipated average wages for workers.
- F. Describe the anticipated plant operating schedule.
- G. Provide the normal daily staff numbers by shift for operation. Also, describe how these numbers will increase for routine maintenance as well as for emergency repairs.
- H. Provide the frequency and duration of shutdown for normal maintenance.
- I. Provide a summary of operational costs.

**WAC 463-42-255 Proposal – Construction methodology.** *The applicant shall describe in detail the construction procedures, including major equipment, proposed for any construction activity within watercourses, wetlands and other sensitive areas.*

- A. Provide a brief description of existing conditions and include current use, general topography with slope noted, and soils onsite for watercourses, wetlands, or other sensitive areas proposed for construction.
- B. Describe the general and specialized construction approaches to be used at these sites, including the following:
  - 1. Site preparation, including any rerouting of water (or dewatering), vegetation removal, topsoil stockpiling, use of any structural fill and source.

2. Runoff and erosion control plans.
- C. Describe the general and specialized construction approaches, as appropriate, for the natural gas pipeline, the water pipeline, and the transmission lines, including the following:
1. Identify construction methods, restrictions for setbacks, temporary equipment bridges, dewatering plans, spoils placement, alignment modifications, grubbing limits, and restoration techniques.
  2. Indicate pipeline trench depth, and note minimum cover to protect pipe.
  3. Describe any trench protection, if appropriate, such as shoring and bracing.
  4. Describe the footings or other foundation structures for the transmission lines, including at a minimum, dimensions, depths of installation, and width of the construction corridor.
  5. Describe location of fill and disposal materials.
  6. Describe procedure of removing and replacing topsoil.
  7. If appropriate, describe special physical site conditions that may cause construction constraints and/or require special construction techniques.
  8. Describe mitigation measures with limits on construction activities and installation of temporary erosion control structures.
  9. Describe Best Management Practices (BMPs) used during and after construction.
  10. Provide typicals of wetland crossings or foundation locations for towers (plan view and cross-section) and for erosion control structures.
- D. Describe construction equipment to be used.

***WAC 463-42-265 Proposal – Protection from natural hazards.*** *The applicant shall describe the means employed for protection of the facility from earthquakes, volcanic eruption, flood, tsunami, storms, avalanche or landslides, and other major natural disruptive occurrences.*

- A. The detailed response criteria to this WAC are addressed in Section 3.3.1 (Earth, WAC Requirements).
- B. Present a summary of the more detailed natural hazard protection information referred to above in Criterion A.

**WAC 463-42-275 Proposal – Security concerns.** *The applicant shall describe the means employed for protection of the facility from sabotage, vandalism and other security threats.*

- A. Describe the features of the project (construction and operation) designed to provide protection, including lighting, fencing, alarms, security personnel and patrols, cameras, and other planned features.
- B. Provide emergency response plans for security-related events.
- C. Describe how SPC will coordinate with local law enforcement forces if assistance is required. Provide letters of agreement, if support agreements are established.

**WAC 463-42-295 Proposal – Potential for future activities at site.** *The applicant shall describe the potential for any future additions, expansions, or further activities which might be undertaken by the applicant on or contiguous to the proposed site.*

- A. Discuss SPC’s plans for potential expansions, additions, or changes on the 100-acre property to be owned by SPC and on land adjacent to this property.

**WAC 463-42-085 General – Mitigation measures.** *The application shall describe the means to be utilized to minimize or mitigate possible adverse impacts on the physical or human environments.*

- A. The detailed response criteria to this WAC are addressed in ASC Part II – Guidelines and Criteria for Technical Appendices, Appendix M.
- B. Present a summary of the mitigation measures described in response to the above Criterion A.

### **2.2.2 NEPA Requirements**

- A. Describe how the proposal meets the definition of and requirement for the purpose and need for the project. Demonstrate how the project meets the public interest.

### **2.2.3 Other Requirements**

Not applicable.

## **2.3 Description of the No Action Alternative**

### **2.3.1 WAC Requirements**

Not applicable.

### **2.3.2 NEPA Requirements**

- A. Briefly describe conditions if the project were not to go forward.
- B. Compare the potential impacts, both negative and positive, of the proposed project to the “No Action Alternative.”

### **2.3.3 Other Requirements**

Not applicable.

## **2.4 Alternatives to the Proposed Action**

### **2.4.1 WAC Requirements**

*WAC 463-42-645 Analysis of alternatives. The applicant shall provide an analysis of alternatives for site, route, and other major elements of the proposal.*

- A. Describe alternatives that have been considered to accomplish the purpose and need of the proposed project. Address alternative routes for the natural gas pipeline, water pipeline, and transmission line. Also address alternative water supply options that would eliminate the need for a 6-mile pipeline.
- B. For alternatives initially considered but eliminated from further study, explain the reasons for their elimination.
- C. Provide a comparison of the potential impacts of the alternatives considered, including the proposed project.
- D. Describe design alternatives to the proposed project that have been considered and compare the potential impacts of these design alternatives to those of the proposed project.

### **2.4.2 NEPA Requirements**

- A. Identify alternative sites considered for the power plant and address potential impacts of alternative sites as compared to the proposed site.

### **2.4.3 Other Requirements**

Not applicable.

## **2.5 Benefits or Disadvantages of Reserving Project Approval for a Later Date**

### **2.5.1 WAC Requirements**

Not applicable.

### **2.5.2 NEPA Requirements**

Not applicable.

### **2.5.3 Other Requirements**

- A. In response to WAC 197-11-440(5)(c)(vii), which addresses SEPA requirements for alternatives, describe the benefits and disadvantages of reserving the implementation of the proposal for some future time, as compared with possible approval and implementation at this time.

## **2.6 Pertinent Federal, State, and Local Requirements**

### **2.6.1 WAC Requirements**

***WAC 463-42-685 Pertinent federal, state and local requirements.***

*(1) Each application submitted to the council for site certification shall include a list of all applicable federal, state, and local codes, ordinances, statutes, rules, regulations and permits that would apply to the project if it were not under council jurisdiction. For each listed code, ordinance, statute, rule, regulation and permit, the applicant shall describe how the project would comply or fail to comply with each requirement. If the proposed project does not comply with a specific requirement, the applicant shall discuss why such compliance should be excused.*

- A. For each applicable federal requirement, describe how the requirement will be met, and indicate how the lead federal agency, if there will be one under NEPA, intends to meet the coordination and consultation requirements under such laws as Section 106 of the Historic Preservation Act, the U.S. Fish and Wildlife Coordination Act, and any relevant Presidential Executive Orders, such as Wetlands, Environmental Justice, and the Children's Initiative.
- B. Describe any land use approvals or land use changes associated with the proposed locations of project facilities which occurred prior to submittal of the ASC. This could include annexation, approval of conditional uses, rezones, and similar actions.

(2) *Inadvertent failure to discover a pertinent provision after a reasonable search shall not invalidate the application, but may delay processing the application as necessary to gather and consider relevant information.*

## **2.7 Coordination and Consultation with Agencies, Indian Tribes, the Public, and Non-Governmental Organizations**

- A. Describe the communications and interactions SPC has had with the public, agencies, Tribes, and non-governmental organizations.
- B. Provide copies of relevant written responses resulting from the activities described in Criterion A.

## **3.0 Existing Conditions, Environmental Impacts, and Mitigation Measures**

### **3.1 Earth**

#### **3.1.1 WAC Requirements**

*WAC 463-42-265 Proposal – Protection from natural hazards. The applicant shall describe the means employed for protection of the facility from earthquakes, volcanic eruption, flood, tsunami, storms, avalanche or landslides, and other major natural disruptive occurrences.*

- A. Provide a description of natural hazards that could impact safety and/or operation of the facility, pipelines, and transmission lines. Describe measures that would be implemented as part of the design to protect the project from natural hazards. Provide documentation of why other geologic hazards do not pose a concern for the safety and operation of the project.
- B. Address erosion as a potential impact of flooding with respect to the plant site, the pipeline, and the electrical transmission line. Describe design measures that would be implemented to reduce the impact of erosion.
- C. Provide a description of the tectonic setting and historical seismicity of the Pacific Northwest, with emphasis on the Columbia Plateau. Identify any Quaternary and Holocene faults in the region, and address these and other potential seismic sources that could result in seismic shaking at the facility.
- D. Provide a seismotectonic map of the region, showing tectonic elements and historic seismicity. It is anticipated that a 100-mile radius of the site would cover any seismotectonic features that could be relevant to the site, although the area covered should be selected based on the results of this evaluation.

- E. Provide estimated ground accelerations for the project based on available data, describe the types of seismic hazards that could result from such shaking, and describe the geotechnical investigation that will be performed to develop the final seismic design for the plant facility, natural gas pipeline, water pipeline, and transmission line.
- F. Show the distribution of UBC seismic zones on a regional map centered on the project.
- G. Slope stability should be evaluated with respect to the locations of the transmission towers and the water pipeline, if these features are placed on or in proximity to any slopes underlain by unconsolidated materials or areas of known sliding in rock or soil. Provide a discussion of any impacts and planned design measures or potential mitigation measures related to landslide hazards, including the potential for a major landslide along the bank of the Snake River adjacent to the plant site.
- H. Discuss the impact of the 1980 St. Helens ashfall on the project area, and what, if any, impact a recurrence of such an event would have on the operation of the facility. Describe any actions that would be taken to minimize health risks and equipment damage.
- I. Describe storm hazards, including site-specific information on the magnitude of storm events and specific measures that would be employed to protect the facility against storms.

**WAC 463-42-302 Natural environment – Earth.** *The applicant shall provide detailed descriptions of the existing environment, project impacts, and mitigation measures for the following:*

**(1) Geology** – *The applicant shall include the results of a comprehensive geologic survey showing conditions at the site, the nature of foundation materials, and potential seismic activities.*

- A. Describe the geologic conditions in the vicinity of the plant site, natural gas pipeline, water pipeline, and transmission line, including a detailed discussion of subsurface conditions at the plant site and natural gas pipeline route as they pertain to the engineering design of the plant site foundation, the drainfield design, and the pipeline design and construction plan.
- B. Provide site-specific information on the surface and subsurface geology at the plant site, along the gas pipeline and electrical transmission corridors, and at the borrow source. This should include a subsurface profile through the plant site vicinity.
- C. In addition to Criteria C, D, and E listed above for WAC 463-42-265, tabulate the historical earthquakes, their magnitudes or epicentral intensities, distance from the site, felt intensity at the site, and other pertinent information sufficient to allow an independent assessment of the historic seismicity.

*(2) Soils – The applicant shall describe all procedures to be utilized to minimize erosion and other adverse consequences during removal of vegetation, excavation of borrow pits, foundations and trenches, disposal of surplus materials, and construction of earth fills. The location of such activities shall be described and quantities of material shall be indicated.*

- A. Describe the pedogenic soil types and assemblages that are developed in the vicinity of the plant site, natural gas pipeline, water pipeline, and transmission line, and provide a large-scale map of these soils (from U.S. Soil Conservation Service county maps).
- B. Describe the susceptibility of soils associated with the project to erosion, and describe specific mitigation measures that are proposed to minimize erosion during construction and operation of the plant site, electrical transmission line, gas pipeline, and water pipeline. Include a detailed description of procedures that are proposed to control erosion and sedimentation during construction of the plant and offsite utilities.
- C. Describe the methods that would be used for foundation preparation, and filling and stream crossings, the potential impacts from these activities, and the planned design measures to avoid or minimize impacts.
- D. Provide a large-scale, detailed fill-and-grade plan showing existing contours and proposed final grade of the plant site.
- E. Identify and describe the borrow source(s) that would be used for the plant site fill and for trench backfill materials, including the location of the borrow pits, the types of soils that will be used, and the volume of borrow material. Also describe any impacts (and appropriate design features to mitigate impacts) that might result from extraction of the borrow material required for this project.
- F. Discuss the measures proposed to mitigate detrimental impacts of erosion during pipeline construction.
- G. Provide an assessment of the potential for encountering contaminated soils in excavations for the water pipeline along the former railroad right-of-way. Include a proposed approach for identification of contaminated soils, and for erosion control and disposal of contaminated soils that would be excavated for installation of the pipeline.
- H. Describe the methods that would be implemented for pipeline trench backfill (both the natural gas and water pipelines), including gradation, drainage, compaction, wet-weather work, and use of impermeable fill in wetland areas. Describe the potential requirements for and sources of imported fill materials, minimum pipeline cover depths, and disposal of excess trench excavate, including estimated volumes, specific sites, and methods to stabilize the piles of excavated materials. This discussion should include plans for moisture-sensitive soils, where applicable; notably these types of soils are likely to be present in the wetland areas along the Tucannon River Valley.

**(3) Topography** – *The applicant shall include contour maps showing the original topography and any changes likely to occur as a result of energy facility construction and related activities. Contour maps showing proposed shoreline or channel changes shall also be furnished.*

- A. Provide a brief description of the geographic setting of the proposed project.
- B. Provide relatively large-scale topographic maps (1:24,000 or larger) of the plant site, natural gas pipeline route, water pipeline route, and transmission line route. Enlargements may be necessary to portray areas where topographic or drainage changes would be required.
- C. Provide a large-scale (1 inch = 40 feet or larger), detailed fill-and-grade plan showing existing topographic contours and proposed final grade of the plant site.
- D. Describe in detail the topographic modifications that would be required for construction of the plant site, with particular emphasis on modifications to drainage patterns.
- E. In addition to Criterion E under Item (2) of this WAC section, describe any topographic changes that would result from excavation of borrow materials, and any resultant impacts and measures proposed to mitigate impacts.

**(4) Unique physical features** – *The applicant shall list any unusual or unique geologic or physical features in the project area or areas potentially affected by the project.*

- A. Describe the catastrophic flood deposits that constitute the terrace where the plant would be located. Provide a discussion of these features relative to other catastrophic flood features on the Columbia Plateau, and an evaluation of the significance and uniqueness of this physical feature. Describe how construction and associated activities and the generation plant would modify this feature, and what mitigation measures could be implemented to minimize disruption or provide an offsetting benefit in memorializing the feature.
- B. Discuss any other unique physical features (if present) in the vicinity of the plant site, water pipeline, natural gas pipeline, and transmission line route. If borrow material will be required for construction, a similar evaluation of potential borrow area(s) should also be provided.
- C. Describe measures that would be implemented to mitigate or avoid disruption to unique physical features (in addition to the requirements of Criterion A above), if present. This should include a discussion of how and where construction activities would be staged in the vicinity of such features.

**(5) Erosion/Enlargement of the land area (accretion)** – *The applicant shall identify any potential for erosion, deposition, or change of any land surface, shoreline, beach, or submarine area due to construction activities, placement of permanent or temporary*

*structures, or changes in drainage resulting from construction or placement of facilities associated with construction or operation of the proposed energy project.*

- A. Describe specific design measures that would be implemented to minimize or control erosion during construction and operation of the plant. This discussion should address the impact of reduced soil permeability in construction areas, and the potential for seepage and resultant erosion associated with the plant's wastewater retention/disposal system.
- B. Describe specific design measures that would be implemented to minimize or control erosion during construction of the natural gas and water pipelines. This discussion should indicate what would be done with excess spoils from pipeline trench excavation.
- C. Provide an assessment of whether or not seepage from the unlined retention pond and associated drainfield discharge could result in surface flow and erosion. As appropriate, describe design considerations that would be implemented to reduce the potential for such seepage and erosion.

### **3.1.2 NEPA Requirements**

Not applicable.

### **3.1.3 Other Requirements**

Not applicable.

## **3.2 Air Quality**

### **3.2.1 WAC Requirements**

***WAC 463-42-225 Proposal – Emission control.*** *The applicant shall demonstrate that the highest and best practicable treatment for control of emissions will be utilized in facility construction and operation. In the case of fossil fuel power plants and petroleum refineries, the applicant shall deal with products containing sulfur, NOx, volatile organics, CO, CO2, aldehydes, particulates, and any other emissions subject to regulation by local, state, or federal agencies. In the case of a nuclear-fueled plant, the applicant should deal with the optional plant designs as these may relate to gaseous emissions.*

- A. Describe the emission characteristics of the equipment to be used.
- B. Describe required emission limits applicable to the project.

- C. Provide a documented Best Available Control Technology (BACT) analysis for criteria pollutants that includes recent BACT determinations, and economic and environmental justification for the BACT(s) selected for the project.
- D. Provide an assessment of BACT for toxic pollutants, including ammonia if selective catalytic reduction is selected as BACT for NOx.
- E. Provide estimates of the project's greenhouse gas emissions (GHG), including carbon dioxide and methane, and the effect on global warming. Compare these contributions and effects to those of other generators of GHG in the state. Describe any planned GHG emission controls and/or offsets.

**WAC 463-42-312 Natural environment – Air.** *The applicant shall provide detailed descriptions of the affected environment, project impacts, and mitigation measures for the following:*

**(1) Air quality** – *The applicant shall identify all pertinent air pollution control standards. The application shall contain adequate data showing air quality and meteorological conditions at the site. Meteorological data shall include, at least, adequate information about wind direction patterns, air stability, wind velocity patterns, precipitation, humidity and temperature. The applicant shall describe the means to be utilized to assure compliance with applicable local, state, and federal air quality and emission standards.*

- A. Identify state and federal ambient air quality standards, hazardous/toxic air pollutant standards, Prevention of Significant Deterioration (PSD) increments, PSD thresholds, applicable state and federal emission standards, and applicable permitting requirements relative to the project.
- B. Present meteorological data for the site or for a location that reasonably approximates site meteorology. Data should, at a minimum, include all of the parameters specified in WAC 463-42-312 and should follow the guidance presented in the EPA document entitled: *Meteorological Monitoring Guidance for Regulatory Modeling Applications*, published February 2000 by the U.S. EPA Office of Air Quality Planning and Standards in Research Triangle Park, NC (EPA-454/R-99-005).
- C. Describe how the selected control technologies and controlled emission rates of the facility will comply with applicable emission standards.
- D. Provide a summary of key information for the PSD permit application (see ASC Part II – Guidance and Criteria for Technical Appendices, Appendix G).

**(2) Odor** – *The applicant shall describe for the area affected, all odors caused by construction or operation of the facility; and shall describe how these are to be minimized or eliminated.*

- A. Provide an evaluation of the potential of project-related odor impacts at the closest sensitive receptors to the project. The analysis should discuss whether or not the

natural gas to be used at the plant will be odorized and whether or not that odor would be detectable at sensitive receptors.

**(3) Climate** – *The applicant shall describe the extent to which facility operations may cause visible plumes, fogging, misting, icing, or impairment of visibility, and changes in ambient levels cause by all emitted pollutants.*

- A. Provide an analysis of the project’s potential for generating visible plumes, and/or plume-induced fog, mist, or icing; focus on the potential impacts to visibility on SR 261 and other nearby roads.

**(4) Dust** – *The applicant shall describe for any area affected, all dust sources created by construction or operation of the facility, and shall describe how these are to be minimized or eliminated.*

- A. Provide estimates of fugitive dust (total particulates and PM<sub>10</sub>) that would be released during construction and operation. Estimates should be based on the most recently available emission factors for fugitive dust. A comprehensive dust mitigation plan should be developed to minimize construction dust.

### **3.2.2 NEPA Requirements**

Not applicable.

### **3.2.3 Other Requirements**

Not applicable.

## **3.3 Water Resources**

### **3.3.1 WAC Requirements**

**WAC 463-42-215 Proposal – Surface-water runoff.** *The applicant shall describe how surface-water runoff and erosion are to be controlled during construction and operation to assure compliance with state water quality standards.*

- A. Provide a description of existing runoff conditions associated with the proposed power plant site, the proposed natural gas pipeline route, the water pipeline route, and the transmission line route.
- B. Identify and describe the state water quality classification under which the Snake and Tucannon Rivers are managed. Identify which standards and other parameters are at risk or not at risk from implementation of the proposed power plant, natural gas pipeline, water pipeline, and transmission line.

- C. Define the design storm for erosion control measures.
- D. Provide a quantitative evaluation of stormwater runoff volume, quantity, and quality during construction and operation of the plant, natural gas pipeline, water line, and transmission line.
- E. Describe potential pollutants associated with the construction and operation of the proposed plant, natural gas pipeline, water pipeline, and transmission line that could affect surface waters. Describe pollutant types and potential effects and discuss BMPs, spill response, spill containment, and spill prevention measures.
- F. Describe the process whereby BMPs are incorporated into construction and operation specifications, including the erosion control plan/SWPPP. Address these issues for construction and operation of the natural gas pipeline, water pipeline, and transmission lines.
- G. Show how stormwater will be detained and controlled during plant construction and operation including detention pond size, conveyance system, and tile field design.
- H. Describe how stormwater runoff will be controlled during construction and operation of the natural gas and water pipelines. Provide a SWPPP for these pipelines.
- I. Describe the water pipeline's Tucannon River crossing, especially setbacks, construction methods and risks, and disturbance to riparian areas.
- J. Describe the methods and process for construction and operation of the transmission line, including the towers and footings. Provide a SWPPP for the transmission line. A detailed description and drawings of transmission line route and locations of tower footings should be included.
- K. Describe how stormwater runoff will be controlled during construction and operation of the transmission line, including towers and footings. Provide a SWPPP for the transmission line.
- L. Describe the area required for construction and operation of transmission line towers and footings.
- M. Describe river crossings associated with the transmission line. Include construction methods, risks, setbacks, and disturbance to riparian area or surface waters.

**WAC 463-42-322 Natural environment – Water.** *The applicant shall provide detailed descriptions of the affected natural water environment, project impacts and mitigation measures and shall demonstrate that facility construction and/or operational discharges will be compatible with and meet state water quality standards. The applicant shall indicate the source and the amount of water required during construction and operation of the plant and show that it is available for this use and describe all existing water rights, withdrawal authorizations, or restrictions which relate to the proposed source.*

**(1) Surface water movement/quality/quantity** – *The application shall set forth all background water quality data pertinent to the site, and hydrographic study data and analysis of the receiving waters within one-half mile of any proposed discharge location with regard to: Bottom configuration; minimum, average, and maximum water depths and velocities; water temperature and salinity profiles; anticipated effluent distribution and dilution, and plume characteristics under all discharge conditions; and other relevant characteristics which could influence the impact of any wastes discharged thereto.*

- A. Describe the source and destination (disposal) of water used in hydrostatic testing of the power plant facilities, natural gas pipeline, and water pipeline. Describe the quantity and quality of waste hydrostatic test water and the potential impact of discharge of the test water to the detention pond and tile field.
- B. As noted in the Environmental Assessment, the project as currently planned does not include discharge to a water body. If such a discharge is to be included, provide detailed descriptions and conditions of all surface waters in the vicinity (0.5 mile) of the proposed power plant site, water pipeline, and transmission line. Provide a map to clearly display the existing and proposed surface water network. Employ the Washington Department of Natural Resources stream type classification to describe all drainages.
- C. Describe and discuss all surface water crossings associated with the water pipeline and transmission line, including construction methods, risks, setbacks, potential disturbance to surface waters, and a description of control measures that would be used during construction and operation to minimize runoff. Discuss impacts and mitigation measures for any tower footings that may be placed in or near surface water.
- D. Document sources used to identify proposed stream crossings; provide an estimate of “unmapped stream crossings”, if any, by stream type, for the transmission line.
- E. Identify by month and approximate week the timing window required to avoid instream work (if any) during peak or high flow events, maximize use of low flow conditions, and minimize impacts on anadromous and resident fisheries. This applies to the construction of the water pipeline and transmission line.
- F. Describe construction and operational impacts on instream flow requirements, if any.
- G. Provide an evaluation of the potential for release to surface waters of soil contaminants that could be associated with the former railroad grade and ballast. Describe an approach to sampling and chemical analyses to evaluate whether contaminants are present along the former railroad grade, and if so, how those contaminants will be contained so as not to reach surface waters at concentrations that compromise surface water quality.
- H. Discuss construction and operation related impacts on in-stream flow requirements. Address whether there will be a cumulative effect, placing additional demand on in-stream water.

- I. Describe specific mitigation measures for any impacts to surface water bodies. Provide detailed specifications and/or design of mitigation measures, plans for implementing mitigation measures, and goals of mitigation measures.
- J. Describe the quantity and quality of wastewater and storm water associated with the proposed plant. Describe the potential effects (or lack of effects) of water discharged to the retention ponds on surface waters. Describe how released water would be detained and controlled during plant construction and operation including detention pond size, conveyance system, and tile field design. Provide sufficient basis to demonstrate that the wastewater discharged from the drain field and from detention pond seepage will not emerge in adjoining or underlying ravines as surface water, especially during periods of heavy rainfall. Discuss the SWPPP and its implementation.

**(2) Runoff/absorption** – *The applicant shall describe how surface water runoff and erosion are to be controlled during construction and operation, how runoff can be reintroduced to the ground for retention to the ground water supply, and to assure compliance with state water quality standards.*

- A. Describe existing runoff conditions associated with the proposed plant site, natural gas pipeline route, water pipeline route, and transmission line route. Include descriptions of drainages and swales that carry runoff water and the ultimate destination of runoff. Discuss existing sediment load conditions of drainages associated with the proposed plant, including natural gas pipeline, water pipeline, and transmission line.
- B. Discuss potential and cumulative sediment impacts to drainages associated with the proposed plant, natural gas pipeline, water pipeline, and transmission line. Include a description of control measures that would be used during construction and operation to minimize and/or treat runoff.

**(3) Floods** – *The applicant shall describe potential for flooding, identify the five, fifty, one hundred, and five hundred year flood boundaries, and all protective measures to prevent possible flood damage to the site and facility.*

- A. Provide maps (1:24,000 or larger scale) of the project areas showing the locations of the 5-, 100- and 500-year floodplains relative to project features.
- B. Document sources used to identify floodplains (e.g., FEMA maps).
- C. Discuss potential impacts (if any) associated with flood events during construction and operation of the proposed plant, natural gas pipeline, water pipeline, and transmission line. Discuss potential flooding impacts on construction and operation and potential impacts to floodplain functions due to construction and operation. Address floodplain crossings (e.g., the water pipeline crossing of the Tucannon River) and facilities or structures (e.g., tower footings) that will be within floodplains.

- D. Describe control measures that would be used during construction and operation that address floods; refer to the SWPPP and its implementation.
- E. Identify by month and approximate week the timing window required to avoid flood events for the construction of the proposed plant, natural gas pipeline, water pipeline, or transmission line.
- F. Describe the potential effects (or lack of effects) on discharged water (wastewater and stormwater) from the proposed plant during a flood event. Describe the operation of the stormwater system and components (e.g., detention ponds, conveyance system, and tile field) during a flood event.

***(4) Ground water movement/quantity/quality*** – *The applicant shall include the results of a comprehensive hydrologic survey, describe the ground water conditions on and near the site and any changes in groundwater movement, quantity, or quality which might result from project construction or operation.*

- A. Describe the hydrogeology and hydrogeologic resources of the Starbuck area and the plant site area, with particular emphasis on groundwater systems used by the town's wells. Provide an analysis of project impacts on water quality, quantity, and groundwater movement and a discussion of mitigation measures.
- B. Provide geologic logs and hydrogeologic information for the town's wells and any information that is available for other wells in the Starbuck and plant site areas. Information on the wells located immediately east and west of the proposed plant site should be included.
- C. Provide a hydrogeologic cross section through the plant site, showing depths to groundwater, geologic materials, and projected depths to bedrock aquifers.
- D. Provide potentiometric surface maps of the regional aquifers underlying the site area, based on published hydrogeologic studies of the region.
- E. Describe the aquifer characteristics, including groundwater flow directions, and recharge and discharge areas, for each aquifer system.
- F. Describe long-term trends for groundwater use, availability, and water quality in the project vicinity.
- G. Provide an analysis of the potential impacts of the increased pumping from the Starbuck well(s) on water quality, quantity, and groundwater movement. Provide sufficient information to demonstrate that the increased pumping will not adversely impact the town, in-stream flows, and senior water rights, or indicate how potential impacts would be mitigated.
- H. Describe the hydrogeologic system in the Tucannon River Valley, and how it is associated with surface water and the groundwater used by local wells, including the Starbuck well(s).

- I. Discuss the properties of site soils with respect to the permeability of the substrate, and how these materials would transmit any contaminants released at the surface. Similarly, discuss their hydrogeologic properties with respect to the function of the wastewater drainfield.
- J. Identify potential onsite sources of contamination, and discuss potential impacts to the groundwater system from accidental spills and releases. Also describe the potential for groundwater contamination from the ongoing subsurface disposal of stormwater and wastewater through the drainfield and as seepage from the retention pond. Describe measures that would be implemented during construction and operation to mitigate any adverse impacts to the site groundwater.
- K. Provide an evaluation of the impact of site construction and operation on recharge to the site area groundwater. Discuss mitigation measures that would be implemented to reduce or eliminate this impact.
- L. Discuss the potential for contamination of the shallow aquifer in the vicinity of the proposed water pipeline that could result from excavation and handling of potentially contaminated soils along the railroad right-of-way. Provide an impact analysis of this, and discuss mitigation measures that would be employed to reduce the potential for contaminant migration to the surface water and groundwater.
- M. Describe how wastewater quality will be evaluated and controlled so as not to adversely impact groundwater quality.
- N. Discuss the alternative of lining the detention pond with an impermeable liner so as to better control releases to the groundwater system.

**(5) *Public water supplies*** – *The applicant shall provide a detailed description of any public water supplies which may be used or affected by the project during construction or operation of the facility.*

- A. Provide a large-scale map showing existing and planned municipal wells and water mains, and the proposed water supply line from the town of Starbuck to the proposed power plant.
- B. Provide a summary description of the project's water supply system, the anticipated project water consumption by volume, rate, and use. Also describe measures that will be employed to recycle water at the plant and volumes of water that would be recycled (Detailed responses to this WAC are addressed in Section 2.2.1 Description of the Proposed Action, WAC Requirements).
- C. Describe the proposed plan for providing water to construction workers at the site and at their temporary residences if water supply facilities are not currently available at the planned housing location.
- D. Provide a detailed description of the Town of Starbuck's water right, and documentation of the Town's agreement to provide water for use by this project, and

indicate whether or not a change-in-use or change-in-location authorization would be required.

- E. Describe the current consumption demands on Starbuck's water supply. Also, provide a long-term projection of water use by the Town of Starbuck, along with an assessment of the adequacy of their water right and wells to meet the long-term needs of the both the town and this project.
- F. Indicate what percentage of the Town's water would be used (on a daily, monthly, and annual basis) by the project. Describe what water resource will be available to the town for household and business use, emergency water supply, and for future growth. The latter should address long-term growth projections, and the influx of residents to work at the plant once it is constructed.
- G. In the event that a new well will be required to provide water for this facility, document the steps that have been taken to secure the acceptance of the Washington Department of Ecology's concurrence that this action is consistent with Starbuck's water right.
- H. Identify the aquifer(s) that will be used for groundwater extraction, and provide an estimate of the current and long-term capacity of the well(s) and aquifer(s) to meet the needs of the town of Starbuck and this proposed power plant.
- I. Identify water users who could be adversely affected by the increased use of the Starbuck well, and describe the status of other water rights relative to that of the Starbuck.
- J. Describe alternatives to purchasing water from Starbuck, including drilling a new well at the site, or purchasing water from owners of existing wells adjacent to the site or in the Tucannon River Valley, or other applicable alternatives. Indicate whether or not there is a possibility of obtaining water through Starbuck's water right, but from an extraction point in the same aquifer at a location closer to the site.
- K. Discuss measures that would be implemented, and who would bear the responsibility for such actions, in the event that the town's water supply diminishes to the point where the existing well(s) would not be capable of meeting the needs of both the Town and the plant.

### **3.3.2 NEPA Requirements**

Not applicable.

### **3.3.3 Other Requirements**

- A. Pursuant to Federal Executive Order 1198, and in order to facilitate permitting by the U.S. Army Corps of Engineers and other federal agencies, explain why the proposed project requires a 6-mile water pipeline that passes through a floodplain. In addition, provide a similar justification for the transmission line if route passes through a floodplain.

## **3.4 Wetlands and Vegetation**

### **3.4.1 WAC Requirements**

*WAC 463-42-332 Natural environment – Plants and animals.*

*(1) Habitat for and number or diversity of species of plants, fish, or other wildlife – The applicant shall describe all habitat types, vegetation, wetlands, animal life, and aquatic life which might reasonably be affected by construction, operation, or cessation of construction or operation of the energy facility and any associated facilities. Assessment of these factors shall include density and distribution information. The application shall contain a full description of each measure to be taken by the applicant to protect all habitat types, vegetation, wetlands, animal life, and aquatic life from the effects of project construction, operation, abandonment, termination, or cessation of operations.*

- A. Habitat characterizations are to be based on both literature reviews and quantitative field analyses proportional to the species affected and the surface disturbance planned.
- B. If the water pipeline construction corridor or the transmission line facilities pass through wetlands, conduct wetland and stream reconnaissances. Conduct appropriate delineations by a professional wetland biologist to identify any wetlands or streams along the construction corridor for the natural gas pipeline, the water pipeline, or the transmission line using the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual (Environmental Laboratory 1987) and the 1997 Washington State Wetlands Identification and Delineation Manual (Washington Department of Ecology 1997).
- C. If wetlands are identified and delineated, prepare a Wetland and Stream Delineation Report that includes the following:
1. Classify wetland habitat types based on the U.S. Fish and Wildlife Service wetland classification system (Cowardin et al. 1979). This classification scheme categorizes wetlands according to plant community types and hydrologic regime and is one of many factors commonly used by local jurisdictions to help determine wetland functions and values.

2. Rate wetlands and streams and determine their buffer widths through the guidelines in the appropriate local Sensitive Areas Ordinance and Ecology's rating for Eastern Washington.
3. Prepare a functions and values assessment for each individual wetland. Evaluation methods should follow those outlined in Wetland and Buffer Functions Semi-Quantitative Performance Assessment Methodology (Cooke 1997) or other method acceptable to Ecology.
4. Present compliance with local, state, and federal regulations. Activities within wetlands and their associated buffers may trigger certain permits:
  - Clean Water Act, Discharge of Dredge and Fill Material: Section 404 Permit – U.S. Army Corps of Engineers
  - Clean Water Act, Water Quality Certification: Section 401 Permit
  - Federal Endangered Species Act: Section 7 – U.S. Fish and Wildlife Service, National Marine Fisheries Service
  - Application for General Discharge Stormwater Associated with Construction Activity
5. Include the following in the ASC wetland section and provide scientific names for plants mentioned in the text.
  - Construction and operational impacts to wetlands by habitat type.
  - Wetland impact avoidance and minimization measures.
  - Show on a map the locations of wetlands along the water pipeline and transmission line routes including those immediately adjacent to the right-of-way.
  - Provide drawings showing pipeline or transmission line installation in areas immediately adjacent to wetlands and indicate if there will be temporary impacts to wetland buffers during construction.
  - Submit construction method drawings for any wetland crossings and describe construction method impacts, equipment to be used, and location of stockpiled soils.
  - Indicate how the proposed pipeline and transmission line routes minimize impacts to wetlands.
  - Specify the setback of all earthmoving activities from wetlands, areas of native habitat, and riparian zones.

- Identify buffer widths based on applicable city, county, or Ecology requirements and present acreage of wetland buffer impacted (describe and quantify).
  - Describe maintenance activities, including methods to maintain corridors for inspection, and permanent/temporary impacts.
  - Describe any wetland mitigation creation, enhancement, or restoration measures.
  - Describe any wetland mitigation for loss of functions and values (including wildlife habitat) and justify species selections.
- D. Describe existing conditions at the locations of all project-related facilities and construction zones for all identified vegetation communities (include dominant species) and include definition, type, extent, and location of sensitive plant communities such as native shrub-steppe or grasslands, basalt outcrops, and riparian corridors.
- E. Present both the total construction and operational impact acreages for the project-related facilities by vegetation community. Describe the vegetation by cover type and quantify the impacts by removal or trimming, and if the impacts to the plant communities are permanent or temporary (including whether the right-of-way associated with the water pipeline or transmission line will require the permanent removal of existing trees and shrubs for easement maintenance). If trees are removed, describe species, size, and number to be removed.
- F. If woody vegetation along water pipeline or transmission line corridor is removed, address issue of potential changes in adjacent plant community type or the introduction of exotic or noxious weeds and the potential impact.
- G. Provide measures that would be used to prevent or minimize the introduction, spread, and establishment of noxious weeds during construction and operation.
- H. Provide revegetation guidelines for areas that would be disturbed during construction and include guidelines for the use of native and non-native seed mixes.

*(2) Unique species – Any endangered species or noteworthy species or habitat shall receive special attention.*

- A. Provide documentation of Endangered Species Act compliance and coordination with USFWS. This would either be a record of concurrence with the finding that threatened or endangered plant or animal species would not be affected through informal consultation, or initiation of a Biological Assessment. Also provide a record of communications during consultation.

- B. Contact USFWS and the Washington State Department of Natural Resources' Natural Heritage Program (WNHP) for lists of federal and state sensitive species and any significant high-quality native plant communities and identify in ASC.
- C. Determine the need to conduct rare and sensitive plant survey based on a review of USFWS, WNHP, and Priority Habitat and Species Program (PHS) database listings for presence of sensitive plant species. Describe the presence of any state-listed, candidate, or proposed species, and impacts to these species if present.
- D. Conduct a survey for noxious weed species within the project area. Verify with Columbia County Noxious Weed Control Board (which uses the Washington State Noxious Weed Control Board plant lists and applies County class designations) whether or not noxious weeds are known to be present within the project area.

### **3.4.2 NEPA Requirements**

- A. If the requirements for WAC 463-42-332(2) are met, no additional NEPA requirements will have to be met.

### **3.4.3 Other**

See Criterion A for WAC 463-42-332(2).

## **3.5 Agricultural Crops and Livestock**

### **3.5.1 WAC Requirements**

***WAC 463-42-362 Built environment – Land and shoreline use.***

***(7) Agricultural crops/animals – The applicant shall identify all agricultural crops and animals which could be affected by construction and/or operation of the facility and any operations, discharges, or wastes which could impact the adjoining agricultural community.***

- A. Provide a complete description of the existing conditions and impacts on agricultural crops and livestock due to project construction and normal operation, including the impact of emissions on agricultural land. In particular, show irrigation if present, and whether transmission towers or pipelines would affect circle or tower irrigation systems. Describe any prime and unique farmlands.
- B. Identify and describe agricultural activities in areas within and adjacent to the project site, the proposed natural gas pipeline route, the proposed water pipeline route, and the proposed transmission line corridor. If croplands are present, indicate percent crop cover. Describe annual crop cycle and the types and value of crops directly affected. Indicate whether land left fallow or harvested annually.

- C. Describe construction and/or operation activities that could affect cropland, quantify total areas of impact, and indicate whether impacts are permanent or temporary. Discuss whether there will be reduced crop productivity over time, including crops within pipeline corridors.
- D. Discuss how building and operating the facilities will affect the grazing of cattle in the project area (i.e., where would displaced cattle be grazed during construction).
- E. Discuss whether or not there will be any potential impact to the fish hatchery from the power plant emissions. Address the potential for nitrification of the Snake River from emissions.
- F. Discuss how an ammonia spill would affect agricultural crops or livestock.
- G. Describe how tower and conductors would affect agricultural practices such as aerial spraying, harvest, and irrigation.
- H. Discuss whether or not stack or drift emissions would affect germination or production of crops.

### **3.5.2 NEPA Requirements**

Not applicable.

### **3.5.3 Other Requirements**

Not applicable.

## **3.6 Wildlife**

### **3.6.1 WAC Requirements**

*WAC 463-42-332 Natural environment – Plants and animals.*

*(1) Habitat for and number or diversity of species of plants, fish, or other wildlife – The applicant shall describe all habitat types, vegetation, wetlands, animal life, and aquatic life which might reasonably be affected by construction, operation, or cessation of construction or operation of the energy facility and any associated facilities. Assessment of these factors shall include density and distribution information. The application shall contain a full description of each measure to be taken by the applicant to protect all habitat types, vegetation, wetlands, animal life, and aquatic life from the effects of project construction, operation, abandonment, termination, or cessation of operations.*

- A. Have a professional biologist conduct an onsite field characterization of existing wildlife resources and potential utilization of the project area and report the findings in the ASC.
- B. Obtain Priority Habitat and Species data for the project area from the Washington Department of Fish and Wildlife and report the findings in the ASC.
- C. Request a species list for the project area from the U.S. Fish and Wildlife Service (USFWS) and report the findings in the ASC.
- D. Contact local biologists for information on wildlife species utilizing the project area.
- E. Provide an assessment of potential impacts and provide a wildlife protection plan to mitigate project-related impacts to wildlife.
- F. Assess the potential of wildlife enhancement through the use of stormwater discharges.
- G. Assess impacts on fish and other aquatic species due to discharges that may enter the Tucannon or Snake Rivers.
- H. Indicate whether or not groundwater withdrawals will have an effect on flow in the Tucannon or Snake Rivers.

*(2) Unique species – Any endangered species or noteworthy species or habitat shall receive special attention.*

- A. Review Priority Habitat and Species data and USFWS letters for unique species and assess them accordingly. Provide information on the presence or absence of these species, and if present, the potential impacts of project-related facilities.
- B. Determine whether or not the Washington ground squirrel uses the plant site or the route of the natural gas pipeline, water pipeline, and transmission line.

*(3) Fish or wildlife migration routes – The applicant shall identify all fish or wildlife migration routes, which may be affected by the energy facility or by any discharge to the environment.*

- A. Review Priority Habitat and Species data for migration routes and report on the findings, including a statement regarding potential impacts.
- B. Contact local biologists for information on wildlife species migrating through the project area and report on the findings, including a statement regarding potential impacts.
- C. Assess the risk of bats and birds colliding with project structures (stacks or towers) during both day and night, as well as the risk of collision during periods of fog.

### **3.6.2 NEPA Requirements**

Not applicable.

### **3.6.3 Other Requirements**

#### ***Endangered Species Act***

- A. Evaluate potential effects on listed species in a Biological Assessment and through consultation with the U.S. Fish and Wildlife Service or National Marine Fisheries Service.
- B. Conduct formal consultation. If the Biological Assessment finds that the project may adversely affect a listed species, formal consultation with the appropriate agency is required
- C. Obtain a biological opinion. Following formal consultation a biological opinion will be issued by the agency. The biological opinion contains the formal determination of whether or not the proposed project would jeopardize the continued existence of a species or destroy or adversely modify a species' critical habitat. The biological opinion also contains any reasonable and prudent measures to avoid such a result (50 CFR 17.3).
- D. Prepare a Habitat Conservation Plan (HCP) if listed species are present where project-related facilities are located. The HCP must show that the plan will minimize or mitigate impacts of incidental take to the maximum extent possible; that incidental take will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and that adequate funding for plan implementation is provided. Consultation requirements under Section 7 of the ESA must also be satisfied.
- E. If there are takings of listed species, obtain an incidental take permit. Under Section 10 the agency may issue an incidental take permit.

#### ***Migratory Bird Treaty Act***

- A. Determine if the locations of project-related facilities provide habitat for migratory birds.

#### ***Bald Eagle Protection Act***

- A. Determine if the project area provides habitat for bald eagles and golden eagles.

#### ***Columbia County Ordinance #93-07 as Amended January 18, 1994***

- A. Determine whether or not project-related facilities are located within or contain resource lands or critical areas.

- B. If resource lands or critical areas are affected, follow the management recommendations provided by Columbia County.

### **3.7 Fisheries**

#### **3.7.1 WAC Requirements**

***WAC 463-42-332 Natural environment – Plants and animals.***

***(1) Habitat for and number or diversity of species of plants, fish, or other wildlife – The applicant shall describe all habitat types, vegetation, wetlands, animal life, and aquatic life which might reasonably be affected by construction, operation, or cessation of construction or operation of the energy facility and any associated facilities. Assessment of these factors shall include density and distribution information. The application shall contain a full description of each measure to be taken by the applicant to protect all habitat types, vegetation, wetlands, animal life, and aquatic life from the effects of project construction, operation, abandonment, termination, or cessation of operations.***

- A. Provide a detailed description of the existing aquatic environment (e.g., surface waters, riparian areas, and wetlands) and identify all fish potentially associated with the proposed power plant, natural gas pipeline route, water pipeline route, and transmission line route. Discuss current fish populations and distribution status. Contact the local Washington Department of Fish and Wildlife to obtain project area information. Document sources of information.
- B. Describe any currently limiting conditions that affect fish species and address whether the proposed project-related facilities will exacerbate conditions.
- C. Describe direct impacts, indirect impacts, and cumulative impacts to fisheries associated with the proposed project. Address impacts due to construction, operation, cessation of construction, or cessation of operation.
- D. Discuss any operation or construction related discharges, noises, or activities of the proposed project that could impact fisheries. Describe pollutant types and potential effects and discuss BMP, spill response, spill containment, and spill prevention measures.
- E. Identify by month and approximate week the timing window required to avoid impacts to fisheries. Construction should be avoided near or within surface waters when sensitive species are present and could be affected or during sensitive life stages (e.g., avoid working in streams when salmon are spawning). Detail periods of sensitivity; address anadromous and resident fisheries. This applies to the construction of the water pipeline and transmission line. In lieu of timing windows, describe construction methods, mitigation measures, and BMPs that would be implemented to minimize potential impacts.

- F. Specify setbacks for all construction related activities (earth moving, refueling, stockpiling, etc.) to protect riparian areas, surface waters, and other sensitive areas.
- G. Describe, in detail, river crossings associated with the transmission line and water pipeline. Include construction methods, risks, setbacks, BMPs, and disturbance to riparian area or surface waters.
- H. Document and justify the potential effects (or lack of effects) on fisheries caused by the proposed plant's stormwater and wastewater.
- I. Describe in detail the construction process for transmission line tower footings located near or in surface water and justify their placement at those sensitive locations. Include tower footing design drawings. Discuss potential impacts to fisheries and measures to be implemented that would minimize potential impacts.

*(2) Unique species – Any endangered species or noteworthy species or habitat shall receive special attention.*

- A. Provide the results of requests to the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) regarding a species list for the proposed plant site, water pipeline route, and transmission line route. Letters should briefly describe the project and project components and the location of the proposed plant, water pipeline route, and transmission line route. Location descriptions should include township, range, and section.
- B. Provide documentation of Endangered Species Act compliance and coordination with USFWS and NMFS. This would either be a record on concurrence with the finding that threatened and endangered species would not be affected (through informal consultation), or initiation of a Biological Assessment (BA) for the proposed project-related facilities.
- C. Describe current limiting conditions that affect listed species and address whether proposed plant, water pipeline, or transmission line will exacerbate conditions.
- D. Provide detail and discussion for unique species addressing construction timing, BMPs, potential impacts, population status, threats and risks, etc.
- E. Review Priority Habitat and Species data and agency response for unique species and assess them accordingly. Provide information on the presence or absence of the species, and if present, assess the potential impacts of project-related facilities on these species.

*(3) Fish or wildlife migration routes – The applicant shall identify all fish or wildlife migration routes which may be affected by the energy facility or by any discharge to the environment.*

- A. Identify all migrating fish and migration routes associated with the water pipeline construction corridor and transmission line route. Describe current migration

conditions, issues, and barriers (dams, diversions, water pumps, etc). Document sources of information.

- B. Describe the effects the proposed plant, natural gas pipeline, water pipeline, and transmission line may have on migration. Discuss any discharges, noises, or activities that may confuse, deter, or disrupt migrating fish.
- C. Identify by month and approximate week the timing window required to avoid impacts to migration routes or migrating fish. If construction could disrupt migration, then activities should not be conducted near or within surface waters when migrating fish are present. This applies to the construction of the proposed plant, water pipeline, or transmission line. In lieu of a timing window, describe construction methods, mitigation measures, and BMPs that would be implemented to minimize potential impacts.
- D. Specify setbacks for all construction related activities (earth moving, refueling, stockpiling, etc.) to protect migrating fish.
- E. Describe the impact on migration of fish due to river crossings associated with the transmission line and water pipeline, including construction methods, risks, setbacks, BMPs, and timing.
- F. Discuss potential impacts of the placement of transmission tower footings in or near surface water to migration routes and migrating fish. Describe measures to be implemented that would minimize potential impacts. Include construction timing and BMPs and refer to the applicable protection measures in the SWPPP.

### **3.7.2 NEPA Requirements**

Not applicable.

### **3.7.3 Other Requirements**

#### **Endangered Species Act**

- A. Evaluate potential effects on listed species in a Biological Assessment and through consultation with the U.S. Fish and Wildlife Service or National Marine Fisheries Service.
- B. Conduct formal consultation. If the Biological Assessment finds that the project may adversely affect a listed species, formal consultation with the appropriate agency is required
- C. Obtain a biological opinion. Following formal consultation a biological opinion will be issued by the agency. The biological opinion contains the formal determination of whether or not the proposed project would jeopardize the continued existence of a

species or destroy or adversely modify a species' critical habitat. The biological opinion also contains any reasonable and prudent measures to avoid such a result (50 CFR 17.3).

- D. Prepare a Habitat Conservation Plan (HCP) if listed species are present where project-related facilities are located. The HCP must show that the plan will minimize or mitigate impacts of incidental take to the maximum extent possible; that incidental take will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and that adequate funding for plan implementation is provided. Consultation requirements under Section 7 of the ESA must also be satisfied.
- E. If there are takings of listed species, obtain an incidental take permit. Under Section 10 the agency may issue an incidental take permit.

## **3.8 Energy and Natural Resources**

### **3.8.1 WAC Requirements**

*WAC 463-42-342 Natural environment – Energy and natural resources.*

*(1) Amount required/rate of use/efficiency – The applicant shall describe the energy and natural resource consumption during both construction and operation of the proposed facilities as rate of use and efficiency that can be achieved during construction and operation.*

- A. Provide the amount of natural gas, electricity, diesel fuel, gasoline, sand and gravel to be consumed during construction.
- B. Provide the amount of electricity and natural gas required to operate the plant compared to the overall energy that the plant will generate.

*(2) Source/availability – The applicant shall describe the sources of supply, locations of use, types, amounts, and availability of energy or resources to be used or consumed during construction and operation of the facility.*

- A. Describe what sources will be used to provide natural gas, electricity, diesel fuel, gasoline, sand and gravel for the power project.
- B. Describe the capacity of PG&E natural gas and the capacity of the electrical facilities (Rural Electric Association) that will supply the power plant for the 30 years of its operation.
- C. Explain how the electricity will be routed into the transmission grid. Describe the current and future capacity of the grid to transport the electricity that the plant will produce.

- D. Provide information regarding contracts for natural gas supply. If necessary, discuss the availability of gas, give all the other proposed natural gas facilities in the region.

*(3) Nonrenewable resources – The applicant shall describe all nonrenewable resources that will be used, made inaccessible or unusable by construction and operation of the facility.*

- A. Describe all nonrenewable resources as outlined above. Such resources would include but are not necessarily limited to natural gas, water, fill and gravel used during construction, diesel fuel and oil for construction equipment, and loss of grazing land.
- B. Address how this plant will affect the availability of natural gas for other gas users in the future.
- C. Describe where the water for the proposed project will come from.

*(4) Conservation and renewable resources – The applicant shall describe conservation measures and/or renewable resources which will or could be used during construction and operation of the facility.*

- A. Explain whether “gray water” would/could be reused to reduce the overall consumption of water (e.g., would/could it be used for irrigation?).
- B. Provide construction Best Management Practices for construction and operation to minimize the use of non-renewable resources such as gas, diesel and oils.
- C. Show plant maintenance and efficiency models to produce the highest energy yields.

### **3.8.2 NEPA Requirements**

Not applicable.

### **3.8.3 Other Requirements**

Not applicable.

## **3.9 Noise**

### **3.9.1 WAC Requirements**

**WAC 463-42-352. Built environment – Environmental health.**

*(1) Noise – The applicant shall describe the impact of noise from construction and operation and shall describe the measures to be taken in order to eliminate or lessen this impact.*

- A. Identify the location of noise-sensitive land uses within the area of potential noise effect (APNE) on USGS mapping with a scale of 1:24000 or less and indicate the distance of the noise-sensitive land use from the generation plant site or other noise generation source. (The APNE is the area with noise-sensitive land uses that may potentially be affected by noise from the power plant and associated facilities. Associated facilities include but are not limited to transmission lines, sewage treatment systems, and natural gas supply pipelines. Noise-sensitive land uses are lands where human beings reside and sleep or areas of frequent human use where the introduction of a new source of noise could adversely affect the beneficial use of the land.). The following types of property are considered noise-sensitive land uses:
- residential;
  - multiple family living accommodations;
  - recreational and entertainment (e.g., camps, parks, camping facilities, and resorts); and
  - community service, (e.g., orphanages, homes for the aged, hospitals, health and correctional facilities).
- B. Identify the elevation of the project site relative to the elevation of noise-sensitive land uses within the APNE and describe intervening topography and major structures that block the line of site between the project site and noise-sensitive land uses.
- C. Identify and describe significant sources of noise within the APNE. These sources may include but are not limited to highways, factories, aircraft, watercraft, and trains.
- D. Characterize and quantify with sound level measurements the existing background noise environment at noise-sensitive land uses within the APNE as follows:
1. Sound meters used should be Type 2 or better as defined by American National Standard (ANSI) ANSI S1.4-1983 (Revision S1.4-1973) and ANSI S1.4N-1985.
  2. Group noise-sensitive land uses into acoustically equivalent areas. Acoustically equivalent areas are areas that are equally affected by sources of noise in the area and that have a consistent acoustical relationship to the project site or other source of noise (i.e., the distance to the project site or other noise source is the same, intervening topography and structures are the same).
  3. Measurements should be taken at one or more receiver locations in each acoustically equivalent noise-sensitive area within the APNE.
  4. Because power plants can run constantly 24 hours a day it is important to characterize background sound levels throughout the day and night. Ideally, 1-hour interval sound level data should be collected 24 hours a day over a

7-day period at each measurement position. Hourly  $L_{eq}$ ,  $L_{min}$ ,  $L_{max}$ ,  $L_{10}$ ,  $L_{50}$ , and  $L_{90}$  A-weighted values should be logged. Measurements should not be taken during inclement weather conditions (i.e. rain or high winds). If measurements cannot be taken over this extended period of time, a reasonable number of short-term samples collected throughout the day and night should be taken to adequately characterize the noise environment.

5. If existing significant sources of noise are known to affect a noise-sensitive land use under consideration, short-term measurements characterizing each significant source should be taken.
  6. Generally describe sources of noise at each measurement location.
- E. Identify and describe relevant federal, state, and local noise standards. Identify which standards will be applied to the project in assessing noise impacts. In the absence of local standards, standards specified in Washington Administrative Code Chapter 173-60 should be used.
- F. Conduct a detailed assessment of noise impacts associated with construction and operation of the plant and any associated facilities:
1. Identify and describe construction equipment, including sound generation characteristics, and the methods to be used in constructing the power plant and associated facilities.
  2. Identify and describe noise-generating elements of the power plant and associated facilities.
  3. Determine predicted noise levels from construction and operation of the power plant and associated facilities at noise-sensitive land uses within the APNE using professionally accepted acoustical modeling methods such as those described in “Handbook of Acoustical Measurements” by Cyril M. Harris or “Noise and Vibration Control” by Leo Beranek. Describe in detail the assumptions, source levels, procedures, and methods used to predict noise levels.
  4. Identify locations where predicted noise levels exceed noise standards or where the project would result in a substantial increase in noise at noise-sensitive land uses. A substantial increase is defined as an increase of 10 dB or more.
  5. Where noise impacts are identified, identify and describe mitigation measures required to eliminate noise impacts. If no feasible measures are available to eliminate noise impacts, clearly state the reasons for this.
  6. Address the issue of low frequency noise impacts, control methods for low frequency noise that are included in the project design, and potential mitigation measures.

### **3.9.2 NEPA Requirements**

Not applicable.

### **3.9.3 Other Requirements**

Not applicable.

## **3.10 Land Use**

### **3.10.1 WAC Requirements**

**WAC 463-42-362 Built environment – Land and shoreline use.**

*(1) The relationship to existing land use plans and to estimated population – As part of the application, the applicant shall furnish copies of adopted land use plans and zoning ordinances, including the latest land use regulation and a survey of present land uses within the following distances of the immediate site area:*

*(a) In the case of thermal power plants, twenty-five miles radius;*

- A. Provide a description of land use patterns, land use plans, and zoning within a radius of 25 miles from the plant site. Provide both narrative and graphical depictions of these conditions. (The requirement for copies of land use plans and zoning ordinances is addressed in Section A, Accompanying Material.)
- B. Describe impacts the proposed project may have on surrounding land uses and identify potential mitigation measures.

*(b) In the case of petroleum refineries ten miles radius;*

Not applicable.

*(c) In the case of petroleum or LNG storage areas or underground natural gas storage, ten miles radius from center of storage area or well heads;*

Not applicable.

*(d) In the case of pipe lines and electrical transmission routes, one mile either side of center line.*

- A. Provide the same information required in Criterion A for WAC 463-42-362(1)(a) for a 2-mile-wide corridor centered on the alignment of the transmission line. This information is required only for portions of the transmission line that are not within the area covered under WAC 463-42-362(1)(a). (The requirement for copies of land use plans and zoning ordinances is addressed in Section A, Accompanying Material.)

- B. Describe impacts the proposed project may have on surrounding land uses and identify potential mitigation measures. Include designations such as sensitive areas, shorelines, buffers, and other land use classifications.

### **3.10.2 NEPA Requirements**

Not applicable.

### **3.10.3 Other Requirements**

- A. The applicant will need a Conditional Use Permit for the project. As outlined in the EA, this type of facility is permitted in the Heavy Industrial zoned area only with a Conditional Use Permit.

## **3.11 Visual Resources/Light and Glare**

### **3.11.1 WAC Requirements**

**WAC 463-42-362 Built environment – Land and shoreline use.**

**(3) Light and glare** – *The applicant shall describe the impact of light and glare from construction and operation and shall describe the measures to be taken in order to eliminate or lessen this impact.*

- A. Provide a lighting design for the plant site and an analysis of the impact of viewing the plant at night from the view at Lyons Ferry State Park, along SR 261, and from the Snake River looking north from the southern end of the plant site.

**(4) Aesthetics** – *The applicant shall describe the aesthetic impact of the proposed energy facility and associated facilities and any alteration of surrounding terrain. The presentation will show the location and design of the facilities relative to the physical features of the site in a way that will show how the installation will appear relative to its surroundings. The applicant shall describe the procedures to be utilized to restore or enhance the landscape disturbed during construction (to include temporary roads).*

- A. Provide visual simulations of the plant as viewed from the viewpoints shown in the EA visual resources section (Chapter II, Section 4.10). Indicate the anticipated size of a plume and the likely duration and interval of occurrence of a plume.
- B. Provide visual simulations of the electrical transmission lines and provide an impact analysis for the transmission line.
- C. Provide visual simulations for the water pipeline route after construction and the new well house. Include a visual showing technique for attaching the water line to the SR 261 bridge crossing of the Tucannon River.

- D. Identify where, if applicable, existing trees and windbreaks planted in or near the railroad bed will be removed during construction of the water pipeline. Provide a revegetation plan for replacing trees that are to be removed.
- E. Provide a summary of the landscape plan for the plant and associated facilities and refer to the section of the ASC in which the landscape plan is presented in greater detail.

**WAC 463-42-342 Natural environment – Energy.**

*(4) Scenic resources – The applicant shall describe any scenic resources which may be affected by the facility or discharges from the facility.*

- A. The responses to Criteria A through E for WAC 463-42-362(4) above will meet the requirements of this WAC subsection.

**3.11.2 NEPA Requirements**

Not applicable.

**3.11.3 Other Requirements**

Not applicable.

**3.12 Population, Housing, and Economics**

**3.12.1 WAC Requirements**

**WAC 463-42-362 Built environment – Land and shoreline use.**

*(2) Housing – The applicant shall describe potential impact on housing needs, costs, or availability due to influx of workers for construction and/or operation of the facility.*

Criteria regarding WAC 463-42-362(2) are included in the criteria presented below for WAC 463-42-535.

**WAC 463-42-535 Socioeconomic impact.** *The applicant shall submit a detailed socioeconomic impact study which identifies primary and secondary as well as negative impacts on the socioeconomic environment with particular attention and analysis of impact on population, work forces, property values, housing, traffic, health and safety facilities and services, education facilities and services, and local economy.*

- A. Define the study area to be analyzed in the socioeconomic analysis, including counties (e.g., Columbia, Walla Walla, Franklin, Asotin, and Garfield counties) and primary cities (e.g., Starbuck, Dayton, Walla Walla, Pasco, Kennewick, Richland,

Clarkston, and Pomeroy) that might be affected by in-migration or employment within 75 miles of the project site

- B. Population Characteristics – Provide 1980, 1990, and 1999 population levels for the counties (e.g., Columbia, Walla Walla, Franklin, Asotin, and Garfield counties) and primary cities (e.g., Starbuck, Dayton, Walla Walla, Pasco, Kennewick, Richland, Clarkston, and Pomeroy) that might be affected by in-migration or employment within 75 miles of the project site. Provide the growth rates for 1980-1990 and 1990-1999, and compare these to the average change for the entire study area and for the State of Washington.
- C. Housing Characteristics – Provide housing data for 1990 and the most recent year that data is available. Information for each period should include the total number of housing units in each jurisdiction addressed in Criteria A and B, number of units occupied, number and percent of units vacant, average age and condition of housing units, median home value, and median gross rent.
- D. Employment and Economics – Provide the average annual workforce size, average annual total number of employed people, and the average annual number and percent of unemployed people for each jurisdiction addressed in Criteria A and B, for 1990 and the year that data are most recently available. Compare revenues generated by the project (property tax, sales tax, B&O tax, payroll taxes) with expenditures (expanded public services and utilities). Employment numbers and percentage of the total workforce should be provided for the following employment sectors:
  - 1. agriculture, forestry, fisheries
  - 2. mining
  - 3. construction
  - 4. manufacturing
  - 5. transportation, communications, and public utilities
  - 6. wholesale trade
  - 7. retail trade
  - 8. finance, insurance, and real estate
  - 9. professional services
  - 10. government and public administration
- E. Identify the major or key employers in each jurisdiction (i.e., major companies), and the size of the labor force for each of those employers. If appropriate, indicate whether these major employers are experiencing any major increases or decreases in employment because of changing economic conditions.
- F. Provide per capita and household income for 1990 and the year that data is most recently available for each jurisdiction addressed in Criteria A and B.
- G. Provide the size of the construction workforce for each project facility by month, and if possible by trade, for the entire construction period. Indicate peak and average workforces. Identify where the workforce would originate from, including from within Columbia County, the remainder of the study area, the State of Washington,

and elsewhere nationwide. For those relocating to the area, estimate how many family members or dependents might in-migrate with them.

- H. Provide the estimated size of the indirect workforce that would result from construction of the project.
- I. Describe whether or not there is an adequate labor pool and skills to meet the direct construction and indirect employment needs of the project, for the areas described under a., above.
- J. Indicate how many direct and indirect construction-related employees would temporarily relocate, how many would commute on a daily basis, and how many would commute on a weekly basis. Include a listing of the required trades, workers from each trade, and union hall location for each trade, in the event it influences the source of workers.
- K. Describe how and where the direct construction and indirect workforces would be housed, and the potential impacts to area hotels, motels, bed and breakfasts, and campgrounds. Discuss the likelihood of a work camp near the site during construction.
- L. Describe mitigation plans to meet shortfalls in housing needs for the direct and indirect construction workforces.
- M. Indicate whether or not meeting the direct construction and indirect workforce's housing needs might constrain the housing market for existing residents and whether or not increased demand would likely lead to increased median housing values or median gross rents.
- N. Describe how much would be spent for construction of the entire project, including how much would be spent within Columbia County, the defined study area, the state, and elsewhere in the United States.
- O. Describe the average hourly wage and benefits that would be paid to construction workers, preferably by trade. Describe how wage levels that vary from existing wage levels in the affected jurisdictions might result in vacating existing employers, and whether it could result in an increase in wages overall in the region.
- P. Describe how much and what types of taxes would be paid during construction, and what jurisdictions would receive those tax funds. Describe how these taxes would be paid through the construction period of the project.
- Q. Describe other overall benefits and costs of the project on the economies of Columbia County, the study area, the state, and elsewhere in the United States.
- R. Provide the size of the operational workforce by month, and if possible by trade, for the entire operational period. Indicate peak and average workforces. Identify where the workforce would originate from, including from within Columbia County, the

remainder of the study area, the State of Washington, and elsewhere nationwide. For those relocating to the area, estimate how many family members or dependents might in-migrate with them.

- S. Provide the estimated size of the indirect workforce that would result from operation of the project.
- T. Describe whether or not there is an adequate labor pool and skills to meet the direct operation and indirect employment needs of the project, for the areas described under the response to Criterion R, above.
- U. Indicate how many direct and indirect operational employees would temporarily relocate, how many would commute on a daily basis, and how many would commute on a weekly basis.
- V. Describe how and where the direct operational and indirect workforces would be housed, and the potential impacts to area hotels, motels, bed and breakfasts, and campgrounds.
- W. What mitigation measures are proposed to meet any potential shortfalls in housing needs for the direct and indirect workforces?
- X. Indicate whether or not meeting the direct operational and indirect workforce's housing needs might constrain the housing market for existing residents and whether or not increased demand would likely lead to increased median housing values or median gross rents.
- Y. Describe how much would be spent for operation of the project on an annual basis, including how much would be spent within Columbia County, the defined study area, the state, and elsewhere in the United States.
- Z. Describe the average hourly wage and benefits that would be paid to operational workers, preferably by trade or employment level. Describe how wage levels that vary from existing wage levels in the affected jurisdictions might result in vacating existing employers, and whether it could result in an increase in wages overall in the region.
- AA. Describe how much and what types of taxes would be paid during operation, and what jurisdictions would receive those tax funds. Describe how these taxes would be paid annually through operation of the project.
- BB. Compare the tax revenues identified in Criterion AA with additional service costs, if any (such as police, fire, health, etc.), and discuss the temporal gap in income versus expenditures and mitigation, if needed.
- CC. Describe other overall benefits and costs of operation of the project on the economies of Columbia County, the study area, the state, and other areas within the United States.

### **3.12.2 NEPA Requirements**

Not applicable.

### **3.12.3 Other Requirements**

#### ***Environmental Justice (Federal Requirement)***

- A. Describe the ethnic composition of the existing population in counties (e.g., Columbia, Walla Walla, Franklin, Asotin, and Garfield counties) and primary cities (e.g., Starbuck, Dayton, Walla Walla, Pasco, Kennewick, Richland, Clarkston, and Pomeroy) that might be affected by in-migration or employment within 75 miles of the plant site. Ethnic composition should be provided for Caucasians, Hispanics, African-Americans, American Indians, Eskimos, and Aleuts; Asian or Pacific Islanders, and others.
- B. Provide the number and percentage of the population below the poverty level for the jurisdictions provided in the response to Criterion A.
- C. Describe whether or not any minority or low-income populations would be displaced by the project.
- D. Describe whether or not minority or low-income populations would be affected disproportionately, compared to Caucasians or non-low-income people, either through employment, income, exposure to air and water pollution, any other exposure to health risks, subsistence use, visually, or in any other way.
- E. Describe the measures designed into the project to reduce the impacts to minority and low-income populations.

## **3.13 Public Services and Utilities**

### **3.13.1 WAC Requirements**

***WAC 463-42-362 Built environment – Land and shoreline use.***

***(5) Recreation – The applicant shall list all recreational sites within the area affected by construction and operation of the facility and shall then describe how each will be impacted by construction and operation.***

- A. Identify each of the potentially affected public, semi-public, and private parks, recreational facilities, and major recreational opportunities within 75 miles of the plant. For each of these facilities, provide the following information:

1. Describe the types of recreational experiences available (e.g., camping, picnic areas, parks, fishing, boat launches, beaches, hiking/trails, non-roaded recreation, wilderness recreation, etc.).
2. Describe the number of camp sites and amenities (e.g., tables, fire pits, sewer, water, electricity, etc.) for RV and tent camping.
3. Describe the number of boat ramps and docks; availability of boat, canoe, and jet ski rentals; availability of gas and oil; and other available amenities (e.g., vending machines, restaurants, convenience stores, toilets, tables or picnic areas; etc.).
4. Describe the swimming areas available, with and without supervised life-guard services.
5. Provide the location, features (e.g., parking available, toilets, etc.), and miles of recreational hiking, cross-country skiing, and mountain bike trails.
6. For recreational facilities identified in response to Criterion A, Items 1 through 4 above, provide current capacities (i.e., number of users, number of sites, and other related data) and actual use levels (i.e., average number per day, average number per month, and other related data).
7. Describe the tentative schedule for when construction activities would likely affect each of the facilities, and what the anticipated level of usage would be by the construction workforce.
8. Describe the construction and operational impacts to recreational facilities and users from:
  - a. aesthetic impacts of clearing, new roads, the power plant, transmission lines, and other facilities
  - b. visual impacts from fog generation or other air pollution
  - c. impacts of noise on recreationists and the recreational experience
  - d. direct impacts from project-related use to facilities, number of recreational users, and recreational experiences
  - e. impacts on the types of recreational experience available
  - f. indirect displacement of usual recreational users by the construction workforce staying at camping sites or using facilities
  - g. health and safety issues of recreationists or potentially having access to the project site during construction and operation

- h. impacts on sport fishing or hunting from soil erosion and overall construction during construction and operation, or potential oil or other hazardous materials spills during operation (i.e., the impact assessments for geology and soils, fisheries, site restoration, and health and safety to sport fishing impacts)
- i. any other potential direct, indirect, or cumulative impacts that users might experience
- j. discuss potential mitigation measures for reduce impacts described above, and the subsequent impacts after mitigation.

**WAC 463-42-382 Built environment – Public services and utilities.** *The applicant shall describe the impacts, relationships, and plans for utilizing or mitigating impacts caused by construction or operation of the facility to the following:*

*(1) Fire*

- A. Identify all volunteer fire departments and fire districts within approximately 50 miles of the plant site, and provide the following information:
  - 1. Number of personnel typically on duty and on-call, including the number that are voluntary versus full-time paid personnel
  - 2. Average number of calls per year, seasonal peaks, number and percentage of types of calls (e.g., residential, commercial/industrial, forest, farmland/agricultural), and average response time
  - 3. Number, types, age, and pumping capacity of trucks
  - 4. Other types of equipment available, including those needed to fight large natural gas, petroleum, and/or industrial fires
  - 5. How calls are received, units dispatched, and coordination occurs with other departments when needed (i.e., 911, cooperative agreements, etc.)
  - 6. Current personnel, training, truck, equipment, and other needs (pre-project)
  - 7. Anticipated additional personnel, truck, equipment, special natural gas/petroleum firefighting equipment, and other needs during construction (i.e., for accidents and fires) and operation (i.e., for explosions and fires) of the project and what impacts these needs may have on the identified departments. Include input from the county fire marshal and, if appropriate, representatives of the volunteer fire department in the vicinity.
  - 8. Proposed working agreements in the event outside fire fighting services are needed by SPC

9. Proposed mitigation measures to address impacts that may occur, and the resulting reduced impacts after implementing mitigation

*(2) Police*

- A. Identify all police/sheriff departments within approximately 50 miles of the plant site. For each department identified, and based on the potential impact to police services from construction or operation, provide the following information:
  1. Number of police stations in the district
  2. Number of police supervisory and support personnel, designated by full-time and part-time personnel
  3. Number and location, total capacity, available capacity (i.e., number of cells/beds remaining of total capacity), and cooperative agreements with other jurisdictions for holding facilities
  4. Average number of calls per year, seasonal peaks, number and percentage of types of calls, and average response time
  5. Number of patrol vehicles and officers per vehicle
  6. Other types of equipment available for emergency response
  7. How calls are received, units dispatched, and coordination occurs with other departments when needed (i.e., 911, cooperative agreements, etc.)
  8. Current personnel, holding facility, vehicle, equipment, and other needs
  9. Anticipated additional personnel, holding facility, vehicle, equipment, special equipment, and other needs during construction (i.e., for accidents and personnel) and operation (i.e., for explosions and fires) of the project and what impacts these additional needs may have on each department identified.
  10. Proposed mitigation measures to address impacts, and the resulting reduced impacts after implementing mitigation

*(3) Schools*

- A. Identify all schools in Starbuck, Dayton, and other locations in the vicinity of where in-migrating workforce personnel may be housed.
- B. If there is an in-migrating construction workforce (see criteria for WAC 463-42-535 [Socioeconomic Impacts] included in Section 3.12.1, Population, Housing, and Economics, WAC Requirements), provide the following information for the schools identified in Criterion A above.
  1. Grades that are taught in each school.

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2. The total number of students at each school, as well as by grade.
3. The existing school room capacities within each school, and the percentage of available space.
4. The number of teachers and other support personnel, and the average number of students per teacher.
5. Existing needs of each school, including teachers, other personnel, training, classrooms, books, equipment, and other needs.
6. Anticipated additional teachers and other personnel during the construction period. Include training, classrooms, books, equipment, and other needs of each school, and the impact of these additional needs on each school.
7. Proposed mitigation measures to address impacts, and the resulting reduced impacts after implementing mitigation.

### *(4) Parks or other recreational facilities*

- A. Information requests for parks and recreation are presented in WAC 463-42-362(5), above.

### *(5) Maintenance*

- A. Information requests for public maintenance services are included in criteria for WAC 463-42-535 (Socioeconomic Impacts), included in Section 3.12.1, Population, Housing, and Economics, WAC Requirements, of these Guidelines and Criteria (Population, Housing, and Economics).

### *(6) Communications*

- A. Identify the newspaper, telephone, television, and radio companies that service the project area.
- B. Identify procedures to be implemented to avoid that service interruption does not occur for in-ground communications facilities, with particular emphasis on the buried AT&T fiber optic cable located in the same corridor as the water pipeline or any radio/telephone communication facilities along the alignment.
- C. Identify procedures to be followed to respond to a project-related interruption of communications.

### *(7) Water/storm water*

- A. Criteria regarding water are included in criteria for WAC 463-42-322(5), presented below.

- B. Identify procedures to be implemented to avoid interrupting the town of Starbuck's water service during construction and operation.
- C. Identify procedures to be followed to respond to a project-related interruption of water service to the town of Starbuck.
- D. Briefly describe the storm water conveyance and treatment facilities in or around the town of Starbuck; whether or not those facilities have excess capacity, and if so, how much; whether or not the project would use those facilities; and whether or not the facility capacities can meet the project construction and operation needs.
- E. If sufficient storm water facility capacity does not exist, describe what mitigation measures would be implemented and what the impacts would be after implementing those measures.

*(8) Sewer/solid waste*

- A. Identify procedures to be implemented to avoid interrupting the town of Starbuck's sewer service during construction and operation
- B. Identify procedures to be followed to respond to a project-related interruption of sewer service to the town of Starbuck.
- C. Briefly describe the sewer conveyance and waste treatment facilities in or around the town of Starbuck; whether or not those facilities have excess capacity, and if so, how much; whether or not the project would use those facilities; and whether or not the facility capabilities can meet the project construction and operation needs.
- D. If sufficient sewer or treatment capacity does not exist for use by the project workforce, describe what mitigation measures would be implemented and what the impacts would be after implementing those measures.
- E. Identify where solid waste transfer and disposal facilities exist, collection services that are available, and who operates them.
- F. Estimate the annual amount of solid waste that would be generated during construction and operation of the project, indicate where that waste would likely be disposed of, and indicate the capacity of the existing facility or facilities to accommodate that waste.

*(9) Other government services or utilities*

- A. Emergency Medical Services
  - 1. Identify all ambulance services within a distance of approximately 50 miles for the plant site
    - a. Number of volunteer and paid EMT, supervisory, and support personnel

- b. Number of personnel typically on duty and on-call
  - c. Average number of calls per year, seasonal peaks, number and percentage of types of calls (e.g., residential/industrial accidents, auto accidents, and illness), and average response time
  - d. Number, types, and age of emergency and rescue vehicles
  - e. Types of equipment available, including extraction equipment and those needed to respond to explosion and large natural gas, petroleum, industrial fire events
  - f. Availability of special support services, such as air ambulance service and so forth
  - g. How calls are received, units dispatched, and coordination occurs with other departments when needed (i.e., 911, cooperative agreements, etc.)
  - h. Current personnel, training, vehicle, equipment, and other needs
  - i. Anticipated additional personnel, vehicle, training, equipment, special natural gas/petroleum explosion/fire equipment, and other needs during construction (i.e., for accidents and fires) and operation (i.e., for explosions and fires) of the project and how these needs will impact each service identified.
  - j. Capability of emergency services to handle a major accident during construction and operation.
  - k. Proposed mitigation measures to address impacts, and the resulting reduced impacts after implementing mitigation
2. Identify each hospital and medical clinic within approximately 50 miles of the plant site. For each hospital and clinic identified, provide the following information:
- a. Number of doctors and nurses at each medical facility
  - b. Number of personnel typically on duty and on-call
  - c. Types of services provided, average number of emergency/trauma and other patients each year and/or day, average daily number or percentage of use of the overall emergency/trauma capacity, and seasonal peaks
  - d. Where are patients typically referred or transported to when they need services that the facility cannot provided

- e. Availability of special support services such as air ambulance service, burn treatment facilities, and so forth
- f. How calls are received and coordination occurs with other facilities when needed (i.e., 911, cooperative agreements, etc.)
- g. Current personnel, training, equipment, and other needs
- h. Anticipated additional personnel, training, equipment, special explosion/fire treatment equipment, and other needs during construction (i.e., for accidents and fires) and operation (i.e., for explosions and fires) of the project, if needed, and what impacts these additional needs may have on each hospital and clinic identified.
- i. Indicate whether or not there will be a medical clinic at the generation plant. If a clinic is included in the project, provide information on the level of services to be provided.
- j. Proposed mitigation measures to address above impacts, and the resulting reduced impacts after implementing mitigation

**B. Public Utilities**

- 1. Describe who provides electrical services in Columbia County and the nearby facilities that could be affected by the project. Describe how power from the project would be transmitted to the power grid, whether new or expanded substations would be required, and whether there is extra capacity on the system to carry the power. If additional transmission facilities are required, describe what they are and what their excess capacity would be once constructed. Describe whether the project would require any utility to change its operations or staffing to meet project needs.

**C. Fiscal Impacts**

- 1. Using the information provided in response to the Criteria P and AA for WAC 463-42-535 (Socioeconomic Impacts), included in Section 3.12.1 Population, Housing, and Employment, WAC Requirements, describe what the costs will be for providing the additional services needed during construction and operation as described in responses to criteria for WAC 463-42-382(1) through (9), above.
- 2. Indicate whether or not revenues would be sufficient to mitigate the construction and operational impacts described in responses to criteria for WAC 463-42-382(1) through (9), above.
- 3. If adequate tax revenues are not provided for any one or a number of the utilities and services, indicate what additional mitigation measures would be implemented.

4. Indicate whether or not tax revenues will be collected in a timely manner to mitigate the construction and operational impacts that they will be applied towards. If revenues are realized after impacts occur, indicate what additional mitigation measures would be implemented to resolve the timing differential (viz., payments in lieu of taxes or additional mitigation payments).

**WAC 463-42-322 Natural environment – Water.** *The applicant shall provide detailed descriptions of the affected natural water environment, project impacts and mitigation measures and shall demonstrate that facility construction and/or operational discharges will be compatible with and meet state water quality standards. The applicant shall indicate the source and the amount of water required during construction and operation of the plant and show that it is available for this use and describe all existing water rights, withdrawal authorizations, or restrictions which relate to the proposed source.*

**(5) Public water supplies** – *The applicant shall provide a detailed description of any public water supplies, which may be used or affected by the project during construction or operation of the facility.*

- A. The detailed response criteria to this WAC are addressed in Section 3.3.1, Water Resources, WAC Requirements.
- B. Present a summary of the public water supplies information prepared in response to the above Criterion A.

### **3.13.2 NEPA Requirements**

Not applicable.

### **3.13.3 Other Requirements**

Not applicable.

## **3.14 Cultural Resources**

### **3.14.1 WAC Requirements**

**WAC 463-42-362 Built environment—Land and shoreline use.**

**(6) Historic and cultural preservation** – *The applicant shall list all historical and archaeological sites within the area affected by construction and operation of the facility and shall then describe how each will be impacted by construction and operation.*

- A. Provide a summary of the 1994 and 1999 cultural resources reports produced by SPC's consultant, CH2MHILL. This summary should address background research, consultation, field surveys, test pits, conclusions, and impact analyses on cultural

resources and historic properties that were conducted regarding the 100-acre property owned by SPC, with emphasis on the proposed location of the power plant and switchyard.

- B. Conduct surveys of cultural resources and historic properties for the project facilities not included in Criterion A, above, including a records search at the Washington Office of Archaeology and Historic Preservation. The areas to be surveyed include the routes of the natural gas pipeline, the water supply pipeline, and the electrical transmission line. Provide a report of the surveys indicating what was found, including locations with respect to the corridors, an analysis of impacts, and whether or not further study is required.
- C. If the results of the surveys conducted in response to Criterion B above indicate findings of either cultural resources or historic properties within or in the near vicinity of the construction corridors of the facilities associated with the project, conduct and report on the needed additional studies, impact analyses, and mitigation measures that would be incorporated into the project to avoid or minimize impacts.
- D. State that SPC will hire a qualified archaeological monitor to be present when earth-disturbing activities are conducted during construction. Describe the procedures that will be followed if cultural resources are encountered during construction, including stop-work orders, contacting EFSEC and BPA, and development of mitigation plans.
- E. State whether or not a tribal representative will be hired as an additional monitor during earth-disturbing construction activities.
- F. Describe the communications SPC has had with affected tribes, provide copies of letters sent to and received by affected tribes, and describe the tribal contacts planned during the remainder of the application review process.
- G. Indicate the status of the request by the Confederated Tribes of the Umatilla Indian Reservation that the site be considered a Traditional Cultural Property.

### **3.14.2 NEPA Requirements**

Not applicable.

### **3.14.3 Other Requirements**

- A. Describe any government-to-government consultation and agreements that have occurred between BPA and any Tribes and the SPC role in assisting implementation.

### **3.15 Traffic and Transportation**

#### **3.15.1 WAC Requirements**

##### ***WAC 463-42-372 Built environment – Transportation.***

***(1) Transportation systems*** – *The applicant shall identify all permanent transportation facilities impacted by the construction and operation of the energy facilities, the nature of the impacts and the method to mitigate impacts. Such impact identification, description, and mitigation shall, at least, take into account:*

*(a) Expected traffic volumes during construction, based on where the work force is expected to reside;*

- A. Identify the types of vehicles, the number of vehicles of each type, and the route each type of vehicle will use during the construction of the facility, and for what time period. For delivery of construction materials and equipment, also identify the location of the source, storage sites, and final destination. For the construction workforce, identify where they are anticipated to reside, along with the anticipated times of their arrivals and departures.
- B. Identify the estimated ADT volume for each of these identified roads during construction of the facility, including directional split and percentage of trucks.
- C. Identify the estimated ADT volume during seasonal peak(s) (e.g., harvest time) for each of these identified roads during construction of the facility, including the period this peak traffic occurs, the directional split, and percentage of trucks.
- D. Identify the estimated peak-hour volume for each of these identified roads during construction of the facility, including the day of the week and the time of day it occurs, both during “normal” periods and during “seasonal” peak period(s).
- E. Identify the estimated LOS associated with each of the identified intersections during construction of the facility.
- F. Identify the transportation-related impacts associated with activities and facilities identified above, the measures included in the project design to minimize these impacts, and potential mitigation measures that could further reduce these impacts.

*(b) Access routes for moving heavy loads, construction materials, or equipment;*

- A. Identify routes and modes of transportation that will be utilized for moving heavy loads, construction materials, or equipment for construction or operation of the facility, including the location of access points or terminals and transfer points (where goods or people will be transferred from one mode of transportation to another).

- B. Identify the transportation-related impacts associated with activities and facilities identified above, the measures included in the project design to minimize these impacts, and potential mitigation measures that could further reduce these impacts.

*(c) Expected traffic volumes during normal operation of the facility;*

- A. Identify the types of vehicles, the number of vehicles of each type, and the route vehicles will use during the operation of the facility, and during what part of the day. For delivery of materials and equipment, identify the location of the source, storage sites, final destination, and an estimate of the trucks per day. Include how many and what volume of NH<sub>3</sub> shipments are anticipated per week. For the operations workforce, identify where they are anticipated to reside, along with the anticipated times of their arrivals and departures.
- B. Identify the estimated ADT volume for each of these identified roads during operation of the facility, including directional split and percentage of trucks.
- C. Identify the estimated ADT volume during seasonal peak(s) (e.g., harvest time) for each of these identified roads during operation of the facility, including the period this peak traffic occurs, the directional split, and percentage of trucks.
- D. Identify the estimated peak-hour volume for each of these identified roads during operation of the facility, including the day of the week and the time of day it occurs, both during “normal” periods and during “seasonal” peak period(s).
- E. Identify the estimated LOS associated with each of the identified intersections during operation of the facility.
- F. Identify the transportation-related impacts associated with activities and facilities identified above, the measures included in the project design to minimize these impacts, and potential mitigation measures that could further reduce these impacts.

*(d) For transmission facilities, anticipated maintenance access; and consistency with local comprehensive transportation plans.*

- A. For the natural gas pipeline, water pipeline, and transmission line, identify the location and expected frequency of use of maintenance roads.

**(2) Vehicular traffic** – *The applicant shall describe existing roads, estimate volume, types, and routes of vehicular traffic, which will arise from construction and operation of the facility. The applicant shall indicate the applicable standards to be utilized in improving existing roads and in constructing new permanent or temporary roads or access, and shall indicate a final disposition of new roads or access and identify who will maintain them.*

- A. Identify all the public and private transportation modes and facilities that will be used during construction or operation of this facility, including state, county and local roads, railroads, ports and harbors, and airports.

- B. Identify all existing roads that will be used for construction or operation of the facility and, for those roads experiencing considerable traffic or heavy vehicles, identify the load bearing capacity.
- C. Identify the existing average daily traffic (ADT) volume for each of these identified roads, including directional split and percentage of trucks.
- D. Identify the existing ADT volume during seasonal peak(s) (e.g., truck transports to/from grain elevators around harvest time) for each of these identified roads, including the period this peak traffic occurs, the directional split, and percentage of trucks.
- E. Identify the existing peak-hour volume for each of these roads identified above, including the day of the week and the time of day it occurs, for both the “normal” periods and the “seasonal” peak period(s).
- F. For these above identified roads, identify all intersections with other roads where additional traffic is anticipated during construction or operation of the facility. Include the existing level of service (LOS) associated with each of these identified intersections.
- G. Identify any improvements to existing roads, intersections, or roadway approaches that will be used for construction or operation of the facility, and identify the design standards that will be used for the design and construction of these improvements.
- H. Identify any new roads, intersections, or roadway approaches proposed to be used for construction or operation of the facility, and identify the standards that will be used for the design and construction of these improvements.
- I. Identify maintenance and repairs expectations for state/county road systems resulting from the construction and operation of the facility, and who will be responsible for the work.
- J. Describe the final disposition of all roads needed for the construction or operation of the facility and who will maintain them.
- K. Identify the transportation-related impacts associated with activities and facilities identified above, the measures included in the project design to minimize these impacts, and potential mitigation measures that could further reduce these impacts.
- L. Provide the results of an evaluation of the capacity of the SR 261 bridge over the Tucannon River with regard to installation of the water pipeline. Include reports of interaction with the Department of Transportation.

***(3) Waterborne, rail, and air traffic*** – *The applicant shall describe existing railroads and other transportation facilities and indicate what additional access, if any, will be needed during planned construction and operation. The applicant shall indicate the applicable standards to be utilized in improving existing transportation facilities and in constructing*

*new permanent or temporary access facilities, and shall indicate the final disposition of new access facilities and identify who will maintain them.*

- A. Identify and describe existing railroads and other transportation facilities (waterways, ports, airports, etc.) that will be used during construction or operation of the facility.
- B. Identify at what point the transportation facilities will be accessed and whether this is an existing or added access (e.g., unloading facility, existing railroad siding).
- C. For all existing access points, describe the current facilities and operations and what changes are needed during construction and operation of the facility and indicate what the impact of construction and operation will be. In particular, describe the methods and modes to be used to transport heavy components such as turbines.
- D. For added access points, describe what improvements are needed during construction and operation of the facility.
- E. Identify the nearest airport, along with the associated air traffic and usage (tourist flights, crop dusting, commuting, etc.) as they relate to this project.
- F. Identify the transportation-related impacts associated with activities and facilities identified above, the measures included in the project design to minimize these impacts, and potential mitigation measures that could further reduce these impacts.

**(4) Parking** – *The applicant shall identify existing and any additional parking areas or facilities which will be needed during construction and operation of the energy facility, and plans for maintenance and runoff control from the parking areas or facilities.*

- A. For the construction workforce, identify the anticipated parking area requirements and location(s), along with provisions for controlling and maintaining the quality and quantity of stormwater runoff.
- B. For the operations workforce, identify the anticipated parking area requirements and location(s), along with provisions for controlling and maintaining the quality and quantity of stormwater runoff.
- C. Identify where stormwater runoff will be discharged. Identify the method of treatment that will be provided before the water exits the parking area.
- D. Identify the transportation-related impacts associated with activities and facilities identified above, the measures included in the project design to minimize these impacts, and potential mitigation measures that could further reduce these impacts.

**(5) Movement/circulation of people or goods** – *The applicant shall describe any change to the current movement or circulation of people or goods caused by construction or operation of the facility. The applicant shall indicate consideration of multipurpose utilization of rights-of-way and describe the measures to be employed to utilize, restore, or rehabilitate disturbed areas. The applicant shall describe the means proposed to ensure safe utilization*

*of those areas under the applicant's control on or in which public access will be granted during project construction, operation, abandonment, termination, or when operations cease.*

- A. Provide an estimate of the number of workers and support staff, split by significant work elements, required for the construction and operation of the facility. Include time frames (work schedules and overall duration) associated with each element identified.
- B. Provide an estimate of trips generated by transporting people and goods for construction or operation of the facility. Include backup discussions explaining the assumptions used in developing this estimate, such as quantities, quantities per trip (load), etc.
- C. Identify staging and stockpiling areas and the measures to be employed to utilize, restore, and rehabilitate disturbed areas.
- D. Identify sources of goods and people, and the specific routes to be used during construction and operation of the facilities, including where fuel supplies will be obtained.
- E. Describe the means proposed to ensure safe utilization of those areas under the applicant's control where public access will be granted during project construction, operation, abandonment, termination, or when operations cease.
- F. Identify the transportation-related impacts associated with activities and facilities identified above, the measures included in the project design to minimize these impacts, and potential mitigation measures that could further reduce these impacts.

**(6) Traffic hazard** – *The applicant shall identify all hazards to traffic caused by construction or operation of the facility. Except where security restrictions are imposed by the federal government the applicant shall indicate the manner in which fuels and waste products are to be transported to and from the facility, including a designation of the specific routes to be utilized.*

- A. Provide accident histories, rates, and types for the adjacent road system that will be affected by the construction or operation of the proposed facility.
- B. Provide anticipated accident rates that will result from traffic flow and geometric conditions imposed by the construction or operation of the proposed facility, particularly at access points and intersections.
- C. Identify areas where adverse impacts on the safety of the road system may be experienced and how that impact will be mitigated. Include all roadway/railroad at-grade crossings.
- D. Identify fuels and waste products that will be transported to and from the facility, including specific routes to be used.

### **3.15.2 NEPA Requirements**

Not applicable.

### **3.15.3 Other Requirements**

Not applicable.

## **3.16 Health and Safety**

### **3.16.1 WAC Requirements**

**WAC 463-42-155 Proposal – Energy transmission systems.** *The applicant shall discuss the criteria utilized as well as describe the routing, the conceptual design, and the construction schedule for all facilities identified in RCW 80.50.020 (6) and (7) which are proposed to be constructed.*

- A. For the new transmission lines, provide an estimate of EMF levels at 50-foot intervals out to 500 feet as measured from the centerline of transmission line corridor.
- B. Identify any receptors within 500 feet of the centerline of the transmission line corridor and the EMF level anticipated at each receptor.
- C. Discuss how potential receptor EMF levels influenced route selection.
- D. Identify any facilities/structures along the proposed route that may be affected (e.g., electric shock potential) by the electric field from the new transmission lines and what measures would be utilized to reduce/minimize those effects.
- E. Describe how seismic, geologic, wind-loading, and ice-loading factors have been considered in the design of the transmission lines.
- F. Discuss how aircraft flight patterns were considered and if any marking provisions are planned.
- G. Describe the grounding system for all project facilities.

**WAC 463-42-205 Spillage prevention and control.** *The applicant shall describe all spillage prevention and control measures to be employed regarding accidental and/or unauthorized discharges or emissions, relating such information to specific facilities, including but not limited to locations, amounts, storage duration, mode of handling, and transport.*

- A. The detailed response criteria to this WAC are addressed in Section C, ASC Part II – Guidelines and Criteria for Technical Appendices, Appendix E.

- B. Present a summary of the Spill Prevention and Control Plan prepared in response to the above Criterion A.

**WAC 463-42-352 Built Environment – Environmental health.**

*(1) Noise - The applicant shall describe the impact of noise from construction and operation and shall describe the measures to be taken in order to eliminate or lessen this impact.*

See criteria presented above in Section 3.9.1, Noise, WAC Requirements.

*(2) Risk of fire or explosion – The applicant shall describe any potential for fire or explosion during construction, operation, standby or nonuse, dismantling, or restoration of the facility and what measures will be made to mitigate any risk of fire or explosion.*

- A. Provide this information for the generation plant and the natural gas pipeline, the water pipeline, and the transmission line.
- B. Discuss the measures to be employed to protect the existing natural gas pipeline during construction.
- C. Describe the seismic design criteria for the generation plant and natural gas pipeline.
- D. List all compressed gases that will be stored onsite permanently and temporarily. Provide quantities and storage and use locations.
- E. Describe the fire detection and protection systems that will be utilized.
- F. Describe firefighting training that SPC will provide for personnel associated with the project and for members of area volunteer fire departments.
- G. Describe the division of responsibility between personnel associated with the project and members of the area volunteer fire departments in the event of a fire or explosion. Provide documentation of this understanding with acknowledgement signatures from the fire departments.
- H. Explain how medical emergencies associated with fire and explosion will be handled. Provide documentation of this understanding with acknowledgement signatures from area medical facilities if they will be involved.
- I. Describe the frequency and manner of natural gas system inspections. Include a list of events that would require an inspection to occur. Indicate who would perform the inspection and how soon it would occur after a triggering event.
- J. Describe the system for detecting natural gas system leaks and how a leak would be controlled or stopped.
- K. Identify the location of and describe the emergency response shut-off valves for the natural gas pipeline, including the capability to manage breaks or leaks in the pipeline.

**(3) Releases or potential releases to the environment affecting public health, such as toxic or hazardous materials** – *The applicant shall describe any potential for release of toxic or hazardous materials to the environment and shall identify plans for complying with the federal Resource Conservation and Recovery Act and the state Dangerous Waste regulations (Chapter 173-303 WAC). The applicant shall describe the treatment or disposition of all solid or semisolid construction and operation wastes including spent fuel, ash, sludge, and bottoms, and show compliance with applicable state and local solid waste regulations.*

- A. Provide a list of all toxic or hazardous materials that will be stored/used onsite during both construction and operation. Indicate the quantities involved, storage locations, and volume of the largest storage container for each material.
- B. Provide a list of all hazardous waste materials that will be produced during construction and operation. Indicate the quantities, storage locations, and planned manner of disposal.
- C. Describe procedures/plans for complying with all applicable regulations/statutes (e.g., Chapter 173-303 WAC, SARA Title III, CERCLA, and MTCA).
- D. Provide a description of a worst-case scenario for a release of toxic or hazardous material present on the plant site during construction and operation. Include a description of impacts of such releases on the public.

**(4) Safety standards compliance** – *The applicant shall identify all federal, state, and local health and safety standards which would normally be applicable to the construction and operation of a project of this nature and shall describe methods of compliance therewith.*

**(5) Radiation levels** – *For facilities which propose to release any radioactive materials, the applicant shall set forth information relating to radioactivity. Such information shall include background radiation levels of appropriate receptor media pertinent to the site. The applicant shall also describe the proposed radioactive waste treatment process, the anticipated release of radionuclides, their expected distribution and retention in the environment, the pathways which may become sources of radiation exposure, and projected resulting radiation doses to human populations. Other sources of radiation which may be associated with the project shall be described in all applications.*

- A. Specifically address these measures for construction, operation, and maintenance activities that will utilize radiation sources to radiograph components associated with the:
  - 1. Generation plant
  - 2. Water supply pipeline
  - 3. Natural gas pipeline
  - 4. Wastewater facilities

**WAC 463-42-525 Emergency plans.** *The applicant shall describe emergency plans which will be required to assure the public safety and environmental protection on and off the site in the event of a natural disaster or other major incident relating to or affecting the project and further, will identify the specific responsibilities which will be assumed by the applicant.*

- A. Provide summary descriptions of the emergency plans for construction, operation, and maintenance that are to be presented in Appendix I.

### **3.16.2 NEPA Requirements**

Not applicable.

### **3.16.3 Other Requirements**

- A. To define existing health risks, complete a Phase I, and if appropriate, a Phase II Environmental Assessment, for project properties (e.g., generation plant site, water pipeline route, access road, natural gas pipeline route, and transmission line route) to confirm the absence/presence of soil contaminants. List contaminants detected and their respective locations and concentrations. If contamination is present, describe how it will be managed/dealt with.
- B. To define existing health risks, provide a description of EMF levels anticipated at various locations on the generation plant site due to the existing 500 kV transmission lines. Levels should be provided at 50-foot increments as measured from the centerline of the transmission line corridor out to a distance of 500 feet from the centerline.

## **4.0 References Cited**

### **4.1 WAC Requirements**

**WAC 463-42-095 General – Sources of information.** *The applicant shall disclose sources of all information and data and shall identify all preapplication studies bearing on the site and other sources of information.*

- A. Provide an alphabetical list of references cited in the ASC, including information on author, date of publication, publisher, and other information required to independently obtain the reference material.

### **4.2 NEPA Requirements**

No additional reference information required.

### **4.3 Other Requirements**

Not applicable.

## **5.0 Acronyms**

### **5.1 WAC Requirements**

Not applicable.

### **5.2 NEPA Requirements**

Not applicable.

### **5.3 Other Requirements**

- A. Provide a list of acronyms and their corresponding terms used in the ASC.

## **6.0 List of Preparers**

### **6.1 WAC Requirements**

Not applicable.

### **6.2 NEPA Requirements**

- A. Provide a list of key individuals who were involved in preparing the ASC, each person's responsibility in preparing the ASC, company affiliation, and title.

### **6.3 Other Requirements**

Not applicable.

Chapter IV. Application Guidelines and Criteria

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## **C: ASC Part II – Guidelines and Criteria for Technical Appendices**

### **Appendix A: Assurances**

*WAC 463-42-075 General – Assurances. The application shall set forth insurance, bonding, or other arrangements proposed in order to mitigate for damage or loss to the physical or human environment caused by project construction, operation, abandonment, termination, or when operations cease at the completion of a project's life.*

- A. Provide specific information regarding the insurance, bonding, or other arrangements SPC has made or will make to mitigate environmental damage or loss due to the construction, operation, or maintenance of the project.

### **Appendix B: General Sources of Information**

*WAC 463-42-095 General – Sources of information. The applicant shall disclose sources of all information and data and shall identify all preapplication studies bearing on the site and other sources of information.*

- A. Provide a list of all studies conducted by the applicant or its consultants regarding the proposed project including the dates when each study was conducted and the date of any reports prepared for each study.
- B. Provide appropriate references in addition to those cited in the ASC (see Section B, 4.0 of this chapter for criteria for references cited).
- C. Provide a list of sources of information for data used in the ASC, such as combustion turbine emission data.

### **Appendix C: Legal Descriptions and Ownerships**

*WAC 463-42-135 Proposal - Legal descriptions and ownership interests.*

*(1) Principal facility: The application shall contain a legal description of the site to be certified and shall identify the applicant's and all nonprivate ownership interests in such land.*

- A. Provide this information for the site to be certified and for land required to be crossed to gain access to the site.

*(2) Ancillary facilities: For those facilities described in RCW 80.50.020 (6) and (7)\* the application shall contain the legal metes and bounds description of the preferred centerline of the corridor necessary to construct and operate the facility contained therein, the width of the corridor, or variations in width between survey stations if appropriate, and shall identify the applicant's and others ownership interests in lands over which the preferred centerline is described and of those lands lying equidistant for 1/4 mile either side of such center line.*

- A. The information requested above is to be provided for the following:
1. Natural gas pipeline
  2. Each transmission line and switchyard to be included in the project
  3. Water pipeline and well used to provide the project's water supply
  4. Land required to be crossed to gain access to the facilities listed in Criteria A 1, 2, and 3.

## **Appendix D. Wastewater Treatment**

**WAC 463-42-195 Proposal - Wastewater treatment.** *The applicant shall describe each wastewater source associated with the facility and for each source, the applicability of all known, available, and reasonable methods of wastewater control and treatment to ensure it meets current waste discharge and water quality regulations. Where wastewater control involves collection and retention for recycling and/or resource recovery, the applicant shall show in detail the methods selected, including at least the following information: Waste source(s), average and maximum daily amounts and composition of wastes, storage capacity and duration, and any bypass or overflow facilities to the wastewater treatment system(s) or the receiving waters. Where wastewaters are discharged into receiving waters, the applicant shall provide a detailed description of the proposed treatment system(s), including appropriate flow diagrams and tables showing the sources of all tributary waste streams, their average and maximum daily amounts and composition, individual treatment units and their design criteria, major piping (including all bypasses), and average and maximum daily amounts and composition of effluent(s).*

- A. Provide a summary description of project wastewater streams, treatment, and discharge. A more detailed description of these facilities and procedures is to be presented in Part II of the ASC, Appendix D.

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\* Ancillary facilities for the Starbuck Power Project include the natural gas pipeline, the water pipeline, and the electrical transmission line.

## **Appendix E: Spillage Prevention and Control**

**WAC 463-42-205 Spillage prevention and control.** *The applicant shall describe all spillage prevention and control measures to be employed regarding accidental and/or unauthorized discharges or emissions, relating such information to specific facilities, including but not limited to locations, amounts, storage duration, mode of handling, and transport.*

- A. Prepare a complete Spill Prevention and Control Plan that addresses, at a minimum, the measures listed in WAC 463-42-205 for construction, operation, and maintenance activities associated with the:
  - 1. Generation plant
  - 2. Water supply pipeline
  - 3. Transmission lines and switchyard
  - 4. Access road(s)
  - 5. Natural gas pipeline
  - 6. Wastewater facilities

This plan should be completed and submitted on a date satisfactory to EFSEC.

- B. Provide information regarding spill containment design and criteria used in developing the design.

## **Appendix F: Construction Management**

**WAC 463-42-245 Proposal - Construction management.** *The applicant shall describe the organizational structure including the management of project quality and environmental functions.*

- A. Describe the overall applicant management structure as well as that to be used for construction.
- B. Describe the QA/QC program and how it will be applied to the project.
- C. List the operations, checks, and reviews by equipment categories. Include environmental equipment, and safety and environmental control plans.
- D. Clearly identify the position responsible for compliance with health and safety regulations/requirements.
- E. Describe how and when “stop work” authority would be utilized and to whom it is assigned.

## **Appendix G: PSD Permit Application**

**WAC 463-42-385 PSD application.** *The applicant shall include a completed prevention of significant deterioration permit application.*

- A. Provide an introductory section describing organization of the PSD permit application and a summary of findings.
- B. Provide a section describing applicable emission standards: New Source Performance Standards, Title 4 (Acid Rain) Provisions, State and Local Emission Standards, Notice of Construction and Application for Approval, PSD standards.
- C. Provide an in-depth air quality impact assessment that describes:
  - 1. Stack characteristics, building dimensions, and good engineering practice stack height calculations.
  - 2. Existing ambient air quality meteorology, including meteorological data and background air quality.
  - 3. Dispersion model selection and application, including receptor locations.
  - 4. Results of the air modeling, including criteria pollutants; toxic air pollutants; Class I and II increments; air quality related values (AQRVs), including regional haze assessment and impacts on vegetation, soils and aquatic resources.
  - 5. Miscellaneous issues: construction impacts and growth-inducing impacts.

## **Appendix H: NPDES Permit Application**

**WAC 463-42-435 NPDES application.** *The applicant shall include a completed National Pollutant Discharge Elimination System permit application.*

- A. Submit a complete NPDES stormwater permit application for all construction activities associated with the project. The application should follow the requirements presented in Chapter 463-38 WAC.
- B. Determine through discussions with the Department of Ecology whether or not an operational NPDES stormwater permit application is necessary. If not, provide a letter from Ecology stating that the permit is not required. If required, submit a permit application following the requirements of Chapter 463-38 WAC.
- C. At the time these guidelines and criteria were prepared, the Starbuck Power Project did not include a wastewater discharge to surface waters during operation and therefore would not require an NPDES permit.

## **Appendix I: Emergency Plans**

**WAC 463-42-525 Emergency plans.** *The applicant shall describe emergency plans which will be required to assure the public safety and environmental protection on and off the site in the event of a natural disaster or other major incident relating to or affecting the project and further, will identify the specific responsibilities which will be assumed by the applicant.*

- A. Provide these emergency plans for construction, operation, and maintenance.
- B. Specific events that should be addressed by the plans include the following:
  - 1. Construction
  - 2. Project evacuation
  - 3. Fire and explosion
  - 4. Natural gas release on site
  - 5. Natural gas release off site
  - 6. Chemical spill or release
  - 7. Oil spill or release
  - 8. Abnormal weather (fog and icing)
  - 9. Earthquake
  - 10. Volcanic eruption
  - 11. Medical emergency
  - 12. Facility blackout
  - 13. Facility bomb threat
  - 14. Ammonia release onsite
  - 15. Ammonia release offsite
- C. Each plan should include immediate actions, secondary actions, notifications, evacuation, emergency signals, and responsibilities, as appropriate.

## **Appendix J: Criteria, Standards, and Factors Utilized to Develop Transmission Route**

**WAC 463-42-625 Criteria, standards, and factors utilized to develop transmission route.** *The applicant shall identify the federal, state, and industry criteria used in the energy transmission route selection and shall identify the criteria used and the construction factors considered in developing the proposed design and shall indicate how such criteria are met.*

## **Appendix K: Initial Site Restoration Plan**

**WAC 463-42-655 Initial site restoration plan.** *The applicant or certificate holder shall in the application, or within twelve months after the effective date of this section, whichever occurs later, provide an initial plan for site restoration at the conclusion of the plant's operating life. The plan shall parallel a decommissioning plan, if such a plan is prepared for the project. The initial site restoration plan shall be prepared in sufficient detail to identify,*

*evaluate, and resolve all major environmental, and public health and safety issues presently anticipated. It shall describe the process used to evaluate the options and select the measures that will be taken to restore or preserve the site or otherwise protect all segments of the public against risks or danger resulting from the site. The plan shall include a discussion of economic factors regarding the costs and benefits of various restoration options versus the relative public risk and shall address provisions for funding or bonding arrangements to meet the site restoration or management costs. The plan shall be prepared in detail commensurate with the time until site restoration is to begin. The scope of proposed monitoring shall be addressed in the plan.*

- A. The plan required in WAC 463-42-655 is to be included in the ASC.

## **Appendix L: Study Schedules**

*WAC 463-42-285 Proposal – Study schedules. The applicant shall furnish a brief description of all present or projected schedules for additional environmental studies. The studies descriptions should outline their scope and indicate projected completion dates.*

## **Appendix M: Mitigation Measures**

*WAC 463-42-085 General – Mitigation measures. The application shall describe the means to be utilized to minimize or mitigate possible adverse impacts on the physical or human environments.*

- A. Provide a list of mitigation measures considered in addition to environmental protection measures included in the project design and indicate the following:
1. What the effect of the mitigation measure is expected to be.
  2. Whether or not the mitigation measure will be incorporated into the project.
  3. If the mitigation measure is not to be incorporated into the project, indicate why not.