

## BEFORE THE HEARINGS OFFICER

## KLAMATH COUNTY, OREGON

In the Matter of the Application for an  
Amendment to Conditional Use Permit  
CUP 29-95, submitted by Pacific Klamath  
Energy, Inc. for the City of Klamath Falls.

) CUP 29-95 (AMENDMENT)  
)  
) FINDINGS AND CONCLUSIONS  
) AND ORDER

'97 DEC 31 A9:58

## I. APPLICANT

Pacific Klamath Energy, Inc. for the City of Klamath Falls.

## II. ADDRESSES

- A. Pacific Klamath Energy, Inc.  
500 N.E. Multnomah, Suite 900  
Portland, OR 97232
- B. City of Klamath Falls  
508 Main Street  
P.O. Box 237  
Klamath Falls, OR 97601

## III. ACTION REQUESTED

Pacific Klamath Energy, Inc. (PKE),<sup>1</sup> acting as the agent for the City of Klamath Falls (the City), requests an amendment to Conditional Use Permit (CUP) 29-95 to authorize modifications to the Klamath Cogeneration Project that was authorized in CUP 29-95. PKE also requests that Condition B in CUP 29-95 be deleted.

The City's application and supporting materials are contained in the Application for Amendment to Conditional Use Permit 29-95 for the Klamath Cogeneration Project, dated November 11, 1997 (hereinafter Application or App.). PKE submitted the City's Application with consent of Collins, the property owner of the land on which the facility will be located.

<sup>1</sup>PKE is a subsidiary of PacifiCorp and will provide development, construction, management and operating services to the Project.

This request was heard by the Hearings Officer at a public hearing on December 19, 1997 and reviewed for conformity with Klamath County Land Development Code (LDC) Article 44, and the Comprehensive Land Use Plan, Policies for Klamath County, Oregon (Comprehensive Plan). The Hearings Officer in review of the Application was Michael L. Brant. The applicant appeared and offered testimony through Peter van Alderwerelt of PKE and Donald Haagensen of Cable Huston Benedict Haagensen & Lloyd LLP. David Foster appeared and offered testimony that he was concerned that the Project might attract other industrial businesses to the area. The Planning Department was represented by Kim Lundahl, Senior Planner. The recording secretary was Karen Burg, Planning Assistant.

#### IV. LEGAL DESCRIPTION OF AFFECTED LAND

The modifications to the Klamath Cogeneration Project will be located on the same approximately 15 acres of land owned by Collins in Klamath County as the Project approved in CUP 29-95. This land is outside the limits of the City of Klamath Falls and outside of the Urban Growth Boundary and within the land use jurisdiction of Klamath County. The Project site is in Section 18 of Township 39 South, Range 9 East, about one-half mile west of the U.S. Highway 97 bridge over the Klamath River and approximately 1,200 feet north of the Klamath River. The site is part of Collins' wood products plant, a large plywood, hardboard and particle-board manufacturing facility. (App. Figure 1.)

#### V. RELEVANT FACTS

##### A. General Background

The Klamath Cogeneration Project will generate electricity for sale, and will also generate steam for use by Collins Products, L.L.C. (Collins) and potentially other industries. The project as approved by Klamath County in 1995 in CUP 29-95 was planned as a natural gas-fired combined-cycle cogeneration facility with a nominal electric generating capacity of 240 to 300 megawatts (MW). The Project, as then approved, would use one high efficiency combustion turbine (CT) generator, one exhaust gas heat recovery steam generator, and a steam turbine generator. The modifications to the Project proposed in this Application for an amendment to CUP 29-95 will allow construction of either a single or two CT cogeneration facility. The two CT facility will have a maximum nominal electric generating capacity of up to 500 MW using two CT generators, two exhaust gas heat recovery steam generators, and a steam turbine generator. The Application indicates that an increase in the Project size up to this amount will provide the Project with the flexibility to bid competitively the Project's major equipment and to take maximum advantage of improvements in technology.

In these Findings and Conclusions, the Klamath Cogeneration Project, as approved in CUP 29-95, will be referred to as the single CT Project and the modified Klamath Cogeneration Project described in the Application for an amendment to CUP 29-95 will be referred to as the two CT Project. Where the distinction between the single CT Project and the two CT Project

has no significance for the purposes of these Findings and Conclusions, the Klamath Cogeneration Project will be referred to as the Project.

The City obtained land use approval from Klamath County for the single CT Project in CUP 29-95. The City also obtained land use approvals from Klamath County in CUP 54-97 for the ancillary facilities necessary to support the Project, including the transmission line and water pipelines. These ancillary facilities are not discussed further in these Findings and Conclusions because the ancillary facilities are the same for both the single and two CT Project.

The Project is an Extensive Impact Service and Utility under the Klamath County Land Development Code (LDC) Article 11. As discussed later, the proposed modifications described in this Application require CUP land use approval from Klamath County under LDC Article 44. Pursuant to LDC Section 44.050A, the City submits this Application with the consent of the property owner of the land on which the Project is located for approval of the proposed modifications by means of an amendment to CUP 29-95.

The Oregon Energy Facility Siting Council (EFSC) issued a Site Certificate for the single CT Project in August 1997. In October 1997, PKE, on behalf of the City, applied to EFSC for an amendment to the Site Certificate to authorize construction and operation of the two CT Project as an alternative to the single configuration. The City expects approval of the amendment to the Site Certificate from EFSC by early 1998.

The Project is in the process of obtaining other required permits and agency approvals. Two federally delegated programs apply to the Project: the Oregon Department of Environmental Quality (DEQ) National Pollutant Discharge Elimination System (NPDES) permit and Air Contaminant Discharge Permit (ACDP) programs.

#### **1. Description of the Proposed Use**

The description of the Project is limited to the modifications to the design of the Project as approved in CUP 29-95 to accommodate the two CT configuration. The two CT modifications will not include any changes in the nature of the Project's operating processes. The two CT modifications will also not involve any changes to the applicable federal, Oregon or local codes and standards, or the Project's ability to comply with such applicable codes and standards. (App. Table 1.)

##### **a. Structures and Power Components**

The two CT Project will consist of five major pieces of equipment: two CTs, two heat recovery steam generators (HRSGs) and one steam turbine generator. (App. Figures 2 and 3.) The major structural changes from the single CT Project to the two CT Project are:

- (1) The footprint of the turbine generator building increases from approximately 135 feet by 190 feet to approximately 140 feet by 280 feet to

accommodate the second CT. Both CTs and accessory equipment are located in the building.

(2) A second HRSG and stack are added. Both HRSGs extend approximately 150 feet east of the turbine generator building, and are approximately 60 feet wide and 100 feet tall. Each HRSG is connected to a 150-foot high emission stack centered approximately 13 feet east of the east end of the HRSG.

(3) The mechanical induced draft evaporative cooling tower has approximately six to seven cells rather than four cells. Each cell remains approximately 55 feet by 55 feet by 50 feet high.

(4) The auxiliary boiler stack height is 125 feet instead of 75 feet.

(5) The above-ground fuel oil storage tank capacity is reduced from approximately 2,500,000 to 200,000 gallons (a reduction of 92 percent). The tank size decreases from approximately 85 feet in diameter and 60 feet in height to approximately 35 feet in diameter and 30 feet in height.

(6) The site of the substation installed to the west of the turbine generator building increases from approximately 14,000 to 70,000 square feet.

(7) Several of the smaller on-site storage tanks increase in size.

(8) The area of the evaporation pond increases from approximately 85,000 to 125,000 square feet for the containment of stormwater runoff.

The basic elements of each of the CTs remain unchanged in the two CT Project. Both CTs will use natural gas as the only fuel. The Project will not use fuel oil for power production in the CTs.

Under the two CT Project, there will be two HRSGs located outdoors downstream from the CTs. The CT exhaust gas will pass through each HRSG where its thermal energy heats tubes of water to produce steam. The steam will be supplied to the steam turbine and a portion of the exhaust flow from the turbine will be exported to off-site industrial use for process steam.

#### **b. Cycle Cooling System**

The two CT Project will not involve any changes to the steam condenser process. As with the single CT configuration, the two CT configuration will include a water-cooled steam surface condenser to condense the exhaust flow from the steam turbine. The condenser will be able to condense 100 percent of the steam flow to save water and to avoid a steam plume, as

well as the noise associated with venting to the atmosphere in the unlikely event of a steam turbine trip.

There will be no changes to the evaporative (wet) cooling process of the cooling tower in the two CT Project. The evaporation rate from the cooling tower will increase to approximately 1,536 gpm<sup>2</sup> (rather than approximately 915 gpm for the single CT Project) based on annual average ambient conditions and 200,000 lb/hr of steam exported to potential off-site industrial use.

The sources of water for the Project will be unchanged for the two CT Project. The Project will continue to use treated effluent from the City's Spring Street Wastewater Treatment Plant (SSWTP) for the Project's cooling water needs. Under the two CT Project, the total makeup water will be approximately 2,040 gpm<sup>3</sup> (compared to 1,211 gpm for the single CT Project). The Project will continue to obtain service and potable water from the City's municipal water supply system. The two CT Project will not involve any changes to the environmental protection components, fire protection components, and water treatment systems. However, the Project will not use fuel oil for power production in the CTs. Fuel oil will be used only as backup fuel to run the auxiliary boiler or emergency diesel generator.

**c. Stormwater and Wastewater**

The two CT project will not involve any changes to the stormwater collection and evaporation processes. The stormwater evaporation pond surface area will increase from approximately 85,000 to 125,000 square feet and be approximately 5.5 feet deep. The two CT Project will not involve any changes to waste material disposal.

Under the two CT Project, the total wastewater discharge to the City's sanitary sewer system from the Project will be approximately 653 gpm<sup>4</sup> (rather than 444 gpm for the single CT Project). The increase results from additional cooling tower blowdown.

**d. Electric Generating Capacity**

The Application indicates that for illustrative purposes, the information presented in the Application is based on the use of two Westinghouse 501F combustion turbines. Based on

---

<sup>2</sup>PKE provided this figure as an illustrative figure based on the use of two Westinghouse 501F combustion turbines which would provide electrical output of 464 MW [net] at zero steam to off-site industrial use or 443 MW [net] at 200,000 lb/hr steam to off-site industrial use. The Application indicates this figure would increase marginally if the Project capacity exceeds 464 MW [net] at zero steam.

<sup>3</sup>See footnote 2.

<sup>4</sup>See footnote 2.

current manufacturer's information, these units provide the highest Project electrical output (464 MW [net] at zero steam to off-site industrial use and 443 MW [net] at 200,000 lb/hr steam to off-site industrial use) and highest Project fuel consumption of the four commercially available CTs.

The Application indicates that by the time the actual Project equipment is selected and ordered, design and efficiency improvements by CT manufacturers may result in a Project configuration that is larger than the two CT Westinghouse 501F system. The two CT Project could potentially generate up to 500 MW (net) at zero steam to off-site industrial use. Unless otherwise specified, the estimate of potential impacts used in these Findings and Conclusions is based on a maximum Project potential generating capacity of 500 MW. The impact assessment information described for the 500 MW Project will envelope the impacts of a 500 MW Project based on any of the four commercially available CT suppliers.

The two CT Project will make available to potential off-site industrial use, including Collins, the energy equivalent of at least 200,000 lb/hr of steam at 375 pounds per square inch gauge and 455°F (which is equivalent to 242.8 MMBtu/hr) on an average annual basis. The amount of steam provided to Collins will remain the same in the two CT configuration as in the single CT Project.

## **B. Character of the Surrounding Area**

The Project is located on approximately fifteen acres in the center of an area zoned heavy industrial (IH) that is outside the Urban Growth Boundary (UGB). The IH zoning extends about three-fourths of a mile to the north from the Project. North of the IH zone, the property is zoned suburban residential. A small area on the northwest side of the Project about one-half of a mile from the Project is zoned non-resource. Much of this property, as well as the land immediately to the north of the Project site, is dry land.

To the west of the Project is Collins' mill property which is zoned IH. Suburban residential zoning is located west of the Project (West Klamath), but is separated from the Project by the Collins land that is zoned heavy industrial. The Project site is at a lower elevation than West Klamath which will reduce the visual impact for this residential community.

The Collins property and the IH zoning extend south to the northwest side of the Klamath River. Across the Klamath River on the southeast side of the river is the Klamath Wildlife Refuge (zoned open space and conservation). Also on the southeast side of the river, but north of the Refuge, is land that is zoned exclusive farm use (EFU). Some of this land is planted in crops. U.S. Highway 97 bisects the EFU land, crosses the river and extends north on the east border of the Project property. To the east of the highway is Columbia Plywood and to the north of Columbia Plywood is Reames Country Club (zoned recreation-commercial). The Reames Country Club is separated from the Project by over one-half mile of land zoned IH.

In summary, the Project is completely surrounded by property zoned IH with the properties adjacent to the IH zoned property used for industry, residences, a wildlife refuge and recreation, and farming. The use and enjoyment of these properties will not be adversely affected by the two CT Project. The proposed two CT Project will be located and operated to minimize any potential impacts to the livability, value or appropriate development of abutting properties and the surrounding area.

Based on this evaluation, the Hearings Officer finds and concludes that the Application is consistent with and complies with the review criteria in LDC Section 44.030.A through C. The Hearings Officer approves and grants the Application. In support of the Hearings Officer's approval and grant of amendment to CUP 29-95, the Hearings Officer makes the following findings and conclusions.

#### **VI. APPLICABLE STANDARDS AND REVIEW CRITERIA**

The Project is an Extensive Impact Service and Utility under LDC Article 11. Extensive Impact Services and Utilities are recognized as conditionally permitted uses under the LDC in the land use zone where the Project will be located: Heavy Industrial (IH). (LDC Section 53.430.A.) For the IH zone, the modifications to the Project may be permitted as an amendment to CUP 29-95 if the provisions of Article 44 are satisfied. Because the single CT Project has already been approved by Klamath County in CUP 29-95, only the modifications to the single CT Project that comprise the two CT Project need to be approved as an amendment to CUP 29-95.

#### **VII. FINDINGS AND CONCLUSIONS**

The Hearings Officer concludes that the amendment to CUP 29-95 is a modification to an Extensive Impact Service and Utilities under LDC Article 11. Extensive Impact Services and Utilities are recognized as conditionally permitted uses under the LDC in the land use zone where these facilities will be located: Heavy Industrial (IH), LDC Section 53.430.A. For this zone, the amendment may be approved as an amendment to a conditional use if the provisions of LDC Article 44, Section 44.030A through C are met.

The Hearings Officer concludes that the criteria under LDC Article 44, Section 44.030.A through C are met. The following discussion shows the Hearings Officer's findings and conclusions with respect to each of the review criteria.

##### **A. LDC Article 44 Review Criteria**

- 1. Criterion - Section 44.030.A. "The use complies with policies of the Comprehensive Plan."**

Klamath County prepared the Comprehensive Plan for Klamath County, Oregon, which has received Land Conservation and Development Commission acknowledgement. The Comprehensive Plan contains a statement of the land use planning goals for the County and

specific objectives, policies and implementation programs for these goals. The Hearings Officer's findings and conclusions that the proposed amendment to CUP 29-95 is consistent with the Comprehensive Plan are provided below. The applicable goals and policies are set forth in bold.

**a. Goal 1: Citizen Involvement**

Goal 1 calls for citizen involvement in the planning process and includes allowing public input on all land use proposals. Klamath County has adopted one policy under Goal 1.

**(1) Policy: "The County shall provide for continued citizen involvement opportunities after plan acknowledgement."**

The County has adopted procedures in the LDC providing for relevant public input on all land use proposals and for organization of the planning process. The Hearings Officer finds that the actions requested in this Application for amendment to CUP 29-95 were subject to public comment through a hearing. The Hearings Officer finds that notification of the hearing was given to the public as required by Oregon statutes and the LDC.

**b. Goal 2: Land Use Planning**

Goal 2 requires the creation of the land use planning process and policy framework as the basis for all decisions and actions related to the use of land and to ensure an adequate factual basis for such decisions. Klamath County has adopted thirteen policies under Goal 2.

**(1-8) Policies:** The Hearings Officer finds and concludes that policy numbers 1 through 8 do not apply to the proposed amendment to CUP 29-95 because these policies relate to implementation of the Comprehensive Plan, policies and zoning boundaries.

**(9) Policy: "Klamath County is expected to experience population increases as arrived at based on Cohort Survival Population Projections. The County shall provide support for this population increase by providing sufficient land, community facilities and other community resources."**

The Project, as approved in CUP 29-95 and as described in the Application and approved in these Findings and Conclusions will assist the County in providing support for population increases in Klamath County. The Project will have a construction duration of about 27 months. Construction will create up to 250 temporary direct construction jobs during periods of peak construction and an average direct construction force of about 110 people. Indirect construction jobs will equal about 80 percent of direct construction jobs. The Project will provide approximately 20 permanent positions. (App. p. 9.)



Power generated from the Project will be sold to public and private utilities. The Project will return substantial revenues to the City of Klamath Falls and will provide economically priced steam for future economic development in the City of Klamath Falls and Klamath County. Steam produced by the Project will be available to Collins' existing mill operations and to other potential industrial users to reduce reliance on natural gas, fuel oil and waste wood-fired boilers. (App. pp. 9-10.)

Construction activities will temporarily disturb the site during construction of the Project. The Project will not independently create a need for community facilities or governmental services. The Project will not create a development potential outside the urban growth boundary. The Project as a whole will not have an adverse impact on governmental sewage treatment capacity, water supplies, solid waste disposal, law enforcement, fire protection, and public schools. The Project as a whole will also not have an adverse impact on housing, traffic safety and health care. (App. p. 10.) The Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 supports policy number 9.

**(10-13) Policies:** the Hearings Officer finds and concludes that policy numbers 10 through 13 are not applicable to the proposed amendment to CUP 29-95.

**c. Goal 3: Agricultural Lands**

Goal 3 is premised on a need to preserve and to maintain agricultural lands. Agricultural lands are to be inventoried and preserved by the adoption of exclusive farm use zones. Klamath County has adopted five policies under Goal 3.

**(1-5) Policies:** The Hearings Officer finds and concludes that because the proposed use does not involve any Goal 3 agricultural lands or lands zoned exclusive farm use (App. p.10.), policy numbers 1 through 5 do not apply to the proposed amendment to CUP 29-95.

**d. Goal 4: Forest Lands**

Goal 4 is directed toward encouraging the preservation of forest lands for forest uses. Klamath County has adopted nine policies under Goal 4.

**(1-9) Policies:** The Hearings Officer finds and concludes that because the proposed use will not occupy any land zoned Forestry or Forestry/Range, policy numbers 1 through 9 do not apply to the proposed amendment to CUP 29-95. (App. p.11.)

**e. Goal 5: Open Space, Scenic and Historic Areas, and Natural Resources**

Goal 5 aims at conserving open spaces and protecting natural, historic and scenic resources. Klamath County has adopted thirty-nine policies under Goal 5.

**(1-5) Policies:** The Hearings Officer finds and concludes that Policy numbers 1 through 5 do not apply to this proposed use because the two CT Project will not be in a mineral, aggregate or other significant resource area, on public land, or in an area of conflicting use. (App. p.11.)

**(6) Policy:** "Cultural areas, historic sites, and archaeological resources shall be considered when proposing a change in land use."

The proposed amendment to CUP 29-95 will not cause any impact on cultural, historical and archaeological resources. An archaeological inventory survey and Native American consultation were undertaken for the Project in 1995. The Collins property, when it was owned by Weyerhaeuser, was recorded as an archaeological site. At that time, the qualities of the Weyerhaeuser property which rendered it potentially eligible for inclusion on the National Register of Historic Places derived from the property's association with individuals and events important in local and regional history. With the exception of a few structures (not in the area to be occupied by the Project), the other features and physical remains at the Collins property are not considered significant for residual information values, research potential or public exhibition. No cultural, historic or archaeological resources other than the Weyerhaeuser property were identified during the 1995 survey and Native American consultation. (App. p. 11.)

Virtually all of the specific Project site area has been bulldozed and cleared, and includes extensive areas of imported fill material.

In the event that cultural or archaeological resources are encountered during Project construction or related activities, the Project will halt earth-disturbing activities in the immediate vicinity of the resource, in accordance with Oregon law (ORS 97.745 and 358.920). The Oregon State Historic Preservation Office (SHPO) and, in the case of Native American cultural materials, the Klamath Tribe will be notified. A qualified archaeologist will be contacted in order to evaluate the discovery and to recommend an appropriate course of action in consultation with the SHPO and the Klamath Tribe. (App. p. 12.) The Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 satisfies policy number 6.

**(7) Policy:** "The County shall encourage the preservation and restoration of historic sites and structures whenever possible."

The Hearings Officer makes the same findings and conclusions as policy number 6 above.

**(8) Policy:** "The County shall support the inventories of historic sites as approved by the Historic Landmark Commission, and shall encourage the identification of historic sites with the cooperation of the landowner."

The Hearings Officer makes the same findings and conclusions as policy number 6 above.

(9) Policy: "Cultural areas, historic sites and archaeological resources discovered in the future or overlooked during the planning process shall be inventoried (location, quantity and quality) and significance determined."

The Hearings Officer makes the same findings and conclusions as policy number 6 above.

(10-13) Policies: The Hearings Officer finds and concludes that policy numbers 10 through 13 do not apply to the proposed amendment to CUP 29-95 because the Project site is not a 1B historic site, will not be in a Significant Overlay Zone, and will not be in Bear Valley or part of the Bear Valley roosting area or flyway. (App. pp. 12-13.)

(14) Policy: "The County shall protect Bald Eagle nest sites."

There are no Bald Eagle nest sites located in the area of the Project. The nearest known nest site is several miles distant. (App. p. 13.) Construction of the two CT Project will have no adverse direct impact on the Bald Eagle or its habitat. The Hearings Officer finds and concludes that policy number 14 does not apply to the proposed amendment to CUP 29-95.

(15) Policy: "The County shall require that the private property owner take no action that would damage existing Bald Eagle nest sites."

The Hearings Officer makes the same findings and conclusions as policy number 14 above.

(16) Policy: "The County shall protect significant big game winter ranges and other significant wildlife habitat."

There are no significant big game winter ranges in the area of the Project. General project impacts to other wildlife habitats will be minimal. No significant adverse impacts to special status species are anticipated. The two CT Project will reduce the discharge of SSWTP effluent volumes into the Klamath River. The two CT Project will not increase noise levels over the single CT Project and will have negligible effects on wildlife occupying the Klamath Wildlife Refuge located across the Klamath River from the Project. (App. p. 13.)

Prefield investigations resulted in the identification of four threatened or endangered animal species that are known to occur in the general Project area: shortnose sucker, Lost River sucker, bald eagle and peregrine falcon. (App. p. 13.)

The two CT Project will have no adverse impacts on either the Lost River sucker or the shortnose sucker, because the reduced rate of effluent discharge will mean that the water quality in the river will be improved by the reduction in the effluent discharge and the reduced rate of effluent discharge will have only a minimal impact on the average flow in the river. The increase in temperature of water wastewater under the two CT Project will be de minimis. (App. p. 14.)

No adverse impacts on bald eagles and peregrine falcons were identified for the single CT Project proposal, and the two CT Project makes no changes that will alter this determination. The Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 supports policy number 16.

**(17) Policy:** "The County shall preserve and protect required sites for generation of energy and reservoirs."

The Hearings Officer finds and concludes that the two CT Project supports policy number 17 because it will involve the generation of electric energy and steam energy. The electric energy generated from the Project will be sold to public and private utilities. The steam produced by the Project will be made available to Collins for its industrial operations and to other potential industrial users and will allow Collins and other potential industrial users to reduce reliance on natural gas, fuel oil and waste wood-fuel boilers. (App. p. 14.) The Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 supports policy number 17.

**(18-19) Policies:** The Project will not be located on public lands, parks, cultural resources, trails, or unique open space areas, (App. p.14), and, therefore, the Hearings Officer finds and concludes that policy numbers 18 and 19 do not apply to the proposed amendment to CUP 29-95. Article 56-2 of the LDC states that open spaces are limited to public land or private land owned by non-profit organizations dedicated to protection of areas with fragile or unique scenic or natural qualities. The Hearings Officer finds and concludes that the Project land does not fall in this category.

**(20-21) Policies:** The Hearings Officer finds and concludes that policy numbers 20 and 21 do not apply to the proposed amendment to CUP 29-95 because the Project site is not public recreation land, open space in an urban expansion area, or a wooded area along a major stream or tributary. (App. p. 14.)

**(22) Policy:** "The County shall protect riparian areas."

The Project is 1200 feet north of the Klamath River and not in a riparian area. (App. p. 15.) Because there are no riparian areas within the lands covered by the Project, the Hearings Officer finds and concludes that policy number 22 does not apply to the proposed amendment to CUP 29-95.

**(23-26) Policies:** The Hearings Officer finds and concludes that policy numbers 23 through 26 do not apply to the proposed amendment to CUP 29-95 because the Project property is not a potential mineral extraction area, an aggregate extraction site, or a gravel, cinder, or clay removal site. (App. p.15.)

**(27) Policy:** "Nonstructural flood protection methods may be used whenever practical for conservation of floodplains. Flood control measures shall, whenever practical,

utilize natural floodways, maintaining riparian habitats and historic flow volumes. When nonstructural flood protection methods are not practical because of the value of previous urban development, concrete-lined channels will be used only if all other structural methods are impractical."

The Project site is above the Klamath River floodplain. (App. p. 15.) Because the land where the Project will be located is not located in a floodplain, the Hearings Officer finds and concludes that policy number 27 does not apply to the proposed amendment to CUP 29-95.

**(28) Policy:** "The County shall encourage the management of groundwater resources."

The two CT Project is designed to use treated effluent discharge from the SSWTP for water for the Project's cooling tower. As a result, no new water right to a groundwater resource will be required. The Project will also return its wastewater to the SSWTP for treatment and discharge. (App. p. 15.)

The two CT Project will use water from an existing well on Collins property for steam production, and Collins use of water from the well will reduce correspondingly. The Project has obtained an additional water right to make use of the water from this well for steam production by the Project, but water use will not be increased. Thus, groundwater sources will not be affected, and groundwater resources will be properly managed. In fact, the joint use of the Collins water right by the Project will increase efficient management of groundwater resources. (App. pp. 14-15.) The Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 supports policy number 28.

**(29-33) Policies:** The Hearings Officer finds and concludes that policy numbers 29 through 33 do not apply to the proposed amendment to CUP 29-95 because the Project will not be located in an area of inadequate or poor quality water, in an area of potential trails, in the section of the Klamath River identified under the Wild and Scenic designation, near Salt Caves and the upper Klamath River area, or in an area under consideration for designation as a Wild and Scenic River. (App. p. 16.)

**(34) Policy:** "The County shall encourage the protection of recognized scenic views and sites."

The two CT Project will not be more visible from any recognized scenic view or site than the single CT Project approved under CUP 29-95. The turbine generator building will be slightly larger (approximately 140 feet by 280 feet instead of 135 feet by 190 feet), and the auxiliary boiler stack will be slightly higher (125 feet high instead of 75 feet). However, the height of the tallest part of the two CT Project, the emission stacks, will be 150 feet, the same as the single CT Project. (App. p. 16.)

The water vapor plume from the cooling tower for the two CT Project will have no significantly greater impact on scenic views and sites than the single CT Project. The plume length is predicted to be between 100 and 500 meters just over half of the time and greater than 500 meters about 17 percent of the time. The plume height is predicted to be between 50 and 100 meters about one third of the time. The largest plumes are predicted to occur at night when they will not be visible, and the greatest potential aesthetic impact is expected on cold winter mornings when few people are expected to be affected. The two CT Project will actually result in approximately the same or less water vapor plume impact because it accomplishes the greater evaporation required by using more tower cells. (App. pp. 32-34.) The two CT Project will have no greater impact than the single CT Project. (App. pp. 16-17.) The Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 satisfies policy number 34.

**(35-39) Policies:** The Hearings Officer finds and concludes that policy numbers 35 through 39 do not apply to the proposed amendment to CUP 29-95 because the two CT Project will not be a subdivision, a threat to solar access, a small hydro or wind system, within the site or secondary buffer zone for the Bear Valley Bald Eagle Refuge, or a significant geothermal area. (App. p. 17.)

#### **6. Goal 6: Air, Water and Land Resources Quality**

Goal 6 attempts to maintain and to improve the quality of the air, water and land resources of Klamath County. Klamath County has adopted nine policies under Goal 6.

**(1) Policy: "The County shall support efforts to maintain and improve the quality of air resources."**

The two CT Project air emissions will be governed by an ACDP from the DEQ other than during construction activities (during which activities the Project will use best management practices to control air emissions). In April 1997, PKE, on behalf of the City, submitted to the DEQ an ACDP Application, evaluating air quality impacts for the two CT Project. This Application provides information required for the DEQ to make a permit determination for the two CT Project. Significantly, the two CT Project includes the elimination of the use of fuel oil firing planned for the single CT. This change will reduce the potential impacts to air quality from oil use during operation of the Project. Cooling tower drift will not have an adverse effect because deposition rates will not exceed the threshold for crop damage and will be minimal beyond the boundaries of Collins property. (App. pp. 17-18 and pp. 34-35.) The Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 satisfies policy number 1.

**(2) Policy: "All solid waste discharge will be disposed of in accordance with the County Solid Waste Management Plan."**

The two CT Project will not result in any changes to the solid waste disposal and waste minimization determinations made for the single CT Project. (App. p. 18.) The Hearings

Officer finds and concludes that the proposed amendment to CUP 29-95 satisfies policy number 2.

**(3-5) Policies:** The Hearings Officer finds and concludes that policy numbers 3 through 5 do not apply to the proposed amendment to CUP 29-95 because the two CT Project will not exceed existing sewage disposal capabilities and will not be a residential use.

**(6) Policy:** "The County shall coordinate environmental management programs with State and Federal environmental statutes, programs, and policies (air, water, land, and noise)."

The Hearings Officer finds and concludes that the Project has identified and will comply with all state and federal environmental permitting requirements. PKE and the City have notified relevant agencies of the modifications to the Project and applied for appropriate amendments to permits and certificates. (App. p. 18.)

The Hearings Officer further finds and concludes that the modifications to the Project will not result in any changes to the Project's NPDES General Permit 1200-C from the DEQ for stormwater discharge during construction activities.

An amendment to the City's existing NPDES permit will allow use of SSWTP effluent as cooling tower makeup water. In October 1997, the DEQ issued the NPDES permit amendment, which authorizes reuse of sufficient SSWTP effluent for the two CT Project. (App. p. 18.)

The Project will comply with all applicable requirements of environmental statutes, programs and policies. The Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 satisfies policy number 6.

**(7) Policy:** "The County shall establish grading standards that limit runoff and erosion from residential, commercial, and industrial construction sites."

Article 70 and Article 73 of the LDC provide requirements for construction work that will be involved with the Project and may be applicable. The Project will obtain all local permits relating to runoff and erosion control. The two CT Project site contains near-surface silty sands and sandy silt soils that occur as natural deposits and man-placed fills. These soils are potentially susceptible to erosion in areas where surface water run-off is concentrated or in areas where unvegetated areas are exposed to the wind. Erosion will be minimized by properly controlling surface water run-off and revegetating disturbed areas during and following construction. For the existing fill slopes near the Project site area, foundations will be offset adequately from the slope crest to ensure that erosion of these slopes does not impact foundation support. The modifications to the Project will not increase the potential of erosion. (App. p. 19.) The Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 satisfies policy number 7.

**(8) Policy:** "Consideration shall be given to locating noise-sensitive activities away from noise generators."

Noise levels due to the two CT Project will not exceed established applicable noise level criteria. A re-analysis of noise impacts for the two CT Project determined that the larger cooling tower could result in increased noise. In order to comply with Oregon noise criteria for residential areas, specifically West Klamath, and "Quiet Areas," the Klamath Wildlife Refuge, and to prevent an increase in noise levels, a cooling tower for the two CT Project that is no noisier than the single CT Project will be procured. (App. pp. 35-37.) In addition, heavy construction activities will be restricted to the hours of 7:00 a.m. to 10:00 p.m. to minimize the potential impact on nearby residents. (App. p. 19.) The Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 satisfies policy number 8.

**(9) Policy:** "Noise sensitive land uses shall be prohibited or limited within noise-affected areas of the Klamath Falls Municipal Airport in accordance with Table II-2. Conditional uses shall be permitted only when a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the building design."

Because the two CT Project will not be located within the noise affected areas of Klamath Falls Municipal Airport, (App. p. 20) the Hearings Officer finds and concludes that policy number 9 does not apply to the proposed amendment to CUP 29-95.

#### **7. Goal 7: Areas Subject to Natural Disasters and Hazards**

Goal 7 is aimed at protecting life and property from natural disasters and hazards. Klamath County has adopted seven policies under Goal 7.

**(1-3) Policies:** The Hearings Officer finds and concludes that policy numbers 1 through 3 do not apply to the proposed amendment to CUP 29-95 because the two CT Project will not be in a fire hazard area, will not affect the County's eligibility for participation in the Federal Emergency Management Agency's National Flood Insurance Program, and will be located on relatively low sloping terrain (two to five percent). (App. p. 20.)

**(4) Policy:** "The County shall study the feasibility of requiring on-site retention of stormwater runoff."

The County has implemented this policy by adopting Article 65 of the LDC. The Project will provide for and permanently maintain landscape as required by Article 65. The Project will obtain all local permits relating to control of erosion and stormwater runoff. The modifications to the Project will not affect the DEQ 1200-C NPDES General Permit for stormwater discharge during construction. The Project design proposes that stormwater will be collected in the evaporation pond. (App. p. 20.) The Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 complies with policy number 4.



**(5-7) Policies:** The Hearings Officer finds and concludes that policy numbers 5 through 7 do not apply to the proposed amendment to CUP 29-95 because the two CT Project will not be located in any floodway, within the Klamath Falls Municipal Airport area, or in a subdivision requiring fire district protection. (App. p. 21.)

## **8. Goal 8: Recreation Needs**

Goal 8 requires satisfaction of the recreational needs of the citizens of Klamath County and visitors to the County. Klamath County has adopted eleven policies under Goal 8.

**(1) Policy:** "When planning for lands and resources capable of accommodating multiple uses, the County shall encourage the provision of appropriate recreation opportunities."

The land where the two CT Project will be located is not a scenic, recreational or natural resource area. (App. p. 21.) The Project will not impact any recreational areas within Klamath County or diminish the recreational value of the County for citizens of Oregon or any visitors to Oregon and Klamath County. The Project's proximity to the Klamath Wildlife Refuge will cause it potentially to be visible from the refuge. The cooling water vapor plume will be potentially visible from the refuge, but the times that the plume will be largest (at night and cold winter mornings) are times that the refuge will be least populated by visitors. (App. pp. 32-34.) The Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 satisfies policy number 1.

**(2-11) Policies:** The Hearings Officer finds and concludes that policy numbers 2 through 11 do not apply to the proposed amendment to CUP 29-95 because the two CT Project will not be suitable for a park or recreation area, nor will it be near Pelican Butte, Eagle Ridge, or Lake Ewauna. (App. p. 21.)

## **9. Goal 9: County Economy**

The purpose of Goal 9 is to diversify and to improve the economy of Klamath County. Klamath County has adopted fifteen policies under Goal 9.

**(1) Policy:** "The County shall work with local governments to coordinate and compile appropriate industrial and commercial site availability in order to develop a common regional economic development strategy."

The two CT Project will generate electricity for sale to public and private utilities. The Project will also produce steam and make that steam available to Collins for its industrial needs and to other potential industrial users to reduce Collins and other potential industrial users' reliance on natural gas, fuel oil and waste wood-fired boilers. (App. p. 22.)

The Project will create up to 250 temporary jobs during 27 months of construction, and will provide approximately 20 permanent positions. The Project will return substantial revenues to the City of Klamath Falls and provide economically priced steam for future economic development. The revenues generated by the Project will allow the City of Klamath Falls and Klamath County to promote economic recovery. (App. p. 22.) The Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 complies with policy number 1.

**(2-5) Policies:** The Hearings Officer finds and concludes that policy numbers 2 through 5 do not apply to the proposed amendment to CUP 29-95 because the two CT Project will not be a suitable site for a park or recreation area, near Pelican Butte or Bly, in the Upper Klamath Lake area, or an agricultural processing plant. (App. p. 22.)

**(6) Policy:** "The County shall encourage and support development of secondary and tertiary timber industries."

The two CT Project will support policy number 6 by providing steam energy to Collins (a timber industry) and other potential industrial users who are timber industries. (App. p. 22.) The Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 satisfies policy number 6.

**(7-8) Policies:** The Hearings Officer finds and concludes that policy numbers 7 and 8 do not apply to the proposed amendment to CUP 29-95 because the two CT Project will not impact agricultural markets and will not be financed by state supported industrial revenue bonds. (App. p. 23.)

**(9) Policy:** "The County shall encourage plans and methods that emphasize expansion of and increased productivity from existing industries and firms as a means to strengthen local and regional development."

The two CT Project is being built on property owned by Collins and operated in conjunction with Collins operations. The Project will provide steam for Collins uses and industrial processes and other potential industrial users to reduce reliance on natural gas, fuel oil and waste wood-fired boilers. (App. p. 23.) Thus, the Project will provide support to existing industries, and the Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 complies with policy number 9.

**(10-11) Policies:** The Hearings Officer finds and concludes that policy numbers 10 and 11 do not apply to the proposed amendment to CUP 29-95 because the two CT Project will not impact tourism or economic promotions. (App. p. 23.)

**(12) Policy:** "The County shall support efforts to establish technical industries that will utilize trained graduates of Oregon Institute of Technology."

The two CT Project will use up to 250 employees for construction activities during the 27 months of construction and also will require approximately 20 employees for permanent positions associated with the Project. (App. p. 23.) Graduates of Oregon Institute of Technology will in many cases be qualified for some of these positions. The Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 satisfies policy number 12.

**(13) Policy:** "The County shall identify potential rural, industrial and commercial sites and plan these sites for industrial and commercial uses to ensure that adequate and suitable rural, industrial and commercial lands are available."

The two CT Project will be located in identified industrial land that has been part of the Collins plant site. (App. p. 24.) As a result, the Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 supports policy number 13.

**(14) Policy:** "The County shall maintain a sufficient amount of industrial land in large parcels in order to encourage economic diversity and development in the community."

The two CT Project will be located in a large parcel of land zoned and used for heavy industry. (App. p. 24.) The Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 supports policy number 14.

**(15) Policy:** "The County shall provide appropriate land, facilities, and resources to those economic activities that represent the most efficient use of resources, relative to other geographic areas."

The two CT Project will be located on land that is dedicated to the types of industrial use that the Project will provide. (App. p. 24.) As a result, the Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 supports policy number 15.

#### **10. Goal 10: Housing**

Goal 10 relates to the provision of adequate housing for the citizens of Klamath County. Klamath County has adopted twelve policies under Goal 10.

**(1-12) Policies:** The Hearings Officer finds and concludes that policy numbers 1 through 12 do not apply to this proposed amendment to CUP 29-95 because the two CT Project will not involve residential areas or housing. (App. p. 24.)

#### **11. Goal 11: Public Facilities and Services**

Goal 11 is premised on a need to plan and to develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development. Klamath County has adopted eighteen policies under Goal 11.

**(1-6) Policies:** The Hearings Officer finds and concludes that policy numbers 1 through 6 do not apply to the proposed amendment to CUP 29-95 because the two CT Project will not be a public facility or service. (App. p. 25.)

**(7) Policy:** "During the planning of utility lines and facilities, the County shall encourage their location on or adjacent to existing public or private rights-of-way to avoid dividing existing farm units, and attempt to avoid residential areas."

The transmission line and water supply and wastewater pipelines for the Project were approved in CUP 54-97. (App. p. 25.) The Hearings Officer finds and concludes that policy number 7 does not apply to the proposed amendment to CUP 29-95.

**(8-11) Policies:** The Hearings Officer finds and concludes that policy numbers 8 through 11 do not apply to the proposed amendment to CUP 29-95 because the two CT Project will not create an increased need for public services, including fire protection, medical aid, or law enforcement. (App. p. 25.)

**(12) Policy:** "Development proposals shall not be approved unless the types and levels of public facilities and services required are available or are to be provided concurrently with defined levels of development within urban and rural areas."

The two CT Project will not create an increased need for police protection; fire protection; domestic water facilities; sanitary facilities; storm drainage facilities; planning, zoning and subdivision services; recreation facilities and services; telecommunication services; governmental services; and water facilities. The two CT Project will not create an increased need for any public facilities and services. (App. p. 25.) Thus, the Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 satisfies policy number 12.

**(13-18) Policies:** The Hearings Officer finds and concludes that policy numbers 13 through 18 do not apply to the proposed amendment to CUP 29-95 because the two CT Project will not create subdivisions, will not cause a well to be dug and will not be on rural land. (App. p. 25.)

## **12. Goal 12: Transportation**

Goal 12 encourages the development of a safe, a convenient and an economic transportation system. Klamath County has adopted fourteen policies under Goal 12.

**(1-11) Policies:** The Hearings Officer finds and concludes that policy numbers 1 through 11 do not apply to the proposed amendment to CUP 29-95 because the construction and operation of the two CT Project will not impact transportation in residential or municipal areas.

The modifications to the single CT Project for the two CT Project will not result in any significant impacts to traffic safety. Construction work force levels and associated traffic will

remain the same. Based on a review of the truck traffic estimates for construction, additional truck deliveries for the two CT Project (*e.g.*, additional equipment and foundation materials) will not exceed the average of 25 daily trips that was estimated for the single CT Project. (App. p. 26.)

The only changes in Project traffic during operation that will be associated with the two CT Project will be a decrease in the number of fuel oil delivery trucks by ninety percent and a slight increase in the number of bulk chemical delivery trucks from approximately twenty-eight to forty per year. The reduction in fuel oil deliveries will more than offset the estimated additional twelve deliveries of bulk chemicals each year. The routes used during both construction and operation will remain the same. The cooling tower for the two CT Project will not cause rime icing on Highway 97, but is predicted to cause minimal fogging in the vicinity of U.S. Highway 97 for fifteen to thirty minutes per year. However, this potential occurrence is so small, it will not result in a significant impact to traffic safety. (App. p. 26.)

**(12) Policy:** "Height and use of structures within the approach and departure zones designated for the Klamath Falls Municipal Airport in the 1976 Airport Master Plan shall be limited (Arnold Thompson Associates, Inc., Master Plan, Klamath Falls Municipal Airport, April, 1976)."

Article 58 of the LDC establishes an airport safety overlay for the City of Klamath Falls Kingsley Field. The two CT Project will not be located within the airport safety zone provided in Article 58. (App. p. 27.) The Hearings Officer finds and concludes that policy number 12 does not apply to the proposed amendment to CUP 29-95.

**(13-14) Policies:** The Hearings Officer finds and concludes that policy numbers 13 and 14 do not apply to the proposed amendment to CUP 29-95 because the two CT Project will not impact the transportation system and will not be within a protected area for the Klamath Falls Municipal Airport. (App. p. 27.)

### **13. Goal 13: Energy Conservation**

Goal 13 requires that land use decisions be managed so as to maximize conservation of all forms of energy based on sound economic principles. Klamath County has adopted five policies under Goal 13.

**(1) Policy:** "The County shall encourage the use of renewable and efficient energy sources in residential, commercial, and industrial development."

The two CT Project will be a highly efficient natural gas-fired cogeneration facility. The Project will produce steam and make some of that steam available to Collins for use in its industrial processes and to other potential industrial users. This steam availability will reduce reliance on natural gas, fuel oil and waste wood-fired boilers. The remainder of the steam produced by the Project will be used to generate electricity for sale to public and private utilities.

(App. p. 27.) The Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 complies with policy number 1.

**(2) Policy:** "The development and use of alternative cost effective energy in Klamath County shall be encouraged."

The two CT Project will be a highly efficient natural gas-fired cogeneration facility. The Project will produce steam and make some of that steam available to Collins for use in its industrial processes and to other potential industrial users. That use will reduce reliance on natural gas, fuel oil and waste wood-fired boilers. (App. pp. 27-28.) The Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 complies with policy number 2.

**(3-5) Policies:** The Hearings Officer finds and concludes that policy numbers 3 through 5 do not apply to the proposed amendment to CUP 29-95 because the two CT Project will not be in a residential area, will not be a potential geothermal energy site, and will not be appropriate for use of timber or agricultural waste as a source of fuel. (App. p. 28.)

#### **14. Goal 14: Urbanization**

Goal 14 attempts to provide for an orderly and efficient transition from rural to urban land use. Klamath County has adopted five policies under Goal 14.

**(1-5) Policies:** The Hearings Officer finds and concludes that policy numbers 1 through 5 do not apply to the proposed amendment to CUP 29-95 because the two CT Project will not be in an area suitable for urban expansion or study. (App. p. 28.)

**B. Criterion 2 - Section 44.030.B.** "The use is in conformance with all other required standards and criteria of this code."

As shown in these Findings and Conclusions, the Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 will comply with all other required standards and criteria of the LDC.

**C. Criterion 3 - Section 44.030.C.** "The location, size, design, and operating characteristics of the proposed use will not have a significant adverse impact on the livability, value or appropriate development of abutting properties and the surrounding area."

The Hearings Officer finds and concludes that the proposed two CT Project will not have a significant adverse impact on the livability, value or appropriate development of abutting properties or the surrounding area.

The Hearings Officer finds and concludes that the decreased effluent flow will not have an adverse impact on any protected area or any special status species, (App. pp. 30-31), and that

any increase in temperature in the river resulting from the two CT Project will be de minimis, (App. p. 31). The Hearings Officer finds and concludes that the Project will not result in any adverse impacts on the capacity of sewers or sewage treatment. (App. pp. 31-32.)

The Hearings Officer further finds and concludes that the visible plumes from the cooling tower for the two CT Project will not result in a significant aesthetic impact relative to the impacts for the single CT Project, (App. pp. 32-33), and that no adverse impacts will result from cooling tower drift from the Project, (App. pp. 34-35). The Hearings Officer finds and concludes that no adverse impacts will result from noise caused by the two CT Project. (App. pp. 35-36.)

Finally, the Hearings Officer finds and concludes that the Project is regulated by defined, measurable requirements for noise, (App. pp. 36-37), and that Condition B in CUP 29-95 should be deleted.

### VIII. ORDER

Based on an evaluation of the Application, the Planning Department's Staff Report and Recommendation, and on the above Findings and Conclusions, the Hearings Officer finds and concludes that the proposed amendment to CUP 29-95 is consistent and complies with the LDC and the Klamath County Comprehensive Plan. Therefore, it is ordered that PKE's request for amendment to CUP 25-95 is approved including deletion of Condition B in CUP 29-95.

Dated this 30 day of December, 1997.

  
Michael L. Brant, Hearings Officer

## NOTICE OF APPEAL RIGHTS

You are hereby notified that this Application may be appealed to the Klamath County Board of Commissioners by filing with the Klamath County Planning Department a Notice of Appeal as set out in Section 33.004 of the Klamath County Land Development Code, together with the fee required within SEVEN DAYS following the mailing of this final order.

STATE OF OREGON: COUNTY OF KLAMATH: ss.

Filed for record at request of Klamath County Hearings Officer the 31st day  
of December A.D., 19 97 at 9:58 o'clock AM., and duly recorded in Vol. M97  
of Deeds on Page 42469.

Return: Commissioners Journal

Bernetha G. Letsch, County Clerk

FEE

No Fee:

By Hadden Ross