CALIFORNIA COASTAL COMMISSION
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49th Day:	March 27, 1998
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Staff:	Jeff Stump
Staff Report:	February 20, 1998
Commission Hearing:	March 11, 1998
Commission Action:	

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.:	**1-97-075**
APPLICANT:	**PACIFIC GAS AND ELECTRIC COMPANY**
AGENT:	Ernie Ralston
PROJECT LOCATION:	Humboldt Bay Power Plant, 1000 King Salmon Avenue, Eureka, Humboldt County.
PROJECT DESCRIPTION:	Removal of an existing 250-foot concrete ventilation stack and construction of a replacement 50-foot ventilation stack.
LOCAL APPROVALS:	Proposed development meets all zoning requirements and needs no local permits other than building permits.

SUMMARY OF STAFF RECOMMENDATION:

Staff recommends approval of the proposed removal of an existing 250-foot ventilation stack and construction of a 50-foot replacement stack at the Pacific Gas and Electric power plant at King Salmon. As proposed, the project will significantly reduce an existing seismic hazard and will reduce existing visual impacts. In addition, the construction methods proposed by the applicant will not adversely affect the environment surrounding the plant. Staff is proposing conditions that require that (1) the proposed stack be painted to blend into the surrounding buildings, (2) the applicant submit a polluted runoff management plan to prevent any discharges of contaminants into Humboldt Bay, and (3) a permit amendment be obtained if construction or demolition methods are changed. Therefore, as conditioned, staff believes that the proposed project is consistent with the Coastal Act and recommends approval.

STAFF NOTE

1. Standard of Review

The proposed project is located in the King Salmon Area of Humboldt County. Humboldt County has a certified LCP, but the subject property is within the Commission's retained jurisdictional area along Humboldt Bay. Therefore, the standard of review that the Commission must apply to the project is the Coastal Act.

STAFF RECOMMENDATION:

I. Motion, Staff Recommendation, and Resolution

1. Motion:

I move that the Commission approve Coastal Development Permit No. 1-97-75 subject to conditions.

2. Staff Recommendation of Approval:

Staff recommends a **YES** vote and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

3. Resolution to Approve Permit:

The Commission hereby grants, subject to the condition below, a permit for the proposed development on the grounds that the development, as conditioned, will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976, is located between the sea and the first public road nearest the shoreline, is in conformance with the pubic access and public recreation policies of Chapter 3 of the Coastal Act, and will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act.

II. Standard Conditions: See Attached.

III. Special Conditions:

1. Structural Appearance

As proposed by the applicant, the new ventilation stack shall be painted to blend into the existing Unit 3 building.

2. Water Quality

PRIOR TO ISSUANCE of the Coastal Development Permit, the applicant shall submit, for the Executive Director's review and approval, a polluted runoff management plan prepared by a licensed/registered civil or professional engineer with expertise in the field of water quality. To prevent the release of any radioactive particles or other contaminants into the Bay, the plan shall include means to collect and treat runoff from impervious surfaces (e.g. roads, driveways, parking structures, building pads, roofs, etc.) on the subject construction site and staging areas during the duration of the project. Such measures may include, but are not limited to, the use of existing or new structures (alone or in combination) such as on-site desilting basins, detention ponds, etc.

3. Construction/Demolition Methods

This coastal development permit authorizes the removal and replacement of an existing 250-foot concrete ventilation stack. Any changes to the proposed project, including any changes to the proposed construction or demolition techniques described in the findings for Coastal Development Permit No. 1-97-075 are specifically not authorized by this permit and would require an amendment to this permit or a new permit from the Commission.

IV. Findings and Declarations

The Commission hereby finds and declares:

1. Project Description and Background

The applicant proposes to replace the ventilation stack of the Humboldt Bay Power Plant, located along Humboldt Bay in the unincorporated King Salmon area about five miles south of the City of Eureka.

The power plant consists of three electrical generating units, units 1 and 2, which currently operate as natural gas-fired steam units and Unit 3 that operated as a nuclear electric generating unit from 1963 to 1976. Unit three has an existing gaseous effluent stack on its north side which was used to detect and treat any radioactive gaseous effluent released by the nuclear reactor or from the various support buildings serving the nuclear plant. Unit 3 is currently in a long term protective storage decommissioning mode termed SAFSTOR, which was approved by the Nuclear Regulatory Commission (NRC) in 1987. SAFSTOR consists of placing all of the reactor fuel in the spent fuel storage pool and maintaining it there until a federal repository or a dry storage facility is available to receive the spent fuel. The reactor building has been secured and a ventilation system maintains a slight negative pressure inside the building, drawing air from the building into the stack. The stack is required to remain in operation by the NRC for the detection and treatment of airborne contamination.

A 6.9 Richter magnitude earthquake occurred on the Mendocino fracture zone approximately 20 miles southeast of the plant in September 1994. Although the plant did not sustain any damage from the quake, the applicant agreed with the NRC to conduct a site-specific analysis to determine the earthquake potential at the plant. As a result of the analyses, the applicant believes that the maximum credible seismic event would exceed the seismic design of the stack, posing a risk of collapse on the reactor building or on the two existing gas-fired units. While the nuclear safety consequences of this type of event are addressed by previous accident analyses and contingency plans, the risk of falling debris from college of the stack to occupational workers' safety mandates removal of the stack.

The applicant is proposing to install a replacement stack with detection and treatment equipment. Once the new stack is operational, the existing 250-foot concrete stack will be removed. The proposed new stack would be steel, approximately four feet in diameter, 50-feet high and painted to blend with the surrounding buildings. The stack would be installed approximately adjacent to the existing stack in the general location shown on the attached Site Plan and would extend approximately 10 feet above the roof of Unit 3. After installation and testing of the new stack, the system would be permanently placed into operation and all power to the existing stack would be shut off.

The proposed stack removal would be performed by cutting and removing sections, starting at the top and working down. The stack is 250-feet tall and constructed of reinforced concrete. A temporary access platform system would be installed on the stack, just below the first cut location to allow worker access. A boom crane, approximately 300 feet in height and located at the stack base would be used to install the platform to remove the stack section once the cut is complete. With the platform in place, workers would use a saw to make a cut around the circumference of the stack at the designated height near the top of the stack. The height of the sections to be removed would be determined by the specific cutting tools used and the capacity of the boom crane. Since the stack wall thickness tapers from 6 inches at the top to 10 inches at the base, the cut sections would likely get shorter as the removal process proceeds down the stack.

Dust generated by the cutting tool would be captured by a vacuum system. As the cutting tool reaches the inside surface of the stack, any cutting dust generated within the stack would be drawn down the stack by a slight back-flow created by a fan at the base of the stack. Since the dust from the internal stack surface may be contaminated, the dust would be passed through a high efficiency particle filter. Once the cut has been competed, the stack section will be raised slightly, covered, and then lowered to the ground. The bottom 23 feet of the stack above grade, which contains two gaseous processing equipment rooms, would be retained.

The stack sections would then be removed to the existing low level radioactive waste storage building, just north of the stack, which would be temporarily converted to a decontamination facility for the duration of the stack removal project. Once inside the decontamination facility, the stack section would be re-monitored to determine the location of any fixed contamination on the inside surface. The applicant expects that any contamination that does exist would be confined to the immediate surface of the stack. The contamination would be removed by scabbing - physical removal of approximately one-half inch of the concrete surface by impact - or by similar methods. The contaminated residue would be properly packaged for disposal, stored and then shipped to an approved disposal facility. Once the contamination has been removed, the clean stack sections would be removed from the site to either be disposed of in a local licensed land fill or delivered to a concrete recycling company.

2. Geologic Hazards

Section 30253 (1) states in applicable part that:

> New development shall (1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

The existing concrete ventilation stack is located approximately 20 miles from the Mendocino fracture zone, on which a magnitude 6.9 of the Richter scale earthquake occurred in September of 1994. Although the applicant states that the power plant did not sustain damage from the earthquake event, the applicant conducted a site-specific analysis of the potential for earthquake damage at the plant. The applicant believes that the maximum credible seismic event would exceed the design of the current 250-foot stack, posing a risk of collapse on the reactor building or on the two existing natural gas-fired generating units. Removal of the existing stack and construction of the replacement stack would remove the potential seismic hazard. Thus, the Commission finds that the proposed development is consistent with Section 30253 of the Act.

3. Visual Resources

Section 30251 of the Coastal Act requires states in part that:

> The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

Although the proposed project lies between Highway 101 and Humboldt Bay, this area is not designated as a highly scenic area. The project, as proposed by the applicant, will have temporary increased visual impacts for 6 months due to the use of a 300-foot boom crane for the removal of the existing stack. However, the net result of the proposed project is a 200-foot reduction in stack height, considerably reducing an existing visual impact. There will be no alteration of landforms and, as proposed by the applicant, the new ventilation stack will be painted to blend in with the existing surrounding buildings, making it compatible with the character of the surrounding area. To ensure that the replacement stack is painted in this manner, the Commission attaches Special Condition No. 1 which requires the painting to be performed as proposed. Thus, the Commission finds that as conditioned, the proposed development is consistent with Section 30251 of the Act.

4. Biological Resources

Section 30230 of the Coastal Act states that:

> Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231 of the Act states that:

> The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Although the project site is not located in or immediately adjacent to an ESHA, Humboldt Bay is the largest wetland and estuarine habitat in California, outside of San Francisco Bay, containing approximately 23 percent of the coastal wetlands in California. Humboldt Bay's waters hold a diverse fish fauna, including anchovies, chinook and coho salmon, steelhead, cutthroat trout, smelts, surfperch, rockfishes, sand dabs, soles and flounder. Thirty-six species of fish utilize the bay as a nursery ground and/or spawning area. The invertebrate biota of the bay includes species in sixteen major invertebrate groups. Approximately 750 acres of the bay's bottom and channels

are used for commercial oyster production. Peregrine falcons, which are on the federal endangered species list, hunt over the bay's marshes and farmlands, and rare and endangered plants grow on the dunes and in the brackish and saltwater marshes.

As proposed, the construction of the new ventilation stack and demolition of the existing stack at Unit 3 does not pose a significant threat to the biological productivity or water quality of the Bay. However, the potential exists for the release of radioactive particles should the demolition of the existing stack not proceed as proposed. Should the applicant store the removed sections of the stack in an uncontrolled area, or proper decontamination and disposal of the existing stack not occur, radioactive particles or other contaminants could potentially be released into the environment surrounding the plant. Additionally, runoff from water used to cool the saw blades used during the removal of the stack or heavy rain during demolition could also result in radioactive particles or other contaminants entering the Bay. Special Condition No. 2 will remove any threat posed by the project to the Bay by requiring the applicant to develop a polluted runoff plan to collect and treat polluted runoff from the construction site during the demolition, removal and treatment of the existing ventilation stack. Special Condition No. 3 will ensure that the project is carried out with the least environmentally damaging construction and demolition techniques by requiring a permit amendment should the demolition of the existing stack not proceed as proposed. Thus, as conditioned, the Commission finds the proposed development consistent with sections 30230 and 30231 of the Act.

5. Consistency with the California Environmental Quality Act (CEQA)

Section 13096 of the Commission Code of Regulations requires approval of Coastal Development Permits to be supported by a finding showing the permit, as conditioned, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(i) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact that the activity may have on the environment.

The proposed project has been conditioned to be consistent with the visual resource and habitat protection policies of the Coastal Act. As conditioned, there are no feasible alternatives or feasible mitigation measures available that would substantially lessen significant adverse impacts that the activity may have on the environment. Therefore, the Commission finds that the proposed project is the least environmentally damaging feasible alternative and can be found consistent with the requirements of the Coastal Act to conform to CEQA.

ATTACHMENT A

Standard Conditions

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

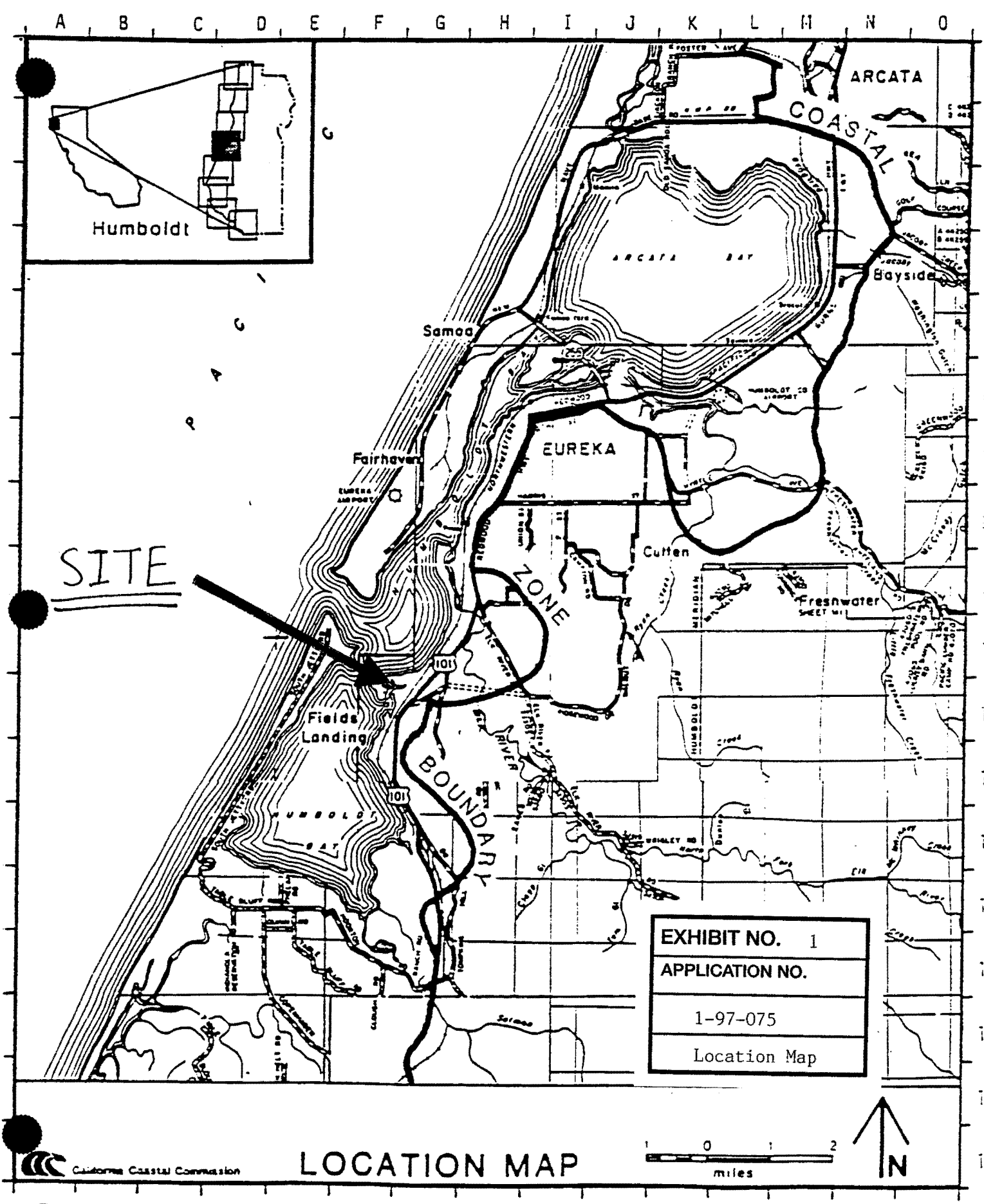
3. Compliance. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.

4. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.

5. Inspections. The Commission staff shall be allowed to inspect the site and the development during construction, subject to 24-hour advance notice.

6. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

7. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.



County of Humboldt

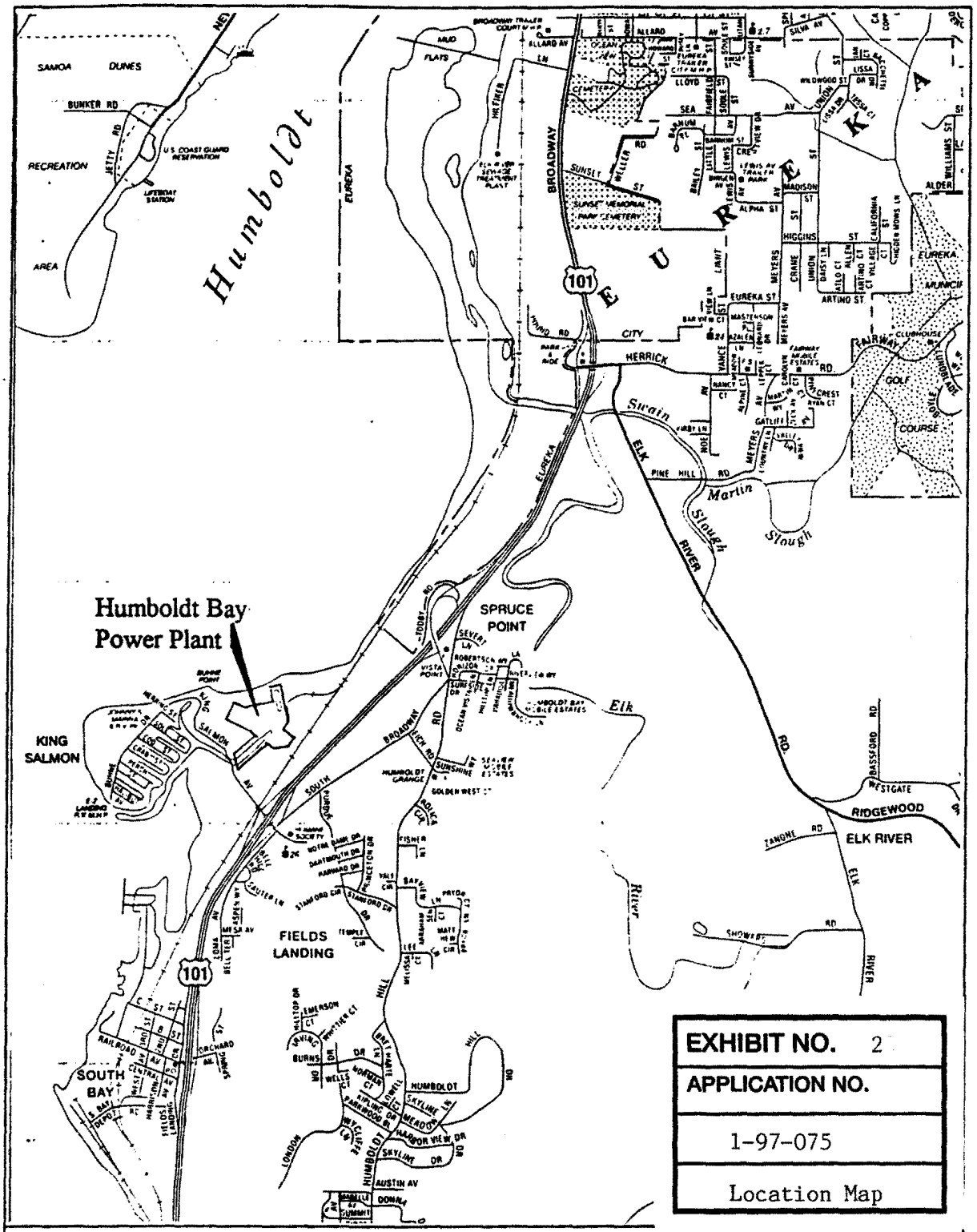


EXHIBIT NO. 2
APPLICATION NO.
1-97-075
Location Map

PROJECT LOCATION MAP

PG&E Humboldt Bay Power Plant - Vent Stack Removal

November 1997 Figure 1

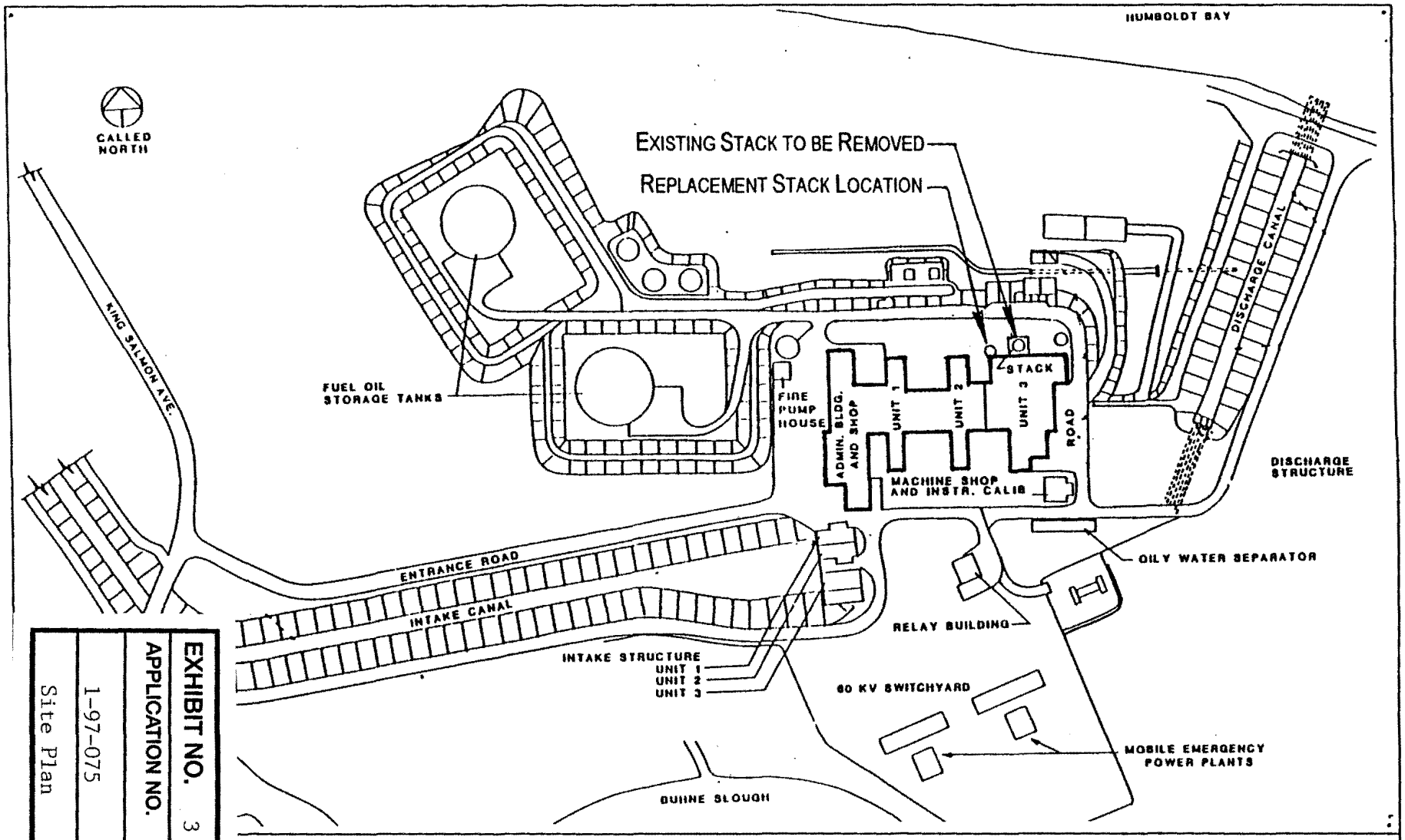
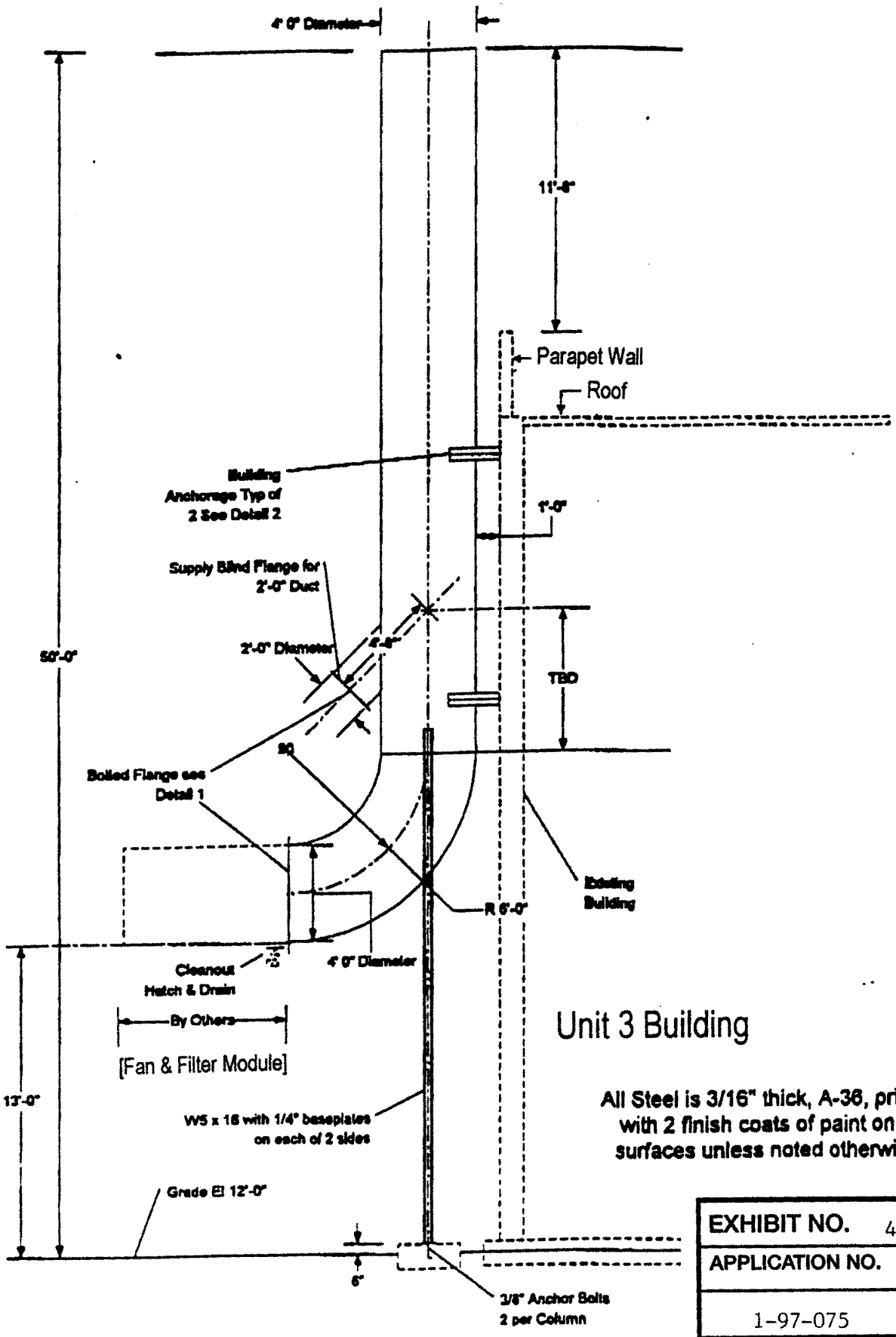


EXHIBIT NO. 3
APPLICATION NO. 1-97-075
Site Plan

SITE PLAN

PG&E Humboldt Bay Power Plant - Vent Stack Removal

November 1997 | Scale 1" = 200' (±) | Figure 2



Unit 3 Building

All Steel is 3/16" thick, A-36, primed with 2 finish coats of paint on all surfaces unless noted otherwise.

EXHIBIT NO. 4
APPLICATION NO.
1-97-075
Elevation

STACK DESIGN

PG&E Humboldt Bay Power Plant - Vent Stack Replacement

November 1997

Figure 3