

Platform Ellen

January 3, 1980

Shell Oil Company
Post Office Box 527
Houston, Texas 77001

Attention: Mr. W. M. Marshall

Re: Plan of Development
OCS-P 0300 & P 0301

Gentlemen:

Shell Oil Company, on November 7, 1977, submitted to the Oil and Gas Supervisor a Plan of Development for the proposed Beta Unit Area in San Pedro Bay. Said Plan provided for the installation of a drilling platform, Ellen, and a production platform, Elly, with associated pipelines to transport produced fluids to shore. By letter dated April 11, 1978, Shell was advised that action on the Plan was awaiting completion of an environmental review. This review is now completed, and the Director, Geological Survey, has concluded that Shell's Plan does not constitute a major Federal action significantly affecting the quality of the human environment.

However, the Beta Unit Agreement as proposed by Shell Oil Company and Chevron U.S.A. Inc. has been denied by the Assistant Secretary of the Interior due to the lack of a firm commitment by Chevron to initiate development on all potential hydrocarbon accumulations prior to expiration of the primary lease term. Therefore, as directed by the Assistant Secretary, since the Plan is technically and environmentally sufficient, I hereby approve Shell's Plan of Development as it applies to Leases OCS-P 0300 and P 0301 with the following conditions:

1. Adherence to the requirements contained in the Federal regulations for the Outer Continental Shelf and in pertinent OCS Orders, both present and future, issued by the Oil and Gas Supervisor, Pacific Region.
2. A description of each planned phase of the operation for the service life of the project; this shall include provisions for abandonment and removal and a statement as to the conflict with commercial fishing operations and recreational activities in the area during the life of the project.

3. All phases of the proposed installation shall be certified by a registered professional engineer, mechanical, electrical, or structural, as appropriate.
4. Prior to the commencement of construction and installation a tentative progress schedule shall be submitted to the Oil and Gas Supervisor. This schedule shall be updated, as appropriate, during the course of construction and installation.
5. During construction and installation, the Oil and Gas Supervisor, or his duly authorized representative, shall have access to the site or sites of activity.
6. Periodic progress reports shall be submitted to the Oil and Gas Supervisor at intervals of approximately one month, or as particular phases are completed or substantial progress made.
7. The Oil and Gas Supervisor shall be notified upon the completion of each phase of the project and upon final completion. As-built drawings shall be furnished to the District Engineer and the Oil and Gas Supervisor for each installation completed.
8. Submittal to, and approval by, the Oil and Gas Supervisor of the following, in regard to the construction and installation of the platforms:
 - a. Final design of the structure including static and dynamic stress analyses to indicate acceptability with the seismicity and geotechnical characteristics at the site, as well as wind, wave, and current forces in the area.
 - b. Detailed description of lifting and installation methods and procedures.
 - c. Drilling and production equipment installation.
 - 1) Plan view of each platform deck outlining any non-hazardous area/areas which are unclassified with respect to electrical equipment installation, and areas in which potential ignition sources are to be installed. Plan views shall include any surrounding production or other hydrocarbon source. Also, a description of deck, overhead, and firewall shall be included.
 - 2) A flow schematic showing size, capacity, and design working pressure of separators, treaters, storage tanks, pumps, compressors, metering devices, valves, and similar equipment including a reference to welding specifications or codes used.

3) Flow schematics of pollution and safety controls identified according to nomenclature (definition, symbols, and identification) contained in API-RP 14C shall be accompanied by an explanation as to functions and sequence of operation.

a) Pollution control systems.

- (1) High and low shutoffs and alarms for level, pressure, and temperature.
- (2) Manual control shutoff stations and systems.
- (3) Water disposal (produced and sanitary) cleanup systems.
- (4) Platform drainage and sump systems.
- (5) Solids disposal (drill cuttings and drilling mud, sewage, garbage, etc.).

b) Safety control systems.

- (1) Combustible gas and H₂S alarm and shutoff systems.
 - Enclosed area pressurized systems and ventilation systems.
 - A diagram specifying the type, location and number of detection or sampling heads.
 - Cycling, non-cycling, and frequency information.
 - Type and kind of alarm, including emergency equipment to be activated.
- (2) Fire control systems.
 - Heat and flame detection, alarm and shutoff systems.
 - Deluge and water line systems.
 - Chemical systems.
 - Fusible plug systems.
 - A diagram of the fire-fighting system showing the location of all equipment.

c) Personnel protection.

- (1) Living quarters.
 - (2) Control stations.
 - (3) Boat landings and helicopter decks.
 - (4) Egress routes.
- 4) Diagrams of the electrical system to include the following:
- a) Location of generators/alternators, or other source; panel boards; major cabling/conduit routes and identification of wiring method.
 - b) Type, rating, and operating and safety controls of generators/alternators and prime movers.
 - c) Main and satellite switchboards including interlocks, controls, and indicators.
 - d) Feeder and branch circuits, including circuit load, wire type and size, motor protection, and circuit breaker setting.
 - e) Calculation of measurement of electrical system voltage drop caused by starting current of largest motor while normal load-operating conditions exist.
 - f) Elementary electrical schematic of any platform safety/alarm/shutdown system with functional legend.
9. Submittal to, and approval by, the Oil and Gas Supervisor in regard to construction and installation of pipelines.
- a. General information concerning the pipeline including the following:
- 1) Geologic and seismic review of route, ocean-bottom and current survey with water depths.
 - 2) Product or products to be transported by the pipeline, with anticipated volumes, working pressures, and gravity or density of product.
 - 3) Length of line, size, weight and grade of pipe; maximum working pressure and capacity of line.
 - 4) Installation procedure with bulk specific gravity of the line (line empty).
 - 5) Type, size, pressure rating, and location of pumps and prime movers, and similar information for any intermediate stations.

- 6) Description of protective coating and type or types of corrosion protection.
 - b. Drawing(s) showing the major features and other pertinent data including:
 - 1) Route.
 - 2) Location.
 - 3) Water depth.
 - 4) Length.
 - 5) Connecting facilities.
 - 6) Size.
 - 7) Burial depth, if buried.
 - c. A schematic drawing showing the location and function of pipeline safety equipment:
 - 1) High-low pressure sensors and alarms.
 - 2) Automatic shut-in valves.
 - 3) Check valves.
 - 4) Vessels and traps.
 - 5) Manifolds.
 - 6) Volumetric metering system.
 - 7) Corrosion monitoring and protection equipment.
10. Prior to commencing operations, emergency operating procedures and contingency plans shall be submitted to the Oil and Gas Supervisor for approval:
- a. Oil spill: containment and cleanup procedures.
 - b. H₂S.
 - c. Critical operations and curtailment plan.
 - d. Simultaneous operations.
 - 1) Narrative description.
 - 2) Schematic plans showing areas of activities.

- 3) Identification of critical areas of simultaneous activities.
- 4) Procedures for mitigation of potential undesirable events including:
 - (a) Guidelines the operator will follow to assure coordination and control of simultaneous activities.
 - (b) Indication as to the person having overall responsibility, as person in charge at the site, for safety of platform operations.
 - (c) An outline of any additional safety measures required for simultaneous operations.
 - (d) Specifications of any added or procedural conditions imposed when simultaneous activity is in progress.
- e. A welding and burning safe-practices plan similar to the above.
11. Prior to commencing operations, a communications plan and personnel and material transportation plans including any provisions for standby boats during hazardous operations shall be submitted to the Oil and Gas Supervisor for approval. These will primarily be the responsibility of the District Engineer and shall be reviewed periodically with the District Engineer.
12. Prior to commencement of drilling, generalized drilling and completion programs shall be submitted for approval by the Oil and Gas Supervisor. At the same time, or as soon as sufficient information is obtained, detailed completion practices shall be submitted for approval to the Oil and Gas Supervisor. The provisions of OCS Order No. 11 shall be followed in this regard. This is not to be interpreted as nullifying the requirement to obtain an approved application to drill from the District Engineer prior to commencing drilling operations, nor to obtain subsequent permits (supplementary notices, etc.) prior to program changes, completions, etc.
13. Plans and procedures for inspections, training and drills shall be submitted to the Oil and Gas Supervisor for approval. These will primarily be the responsibility of the District Engineer and shall be reviewed periodically with the District Engineer. These plans and procedures should cover all normal activities and emergency procedures, concerned with any and all installations mentioned above, and any events that might be expected to occur on the proposed installation. They shall include methods and frequency of testing, calibration, drills, and training, as well as organizational or personnel responsibility that insures that plans and procedures are carried out.

The Oil and Gas Supervisor reserves the right to request any further information he may require. The manner in which you submit the above information may make it possible to include several requirements on the same submittal. Duplicate submittals of the same materials will not be necessary and may be included by reference.

Condition No. 8 has been satisfied by Shell as stated in our letters dated January 30, 1979, November 27, 1979 and December 28, 1979, approving the installation of Platforms Ellen and Elly. Data to satisfy conditions 9 and 10a have been submitted by Shell and are under review by this office.

I commend you for the prompt and efficient manner in which you have pursued the development of Leases OCS-P 0300 and P 0301.

Sincerely yours,

(Orig. Sgd.) H. T. CYPHER

H. T. Cypher
Acting Oil and Gas Supervisor
Pacific Region

cc: Chief, Conservation Division
District Engineer, Santa Barbara
Mr. R. C. Visser, Shell Oil Co., Long Beach, CA
Beta POD
Platform Ellen
Platform Elly: ~~THIS COPY FOR~~
Chief, Offshore Operations
Chief, Lease Management Section
RDENSELE/fls