

OCS Advisory Council

Telephone (907) 486-5736 P.O. Box 1246

Kodiak, Alaska 99615

February 26, 1980

Ms. Esther C. Wunnicke, Manager
Alaska OCS Office
Bureau of Land Management
P. O. Box 1159
Anchorage AK 99510

Dear Ms. Wunnicke:

Herewith is transmitted that portion of the Kodiak Island Borough's oral and written testimony on the BLM Draft Environmental Impact Statement prepared for Proposed Oil and Gas Lease Sale No. 46, Western Gulf of Alaska - Kodiak prepared for us by Dr. David T. Hoopes, our OCS Consultant, and consisting of three parts.

The first section contains a written copy of Dr. Hoopes' oral testimony presented in Anchorage, Alaska, at the public hearing held March 4, 1980. The second portion contains six position papers he has prepared for us covering major issues and concerns. The final section is a page by page review of the entire Draft Environmental Impact Statement.

We hope this testimony will assist you in your preparation of the final statement which we shall be looking forward to receiving as soon as it is released to the public. Should you have any questions regarding Dr. Hoopes' testimony, you may contact him through my office.

Sincerely,

/s/ Betty Wallin,
Mayor


Arnold Hansen,
Deputy Mayor

DTH:BW:RC

ORAL TESTIMONY

of

David T. Hoopes

OCS Consultant

Kodiak Island Borough

Presented at a Public Hearing on the
DEIS for OCS Oil and Gas Lease Sale No. 46

held in Anchorage, Alaska

on

March 4, 1980

DISTINGUISHED PANEL MEMBERS, LADIES AND GENTLEMEN, GOOD MORNING!!

MY NAME IS DAVID HOOPES. I HAVE BEEN RETAINED BY THE KODIAK ISLAND BOROUGH AS THEIR OCS CONSULTANT TO REVIEW THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR OCS LEASE SALE NO. 46 AND TO ASSIST THE BOROUGH IN PREPARING TESTIMONY FOR THIS HEARING.

MY TESTIMONY ON BEHALF OF THE KODIAK ISLAND BOROUGH CONSISTS OF TWO PARTS. DURING MY ORAL PRESENTATION I WILL BRIEFLY SUMMARIZE SEVERAL POSITION PAPERS I HAVE PREPARED DEALING WITH MAJOR ISSUES AND CONCERNS WE HAVE REGARDING THIS DRAFT. THE SECOND PART INCLUDES A WRITTEN PAGE BY PAGE REVIEW OF THE DRAFT WHICH I SHALL LEAVE WITH YOUR RECORDER.

BEFORE GOING ANY FURTHER, I SHOULD LIKE TO MAKE OUR POSITION PERFECTLY CLEAR. THE KODIAK ISLAND BOROUGH DOES NOT OPPOSE THE CONCEPT OF DEVELOPING HYDROCARBON RESOURCES ON THE OUTER CONTINENTAL SHELF. WE DO, HOWEVER, OPPOSE LEASE SALE NO. 46 ON THE GROUNDS THAT THIS DRAFT EIS DOES NOT PROVIDE THE HIGH QUALITY ENVIRONMENTAL INFORMATION NECESSARY TO ATTAIN THE DEGREE OF EXCELLENCE REQUIRED BY THE NEPA DECISION-MAKING PROCESS. WE SINCERELY HOPE THAT THE TESTIMONY WE SHARE WITH YOU DURING THE COURSE OF THESE HEARINGS WILL ASSIST YOU IN REACHING THAT GOAL.

OUR FIRST AREA OF CONCERN CENTERS UPON COMPLIANCE WITH THE NEPA PROCESS. WE CONTEND THAT THIS DRAFT DOES NOT COMPLY WITH THE NEPA PROCESS IN A NUMBER OF SIGNIFICANT RESPECTS.

PERHAPS THE WEAKEST POINT IN THE DRAFT IS THE DISCUSSION OF ALTERNATIVES. ASIDE FROM THE "NO SALE" ALTERNATIVE, THE ALTERNATIVES INCLUDED IN THE DRAFT REPRESENT ONLY VARIATIONS ON A SINGLE THEME. THEY DO NOT OFFER A FULL RANGE OF ALTERNATIVE COURSES OF ACTION AS DIRECTED BY NEPA. CEQ REGULATIONS DIRECT RESPONSIBLE AGENCIES TO:

- (1) RIGOROUSLY EXPLORE AND OBJECTIVELY EVALUATE ALL REASONABLE ALTERNATIVES. FOR ALTERNATIVES ELIMINATED FROM DETAILED STUDY, AGENCIES MUST BRIEFLY DISCUSS THE REASONS FOR THEIR ELIMINATION.
- (2) DEVOTE SUBSTANTIAL TREATMENT TO EACH ALTERNATIVE CONSIDERED IN DETAIL, INCLUDING THE PROPOSED ACTION, SO THAT REVIEWERS MAY EVALUATE THEIR COMPARATIVE MERITS.
- (3) INCLUDE REASONABLE ALTERNATIVES NOT WITHIN THE JURISDICTION OF THE LEAD AGENCY. COURT DECISIONS UNDER NEPA HAVE ESTABLISHED THAT THE DETAILED STATEMENT REFERRED TO IN SECTION 102 OF THE ACT MUST THOROUGHLY EXPLORE ALL KNOWN ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVES EVEN THOUGH THIS MAY LEAD TO CONSIDERATION OF EFFECTS AND OPTIONS OUTSIDE THE AGENCY'S ACTUAL CONTROL.

BY FAILING TO DISCUSS REASONABLY FORESEEABLE IMPACTS OR BY DISCUSSING THOSE IMPACTS IN A PERFUNCTORY MANNER, BLM DEFEATS THE PURPOSE OF THE STATEMENT AND LAYS ITSELF OPEN TO THE CHARGE OF NON-COMPLIANCE WITH THE ACT. THE STATEMENT SHALL ALSO STATE HOW ALTERNATIVES CONSIDERED IN IT AND DECISIONS BASED ON IT WILL OR WILL NOT ACHIEVE THE REQUIREMENTS OF SECTIONS 101 AND 102 OF NEPA AND OTHER ENVIRONMENTAL LAWS AND POLICIES.

LEASE STIPULATIONS ARE AN ADDITIONAL IMPORTANT MECHANISM FOR MINIMIZING THE ENVIRONMENTAL IMPACTS OF GAS EXPLORATION AND DEVELOPMENT ON THE KODIAK OCS. AS SUCH, THE RATIONALE OF ALASKA v. ANDRUS (supra, 580 F.3d at 474) REQUIRES THAT THE DEIS ALERT THE DECISION-MAKER TO THE PROBABLE EFFECTIVENESS OF EACH STIPULATION AND TO REASONABLE ALTERNATIVE STIPULATIONS. HOWEVER, THIS DEIS MAKES NO ATTEMPT TO DO THIS. INSTEAD, IT MERELY SETS FORTH THE CONTENT OF EACH STIPULATION AND ITS GENERAL RATIONALE (pp. 26-31). GIVEN THE IMPORTANCE OF THE STIPULATIONS TO THE PROPOSAL, THIS TREATMENT DOES NOT, IN OUR ESTIMATION, SATISFY THE REQUIREMENTS OF NEPA.

WE ALSO CONTEND THAT ANY DISCUSSION OF ALTERNATIVES MUST INCLUDE MANAGEMENT OF THE WATERS OFF KODIAK ISLAND PURSUANT TO OTHER FEDERAL STATUTORY SCHEMES, SUCH AS THE MARINE SANCTUARY ACT. THIS DEIS DOES NOT INCLUDE SUCH ALTERNATIVES AND ON THIS ISSUE THE DECISION OF THE COURT IN COMMONWEALTH OF MASS. v. ANDRUS, 594 F. 2d 872, 884-866 (1st Cir. 1979), IS UNEQUIVOCAL.

WE CONTEND THAT THE DRAFT DOES NOT ADEQUATELY ADDRESS THE CUMULATIVE IMPACTS OF THE PROPOSED ACTION. ESPECIALLY SINCE, AT MANY POINTS IN THE DOCUMENT, REFERENCE IS MADE TO THE POSSIBILITY OF CUMULATIVE EFFECTS OF LEASE SALE NO. 46 AND 60 IN CONCERT.

WE BELIEVE THIS DEIS FAILS TO CONSIDER THE CUMULATIVE IMPACTS OF LEASE SALES 46 AND 60 UPON THE NATURAL AND HUMAN ENVIRONMENTS OF KODIAK ISLAND. WE SUBMIT THAT BLM HAS FAILED TO ASSESS THE PROPOSED ACTION FOR ITS CUMULATIVE EFFECTS IN DIRECT VIOLATION OF NEPA, SEC. 102 (2)(C)(iv).

WE HOLD THAT LEASE SALE NO. 46, LEASE SALE NO. 60, ASSOCIATED PIPELINES AND TANKER ROUTES, AND THE DEVELOPMENT OF ONSHORE FACILITIES, INCLUDING TANK FARMS AND LNG PLANTS, TAKEN AS A WHOLE CAN BE EXPECTED TO HAVE SIGNIFICANT CUMULATIVE EFFECTS ON THE ENVIRONMENT OF KODIAK ISLAND AND ITS SURROUNDING WATERS FAR IN EXCESS OF THE IMPACT THAT WOULD BE GENERATED BY ANY ONE PROJECT STANDING ALONE.

OTHER INDEPENDENT PROJECTS NEED NOT ALWAYS BE CONSIDERED IN THE PREPARATION OF AN EIS FOR A PARTICULAR PROPOSAL. IF, HOWEVER, THERE ARE SEVERAL PROJECTS THAT WILL HAVE CUMULATIVE EFFECTS UPON A REGION SO THAT THE ENVIRONMENTAL CONSEQUENCES OF A PARTICULAR PROJECT CANNOT BE CONSIDERED IN ISOLATION, THE DECISION-MAKER MUST BE ALERTED TO THOSE CUMULATIVE IMPACTS (SEE KLEPPE v. SIERRA CLUB, supra, 472 U.S. at 409-10).

WE FURTHER CONTEND THAT THE DRAFT DOES NOT ADEQUATELY ADDRESS THE FULL RANGE OF

IMPACTS THAT MIGHT RESULT AS A CONSEQUENCE OF THE PROPOSED ACTION. ON P. 96 OF THE DRAFT A DISCUSSION OF SPILL FREQUENCY ESTIMATES INCLUDES THE STATEMENT THAT: "IN ALL CASES TANKER ROUTES INCLUDED ONLY DEPARTURES OF HYDROCARBON SHIPMENTS FROM THE GULF OF ALASKA, AND NOT ARRIVAL AT THE PORT OF DESTINATION, THEREFORE EXPOSURE TO TANKER SPILLS WAS HALVED."

WE FAIL TO UNDERSTAND THE SUPPORTING RATIONALE BEHIND SUCH A STATEMENT. DOES THIS ANALYSIS ASSUME THAT NO RISK IS INVOLVED ONCE AN LNG TANKER LEAVES THE GULF OF ALASKA? SIMPLY BECAUSE RISKS AT A DESTINATION DO NOT INVOLVE POTENTIAL HARM TO THE KODIAK ENVIRONMENT IS NO REASON TO EXCLUDE THEIR PROBABLE IMPACTS FROM ANY RISK ANALYSIS. FURTHERMORE, THE IMPACTS ASSOCIATED WITH LEASE SALE NO. 46 DO NOT STOP UNTIL PRODUCTS FROM THIS LEASE SALE REACH THEIR PORT OF DESTINATION AND ARE TRANSFERRED TO EXISTING FACILITIES AND CARRIERS. THIS EIS MUST ADDRESS ALL IMPACTS ASSOCIATED WITH THE SALE, NOT JUST THOSE THAT MAY INVOLVE THE KODIAK AREA ALONE. TO OMIT SUCH A SIGNIFICANT AREA OF COVERAGE SEEMS TO US TO BE AN OVERSIGHT NOT CONSISTENT WITH PROVISIONS OUTLINED IN THE NEPA PROCESS FOR THE REVIEW AND CONSIDERATION OF ALL ENVIRONMENTAL IMPACTS ASSOCIATED WITH THE PROPOSED ACTION. THROUGHOUT THIS DRAFT, BLM HAS AGAIN AND AGAIN NOT PRESENTED THE FULL SCOPE OF EVALUATION REQUIRED BY NEPA ON THE PREMISE THAT THEIR "ENCLAVE APPROACH" WILL NOT, IN THEIR JUDGEMENT, INVOLVE WHATEVER IMPACTS ARE IN QUESTION AT THE TIME. THE ASSUMPTION THAT A PREFERRED ALTERNATIVE WILL BE SELECTED DOES NOT ABSOLVE THE LEAD AGENCY (BLM) FROM DEVELOPING AND PRESENTING ALL IMPACTS ASSOCIATED WITH OTHER ALTERNATIVES.

ON P. 166, FOR EXAMPLE, THIS DOCUMENT AVOIDS ANY DISCUSSION OF UNAVOIDABLE ADVERSE EFFECTS RESULTING FROM ALTERNATIVE VI BY ADVOCATING AN ENCLAVE ALTERNATIVE. AT THIS POINT IN THE DRAFT, HOWEVER, IT IS PRECISELY THE ADVERSE EFFECTS OF ALTERNATIVE VI THAT SHOULD BE ADDRESSED. ADVERSE EFFECTS MIGHT INCLUDE ADDITIONAL FIRE

AND POLICE PROTECTION, WATER AND POWER REQUIREMENTS, SEWAGE AND LANDFILL NEEDS, IMPACTS ON SCHOOLS, HOSPITAL FACILITIES AND OTHER SOCIAL SERVICES. WE ARE CONCERNED ABOUT THE EFFECTS A "BOOM" ECONOMY MIGHT HAVE ON ABERRANT SOCIAL BEHAVIOR PATTERNS. WHAT WILL THE IMPACTS BE ON THE RATE OF ALCOHOLISM, CHILD ABUSE, DIVORCE, STRESS-RELATED HEALTH PROBLEMS, INCIDENCE OF BATTERED WIVES, ADC CASE LOADS, AND CRIME (ESPECIALLY CRIMES OF VIOLENCE, INCLUDING ASSAULT AND RAPE)? THESE POTENTIAL IMPACTS SHOULD BE ADDRESSED IN DETAIL. INSTEAD, BLM TELLS US THEY WILL NOT OCCUR IF WE PROMOTE THE ENCLAVE ALTERNATIVE.

WE NOTE, WITH SOME AMAZEMENT, THAT THE NO SALE ALTERNATIVE (P. 34) INCLUDES THE FIRST, LAST AND ONLY REFERENCE IN THE ENTIRE DRAFT TO THE POSSIBILITY OF BOROUGH RESIDENTS DERIVING DIRECT BENEFITS IN THE FORM OF NATURAL GAS AND SUPPOSED REDUCTIONS IN LOCAL HEATING COSTS AS A RESULT OF THE SALE. WE SUBMIT THAT THIS REFERENCE TO THE AVAILABILITY OF NATURAL GAS FOR KODIAK RESIDENTS APPEARING, AS IT DOES, ONLY UNDER THE NO SALE ALTERNATIVE, IS IN DIRECT VIOLATION OF SEC. 40 CFR 1502.2 (f) OF THE CEQ GUIDELINES WHICH STATES:

"AGENCIES SHALL NOT COMMIT RESOURCES PREJUDICING SELECTION OF ALTERNATIVES BEFORE MAKING A FINAL DECISION." ACCORDING TO THESE SAME GUIDELINES, A FINAL DECISION IS CONSIDERED PREJUDICED WHEN AN INTERIM ACTION "...TENDS TO DETERMINE SUBSEQUENT DEVELOPMENT OR LIMIT ALTERNATIVES."

WE CONTEND THAT TO INFER SUPPORT OF THE NO SALE ALTERNATIVE WILL PRECLUDE RESIDENTS OF KODIAK ISLAND FROM THE POTENTIAL BENEFITS OF USING NATURAL GAS WITHOUT INCLUDING THIS POSSIBILITY IN ANY DISCUSSION OF OTHER ALTERNATIVES OFFERED IS IN DIRECT VIOLATION OF THE ABOVE CITED CEQ GUIDELINE AND, THEREFORE, VIOLATES THE SPIRIT, IF NOT THE LETTER OF THE ACT ITSELF.

CEQ GUIDELINES ALSO CALL FOR THE INCLUSION OF APPROPRIATE MITIGATION MEASURES NOT ALREADY INCLUDED IN THE PROPOSED ACTION OR ALTERNATIVES. MITIGATION INCLUDES RECTIFYING THE IMPACT BY REPAIRING, REHABILITATING, OR RESTORING THE AFFECTED ENVIRONMENT.

ON P. 181 THE ASSUMPTION IS MADE THAT, DURING SUMMER, SPILL CLEANUP FEATURES COULD FUNCTION NEAR MAXIMUM EFFICIENCY BECAUSE OF PERIODS OF CALMER SEA STATES. NOWHERE ELSE IN THIS DRAFT IS THE SUBJECT OF CLEANING UP HYDROCARBON SPILLS EVEN ALLUDED TO. THE DRAFT DOES NOT EVEN REFERENCE OR DESCRIBE THE EXISTING OIL SPILL CONTINGENCY PLAN, LET ALONE EVALUATE THE CHANCES OF ACTUALLY CONTAINING AND CLEANING UP A SPILL. WE NEED TO KNOW JUST WHAT IS THE CAPABILITY OF THE GOVERNMENT AND INDUSTRY TO CLEAN UP A SPILL ON THE HIGH SEAS OFF KODIAK ISLAND. WE HAVE SERIOUS RESERVATIONS REGARDING THE ABILITY OF ANY AGENCY OR INDUSTRY TO COPE WITH A MAJOR SPILL OF POLLUTANTS ON THE KODIAK OCS.

BLM HAS INCLUDED A "WORST CASE" ASSESSMENT OF POTENTIAL IMPACTS ON ENDANGERED CETACEANS IN THIS DRAFT. HOWEVER, SINCE THE DRAFT WAS RELEASED SOME FOUR MONTHS AFTER THE EFFECTIVE DATE OF THE CEQ GUIDELINES, WE CONTEND THE WORST CASE ANALYSIS IS INADEQUATE UNDER PREVAILING REGULATIONS BECAUSE IT ONLY CONSIDERS EFFECTS ON ENDANGERED WHALE SPECIES. SINCE THE LATEST REGULATIONS ARE APPLICABLE TO THIS DRAFT, THE WORST CASE ANALYSIS MUST ALERT THE DECISION-MAKER TO THE COSTS OF UNCERTAINTY BEYOND ENDANGERED SPECIES.

CEQ GUIDELINES REQUIRE THAT BLM ADOPT REGULATIONS SUPPLEMENTING THE NEPA REGULATIONS AND SET UP PROCEDURES FOR THEIR IMPLEMENTATION NO LATER THAN EIGHT MONTHS AFTER PUBLICATION OF CEQ'S REGULATIONS. THE NEPA REGULATIONS WERE PUBLISHED NOVEMBER 29, 1978, AND BLM HAS NOT YET, TO OUR KNOWLEDGE, EVEN PUBLISHED PROPOSED PROCEDURES. IT IS IMPOSSIBLE FOR US TO DETERMINE WHETHER OR NOT THIS DRAFT HAS COMPLIED WITH

REQUIREMENTS WHICH HAVE NEVER, AS FAR AS WE KNOW, EVEN BEEN PUBLISHED. ANY FAILURE ON THE PART OF INTERIOR TO PUBLISH SUCH REGULATIONS AS REQUIRED BY 40 CFR 1507.3(a) RENDERS THIS STATEMENT INADEQUATE.

SECTION 1502.16 (e) OF THE NEPA REGULATIONS REQUIRES ANALYSIS OF THE ENERGY REQUIREMENTS AND CONSERVATION POTENTIAL OF THE VARIOUS ALTERNATIVES AND MITIGATION MEASURES. THIS DRAFT FAILS TO DISCUSS THE CONSERVATION POTENTIAL OF ALTERNATIVES AT ALL. WE BELIEVE SUCH AN OMISSION RENDERS THE DRAFT DEFICIENT WITH REGARD TO THE ABOVE CITED SECTION.

THE DRAFT STATES (P. 124) THAT SEVEN ENDANGERED WHALE SPECIES OCCUR IN THE PROPOSED KODIAK LEASE AREA FROM APRIL THROUGH NOVEMBER. PORTLOCK AND SOUTHERN ALBATROSS BANKS ARE TWO IMPORTANT FEEDING AND WHALE CONCENTRATION AREAS FOR SIX OF THE SEVEN SPECIES. NUMEROUS REFERENCES ARE MADE THROUGHOUT THE DRAFT TO ADVERSE IMPACTS OCS DEVELOPMENT MAY HAVE UPON ENDANGERED WHALE SPECIES. BLM CONCLUDES (P. 45) THAT IMPACTS ON ENDANGERED SPECIES AND IMPACTS OF ACCUMULATIONS OF EFFLUENTS ARE UNKNOWN.

WE SHARE A GENERAL CONCERN FOR THE WELL-BEING OF THE SEVERAL SPECIES OF WHALES THAT FREQUENT THE WATERS OFFSHORE FROM KODIAK ISLAND. IT WOULD APPEAR FROM THE DISCUSSION IN THIS DRAFT THAT ADVERSE IMPACTS TO THESE CREATURES CANNOT BE WELL DEFINED THROUGH LACK OF INFORMATION. WE DO NOT FAVOR ANY ACTION THAT WOULD FURTHER JEOPARDIZE THE EXISTENCE OF ANY ENDANGERED WHALE SPECIES.

SECTION 7 (a) OF THE ENDANGERED SPECIES ACT STATES, IN PART, THAT:

"EACH FEDERAL AGENCY SHALL, IN CONSULTATION WITH AND WITH THE ASSISTANCE OF THE SECRETARY (COMMERCE), INSURE THAT ANY ACTION AUTHORIZED, FUNDED, OR CARRIED OUT BY SUCH AGENCY...DOES NOT JEOPARDIZE THE CONTINUED EXISTENCE OF ANY ENDANGERED SPECIES... OR RESULT IN THE DESTRUCTION OR ADVERSE MODIFICATION OF HABITAT OF SUCH SPECIES."

ON PAGE 124 OF THIS DRAFT THE STATEMENT IS MADE THAT:

"IN ACCORDANCE WITH THE ENDANGERED SPECIES ACT, AS AMENDED, CONSULTATION HAS BEEN INITIATED WITH NMFS." WE HAVE BEEN ADVISED BY THE REGIONAL DIRECTOR OF THE NMFS THAT SUCH REQUIRED CONSULTATION HAS, IN FACT, NOT BEEN INITIATED BY BLM. WE ARE APPREHENSIVE THAT THIS LACK OF COMMUNICATION ON THE PART OF BLM MAY BE IN VIOLATION OF 40 CFR 1501.6(a)(1) AND SEC. 7(a) OF ESA AND MAY ALSO INDICATE THAT BLM HAS NEGLECTED TO FULFILL THE REQUIREMENTS OF SEC. 7(b) OF ESA AS WELL.

WHILE ADEQUATE KNOWLEDGE OF THE ULTIMATE EFFECTS OF THE PROPOSED ACTION IS NOT ESSENTIAL AT THIS TIME (IN FACT, IS UNAVAILABLE ACCORDING TO BLM), SEC. 7(a)(2) OF ESA REQUIRES THAT INTERMEDIATE ACTION SHALL NOT JEOPARDIZE THE CONTINUED EXISTENCE OF THESE WHALE SPECIES BEFORE FINAL ACTION IS APPROVED. PURSUING ANY ACTIVITIES RELATING TO OCS DEVELOPMENT OF LEASE SALE NO. 46 WITHOUT A COMPREHENSIVE BIOLOGICAL OPINION SCRUTINIZING THOSE ACTIVITIES AS REQUIRED BY SEC. 7(b) WOULD CONSTITUTE A FLAGRANT VIOLATION OF SEC. 7(a)(2), BECAUSE NO GROUNDS WOULD EXIST FOR INSURING THE SAFETY OF THOSE ENDANGERED WHALE SPECIES KNOWN TO OCCUR IN THE VICINITY OF THE PROPOSED LEASE SALE. SUCH AN ACTION ON THE PART OF BLM COULD ONLY BE CONSTRUED AS BOTH ARBITRARY AND CAPRICIOUS.

OUR EFFORTS TO DETERMINE WHETHER OR NOT THE BIOLOGICAL OPINION REQUIRED BY SEC. 7(b) WAS INCLUDED IN THIS DRAFT WERE HAMPERED BY THE FACT THAT THE STATEMENT CONTAINS NO LIST OF FEDERAL PERMITS, LICENSES AND OTHER ENTITLEMENTS WHICH MUST BE OBTAINED IN IMPLEMENTING THE PROPOSAL. SUCH A LIST IS, OF COURSE, REQUIRED BY 40 CFR 1502.25(b).

WITH REGARD TO IMPACTS ON OTHER MARINE MAMMALS, BLM CONCLUDES (P.122) THAT:

"THE MOST LIKELY ADVERSE IMPACTS ON MARINE MAMMALS WILL COME FROM HUMAN DISTURBANCE, ESPECIALLY AIR TRAFFIC DURING BOTH THE EXPLORATORY AND DEVELOPMENT PHASES OF OCS

OIL AND GAS ACTIVITIES. HARBOR SEAL POPULATIONS CONCENTRATED ON TUGIDAK ISLAND AND STELLER SEA LIONS ON MARMOT AND SUGARLOAF ISLANDS WOULD PROBABLY BE THE MOST ADVERSELY AFFECTED. INCREASED MORTALITY WILL OCCUR ALONG WITH INCREASED STRESS AND POSSIBLE ABANDONMENT OF IMPORTANT HABITAT AREAS." "AN ESTIMATED 20 PERCENT OF POPULATION REDUCTION COULD OCCUR."

THE MARINE MAMMAL PROTECTION ACT OF 1972 STATES, SEC. 2(2) "...IN PARTICULAR, EFFORTS SHOULD BE MADE TO PROTECT THE ROOKERIES, MATING GROUNDS, AND AREAS OF SIMILAR SIGNIFICANCE FOR EACH SPECIES OF MARINE MAMMALS FROM THE ADVERSE EFFECT OF MAN'S ACTIONS."

WE ARE INTENSELY INTERESTED IN THE RELATIONSHIP OF THE IMPACTS DESCRIBED IN THIS DRAFT WITH PROVISIONS FOR PROTECTING MARINE MAMMALS AS CONTAINED IN THE MARINE MAMMAL PROTECTION ACT. WE VIEW THE DISTURBANCES AND POTENTIAL FOR MORALITIES, ESPECIALLY TO PUPS, CITED IN THE DRAFT AS DIRECT VIOLATIONS OF THIS ACT SHOULD THEY BE PERMITTED TO OCCUR.

BLM HAS RIGHTFULLY ARGUED ELSEWHERE THAT A COST/BENEFIT ANALYSIS IS NOT REQUIRED BY CEQ REGULATIONS. WHILE NEPA DOES NOT REQUIRE SUCH AN ANALYSIS FOR COMPLIANCE WITH THE ACT, THE REGULATIONS DO REQUIRE THAT AN ENVIRONMENTAL IMPACT STATEMENT SHOULD AT LEAST INDICATE THOSE CONSIDERATIONS, INCLUDING FACTORS NOT RELATED TO ENVIRONMENTAL QUALITY, WHICH ARE LIKELY TO BE RELEVANT AND IMPORTANT TO A DECISION.

WE CONTEND THAT SINCE BLM HAS CHOSEN TO RELY UPON MARKET VALUE TO DETERMINE WHETHER OR NOT AN AREA SHOULD BE DEVELOPED, THUS LAYING OPEN TO QUESTION THE MONETARY WORTH OF THE PROPOSED ACTION, THAT IT IS INCUMBENT UPON BLM TO AT LEAST INDICATE THOSE CONSIDERATIONS LIKELY TO BE RELEVANT AND IMPORTANT TO A DECISION. WE HOLD THAT SUCH CONSIDERATIONS MUST, OF NECESSITY, INCLUDE SOME TYPE OF COST/BENEFIT ANALYSIS TO BE CONSISTENT WITH BLM'S OWN DECISION TO RELY UPON MARKET VALUE AS A MEASURE OF PROJECT WORTH.

BLM HAS ALSO ARGUED ELSEWHERE THAT THE USE OF NET ENERGY ANALYSIS AS A MEASURE OF PROJECT WORTH IS ONLY APPROPRIATE WHERE BTU CONTENT IS A BETTER MEASURE OF THE VALUE OF A RESOURCE THAN IS MARKET PRICE. BLM CLAIMS THAT BECAUSE OF NET ENERGY ANALYSES DE-EMPHASIZE OR EVEN IGNORE THE EFFECTS A VARIETY OF FACTORS HAVE ON THE "TRUE VALUE" OF A RESOURCE, MARKET VALUE PROVIDES A BETTER APPROXIMATION OF THE "VALUE" OF THE RESOURCE.

BLM FURTHER CLAIMS THAT IF THE NET MARKET VALUE OF EXTRACTING AND TRANSPORTING HYDROCARBONS FROM OCS LANDS REPRESENTS A NET LOSS, THEN THE AREA WILL NOT BE BID UPON IN A LEASE SALE. OF COURSE THIS STATEMENT IS PATENTLY UNTRUE BECAUSE AT THE TIME OF THE LEASE SALE THE RESOURCE IS, AS YET, LARGELY UNEXPLORED. A CASE IN POINT IS LEASE SALE NO. 39 IN THE NORTHERN GULF OF ALASKA. THUS, WHETHER OR NOT LEASES ARE SOLD CONSTITUTES NO INDICATION OF NET MARKET VALUE. IN ADDITION, BLM CLAIMS THAT NET ENERGY ANALYSIS IGNORES THE EFFECT SUCH FACTORS AS ENTROPY LEVEL HAVE ON THE "TRUE VALUE" OF A RESOURCE, WHEREAS MARKET VALUE MORE CLOSELY APPROXIMATES THIS "TRUE VALUE" FIGURE. UNFORTUNATELY, BLM NEGLECTS TO DEFINE "TRUE VALUE" SO WE ARE LEFT IN A QUANDARY WHEN TRYING TO ARRIVE AT ANY EVALUATION OF BLM'S RATIONALE BEHIND EQUATING RESOURCE WORTH WITH MARKET VALUE.

BLM ALSO CLAIMS THAT IF THE NET ENERGY VALUE OF DEVELOPING AN AREA REPRESENTS A LOSS, ONE WOULD STILL NEED TO RELY ON MARKET VALUE TO DETERMINE WHETHER THE AREA SHOULD BE DEVELOPED. THIS CONCLUSION IS ONLY VALID, OF COURSE, IF YOU HAVE ALREADY ACCEPTED THE PREMISE THAT MARKET VALUE WILL BE THE DECIDING FACTOR. IF, ON THE OTHER HAND, YOU ADOPT THE PREMISE THAT ANY SHORTFALL IN NET ENERGY RENDERS A PROPOSED ACTION UNACCEPTABLE, THEN BLM'S MARKETING ARGUMENT FAILS.

IN THE FINAL ANALYSIS IT MAY BE FAR BETTER TO DEFER THE DEVELOPMENT OF OCS PETROLEUM RESOURCES UNTIL SUCH TIME AS THE FEDERAL GOVERNMENT SEES FIT TO ADOPT A

NATIONAL ENERGY POLICY THAT CLEARLY SPELLS OUT THE ROLE OCS RESOURCES WILL PLAY IN THE OVERALL ENERGY PROGRAM FOR THE NATION, RATHER THAN TO RUSH INTO THE HAPHAZARD EXPLOITATION OF HYDROCARBON RESERVES IN SUCH ENVIRONMENTALLY CRITICAL AREAS.

IN ANY EVENT, SEC. 1502.14(2) OF THE CEQ REGULATIONS FOR IMPLEMENTING NEPA EXPRESSLY CALLS FOR THE 102 PROCESS TO INCLUDE THE ENERGY REQUIREMENTS AND CONSERVATION POTENTIAL FOR VARIOUS ALTERNATIVES AND MITIGATION MEASURES. THIS REQUIREMENT HAS NOT BEEN MET IN THE DRAFT FOR LEASE SALE NO. 46.

WE DRAW YOUR ATTENTION TO SECTION 18(a)(2)(B) OF THE OCS LANDS ACT, AS AMENDED, WHICH REQUIRES SELECTION OF PROPOSED LEASE SALES TO BE BASED ON CONSIDERATION OF AN EQUITABLE SHARING OF DEVELOPMENTAL BENEFITS AND ENVIRONMENTAL RISKS AMONG THE REGIONS. THE ACT CLEARLY REQUIRES THAT THE TIMING AND LOCATION OF SALES BE SELECTED IN A MANNER WHICH BALANCES THE POTENTIALS FOR ENVIRONMENTAL DAMAGE, OIL AND GAS DISCOVERY, AND ADVERSE IMPACTS TO THE COASTAL ZONE.

WE DO NOT BELIEVE LEASE SALE NO. 46 REPRESENTS AN EQUITABLE SHARING OF BENEFITS AS OPPOSED TO RISKS NOR DO WE BELIEVE THIS SALE REPRESENTS A BALANCE BETWEEN POTENTIALS FOR ENVIRONMENTAL DAMAGE AND ADVERSE IMPACTS TO THE COASTAL ZONE WITH OPPORTUNITIES FOR THE RECOVERY OF SIGNIFICANT HYDROCARBON RESOURCES, AS INDICATED BY BLM'S OWN DATA. WE SUBMIT THAT TO OFFER LEASE SALE NO. 46 FOR SALE AT THIS TIME REPRESENTS A DIRECT DEPARTURE FROM ESTABLISHED BLM LEASING PROCEDURE THAT NOT ONLY JEOPARDIZES OTHER RESOURCE VALUES BUT ALSO CONFLICTS WITH BLM'S ESTABLISHED LEASING GUIDELINES.

BLM GUIDELINES STATE THAT RESOURCE POTENTIAL, ECONOMIC BENEFITS, AND INDUSTRY INTEREST IN EXPLORATION ARE KEY DETERMINANTS OF WHERE SALES SHOULD BE LOCATED. THE GUIDELINES ARE EXPLICIT ON THIS POINT BUT FROM DATA PROVIDED IN THIS DRAFT EIS AND IN THE FES FOR BLM'S FIVE-YEAR SCHEDULE, WE CAN ONLY CONCLUDE THAT THE KODIAK SALE HAS A LOW RESOURCE POTENTIAL, DUBIOUS ECONOMIC BENEFITS, AND IS OF ALMOST NO INTEREST TO INDUSTRY.

THE KODIAK SALE RANKS 19 OUT OF 22 IN INDUSTRY'S RATING FOR RESOURCE POTENTIAL AND 21 OUT OF 22 IN INDUSTRY'S RATING OF INTEREST IN EXPLORATION. ACCORDING TO BLM, THE KODIAK LEASE SALE HAS THE LOWEST ESTIMATED GAS RESERVES OF ALL 15 REGIONS SLATED FOR SALE DURING THE FIVE YEARS COVERED BY THEIR 1980-85 SCHEDULE. FERC STATES THAT EVEN SHOULD THE MOST OPTIMISTIC ESTIMATES OF OCS NATURAL GAS RESERVES PROVE CORRECT, THEY WOULD DO VERY LITTLE TO OFFSET ANY FUTURE IMBALANCE BETWEEN NATURAL GAS SUPPLY AND DEMAND. THE DOE ESTIMATES THAT ONLY BEAUFORT SEA AND COOK INLET GAS PRODUCTION CAN BE PRODUCED AND MARKETED AT THIS TIME. THEY SAY ALL OTHER OCS GAS IN ALASKA WILL HAVE TO BE RE-INJECTED.

WE ARE DEEPLY CONCERNED BY BLM'S ADMISSION THAT SHIPMENT OF ALASKA OCS GAS BY LNG TANKER MAY REQUIRE MAJOR CONSTRUCTION OF LNG RECEIVING TERMINALS ON THE WEST COAST OF THE U.S., AND/OR CONSTRUCTION OF SUCH FACILITIES NEAR THE U.S., IN CANADA OR MEXICO (P. 50, FES, 5-YEAR SCHEDULE). THE STATEMENT THAT:

"ANOTHER POSSIBILITY IS THAT SOME LNG FROM ALASKA MIGHT BE EXPORTED IN EXCHANGE FOR HYDROCARBON IMPORTS TO OTHER AREAS OF THE U.S." IS ALSO SOMEWHAT DISCONCERTING, TO SAY THE LEAST.

WE CAN ONLY ASSUME THAT THE FIGURES AND STATEMENTS PRESENTED IN THESE DOCUMENTS REPRESENT THE LATEST DATA AND POSITION OF THE GOVERNMENTAL AGENCIES INVOLVED SINCE THEY ARE THE MOST RECENTLY PUBLISHED REPORTS. IF THIS IS INDEED THE CASE, THEN LEASE SALE NO. 46 FLIES IN THE FACE OF ALL REASON AND LOGIC.

WE SIMPLY CANNOT ACCEPT THE POTENTIAL ENVIRONMENTAL HAZARDS AND SOCIOECONOMIC DISRUPTION THIS SALE COULD HARBOR FOR KODIAK WHEN, ON THE BASIS OF THE GOVERNMENT'S OWN ANALYSES, IT IS ABSOLUTELY THE POOREST PROSPECT PRESENTED IN THE ENTIRE FIVE-YEAR SCHEDULE!!

FURTHERMORE, TO EVEN SUGGEST THAT ALASKAN OCS GAS MIGHT BE EXPORTED WHILE, AT THE SAME TIME, REPEATEDLY TOUTING THE SALE AS ONE STEP TOWARD U.S. ENERGY SELF-SUFFICIENCY, CAN ONLY BE VIEWED AS CRASS HYPOCRISY!!

IN CLOSING, WE CAN ONLY CONCLUDE THAT THIS DEIS HAS OBVIOUSLY BEEN PREPARED IN THE FACE OF A RIGOROUS DEVELOPMENT SCHEDULE, PRE-DETERMINED BY THE FEDERAL GOVERNMENT. WE CANNOT VIEW THIS DOCUMENT IN ANY REGARD OTHER THAN SIMPLY A JUSTIFICATION FOR DEVELOPMENT DECISIONS ALREADY MADE. THE TONE OF THE ENTIRE DRAFT IS DIRECTED TOWARD THE NEEDS OF AN AGENCY ACTING AS THE PROPONENT FOR OIL AND GAS DEVELOPMENT AND NOT, AS SHOULD BE THE CASE, AS THE STEWARD OF THOSE RICH AND VARIED ENVIRONMENTAL RESOURCES MORE PROPERLY MANAGED FOR THE BENEFIT OF THE COMMONWEAL.

THANK YOU!!

POSITION PAPER ON BLM GUIDELINES

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MARCH 4, 1980

and

MARCH 6, 1980

Position Paper on BLM Guidelines

Of the 22 Outer Continental Shelf Leasing Regions listed in Appendix 2 of the Draft Environmental Impact Statement for the proposed five-year OCS oil and gas lease sale schedule, March 1980 - February 1985, industry ranks the Kodiak region as 19 with regard to resource potential and 21 with regard to industry's interest in exploration. The BLM ranks the hydrocarbon potential of this sale area as 18 out of the 22 proposed sales. This lack of industry interest, coupled with the low estimate of resources involved, does not appear to be reflected in BLM's decision to offer lease sale No. 46 for bid at this time.

Sec. 18(2)(E) of the Outer Continental Shelf Lands Act expressly states that:

"(2) Timing and location of exploration, development, and production of oil and gas among the oil- and gas-bearing physiographic regions of the Outer Continental Shelf shall be based on a consideration of ---...(E) the interest of potential oil and gas producers in the development of oil and gas resources as indicated by exploration or nomination."

The total 3.2 million acres to be offered for sale under BLM's preferred alternative represents the second largest block of tracts proposed for sale in the fifteen geographic regions included in the draft EIS for BLM proposed five-year OCS lease sale schedule. This amount of offshore land is only exceeded by that proposed for the Gulf of Mexico, which ranks first in all respects. Thus we have 11 percent of the OCS lands proposed for leasing lying within the Kodiak sale area yet, according to BLM's own figures (Table II-2, DEIS for 5-year lease sale schedule) this area is estimated to contain only 1.19 percent of the anticipated oil reserves and only 1.11 percent of the anticipated natural gas reserves. Now that more recent data

indicate the area is essentially gas prone, with no anticipated oil production, the value of the area as a source of offshore hydrocarbon resources is further diminished.

In the DEIS for the proposed five-year OCS oil and gas lease sale schedule, March 1980 - February 1985, Appendix 1, BLM guidelines clearly outline a rationale for selecting areas in their descending order of importance when choosing lease sale proposals. This rationale and the accompanying guidelines do not appear consistent with the present action proposed in this DEIS.

The guidelines state, in part: "Sound energy policy calls for the leasing and development of areas yielding greater economic benefits earlier than less promising areas;" and, "Relative ranking of areas according to resource potential and industry interest in exploration provides a key to the probability of areas being hydrocarbon prone;" Appendix 1 of the document also calls for a thirty (30) month interval between sales in Category II-Successive Sales in areas outside Gulf of Mexico.

Although Shelikof Strait is not listed, the Kodiak, Gulf of Alaska and Cook Inlet regions all have been placed in Category II. While it is difficult to view Kodiak and Shelikof Straits as anything but frontier areas, especially with regard to the paucity of geophysical and environmental data available, even Category II requires a thirty (30)-month time span between successive sales.

Consequently it seems in direct conflict with BLM's own guidelines to plan for lease sale No. 60 along a time frame that almost parallels that of sale No. 46.

The statement that "First and second sales in an area are spaced at 3-year intervals" found in Appendix 1 referred to above is also not consistent with the schedule for lease sale No. 60.

Again, in the section on Location, BLM's own guidelines states:

"Resource potential, economic benefits, and industry interest in exploration

are key determinants of where sales should be located."

We submit that to offer lease sale No. 46 for leasing at this time represents a direct departure from established BLM leasing procedure that not only jeopardizes other resource values but also conflicts with BLM's established leasing guidelines. It would seem to us that the Nation's need for domestic sources of fossil fuels would be better served by the development of regions having a higher probability of yielding more energy reserves at a much lower level of environmental and economic risk.

Position Paper on Compliance with NEPA Process

After thoroughly reviewing the National Environmental Policy Act of 1969 and the Council on Environmental Quality's regulations on implementing National Environmental Policy Act procedures (40 CFR 1500-1508: 43 FR 55990, November 29, 1978; Amended January 3, 1979, Effective July 30, 1979), we submit that the Draft Environmental Impact Statement for Outer Continental Shelf Lease Sale No. 46 does not comply with the NEPA process in a number of significant respects. These variances are outlined in some detail below.

Alternatives

Aside from the "No Sale" alternative, the presentation of alternatives included in this DEIS represents only variations on a single theme and does not offer a full range of alternative courses of action that might include, but not be limited to:

1. Alternative lease sale areas having higher potential resource values but involving fewer potential environmental impacts.
2. Alternative energy source (s), including but not limited to wind, solar, geothermal, tidal and other sources of hydrocarbons both from within and without the continental United States.
3. Implementation of energy conservation measures that could provide comparable savings with less or no possible danger of environmental damage to other resources.
4. Rationing.
5. Full decontrol of natural gas prices.

Section 102 (2) (D) of NEPA expressly directs Federal agencies to:

"study, develop and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources."

40 CFR 1502.14 (a,b and c) directs the responsible agency to:

"(a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated."

"(b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits."

"(c) Include reasonable alternatives not within the jurisdiction of the lead agency."

The DEIS should include sufficient analysis of such alternatives and their costs and impacts on the environment so as to not prematurely foreclose options that might have less detrimental effects. An environmental statement should describe these alternatives in such a manner that reviewers can independently judge if the environmental impacts result from trying to gain maximum economic return or are inherent to the entire project.

This description not only requires complete alternatives that would accomplish the objective with less impact, but also non-structural alternatives and those that include elimination of certain "high environmental impact" aspects of the proposed action.

Court decisions under the National Environmental Policy Act have established that the "detailed" statement referred to in section 102 of the Act must thoroughly explore all known environmental consequences of alternatives to major proposed actions even though this may lead to consideration of effects and options outside the agency's actual control.

Viewed as simply an application of NEPA's "full disclosure" requirement, this

basic principle is meant to ensure that relevant officials and the public are alerted to the environmental impact of Federal agency action. See EDF v. Corps of Engineers, 2 ERC 1260, 1267 (E.D. Ark. 1971).

Furthermore, the range of impacts which must be considered cannot be limited to the traditional area of agency jurisdiction or expertise. NEPA in essence adds a new mandate to the enabling legislation of all agencies, requiring the development of environmental awareness for the full range of impacts of proposed agency action. By failing to discuss reasonably foreseeable impacts or by discussing those impacts in a perfunctory manner, an agency defeats the purpose of the statement and lays itself open to the charge of non-compliance with the Act. See, e.g., Calvert Cliffs v. AEC, 2 ERC 1779, 1782 (D.C. Cir. 1971) (purpose of statement is to aid agency in its decision and to fully inform other interested agencies and the public of environmental consequences); EDF v. Corps of Engineers, 2 ERC 1260, 1267 (E.D. Ark., 1971) (statement must alert President, CEQ, public, and Congress to all known possible environmental consequences); EDF v. Hardin, 2 ERC 1425, 1426 (D. D.C. 1971) (agency must undertake research in planning stage adequate to expose potential environmental impact); Ely v. Velde, 3 ERC 1286 (4th Cir. 1971) (genuine rather than perfunctory compliance with NEPA requires agency to explicate fully its course of inquiry, its analysis and its reasoning); NRDC v. Morton, 3 ERC 1558, 1562 (D.C. Cir. 1972) (statement is for the guidance of ultimate decisionmakers--Congress and the President--as well as agency, and must provide discussion of all reasonable alternatives). See, also, NRDC v. Morton, 3 ERC 1558, 2 ELR 20029 (D.C. Cir. 1/13/72). Here the court affirmed the district court's ruling that the Interior Department's 102 statement on a proposed sale of leases for oil and gas extraction on the Outer Continental Shelf was legally inadequate. The court held that the 102 statement was required to discuss the environmental effects of reasonable alternative courses of action, including courses of action not within the authority of the Department to adopt.

Environmental impact statements shall also state how alternatives considered in it and decisions based on it will or will not achieve the requirements of sections 101 and 102 (1) of NEPA and other environmental laws and policies (40 CFR 1502.2 (d) of CEQ guidelines).

Lease stipulations are an additional important mechanism for minimizing environmental impacts of gas exploration and development on the Kodiak Outer Continental Shelf. As such, the rationale of Alaska v. Andrus (supra, 580 F.3d at 474) requires that the DEIS alert the decision maker to the probable effectiveness of each stipulation and to reasonable alternative stipulations. However, the DEIS makes no attempt to do this. Instead, it merely sets forth the content of each stipulation and its general rationale (pp. 26-31). Given the importance of the stipulations to the proposal, this treatment does not, in our estimation, satisfy the requirements of NEPA. Important alternatives to the current stipulations are not addressed. For example, the DEIS does not consider the NMFS "Notice of Interpretation" applied to humpback whales in the Hawaiian Islands which includes, inter alia, flying less than 1,000 feet over a whale, bringing a vessel within 300 yards of a whale, or committing "any other act or omission that substantially disrupts the normal behavior pattern of the whale." (See 55 Fed. Reg. 1113-1114). A stipulation as to the allowable composition of drill muds (referred to on p. 29) that insures less toxic substitutes for some components might be included. Stipulations should require, not suggest, facilities be designed to withstand, at a minimum, ground accelerations predicted for seismogenic zone no. 23 (p. 100). We are concerned by the statement (p. 149, para. 3) in the DEIS that control strategies can minimize contaminant release well below that now permitted by EPA and USGS. We believe stipulations should require state-of-the-art technology in all areas of critical environmental concern. Without a consideration of alternative lease stipulations, the DEIS fails to satisfy the requirements of NEPA. It does not provide the decision maker with sufficient information to make a reasoned choice of alternatives regarding this aspect of the lease sale proposal.

Finally, we contend that any discussion of alternatives must include management of the waters off Kodiak Island pursuant to other Federal statutory schemes, such as the Marine Sanctuary Act. This DEIS does not include such alternatives and on this issue the decision of the court in Commonwealth of Mass. v. Andrus, 594 F. 2d 872, 884-866 (1st Cir. 1979), is unequivocal.

Cumulative Impacts

On p. 3 of the DEIS we read:

"A proposed sale in lower Cook Inlet and the northern part of Shelikof Strait is scheduled for September 1981. This means there are proposed sales on both sides of Kodiak Island."

and on p. 33, paragraph 4:

"The cumulative effects of the proposed OCS leasing on both the east and north-west sides of Kodiak Island may have additional impacts. The limited time separation of proposed sales 46 and 60 does not aid in joint planning of the onshore needs, which may increase the range or scope of the above mentioned onshore impacts."

and on p. 35 (b), paragraphs 1 and 2:

"Lastly, the cumulative socioeconomic and land use impacts of proposed sales 46 and 60 may be reduced because joint planning of onshore facilities will be possible."

"The cumulative impacts of sale 46 and 60 would be more likely if a delay were to occur. The sales could occur at about the same time, adding to the risk of combined events affecting the seas around Kodiak Island during exploration."

and on p. 37 (b), paragraph 4:

"OCS proposed sale 60, in combination with this alternative, may exert a cumulative impact on the Chiniak Bay area, but not as great as for the proposal (Alternative I). Because lease sale 60 is close to 46, the proposed Kodiak support and supply base may be used as part of the Cook Inlet/Shelikof Strait exploratory activities. The additional vessel traffic which would arise in this circumstances (sic) could

only aggravate what is perceived to be a complicated future vessel traffic system. Further, the physical size and labor contingent would probably expand from the dual use, thus causing increased impacts to the area's socioeconomic system."

and on p. 156, Cumulative Effects:

"With Alternative IV, the cumulative impacts of sale 46 and 60 may increase the scope of these effects (the amount of nearshore habitat affected) but it should not increase the magnitude of the impacts. Deletion of the northern portion from proposed sale 46 will not necessarily avoid all impacts on the adjacent nearshore area (Afognak Island and Marmot Bay) these areas may still be impacted by an onshore facility for proposed sale 60."

and on p. 161, (a), paragraph 2:

"Finally and most importantly, siting of the onshore facility in Chiniak Bay is most conducive (sic) to the possibility of joint development of onshore facilities for both proposed sales 46 and 60."

and on p. 161, Cumulative Effects:

"If the onshore facilities are located in Chiniak Bay it will facilitate the development of joint and/or adjacent facilities for both lease sale 46 and 60. Joint and/or adjacent onshore facilities for both lease areas will greatly reduce the scope (range) of the impacts of onshore facilities on the nearshore habitat."

From a review of the above statements, we can only conclude that lease sales 46 and 60 have a very significant potential for resulting in a cumulative impact(s) upon the offshore, coastal and human resources of Kodiak Island. We believe the proposed action is related to other actions (lease sale 60) having cumulatively significant impacts on the environment. We contend the significance of these actions cannot be avoided by separating them into small component parts.

Cumulative impact is defined by CEQ as:

"...the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." (40 CFR 1508.7)

We believe this DEIS fails to consider the cumulative impacts upon the natural and human environments of Kodiak Island of lease sales 46 and 60. We submit that BLM has failed to assess its proposed action for its cumulative effects on the environment in direct violation of NEPA, Sec. 102 (2)(C)(iv).

We hold that lease sale No 46, lease sale No. 60, associated pipelines and tanker routes, and the development of onshore facilities, including tank farms and LNG plants, taken as a whole can be expected to have significant cumulative effects on the environment of Kodiak Island and its surrounding waters far in excess of the impact that would be generated by any one project standing alone. Other independent projects need not always be considered in the preparation of an EIS for a particular proposal. If, however, there are several projects that will have cumulative effects upon a region so that the environmental consequences of a particular project cannot be considered in isolation, the decision maker must be alerted to those cumulative impacts. (See Kleppe v. Sierra Club, *supra*, 472 U.S. at 409-10).

In this case, consideration of cumulative impacts is essential if the decision maker is to be alerted to realistic possible consequences of the proposed action. The discussion of cumulative impacts need not be overly detailed; like other aspects of the EIS, it is governed by the rule of reason. The discussion must, however, furnish such information as appears reasonably necessary under the circumstances for project evaluation. (See NRDC v. Callaway, 524 F.2nd 79,88, 2nd Cir. 1975). The cumulative effects of other projects that can be expected to have similar impacts must be acknowledged.

"An agency may not...treat a project as an isolated 'single-shot' venture in the face of persuasive evidence that it is but one of several substantially similar operations, each of which will have the same polluting effect in the same area. To ignore the prospective cumulative harm under such circumstances could be to risk ecological disaster." (See NRDC v. Callaway, ID.) We submit that the DEIS for lease sale No. 46 fails to alert the decision maker to all possible environmental consequences of the proposal before him because it does not adequately consider cumulative impacts of the proposal in concert with proposed lease sale No. 60. This DEIS ignores many cumulative impacts and gives only cursory treatment to those it does address. Although the DEIS acknowledges the existence of potential cumulative impacts on some species; pink salmon, shrimp, razor clams, harbor seals, Steller sea lions, fur seals and sea otters, cumulative effects on other species such as endangered whales are not, in our estimation, adequately covered. In addition, where cumulative effects are discussed, the treatment often fails to provide the decision maker with information that is necessary to assess the possible environmental consequences of the proposal. In many cases, the discussions of cumulative impacts do not even alert the decision maker to the qualitative nature of likely cumulative effects. The discussion of cumulative impacts on endangered whales, for example, simply states that cumulative impacts will result (DEIS, p. 126).

"Cumulative Effects: Earlier exploration and development in lower Cook Inlet, sale 55 in the northern Gulf of Alaska, and the future sale 60 in the lower Cook Inlet/ Shelikof Strait, combined with the Kodiak sale 46, will increase the chances that hydrocarbon pollution, air and boat traffic disturbance, and possible accompanying development will adversely affect the endangered species that occur in the Gulf of Alaska. Since the endangered cetaceans are migratory whale populations that spend one season in Outer Continental Shelf areas in the north (Bering-Chukchi Seas and the Gulf of Alaska) they can be adversely effected (sic) by the combined OCS oil and gas development all along the Pacific Outer Continental Shelf."

An acknowledgement of the existence of cumulative impacts is not sufficient. The DEIS must alert the decision maker to the nature of those cumulative effects for the discussion to have utility.

Full Range of Impacts

On p. 96 of the DEIS a discussion of spill frequency estimates includes the statement that:

"In all cases tanker routes included only departures of hydrocarbon shipments from the Gulf of Alaska, and not arrival at the port of destination, therefore exposure to tanker spills was halved."

We fail to understand the supporting rationale behind such a statement. Does this analysis assume that no risk is involved once an LNG tanker leaves the Gulf of Alaska? Simply because risks at a destination do not involve potential harm to the Kodiak environment is no reason to exclude their probable impacts from any risk analysis. Furthermore, the impacts associated with lease sale No. 46 do not stop until products from this lease sale reach their port of destination and are transferred to existing facilities and carriers. This DEIS must address all impacts associated with the sale, not just those that may involve the Kodiak area alone. To omit such a significant area of coverage seems to us to be an oversight not consistent with provisions outlined in the NEPA 102 process for the review and consideration of all environmental impacts associated with the proposed action. (See above under Alternatives)

On p. 135 of the DEIS we read that:

"Cumulative effects on recreation and tourism in the Kodiak Archipelago would not be significant assuming an enclave approach to development of onshore facilities."

On p. 166 of the DEIS we read under Unavoidable Adverse Impacts that:

"There is no unavoidable adverse impact from Alternative VI because the population increase and its social effects can be avoided if the enclave concept is promoted by the community instead."

On p. 168 of the DEIS we read under Unavoidable Adverse Effects that:

"There is no unavoidable adverse impact from this proposal because this major economic stimulus to Kodiak can be avoided if enclave growth is promoted by the locality instead."

On p. 169 of the DEIS under Impacts on Visual Resources the statement is made that, under Alternative VI, certain offshore tracts in the southern portion of the lease visible from shore would be deleted. This discussion entirely omits a review of impacts to visible resources in the vicinity of onshore developments. Since this alternative assumes locating such developments on the Kodiak Island road system, impacts upon visual resources might prove to be of major consequence. The assumption that a preferred alternative will be selected does not absolve the lead agency (BLM) from developing and presenting all impacts associated with other alternatives. We also need to know what the impacts and cumulative effects will be if the enclave approach is not followed. Throughout this DEIS, BLM has again and again not presented the full scope of evaluation required under NEPA on the basis that their "enclave approach" will not, in their judgement, involve whatever impacts are in question at the time.

In the statement on p. 166 referred to above, this document avoids any discussion of unavoidable adverse effects resulting from Alternative VI by advocating an enclave alternative. At this point in the DEIS, however, it is precisely the adverse effects of Alternative VI that should be addressed. Adverse effects might include additional fire and police protection, water and power requirements, sewage and landfill needs, impacts on schools, hospital facilities and other social services. We are concerned about the effects a "boom" economy might have on

aberrant social behavior patterns. What will the impacts be on the rate of alcoholism, child abuse, divorce, stress-related health problems, incidence of battered wives, ADC case loads, and crime (especially crimes of violence, including assault and rape)?

These potential impacts should be addressed in detail. Instead, the DEIS tells us they will not occur if we promote the enclave alternative.

On p. 168 the statement under Cumulative Effects again avoids the issue by encouraging residents of Kodiak to support BLM's enclave proposal instead. Any discussion of effects must address the alternative under review, namely Alternative VI. We believe, based upon our interpretation of the NEPA 102 process, the CEQ guidelines cited above and relevant court decisions, that this DEIS does not adequately address the full range of impacts associated with the alternatives presented in the statement. Alaska shares with all the OCS states many concerns regarding the onshore impacts of OCS leasing, but only Alaska is cast in the almost non-participant role of resource exporter. Clearly, we in Kodiak must exercise great care to maximize the public benefit from use of our coastal lands and harbors. To do so means being fully prepared in advance to deal with proposals from the petroleum industry. We must anticipate industry's needs, environmental impacts and trade-offs as specifically as possible. The NEPA process should enable us to do just this by providing a document that, insofar as possible, addresses these concerns. Unfortunately, the DEIS for lease sale No. 46 falls far short of this need.

We list below, as an example, just some of the socioeconomic issues and potential impacts that we believe have not received the attention they deserve with regard to the non-enclave alternative. Other impacts, particularly those related to the natural environment and fishery resources, are covered elsewhere in our testimony.

Police: The presence of significant numbers of transient people in small communities is bound to add to the work load of local law enforcement officers. The rotation of work crews between offshore rigs and their destination outside the region and

visa versa requires that they spend some time in the local community. While their length of stay may normally be extremely short, weather conditions will sometimes prolong these stays, particularly for those people awaiting transport offshore.

Transient employees will include those constructing onshore facilities as well as personnel on rigs and supply boats. Depending on the location and type of facility being built, the number of personnel either living in or moving through Kodiak could be quite large. As many as 800 to 1,500 workers could be employed during the peak years of constructing an LNG plant and associated support facilities and pipelines. While it is assumed in this DEIS that such work crews would be housed in group quarters supplied by the industry, if these are in or near existing communities, the impact on local law enforcement capabilities could be substantial.

Kodiak's jail is already too small for a town this size, and the number of officers and dispatchers would have to be increased if the community were significantly impacted by petroleum development. Given the large area which the Kodiak state trooper detachment serves, the number of troopers here may also have to be further increased.

Medical: The petroleum industry generates relatively high job-associated accident rates, and the likelihood of serious accidents increases offshore. To handle such eventualities, not only must hospital facilities and medical personnel be available, but specialized equipment and additional training of personnel may also be required. While Kodiak has the local capacity to serve many of the health needs of its growing population, facilities and personnel would have to be augmented in the face of any major growth in patient load. The presence of the Coast Guard base does provide a decided advantage with regard to air search, rescue and emergency evacuation capabilities.

Water: Compared with the water needs of some seafood processors, the water requirements of offshore drilling rigs at first appear relatively modest. For example, a single shrimp-peeling machine commonly uses about 61,000 gallons of water per nine-hour day. There are presently close to 100 of these machines in Kodiak, although they do not necessarily all operate at the same time. However, while both fish processing plants and offshore rigs rely on a continuous flow of water, the latter's supply is delivered by boats which make very large but sporadic demands upon the onshore source (a supply boat normally carries about 150,000 gallons of water). To accommodate such demands, either water sources and distribution systems must be able to handle large flows or sizable onshore water storage capacity must be maintained.

Despite the fact that the Gulf of Alaska region has extremely heavy precipitation, the development of adequate water sources has proved to be a major problem in Kodiak and other nearby communities. Most streams are short with small watersheds and runoff is rapid in summer and minimal in winter. Ground water is generally either not available or is limited. Excessive drawdown of fresh water aquifers along the coast often results in saltwater intrusion. Given these conditions, the water requirements of the oil and gas industry could prove difficult to meet. Kodiak currently has an existing storage capacity of 253 million gallons. Although the system has a large capacity for a town of this size, demands on the system have increased at an accelerated rate during the past few years to a point where the present system cannot handle additional large consumers.

Solid Waste: Offshore rigs require onshore support for the disposal of trash. Supply boats bring solid waste ashore for disposal and onshore service bases contribute additional waste materials. The Kodiak landfill located on Mill Bay Road is restricted in its ability to accommodate large additions of waste primarily due to the lack of cover material.

Housing: If significant numbers of industry personnel are to be stationed in Kodiak outside of a work-camp or enclave type situation, government and industry will have to assist Kodiak to insure that these people are adequately housed. Otherwise, some of the common results of severe housing shortages ----soaring prices, overcrowding within units and an influx of temporary housing and trailers --- can be expected. Any significant increases in local population would require new construction.

We have similar concerns regarding the impacts of OCS development on other aspects of Kodiak's infrastructure and socioeconomic environment, both by Alternative VI and by all other alternatives as well. We do not believe this DEIS has adequately addressed these impacts as called for in the NEPA 102 process.

Commitment of Resources

P. 34, Alternative II, 6., paragraph 2, states, in part:

"The region (Kodiak) might be forced to continue its dependence on high cost heating oil, compared with low-cost natural gas if resources are not found as a result of this alternative."

We note, with some amazement, that this is the first, last and only reference in the entire DEIS to the possibility of Borough residents deriving direct sale benefits in the form of natural gas and supposed reductions in local heating costs as a result of lease sale No. 46.

We submit that this reference to the availability of natural gas for Kodiak residents appearing, as it does, only under the "No Sale" alternative, is in direct violation of Section 40 CFR 1502.2 (f) of the CEQ guidelines which states: "Agencies shall not commit resources prejudicing selection of alternatives before making a final decision." According to these same guidelines, a final decision is considered prejudiced when an interim action "...tends to determine subsequent development or limit alternatives.

We contend that to infer support of the "No Sale" alternative will preclude residents of Kodiak Island from the potential benefits of using natural gas without including this possibility in any discussion of other alternatives offered is in direct violation of the above cited CEQ guideline and, therefore, violates the spirit, if not the letter, of the Act itself.

Cost Effectiveness

We believe that it is incumbent upon any Federal agency to demonstrate that a proposed action is not only cost effective but also energy effective if that agency is to fully respond in an aggressive and positive manner to the Administration's mandates of energy self-sufficiency and conservation. Any treatment of environmental consequences of the proposed action, Sec. 102(2)(c)(i) of NEPA, shall include discussions of the energy requirements and conservation potential of various alternatives and mitigation measures (40CFR 1502.16(e) of the CEQ guidelines.

Private enterprise can write off the costs involved with exploration and development as tax deductions. But Federal agencies, dealing as they do with public resources and tax dollars, cannot legally or morally afford that luxury. It is absolutely necessary for any rational evaluation of lease sale No. 46, or any other lease sale for that matter, to demonstrate the relationship of expenditures to expected returns, not only for dollars spent but for energy expended. In other words, is there a reasonable expectation that the BTUs derived from development of the resource will exceed the BTUs required to develop, produce and transport the product to its ultimate point of consumption? If not, then the entire proposal is absolutely inconsistent with any rational energy program. Conservation of energy does not begin at the gas pump or stove burner. These links in the energy chain represent practically the final point at which any influence over energy use can be exerted.

Already vast amounts of energy have been expended with regard to lease sale No. 46. Energy has been expended on the construction of exploratory vessels, the exploratory cruises and drilling to date, other research efforts and studies; yes, even the jet

fuel and auto gas required to bring us together for this hearing. To date, lease sale No. 46 represents an energy deficit of considerable magnitude. Yet, nowhere in this DEIS do we find any estimate of the relationship between dollar expenditures and estimated return or energy required for that which might be gained. Simply, there is no measure of the cost effectiveness of the proposed action. Will lease sale No. 46 become part of the energy problem, or will it contribute to the solution of the energy crisis? How can any decision be made regarding the desirability of the proposed action without knowing the costs involved and relating them to the probability of a return that may or may not exceed the level of investment? The time has long past when we could disregard such relationships. We have given private enterprise the opportunity to recoup its costs in the area of energy development, we have even gone so far as to stand behind private corporations who flounder in the free enterprise system. Such recourse is not available to the Nation as a whole if we are to maintain our position as a dominant force in the world community. In the final analysis it may be far better to defer the development of OCS petroleum resources until such time as the Federal government sees fit to adopt a National Energy Policy that clearly spells out the role OCS resources will play in the overall energy development of the Nation, rather than to rush into the haphazard exploitation of hydrocarbon reserves in such critical environmental areas.

If the Bureau of Land Management cannot demonstrate, in its final environmental statement, that the proposed lease sale No. 46 has a reasonable probability of returning benefits that exceed costs in both real dollars and energy, then the only reasonable alternative is to cancel this sale.

Mitigation Measures

P. 25, Mitigating Measures in Place

40 CFR 1502.14 (f) calls for the inclusion of appropriate mitigation measures

not already included in the proposed action or alternatives. Mitigation measures listed in this DEIS (pp. 25-31) apply generally to all OCS lease sales. Specific measures applicable to lease sale No. 46, while alluded to from time to time throughout the document, are never clearly articulated. For example, the problem of OCS activities disturbing marine mammals to the point where mortality may occur (pp. 36 and 122) could quite possibly be mitigated through the establishment of air space reserves to prevent undue harrassment. It is this type of specific mitigation that is absent from the draft.

According to 40 CFR 1508.20(c), the term "mitigation" includes "rectifying the impact by repairing, rehabilitating, or restoring the affected environment." On p. 181 the assumption (Point 5) is made that, during summer, "spill cleanup features could function near maximum efficiency because of periods of calmer sea states." Nowhere else in the DEIS is the subject of cleaning up hydrocarbon spills even addressed. This DEIS does not even reference or describe the existing oil spill contingency plan, let alone evaluate the chances of actually containing and cleaning up a spill. Just what is the capability of the government and industry to clean up a spill on the high seas off Kodiak Island? We have serious reservations regarding the ability of any agency or industry to cope with a major spill of pollutants on the high seas off Kodiak Island.

Worst Case Analysis

CEQ guidelines (effective date, July 30, 1979) state, in part, that:

"When an agency is evaluating significant adverse effects on the human environment in an environmental impact statement and there are gaps in relevant information or scientific uncertainty, the agency shall always make clear that such information is lacking or that such uncertainty exists." (40CFR 1502.22)

The DEIS states, on p. 126, that:

"...considering the conflicting, subjective, and speculative nature of whale data

combined with glaring data gaps, no valid conclusion regarding impacts of oil and gas development on endangered whales can be made. For this reason a worst case assessment has been prepared (see Sec. IV.D.6.)." The BLM has prepared such a "worst case" assessment of potential impacts on endangered cetaceans in this DEIS (see p. 181). However, since this DEIS was released to the public on December 7, 1979, some four months after the effective date of the CEQ guidelines cited above, we contend the worst case analysis is inadequate under prevailing CEQ regulations because it only considers effects on endangered whale species. Since these regulations are applicable to this DEIS, the worst case analysis must alert the decision maker to the costs of uncertainty beyond endangered species.

POSITION PAPER ON ENDANGERED SPECIES

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MARCH 4, 1980

and

MARCH 6, 1980

Position Paper on Endangered Species

The Draft Environmental Impact Statement states (p. 124) that seven (7) endangered whale species occur in the proposed Kodiak lease area from April through November with Portlock and southern Albatross Banks being two important feeding and whale concentration areas for six of the seven species. The endangered gray whale and humpback whale are frequently sighted along the Kodiak coast and probably migrate regularly through the area. Large concentrations of blue whales are known to occur in the northern Gulf of Alaska southwest of Prince William Sound in the Portlock Banks area. A number of recently confirmed sightings of fin whales occurred off the eastern coast of Kodiak and Afognak Islands. The summer distribution of the sei whale is similar to that of the fin whale. Humpback whales concentrate on the Portlock and Albatross Banks. Right whales, probably the rarest of the endangered whale species, have been known to occur on Albatross Bank. The greatest number of sperm whales regularly occurs off Kodiak and along the Aleutians where they are generally associated with a sharp increase in water depth.

The Endangered Species Act of 1973 (as amended) states under Section 9, Prohibited Acts:

- (A) General, (1) that "it is unlawful for any person subject to the jurisdiction of the United States to....
- (B) take any such species within the United States or the territorial seas of the United States;
- (C) take any such species upon the high seas."

The Act further states under Section 3, Definitions, (19) "The term 'take' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

Page 124. "Noise from boat and air traffic, and from drilling and pipeline activities could affect cetaceans that are moving through the proposed Kodiak lease sale area."

Page 124. "Air and boat traffic cause at least temporary displacement and other disturbance reactions in cetaceans."

Page 124. "Although oiled cetaceans have not been observed, the nature of their skins suggest (sic) that they may be particularly vulnerable to noxious effects of surface contact with hydrocarbons such as gas condensates."

Page 125. "The gray and humpback whales which frequent nearshore areas such as Kiliuda Bay are the endangered species most likely to be affected by hydrocarbon pollutants from an onshore LNG facility."

Page 125. "...evidence indicates that whales may not be able to differentiate between hydrocarbon contaminated and uncontaminated food. Whales could ingest gas condensates along with plankton while surface feeding."

Page 125. "The effects of gas condensate ingestion or gas vapor inhalation on cetaceans are unknown."

Page 125. "The greatest potential indirect impacts from oil and gas activities on cetaceans would be possible contamination or reduction of critical food sources from acute or chronic hydrocarbon pollution especially in a nearshore area, such as near an LNG facility, and in important offshore feeding areas such as Portlock Bank."

"In the discussions of food sources of the endangered baleen whales, it was pointed out that most of these migratory whales, blue, fin, gray, and humpback whales are probably seasonal feeders relying almost entirely on the abundant food

sources of the Gulf of Alaska, Bering, and Arctic Seas for nourishment and living off the stored blubber reserves while migratory and while in their winter range. The destruction or contamination of large numbers of euphausiid and copepod crustaceans important food of fin, blue, sei, and right whales (especially blue and right whales), and the destruction of benthic amphipods, food of gray whales from hydrocarbon pollution would adversely affect the associated whale species forcing them to enter their wintering areas during the following season in a lean and possible stressed condition, perhaps causing significant reproductive failure and increased mortality.

"...any local or temporary contamination or destruction of plankton or other important food item would be an additional stress to an endangered or badly depleted whale population. The blue whale and right whale are in all probability the most endangered whale species that are found in the Gulf of Alaska.

These species are also "restricted feeders" preying on only a few specific species of plankton. Thus, the blue and right whales probably have the lowest tolerance to increases stress and mortality. The loss of only a few additional whales could reduce these species populations below the level of environment tolerance.

"Portlock and southern Albatross Banks (partly included in the proposed lease area) are important food source areas for six of the seven endangered whale species. Acute or chronic hydrocarbon pollution in these areas will have some adverse effects on the whales."

The DEIS concludes (p. 126) that "Considering the importance of the proposed Kodiak lease area as important endangered whale habitat, but also considering the conflicting, subjective, and speculative nature of whale data combined with glaring data gaps, no valid conclusion regarding impacts of oil and gas development on endangered whales can be made."

On page 45 of the DEIS we read that "For all alternatives except the no sale alternative...the impacts on endangered species and the impacts of accumulation of effluents are unknown."

We contend that if the impacts on endangered species and those due to an accumulation of effluents are unknown, then, at a minimum, the sale should be delayed until some idea of what these impacts are is available. The potential impacts to endangered species, particularly cetaceans, is of great concern to residents of Kodiak Island. We question the consistency of this statement with the intent of the Endangered Species Act of 1973 and regulations promulgated thereunder by the various concerned Federal agencies. We share a general concern for the well-being of the several species of whales that frequent the waters offshore from Kodiak Island. It would appear from the discussion in the DEIS that adverse impacts to these creatures cannot be well defined through lack of information. We do not favor any action that could further jeopardize the existence of any endangered whale species.

Section 7 (a) of the Endangered Species Act states, in part, that:

"Each Federal agency shall, in consultation with and with the assistance of the Secretary (Commerce), insure that any action authorized, funded, or carried out by such agency...does not jeopardize the continued existence of any endangered species...or result in the destruction or adverse modification of habitat of such species..."

On page 124 of the DEIS the statement is made that: "In accordance with the Endangered Species Act, as amended, consultation has been initiated with NMFS." On January 18, 1980, we conferred by phone with Mr. Frederick V. Thorsteinson, Director of the Division of Environmental Assessment, National Marine Fisheries Service, Alaska Regional Office, Juneau, Alaska, and confirmed the fact

that BLM did not contact NMFS with regard to endangered species until just several weeks ago, long after this DEIS was written and released. Recent events pertaining to the Beaufort Sea OCS lease sale may have sparked BLM's belated interest in consulting with NMFS on endangered marine mammals. We are apprehensive that such tardy communication not only may be in violation of 40 CFR 1501.6(a)(1) and Sec. 7(a) of ESA, but may also indicate that BLM has neglected to fulfill the requirements of Sec. 7(b) of ESA as well.

Because there appears to be no biological opinion from NMFS regarding endangered whale species (nor from the USFWS regarding endangered avian species), the decision maker cannot properly assess the intermediate and ultimate effects the proposed action will have on endangered cetaceans. While adequate knowledge of the ultimate effects of the proposed action is not essential at this time (in fact, is unavailable according to the DEIS), Sec. 7(a)(2) of ESA requires that intermediate action does not jeopardize the continued existence of these whale species before such action is approved. Pursuing any activities relating to OCS development of lease sale No. 46 without a comprehensive biological opinion scrutinizing those activities as required by Sec. 7(b) would constitute a flagrant violation of Sec. 7(a)(2), because no grounds would exist for insuring the safety of those endangered whale species known to occur in the vicinity of the proposed lease sale. Such an action could only be construed as both arbitrary and capricious. Our efforts to determine whether or not the biological opinion required by Sec. 7(b) was included in this DEIS were hampered by the fact that the statement contains no list of Federal permits, licenses and other entitlements which must be obtained in implementing the proposal. This list is, of course, required by 40 CFR 1502.25 (b).

POSITION PAPER ON MARINE MAMMALS

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Position Paper on Marine Mammals

The Draft Environmental Impact Statement states (p. 120) that: "Impacts of oil and gas activities on marine mammals in the Kodiak sale area will come primarily from the affects (sic) of human disturbance. Tens of thousands of Harbor seals, Stellar (sic) sea lions, and sea otters that frequent the coastal areas of the Kodiak Archipelago could be affected. Only the seals, sea lions, and sea otters that happen to be present at the specific site of the spill or leak as it occurs or shortly thereafter would be affected by the toxic pollutants."

"Potential impacts on harbor seals from oil and gas activities include injury or death through inhalation or ingestion of toxic hydrocarbons, disturbance specifically during pupping and molting, direct destruction of food sources from toxic hydrocarbons, reduced productivity of food sources and of the ecosystem in general, and chronic increase in environmental contaminants."

"Human disturbance especially air traffic over or near critical pupping grounds on Tugidak, as well as other pupping grounds, from oil and gas support traffic during both the exploratory and developmental stages of OCS activity could have significant adverse effects on harbor seals in the proposed Kodiak lease area. Noise disturbance from low flying aircraft especially helicopters over Tugidak rookeries causes mass and rapid exodus of several thousand adult seals from the beach into the water. If this occurs during the pupping season (mid-May through mid-July), significant pup mortality (20 percent estimated) can occur from trampling of pups by panicking adults and by abandonment of pups by mothers.

Pups that are deserted on the beach during the disturbance are often not recognized by the mother when hauling out reoccurs after the disturbance is gone. The separation of new born pups from mothers is usually fatal for the pups since recognition of mother and pup takes time to establish. Harbor seals may also be sensitive to disturbance during their molting period from mid-August to mid-October."

"Inhalation of toxic hydrocarbon vapors at the site of a spill could be fatal to harbor seals that happen to be present at the specific site and at the time of a spill. Places where this situation can occur are near drill platforms, along pipeline routes, and near LNG plants. Because pipeline burial disturbs bottom sediments and often attracts and increases marine organisms along the specific route, harbor seals may be attracted to the pipeline route increasing the chances of direct contact with toxic gas or gas condensates should a pipeline leak occur."

"Impacts on sea lions from OCS oil and gas activities will be similar to those described for the harbor seal. Disturbance of several thousand sea lions during the pupping and breeding seasons (May-June) at important hauling out grounds on Marmot Island and Sugarloaf Island of the Barren Islands could have an adverse effect on sea lion populations. Frequent aircraft traffic, especially helicopters, flying over or near Marmot Island will cause disturbance of sea lions during the pupping season and could cause increased pup mortality and perhaps cause abandonment of important breeding and pupping grounds."

"Sea otters are most vulnerable to local nearshore hydrocarbon pollution because of their sedentary (sic) habits and reliance on relatively local populations of benthic food organisms. Locating an LNG facility on Afognak or Shuyak Island could have an adverse effect on sea otters near the site locations. The chances that sea otters would come in contact with and be affected by gas and gas condensates from an LNG plant or pipeline terminal in their home range is greater

than the probability that other marine mammals would be affected in that area.

There are an estimated 2,000 sea otters located in the waters off Kodiak Island."

The DEIS concludes (p. 122) that "The most likely adverse impacts on marine mammals will come from human disturbance, especially air traffic during both the exploratory and development phases of OCS oil and gas activities. Harbor seal populations concentrated on Tugidak Island and Stellar (sic) sea lions on Marmot and Sugarloaf Islands would probably be the most adversely affected. Increased pup mortality will occur along with increased stress and possible abandonment of important habitat areas."

"An estimated 20 percent population reduction could occur." "Impacts from other OCS oil and gas activities such as the lower Cook Inlet sale and Gulf of Alaska sale No. 55, as well as future sales in the Gulf in addition to proposed sales No. 46 and No. 60, could result in a multiplication of impacts on marine mammals in the Gulf of Alaska. Further oil and gas development and accompanied development will increase human disturbance of marine mammals..."

The DEIS cites as unavoidable adverse effects (p.122) the fact that "Harbor seals and sea lions will be unavoidably disturbed in haul-out areas increasing pup mortality and increasing stress on adult seals and sea lions."

The Marine Mammal Protection Act of 1972 states, Sec. 2(2) "... In particular, efforts should be made to protect the rookeries, mating grounds, and areas of similar significance for each species of marine mammals from the adverse effect of man's actions." Title I of the Act states, Sec. 101(a) "There shall be a moratorium on the taking...of marine mammals...commencing on the effective date of this Act..." The Act further states, Sec. 3(13) "The term 'take' means to harass, hunt, capture, or kill, or attempt to harass, hunt, capture or kill any marine mammal."

The Act still further states, Sec. 102(a) (1) that it is unlawful "for any person subject to the jurisdiction of the United States or any vessel or other conveyance subject to the jurisdiction of the United States to take any marine mammal on the high seas." And in Sec. 102(a) (2) (A) "For any person or vessel or other conveyance to take any marine mammal in waters or on lands under the jurisdiction of the United States; or (B) for any person to use any port, harbor, or other place under the jurisdiction of the United States for any purpose in any way connected with the taking...of marine mammals..."

We are intensely interested in the relationship of the impacts described in this DEIS with provisions for protecting marine mammals as contained in the Marine Mammal Protection Act of 1972. We view the disturbances and potential for mortalities, especially to pups, cited in the DEIS as direct violations of this Act should they be permitted to occur.

We agree that locating an LNG facility on Afognak or Shuyak Islands could adversely affect sea otters inhabiting these locations. We are deeply concerned with the conclusion that mortality will occur as a result of OCS related disturbances and believe that important habitat areas should receive protection.

We view a 20 percent reduction in these marine mammal species as unacceptable and question the overall effect on marine mammals as being "moderate" (p. 122) in view of this anticipated reduction in their numbers. Should the "unavoidable adverse effects" mentioned on p. 122 actually occur, as projected on the probability of 1.1 major oil spills during the life of the project, they would seem in direct contradiction of the intent of the Marine Mammal Protection Act.

Position Paper on Environmental Concerns

Section 20(a)(1) of the OCS Lands Act (PL95-372) requires that a study be made of any area or region included in any oil and gas lease sale in order to establish information needed for assessment and management of environmental impacts on the human, marine, and coastal environments of the Outer Continental Shelf and the coastal areas which may be affected by oil and gas development in such area or region. In addition, Section 20(a)(3) requires that, to the extent practicable, such a study shall be designed to predict impacts on the marine biota which may result from chronic low level pollution or large spills associated with Outer Continental Shelf production.

The series of Kodiak Interim Synthesis Reports prepared under the auspices of the Outer Continental Shelf Environmental Assessment Program (OCSEAP) provides some baseline data dealing with a number of physical and biological parameters bearing on the proposed leasing of OCS lands off Kodiak Island for oil and gas development. The results of these studies, while incomplete in many respects, have served to identify features of the biotic and abiotic environment that either demand particular consideration in the event oil and gas development should occur on the OCS or strongly predicate against such development altogether.

Seismicity

The problem of seismicity has not been adequately dealt with in this DEIS. While much information has been accumulated as a result of the OCSEAP program, this information has either not been applied to the potential for seismic interference to OCS development or has been attenuated to the point of uselessness to the decision maker.

The draft OCSEAP report states (p. 26) "It is, therefore, within the realm of possibility to have a great earthquake occur in the Shumagin seismic gap during the course of petroleum industry development on the Kodiak OCS."

On p. 32 of the same report we read "...the potential is high for damage to pipelines in shallow water and shoreline facilities in bays around Kodiak Island. The Kodiak shoreline, and particularly bays such as Marmot, Chiniak, Ugak, and Kiliuda Bays, are exposed to tsunamis generated anywhere in the Pacific, and especially to those generated in the highly earthquake-prone Aleutian/Alaska seismic belt."

And, on p. 34, we read "The proximity of the Kodiak shelf and Shelikof Strait lease areas to the active subduction zone of the Alaskan margin and its attendant seismicity places the region in a high earthquake risk category. Very large, destructive earthquakes (magnitude greater than 8) have occurred near the Kodiak shelf, and the major damage experienced resulted from tsunamis rather than ground shaking. The tectonics of the region suggest the possibility for a very large earthquake to occur in the Shumagin seismic gap ... so the risk of damage caused by severe ground shaking and tsunamis around Kodiak Island is indeed present." Other than to suggest that onshore facilities be placed more than 50 feet above sea level, this DEIS barely recognizes a seismic problem exists. Mitigation measures regarding the crossing of active fault zones by pipelines and the design of offshore structures to withstand expected acceleration rates should be addressed. We are hopeful that the seismic risk assessment now being prepared by the U.S. Geological Survey will be included in the final EIS for lease sale No. 46.

Shoreline Vulnerability

At least 70 percent of the Kodiak Island coastline falls into categories 6-8 as described by Hayes and Ruby (1979) in the 1980 Kodiak Synthesis report. Should coastlines in these categories become impacted by hydrocarbons, they have an estimated spill longevity of from one to eight years. Due to the complexity and frequency of changes in coastline characteristics, the entire archipelago can be considered a high risk area. Furthermore, during periods

of low wind and wave energy, particularly in summer, many areas of low vulnerability become high risk areas as well.

While the oil risk analysis indicates the expected probability of an event reaching the coast, the potential impacts such an accident would have on beaches in various vulnerability categories have not been analyzed.

Biological Aspects

The importance of commercial fishing to the regional economy is underscored by the annual value of the Kodiak area's catch to fishermen, estimated at \$92 million in 1978. Commercial fishing and fish processing industries comprise the most important sector of the Kodiak economy. In 1977 they accounted for 36 percent of the total payroll for non-agricultural industries and involved about 40 percent of the non-agricultural work force (Alaska Department of Labor).

The OCS area is heavily utilized for feeding by spring and summer resident populations of birds, such as black-legged kittiwakes and tufted puffins; winter resident populations, such as mallards, oldsquaws and Steller's eider, and transient populations of short-tailed and sooty shearwaters. Shearwaters dominate the spring/summer pelagic bird community, comprising about 84 percent of the estimated total number of birds present offshore and 83 percent of the biomass. Over 1.8 million shearwaters were estimated to occur on the shelf east of the Kodiak Archipelago between May and September 1977. These birds feed in open shelf waters on pelagic organisms and obviously are important, even though transient, consumers of shelf productivity.

Marine mammals are abundant throughout the region and extensively utilize the available habitats and resources for feeding and pupping activities. Steller sea lions, harbor seals and sea otters are the most visible and probably dominate ecologically. Several species of cetaceans, including seven endangered species, migrate through and feed on the shelf or offshore. Some species, such as the Dall porpoise and humpback whale, may also use the shelf area for calving.

Sustenance and growth of these large and varied animal populations require mechanisms of food availability, high levels of productivity at lower trophic levels, and effective mechanisms of resource partitioning, both in the pelagic and benthic environments. Because of the emphasis of OCSEAP research on species of economic or aesthetic value, systematic studies on lower trophic levels, primary productivity, or studies to determine the functional roles of the ecologically important species have not yet been undertaken. For example, there are now limited data to suggest that natural changes toward small phytoplankton, notably flagellates, occur in the marine environment as a result of various forms of pollution, including petroleum.^{1/} Thus it is not unreasonable to postulate that the release of hydrocarbons in oceanic areas could cause a decrease in harvestable fish through the indirect interference with natural food webs.

It is well recognized that marine biota, most notably plankton, are not evenly or randomly distributed. Many species or taxa populations are spatially clumped or aggregated in the form of patches. The patchiness of plankton and other small food organisms is also manifested in the selection of foraging areas and feeding strategies of various bird, mammal and fish species. Any predictive model attempting to describe the effects of a pollution incident must account for this phenomenon of biological distribution. We see no evidence of this in the DEIS for lease sale No. 46.

Commercial Fisheries

Highly variable catches of commercial fish and shellfish species are not unusual phenomena and should be expected. The level of exploited fish stocks reflects not only a natural variation in numbers due to a number of ecological factors but also responds to man-induced mortalities as well. It would be extremely difficult, if not impossible, to isolate nondramatic effects of OCS oil and gas activities from other factors governing the population levels of the commercially

harvested species. There are, however, several notable features of seasonal and area-specific activity during the life cycles of many of these species that must be considered in regard to future petroleum development. For example, there are six relatively distinct stocks of king crab around Kodiak Island. Crabs of one stock are believed to move to particular inshore areas for spawning, fertilization and early development. Following the mating season, adults move back offshore to specific deep water areas. This aspect of the life history has important implications, as depletion or significant reduction of one stock (as a possible result of OCS activities) is not expected to be compensated through juvenile recruitment and migration of adults from other stocks. The coastal and shelf environments around Kodiak Island are heavily utilized by salmon. On the average, 11.6 million fish return to the Kodiak area annually from the open ocean to spawn and complete their migratory cycle. An estimated average of 300 million juvenile salmonids enter the Kodiak marine environment annually. Salmonids enroute from offshore waters to their spawning grounds segregate spatially and temporally within the coastal zone before entering specific streams. The return to a spawning stream occurs at about the same time each year and is believed to be a function of genetic makeup and environmental cues such as temperature and olfactory stimuli resulting from highly dilute organic substances in combinations peculiar to each spawning stream. These cues are probably either inherited as part of each fish's genetic makeup and/or imprinted at early life stages prior to the juvenile salmonids leaving their natal stream. Because of their reliance on environmental cues to locate spawning areas, contamination of the environment or impairment of the habitat may interfere with salmon migration and reproduction. Such interference, depending on its extent and duration, could cause the loss of a year class or an entire breeding population.

Recognizing the importance and economic consequences of potential adverse impacts of OCS oil and gas development on regional fisheries, OCSEAP initiated several research studies to address these issues and to obtain data that would complement the information base already possessed by different fisheries management agencies. Two studies of the density distributions of ichthyoplankton, planktonic fish eggs, and decapod larvae on the shelf and in selected bays, and one quantifying fish trophic relationships are expected to be completed in FY81. Despite research efforts to date, however, it is still virtually impossible at this time to distinguish among natural causes of fish population or community change (Hameedi, 1979).^{2/} In effect, a wide spectrum of environmental factors continuously molds the composition and abundance of specific populations and communities and our understanding of the interactions among these factors on the Kodiak shelf is only rudimentary.

For this reason, we contend that any reference to various compensatory funds being available for mitigating Kodiak fishermen for losses in income due to some perturbation of fishery resources by OCS oil and gas development is simply a means of lulling us all into ataraxia. If the magnitude of the OCS related impacts cannot be measured and losses determined, then it follows that fishermen cannot be compensated, despite all the best of intentions.

Contaminant Transport

Oceanographic studies conducted under the auspices of OCSEAP have provided a substantial amount of data to help describe shelf and oceanic circulation of marine waters off Kodiak on a seasonal basis. These studies provide some insight into the diffusive and advective processes affecting the dispersion and trajectories of contaminants released in the event of an accidental spill of hydrocarbons at sea.

Based upon this research, models describing the distribution and movement of hydrocarbon contaminants at sea have been developed. Unfortunately, since no

oil reserves are now anticipated for this area, the utility of such models is limited to accidental spills from vessel traffic on the shelf and along tanker routes to and from the lower Cook Inlet area. In short, the models will not adequately describe contaminant distribution of such substances as liquid gas condensates.

Nowhere in this DEIS have we seen the critical issue of coastal and nearshore ecosystems addressed directly. Ecological balance within the entire region and, consequently, the area's biological productivity can be disrupted by adverse impacts on species of functional significance in the ecosystem. These species, however, may not be the ones for which most data have been obtained, i.e. those of commercial, sport or aesthetic value. The identification of functional species requires intensive study of local ecosystems. The sites of such studies should be selected on the basis of realistic estimates of the nature and amount of potential contamination and habitat disturbance likely to accompany OCS development. Such information is not currently available in this DEIS.

Ecological Unity

For many of the reasons cited above, the entire east coast of the Kodiak Archipelago and its adjacent shelf waters can be considered unique and highly productive habitat. The most obvious feature of the coastline and shelf waters is the abundance and richness of the associated biota, a large portion of which sustains the several U.S. and foreign commercial fisheries. Additionally, there are the areas that are noted for fish and shellfish reproduction and larval aggregation. Other areas represent migratory corridors for fish, shellfish, birds and mammals, or those that pose serious geological hazards or are conducive to the long-term retention of contaminants.

In view of the obvious overlap in population distributions along the Kodiak OCS and the high productivity of the entire region, it is not advisable to delineate any specific region as being more significant than any other in terms of its

susceptibility to impact or as having a higher recovery potential from contamination or serious damage. Thus, there exists no biological basis for dividing the sale area into the three segments portrayed in this DEIS as alternatives IV, V, and VI.

Impact Analysis

The impact on biota at the spill location, and along the spill trajectory to its end, will depend upon the relative amount of toxic fractions at various locations and times after the spill as well as upon the seasonal abundance of the biota. Without this information, it would be highly speculative, and probably improper, to provide estimates of environmental damage.

Typically, impacts will include one or more of the following:

1. Direct mortality in the water column and on the coast;
2. Sublethal, and maybe long lasting, effects on biota, particularly those that affect physiological functions or result in behavioral aberrations;
3. Possible effects on species succession or competition, thereby affecting normal phenology and/or ecological balance;
4. Indirect effects through ingestion of contaminated food or loss of feeding grounds; and
5. Synergistic effects of oil or gas pollution with pathogens, municipal sewage and other contaminants.

The Kodiak Archipelago and adjacent shelf waters are noted for high biological productivity, a number of unique habitats, and the seasonal occurrence of some endangered species. The entire coastline is a high risk area with regard to threats from hydrocarbon pollution. A variety of probable impacts on the natural environment and biota will occur as a result of normal OCS operations and activities. In addition, the relatively high probability of the occurrence of a major earthquake during the life of OCS development in this area poses a substantial risk to OCS-related facilities and the environment.

The current data base, as portrayed in the OSCEAP synthesis reports to date, is not complete. We understand that additional data and reports will become available before the planned sale date (December, 1980) for lease sale No. 46. We believe these additional studies should be incorporated into the decision-making process to a much greater extent than has been the case to date.

1/ Dickie, L.M., 1973. Management of fisheries: ecological subsystems.

Trans. Am. Fish. Soc. 102:470-480.

Fisher, N.S., 1976. North Sea phytoplankton. Nature, London. 259:160.

2/ Hameedi, M.J., 1979. Kodiak Marine Environment and Planned Petroleum

Development. OCSEAP, P.O. Box 1808, Juneau, Alaska 99802 (unpub. rpt., processed).

Biological Impacts

Section 1502.24 of the CEQ guidelines provides that:

"Agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements. They shall identify any methodologies used and shall make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the statement."

The following examples illustrate several of the numerous statements that are very significant and are listed as "facts" without any citation of authority which can be challenged. There are no footnotes stating the source of information and we cannot effectively challenge such statements without knowing their source or how they were derived. Unsubstantiated "facts" appear on pp. 32, 37, 40, 41, 43, 44, 121, 122, 123 and 162, among others.

This DEIS is inadequate because it fails to identify the methodologies used to arrive at the above conclusions and fails to make explicit references by footnote to the scientific and other sources relied upon, as required by Section 1502.24. We submit that the "scientific integrity" of this DEIS has not been insured, as required by NEPA regulations.

In addition, the relative sensitivity of the alternatives to environmental impacts presented in the matrix following p. 43, is simplistically displayed with no supporting quantitative information, analysis, or interpretation.

Position Paper on Commercial Fisheries

The subject of potential OCS related impacts on Kodiak's commercial fishery resources and commercial fisheries is addressed at numerous points throughout the Borough's testimony with regard to specific concerns raised by the DEIS. In this position paper we will limit our remarks to an overview assessment of potential resource-use conflicts and emphasize several major issues which were either inadequately addressed or entirely omitted from the DEIS for Lease Sale No. 46.

Overview

Resource-use conflicts could arise from three sources: interference with fishing activities, the detrimental effects on marine organisms stemming from chronic low level pollution, or a major pollution event. The potential for conflict between OCS development and fishing activities is greatest in the Kodiak area. Fisheries here are carried out the year round, with many occurring simultaneously. Interference could result from the presence of drilling rigs or fixed platforms located in prime trawling areas. If undersea structures are not buried or carefully protected, both domestic and foreign trawling operations could be severely impacted. Deep water ports, their fairways and zones of exclusion could usurp immensely valuable fishing grounds. Gear losses, due to increased vessel traffic, could be substantial, especially in the pot fisheries. Cook Inlet experiences have shown that crab pot buoys can be overrun, cutting them off, and thus making it impossible for fishermen to relocate their gear. Certain fisheries might also have an adverse impact on OCS activity itself. For example, a major spill might result should a foreign trawler encounter and rupture an inadequately buried pipeline.

We are apprehensive about the ability of the scientific community to develop information adequate to support decisions for petroleum development in the western Gulf of Alaska area in the time span allotted before lease sales are put up for bid.

There is a need to acquire more experience and knowledge of the effects on marine resources of OCS oil and gas development in frontier areas. Information basic to understanding effects and formulating recommendations to minimize oil and gas development impacts has not yet been acquired. In fact, baseline studies which would provide a major share of this information have only recently been initiated in many cases and few are complete. We recognize that baseline studies are necessary but we believe they must be evaluated in terms of providing the ability to detect change - whatever its cause. We are skeptical that enough information can be developed within the short time allotted to determine natural variations in stocks of marine organisms. Given our present state of understanding, changes that could be attributable to effects of petroleum development must be of catastrophic magnitude. Statistically valid baselines with reasonable levels of precision must be developed and the physiological effects of petroleum pollution must be determined to predict how and when marine resources may be impacted and to what extent. With particular regard to the proposed leasing area included in Lease Sale No. 46, we believe the areas along the northeast, east, and south end of Kodiak Island to be of special biological significance and enormously productive of extremely valuable living marine resources.

Our review of this DEIS has revealed major defects which we believe render it inadequate as a decision-making tool. Therefore, we recommend that the fishery resources and fishing industry of Kodiak Island be protected from the impacts of OCS-related activities by adoption of the "No Sale" alternative at this time. Our reasons for this recommendation are as follows:

1. There exists clear laboratory and field evidence that relatively low levels of petroleum pollution are harmful to larval and juvenile forms of fish and shellfish and can affect behavior and growth of pink salmon fry. Pink salmon are the dominant salmon species occurring along the east and south sides of Kodiak Island.

2. The Kodiak Island shelf region contains very important spawning grounds and nursery areas that produce about 90 percent of the Kodiak king crab catch, over 70 percent of the tanner crab catch, over 85 percent of the shrimp catch and over 50 percent of the Dungeness crab catch.
3. The streams and bays along the east coast of Kodiak produce and provide nursery areas for about 60 percent of the area's salmon catch.
4. The estuarine and intertidal areas and associated biota of Kodiak Island are important contributors to the overall biological productivity of the area.
5. Deletion of this sale would insure protection for free floating eggs and developing halibut and bottomfish larvae. We have particular concern for the protection of halibut because of their importance not only to Kodiak fishermen but to other North American fishermen as well, because of the current low abundance of the stock and because life history characteristics of the juvenile forms may place these organisms in locations where they are vulnerable to impacts resulting from oil. We also wish to afford maximum protection to bottomfish stocks in view of Kodiak's growing bottomfish industry.
6. The elimination of danger from hydrocarbon pollution would preserve the integrity of established inshore and offshore sampling sites established by the International Pacific Halibut Commission for determining abundance of juvenile halibut.
7. Cancellation of this sale would eliminate what we consider to be a severe potential for conflicts between fishing gear and activities associated with oil development.
8. The "No Sale" alternative would protect a substantial portion of the fishing grounds and important resources that the United Fishermen's Marketing

Association, Inc. and Alaska Shrimp Trawlers Association regard as critical to their livelihood.

Domestic Bottomfish Industry

While the DEIS acknowledges that Kodiak's developing bottomfish industry has the "capacity to make a major contribution to the area's economy" (p. 68), the DEIS goes on to state (p. 83) that "The groundfish fishery is expected to be relatively minor with respect to the number of boats, landings, or fishermen." This conclusion is in direct contradiction to that drawn in the Phase I report of the Alaska Department of Community and Regional Affairs titled Community Planning & Development for the Bottomfish Industry published in November, 1979.

This reports states, in part:

"That bottomfish processing will occur in Kodiak on a significant scale appears virtually inevitable. Every major Alaska fishery since the turn of the century--salmon, halibut, shrimp, crab--has been strongly represented in Kodiak, and in each case, the Kodiak fleet has traditionally set the statewide pace. Given the relative abundance of northern Gulf bottomfish stocks...as well as the general enthusiasm of Kodiak fishermen and processors to capitalize on this new fishery, development of a strong local bottomfish industry seems highly likely."

"A number of reasons exist for such optimism. Foremost, of course, is the resource abundance (total Gulf of Alaska optimum yield of marketable bottomfish species is estimated by Earl Combs, Inc., at more than six billion pounds, annually) and its easy accessibility from Kodiak's strategic location. The capacity for exploiting the resource is also present, in the form of Kodiak's sizable commercial fishing fleet and well established processing sector, both of which make Kodiak...one of the top fishing ports in the United States." "Beyond possessing a large commercial fishing industry, Kodiak also enjoys several other key advantages which augur well for successful development of a bottomfish industry. Most importantly, Kodiak's shipping

industry is currently the second largest in the state (exceeded only by Anchorage), and includes established export linkages directly with Japan..." "Kodiak's overall economy is also very strong, fast growing and highly diversified, offering to any new bottomfish activity the support of a substantial and rapidly expanding service sector."

Given the importance of Kodiak's established and developing fisheries, we are deeply concerned over the numerous references throughout this DEIS to the adverse impacts OCS-related activities may have on already crowded harbor facilities as well as conflicts with fishing activities at sea (see pp. 31, 33, 37, 41, 114, 115, 116 and 117).

We share a deep concern with the fishermen of Kodiak over what the DEIS states as the inevitable loss and damage to fishing gear and operational disruption resulting from OCS-related activities. It has not been clearly demonstrated to us why it is the commercial fishery, an established and historic use of a renewable food resource by local residents, that must give way and suffer as a result of the invasion of an industry solely oriented toward the short-term exploitation of a non-renewable resource, largely by people who will never call Kodiak Island their home.

Offshore Oil Pollution Compensation Fund

Section 302 of the Outer Continental Shelf Lands Act Amendments of 1978 establishes an Offshore Oil Pollution Compensation Fund which provides compensation for damages resulting in economic loss arising out of or directly resulting from oil pollution. Claims may be made for injury to, or destruction of, natural resources and loss of profits or impairment of earning capacity due to injury to, or destruction of, real or personal property or natural resources, Sec. 303 (a)(2)(C) and (E).

Claims may be asserted under paragraph (2)(C) by the President, as trustees for natural resources over which the Federal Government has sovereign rights or exercises exclusive management authority, or by any State for natural resources within the boundary of the State belonging to, managed by, controlled by, or appertaining to the

State, and sums recovered under paragraph (2)(C) shall be available for use to restore, rehabilitate, or acquire the equivalent of such natural resources by the appropriate agencies of the Federal Government or the State, but the measure of such damages shall not be limited by the sums which can be used to restore or replace such resources; (or) under paragraph (2)(E) by any United States claimant derives at least 25 per centum of his earnings from activities which utilize the property or natural resource. This DEIS indicates that impacts from offshore and onshore OCS-related activities could result in "minor" declines in several fisheries over the life of the project. These losses, as estimated by BLM (p. 32), could be as high as \$158 million, although the DEIS states (p. 33) that "Other than the impacts on commercial fisheries, the impacts associated with the offshore aspects of the project should not be serious." The implication is clear, impacts on commercial fisheries could be serious. In discussions of potential impacts attributable to the several development scenarios, however, the DEIS cites numerous unavoidable adverse effects on fishery resources as a result of development (pp. 105, 107, 109, 111, 112, 113, 114, 115, 119 and Table IV.A.2.b.-1).

On its face the OCS Lands Act legislation would seem to offer considerable assurance to Kodiak fishermen that any resource damage due to oil pollution would be justly compensated for. There is, however, a fatal flaw in this logic that renders this legislation impotent to deal with the problem of just compensation. Namely, how are costs of restoring or rehabilitating natural resources damaged or destroyed by oil pollution to be determined?

The investigations and baseline data required to evaluate the biological effects of a spill are costly and time consuming to conduct and collect. Such information is subject to the influence of a wide variety of environmental factors difficult to measure, to say nothing of an equally wide range of scientific interpretations and evaluations. If this DEIS cannot even estimate, except within the broadest

parameters, the probability and/or magnitude of a spill event, how can cost figures for resource or environmental damage every be arrived at with equitable accuracy? If a rational and reasonably precise process for determining compensation is not available and made public, and we believe it is not, then we contend that it is unreasonable to place the resources and the well-being of the several fisheries in jeopardy by holding this, or any other, lease sale until such time as this capability can be satisfactorily demonstrated.

On p. 32, paragraph 8, the DEIS notes that combined losses to the several crab fisheries may amount to as much as \$144 million without taking into account the impact a major spill or chronic low-level contamination might have on crab larvae. The statement is made that these projected impacts would be paid for by the "offshore oil spill pollution fund." We are concerned that, at the present level of knowledge, it would be extremely difficult, if not impossible, to assess any impacts accurately enough to be able to attach a mitigation value to the losses incurred, especially those effects on year class strength as reflected in larval mortalities or diminished food supplies. Thus, it would, in our estimation, be almost impossible to ascertain the magnitude of the impact and the subsequent monetary value of the reimbursement.

Also, not satisfactorily addressed is the way in which reimbursement would be allocated. If we add the estimated possible loss to the shrimp fishery of \$14 million, then a total \$158 million impact could be realized. What methods of acquiring additional funds are available if impacts exceed the Offshore Oil Pollution Fund? How would compensation be equitably distributed among the fishermen and the remainder of the industry?

The long-term effects of such damage could extend beyond the production life of the field if year classes of species involving long maturation periods (i.e. halibut, king crab) are adversely impacted near the end of the sale period. It is very doubtful that such low level effects as described on p. 141, paragraph 7, could ever be

clearly assigned one cause nor could the impacts upon the several fisheries be isolated and measured. Hence, compensation for such insidious damages could never be realized. We agree with BLM in viewing such possibilities as one of the major threats to Kodiak's fishing industry should OCS development be allowed to proceed in the rich marine waters off Kodiak Island.

If assessment of the cause of population reduction will be difficult (we expect almost impossible) and the determination of the amount of reduction equally difficult, we believe, then how can any value ever be arrived at for determining compensatory payments? We are beginning to believe that the funds provided under Title IV of the OCS Lands Act Amendments may be impossible to administer. The risk to the fisheries economy of Kodiak Island, coupled with little chance for any meaningful reimbursement of losses should they occur, argue against our looking favorably upon OCS development at this time.

Tract Deletions

Should the Secretary of the Interior decide, after the entire review process for Lease Sale No. 46 is completed, to go ahead with the sale, there are certain tracts that we believe must be eliminated from the sale because they contain critical habitats and fishery resources. Included among these are the nearshore tracts in the area locally known as the Horse's Head lying just east of Aliulik Peninsula. This area includes tract No.'s 215, 216, 217, 258, 259, 260, 261, 302, 303, 304, 346 and 347. We can provide further recommendations regarding tract deletions at a future date if the need arises.

Foreign Fisheries

The DEIS for Lease Sale No. 46 is notable for its almost total disregard of foreign fishing activities taking place either within or closely adjacent to tracts proposed for leasing during this sale. The absence of any discussion of potential impacts to the foreign fishery and, in turn, possible impacts this fishery might have upon OCS

development is doubly strange since the 1977 draft EIS for this same sale covered foreign fisheries in some detail. Since release of the 1977 DEIS, two additional nations have begun fishing operations in this area, South Korea and Mexico, bringing the total now to five. Whether or not this number will grow or decrease through the life of the proposed sale is problematical.

A summary of monthly surveillance reports prepared by the National Marine Fisheries Service (NMFS) for the years 1978 and 1979 shows that considerable foreign fishing activity takes place throughout the year off the east coast of Kodiak Island (Tables 1 and 2). The majority of the foreign fleets conduct trawl fisheries for pollock, Pacific ocean perch, Pacific cod, Atka mackerel, flounders and other groundfish primarily along the 100-fathom depth curve adjacent to Albatross and Portlock Banks. Soviet trawlers are known to fish between the 50- and 100-fathom curves on Albatross Bank during the winter months. Both Japan and South Korea conduct longline fisheries for sablefish and Pacific cod seaward of the 100-fathom curve to depths of from 275 to 450 fathoms. Recently a few joint-venture operations involving foreign vessels, primarily South Korean, and U. S. trawlers have been conducted in Kodiak waters.

Table 1. Foreign fishing vessel activity from Albatross Bank to Portlock Bank along the continental shelf in the vicinity of OCS lease sale No. 46 from December 1977 through December 1978 1/

Country	Activity	Target Species	Vessel Days
Japan	Longline	Sablefish Pacific cod	529
	Stern trawl	Pollock Flounders Atka mackerel Pacific cod Pacific ocean perch	740
	Support		96
Soviet Union	Stern trawl	Pollock Atka mackerel Groundfish	368
	Support		11
South Korea	Longline	Sablefish Pacific cod	158
	Stern trawl	Pollock Groundfish Pacific ocean perch	43
	Support		1
Poland	Stern trawl	Pollock Pacific cod Rockfish	97
	Total Stern trawl		1,248
	Total Longline		687
	Total Support		108
Grand Total			2,043

1/ Data from monthly summaries of foreign fishing activities off Alaska as compiled by the National Marine Fisheries Service, Juneau, Alaska.

Table 2. Foreign fishing vessel activity from Albatross Bank to Portlock Bank along the continental shelf in the vicinity of OCS lease sale No. 46 from January 1979 through November 1979 1/

Country	Activity	Target Species	Vessel Days
Japan	Longline	Sablefish Pacific cod	289
	Stern trawl	Groundfish	478
	Support		134
Soviet Union	Stern trawl	Groundfish	226
	Support		26
	Research		39
South Korea	Stern trawl	Pollock Groundfish	80
	Support		144
Poland	Stern trawl	Pollock	11
	Support		26
Mexico	Stern trawl	Pollock	149
	Total Stern trawl		944
	Total Longline		289
	Total Support		330
	Total Research		39
Grand Total			1,602

1/ Data from monthly summaries of foreign fishing activities off Alaska as compiled by the National Marine Fisheries Service, Juneau, Alaska.

In 1978 foreign fishing and support vessels spent over 2,000 vessel days off Kodiak Island while in 1979 foreign vessels were active in this area for over 1,600 vessel days during the first eleven months of the year. The 1974 catch of an estimated 188.1 million pounds had an ex-vessel value in U.S. dollars of about \$19.3 million. In the 1980 OCSEAP Synthesis Report (draft) for Kodiak, Alton (p.387, table 5E.13) gives the total foreign and domestic catches by species and species group for 1978 as 101,646 metric tons, or 224,027,784 pounds. Applying the average ex-vessel price paid in 1979 to U. S. fishermen landing in Kodiak, Alaska, we find total groundfish landings in 1978 (U.S. and foreign) to have been worth about \$22.5 million in U.S. dollars (Table 3). Add to this the 1978 domestic catch value of \$92 million paid to the fishermen of Kodiak for landings of all species other than groundfish and total 1978 landings from the Kodiak OCS are worth in the neighborhood of \$114.5 million. Over the 25-year life of the proposed sale, combined foreign and domestic fishery landings could be worth as much as \$2.862 billion. The average first wholesale value for groundfish landed in Kodiak during 1979 was approximately \$1.30/lb. (Tom Peterson, New England Fish Company, pers. comm., 1/28/80). Such extrapolations are, of course, subject to innumerable variables and only serve to indicate that the potential value of Kodiak's fisheries resources is quite substantial.

The magnitude of the foreign groundfish fishery in 1978 serves to indicate the potential available for U.S. fishermen desiring to exploit groundfish stocks now being harvested almost exclusively by foreign fleets. As it is, ex-vessel payments for fish and shellfish landed in Kodiak are, for the most part, circulated within the community's economy as are the wages paid to processing labor and payments for utilities, freight and other costs associated with the fish processing industry. Finally, it must be remembered that the bulk of Kodiak's fish products are scheduled for export, thus assisting the U.S. position in its balance of foreign trade.

Table 3. Ex-vessel values for foreign and domestic groundfish landings from the Chirikof-Kodiak INPFC areas in 1978 by species using average 1979 price/lb. paid at Kodiak, Alaska 1/

Species or Group	Foreign Catch (lbs.)	Domestic Catch (lbs.)	Total Catch (lbs.)	Price/lb. (¢)	Value (\$)
Pollock	135,543,796	1,132,856	136,676,652	8.5	11,617,515
Atka mackerel	41,448,424	-0-	41,448,424	6.0	2,486,905
Flounders	13,849,936	178,524	14,028,460	12.0	1,683,415
Pacific cod	12,307,136	1,390,724	13,697,860	19.5	2,671,082
Sablefish	6,805,952	2,204	6,808,156	42.0	2,859,425
Pacific ocean perch	4,458,692	-0-	4,458,692	12.0	535,043
Other rockfish	1,280,524	2,204	1,282,728	12.0	153,927
Other fish	5,377,760	249,052	5,626,812	8.0	450,145
Total	221,072,220	2,955,564	224,027,784		22,457,456

1/ Adapted from Table 5E.13, 1980 OSCEAP Kodiak Synthesis Report (draft), p. 387.

The potential impacts proposed oil and gas developments in the western Gulf of Alaska might have upon foreign fishing fleets are well covered in the original draft EIS for Lease Sale No. 46 (pp.336-348). We are concerned regarding their omission from the 1979 draft, especially since the earlier document is not even referenced in this regard. We see potential conflicts of rather a serious nature between OCS development and the foreign fisheries as three-fold. First, there always exists the potential for impacting the fishery resources through the accidental introduction of pollutants into the marine environment. We know that this perturbation will occur but to what extent remains to be seen. Second, there is a potential for interference with the foreign fleet's operation as a result of mere physical conflict (i.e. placement of platforms and pipelines in long established fishing grounds). Finally, there is the very real danger of collisions involving foreign fishing and support vessels and OCS-related vessel traffic and undersea structural damage to OCS subsurface appurtenances caused by foreign fishing gear.

When constructing undersea pipelines, the bury barge may follow the lay barge by as much as an entire year. Pipelines that lie exposed on the ocean bottom for a year or that are only trenched instead of buried may be as much of a hazard to fishermen as surface-laid pipeline. Furthermore, offshore pipeline routes are, in effect, permanent installations and, aside from shallow nearshore waters where abandoned-pipelines may be removed from the sea bed, there are no known conversion possibilities for submarine lines nor will they be removed once the field is exhausted. Subsequent scouring and shifting of the bottom may expose considerable lengths of formerly buried pipeline to fishing gear. We believe the foreign fisheries pose a major threat to the integrity and safety of OCS oil and gas development in the region east of Kodiak Island. We submit that there exists a great danger of subsurface pipelines or other structures being damaged by foreign trawl gear if development occurs in areas traditionally fished by foreign vessels. Protective measures and alternatives that might reduce or mitigate

this and other potential conflicts between OCS development and foreign fishing activities are simply not addressed in this DEIS. All reasonable alternatives, including denial of access to traditional fishing grounds, should be included.

DRAFT ENVIRONMENTAL IMPACT STATEMENT
REVIEW

PROPOSED OUTER CONTINENTAL SHELF
OIL AND GAS LEASE SALE NO. 46
WESTERN GULF OF ALASKA - KODIAK

PREPARED and PRESENTED BY:

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Testimony presented by the Kodiak Island Borough to the Alaska OCS Office of the Bureau of Land Management at a public hearing held in Kodiak, Alaska on March 6, 1980 to receive public testimony pertaining to the draft environmental impact statement prepared by BLM for Proposed OCS Oil and Gas Lease Sale No. 46 in the western Gulf of Alaska.

PART II - PAGE BY PAGE COMMENTS

p.i. Description of the Action, line 2

Strike "which will be leased" and insert "proposed for lease"

At this point in the decision-making process the draft EIS is a vehicle for presenting a preferred course of action and its alternatives so that a final decision can be arrived at after the opportunity for review of the draft EIS by governmental agencies, special interest groups and the general public. At this point it is premature and contrary to the intent of the National Environmental Policy Act of 1969 (NEPA) to state unequivocally what will be done as a result of the proposed action.

p.i. Environmental Impacts, para. 2, line 8

Strike "impacting them" and insert "impact"

This change will eliminate the grammatical disagreement in number between "each" (line above) and "them."

p.i. Alternatives

Aside from the "No Sale" alternative, the list of alternatives included in this DEIS represents only variations on a single theme and does not offer a full range of alternative courses of action that might include, but not be limited to;

1. Alternative lease areas
2. Alternative energy source (s)
3. Energy conservation
4. Rationing
5. Deregulation of oil and natural gas prices

Section 102(2)(D) of NEPA expressly directs Federal agencies to:

"study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources."

The DEIS should include sufficient analysis of such alternatives and their costs and impacts on the environment so as to not prematurely foreclose options that might have less detrimental effects. An environmental statement should describe these alternatives in such a manner that reviewers can independently judge if the environmental impacts result from trying to gain maximum economic return or are inherent to the entire project.

p.ii. Department of the Interior, line 5

Change "Scurvy" to "Survey"

p.iii. Local Government

Strike "Stuart Denslow" and insert "Gary Hovanec"

Strike "Gary Stevens" and insert "Alan Beardsley"

The Kodiak City Manager spells his name "Clair Harmony"

p. 1, para. 2

That there is a greater need to develop resources from the OCS frontier areas to offset the growing imbalance between domestic oil and gas production and use represents an assumption that is not universally shared.

Early in 1979 the President's Council on Environmental Quality issued a report titled "The Good News About Energy" in which the Council concluded that total energy use in the United States need not increase greatly between now and the end of the century and that with increased energy efficiency and conservation the U.S. economy can operate on 30 to 40 percent less energy.

More recently, the Harvard Business School released a report titled "Energy Future" which also concludes that the U.S. can use 30 to 40 percent less

energy, "with virtually no penalty for the way Americans live."

p. 1, para. 4

To infer that the Nation's economic security hinges on the proposed western Gulf of Alaska sale seems somewhat farfetched when this sale represents, according to BLM's own data, only about one percent of the gas resources anticipated from the entire 1981-85 lease sale schedule.

p. 1, para. 4, line 8

Some explanation of just what a "lower bound estimate" is might help in understanding this somewhat confusing statement. If such an estimate can be measured, why not include the measurement so the reviewer has some gage of the costs alluded to?

p. 1, last para.

The statement is made that the volume of oil imports rose because domestic production fell rather than because domestic use increased. Yet, the very next sentence tells us that use increased by 1.0 million barrels per day between 1973 and 1977. Isn't an increase of 1,460 million barrels per day a significant growth in use?

While we cannot deny that domestic production has dropped off, thereby increasing the gap between domestic supplies and foreign imports, some analysis of just why this gap has occurred might be instructive. Surely it couldn't be because multinational oil companies make a greater profit per barrel from imported oil, could it?

p.2, Sec. A, para. 2, line 3

Insert the word "proposed" between "any" and "major."

Sec. 102(2)(C) of NEPA states "include in every recommendation or report on proposals (emphasis added) for legislation and other major Federal actions..."

The intent of NEPA quickly becomes lost if Federal agencies begin to assume

that the course of action recommended in a draft EIS is, in fact, that which they will eventually take.

p. 2, last para., line 2

Strike "or" and insert "and" between "written" and "oral."

p. 2, last para., line 3

Strike "in" from between "when" and "preparing."

p. 3, last para., last 2 sentences

The Borough of Kodiak is well aware that the proposed oil and gas lease sale No. 60 for Lower Cook Inlet and Upper Shelikof Strait is slated for September 1981. The inclusion of tracts in northern Shelikof Strait with those in lower Cook Inlet is viewed by many as a ploy to circumvent BLM guidelines requiring an interval of 34 months between sales in frontier areas (Appendix 1, DEIS for proposed five-year OCS oil and gas lease sale schedule, March 1980-February 1985). These guidelines state, in part, that:

"Sales in frontier areas should be spaced so that the results of initial exploration can be available for planning subsequent sales."

Appendix 1 of the above document also calls for a 30-month interval between sales in Category II-Successive Sales in Areas Outside Gulf of Mexico. Although Shelikof Strait is not listed among the areas assigned to Category II, the Kodiak, Gulf of Alaska and Cook Inlet regions have all been placed in this category. While it is difficult to view Kodiak and Shelikof Strait as anything but frontier areas, especially with regard to the paucity of geophysical and environmental data available, even Category II requires a 30-month time span between successive sales. Consequently, it seems in direct conflict with BLM's own guidelines to plan for lease sale No. 60 along an almost parallel time frame with that now being so diligently pursued for lease sale No. 46.

The statement that "First and second sales in an area are spaced at 3-year

intervals" found in Appendix 1 of the document referred to above is also not consistent with the schedule for lease sale No. 60.

Again, in the section on "Location", BLM's own guidelines state:

"Resource potential, economic benefits, and industry interest in exploration are key determinants of where sales should be located."

Only the Southern Aleutian region ranked lower than Kodiak on the dual industry rating presented in Appendix 2 of the 5-year schedule. The haste with which BLM is pursuing the culmination of lease sale No. 46 precludes the joint planning the Kodiak Borough believes to be in the best interest of the residents of Kodiak Island, sound economics, orderly resource development and concern for environmental values. The very fact that "This means there are proposed sales on both sides of Kodiak Island" (p. 3, DEIS for lease sale No. 46) is more than enough justification for planning the development of both areas simultaneously.

p. 4, para. 3, line 6

Insert "are" between "and" and "contained"

p. 4, para. 3, lines 7 and 8

Insert phrase "contained in 30 CFR Part 250 and" between "Regulations" and "administered" in the preceding line. Strike phrase "which are contained... Part 250."

p. 4, para. 4, subpara. 1

As written, this sentence implies that the BLM and/or USGS will cooperate with the relevant department(s) or agency(ies) even in the event the agency or department is not performing its task. We suggest this subparagraph be changed to read:

"The Secretary shall cooperate with the relevant departments and agencies of the Federal Government and of the affected States to insure that safety, environmental, and conservation laws and regulations are enforced."

p. 4, para. 4, subpara. 2, line 2

Delete "of" and replace with "or"

p. 5, subpara. 5, line 3

Who decides whether or not OCS activities significantly affect the air quality of any state?

p. 5, subpara 8

It should be noted that maximum environmental protection would mean no rights-of-way whatsoever. We would suggest deletion of the entire clause and replacing it with:

"to insure the greatest environmental protection possible by using the best and safest technologies available."

p. 5, subpara. 11, line 1

How much weight does a Governor's recommendation have with regard to effecting changes in a proposed lease sale? The events surrounding the sale of oil and gas lease No. 39 in the northern Gulf of Alaska would lend little credence to the assertion that State objections to a lease sale are seriously considered by BLM.

p. 5, subpara. 12, line 1

This subsection states that the Secretary is authorized to enter into cooperative agreements, including joint planning and review. How is this direction being interpreted by BLM/OCS in Alaska? Are the State of Alaska and local governments being encouraged to join in the BLM/OCS planning process? The BLM/OCS request to the Kodiak Island Borough on April 18, 1979 to provide nine alternatives for onshore LNG facility sites by April 27 does not appear to meet criteria we consider desirable as participants in any planning process. Such rush requests for detailed data place our own resources and capabilities to reply under a severe strain and result in only the most cursory response. We see a real need for greater Borough involvement in the planning process so that we can provide meaningful and timely input when requests such as the above

are received. We, in turn, appreciate the fact that the BLM/OCS office in Anchorage has endeavored to handle our requests for information with the same regard.

p. 6, subpara. 16, line 2

Does this requirement apply to equipment, rigs and vessels in use elsewhere prior to this lease?

p. 7, subpara. 25

We believe such information was not provided to the State of Alaska in a timely manner with regard to the major shift in emphasis from oil to gas production for proposed lease sale No. 46 as evidenced between the 1977 and present DEIS. This shift in resource emphasis, with all its attendant complications, was not made public until December 7, 1979, at the time the current draft EIS was released for public comment. Had the Borough been informed of this major change in direction in a timely manner, data collection and planning might have proceeded more smoothly with greater effort devoted to areas such as onshore impacts, socio-economic impacts, and necessary infrastructure developments. The current BLM/OCS timetable for lease sale No. 46 now places severe time constraints on both Borough staffing and resources to meet the new demands for information and planning necessitated by this abrupt shift in resource emphasis.

p. 9, para. 2

This document states that "The President may assert claims for injury to or destruction of natural resources over which the Federal Government exercises sovereign rights or exclusive management authority, as may a State for natural resources owned or managed by the State." What overlap, if any, might occur regarding claims involving species managed by the State of Alaska but where damage occurs seaward of State jurisdiction, e.g. king crab, tanner crab, scallops, etc.? What about claims involving fisheries managed under inter-

national agreements, such as halibut? How can foreign claims be equitably adjudicated? The statement (p. 10, para. 1) that a claimant must maintain U.S. citizenship and establish that interests held in the equipment (vessels) are at least 75 percent U.S. owned seems to summarily preclude any claims being brought by foreign fishermen or their agents. This would appear to us to be a somewhat shortsighted position on the part of the Federal Government since, in some instances, it is possible that foreign fishing fleets would receive the brunt of any damage resulting from an accidental oil or gas spill on the OCS. There may even be situations where, in the case of certain joint ventures, vessels and other fishing gear may not be at least 75 percent U.S. owned but U.S. citizens are deriving a livelihood from the fishery nevertheless

p. 9, para. 5 and 6

The Fishermen's Contingency Fund allots a mere \$100,000 to the entire west coast of the United States and places a \$1 million maximum on the entire fund. A single major accident or one or two even minor ones could deplete the entire fund without even completely mitigating damages.

p. 10, para. 3

When will NMFS have Fishermen's Contingency Fund regulations in effect?

p. 11, para. 2

How does the Alaska Group identify regional OCS issues and data needs during Phase 1? Is this part of the "scoping" process described later in this document? How much input is solicited from local governments and the general public and in what manner is such input sought?

p. 11, para. 5

Is the Transportation Management Plan incorporated into the draft EIS? We see no evidence that it is. It would appear from the description of the plan contents given here that the TMP would include information desirable for over-

all project evaluation and alternative analysis.

p. 12, para. 4, last line

The Endangered Species Act was passed in 1973, not 1972 as stated here.

p. 14, para. 1 and 2

Has the Department of Commerce issued a consistency determination for lease sale No. 46? We see no reference to its issuance in this document. If so, what was the determination and has the State of Alaska, pursuant to Section 307(c)(3)(A) of the CZMA, agreed that the proposed activity may take place?

p. 14, para. 2, line 5

Typo in "overridden"

p. 14, para. 4, line 3

Change "fundings" to "findings"

p. 15, para. 3, lines 5 and 6

How are costs of replacing or restoring natural resources damaged or destroyed by a spill determined? The investigations and baseline data required to evaluate the biological effects of a spill are costly and time consuming to collect. Such information is subject to the influence of a wide variety of environmental factors difficult to measure, to say nothing of an equally wide range of scientific interpretations and evaluations. If this DEIS cannot even estimate, except within the broadest parameters, the probability and/or magnitude of a spill event, how can cost figures for resource or environmental damage ever be arrived at with equitable accuracy? If a rational and reasonably precise process for determining compensation is not available and made public, and we believe it is not, then we contend that it is unreasonable to place the resources in jeopardy by holding this, or any other, lease sale until such time as this capability can be satisfactorily demonstrated.

p. 17, para. 1, line 3

Insert ", 1979" after "23"

p. 21, para. 2

It is difficult to understand how resource estimates used by BLM in this DEIS can assume oil and gas present in commercial quantities and not consider the possibility that the area is devoid of hydrocarbon resources. This assumption becomes even more untenable when we read in paragraph four that there is a 92-percent probability that no commercial resources will be discovered. In other words, the chances of not striking commercial quantities of gas and/or oil are roughly 10 to 1. It would appear to us that the low probability of discovery and expected return does not warrant scheduling a sale that admittedly, according to this DEIS, acknowledges the probability that significant environmental damage may occur as a result of resource development and production.

p. 21, para. 3

We take exception to the judgment on BLM's part that all potential production will consist of natural gas and true gas condensates only. On January 7, 1980, our OCS Consultant, Dr. David T. Hoopes, held a phone conversation with Mr. William Barnwell of the USGS Anchorage staff. During the course of this conversation, Mr. Barnwell stated that, although USGS data showed lease sale No. 46 to be more gas prone than oil prone, the original USGS interpretations (as presented in State of Alaska Open File Report No. 114 released in 1976) of what the sediments indicate did not support BLM's position. Simply stated, Mr. Barnwell said that "BLM went too far with the data in their writeup" of the draft EIS for lease sale No. 46. Now it seems to us that the type and magnitude of impacts can change with the relative ratio of oil to gas and gas condensates produced. We have found it difficult to review documents and prepare testimony regarding potential impacts when even the lead agency responsible for the sale doesn't seem to be certain just what types of resources it is dealing with.

p. 21, para. 5

We hope that BLM's use of the Monte Carlo technique of "unrisked" analysis will not result in the same consequences as those suffered by the majority of players at the venerable institution for which the process was named. In short, we don't want to loose our shirts at BLM's gaming tables.

p. 23, para. 1, next to last sentence

Delete "they" and insert "it" to agree with "analysis" which is singular.

p. 23, para 3 and 4

We understand that BLM does not prefer to recommend, or endorse, any particular development scenario. It is, however, the purpose of a draft EIS to evaluate all possible alternatives and impacts associated with the proposed action as long as they represent reasonable and viable courses of action. If the DEIS cannot include a prediction of where onshore facilities will be located, then impacts to all probable sites must be evaluated equally and displayed because impacts can vary, depending upon the site selected. How, for example, can potential impacts to a resource or community be evaluated if its proximity to an LNG plant cannot be ascertained. Even the impacts to Kiliuda and Chiniak bays, identified by BLM as the most likely sites for onshore LNG facilities, are barely alluded to. The disclaimer that this EIS does not represent a BLM preference (which, of course, is exactly what Alternative I, the recommended action, is) begs the issue of alternative site evaluation and circumvents the intent of NEPA. We find this draft EIS severely deficient in this respect.

p. 24, last para., line 4

Insert comma between "resource" and "availability"

p. 25, para. 3, line 3

Typo in "another"

p. 25, last line

Change "apply" to "applies" to agree with "summary" on the penultimate line of

the page.

p. 27, Stipulation for Well and Pipeline Requirements, para. 3

Local fishermen have reported that the design of existing pipelines in Cook Inlet does not permit otter trawl gear to pass over without damage to trawl doors and roller gear. Fishermen believe trawl gear will hang up on unburied pipelines and other structures no matter how carefully they are protected.

p. 29, para. 4, line 6

The draft states that the Supervisor shall determine the method of treatment and disposal of drilling muds. How does EPA's NPDES permit system tie into drilling mud disposal?

p. 29, Stipulations for Protection of Biological Resources, para. 1

The draft states that this stipulation "provides a mechanism for informing the Supervisor of important biological populations..." Yet, the very next paragraph states "If biological populations ... are identified by the Supervisor ..." How can the stipulation provide a mechanism for informing the Supervisor if it is the Supervisor that must make the identification? We are not reassured that the overwhelmingly important biological resources of the Kodiak OCS are adequately protected by provisions that stipulate the person to be informed is, at the same time, the informer.

p. 31, para. 1

Section 308 of the CZMA provides for coastal energy impact program funding to provide up-front public services and facilities necessitated by energy development. While the Kodiak Island Borough looks favorably upon this type of assistance, the need for grants, loans or bond guarantees is difficult to determine if location of shoreside facilities is not known. Thus, the ambiguous treatment given the siting of onshore facilities in this DEIS makes Borough efforts to plan for eventual impacts associated with energy development extremely difficult.

p. 31, Possible Information to Lessees, para. 1

The Kodiak Island Borough recognizes the vital role birds and marine mammals play in the ecological relationships of the marine and coastal environments surrounding Kodiak Island. We view any untoward disturbance of breeding or nesting colonies and rookeries as an unacceptable impact on the biota of the Kodiak archipelago. For this reason we do not find it sufficiently reassuring enough to have this DEIS merely state that "some protection could be provided." To evaluate fully the impacts of disturbance to bird colonies and marine mammals, we believe relevant existing studies should be referred to, additional studies made if necessary, and a firm commitment given to the protection of these resources. We cannot accept as a foregone conclusion that concentrations of birds and other creatures must be disrupted merely to conduct the normal day-to-day activities associated with lease exploration, development, and production of gas or oil.

p. 31, para. e, Summary of Probable Impacts, subpara. 3

We are not aware that any offshore LNG facility is planned for lease sale No. 46. The offshore siting of a facility to produce LNG would be totally unacceptable to the Kodiak Island Borough. We are hopeful that this statement merely results from a missprint in the document.

p. 31, para. e, Summary of Probable Impacts

We believe this summary to be deficient in several respects with regard to possible impacts upon those resources and activities addressed therein. Not only do spills from offshore platforms, pipelines and onshore facilities offer chances for major or chronic low-level additions of toxic hydrocarbons to the environment but, completely disregarded, is the additional potential for major spills to occur as a result of tanker accidents, including collisions with vessels of the foreign fishing fleet which, for the most part, are large

enough to cause substantial damage if struck. The probability of such as accident occurring is heightened by the high incidence of foul weather in the area, the reduced maneuverability of fishing vessels with trawl gear out and by difficulties involved with communicating between vessels of different nationalities. Nowhere in this DEIS do we see these problems satisfactorily addressed.

We share a deep concern with the fishermen of Kodiak over what the DEIS states as the inevitable loss and damage to fishing gear and operational disruption resulting from supply boat activities. It has not been clearly demonstrated to us why it is the commercial fishery, an established and historic use of a renewable food resource by local residents, that must give way and suffer as a result of the invasion of an industry solely oriented toward the short-term exploitation of a non-renewable resource, largely by people who will never call Kodiak Island their home.

p. 32, para. 2

This entire paragraph is very poorly written. We suggest striking both sentences and replacing them with:

"The proposed sale will probably have minor impacts on both the commercial fish resources and commercial fishing activities. Some fishermen may suffer gear damage and operational disruption with a consequent indirect economic loss." Regardless of how these statements are worded, we fail to see how gear damage and loss or operational disruption of fishing activities can be termed "minor" and glossed over as an "indirect economic loss." Gear out of the water does not catch fish, especially during the height of the fishing season, when chances for loss or damage are greatest. The time and money required to replace lost or damaged gear, as well as the loss of income from catches that might otherwise have accrued from the gear, all represent real direct economic losses. The replacement cost for gear often will be withdrawn from the boat or owner's share as a direct expense.

The loss of income due to diminished fishing time and reduced catches is born by the crew. Thus, to infer that such losses are indirect is totally incorrect. In the Kodiak king crab fishery, where a limit of 100 pots exists, the loss of gear involves not only a reduction in total income but also the delay involved in registering additional new pots reduces fishing time and effort. In the shrimp fishery, one side of gear costs approximately \$12,500 (in 1978 dollars). It is not uncommon for a shrimp vessel and crew to earn \$200,000 a month at the peak of the relatively short season. Should gear be lost or severely damaged at this time, it would require about two weeks to replace, a direct loss to the vessel and crew of \$100,000 above and beyond the cost of replacing the gear. It is instructive to note that at the present level of funding this amount equals the entire West Coast allotment for claims under Title IV of the OCS Lands Act Amendments of 1978. The entire subject of the foreign fishing fleet, its extent, the value of foreign catches and OCS impacts upon the foreign fleet is totally ignored. In addition, potential impacts to bottomfish species and their pelagic larvae are omitted. In view of the expanding bottomfish fishery in the Kodiak region, we view this omission as a serious oversight.

p. 32, subpara. 1, line 3

Delete "to two-thirds" and insert "by one-third"

A pollution event occurring after pink salmon fry enter the estuaries could also result in considerable mortality, both directly by causing physical distress and death and indirectly by inhibiting the plankton production required by young pink salmon for their food supply.

p. 32, para. 3, line 5

Many major impacts can occur offshore as well. Damage to fishing gear, restriction of fishing areas and offshore spills are all major impacts that may occur

throughout the lease sale area whereas low level, chronic pollution from an onshore facility may be more localized in impact although no less devastating.

p. 32, para. 4, line 1

"Alternative" should be capitalized

p. 32, para. 5 and 6

The DEIS notes that 1.1 major offshore spills are expected during the life of the project and estimates that the loss to both fishermen and processors may equal as much as \$14 million (see comment below).

p. 32, para. 7, line 1

Dungeness should be capitalized, both here and throughout the remainder of the DEIS.

p. 32, para. 8

The DEIS notes that combined losses to the several crab fisheries may amount to as much as \$144 million without taking into account the impact a major spill or chronic low-level contamination might have on crab larvae. The statement is made that these projected impacts would be paid for by the "offshore oilspill pollution fund." We are concerned that, at the present level of knowledge, it would be extremely difficult, if not impossible, to assess any impacts accurately enough to be able to attach a mitigation value to the losses incurred, especially those effects on year class strength as reflected in larval mortalities or diminished food supplies. Thus, it would, in our estimation, be almost impossible to ascertain the magnitude of the impact and the subsequent monetary value of the reimbursement. Also not satisfactorily addressed is the way in which reimbursement would be allocated. If we add the estimated possible loss to the shrimp fishery of \$14 million, then a total \$158 million impact could be realized. What methods of acquiring additional funds are available if impacts exceed the Offshore Oil Pollution Contingency Fund?

p. 32, last para., line 1

Change "larval" to "larvae"

We do not understand how the impact of a major spill will avoid affecting adult shrimp and/or shrimp larvae outside Kiliuda Bay. This possibility is not addressed in the DEIS. Nor are the potential impacts to other fisheries assessed under Alternative I. We are especially concerned about possible impacts to bottomfish and other finfish, particularly in their larval or juvenile states.

A. Crosby Longwell, a biologist and geneticist for the National Marine Fisheries Service, has investigated the ways petroleum hydrocarbons affected the development of fish eggs in oil-polluted waters after the Argo Merchant spill on Nantucket Shoals in December 1976. Longwell found that there is mounting evidence that oil is toxic to fish eggs and larvae, and may be lethal to, or adversely affect, their normal cellular division. About half of all the fish eggs examined had oil droplets and tar adhering to their chorions. Fewer cod eggs were fouled than those of pollock. About 20 percent of the cod eggs and 46 percent of the pollock eggs collected at sea were dead or dying with their chromosome division arrested. Some pollock embryos from stations near the slicks were grossly malformed; none were malformed in samples taken at distant locations. Longwell found that the development of abnormal embryos was the principal effect of water-soluble benzene on Pacific herring eggs, thus demonstrating that even small amounts of oil can have disastrous consequences during this most fragile link in the life cycle of fishes in their natural habitat.

p. 33, para. 1

The alternative case that foreign trawlers, with their much heavier equipment, may damage undersea facilities thereby causing an accidental spill must also

be considered. The precise pipeline map must be supplied to the foreign fishing fleet and every effort made to see that they comply with sealane restrictions and no-fishing zones around offshore drill rigs and platforms. Nowhere in this DEIS are problems involving the foreign fishing fleet addressed. It is not clear to us why the DEIS states that the Fishermen's Contingency Fund only "may" compensate U.S. fishermen for gear conflicts. We had understood that the Fund would compensate U.S. fishermen for any legitimate claim filed.

p. 33, para. 3

Here the DEIS states that marine vessel traffic conflicts "may" occur. Elsewhere (p. 139) the DEIS states that; "Competition for dock and warehouse space, however short lived, could result in an economic loss for the fishing industry." We are already aware of what that impact might entail. In the summer of 1977 two supply boats servicing an offshore exploratory drilling rig (SEDCO 708) operated out of Kodiak for a period of about two months. During that time at least one instance took place in which a king crab fishing vessel could not refuel because the service supply boat ahead of it took on all the fuel available at the fuel pier. The delay involved in getting fuel cost that fishing vessel valuable fishing time and resulted in an economic loss to the vessel's owner and crew.

p. 33, para. 4

The limited time interval between proposed lease sale NO. 46 and 60 has been identified by the Kodiak Island Borough as a severe obstacle to joint planning of onshore needs and impacts. We understand that the DEIS for lease sale No. 60 will be released July 25, 1980 to be followed by public hearings sometime in mid-October. Again, BLM has chosen an inopportune time for adequate study and response on the part of many Kodiak residents since fishermen will be

involved in the major salmon fisheries and preparing for the opening of king crab season in mid-September. The intent of NEPA is to prevent piecemeal development and to insure that separate proposals that commonly impact a particular area are integrated so that long-range impacts can be more readily ascertained and planned for. We believe BLM's timetable for scheduling lease sale No. 46 and sale No. 60 is in direct contradiction to CEQ guidelines for implementation of the National Environmental Policy Act of 1969 and may possibly be in violation of the Act itself.

p. 33, para. 7

The statement that OCS use of the Kodiak port facility could adversely affect the fishing industry because the facility is close to or at current capacity is both inaccurate and a departure from the 1977 draft (p. 436) which identified as inadequate the already overcrowded conditions prevailing at that time. Since 1977 the situation has simply progressed from bad to worse and any increase in use of present facilities by OCS activities will undoubtedly result in additional vessel and facility conflicts similar to that already cited above. We will expect the final EIS to cite specific "experiences" describing where and how these conflicts have been resolved in the past.

p. 33, last para.

The Kodiak Island Borough does not agree that overall impacts on commercial fisheries and fishing will necessarily be minor to moderate. Even a moderate impact (whatever that means) to gain additional "benefits," i.e. tax revenues, may be a substantial price to pay if moderate impacts encompass a range of anywhere from 25 to 75 on a scale of 100 and may be present for up to 25 years, the estimated life of the project.

p. 34, first line

Again, the term "moderate" impact is used with absolutely no substantiation or

description of what the term means or how it was arrived at.

p. 34, 2, b, para. 1

We do not understand how future OCS oil production is reduced by not selling lease sale No. 46 when we have been repeatedly told by BLM in this DEIS that absolutely no oil production is expected from lease sale No. 46. The wording of this paragraph implies that development of alternative energy sources to reduce sale impacts is almost heretical. On the contrary, we believe that U.S. dependence on hydrocarbon energy sources should be reduced by the development of alternatives aimed at removing all adverse impacts associated with their development and use. We believe such a goal should be the objective of any rational National energy policy.

p. 34, sec. 2, subsec. b, para. 2, line 4

Again, reference is made to oil that could become available from the proposal.

Again, we ask "What oil?"

We do not agree with the conclusion that delay or cancellation of this sale necessarily results in increasing imports. We believe this DEIS is deficient in not identifying viable alternatives to this course of action and discussing their relative merits. Finally, according to figures and projections supplied by BLM, the total production estimated from lease sale No. 46, under the best of circumstances, is insignificant in terms of production anticipated from the entire 5-year lease schedule (on the order of 1 percent).

We are amazed to see, in this paragraph under the No Sale Alternative, the first, last and only allusion to the possibility of Borough residents deriving direct sale benefits in the form of natural gas and supposed reductions in local heating costs. What happens if resources are not found as a result of the preferred alternative? We still go on using "high-cost" heating oil bought with money earned from our growing fisheries economy. No other alternative

even alludes to the residents of Kodiak as potential natural gas consumers and we strongly suspect that this reference to natural gas use appears under the "No Sale Alternative" simply as a carrot-dangling technique to encourage local support for lease sale No. 46. We see this reference as a direct violation of 40 CFR 1502.2(f) which states: "Agencies shall not commit resources prejudicing selection of alternatives before making a final decision."

Table II.B.2.b.-1, Table heading

What anticipated oil production is this table heading referring to?

Table II. B.2.b.-1, Footnote 6

We question a theoretical conversion rate of other forms of energy to electricity at 100 percent efficiency as not being consistent with the 2nd Law of Thermodynamics. We also question the assumption that the average nuclear power plant in the United States operates with anywhere near a factor of 80 percent.

Table II.B.2.b.-1, Footnote 7

Where is the plutonium being recycled for this assumption? We are under the impression that both Government owned plutonium recycling plants in the United States are closed down indefinitely.

p. 35, para. 4, sentence 1

We fail to see how all the environmental impacts from alternative energy sources, as listed in Table II.B.2.b.-1, can be expected to occur. For example, how will oil shale development in Colorado affect the Kodiak king crab fishery environmentally?

p. 35, Alternative III, para. 2, last sentence

We have contended during the entire planning process that cumulative impacts could be reduced through joint planning for proposed lease sales No. 46 and 60 and that, in fact, the very intent of NEPA is to encourage such planning.

In the very next paragraph, however, we take exception to the statement that a delay will result in the cumulative impacts becoming increased with regard to their effects on fish resources and the commercial fisheries. We believe there is every opportunity for joint planning, supported by additional research, to markedly reduce the chance of such impacts and their magnitude, a position we have advocated for some time now.

Table II.B.4.a.-1

If the area is reduced by approximately 35 percent and the chances of finding gas by 37 percent, why is the same amount of equipment and, we presume, the same level of activity required?

p. 37, para. 4, lines 3 and 4

A reduction in gear conflicts from "moderate" to "minor" is relatively meaningless unless some quantitative measure can be applied. For example, the pipe line route is shortened from 240 to 135 miles, a reduction in length of over 40 percent. Equating this reduction with, for example, the number of trawl hauls in ADF&G statistical areas in which pipelines still occur as opposed to ones from which lines have been deleted as a result of the alternative and some more meaningful data might be developed for evaluating the relative impacts of alternatives proposed in the draft that deal with deleting various combinations of blocks from the sale.

p. 37, para. 5

This paragraph simply does not make sense, especially when, as it is written, it refers to the commercial fishing gear conflicts mentioned in the preceding paragraph.

p. 37, para. 6

It appears that an estimated reduction in cumulative offshore effects was arrived at almost, if not entirely, exclusively on the basis of the reduction in real area leased as a result of eliminating the northern blocks. We

alternative), may exert a cumulative effect on
that for the preferred alternative (also an
to comprehend. It would seem to us that the
combined case, be serving two sale areas and
ter impact.

is combination would result in additional
reased impacts to the area's socioeconomic

cluded that removing only 2 percent of the
rd reduction in impacts? This formula does
c area/impact relationship questioned above.

ies for crab may be increased, not reduced, facilities results in conflicts between OCS ng industry as a consequence of the non-

answer to amelioration of boom conditions. s, especially those of more social orienta- violence, rape, child abuse, wife beating the increased stresses that may accompany any cases throughout the western states eated boom towns (e.g. Gillette, Wyoming, ated revenues did not materialize and the

entirely new port facility will ever be
on a sustained yield basis.

paragraph, especially the statement that
Liliak LNG terminal, is the crux of the
argument that lease sales 46 and 60
planning process that includes evalua-
located to serve both areas. We would
ould be built as a result of the success-
les should the recommended alternative for
ant at Kiliuda Bay) be selected?

How does a reduction of tracts by 2 percent
by 25 percent?

could be the greatest for these two
ver, that other alternative tract deletions
de in conjunction with developing an LNG
em could have quite severe impacts.

id condensates weather under environmental
n the western Gulf of Alaska? We believe
reakdown of component substances, such as
eir evaporation in Alaskan waters. Events
spill (referred to on p. 94) do not

percent, chance of a spill occurring or a
g? We assume a 65 percent chance. The

Environmental impacts would probably be reduced
we would still like to know how such estim-
anner and dungeness (sic) crabs are reduced
etermined.

tracts in the northern area and 12 tracts
ed by BLM as potentially reducing environmen-
e for the entire sale and wonder why this
alternative? Especially since the DEIS
atively small nearshore tract deletions
rotection to the resources."

d "accumulation" and insert "resulting from an"
n endangered species and those due to an
known, then, at a minimum, the sale should

the timber resources will inevitably be
for the Forest Service. Resource develop-
ment should much of the timbered land be
National Wildlife Refuge under the d(2) lands

information submitted by KANA might be incorporated

lands, noted at this point in the DEIS, cannot
only do local foods play an important role in
lifestyles of many Kodiak Island residents, but
lifestyle value that extends far beyond mere
Simply, reliance upon native foods is a way

c to enclave developments. Any growth in
e pressure on game and fish resources impor-
regardless of the cause of growth.

1.c.-2 which is missing from the text.

'substitute"

III.C.2.b.-5

cent sales tax, not 3 percent as stated

erty tax of 6.00 mills and the Borough a
total property tax of 12.18 mills within

correctly if the word "efficiency" followed
the words "processing" and "employment."

d "successes" and insert comma between

ence

recommend adding the word "operate" at
the word "boats,"

es" and "projected" and insert "is" to agree
the preceding line.

pected to remain "relatively minor" in the

... to successfully meet additional require-
... services or quality of life. We believe that,
... OCS development are clearly anticipated and
... term effects of OCS-related activities may
... ready development of the Kodiak community
... diversifying and growing fishing industry
... sources of the unimpaired waters of the

... "equivalent" and insert "or"

... the discussion that Kodiak's economic viability
... long-term, on the perpetuation of a viable

y" to agree with "hectares" in preceding line
grounds equaling 6,033 acres could represent
fishermen if these areas happened to fall
grounds. Some estimate of the time involved
useful in assessing the impacts associated
and development.

for hydrostatic testing?

ces"

agree with "characteristic" in preceding line

r at least a delay in lease sale No. 46
tained and evaluated. An additional problem
ern Gulf of Alaska Oilspill Analysis was
e base resource involved in an accidental
ndensates. Although the presence of gas is
this shift in resource emphasis does not ap-
l analysis used in this DEIS.

chains shorter than C-15 volatilize from the
places certain areas along the Kodiak coast in
ensate spill to say nothing of the damage possi-
ving LNG.
arbons coming in contact with sediments "will

This DEIS is supposed to address impacts
st those that may involve the Kodiak area. To
coverage seems to us to be an oversight not
ned in NEPA for the review of all environment-
proposed action.

Resources, para. 1

rather unfortunate choice of words when used
risk of potential oilspill impacts upon

assumption that BLM's analysis of monthly
s the board to all resource categories
nd refinement. For example, the statement
birds can be affected by oilspills only
sent in an area" is grossly incorrect. This

of the ecosystem(s) involved.

to agree with the singular subject "analysis"

facilities be designed to withstand, at a
predicted for seismogenic zone no. 23? Why
as a condition of the lease sale?

arily concerned with oil spills. Would the
de earthquakes upon gas and gas condensate

anker accidents also pose a real hazard to
s.

salmon fisheries.

With regard to more recent studies (cited on
lethal effects to organisms from spill events or
could have serious consequences without actually
For example, if migrating salmon encounter even
pollutants, their avoidance mechanisms could divert
energy away from their arrival enough so that reproductive
success is reduced.

These effects could even extend beyond the life of the pro-
ducer, and into the life cycle of the particular organisms

vae can be impacted in ways other than just
mple, they could suffer mortality as a result
ought on by a pollution event.

between "adjacent spills" and population
ive development activities" (meaning, we
46 and 60). Why, for example, could not one
cause a greater population reduction than
as far removed from critical habitat or numbers

and associated liquids rather than fry although
r as the sentence is written.

tion as still another reason why lease sales
together to determine their overall long-
Chiniak pink salmon stocks.

result in the reduction of "unavoidable
adjacent to various proposed site locations
in this DEIS is there contained a thorough
associated with Kiliuda Bay or Chiniak Bay.

population reduction will be difficult (we
determination of the amount of reduction

er spills involving Cook Inlet crude?

o crab stocks as a real possibility, the risks

r evaluated in the appropriate DEIS. Or,

d have been combined.

raph as being unquantifiable at this time will

possibility of them occurring is, however,

Impacts cannot be determined, let alone

last sentence

as written. First it states that the

Agency ?) Fund does compensate for lost catch

losses can be serious economically to

fund." We are not certain, but this statement

will be compensated for their lost catches but

does not coincide with our understanding of

Contingency Fund (Sec. 403 of PL 95-372)

actually referring. This section specifically

the Secretary from the appropriate area account

ot so stated.

water and power are said to be negligible
enclave nature of the OCS development. Such
alternative VI and estimates of OCS water and
in this alternative since BLM cannot assume
treatment will be the final position taken.

to agree in number with "these"
on, in Subsection d, dealing with the inevitable
birds will be subjected to as a result of OCS
s presentation that BLM has blithely accepted

used in such a manner that the impact of their
ed and assessed. Such an analysis is
term cumulative impacts necessary to meet
) (iv).

considers a "moderate kill" of marine and

d comma after "helicopters"

biting these locations. We believe that
not suitable for LNG facilities can be
can as well. The DEIS should emphasize the
potential environmental hazards.

sion that mortality will occur as a result of
ieve that important habitat areas should

n these marine mammal species as unacceptable
on marine mammals as being "moderate" in

basis for this statement is completely lacking.

2, line 3

or "be" after "noticeably"

2, line 5

p. 120 re: NEPA) applies.

ic" or insert comma after "activities"

ultimate line

o agree with "fact"

sert comma after "and"

: "the loss of only a few additional whales
e two species below the level of environmental

that "no valid conclusion regarding impacts
endangered whales can be made." The worst
n this DEIS (pp. 181-183) does not include
t done on cetaceans. For example, the
ring noises has been incriminated by Charles
duction of humpback whales frequenting a
er Bay, Alaska. We take due note of BLM's
ption as meeting CEQ guidelines, 40 CFR
s appear at that point in our review.

no possibility of an oilspill since oil will
then why is a "potential oilspill" listed in
source of potential conflict with recreation

d "OCS" and insert "to"

ing to?

the development of lease sale No. 60 that

5. The possibility of enclave development

in our contention that the best interests of

environment are not being served unless planning

line 1

pe" and insert "at"

ak" and "city" and insert comma between

"city"

and supply base could be used for both sales

joint impacts from the two sales should be

In summary, we do not look upon good planning

and beyond the production life of the field if

long maturation periods (i.e. halibut,

near the end of the sale period. It is very

effects could ever be clearly assigned one cause

several fisheries be isolated and measured.

serious damages could never be realized. We

possibilities as one of the major threats to

OCS development be allowed to proceed in

Island.

cts

stand how the perpetuation and growth of the

ult in a loss of present lifestyle. The

residents is primarily fishing or fishing-

ee how more fishing results in a loss of

t supposed to be directed toward a presentation

hing, it is purportedly reviewing impacts

as resources on the OCS. We are at a loss to

s included in the draft.

uld, indeed, permit the residents of Kodiak

improvement plans. In this respect, a delay

lease sale No. 46 be delayed to allow for
the need for a combined planning effort that

posed"

lines 1 and 2

the "of" to "from" at the beginning of line 2

line 9

replace with "of" and delete "a" before

ral

does not make sense as written.

g and impact analysis as well, since both
nd and water areas. Our same comment
ng cumulative effects at the bottom of the
onshore facilities for both sales at the same
pe of probable impacts from onshore facilit-
eve BLM's overall sale planning should accord
rnative.

to Alt. VI? All alternatives with LNG plants
possibility.

ch many adult and juvenile pink and sockeye

stances" should read "the"

e Adverse Effects, line 1 and 3

an "unavoidable" contact. Only the magnitude
otherwise the contact becomes avoidable.

ce "could be reduced"

the way it is now written.

make sense in this context.

cts

d hints at blackmail. It is precisely the
I that we are addressing!! Adverse effects
d police protection, impacts on schools,
cial services. These impacts should be
ne DEIS tells us they will not occur if
ve. We would frankly like to know at this
s think of the enclave concept. After all,
, that will call the final shots!!

ve" and "have" on the next line.

ated to OCS growth. We view this as a
that not all disruptions are quantifiable
by an infusion of money; e.g. alcoholism,
related health problems, battered wives, ADC
ly crimes of violence, including assault
ire DEIS are these types of impacts

ment avoids the issue by encouraging
BLM's enclave proposal instead. Any
ess the alternative under review, namely
failure of this DEIS to do so greatly weakens
d markedly impedes the review and evaluation

t conflicts between OCS development and
t in the displacement of a part of the
tand that such a displacement has already
aldez area. The Kodiak fishing fleet repre-
ong-term economic security. We adopt the position
t will have to accommodate the fishing industry,
the Kodiak Island Borough makes as the result
fishing industry in every instance.

t-term and long-term pollution as a con-
d "cause serious adverse effects on all

Continental Shelf Office, Bureau of Land
January 10, 1980). Based on 1978 dollars, Kodiak
million. Projecting this value for 25 years
ield) and the value of the Kodiak fisheries
ced value of the 5350 bcf of natural gas
out \$35 billion based on the import equivalent
has not been adjusted for the costs involved
duction and transportation which are estimated
ppendix A). This figure represents a cost
duction rate estimated in this DEIS.

, produce and transport the product to port(s)
ed as a project energy cost, will the amount of
duced equal or exceed the amount expended?

le No. 46 helping to solve the energy problem
se sale No. 46 has already incurred a considerable
contention that this DEIS is deficient by its
h analysis of all the costs and benefits asso-

ubstitute the following:

ommercial fishery attributable to this proposal
etrievable."

ect and indirect mortality due to spills
e fishing industry and OCS activities and

ther there will be any significant irretrievable
nly one of several compelling reasons for

e "or" after "assessment" and insert "of"

made here?

and should be in the lower case.

make "pink" lower case

as and gas condensates? Are these substances
, the discussion of this and the following
ly to crude oil and oil spills and is not
erns about the effects of natural gas or
his entire section be rewritten to reflect

sed upon the 1976 DEIS without even consider-

fishing areas."

450 thousand North Sea seabirds due to chro-
as a project selling point.

their southern ranges has contributed to the
the same species of birds found off Kodiak
the northern habitat of these species undis-
again primarily address the consequences of

vy" oil development. We are concerned with

interrupt or displace feeding whales may
BLM but there is a growing body of research
is quite valid and we strongly suggest fur-
e of this factor.

lack of knowledge surrounding a whale's
led hydrocarbons while feeding and their
rocarbon compounds is of real concern to
ing such potentially adverse conditions
ecting these magnificent animals to any

ario described here as a "worst case assump-

us"

own"

development, yet there is no assurance that
ected, especially since lease sale No. 60
system a more logical location for support-
tion.

t groups were contacted during the prepara-
paragraph at the beginning of the list states
was remiss in not contacting representatives
e Kodiak Shrimp Trawlers Association or the

ified.

shipping cost include? What does the two
include? Figures derived from data included
not match those using the five dollar/Mcf
production estimates presented in Table II.

20, para. 2, line 1

insert "to"

reading for column 2 which reads 1918 but

