OCCIDENTAL PETROLEUM CORPORATION 10889 WILSHIRE BOULEVARD . SUITE 1500 LOS ANGELES, CALIFORNIA 90024 (213) 879-1700 + (213) 477-0066 September 6, 1980 ARMAND HAMMER CHAIRMAN AND CHIEF EXECUTIVE OFFICER The Rt Hon Mrs M Thatcher MP Prime Minister & First Lord of the Treasury 10 Downing Street London S W 1 Dear Print Trival Occidental's Proposal for a Polyethylene Plant in Scotland As promised, I am writing to give you more details of the chemical project we discussed during your visit to Flotta. Energy Paper No 44, published in June, indicated that the proposed new gas-gathering pipeline will bring to St Fergus a raw gas carrying large quantities of gas liquids. I understand British Gas will install a separation plant producing dry gas, condensate, mixed NGLs, and ethane Ethane can be used to manufacture synthetic natural gas but this adds very little value. Occidental would like to purchase ethane from St Fergus and up-grade it locally via ethylene to polyethylene, all at the same site. This will avoid the need to ship potentially hazardous liquid gases such as ethylene, and will enhance the value of the ethane about six-fold. In 1979 nearly 40% of the UK's polyethylene consumption was imported. We will need to be highly competitive in order to displace imports and achieve the necessary market penetation in Europe. My staff have provided the attached note giving more details. Sacrely Jones Umand Harmen Dr Armand Hammer Attachment

### OCCIDENTAL'S PROPOSAL FOR A POLYETHYLENE PLANT

#### IN SCOTLAND

Subject to satisfactory negotiation of feedstock supplies and the necessary governmental approvals Occidental proposes to take the lead in constructing and operating a polyethylene plant, key features of which are outlined below:-

### Site Location

With the help of the Grampian Region and Banff local authorities several suitable sites have been identified in the Peterhead - St. Fergus area, 30 miles north of Aberdeen.

#### Feedstock

We have asked BNOC to negotiate with us a contract for a 20-year supply of ethane gas at the rate of 350,000 metric tons per year. This represents less than one-third of the U.K. ethane forecast to reach St. Fergus via the new gas-gathering system. The ethane would be taken by pipeline from the St. Fergus separation plant to be operated by British Gas.

#### Process

We will use a conventional ethane cracker to produce ethylene, all of which will be polymerized to linear low density polyethylene (LLDPE) using an advanced low-pressure process.

Ethane cracking gives rise to very small by-product quantities. These will be used within the plant as fuel.

### Products & Markets

The plant will produce about 250,000 MTPY of LLDPE. It is expected that about 80,000 will be sold within the U.K. initially, the eventual market depending on the response of users and fabricators to the growing availability of competitively-priced polymer. The balance will be exported to Europe where the superior properties and competitive price will facilitate displacement of LDPE based on naphtha feedstock and old high pressure processes.

PE polymer markets are still expanding and the U.K. particularly has the potential to use much greater amounts. Over 200,000 TPY are presently imported.

The competing projects in Scotland, Shell/Esso at Mossmorran and Dow in Nigg Bay, are largely planned as ethylene and LPG exporters.

### Logistics

Preliminary studies indicate that the polymer can readily be moved by trucks then by train from Aberdeen and by ship from an extended quay in Peterhead Harbour. No potential hazards are associated with handling LLDPE.

# Employment

It is expected that about 300 people will be employed directly in the operation of the plant, product movements and in administration of the business. During the three year construction phase about 1500 people would be employed by our contractors. The products produced would also provide employment for several thousand people.

## Investment

Approximately \$500 million will be needed, allowing for inflation and assuming a construction period 1982-84.

## Company Structure

We expect to invite participation by a number of UK companies with interests in the use of LLDPE. It is also proposed to study the possibility of a UK public offering of a part of the shares.

# Planning, Design, Environmental and Safety Submissions

Planning applications and environmental studies will be started as soon as we have agreed the basis for the necessary feedstock supply. We do not plan to ship ethylene or other potentially hazardous cryogenic liquids and hopefully the definitive planning approvals and design can be achieved in one year.

## Economic Factors

By 1982/84 the Grampian Region will not qualify for Regional Development Grants. Satisfactory economics will depend on the ethane feedstock and advanced technology providing a competitive edge over established European producers, sufficient to overcome the product shipping cost disadvantage.

## Tax Treatment

Established profitable companies operating onshore in the UK enjoy the cash-flow benefit of being able to re-invest in new plant and equipment out of pre-tax profits. The present main UK producers, ICI and Shell, probably have this advantage.

The Oil Taxation Act 1975 separated the taxation of North Sea profits from those onshore in the U.K. so we cannot re-invest pre-corporation tax profits from Piper and Claymore in this plastics project. (It was this change of tax law in 1975 which was the "last straw" in destroying the forecast economics of the original Canvey Refinery project, causing us to suspend construction).