COMMISSION OF THE EUROPEAN COMMUNITIES



Brussels, 23.12.1997

PUBLIC VERSION

MERGER PROCEDURE ARTICLE 6(1)(b) DECISION

To the notifying parties

Dear Sirs,

Subject: Case No IV/M. 1041 - BASF / SHELL

Notification of 21.11.1997 pursuant to Article 4 of Council Regulation N. 4064/89

- 1. On 21.11.1997, the Commission received a notification of a proposed concentration pursuant to Article 4 of Council Regulation (EEC) No 4064/89¹ by which the undertakings Shell International Chemicals Limited belonging to the group Royal Dutch/Shell ("Shell") and BASF Aktiengesellschaft ("BASF") transfer their West European activities in the field of polyethylene ("PE") into a newly created joint venture ("Marlene"). This notification followed a previous notification of the same operation, which was made by the same parties on 16.09.1997 and withdrawn on 15.10.1997.
- 2. After examination of the notification, the Commission concludes that the notified operation falls within the scope of Council Regulation (EEC) No 4064/89 and does not raise serious doubts as to its compatibility with the common market and with the EEA Agreement.

OJ No L 395 of 30.12.1989; Corrigendum: OJ No L 257 of 21.09.1990, p. 13.

I. THE PARTIES

- 3. Shell International Chemicals Limited is a service company within the Royal Dutch/Shell group of companies. Shell is engaged world-wide in the exploration, production and sale of oil and natural gas and in the production and sale of chemicals and coal. Shell's chemical activities in the polyolefin sector include the production of polypropylene resins ("PP") and the licensing of PP and PE technology through Montell N.V. ("Montell"), a former joint venture between the Shell and Montedison groups, which is currently under sole control of Shell².
- 4. BASF Aktiengesellshaft ("BASF") is a multinational chemical company with operations extending from oil and gas to high-tech chemical products. BASF transferred its West European chemical activities in the PP field to a joint venture ("Targor") with Hoechst³.

II. THE OPERATION

- 5. BASF and Shell will each hold 50% of Marlene's share capital.
- 6. Each parent will contribute to Marlene its 50% interest in an existing 50/50 production joint venture ("ROW") at the integrated site in Wesseling (Germany), mainly including two crackers and the PE facilities. In addition, BASF will transfer to Marlene all of its world-wide PE business, including in particular its PE technology licensing activities, R&D activities, a pilot plant and catalyst production facilities. Shell will transfer to Marlene all of Montell's PE business conducted in or from Europe, including the plants in France at Berre L'Etang, Fos and Notre Dame de Gravenchon (50% of a JV with Exxon) and in the UK at Carrington.
- 7. In accordance with the above description, the notification includes three principal sets of agreements: a) the Joint Venture Agreement between BASF and Shell; b) the BASF Transfer Agreement; and, c) the Montell Purchase Agreement.
- 8. Moreover, Montell and Marlene will establish a 50/50 production JV which will run the cracker located at Aubette/Berre L'Etang (F), currently belonging to Montell. This last operation has been notified under Regulation 17/62.
- 9. Marlene will have a "double holding structure" consisting of two holding companies: a German JV, which will comprise the ROW and BASF PE Businesses; and a non German JV, which will comprise the Montell business to be acquired.
- 10. In connection with the Joint Venture Agreement, a number of special arrangements will be established to regulate various types of relationships between Marlene and the parent companies. The cracker at Aubette (to become a 50/50 production joint venture between Marlene and Montell) will be supplied with feedstock by Shell and will in turn supply ethylene to Marlene and propylene to Montell.

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See case IV/M.1007 - Shell / Montell - Decision of 23.10.1997 -

³ Case IV/M.845 - BASF / Hoechst - Decision of 17 June 1997

- 11. Marlene will continue the existing ROW arrangements between ROW and its parents regarding cracker feedstock naphtha and hydrowax at Wesseling. On the other hand, Marlene will supply a certain amount of propylene to Montell's PP facility in Köln. Moreover, Marlene will supply propylene to, and operate, ROW's PP plant at Wesseling under a toll-manufacturing agreement for Targor. Also, Marlene will toll-manufacture a number of other products, including Epikote, Kraton, and Butadiene (for Shell), and ethylbenzene and styrene (for BASF).
- 12. Marlene will enter into agreements with BASF to operate the latter's pilot and catalyst plant in Ludwigshafen. In addition, Marlene will enter into agreements with Shell and Montell respectively to operate the PE facilities located within their integrated petrochemical sites at Berre and at Carrington. BASF and Marlene will enter into agreements regarding certain basic R&D activities relating to PE, which will be conducted at BASF Central Research.
- 13. Furthermore, the parties have executed an Amendment agreement, which provides in particular that:
 - surplus of ethylene and propylene produced by Marlene (i.e. exceeding its own requirements and commitments) are to be sold by Shell under arm's length terms. Terms and conditions of the sale are determined independently by Shell. Marlene will receive [...]⁴.
 - Marlene is free to source additional tranche of cracker feedstock (on top of the quantities to be supplied by Shell) from third parties, on the basis of a bidding mechanism;
 - Marlene will be free to optimise its Wesseling crackers with the aim of supplying itself with ethylene in a cost effective manner; and,
 - Marlene's propylene supply to its PP facilities (toll manufacturing for BASF/Targor) will be determined according to an operating plan in such a way that Marlene will not take any propylene and polypropylene market-related risk. Thus, in the event that Marlene's crackers will produce more propylene than required for the PP toll-manufacturing at Wesseling, the surplus will be purchased by Shell or Targor at market price; conversely, in the event that Targor propylene needs are greater than Marlene's production, Targor will itself procure the needed additional propylene by itself.

III. CONCENTRATION

14. Marlene will operate as a PE producer and will be vertically integrated into olefin production. Olefins (mainly ethylene and propylene) are basic chemicals generally obtained from oil and natural gas in plants called "crackers". In general, the operation of a cracker involves the simultaneous production of a number of coproducts, which may be further processed into derivatives. Ethylene is the primary product of cracking operations, propylene being the main co-product. They are obtained in a relatively fixed amount depending on the quality of feedstock used and the severity of the crackers operation. Ethylene and propylene are then processed by polymerisation into PE and PP, which are the most important polyolefin product, belonging to the category of the thermoplastics.

⁴ Price conditions deleted for publication. Business secrets.

Joint Control

- 15. According to the Joint Venture Agreement, Marlene will be jointly controlled by the two parents. Marlene will form a new single economic entity encompassing the activities owned and operated both the German and non-German companies. The two entities have common management, i.e. the same top executives will be appointed on the Boards of Management of the two companies. Each of the two companies will coordinate specific operational and other functions for the whole of Marlene. The members of the Boards of Management are entrusted with the task of co-ordinating and managing the Marlene joint venture. The Boards of Management have responsibility under the Joint Venture Agreement for producing every year a capital budget for the following year and a five year business plan which will encompass the activities of both Marlene companies.
- 16. The budget, the five year business plan and other key strategic decisions, such as significant investments and disposals and other matter of strategic importance, will be submitted by the Boards of Management Marlene's "Venture Consortium Committee" for approval. This committee comprises eight members, four being nominated by each shareholder. It will decide by majority vote, thus requiring unanimity between BASF and Shell.
- 17. In the light of the above, the Commission considers that Marlene is a single economic entity jointly controlled by BASF and Shell.

Full function joint venture

- 18. The joint venture will comprise the ROW, BASF and Montell PE Business, including production facilities in different locations, as well as the operation or joint control of 3 crackers. It will therefore to a large extent be self-sufficient and backward integrated. Marlene will also have its own independent organisation with respect to the relevant business functions. Under the joint venture agreement, the duration of Marlene is intended to be indefinite.
- 19. According to the parties, it will not be possible to separate the pilot plant and catalyst production facilities at Ludwigshafen. Marlene will therefore enter into an agreement with BASF to operate them exclusively under Marlene's control. On the other hand, Marlene will enter into agreements for Shell to operate the PE facility located within Shell's integrated petrochemical sites in Berre and Carrington (Montell). Marlene's employees will manage the PE operations on site, and Marlene will have full control over these facilities.
- 20. Although Marlene will rely on its parents for a large proportion of its current crackers' feedstock (naphtha and hydrowax) at Wesseling, it will be free to procure additional quantities from third parties (see also paragraph 53). Moreover, Marlene will independently run its crackers at Wesseling and will use an optimisation program designed in order to meet its own requirements as an integrated PE producer.

- 21. Although Marlene will manufacture a number of products for its parents these arrangements do not undermine the autonomous nature of Marlene. These are coproducts which will only play a subsidiary role in the joint venture activity. They will be sold to (or through) the parents at arm's length conditions, and will only account for a minor part of Marlene's turnover. Indeed, [...]%⁵ of Marlene's turnover is attributable to its core PE activities.
- 22. Marlene will be endowed from the outset with all of BASF's world-wide PE technology business, BASF's technologies (including catalyst technologies) and intellectual property rights, BASF pilot plant and catalyst production facilities at Ludwigshafen, R&D personnel capable of orchestrating R&D work, all resources and personnel regarding application related PE R&D. Notwithstanding the fact that BASF will conduct certain basic research in the PE field for Marlene under a research agreement, Marlene will be allowed from the outset to establish its own PE and related catalyst research activities and to source R&D from third parties other than BASF.
- 23. In the light of the above, the Commission considers that Marlene will carry out all the operations normally associated with an autonomous economic entity.

Absence of Coordination

- 24. The risk of coordination between the joint venture's parents has to be evaluated in respect of BASF, Shell and Marlene's activities in the olefin and polyolefin production as well as in the technology licensing business.
- 25. Both Marlene and its parents will have their own cracker operations. Thus they will all be active in the production of various cracker products, and in particular of ethylene and propylene.
- 26. However, Marlene will not be an active supplier on the markets for olefin products. The bulk of its ethylene production will be used captively for its own PE requirements. Indeed, Marlene is expected to be a net buyer of ethylene. As for its propylene production, it is foreseen to be entirely supplied, under long term supply agreements at arm's length conditions, to the parents' PP operations. Also, both BASF and Shell are net purchasers of propylene in Western Europe. Thus, Marlene is not expected to play a role on the markets for ethylene and propylene, where both BASF and Shell remain actual or potential players. In the event of surplus production, any sales of either propylene or ethylene will be marketed independently by the parents. With respect to cracker products other than ethylene and propylene, neither will Marlene be an active supplier, since these co-products will also be sold to or by the parents, nor are the parents significant competitors in these markets.
- 27. As regards the cracker optimisation at Wesseling, Marlene will be able to conduct its operation so as to decide to expand or reduce its PE production.

Business secret. Between 60 and 80

- 28. As regards polyolefins, whilst BASF and Shell will withdraw from the PE market assigned to Marlene, they will both remain active, through Targor and Montell respectively, as large producers of PP. Marlene's link to the parents PP business is that, under the Wesseling PP Production Agreement, it supplies propylene to both parents and it toll manufactures PP for BASF. Whilst, as the parents argue, this link follows from the integrated nature of the Wesseling site, the Commission had to assess whether it would raise an issue of potential coordination between BASF and Shell on the PP market.
- 29. In view of the changes to the agreements made by the parties (see "Amendment Agreement" above) and as confirmed by the inquiries carried out, it can be concluded that this link does not give rise to a real risk that Marlene will be used by the parents as a vehicle to coordinate their PP activities. Marlene's operations will remain driven by its own ethylene requirements, thus reducing the potential and the incentive for them to be used to influence propylene and polypropylene output or prices.
- 30. However, whilst in light of the above the PP Production Agreement does not put into question the concentrative nature of Marlene, it cannot be excluded that it could be examined under Article 85 of the EC Treaty.

As to the technology business, both BASF and Shell have developed technologies in the polyolefin sector, where they are active licensors. In the PE technology, Shell will keep its Spherilene licensing business, whereas BASF will transfer its PE licensing business to Marlene. Although the technologies of PE and PP are different, R&D in the production technology of PP and PE can be linked in particular as to the future developments of polymerisation and catalyst technology. Therefore, R&D activities which may in the future result in new technology or product developments might be examined with a view to market scenarios which are larger than the current distinction between relevant product markets. However, the simultaneous presence of the parents and the joint venture in R&D activities relating to the polyolefin business does not appear to create a real risk of coordination between their PP technology licensing businesses. Even though certain synergies could be created in the development of new technologies impacting the PP and PE production, it follows from the investigation conducted that there will be no incentive for Marlene to have its own licensing activity bundled or somewhat coordinated with the parents' PP ones. In any event, the [...]⁶ position of Marlene on the PE licensing business implies that any such practice would not have a significant impact on the market.

IV. COMPATIBILITY WITH THE COMMON MARKET

Relevant Product Markets

31. It follows from the description above that Marlene will be active on the markets for PE and PE technology.

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⁶ Business secrets. Deleted for publication

Polyethylene

- 32. PE is a thermoplastic belonging to the family of polyolefins, which also include PP and polybutylene. These products are derived from base chemicals (olefins) through a process known as polymerisation: PE for instance is derived from ethylene. There are three main types of PE, with varying characteristic properties: low density PE ("LDPE"), linear low density PE ("LDPE") and high density PE ("HDPE"). Within each of these three families, there are different grades produced by varying the conditions of polymerisation or by using different additives. In a previous case⁷, the Commission considered that the relative ease with which manufacturers can switch production from one grade to another gives rise to a high degree of supply-side substitutability.
- 33. Marlene will produce all main types of PE, but will not produce Ultra high Molecular Weight PE ("UHMW-PE"), a special kind of PE for the production of which specific catalysts and reactor are required. In another previous decision⁸, the Commission distinguished between PP and PE, although it considered the fact that there is some degree of fringe substitutability in particular between PP and HDPE. The investigation conducted in the present case has confirmed that only a small percentage of the PE sales (in a limited number of applications) are likely to be affected by the competition for PP products.
- 34. However, for the purpose of the present case, it is not necessary to decide whether the product market of PE resins has to be divided further into two or three relevant product markets according to their characteristic properties or their applications, because, in all alternative definitions proposed, the concentration will not raise serious doubts as to its compatibility with the common market.

PE-Technology

- 35. In the Shell/Montecatini decision, the Commission distinguished between production and sale of a polyolefin and the technology used in the field concerned. Traditional PP-and PE technologies were found not to be competing with each other. In the Union Carbide/Enichem decision, the Commission concluded that there is a PE technology market distinct from the market for the production and sale of PE, owing to the fact that most PE producers that have developed their own PE production technology offer it for license. Therefore a large number of PE producers operate under technology licence, and licensing is organised as a distinct business activity.
- 36. Within the PE technology, a distinction can be made between high pressure process (to manufacture LDPE) and low pressure process (to manufacture HDPE), the latter including solution, slurry and gas phase technologies. Furthermore, PE processes can also be differentiated as regards their use of catalysts (e.g. metallocene catalysts). In the above-mentioned Union Carbide/Enichem decision, the Commission, taking into account the future demand trends for PE products, made a distinction between high-pressure and low-pressure processes. Marlene will be endowed with BASF's both high pressure and low pressure technologies. However, for the purpose of the present decision, it is not necessary to decide whether these segments constitute relevant

⁷ Case No IV/M.550 - Union Carbide/Enichem

⁸ Case IV/M.269 - Shell /Montecatini

product markets, because irrespective of the precise market definition to be adopted in this respect, the assessment of the notified concentration would not change.

Relevant Geographic Markets

Polyethylene

37. In the Union/Carbide decision, the Commission found that the relevant geographic market for PE resins covers the whole of Western Europe. Significant custom duties imposed on non-European production and the low level of imports from non-European countries, prevented any enlargement of the geographic market. The situation is largely unchanged today, with only limited imports into Western Europe.

PE-Technology

38. In the Union/Carbide decision, the Commission came to the conclusion that the PE technology market has a world-wide geographic dimension. No evidence was received to justify taking a different approach in the present case: licensors remain active world-wide and there appears to be no geographic constraints on the licensees' choice of supplier.

Assessment

Polyethylene

39. The West European market for PE is characterised by increasing concentration and the presence of strong industrial companies, some of them being vertically integrated. Prior to the concentration, both parent companies were already active on the market for PE resins. Following the concentration, the joint venture will operate a number of plants located on five different sites in France, Germany and the UK. The proposed operation will not lead to very high market shares, even on the basis of the narrowest product market definition. The combined market share of Marlene amounts to approximately [...]%10, SHELL through Montell: [...]%10). On the segment for LDPE, where the concentration leads to the highest position, the combined market share amounts to approximately [...]%11. In terms of production capacity, the new joint venture will rank among the four major producers with an approximate nameplate capacity of [...]%11 of the total West European capacity. On the segment for LDPE, Marlene will be the second producer, behind Polimeri Europa, with around [...]%11 of the total capacity.

⁹ Business secrets. Less than 15%

Business secrets. Less than 10%

Business secrets. Less than 15%

- 40. Strong competitors with higher or comparable market shares remain active on the PE market, such as Borealis (approximate market shares: [...]%¹² on the overall PE market, [...]%¹³ on the segment for LDPE), Polimeri Europa (PE [...]%¹², LDPE [...]%¹⁴), DOW (PE [...]%¹⁵, LDPE [...]%¹⁵) and BP (PE [...]%¹⁵, LDPE [...]%¹⁶). Most of them belong to big chemical vertically integrated groups, and either operate under advanced technology licence or possess their own, advanced proprietary technologies.
- 41. With respect to the vertical aspects of the concentration, Marlene will benefit from a 90% backward integration with its cracker operations, and will have access to BASF's technology. However these facts do not represent significant advantages for the joint venture, as compared to its main competitors.
- 42. For the above reasons, the proposed concentration is not likely to lead the creation or strengthening of a dominant position, however market definition is adopted.

PE technology

43. Marlene will be endowed with all of BASF's world-wide PE technology business, including licensing activities, catalyst technologies and facilities, related property rights and R&D capacities. In general, the parties are not considered as major PE technology suppliers. With respect to the low pressure segment of the PE technology market, BASF's gas-phase PE process represents less than 1% of the total capacity. On the high pressure segment BASF owns five licences of its tubular reactor process. The operating plants using this technology account for approximately [...]%17 of the total capacity concerned. The main licensor of high pressure technology is ICI/Simon Carves (representing more than 60% of the capacity). Given the market positions of Marlene's licensing activities, the concentration cannot be expected to produce an appreciable impact on this market. With regard to metallocene catalysts, Marlene will benefit from BASF's development of Luxeflen products. Nevertheless, other competitors are also present in this field: Dow and Exxon for instance, have already started to introduce metallocene plastomers on the market. In the light of the above, it can therefore be concluded that the concentration will not lead to the creation or strengthening of a dominant position on the market for PE technology.

V. ANCILLARY RESTRICTIONS

44. The parties have required a number of provisions to be considered as ancillary to the concentration:

Business secrets. Less than 15%

Business secrets. Less than 15%

¹⁴ Business secrets. Less than 20%

Business secrets. Less than 15%

¹⁶ Business secrets. Less than 10%

¹⁷ Business secrets. Less than 20%

Non competition clauses

- 45. Art. 3 of the Joint Venture Agreement provides that the parents shall not compete within the scope of the Marlene joint venture within Europe (subject to limited exceptions) for the life of the joint venture and [...]¹⁸ thereafter.
- 46. Article 10.2 of the Montell PE Business Purchase Agreement provides that Montell will not compete with the PE business acquired by Marlene until the later of:
 - a) 5 years from completion; or
 - b) [...]¹⁸ from the earlier of
 - Shell ceasing to have control over Montell; or
 - Shell ceasing to have control over Marlene.
- 47. Non-competition obligation of the sort of that contained in Art. 3 of the Joint Venture Agreement express the reality of the lasting withdrawal of each parent from the market assigned to the joint venture.
- 48. As regards Article 10.2 of the Montell PE Business Purchase Agreement, since Montell is 100% owned by Shell, this clause may only become applicable whenever the non-competition clause of Article 3 of the Joint Venture Agreement is not applicable to Montell as part of the Shell group. The clause under a) above and its duration (5 years is appropriate for transfer of undertakings including goodwill and know how) is in line with the Commission Notice regarding restrictions ancillary to concentrations, since they protect the interest of Marlene in case of Montell being disposed by Shell.
- 49. However, the necessity of the [...]¹⁸ extension of the two non-competition clauses either beyond the duration of the joint venture or beyond the time at which Shell will cease to have at the same time control of both Montell and Marlene is not sufficiently motivated by the parties. Therefore, this [...]¹⁸ period for both the Joint Venture Agreement and the Montell PE Business Purchase Agreement cannot be considered as ancillary to the concentration.

Technology licence

- 50. Art. 2.2 of the Licence agreement between Marlene and BASF provides for the exclusive licence to Marlene of BASF technology with application within PE (non-exclusive for specific PE blends).
- 51. This clause can be considered as ancillary to the concentration, because it serves as a substitute for the transfer of property rights. It is in line with the Commission Notice regarding restrictions ancillary to concentrations.

Business secrets. Less than 5 years

Wesseling Feedstock Supply Agreement

- 52. Art. 2.1 of the Raw material supply agreement between Marlene and BASF and Shell, as amended by the "Amendment agreement", provides that Shell has priority right to supply up to [...]%¹⁹ of the annual feedstock requirements of the Wesseling crackers of which about [...]%²⁰ is hydrowax and [...]%²¹ is naphtha. The balance of feedstock requirements will be met through a bidding mechanism which involves BASF, Shell and third parties, whereby BASF and Shell will have priority right to supply [...]²². The duration of this agreement is indefinite.
- 53. The parties submit that this agreement should be considered as ancillary up to a duration of five years because it is aimed at ensuring security of supply. It would be justified in that Shell, which produces hydrowax at its neighbouring refinery in Godorf and also owns the naphtha pipeline link to Wesseling) is within this period the only viable supplier of this feedstock.
- 54. The Commission considers that the Wesseling Feedstock Supply is a transitional arrangement to make the concentration possible. Therefore, it is ancillary to the proposed concentration up to five years of its duration.

R&D Agreement

- 55. BASF's existing basic PE research is embedded into the BASF Central Research and benefits substantially from the support of experts and equipment of other research functions outside basic PE research. That is why BASF is unable to effect an immediate transfer of R&D staff and facilities within its Central Research. Instead, for a transitional period of three years renewable upon Marlene's request, BASF will conduct PE research at the sole direction and exclusively for Marlene.
- 56. Art. 2.1. and 2.2 of the Polyethylene Research Agreement provide that BASF will conduct PE research exclusively for Marlene and that BASF will allocate to Marlene on an exclusive basis its research resources dedicated to PE.
- 57. These arrangements guarantee for a period of [...]²³ years the continued supply of services previously provided within BASF's PE business. It can be considered as an ancillary restriction, being a transitional agreement which makes the concentration possible.

PE Catalyst Production Agreement and Pilot Plant Operating Agreement

58. It is not feasible in practice to separate the pilot plant and catalyst production facilities from the remainder of BASF Ludwigshafen site in which they are integrated. Instead, those facilities will be made available to Marlene under the sole direction of a Marlene employee.

Business secrets. Less than 40%

¹⁹ Business secrets. Between 40 and 60%

Business secrets. Over 60%

²² Business secrets. Deleted for publication

Business secrets.Less than 5 years

- 59. Art. 1.6. of the Catalyst Production Agreement and Art. 1.6. of the Pilot Plant Agreement provide that: a) in order for BASF to operate the plants for Marlene, Marlene is to grant back to BASF a limited licence of the necessary technology; and b) any improvement which relate exclusively to PE catalyst production and PE production respectively will be granted back to Marlene to be its exclusive property.
- 60. The grant back of the licences to BASF is not a restriction of competition, as it is not exclusive. Neither does restrict competition the grant back of improvements to Marlene, as it is part of the functioning of the two agreements.

VI. CONCLUSION

61. For the above reasons, the Commission decides not to oppose the notified operation and to declare it compatible with the common market and with the functioning of the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of Council Regulation No 4064/89.

For the Commission,