II

(Acts whose publication is not obligatory)

COMMISSION

COMMISSION DECISION

of 21 October 1998

relating to a proceeding under Article 85 of the EC Treaty

(Case No IV/35.691/E-4: — Pre-Insulated Pipe Cartel)

(Notified under number C(1998) 3117)

(Only the Danish, German, English, Italian and Finnish texts are authentic)

(1999/60/EC)

CONTENTS OF THE DECISION

Page

I. **THE FACTS** 3

A. ***Summary of the infringement*** 3

B. ***The pre-insulated pipe industry*** 4

1. The product 4

2. The market for district heating systems 5

3. The producers 6

(a) ABB 6

(b) Løgstør 7

(c) Tarco 7

(d) Dansk Rørindustri 7

(e) Pan-Isovit 7

(f) Henss/Isoplus 7

(g) KWH 8

(h) Local suppliers 8

(i) Powerpipe 8

4. Trade association: EuHP 9

Page

C. ***Procedure*** 9
1. The Powerpipe complaint 9
2. The investigations 10
3. Article 11 requests 10
4. The undertakings' reactions 10
5. The Statement of Objections 11
6. Replies to the Statement of Objections 11

D. ***Details of the infringement*** 12
1. The market background 12
2. The Danish cartel 13
(a) The Quota scheme and price fixing 13
(b) The operation of the cartel 14
3. Extension to other markets 16
4. The Europe-wide cartel from 1994 22
(a) Initial contacts 22
(b) Sharing of the European Market: basic agreement on quotas 23
(c) The European cartel structure 26
(i) The directors' club 26
(ii) Contact groups 27
(d) Implementation in national markets 27
(i) Germany 27
(ii) Denmark 30
(iii) Netherlands 31
(iv) Austria 32
(v) Italy 32
(vi) Sweden 33
(vii) Finland 33
(viii) United Kingdom 33
(e) Concerted actions to eliminate Powerpipe 33
(i) ABB's strategic plan 33
(ii) Hiring of key Powerpipe employees 34
(iii) Powerpipe is warned off the German market 35
(iv) The Leipzig-Lippendorf contract: boycott of Powerpipe 36
(v) Implementation of the boycott 37
f) Continuation of the cartel after the investigations 40
5. The role of EuHP 42
6. Assessment of the role of each participant 43
7. Effects upon overall price levels 47
8. Compensation by ABB 48

II. **LEGAL ASSESSMENT** 48

A. ***Article 85*** 48
1. Article 85(1) 48
2. Agreements and concerted practices 48
3. The nature of the infringement in this case 50

Page

4. Restriction of competition 54
5. Effect upon trade between Member States 55
6. Duration of the infringement 56
7. The addresses of the present proceedings 57
(a) General considerations 57
(b) ABB 58
(c) Henss/Isoplus 58
(d) KWH 60

B. *Remedies* 61
1. Article 3 of Regulation No 17 61
2. Article 15(2) of Regulation No 17 61
(a) General considerations 61
(b) The individual fines 63
(i) ABB 63
(ii) Løgstør 65
(iii) Tarco, Starpipe, Henss/Isoplus, Pan-Isovit 66
(iv) Brugg, KWH, Ke-Kelit and Sigma 67

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Regulation No 17 of 6 February 1962, First Regulation implementing Articles 85 and 86 of the Treaty [1], as last amended by the Act of Accession of Austria, Finland and Sweden, and in particular Articles 3 and 15 thereof,

Having regard to the Commission's decision of 19 March 1997 to open a proceeding pursuant to Articles 3 and 15(2) of Regulation No 17,

Having given the undertakings concerned the opportunity to make known their views on the objections raised by the Commission pursuant to Article 19(1) of Regulation No 17 and Commission Regulation 99/63/EEC of 25 July 1963 on the hearings provided for in Article 19(1) and (2) of Regulation No 17 [2],

Having consulted the Advisory Committee on Restrictive Practices and Dominant Positions,

Whereas:

I. THE FACTS

A. *Summary of the infringement*

(1) This Decision imposing fines for an infringement of Article 85 is addressed to the following undertakings:

— ABB Asea Brown Boveri Ltd,

— Brugg Rohrsysteme GmbH,

— Dansk Rørindustri A/S (Starpipe),

— Henss/Isoplus Group,

— Ke-Kelit Kunststoffwerk GmbH,

— Oy KWH Tech AB,

— Løgstør Rør A/S,

— Pan-Isovit GmbH,

— Sigma Tecnologie di rivestimento srl,

— Tarco Energi A/S;

[1] OJ 13, 21.2.1962, p. 204/62.
[2] OJ 127, 20.8.1963, p. 2268/63.

(2) The infringement consists of participation in a complex of anti-competitive arrangements which began with a national cartel in Denmark in about November 1990, was extended to other Member States (Italy, Germany) during 1991 and in 1994 was organized so as to cover effectively the whole of the Community, by the producers of pre-insulated pipes for district heating who, in concert and complicity, and contrary to Article 85(1)

— divided national markets and eventually the whole European market amongst themselves on the basis of quotas,

— allocated national markets to particular producers and arranged the withdrawal of others,

— agreed prices for the product and for individual projects,

— allocated individual projects to designated producers and manipulated the bidding procedure for those projects in order to ensure that the assigned producer was awarded the contract in question,

— in order to protect the cartel from competition from the only substantial non-member, Powerpipe AB, took concerted measures to hinder its commercial activity, damage its business or drive it out of the market altogether,

— used quality norms to keep up prices and delay the introduction of new cost-saving technology;

(3) The undertakings participated in the infringement for the following duration:

— ABB, Løgstør, Starpipe, Tarco: from about November/December 1990 to at least March or April 1996,

— Pan-Isovit from about November/December 1990 up to the same time,

— Henss/Isoplus from about October 1991 up to the same time,

— KWH from at least March 1995 up to the same time,

— Brugg from about August 1994 up to the same time,

— Ke-Kelit from about January 1995 up to the same time,

— Sigma from about April 1995 up to the same time.

(The participation of Brugg, Ke-Kelit and Sigma was confined to arrangements on their respective national markets);

B. *The Pre-insulated Pipe Industry*

1. The product

(4) Pre-insulated pipes, used principally in district heating systems, consist essentially of steel pipes enclosed within pipes, with a layer of foam insulation between.

District heating systems are commonly employed in the more northerly West European countries and in the former Eastern Bloc countries, where the climate is severe. Water is heated in a central location and transported via underground pipes through a municipality or district to provide heat to individual residential and commercial buildings.

As environmental concerns have grown, particularly in connection with the efficient use of energy, the potential for district heating systems has increasingly been recognised, for example in the combination of powerplants with district heating systems ('co-generation'): surplus heat generated by power stations or by industry is used for district heating.

Given that the hot water (or steam) has to be transported underground over long distances, the temperature is very high (up to 140 °C) and to ensure efficient and safe distribution the pipes have to be pre-insulated.

(5) Pre-insulated pipes have three major components:

— a steel (or sometimes copper) 'carrier pipe' which is the core of the product and carries the hot water,

— a concentrically arranged protective outer 'casing pipe' made of plastic,

— a rigid foam insulation between the two pipes.

District-heating pipes are usually produced in rigid lengths of 6, 12 or 16 metres. Standard pipe diameters run from 250 to 800 mm but larger sizes can be produced. The manufacturers supply a complete range of pipes, bends and special fittings, including monitoring systems to detect leakage. Some of the producers involved in these proceedings also manufacture flexible pipes which are mainly used for connecting individual households to the main pipe system. Flexible pipes are not the subject of this procedure.

Products are standardised and have to comply with quality norms fixed with the cooperation of manufacturers, customers and standards authorities, the principal norms being EN 253, EN 258, EN 488 and EN 489. The traditional production method involves the lengths of steel carrier pipe being gripped by spacers and covered with the plastic outer pipe, with foam then being sprayed in between the two concentric pipes. Innovation is an important aspect of the industry. Safety, efficiency and environmental concerns predominate. One recent development is the introduction in 1988 of non-CFC material for insulating foam. The development at about the same time of a process for the continuous production of pipes has made possible substantial cost savings. In this technique, pipes are moved forward throughout the production stage without interruption, while under the traditional route pipes are taken one-by-one to an injection site and filled with foam. The approval of this production method and its introduction on a fully-commercial scale was, however, opposed for some years by manufacturers who used the traditional route.

2. The market for district heating systems

(6) In Western Europe the final customers for district heating pipes are primarily municipally-owned energy or specialist district heating supply companies. Contracts may relate either to specific projects or to annual supply agreements.

In the first type of contract, the municipality or other public/local authority engages a civil engineering contractor for the particular project following the appropriate tendering procedure and the successful contractor then calls for offers for pre-insulated pipes from the pipe manufacturers. (Contracts for the supply of pipes worth over ECU 400 000 are also subject to Community Public Procurement rules [3]). The installation of the pipes supplied by the pipe manufacturer is carried out by the contractor. This type of contract accounts for some 60 % of the total European market.

In the case of annual contracts (also known as the 'retail' market) the municipality or other end-user agrees to purchase pipes and fittings up to a designated value each year directly from a pipe manufacturer, usually for the partial replacement or maintenance of an existing district heating system. (In some cases, the contractual period may be three or even five years.)

(7) The Community market for district heating pipes in 1995 was worth some ECU 400 million, involving an increase over the previous year of 15 %. The product is marketed in virtually all the Member States. There is a substantial trade between Member States. ABB has production facilities in several Member States. Henss/Isoplus produces in Austria and Germany. Denmark, the main centre of production, accounts for around 50 % of Community pipe manufacturing capacity and supplies the product to all the other Member States where district heating is used. Germany is the largest Community national market (at some ECU 160 million accounting for 40 % of total Community consumption). At least two-thirds of the district heating pipes laid in Germany are supplied from other Member States, primarily Denmark, but also Austria, Finland and Sweden.

[3] Articles 2(2)(a)(iii) and 14 of Council Directive 93/38/EEC of 14 June 1993 coordinating the procurement procedures of entities operating in the water, energy, transport and telecommunications sectors (OJ L 199, 9.8.1993, p. 84); Directive as last amended by European Parliament and Council Directive 98/4/EC (OJ L 101, 1.4.1998, p. 1).

Denmark is the Community's second largest national market, with 20 % of total consumption. The Community-based producers together supply a European export market (Eastern Europe, Nordic and Baltic States) worth another ECU 100 million, and further rapidly expanding markets are Russia and China.

3. The producers

(8) During the material period, eight producers supplied the West European market with preinsulated pipes on an appreciable scale: ABB, Løgstør, Dansk Rør ('Starpipe'), Tarco, Pan-Isovit, Henss/Isoplus, KWH and Powerpipe. Community production is particularly concentrated in Denmark where four of the producers are located, three of them in the town of Fredericia.

(a) *ABB*

(9) The largest producer of district heating pipes (and the only large multinational group active in the sector) is the Swedish-Swiss industrial combine ABB Asea Brown Boveri Ltd, which has its headquarters in Zürich. ABB was formed in 1988 as a result of a merger of the interests of Asea AB of Stockholm, Sweden and BBC Brown Boveri Ltd, Baden, Switzerland. It is owned in equal shares by the two parents, which now function purely as holding companies and are known as ABB AB and ABB AG respectively. ABB Asea Brown Boveri Ltd stands at the head of a corporate group of over 1 000 companies with a consolidated turnover in 1997 of some USD 31,3 billion (ECU 27,6 billion). More than half of its operations are located in Europe.

ABB's group organisation is based on overlapping matrices, one regional and the other segment-oriented.

The governing body of ABB is the Board of Directors. Under this, its top executive organ is the Group Executive Committee consisting (as at August 1993) of the Chief Executive Officer and seven Executive Vice-Presidents representing the three geographical regions of ABB's operations and the four main business or product segments. For most of the period with which this Decision is concerned, the four business segments whose Chairmen sat as Executive Vice-Presidents on the Executive Committee were: Power Generation; Power Transmission and Distribution; Industrial and Building Systems, and Transportation [4].

Each business segment of ABB is further divided into 'Business Areas' (BAs) which have responsibility for their particular industrial activity on a world-wide basis. In all, ABB now has some 37 business areas, one of which is District Heating.

ABB is at the same time organised into three geographic regions (Europe, the Americas and Asia-Pacific), the structure cutting across business segments and product boundaries and being aimed at dealing with overall strategic issues and ensuring coordination between segments and countries.

(10) After a reorganisation of ABB's structure in August 1993, the District Heating Business Area (designated 'BA-VDH') was part of the Transportation Segment and reported directly to the Chairman of that segment (who as an Executive Vice-President with seat on the Group Executive Committee was one of ABB's most senior corporate officers).

ABB's District Heating Business Area (BA-VDH) includes manufacturing companies located in Fredericia, Denmark (ABB IC Møller A/S), Finland (formerly Ecopipe), Germany (ABB Isolrohr GmbH), Sweden and Poland. The sales/distribution of preinsulated pipes is managed in the Community by these companies, by other ABB subsidiaries, or by agents. ABB has approximately 40 % of the overall West

[4] With effect from 1 January 1996 ABB's worldwide activities in rail transport were merged with those of Daimler-Benz Transportation in a joint venture company named ADTRANZ: see Commission Decision 97/25/EC (Case No IV/M.580 — ABB/Daimler Benz); (OJ L 11, 14.1.997, p. 1). The then Chairman of ABB's Transportation Segment was appointed Chairman and Chief Executive Officer of the new company. The District Heating activity remained in the main ABB group structure and is now part of its Power Generation segment.

European market in district heating. It is the market leader and largest supplier in most of the countries in which it operates. Stating off in Denmark as ABB IC Møller, ABB has expanded in this market, largely through the acquisition of smaller producers. All of these companies were integrated into ABB's operations. ABB's Annual Report values the 'orders received' by the District Heating Business Area in 1995 at USD 283 million (ECU 216 million).

Although IC Møller is the principal ABB company operating in the district heating sector, and its Chairman is head of the Business Area District Heating, in terms of corporate structure it does not act as a holding company for the other companies in the District Heating business area: Isolrohr GmbH is, for instance, a wholly-owned subsidiary of ABB's main German company.

(b) *Løgstør*

(11) Løgstør Rør A/S, the second largest manufacturer of district heating pipes in the Community, is a family-owned company and began production in 1960 in the town of that name in Denmark. Løgstør underwent a corporate reorganisation in 1988, its activities being transferred to a new company. Its market share in Western Europe is about 20 %. In 1993 it acquired a small plant in Finland, later known as LR Putki, which closed at the end of 1996 after making substantial losses. It also has a joint venture company with production facilities in Italy making mainly fittings. Løgstør was the first producer to introduce a continuous production process: it claims to have reduced cost price by some 15 to 20 % compared with traditional manufacturing techniques using the batch process. A thinner outer jacket and less insulating foam is required so substantial savings are made on material. According to Løgstør, it had considerable difficulty in penetrating markets with the new product since its competitors who produced in the traditional manner challenged its compliance with norms: they insisted on the retention of the old standards regarding jacket thickness and foam density.

Løgstør acquired the German producer Pan-Isovit (also an addressee of this Decision) with effect from 1 January 1997.

(c) *Tarco*

(12) Tarco Energi A/S has its manufacturing facilities in Fredericia, Denmark and sells principally in Denmark and Germany. It also operates in Scandinavia, Italy, the Netherlands and some East European markets. Its West European market share is about 14 %. Tarco Energi A/S is part of an industrial group Tarco A/S of Nyborg which is owned by a consortium of more than 80 Danish municipalities: many of these are customers for district heating.

(d) *Dansk Rørindustri*

(13) Dansk Rørindustri A/S, known as 'Starpipe' is also based in Fredericia, Denmark. It has a market share of about 6 % in Western Europe. Its main markets are Denmark and other Scandinavian countries, Germany and the East European countries.

(e) *Pan-Isovit*

(14) At the material time, Pan-Isovit GmbH, then based in Speyer, Germany, together with its Swiss sister company Pan-Isovit, Regensdorf, was owned 100 % by Pan-Isovit Holding AG, itself a wholly owned subsidiary of a Swiss industrial group WMH — Walter Meier Holding AG. The main plant for district heating pipe was in Speyer: the Swiss factory made only fittings. Pan-Isovit, which had around 12 % of the West European market, was acquired by Løgstør after the investigations in this case.

(f) *Henss/Isoplus*

(15) Isoplus Fernwärmetechnik Gesellschaft mbH has a manufacturing plant in Hohenberg in Austria and (via a 100 % subsidiary) another plant at Sondershausen in Germany. The latter Member State is its principal market. Isoplus also has

manufacturing facilities in Hungary and the Czech Republic. Isoplus was set up in 1989 and in 1990 acquired ABB Isolrohr's factory in Austria. In the period covered by this Decision, Isoplus's sales in Germany were made exclusively through two companies: Dipl-Kfm Walter Henss GmbH of Rosenheim and Dipl-Kfm Walter Henss Rohrleitungsbau GmbH Berlin ([5]). Henss Rosenheim also acted as the sales agent of ABB IC Møller for Bavaria, this commercial relationship with ABB being explained by the fact that the Henss family had previously owned Isolrohr and had sold it to IC Møller in 1987. The agency agreement with ABB gave rise to recurring differences and was the subject of arbitration proceedings. The Henss and Isoplus companies together formed a *de facto* group although according to public company registers there was no link of ownership between them. Henss/Isoplus has around 9 % of the West European market.

(g) *KHW*

(16) Oy KWH Pipe AB of Vaasa, the only Finnish-owned producer, is principally concerned with the manufacture and marketing of plastic (HdPE, PVC) pipes for civil engineering and municipal applications. KWH Tech is the division responsible, *inter alia*, for manufacturing pre-insulated pipes for district heating (the 'Thermopipe' business; its other business unit is the 'Machine Unit' which produces and sells machinery equipment and technology for pipes). KWH, whose district heating activities in Western Europe are confined to the Scandinavian countries, has some 2 % of the total Western European market. Since 1992 it has specialised in setting up joint-venture companies for promoting district heating in non-Community markets to which it transferred technology and know-how.

(h) *Local suppliers*

(17) There are a number of suppliers of district heating which primarily serve their own national market: Brugg (Germany/Switzerland), Sigma (Italy) and Ke-Kelit (Austria). Brugg now manufactures flexible pipes only. For district heating projects for which it competes with the other producers, it buys in rigid pipes from Starpipe, having closed its own production facilities for this type of pipe at the end of 1994. Ke-Kelit is an independent company which supplies, in its own right, pipes which it buys from Løgstør.

Sigma, formerly owned by the Italian State-owned steel group Ilva, was acquired by the Riva group on denationalisation in 1995. Despite its being owned by a major group, it operates at a local level only.

(i) *Powerpipe*

(18) Powerpipe AB was formed in 1986 by former employees of the Swedish producer Ecopipe after that company's acquisition by the Finnish company Uponor. Following a composition with creditors in 1988 and financial restructuring guaranteed by a private investment company, Birka Business Development AB, Powerpipe was taken over by Birka and became a wholly-owned subsidiary of that company. In 1988 Powerpipe was one of the first producers to develop a CFC-free insulation foam for pre-insulated pipes (using CO_2-based technology). Powerpipe's share of the overall West European market for pre-insulated pipes in 1994 was about 2 %, its activities being principally in Sweden and Finland.

From about 1993, Powerpipe pursued a policy of expansion into other European markets, including Germany. One reason stated for this change in strategy was what Powerpipe described as the inexplicably low price level obtaining in Sweden (where ABB was the market leader). Powerpipe believed that the larger producers were deliberately depressing the prices in Sweden in order to damage its business.

According to Powerpipe, the established producers had from the very beginning sought to eliminate or neutralise it as a competitive threat. From 1991 onwards the other producers made persistent approaches to Birka and its owner with

([5]) Henss Rosenheim changed its name to Isoplus Fernwärmetechnik Vertriebsgesellschaft mbH as of 1 January 1997, and on 6 August 1997 absorbed Henss Berlin which no longer exists as a separate legal entity.

a view to acquiring Powerpipe, but the negotiations were never successful.

In January 1997 Birka sold the business of Powerpipe to a new company owned by a Danish-French investment group which specialises in small and medium-size industrial companies. The corporate entity Powerpipe AB changed its name and remains in the Birka group. The new company has continued the business under the name of Powerpipe AB. It has no connection with Birka.

4. Trade association: EuHP

(19) In 1991, at the initiative of ABB, a trade association was set up and named the European District Heating Pipe manufacturers Association ('EuHP' for short). According to EuHP's statutes, its primary objective was to ensure the quality of the product itself as well as of installation, service and training. EuHP has laid down its own technical standards and also required compliance with the European norms (EN) for the product.

The other stated objects of EuHP included:

— promotion of research and technical development,

— promotion of the use of district heating,

— participation in environmental and standardisation work,

— providing technical assistance and advice.

The moving force behind EuHP was ABB, which effectively controlled the organisation and provided its staff. Originally the only members were the individual ABB companies in the sector and the three Danish producers. KWH joined EuHP somewhat later (in April 1992) and the following year Pan-Isovit also became a member. Henss/Isoplus made determined efforts (including threatening legal action on the basis that EuHP was a cartel from which it was excluded) to be admitted to EuHP from 1993 onwards and was finally allowed to join in mid-1995. Powerpipe has never been a member.

During the course of this procedure, ABB announced that it had decided to withdraw from EuHP. Løgstør terminated its membership of EuHP as of 31 December 1997. Other producers have apparently also terminated their membership. The precise status of EuHP at the time of the Decision is not known.

C. *Procedure*

1. The Powerpipe complaint

(20) By letter dated 18 January 1995 Powerpipe made a complaint to the Commission, the essential content of which was as follows:

— that the other manufacturers/suppliers of pre-insulated pipes, in particular ABB, Løgstør, Tarco, Starpipe, Pan-Isovit and Isoplus had formed an unlawful and clandestine cartel by which they had divided the European market amongst the participants on the basis of a quota system, agreed prices for the product and for individual projects and cooperated in manipulating the bidding procedure for individual projects so as to ensure that the contract in question was awarded to the producer designated in advance by the cartel,

— that in order to protect the cartel from competition and maintain its control of the market the above producers had taken concerted steps to damage the business of Powerpipe and/or confine its activities to the Swedish market and/or drive it out of business altogether by (*inter alia*) systematically luring away key management personnel and unlawfully interfering with its contractual relations with customers and suppliers.

(21) The owner of Birka (Powerpipe's parent company) had on two separate occasions in early 1994 brought the matter to the attention of ABB by writing personally to the Chairman of the Transportation Segment (see (10)) in Zürich and proposing a meeting. The latter rejected as completely unfounded the allegations of unfair and anticompetitive behaviour, and indeed declined to meet Powerpipe's owner on the grounds that his letters could be construed by the competition authorities as an attempt to induce ABB to enter into unlawful arrangements. Subsequently, Powerpipe's owner informed a member of ABB's Board of Directors of the activities of the cartel and the effects it was having on Powerpipe's business, and requested the Board of ABB to act immediately to cease the

infringement. In December 1994, after Powerpipe's legal advisers had once more raised the matter with ABB, ABB's Head Office in Zürich denied emphatically that the Group was 'engaged in any concerted practices or arrangements which would distort, restrain or otherwise affect competition in the district heating and pipe systems business'. It asserted that Powerpipe's allegations as to illegal behaviour were entirely unfounded and warned that 'ABB will fiercely defend any improper action or interference with its business and seek indemnification for any damages it may suffer'.

Following this reaction from ABB, Powerpipe lodged its complaint with the Commission.

2. The investigations

(22) On 28 June 1995, acting under a Community Decision of 12 June 1995, officials of the Commission and representatives of the national competition authorities of the Member States concerned carried out simultaneous and unannounced investigations at the following undertakings or associations:

— ABB IC Møller A/S, Fredericia, Denmark,

— Dansk Rørindustrie A/S, Fredericia, Denmark,

— Løgstør Rør A/S, Løgstør, Denmark,

— Tarco Energie A/S, Fredericia, Denmark,

— European District Heating Pipe Manufacturers Association, Fredericia, Denmark,

— Dipl-Kfm Walter Henss GmbH, Rosenheim, Germany,

— Dipl-Kfm Walter Henss Fernwärmerohrleitungsbau GmbH, Berlin, Germany,

— Pan-Isovit GmbH, Speyer, Germany,

— Isoplus Fernwärmetechnik GmbH, Hohenberg, Austria,

— Oy KWH Pipe AB, Vaasa, Finland.

The investigations resulted in the Commission, obtaining a considerable volume of documentary evidence at most of the undertakings visited, including detailed notes of meetings, internal memoranda, working documents, tables and lists all of which tended to confirm the facts alleged by Powerpipe.

3. Article 11 requests

(23) On 13 March 1996 the Commission addressed requests for information under Article 11 of Regulation No 17 to ABB IC Møller, Løgstør, Tarco, Starpipe, Pan-Isovit and four individual companies of the Henss/Isoplus group. The requests required the undertakings in question to provide additional information and detailed explanations regarding the documents found at their premises during the investigations made the previous year under Article 14(3).

4. The undertakings' reactions

(24) After they had received the requests for information under Article 11, a number of the undertakings approached the Commission admitting in general terms their participation in serious violations of Article 85 of the Treaty and informing it of their intention to cooperate fully with the investigation and to provide information relating to the infringements over and above the scope of the requests for information under Article 11 (which had each been almost entirely confined to the specific documents found in the possession of the producer in question).

Most of the undertakings involved subsequently provided to the Commission, of their own volition, information and documentary evidence which not only confirmed and corroborated the evidence found during the investigation but also disclosed that the cartel had originated with market-sharing and price-fixing arrangements between the Danish producers as early as November or December 1990 and had continued to operate almost unabated for at least nine months after the date of the investigations, with additional precautions being taken in order to conceal its existence from the Commission (such as holding meetings outside the territory of the Community).

Having first, in response to the Article 11 requests, denied all knowledge of or participation in any infringement and/or declined to address the

relevant issues, the Henss/Isoplus undertakings subsequently admitted limited participation (by Isoplus only) in an infringement of Article 85 and also provided certain documentary evidence.

5. The Statement of Objections

(25) In its Statement of Objections of 20 March 1997 the Commission alleged that beginning in Denmark in or about November 1990, and progressively extending first to Germany in or about October 1991 and by late 1994 to the whole of the common market the addressees had infringed Article 85(1) by participating in a clandestine cartel by which they eventually divided the European market and individual national markets amongst themselves on the basis of a quota system; had agreed prices for the products and for individual projects; had allocated individual projects to designated producers and manipulated the bidding procedure in order to ensure that the designated producer was awarded the project in question; and, in order to protect the cartel from competition, had taken concerted steps to damage Powerpipe's business, confine its activity to Sweden or force it out of business altogether.

The Statement of Objections defined the duration of the participation of the various producers as follows:

— ABB, Løgstør, Starpipe, Tarco: from November 1990 to at least March or April 1996,

— Pan-Isovit from about December 1990 up to the same time,

— Henss/Isoplus from about October 1991 up to the same time,

— KWH from about March 1995 up to the same time,

— Brugg from about August 1994 up to about the same time,

— Ke-Kelit and Sigma, from about the beginning of or early in 1995 up to the same time.

The alleged participation of Brugg, Ke-Kelit and Sigma was limited to arrangements on their respective national markets.

6. Replies to the Statement of Objections

(26) In their replies to the Statement of Objections, the majority of the producers admitted taking part in an infringement of Article 85 but with the exception of ABB (which did not contest the essential facts alleged by the Commission or its conclusions) argued that the duration of the infringement and the extent of their participation was less than alleged and denied taking part in any scheme to damage or eliminate Powerpipe.

Løgstør and Tarco claimed that rather than one continuous infringement there had been two entirely separate cartels, the first being confined to Denmark and running from the end of 1990 or beginning of 1991 to early 1993, while the second covered a wider market and had begun only in late 1994.

For its part Starpipe did not specifically address this issue but claims to have played only a minor role in attempts by ABB and Løgstør to dominate the market.

Although the Commission had alleged that the Henss/Isoplus companies formed a single undertaking, in the absence of an identified group holding company it addressed the Statement of Objections to the Henss and Isoplus companies and in the procedure Henss and Isoplus were separately represented.

Isoplus, which strongly denied that it formed a group or had any links of ownership with the Henss companies, said it took no part in any market-sharing arrangements before the end of 1994/beginning of 1995.

The two Henss companies argued that although their owner took part in occasional discussions with producers from 1991 onwards aimed at ending a price war, these were totally inconclusive until the end of 1994. If after that date there had been a cartel in which the principal owner of Henss was mandated by Isoplus to attend meetings on its behalf, no infringement was ever committed by the Henss companies since they were only the sales agents of Isoplus, and as such could not be a party to a 'producer cartel': any infringement of Article 85 was the sole responsibility of Isoplus.

Pan-Isovit also insisted that whatever the contacts it may have had with other producers before the end of 1994, it did not joint the cartel before 1994/1995.

(27) KWH did not substantially contest the facts on which the Commission based its statement of objections but claimed it was coerced by ABB into joining the cartel in May (not March) 1995 and only cooperated with the cartel to avoid systematic reprisals from the other producers.

Brugg admitted a limited participation in the cartel (a role which the Statement of Objections had fully acknowledged) but only from December 1994 instead of August as alleged; it also claimed to have attended meetings to avoid eliminated from the market by its larger competitors, particularly ABB.

Ke-Kelit minimised its role and said it was presented by the others with a *fait accompli* and had no alternative but to accept the quota for Austria allocated to it by the others.

Sigma (which seems to equate participation in the cartel with membership of EuHP, which it did not join) said that in most cases its participation in meetings concerning Italy was limited to technical matters, and in the rare cases that anti-competitive arrangements were mooted, it had accepted no restrictions on its commercial freedom.

As regards the actions detailed in the Statement of Objections which were aimed at the elimination of Powerpipe as a competitor, apart from ABB all the producers against which the allegation was raised (which excluded Ke-Kelit or Sigma) denied taking part in or implementing any such measures. KWH argued that it came under pressure to comply with a collective boycott of Powerpipe but defied the instructions of the cartel.

D. *Details of the infringement*

1. The market background

(28) In 1987, just before the merger with ASEA, Brown Boveri Company, which owned the Danish producer IC Møller (later to become ABB IC Møller A/S) embarked on a strategic programme of acquisition of district heating pipe producers across Europe, including Isolrohr (now ABB Isolrohr) in Germany, Austria and Hungary and Ecopipe and Dyrotan in Scandinavia.

While Denmark was the 'home base' of the district heating industry, Germany was already the largest single national market, but by the end of the 1980s it was regarded as a mature market with few opportunities for new installations as opposed to maintenance and updating of existing district heating systems.

According to the larger producers, the district heating market in general was, at the time, characterised by strong competition which tended to drive price levels down.

ABB for its part considers that it was unfairly having to bear all the cost of industry reorganisation while the other producers obtained a 'free ride' (ABB's Article 11 Reply, p. 14). Its perception is that in the latter half of the 1980's there was irresponsible price cutting by suppliers attempting to improve their share of a market which was not expected to grow appreciably in the foreseeable future.

ABB says that restructuring was essential as there were too many small producers making poor quality pipes whose lack of durability 'undermined the economic case for district heating': systems which did not adhere to CEN quality norms might be 10 to 20 % cheaper than approved material but lasted only ten instead of twenty years.

(29) In Germany, the German, Austrian and Swiss manufacturers set up a trade association known as BFW (Bundesverband Fernwärmeleitungen) which they claimed to group the companies which alone were qualified to meet the exacting quality standards of the German market. Producers which did not have manufacturing facilities in Germany were not permitted to join. The Danish

producers (which included ABB IC Møller) were excluded, but were eager to gain greater market penetration in Germany; Løgstør states, however, that once Brown Boveri had acquired Isolrohr in 1987 it relaxed the pressure since it could now itself produce in Germany (Løgstør, Article 11 Reply, Statement II, p. 87).

Price tables produced by ABB show that the market price in Germany remained fairly stable in the period 1985 to 1990: with slight fluctuations the price level was the same at the end of this period as it had been at the beginning, while market volumes were stagnating.

The Danish market which was supplied exclusively by the four domestic producers was, however, generally considered a high-price market; the stability of price levels on the home market provided the local producers with a firm foundation for exporting to neighbouring countries.

(30) In 1988/1989, ABB initiated a series of meetings between itself, Løgstør, Tarco and Starpipe with a view to finding a 'solution' to the perceived problems of the industry (Løgstør, Article 11 Reply, Statement I, p. 72; Statement II, pp. 86 and 87).

Soon after the discussions began, market conditions changed dramatically. The opening to trade of the former Eastern bloc countries in 1989 meant a massive increase in demand: the total potential market for the West European suppliers increased from some DKK 2 500 million (ECU 315 million) in 1988 to DKK 3 500 to 3 700 million (ECU 440 to 470 million) in 1991.

All producers increased their production capacity to meet the new demand, which came particularly from the former East Germany where the Federal Government and the new Länder were investing in the replacement of sub-standard infrastructure. If the German market grew by 20 % in only one year, prices did not however increase, and according to the producers they actually fell in Germany by 10 % in 1991 compared with the previous year.

The main reasons for the continuing low level prices in Germany were identified by ABB as essentially structural, particularly:

(i) the concentration of Federal Government investment in the former East Germany;

(ii) the fact that the growth in Eastern Germany was almost exclusively project-based as opposed to replacement business: the direct customers were thus contractors (rather than the local authorities) who stimulated price competition amongst the producers in order to increase their own margins;

(iii) resort to loss-leading by producers to gain customers in a new market.

In addition the shift to the public works tendering procedure as the basis of allocation for most projects may have led to greater competition between the producers.

2. **The Danish cartel**

(a) *The quota scheme and price fixing*

(31) Although as early as 30 October 1989 ABB (Appendix X1 to the Statement of Objections (*)) had assessed a number of possibilities including (1) an offer by Løgstør to confine its activities to Denmark, Germany, Finland and Sweden and (2) a 'peace agreement' in Denmark covering all four producers with a freeze on market shares, the first clearly-defined market-sharing arrangements of which the Commission is apprised came into effect for the year 1991.

Agreement was reached between the four Danish producers on the basic principles for general cooperation on their domestic market at a meeting in Jutland at the end of 1990. At the time imports from Germany into Denmark were negligible. The participants were all senior

(*) All references in this Decision to numbered appendices are to the appendices to the Statement of Objections.

company officers holding the rank of managing director or above (ABB's Article 11 Reply, p. 49; Løgstør, Article 11, Reply, Statement I, p. 72; Tarco statement of 26 April 1996, p. 2).

One of the first actions was to coordinate a price increase which was due to come into effect in Denmark in two steps totalling 10 to 12 % (there were different dates for the different producers) and on export markets between 6 and 10 % (Appendix 19).

To finalise the detailed terms of the agreement, which was to include a quota and customer allocation system, there followed several more meetings: the managing directors (who adopted the sobriquet 'the Popes') met on 16 January 1991.

(32) Quotas — supposed to be valid for the next two years, 1991 and 1992 — were agreed in the 16 January meeting but were modified two months later (on 4 March 1991) to give ABB and Løgstør a slightly larger allocation.

The quotas definitively agreed on 4 March were:

— ABB: 41 %,

— Løgstør: 27 %,

— Tarco: 18 %,

— Starpipe: 14 %;

The basic principle on which the market-sharing system for Denmark was based was the observance of 'established customer' relationships: each supplier kept its existing customers and there was to be no aggressive targeting of another producer's customers.

The quota scheme agreed by the managing directors was implemented and monitored by the lower-tier group of sales managers (the 'Sales' or 'Contact' group) which met once (per Tarco) or even twice (per ABB) a month.

The managing directors met about every three months to resolve difficulties or disputes.

(b) *The operation of the cartel*

(33) A retired business executive with close personal connections to ABB who had formerly been on the Board of IC Møller was engaged as a consultant to act as the 'coordinator' of the cartel.

The Contact Group, which allocated the business amongst the cartel members, maintained a data base of projects and customers on a lap top computer. It was decided in advance who was going to 'win' the contract in question. For each project, the 'favourite' (that is, the firm to which the contract was assigned) informed the other participants of the price which it intended to quote and they then submitted tenders at a higher price in order to 'protect' the supplier designated by the cartel.

Usually the project was allocated by the cartel to the customer's traditional supplier. Denmark being a mature market, the majority of the contracts are for direct sales to existing customers. The 20 to 30 'new' projects put out for tender each year (with a value ranging from DKK 500 000 to DKK 30 million) were assigned among the four producers so as to ensure that their total sales were in line with the agreed quotas.

The market-sharing arrangements in Denmark was supported by a compensation scheme. The auditors of each producer certified the total sales of pipes during the year, and the certificates were then exchanged among the cartel participants.

(34) At the end of 1990, the four Danish producers had concerted on increases in their domestic and export price lists as well as on the timing and the stages of the increases which varied from producer to producer (see p. (31)).

To facilitate the operation of the scheme, the producers exchanged their individual price lists, which ABB compiled into a single reference document on 23 January 1991. Later on, in March 1991, the amount of discounts from listed prices was agreed and the agreement was

implemented by the sales managers issuing instructions to their sales personnel showing the scale of permitted rebates: compliance was ensured by the producers' exchanging copies of these internal instructions (Tarco statement, p. 3).

Price increases were agreed from time to time. In the autumn of 1991 the four Danish-based producers discussed their annual list price increases for both Denmark and for export. By October, the two German producers joined them in regular meetings (point 41). As a result, an agreement which included Pan-Isovit and Henss/Isoplus was reached to raise prices outside Denmark by about 6 to 8 % with effect from 1 January 1992 (ABB's Article 11 Reply, pp. 18 and 19; Løgstør Reply to Statement of Objections, pp. 30 to 31).

(35) During the first year of the Danish quota scheme (1991), ABB was on target but Løgstør took significant market share from the two smaller producers (Appendix 22). Any dissatisfaction on the part of the latter was muted, since prices had gone up and all producers had seen a substantial rise in earnings. In any case, according to Tarco, the compensation mechanism applied.

There is no dispute that the compensation mechanism was operated at the end of 1991 (there is considerable documented evidence of the calculations) but the exact details of how compensation was paid are unclear. Tarco (the main beneficiary of compensation) has stated that cash was paid, the transfer being accounted for in the company books by the issuing of invoices for non-existent deliveries of pipes (Tarco's Statement, p. 4; Reply to second Article 11 request, p. 1). Løgstør strongly denies this version of events and claims that Tarco's demand (for some DKK 4,5 million) was settled by (a) taking into account orders for plastic covers and other materials which Løgstør had already placed during the year with Tarco and which gave that company a positive contribution and (b) its relinquishment in favour of Tarco of its share in a joint project in Iceland (Løgstør reply to Article 11 request of 26 August 1997).

Whatever the precise procedure for settling compensation had been in 1991, it was agreed that for 1992 a new system would apply: surplus market share would be 'rolled over' and re-assigned to the producers who were below their allocated quota.

(36) Although the quotas agreed for Denmark in March 1991 had been intended to apply for two years (1991 and 1992), they were renegotiated after only nine months.

In a series of meetings at the end of 1991 and beginning of 1992, a new market allocation was agreed to run for 1992 and 1993.

The new quotas for Denmark were:

— ABB: 41,5 %,

— Løgstør: 28,5 %,

— Tarco: 16 %,

— Starpipe: 14 %.

It is not clear whether achieved market shares in 1992 were in line with targets (Løgstør says its share was close to 35 % but its own internal Strategic Plan for 1994 to 1997 records its 1992 share as 29,5 %; see also Appendices 24 and 49). It was however expected that Løgstør would be substantially above quota for 1993, owing in part to its introduction, despite difficulties in getting approval in EuHP, of the lower-cost continuous production process.

In late 1992 and early 1993 Løgstør was demanding that its improved performance and potential be formally recognised by the attribution of a higher quota (this would free it from liability to compensate the others), which led to ABB offering it 1,5 % from its own share and another 1 % to be divided between the two smaller producers, who predictably demurred.

(37) Løgstør claims (Reply to Statement of Objections, p. 22) that already in late 1992 it threatened to leave the cartel unless it was given a higher quota. It was intended that the market shares in Denmark for 1993 should remain the same as for

1992 (Annex 8 to ABB's Article 11 Reply). Whether or not Løgstør made such a threat, the fact is that it remained in the cartel (it claims, however, to have been forced into doing so by ABB: Reply to Statement of Objections, p. 24). In March 1993 Løgstør was still demanding a new quota of 34 %, while ABB was accusing it of breaking the agreement by 'dumping' the price level in Denmark.

Relations between the Danish producers at the end of 1992 and beginning of 1993 were complicated by two additional factors:

— a demand by ABB for a shareholding of up to 10 % in Løgstør,

— increasingly insistent pressure from Henss/Isoplus and Pan-Isovit to be allocated a share of the Danish market.

Whatever disagreements may have arisen between the producers at the time, Løgstør itself admits that 'the coordination in early 1993 was mainly based on an understanding of respect for traditional customer relationships'. (Reply to Statement of Objections, p. 23).

The Commission has obtained from Tarco a detailed table (dated 25 March 1993) of projects for 1993, showing not only the successful bidder and the price for tenders already awarded for the year, but also the 'expected supplier' and 'expected price' for procedures that were still open and for projects that were likely to be announced. The above data was collated in connection with the exercise described in point 33 and shows that at that date the cartel was still very much in operation (Appendix 23).

Since spring is the 'high season' when most tenders are being awarded this meant that the majority of the business for the year had already been allocated by this time.

It is accepted, however, by the Commission that from about March-April 1993 prices for new business in Denmark began to fall. There where also examples later in the year where the 'traditional customer' understanding for Denmark broke down.

There were mutual recriminations: Løgstør claims that ABB engineered the whole situation in order to discipline the other producers and force them to continue in the cartel. It says it was even told by ABB that the latter had allocated a credit line of DKK 50 million to eliminating Løgstør in a price war (Løgstør Reply to Statement of Objections, pp. 22 to 24, 32, 40 and 42). ABB, however, attributed the blame to Løgstør's demands for an increase in its quota, a view apparently shared by Henss which judged (Minute of *Beiratsitzung* of 3 February 1994, included in Isoplus Article 11 correspondence) that Løgstør had taken a major 'traditional customer' from ABB at low prices in order to persuade ABB to give up market share in favour of Løgstør.

On either version of events, the price fall in Denmark was the result of a trial of strength inside the cartel, not of its abandonment. Indeed at the very same time, Løgstør and ABB were working towards an 'overall solution' and agreements were being made for Germany (see (49) to (51)). Discussions to resolve the disagreements on the Danish market were combined with those for Germany and formed part of a single process (ABB's Article 11 Reply, p. 59).

3. **Extension to other markets**

(38) The cooperation between the Danish producers had not been confined to their national market: the first concerted price increase applied also to export markets, effective from 1 January 1991. In Germany, ABB's increase was 7 %, Tarco and Løgstør 10 % and Starpipe 6 % as of 1 December 1990 (Appendix 19).

Further, at the same time (late 1990, early 1991) as the Danish producers were finalising their secret arrangements to control the market in Denmark, initiatives had already begun to extend the cooperation on market-sharing to other markets and to bring in the German producers.

Such moves were at first relatively fragmented. ABB — which had taken over Isolrohr in 1987 and so had a foot in both German and Danish camps — was involved in bilateral discussions with Pan-Isovit in December 1990 to January

1991 on forming an 'informal strategic alliance' (Appendices 30 and 31, ABB's Article 11 Reply, pp 7-9). These two producers together supplied the major part of the German market at the time: Isoplus, which had only recently bought Isolrohr's Austrian factory, was still in the process of being set up as a serious contender to enter the German market, with Henss as its commercial agents.

There was no question at this time of a formal alliance being formed between all four Danish producers and Pan-Isovit: the latter regarded Løgstør, Tarco and Starpipe as 'pirates' who had attempted to seize market share in Germany by low prices. ABB as the owner of Isolrohr in Germany was its natural partner. It no doubt served ABB's strategic interest to have an understanding with both sides.

In addition to technical cooperation, the discussions between ABB and Pan-Isovit covered the framework for a division of the market between them as the two largest producers supplying in Germany. The underlying idea was to divide client areas and to maintain existing market shares.

(39) It was agreed that a structure would be set up, involving the formation of a 'Board Group' and a 'Strategy Group', to coordinate the activities of the two producers and ensure their joint domination of the German market.

Pan-Isovit also expressed its support for the 6 to 8 % price increases which ABB (and the Danish producers) had recently agreed on their export markets, including Germany.

According to ABB, Pan-Isovit subsequently had reservations regarding the technical cooperation proposed and, after it had also declined an invitation to join EuHP [6], the bilateral discussions on market cooperation lapsed in April 1991.

(40) The arrangements between the Danish producers extended to Italy, even if in March 1991 Tarco was reporting that on price ABB IC Møller and Løgstør were 'not behaving entirely in accordance with the agreements for the Italian market': ABB had only applied the 6 % increase in the second half of the year, while Løgstør had increased its list prices but simultaneously given rebates which kept prices at 1990 levels (Appendix 33).

As regards the allocation of projects, a major contract in Turin, which was regarded by the industry as a 'flagship' for the market, was the subject of a 'one for all and all for one' agreement in October 1991 by which the producer winning the contract would share it with the others in certain agreed proportions. (In the event, the agreement was not applied because an outsider put in the lowest bid: ABB's Article Reply, pp. 53 to 55; Appendix 32).

Pan-Isovit was also involved in discussions with its Danish competitors on sharing the Turin project in July 1991. There is some indication that reciprocity was already a feature of the market: ABB is reported as having told other participants in a meeting that Løgstør had given up the Turin project in favour of IC Møller 'against some other international compensation' (Additional documents, Nos 1 to 4).

(41) By the autumn of 1991, the institutionalised cooperation between the Danish producers was being extended on a more formal basis to the German market, and from October the two German producers Pan-Isovit and Henss/Isoplus (the latter now established in Germany) joined them in the collusion. From this time on, regular meetings were held between all six main suppliers to the German market with the aim of improving the low price levels (ABB's Article 11 Reply, pp. 31 and 51).

(42) Meetings of the managing directors (or equivalent) are known to have been held on at least the following occasions:

— 9 (or 10) October 1991,

— 10 December 1991,

[6] EuHp was set up on 29 April 1991, holding its inaugural meeting in Billund, Denmark. While Pan-Isovit had initially declined to join, Isoplus (to its considerable displeasure) was not invited.

— 19 February 1992,

— 6 March 1992,

— 1 April 1992,

— 30 June 1992,

— 11 August 1992,

— 11 November 1992,

— 20 April 1993,

— 30 June 1993,

— 18 (or 19) August 1993,

— 8 (or 9) September 1993.

(43) There had been obvious tensions between the two national groups: Henss/Isoplus accuses the Danish producers of using the profits generated by the well-established cartel on their local market to finance a 'price war' designed to gain market share in Germany for themselves at the expense of Henss/Isoplus.

At this time the collusion between the producers outside Denmark had not reached the level of sophistication that was to be achieved three years later. The participants had different objectives in seeking an overall dispensation on the market. ABB's interest was a grand plan for securing strategic control of the industry, while Tarco's aggressive pricing in Germany had provoked the German producers into prospecting the Danish market, to the displeasure of Løgstør and Starpipe. The German companies were, however, clearly interested in reaching a market share agreement in order to protect their position against the Danish producers.

ABB considered it folly for the producers to fight each other on price when the market was in rapid expansion, and regarded it as vital for action to be taken at top level (Appendix 35).

(44) ABB was pressing for an agreement on prices in Germany, which would serve the dual purpose of reining in the activities of Tarco and allowing ABB to raise its price to its agents. In a meeting in Frankfurt on 9 or 10 October 1991, attended by all six producers, an increase of around 6 % in list prices was agreed. (Only the previous day, the Danish producers had agreed that the managing directors would discuss the situation in Germany and other export markets: ABB's Article 11 Reply, p. 51).

The price agreement was confirmed in a later meeting in Hamburg on 10 December 1991, the upshot being the following:

— all producers were to implement an immediate 6 % price rise,

— a 'hot line' was to be established between the participants,

— further meetings were to be held once a month,

— a minimum price list was to be prepared by 13 January 1992.

According to ABB, the participants also discussed whether market-share figures should be exchanged (Appendix 36, ABB's Article 11, Reply, pp. 18 and 19).

(45) Over the next year meetings at senior level were held at fairly regular intervals 'to discuss issues of common interest' (as it was put in one of the invitations) ([7]).

The coordinator of the Danish cartel also acted as an 'honest broker' for the Germany group with the function of summoning the meetings and facilitating agreement in order to raise price levels.

It may well be that lower-level meetings of managers for Germany were also held but no details are available (see (69)).

As previously agreed, a price list was drafted by an employee of ABB IC Møller based on information provided by Henss and on ABB's 1992 'K3' price list. (Løgstør describes ABB and Henss as the 'driving force' in the German round:

([7]) According to Løgstør, there were discussions for the Netherlands, Austria and Sweden as well as Germany but apart from the fact that the participants were the same, no further details are available. At the time Austria and Sweden were not Member States of the European Community.

Reply to Statement of Objections, p. 28). The list in question was intended to be used as a guide for setting individual price levels as part of the plan of raising overall prices. It was to be distributed by 10 April 1992 at the latest.

(46) At this stage, no final agreement had apparently yet been reached on market shares, and complex negotiations took place on the division of the German market between the two national groups. The Commission during its investigations obtained hand-written notes of some of these meetings made by Tarco and Starpipe (Appendices 37, 44 and 45).

The producers did decide to exchange details of market shares (see (44) as can be seen from a note made by Starpipe of one of the earlier meetings (Appendix 37). Against the name of each of the six participants, it gives under the heading 'previous' *(tidligere)* the value of its sales and a corresponding percentage share of the market, and under the heading 'new' *(ny)*, a different set of percentages. The year in question appears to be 1991 but is not possible to conclude with certainty whether the 'new' percentages given are targets or simply estimates of sales. The German producers are said to have wanted sales of DEM 130 million (Henss valued the total market at DEM 180 million) and a price increase of 15 %.

In a later meeting held in Brussels in November 1992, a table was drawn up of the producers' sales and market shares in Germany for that year, presumably as a step towards a quota agreement (Appendix 44). The Danish producers Løgstør, Tarco and Starpipe were demanding 40 % of the German market between them.

Løgstør says (Statement I, p. 73) that during 1991 and 1992, despite distrust between the manufacturers, an effort was made to implement a Danish Model in several countries, including Germany.

The distribution of market shares was based on the various producers' achieved market shares in the preceding two years 'together with consideration about the size of the market share company would be able to gain on their own'. (Løgstør adds that the German manufacturers were not satisfied with the way in which the market shares were distributed, and the efforts were a failure).

By the beginning of 1993, the major producers were looking to an overall settlement in the industry, and indeed ABB was already adumbrating (Appendix 48) a 'European solution' covering Denmark, Sweden, Finland, Germany, Austria, the Netherlands, France and Italy (together referred to as the 'old West European domestic heating market'), under which it would have a 42 % market share and Løgstør 25 %. With a market share between them of 67 %, the two producers would effectively control the whole market.

ABB believed that its situation could be consolidated by its taking a shareholding of up to 10 % in Løgstør, in return for which it would secure an increased quota for Løgstør within the cartel. (This idea never in fact became a reality).

(47) By this time, the two principal markets — Germany and Denmark — were being regularly discussed in the same forum (ABB's Article 11 Reply pp. 58 and 59).

ABB's tactics to secure agreement were characterised by Løgstør (Reply to Statement of Objections, p. 37) as a 'carrot and stick' approach — holding out inducements while making threats if its proposals were not accepted.

The Commission fully accepts that during much of the period in question and despite the agreement reached to increase prices as of 1 January 1992 general price levels in Germany remained low, as each producer wanted a higher market share.

The German producers had tried to induce the four Danish suppliers to sell in Germany at the same prices as those they could obtain on their home market. For their part, the Danish producers had in early 1993 attempted to secure the agreement of Isoplus to stay out of Denmark,

apparently as a *quid pro quo* for Tarco and Starpipe's abandoning or refraining from entering the Austrian market.

(48) ABB continued to take the leading role. Its policy was to consolidate its position as market leader via the cartel, in combination with a strategic alliance with at least one of its competitors. Apart from its demanding a shareholding in Løgstør (and offering it an increased quota within the cartel) ABB attempted — unsuccessfully — via agents to buy out Isoplus and later warned it to stay out of the Danish market (Isoplus Statement of 10 October 1996, p. 23).

In mid-1993 Pan-Isovit and Isoplus lost patience with the negotiations and in order to obtain more 'leverage' decided to enter the Danish market. They argue that this foray was proof that no cartel existed but it is clear it was a negotiating ploy to persuade the Danish producers to increase their prices in Germany.

Thus the Henss/Isoplus plan for Denmark was to obtain individual business only by agreement with ABB or Løgstør: the idea was to manifest 'a certain solidarity' with ABB but to wait for Løgstør to approach it (Isoplus 'Beiratsitzung' minute, see (37).

(49) Whatever their disagreements, and however robust the nature of their diplomacy, the six producers were still working towards a resolution of their differences and the reaching of a settlement.

Representatives of the major producers again met in Hamburg on 20 April 1993 to restart progress towards a common price list and to agree a common price increase for Germany (ABB's Article 11 Reply, pp 32 and 33). Løgstør had summoned the meeting in its capacity as the Chairman of the Danish producers' association.

ABB says, however, that Løgstør's representative was apparently unable to attend the meeting, a statement which Løgstør echoes in its reply to the Statement of Objections (p. 35): the information which it had earlier provided to the Commission under Article 11 indicates nonetheless that its sales director attended a 'European meeting' on that date.

The day before the meeting, Tarco had distributed to the other Danish producers tables (Appendix 49) showing the sales and market shares of all the suppliers (including the German producers) in each national market for 1992, the information having been compiled from information provided by the sales managers in an earlier meeting. On Tarco's own admission (Reply to first Article 11 letter, p. 8) its purpose was to assist in calculating the overall European market (presumably for 1993); the connection of this exercise with some market-sharing scheme cannot be contested.

On 30 June 1993 a meeting in Copenhagen attended as usual by the managing directors of ABB, Løgstør, Tarco, Starpipe, Isoplus and Pan-Isovit, again discussed market-sharing arrangements for Germany, including the proposed 60/40 split. According to ABB's note of only a few days later (Appendix 48), this division was 'almost agreed' but Løgstør says it was unacceptable to the German producers. What the six definitively agreed was to commission an independent audit of 1992 sales which would serve as the basis for an agreement on market quotas in Germany.

The extension of discussions from attempts to create a common price list to a 'more structured attempt at market-sharing' from June 1993 resulted from a realisation that attempts to raise prices without a market-sharing or quota agreement would always fail (ABB's Article 11 Reply, p. 35).

ABB's preparatory note for a meeting in Zurich on 5 and 6 July 1993 between its senior executives and those from Løgstør predicted with some confidence that a comprehensive European solution would soon be reached (Appendix 48).

(50) As part of the moves towards a global settlement, Løgstør promised the parent company of Pan-Isovit in a meeting on 18 August 1993 (Appendix 52) that it would combine with ABB to bring Tarco 'under control' in Denmark and Germany. (Løgstør was said to be interested in principle in a price agreement in Germany provided it was given the right quota.)

Following the audit (carried out by Swiss accountants), which ascertained the figures for each producer's 1992 revenue (Appendix 53), the producers met in Zurich on 18 or 19 August 1993 and reached agreement on the following points:

— the market shares achieved in Germany for 1992 were to be maintained for 1994 with slight adjustments,

— a new uniform price list was to be drafted,

— Pan-Isovit was to prepare a scheme for sanctions in case of deviation from agreed quotas. (ABB's Article 11 Reply, pp. 34 and 35).

(51) The agreed 'targets' for the German market for 1994 were:

— Pan-Isovit	26 %,
— ABB	25 %,
— Tarco	17 %,
— Henss/Isoplus	16 %,
— Løgstør	12 %,
— Starpipe	4 %.

The solution was in effect to allocate to the three Danish producers a 33 % quota as the cartel coordinator had earlier suggested.

Tarco is said to have had 'reservations' as it wanted another 1 % added to its quota.

Further meetings on the quota system, including discussions about machinery for fining those who exceeded the quota, were held on 8 or 9 September 1993 in Copenhagen and Frankfurt.

A general consensus appears to have emerged. Tarco's share was increased to 17,7 % (Annex 7 to Løgstør's Reply to the Statement of Objections) and a penalty scheme was devised, an initiative which Løgstør attributes to ABB 'with the strong support of Henss'.

The plan, due to come into effect on 15 September 1993, was to have involved monthly reporting by each producer and quarterly audits of their return by the firm of Swiss accountants which had conducted the earlier audit. Fines for exceeding quota were to be paid into the Swiss bank account of a new trade association which was to be set up ostensibly for the promotion of district heating.

The uniform price list was to be used as a target to bring general price levels up, in progressive steps, by some 25 % over six months.

(52) Is was envisaged that the agreement was to be put in writing and signed, but this final step was apparently never taken. Løgstør claims it refused to sign because it never wanted to make any agreement for Germany, but this assertion leaves unexplained Løgstør's willing participation in the audit by the Swiss accountants and is contrary to Pan-Isovit's assessment that Løgstør was interested in a quota system (Appendix 52).

The other producers were not willing to go ahead on the basis of handshakes.

Løgstør claims that in a meeting in Denmark on 29 September 1993 it was pressurised by ABB to sign up to the compensation scheme, this being demanded by ABB, Henss/Isoplus and Pan-Isovit as the condition for cooperation in Germany.

Its refusal to sign (says Løgstør) provoked a strong negative and personal reaction from ABB. In a high-level meeting in Copenhagen — which Løgstør places on 2 December — the then Chairman of ABB's Transportation Segment (whose active role in promoting the cartel is amply documented) allegedly criticised Løgstør executives in immoderate language for their perceived failure to cooperate (Løgstør Reply to Statement of Objections, page 39). ABB has not

disputed Løgstør's graphic account of this incident.

Although in terms of volume the market continued to expand, particularly in Germany, the producers say that a 'price war' broke out again: price levels in the major markets indeed fell by 20 % in a few months. ABB states that there was a 'breakdown in confidence' which effectively ended the attempts to seek a comprehensive settlement of the German market. However, the producers continued to meet, even if for some time the multilateral meetings were replaced by bilateral and trilateral contracts. It is most probable that such contacts involved efforts by ABB to broker a new dispensation to restore 'order' in the market (see Isoplus Article 11 Reply, p. 25).

Indeed, as early as 21 December 1993 Løgstør's Chairman was arranging a meeting with ABB and the cartel coordinator for 28 January 1994 (Appendix X1): Løgstør's list of contacts with competitors, supplied under Article 11, shows the scheduled meeting took place on that date.

Further bilateral meetings took place between ABB and Løgstør (on 23 February and 11 March 1994) Løgstør and Tarco (8 January and 19 March 1994) and Tarco and Pan-Isovit (22 February 1994). ABB says there were also a number of bilateral meetings between ABB managers and representatives from Pan-Isovit, Tarco and Henss (ABB's Article 11 Reply, p. 44). However, apart from Løgstør's claim that Tarco had unsuccessfully demanded compensation from Løgstør of DKK 16 million (its 1993 deficit) as the pre-condition for 'peace talks' (Reply to Statement of Objections, p. 25) no details are available.

4. The Europe-wide cartel from 1994

(a) *Initial contacts*

(53) Plenary meetings of the six producers restarted with the participation of Managing Directors and Sales Managers of 7 March, 15 April and 3 May 1994.

ABB explains that the 'price war' of late 1993 and early 1994 had resulted in such heavy losses for nearly all the district heating suppliers that the smaller producers amongst them were forced to seek a concerted effort to return the price level to the *status quo ante bellum*. (ABB's Article 11 Reply, p. 62).

Løgstør's assessment is that the producers had 'spent the whole of 1993 trying to get in position to tackle a new situation like the one that used to rule in Denmark .... Several agreements were made but never carried through because the main principle was that those who didn't speak, disagreed.' During 1994, however, with a change in managing directors at many of the producers, a new climate prevailed: 'ABB put a lot of effort into this project, and all the Danish manufacturers backed the attempt' (Løgstør Article 11 Reply, Statement I, p 74, and Appendix 55).

(54) The meetings in March and April involved discussions on price increases but seem to have been inconclusive. A letter from Løgstør to Ke-Kelit of 17 March 1994 refers to meetings with 'colleagues' to discuss the price situation but was not optimistic about finding a solution until later in the year: Appendix 55. However, following the meeting on 3 May 1994 at the Hanover Trade Fair attended by ABB, Henss, Pan-Isovit and Løgstør a price list was drawn up which was to be used as the basis for all supplies to the German market (Appendix 56; ABB's Article 11 Reply pp. 42 and 43).

It would seem that the common price list was immediately put into use to coordinate price offers for individual projects, although its employment was problematic. The invitation sent out on 10 June 1994 for a directors' meeting on 18 August 1994 refers to the 'list of 9 May' stating that as it had in some respects been incomplete, having led to 'confrontation an differences of interpretation' when offers were being compared. The cartel coordinator therefore attached a modified and extended price list to the invitation (Appendix 56).

(55) Although Henss and Isoplus in their replies under Article 11 of Regulation No 17 originally denied all knowledge of such a price list, Henss later claimed that the list was distributed by other producers as part of a plan of force Isoplus out of Denmark, although precisely how it was intended to produce that result was not explained.

Tarco states that is was in fact Henss which drew up the list, possibly in collaboration with ABB's adviser who acted as the coordinator of the cartel (Article 11 Reply, pp. 8 and 9).

Løgstør also attributes the authorship of the list to Henss and the cartel coordinator (Reply to Statement of Objections, pp. 41 and 42). Their account of the provenance of the price list is corroborated by other documents, the most striking being a fax of 28 June 1994 from the executive vice-president of ABB who headed the Transportation Segment in Zürich (see points 10, 24, 52) to the newly-appointed managing director of ABB IC Møller in Denmark endorsing the latter's instructions to the cartel coordinator and confirming that he (the executive vice-president) had called both the coordinator and Henss 'to state that your instructions had to be followed. (The coordinator) expressed that he had now clearly understood the message and is setting up a meeting in Germany in August' (Appendix X9).

(56) The new managing director of ABB IC Møller (who reported direct to the executive vice-president referred to above) regarded it as his first priority to bring order to the district heating market in Western Europe (KWH Statement of 29 November 1996, p. 6).

The meeting of 18 August 1994 (see ABB's Article 11 Reply, pp. 43-44) on the German market was in fact held in Copenhagen and was attended by senior representatives of the six major firms plus (for the first time) a representative of Brugg. Brugg had not officially been invited by the coordinator but attended at the suggestion of Henss. (Brugg says that it had been given to understand that if it did not align itself with the cartel it might suffer reprisals via its main customers).

The meeting considered proposals to bring up price levels in Germany, and it seems likely that it was agreed to prepare a new common price list and to limit discounts to an agreed level (15 % or 30 %).

At this time KWH was a member of EuHP but had not yet been admitted to the cartel and was not present. In any case it had almost no presence in Germany. At an EuHP technical meeting a few days later (on 23 August) its representative became aware of some understanding between the other participants, and wrote in his diary 'the boys met, it seems as if the market has been agreed?' (translated from original Finnish: KWH Statement, p. 7; KWH Schedule B.2.b; Appendix 185).

Løgstør attempts to minimise its role and says it 'kept a low profile' in the meetings concerning Germany as it had no major interest in that market. It says that it was only because of the adverse effects of the price war that it was compelled to contact the cartel coordinator at the end of June and sue for peace. Indeed it even claimed in its reply to the Statement of Objections (p. 42) not to have attended the meeting of 18 August, but this assertion is refuted by the information provided by Løgstør itself under Article 11, showing that its sales director had attended the meeting in question on that date. (In fact Løgstør had already been actively involved in the initial contacts in March-April and on its own admission attended the 3 May meeting in Hannover and received the price list which was subsequently drawn up and distributed by Henss and the cartel coordinator).

(b) *Sharing of the European market: basic agreement on quotas*

(57) Following their initiatives on the crucial German market, the managing directors of ABB, Løgstør, Tarco, Starpipe, Pan-isovit and Henss/Isoplus did not take long to reach an overall settlement on the sharing of the European market in the autumn of 1994. (The aspirations of KWH, whose activities were mainly in Scandinavia and Eastern European, appear to have been accommodated somewhat later).

This market-sharing agreement covered not only the Community but also Switzerland, the non-member Nordic countries, the Baltic republics and several Eastern Europe countries.

Quotas (in %) for the total market were agreed for each producer. The value of the total market (in DKK) was calculated and the percentage Europe-wide quotas of each producer were translated into money terms. Individual national markets were then divided accordingly with the producers having different quotas in each.

(58) The fundamental aim of the scheme was to raise price levels. It was realised by all that this objective could only be achieved by an agreement on quotas. Tarco states that the purpose of the agreement 'was to increase prices by approximately 30 to 35 % within a period of two years. It was expected there would be gradual increases every quarter .... Not all companies were supposed to increase their prices but the same percentage at the same time. The usual practice was to have a 6 to 8 % increase per quarter depending on the individual company price list' (Tarco's Reply to second Article 11 request, p. 18).

Pan-Isovit's notes setting out details of the scheme (Appendix 60) confirm that the plan was to increase prices by at least 25 % in 1995.

The minutes of an ABB Business Group meeting held on 30 September 1994 refer to the wish of ABB and its competitors to get prices up and continues: 'Relative price increases of 10 % and another 10 % to cover the increase of material prices can be expected' (Appendix 61).

(59) From the version of evens given by the different producers (such as ABB's Article 11 Reply, pp. 62 to 65; Løgstør's Reply to Statement of Objections, pp. 43 to 45. Tarco's Reply to first Article 11 request, p. 5; Tarco's letter of 10 July 1996; Pan-Isovit's Article 11 Reply, pp. 54 and 55) it appears that there was first a meeting of the four Danish producers in Billund on 16 September 1994, when ABB explained its proposal for a new European arrangement.

After that there were plenary 'strategic' meetings of all six producers on 30 September, 12 October and 16 November 1994 in which the overall quotas for the European market were negotiated and settled in principle.

At the first meeting on 30 September in which ABB's proposals were discussed it was decided that ABB should visit all the participants and also seek to bring KWH and Brugg formally into the European quota scheme.

It was at this meeting that agreement was reached in principle that an overall quota system be set up for Scandinavia, the rest of Western Europe and Eastern Europe with detailed figures for each national market to be agreed and passed to the lower level marketing meetings for implementation (ABB's Article 11 Reply, pp. 62 and 63).

ABB says that the global figures for the European-wide quotas were agreed in the (third) strategic meeting on 16 November (ABB's Article 11 Reply, p. 64).

(60) Tables found at Pan-Isovit (Appendix V to Article 11 request to Pan-Isovit; Appendix 60) indicate that at this stage the basic quotas ('earlier decisions') were agreed as follows:

— ABB: 37 %,

— Løgstør: 20 %,

— Tarco: 10 %,

— Pan-Isovit: 10 %,

— Isoplus: 10 %,

— Starpipe: 6 %,

— Others: 2 % ([8]).

([8]) Løgstør in its Article 11 Reply (Statement I, p. 74) gave a slightly different version of the agreed quotas with ABB at 37 %, itself at 18 %, 9 % each for Tarco, Pan-Isovit and Isoplus and 5,5 % for Starpipe; in its Reply to the Statement of Objections (p. 45) it claims that these shares were finally agreed on 20 March 1995. In fact the basic quotas had already been agreed much earlier.

Pan-Isovit's note (Appendix 60) which sets out the details of the cartel agreement shows the scheme as coming into effect as from 1 October 1994.

(61) KWH and Brugg were not present at the meeting of 16 November but, since ABB was optimistic that they could be accommodated in the scheme, it was mandated by the cartel to work out a final agreement with these two producers and report back n early 1995 (Løgstør's Reply to Statement of Objections, p. 45).

Brugg — which had been in the Copenhagen meeting on 18 August and attended the local meetings for Germany from December 1994 — seems to have been accommodated first: it says that it was told in December that there was a quota agreement for Germany but as yet it did not have a specific allocation. Not long afterwards (it says) it was informed by ABB that it had been given its own quota (corresponding to 4 % in Germany) by the directors' club (Article 11 Reply, p. 6). Løgstør (Statement I, p. 74; Reply to Statement of Objections, p. 45) attributes a somewhat more active role to Brugg: it says that Brugg had demanded a 2 % share of the market overall and 4 % of the German market. Brugg also wanted flexible pipes to be excluded from the agreement and a guarantee that there would be no new competitors in Switzerland. Its conditions seem to have been accepted; at any rate, only those projects in which Brugg was competing with the other pipe producers counted towards its quota.

(62) According to KWH, it came under sustained pressure from the other producers either to quit the market entirely or to come to an accommodation with the cartel. This may well be true, but there is also considerable evidence suggesting that KWH was hoping to secure a larger share of the market than the others were willing to give it. KWH was also prepared to quit the district-heating market entirely if it were given a five-year guarantee that the others would buy pipes from it, and detailed discussions took place on this proposal.

KWH was drawn into the scheme of collusion earlier than it admits. At the end of 1994 it had already met ABB's Finnish subsidiary 'regarding expectations for market volume' (ABB's Supplementary Article 11 Reply, p. 26).

The managing director of KWH Pipe Oy (who was also Chairman of KWH Tech) attended a meeting with ABB on 19 January 1995 in Copenhagen at which on its own admission 'market trends' were discussed. (KWH's Article 11 Reply, p. 9).

KWH first attended the Danish contact group (see (77) on 4 April 1995 (ABB's Supplementary Reply, p. 7).

The evidence found at Pan-Isovit (Appendix 60) indicates that by this time KWH had already made known its aspirations for an allocation under the quota system. KWH also admits attending a 'working dinner' on 14 March 1995 with the managing director of ABB IC Møller to discuss market shares (KWH Statement, p. 8; KWH Schedule B.2.a.).

According to the detailed note made by Pan-Isovit's managing director of a Directors' Club meeting in March or April 1995 (Appendix 60) the initial reaction to KWH's demands for quotas in various markets was 'Can't do!'

(63) In late April 1995 KWH took the decision to join the directors' club (KWH Statement, p. 10). As a result, ABB was able to produce a definitive table of market shares for each national market, including the Baltic and East European countries. The first meeting which KWH attended was on 5 May. At, or just before, that meeting its quota in the cartel was doubled from the proposed DKK 76 million to DKK 144 million (3,8 %).

The Commission has obtained from both Tarco (Appendix 62) and KWH (Appendix 186) the table setting out the quotas for each country in percentage and money value based on an estimated total market of DKK 3 794 million (ECU 513 million).

It was approved at the directors' meeting in Budapest on 5 May 1995.

(64) The principle underlying the quota system was that, in future, market share could only be 'bought'. Løgstør explains (Statement II, p. 90) that ABB insisted on a 'deadlock' in the market: market shares were to be frozen. If a producer wanted to increase its overall market share, it could do so only via the acquisition of a competitor. This is corroborated by a Pan-Isovit note: 'Market shares can only be bought — not taken' (Appendix 60).

Those producers whose market shares in particular countries were considered too low were encouraged or required to withdraw from those markets because their marginal commercial presence tended to push down price levels. (Appendices 63, 64: Løgstør Statement II, p. 90; Starpipe's Article 11 Reply, sub K(g); Pan-Isovit Article 11 Reply, pp. 28-32). In return for giving up this business, they received compensation in the form of an increase of their quota allocation in other markets in which they were already present.

In practice, the 'swap deals' were made on a bilateral basis. Pan-Isovit left the Netherlands and was compensated in Italy; Isoplus was the other way round.

(65) To police the quota system, a compensation scheme was conceived, ABB says (Article 11 Reply, p. 63) that, when the arrangements were being discussed in 1994, Henss had strongly advocated a system of fines for non-compliance but agreement was not reached on this point.

Detailed notes of a directors' club meeting in March or April 1995 made by Pan-Isovit (Appendix 60) sets out the basis for a compensation mechanism which penalises 'cheating' on individual projects, namely by taking the contract from the designated favourite by undercutting the agreed price:

'— min price level — not to go under in any case/any market (except when decided, e.g. Powerpipe),

— penalty if lower price in any one object/customer,

— obj/customer subtracted from market share that year (if 11 million project is taken for 8, penalty is 4).'

Tarco says, however, that the compensation system did not in fact operate at this level, namely for individual projects: the producers had in fact envisaged equalisation on a comprehensive basis to adjust for deviation from quotas. The basic principle was that at the end of the year the performance of each producer against quota was ascertained and discrepancies would be regularised either in the allocation of the following year's quotas or by payment of compensation.

(c) *The European cartel structure*

(i) The directors' club

(66) The pan-European cartel involved a two-tier structure on the Danish model.

The supervisory body consisting of the chairman or managing directors of the participating producers was known as the 'directors' club'.

The participants in the directors' club were:

— ABB,

— Løgstør,

— Starpipe,

— Tarco,

— Henss/Isoplus,

— Pan-Isovit,

— KWH (from 5 May 1995).

(67) Having agreed the quotas in the global market, the directors' club (now also called the 'Elephant group') met subsequently to fix the individual

market-share allocations in the different national markets, including Germany, Denmark, Austria, the Netherlands, Finland, Sweden and Italy. It was at this time (November-December 1994) that Powerpipe had brought the matter to the attention of ABB's executive committee and had been warned to refrain from making 'unjustified' allegations (Appendices 8 to 16).

The directors continued to meet at approximately monthly intervals at various locations both inside and outside the Community. KWH joined the club and attended its meetings from 5 May 1995.

The directors' club was also the forum for agreeing overall price increases.

Detailed contemporaneous notes of several meetings of the directors were found at Pan-Isovit (Appendices 60, 65 and 66).

(ii) Contact groups

(68) 'Marketing' or 'contact' groups consisting of local sales managers were set up in each important national market and were given the task of administering the cartel arrangements under the overall supervision of the directors' club. The national contact groups did not decide quotas: these were fixed for each country at the more senior level. Their task was to assign individual projects and coordinate the collusive bidding procedure.

The 'established customer' principle, which had been the basis of the Danish cartel was again employed. For most projects, the traditional supplier was designated the 'favourite' and the other producers had to either decline to bid or give a higher 'protect' quote so as to ensure that it received the contract. In the case of major projects, where there might be several suppliers, the producers which normally supplied the customer were supposed to bid and to share the contract between them.

In the case of new tenders for large projects where there was no firm existing customer relationship, the contract was allocated to one or other producer in accordance with the remainder of its agreed annual quota. Any project announced which was worth more than a specified amount had to be registered with the 'coordinator' appointed by the cartel for the market in question. In Germany this threshold was DEM 50 000.

Contact groups were set up for (at least) Germany, Denmark, Austria, Italy, Sweden, the Netherlands, the United Kingdom and Finland as well as for some non-member countries (Appendix 67). In the main, the members were the local sales managers or directors but on occasions more senior executives participated. Details of how the contact groups operated in each Member State are set out in the following section.

(d) *Implementation in national markets*

(i) Germany

(69) The contact group for Germany, where the market for 1995 was initially estimated at almost ECU 180 million (later revised to ECU 160 million), met every week or fortnight. Its first meeting under the new arrangements was held on 7 October 1994, the six major producers (and Brugg) having met in Copenhagen on 18 August to decide the measures which could be taken to increase the price level in Germany.

The usual participants were:

— ABB (Isolrohr),

— Løgstør,

— Tarco,

— Starpipe,

— Henss/Isoplus,

— Pan-Isovit,

— Brugg (from 7 December 1994).

(ABB's Article 11 Reply, p. 67: Tarco's Statement, p 7; Brugg's Article 11 Reply, Annex 2; Henss' Supplementary Statement, Annex 7).

The managers of the German producers had, however, already been meeting to examine individual projects in Germany from May 1994 and probably long before. ABB says (Supplementary Article 11 Reply, p 10) that in contrast to the other contact groups the German marketing group was not a new group established by the director's club, but the reconstitution of a body which had previously 'convened periodically over an extended period'. In its earlier incarnation, this group had been organised by the same retired business executive who had been engaged as the 'coordinator' of the cartel and had arranged the regular meetings of managing directors in 1991-1993 (see (33), (42) and (45)).

(70) The quotas on the German market (Appendices 62, 68 and 69) were originally:

— ABB: 24 %,

— Pan-Isovit: 21 %,

— Isoplus: 18,5 %,

— Tarco: 17 %,

— Løgstør: 11 %,

— Starpipe: 3,5 %,

— Others: 5 %.

Brugg, first included among 'others' ('Sonstige') was subsequently given a quota of 4 % in Germany or 2 % overall. (Løgstør Article 11 Reply, Statement I, p. 74; Brugg's Article 11 Reply, p. 6).

(71) Once the reconstituted German contact group was fully operational, its main function was to allocate individual projects in accordance with the 'established customer' principle and the annual quotas, and to coordinate and monitor the bidding procedure for each project to ensure that the agreement was respected. All projects worth over DEM 50 000 were to be subject to the allocation and bid-rigging procedure.

The new 'coordinator' for the German market was the managing director of ABB Isolrohr GmbH (the retired Danish executive who had previously performed this role having by this time ceased to play an active part in the cartel). The various suppliers were originally required to provide him every month with details of their turnover figures, the value of orders supplied and their offers for individual projects including those in which the bidding had not closed. Firms were also required to report all known projects during contact groups meetings. The information was kept on a data base on a portable computer and an updated list of projects was produced by ABB Isolrohr for each meeting. By January 1995 meetings were being held virtually every week. The participants had to notify ABB Isolrohr each Wednesday of the projects for which they had bid and the sum they had quoted for each. This computerised list kept by ABB indicated the value of projects, the 'favourite' (meaning the supplier designated by the cartel) and the firm to which the contract was actually awarded.

(72) This complex mechanism enabled the German Contact Group to monitor some 1 400 to 1 500 projects per year which were over the DEM 50 000 threshold. Examples of the project lists were obtained during the Article 14(3) investigations at both Henss in Berlin and Tarco, and further examples have been provided to the Commission by the latter (Appendices 68, 71, 72 and 73).

Other lists (headed *'Favorit + Angebotsumme'* and *'Auftrag + Angebotsumme'*) used for control purposes were maintained both for the German market as a whole and for each of the *Länder* (Appendices 74, 75 and 76).

Similar tables and lists relating to the allocation of projects in Germany were provided to the Commission by Henss on 10 October 1996 (Appendices 77, 77 and 79).

(73) As the basis for their pricing calculations, the members of the German Contact Group used as so-called *'Europa-Preis Liste'* (also called the 'EU-list' or 'Euro price list') which was intended to serve as a common price list for all supplies.

The producers say that despite its name, it was intended for the German market only.

This Euro price list was in essence the one which had been referred to in the invitation to the Copenhagen meeting (Appendix 56) as the 'list of 9 May', presumably enlarged and updated. By most accounts it was drawn up by ABB and Henss. As originally conceived it gave prices which were some 30 % above the then-prevailing price levels, the idea being that it should provide a target price or point of reference with the progressive reduction of discounts.

There were numerous references to this list in the documents found at various undertakings during the investigations, but it was only in April 1996 that a copy was obtained from Tarco (Appendices 80-81).

Whereas in their replies under Article 11 of Regulation No 17 in early 1996, ABB, Tarco, Starpipe and Brugg all described in some detail how it was employed, the Henss/Isoplus companies originally denied all knowledge of it and even of the German contact group (Henss' Reply to Article 11 request, pp. 14 and 15). Isoplus finally admitted the existence of the Euro price list in its Statement of 10 October 1996 (p. 26) and indeed provided a copy.

(74) Soon after the German Contact Group began to meet, it was agreed (4 November 1994) that orders taken prior to 15 October could be at Euro price list levels, minus 30 %, orders after 15 October at list-price minus 15 %, and that no discounts at all were to be granted after 1 January 1995. (ABB's Article 11 Reply, pp. 67 and 68; Appendix 82, found at Pan-Isovit). Brugg, which says it was given the Euro Price list when it started coming to contact group meetings at the end of 1994, recalls that the producers which were not allocated a particular contract could quote at 5 % below the list-price, while the 'favourite' could go down to 10 % below. At the meeting on 10 January 1995 ABB says that it was agreed that all orders below the Euro price list would be written up to list price (See also Starpipe's note of the meeting, Appendix 70).

There were, however, still complaints about indiscipline and low prices, and on 20 March 1995 the directors decided that as from 10 a.m. the next day the Euro price list was to be applied without exception in the German market (Starpipe's Article 11 Reply, under J, K and L; Appendices 83 and 84).

(75) During the regular meetings of the contact group, individual projects were monitored and the progress of the bidding procedure and the offers of each producer scrutinised so as to ensure compliance.

Hand-written notes which relate to this control mechanism were discovered at Henss' premises in Rosenheim, Germany. For each of a series of pending projects, the 'list price' (presumably less the appropriate discount) is compared with the offers which the different producers had declared in accordance with the reporting procedure described at point 71. Clearly, the producers were required to explain themselves if any deviation from the agreement was suspected (Appendix 85).

There is a considerable amount of documentary evidence that where — contrary to the rules of the cartel — a rival submitted an offer below that of the 'favourite', pressure was exerted on it to withdraw its offer. Henss in particular was eager to enforce the agreements. Thus for two projects (Stassfurt, Zeitz) Starpipe had to promise Henss in writing that it would not quote below a particular price (Appendices 86 and 87); in the case of Erfurt-Tiergarten, Løgstør had (at Henss' behest) to withdraw its offer and give an excuse (Appendices 92 and 93); where Tarco had in Henss'view undercut the 'Euro price' and thereby been promised a project (Straubing) which Henss

had claimed, the managing director of Henss Rosenheim 'reacted in an uncontrolled fashion and demanded that I withdraw our offer' (Appendices 88 and 89). In other cases Tarco did indeed withdraw from certain projects following pressure from Henss (Tarco's first Article 11 Reply, p. 4; Appendix 91). Tarco was one of the main offenders and claims to have misrepresented the real prices it quoted. However (says Tarco) Henss was always able to discover what the true prices and orders were and in telephone calls and at meetings of the directors' club repeatedly accused Tarco of cheating. Henss and ABB kept special lists of projects where Tarco had allegedly cheated (Appendix 90).

(76) Contact group meetings for Germany, as well as other cartel meetings, continued long after the Commission carried out its investigations at the end of June 1995.

Following the Commission's investigations, it had been considered prudent to hold the meetings outside the Community, and they were moved to Zurich. (According to Løgstør, it was principally ABB which pressed for the meetings to continue).

The meetings in Zurich continued with all the same participants as before until 25 March 1996 — some days after the undertakings had received the Article 11 requests from the Commission.

Løgstør (Reply to Statement of Objections, p. 51) states that in January ABB had proposed setting up a permanent secretariat in Zurich for the German cartel, and that as late as May/June 1996 ABB's German operation was still contacting Løgstør's local subsidiary company.

(ii) Denmark

(77) The new Danish contact group was set up in October 1994. It met approximately once a month, usually in hotels in Jutland.

The members of the group were: ABB, Løgstør, Tarco, Starpipe, Isoplus, Pan-Isovit and KWH. (See Tarco's Statement, p. 7; ABB's Article 11 Reply, p. 66; ABB's Supplementary Article 11 Reply, p. 7).

Tarco says that when the contact group was originally set up, the four Danish producers first met together privately and afterwards they either let KWH, Isoplus and Pan-Isovit join them or delegated one of their number to meet the three non-Danish manufacturers; later, however, all firms participated in the Danish contact group on an equal footing. Pan-Isovit claims (Article 11 Reply, p. 63) that the Danish market was dominated by the four local producers and that the other three rarely attended meetings: they simply met the new producers (from Løgstør) who told them what projects had been allocated to them. (This account appears to be confirmed by ABB's Supplementary Article 11 Reply.) Indeed, it seems that in August 1994 the four Danish producers had met and agreed that Pan-Isovit ought to withdraw from Denmark (Appendix 98). Since 75 % of sales in Denmark are made direct to established customers, the market-sharing agreement was implemented here principally on the basis of respect for existing relationships.

(78) The fidelity arrangement operated well and according to ABB (Article 11 Reply, p. 66) was complied with in 70 to 80 % of cases. There were therefore only a limited number of cases in Denmark where a new project had to be allocated among the producers. If a competitor underbid the usual supplier and 'stole' the business, this was generally corrected by the allocation to the aggrieved favourite of another project in compensation.

A reporting system similar to that used (on a much larger scale) in Germany seems to have been employed (Appendices 99 and 100).

The cartel originally estimated the total market for 1995 at some DKK 640 million (almost ECU 90 million), a figure which was later revised to DKK 610 million (ECU 83 million).

The last full meeting of the Danish contact group was held on 11 March 1996, but two short meetings took place on 18 April 1996 between executives of ABB and Løgstør: each blames the other for taking the initiative to call these meetings so as to find a way to continue the cooperation by other means (ABB's Supplementary Article 11 Reply, p. 9; Løgstør's Reply to Statement of Objections, p. 52). By this time, the participants had received the requests for information under Article 11, and indeed ABB's legal advisers had twice written to the Commission informing it of their clients' willingness to cooperate with the investigations.

(iii) Netherlands

(79) The Netherlands contact group was originally supposed to meet only twice a year. (ABB's Article 11 Reply, p.70) The first meeting was held on 14 March 1995 in Amsterdam. According to other producers, ABB took the initiative in setting up the group and chairing the meeting (Starpipe's Article 11 Reply, under H; Pan-Isovit's Article 11 Reply, p. 59). Participants at this meeting were from ABB, Løgstør, Tarco, Starpipe and Pan-Isovite together with local representatives. (ABB's list of participants also includes a representative of Isoplus; this company hand quit the Italian market in return for an increased quota in the Netherlands).

During the investigation the Commission obtained both Starpipe's contemporaneous note of the meeting of 14 March 1995 (Appendix 101), together with a table setting out contracts and projects for 1995 (Appendix 102) and how they were to be allocated and, from Pan-Isovit a virtually identical table (Appendix 103).

(80) The total market (worth around ECU 22,5 million) was to be divided up according to the following quotas (Appendices 102 and 103: also Appendix 62):

— ABB: 45 %,

— Løgstør: 25 %,

— Tarco: 14 %,

— Starpipe: 5 %,

— Isoplus: 5 %,

— Pan-Isovit: 4 %.

These were the original quotas allocated by the Directors' Club. Actual market-shares anticipated for 1995 were somewhat different: ABB was expected to take 50 % of the expected business and Løgstør 28 %, while the three smaller producers were below their quota. Starpipe says that the table of projects was compiled from figures supplied by the participants who indicated their budget for the year. (Starpipe's Article 11 Reply, under H). If (as expected) there was a deviation from quota at the end of the year it would have had to be dealt with, although precisely how this equalisation was to be achieved is not specified.

(81) Pan-Isovit's expected market-share being only 2,5 %, it was decided in the first meeting that it should quit the Dutch market and cede its share to Isoplus in return for an increase by an equivalent sum of its allocated share in Italy (and Austria): see Pan-Isovit's Article 11 Reply, pp. 58 to 60; Appendices 64 and 103. This would explain why Pan-Isovit attended only one meeting and was replaced by Isoplus. Regular participants thereafter were ABB, Løgstør, Tarco, Starpipe and Isoplus.

After the first meeting, it was agreed that Løgstør should replace ABB as the coordinator of the group.

Although ABB said it was only due to meet twice a year, the Netherlands contact group had at least another six meetings during 1995 (see ABB's Supplementary Reply, pp. 13 to 17) and a meeting scheduled for 13 May 1996 was cancelled only because of the Commission's Article 11 requests.

(iv) Austria

(82) There is substantial evidence that arrangements for market-sharing in Austria predated the setting-up of the contact group and the accession of Austria to the European Union. However, any local cartel arrangements in this market prior to the accession of Austria are outside the scope of this procedure.

After the setting-up of the Europe-wide cartel in late 1994 the contact group for Austria met every three or four weeks. The participants took it in turn to organise the meetings. The first meeting between Austria sales directors and more senior management from ABB and Henss/Isoplus took place in December 1994. (ABB's Supplementary Reply, p. 24) It was, according to Pan-Isovit, (Article 11 Reply, p. 62) organised by the local producer Ke-Kelit, apparently at the instigation of ABB. (Ke-Kelit is an independent Austrian supplier of district heating which uses Løgstør as a subcontractor for its pre-insulated pipes).

(83) The quotas originally proposed for Austria by the directors' club and communicated to Ke-Kelit By ABB (Appendices 106, 107) were:

— Isoplus: 37 %,

— ABB: 28 %,

— Ke-Kelit (LR): 23 %,

— Pan-Isovit: 5 %,

— Starpipe: 3 %,

— Tarco: 2 %.

(See Appendix 64, fount at Pan-Isovit, and Appendix 62, supplied by Tarco.)

The sales of Ke-Kelit in Austria were attributed to Løgstør as part of its overall European quota.

The total market in Austria was estimated by the cartel at about ECU 18 million for 1995.

(84) The Austrian group met regularly in order to implement the agreed market-share division, with discussion of prices and market-shares and if necessary adjustments concerning individual projects in order to keep market-shares in line with quotas (Appendices 108 and 109).

Pan-Isovit identifies the participants in meetings (Article 11 Reply, p. 62) as ABB, Ke-Kelit, Isoplus, Pan-Isovit and Tarco. Starpipe was represented by its agent, Gruner & Krobath.

According to Pan-Isovit the contact group continued to meet throughout 1995 and two meetings were even held at the beginning of 1996. The last meeting was in April 1996. Tarco claims to have withdrawn from the Austrian market in 1995.

(v) Italy

(85) The contract group for Italy originally consisted of ABB, Socoløgstør (a Løgstør joint venture company) ([9]), Tarco and Pan-Isovit who were soon joined by Sigma. It first met in Milan on 21 March 1995. A note made a few days later by the Managing Director of Pan-Isovit concerning the Italian market (Appendix 111) shows that already several large projects had been allocated to Løgstør and Pan-Isovit. (see also Pan-Isovit's Article 11 Reply, pp. 26 to 28).

Sigma had not attended the first meeting but came to the next one on 12 April 1995 (Appendix 187).

A report made to the Managing Director of Tarco by the local sales director of the meeting held on 12 May 1995 and attended only by local representatives (Appendix 112), shows that a compensation mechanism had already been agreed to reinforce the quota system: if a company exceeded its allocation it would pay a penalty to the other participants. At the end of the year, an

([9]) Løgstør sales in Italy via Socoløgstør were part of its overall European quota and the Commission rejects Løgstør's contention that 'the Italian market is not relevant to the case against Løgstør'. Løgstør is also identified as a participant in the first meeting of the contact group for Italy, as well as in a meeting concerning Italy held in Zurich on 9 June 1995.

external auditor would be engaged to check observance of the agreed quotas. Sigma, the local Italian producer, was to have a market-share of 10 % on new projects.

(86) The original quotas assigned to each producer in Italy wee given in a Pan-Isovit note (Appendix 64) as follows:

— ABB: 36 %,

— Løgstør: 26 %,

— Tarco: 12 %,

— Pan-Isovit: 9 %,

— Starpipe: 2 %,

— Sigma and others: 15 %.

As part of the overall settlement, Isoplus was to leave the Italian market and make over its share to Pan-Isovit (See also Pan-Isovit's Article 11 Reply, pp. 30 to 32). It would seem that Starpipe also agreed to quit the market at an early stage since (like Isoplus) it did not attend meetings of the contact group.

A later table of quotas obtained by the Commission (Appendix 188) shows that following the withdrawal of Starpipe some minor adjustments were made.

The Italian district heating market was originally estimated by the cartel at about ECU 25 million for 1995.

Individual projects were allocated to the participants in accordance with their quotas, and developments were monitored in periodic meetings. It seems that the meetings were characterised by frequent disputes, allegations and counter-allegations.

The Italian contact group met on seven occasions in 1995 and held four meetings after the Commission's investigations in June of that year. The last known meeting was held on 9 June 1996 in Zurich (ABB's Supplementary Reply, p. 17).

(vi) Sweden

(87) For Sweden the regular members of the contact group were ABB and Løgstør. Between them, these two producers had 85 % of the market (worth around ECU 35 million). Tarco and KWH were less frequent participants and Starpipe may have attended one meeting. The group met on seven or eight occasions to discuss the 'established customer' principle. (ABB's Article 11 Reply, p. 69: Supplementary Reply, pp. 21 to 23). Five of these meetings took place after the date of the Commission investigations, between June and December 1995.

(vii) Finland

(88) A number of national meetings concerning the market in Finland (worth around ECU 15 million) were held during the relevant period between ABB, Løgstør and KWH. Tarco and Starpipe do not supply in that market. The subject matter of the meetings included expected market volume, prices and individual projects. (ABB's Supplementary Reply, pp. 26 to 27).

(viii) United Kingdom

(89) A contact group, organised and led by ABB, was set up in the United Kingdom. Members were ABB, Løgstør, Tarco, Starpipe and Pan-Isovit (Pan-Isovit's Article 11 Reply, p. 62). Pan-Isovit said it met four times, but ABB admits to organising only one meeting. The United Kingdom market is worth approximately ECU 4 million annually.

(e) *Concerted actions to eliminate Powerpipe*

(i) ABB's strategic plan

(90) The elimination of Powerpipe as a competitor formed an essential part of ABB's long-term strategy of market control from at least 1992.

Powerpipe claimed in its complaint (p. 10) that at this time the other producers selling in Sweden were maintaining an artificially low level of pricing for district heating pipes, in order to damage its business. Corroboration for this suspicion is provided by the report of ABB's

Swedish management group meeting of 10 February 1992:

'Everyone was of the opinion that it was an action against Powerpipe that should be undertaken (instead of a September campaign against Løgstør because Løgstør has the financial strength to withstand it). Backing from the Board of Directors is requested for ABB, Ecopipe and Løgstør to attempt to price out Powerpipe. Were Powerpipe to be forced into bankruptcy, then ABB would be the only company producing on that market and a powerful sales argument could be built up, and we can go after Løgstør in Phase 2.'

The 1992 to 1996 Strategic Plan of ABB of June 1992 (Appendix 116) is also very specific:

'Powerpipe (Sweden) is dumping prices in Sweden very severely and now also in Finland and "Neue Bundesländer". ABB and Løgstør will try to squeeze him out of the market'.

(91) In July 1992 Powerpipe's first appearance on the German market led to its owners being invited by ABB to a meeting in Billund which was also attended by Løgstør and the coordinator of the Danish cartel.

Powerpipe's account of this meeting (Appendix 119) has the two main producers proposing that it should confine its activities to Sweden and stay out of the German market in particular, in return for which they would raise price levels in Sweden to an acceptable level and give Powerpipe a guaranteed quota.

When this offer was rejected by Powerpipe, Løgstør (says Powerpipe) offered to purchase Birka's shares in the company. (This account is not substantially denied by Løgstør, although it attributes the main role in the initiative to ABB).

This was one of a number of occasions when Løgstør offered to buy out Powerpipe.

Indeed at various times ABB, Løgstør, Pan-Isovit, Tarco and Isoplus have all tried either alone or in various combinations to buy out Powerpipe's owners, but negotiations were never successful.

Numerous passages in ABB strategy documents during the period covered by this Decision refer to plans to force Powerpipe into bankruptcy.

(ii) Hiring of key Powerpipe employees

(92) In 1993 ABB embarked on a systematic campaign of luring away key employees of Powerpipe, including its then managing director, by offering them salaries and conditions which were apparently exceptional in the business. According to Powerpipe the prime purpose of this tactic was to hamper Powerpipe in the market by, first, obtaining internal information regarding its manufacturing, strategies and markets and, secondly, adversely affecting its relations with customers until such time as a replacement could be found.

ABB and Løgstør had already agreed in their meeting on 13 November 1992 to hire the then managing director of Powerpipe and share the cost of employing him as a 'consultant' operating out of ABB's lobbying office in Brussels. (ABB's original idea had been to make him vice-president of ABB Motors in Spain: Appendix 27.) It is clear that this arrangement was directly aimed at Powerpipe:

'We agreed on a common action towards Powerpipe in Sweden by employment of [X]' ([10]) (Appendix 48).

ABB admits (Article 11 Reply, p. 26) that, in their November 1992 meeting, it and Løgstør had shelved plans jointly to acquire Powerpipe as a going concern. Hiring its managing director was seen an 'interim step' which would hasten what was perceived by them as the inevitable insolvency of Powerpipe. Its customers could then be divided between ABB and Løgstør in accordance with their agreed shares on the Swedish market.

([10]) The full name appears in the original document.

(93) The employment of Powerpipe's Managing Director was regarded by ABB as part of the overall European settlement which it envisaged in mid-1993:

'The situation in [Denmark, Germany and Poland] will probably be settled by a reduction of ABB's market-share in Denmark by 1,5 % and acceptance of an increase in Løgstør's market-share in Poland in the long term, as well as the fact that we have employed [X].'

Løgstør was to pay 40 % and ABB 60 % of the cost of employing him (Appendix 120). He left Powerpipe in late 1993 and joined ABB. Subsequently, at least part of his duties was to provide intelligence to ABB on Powerpipe's activities.

Løgstør attempts to minimise its role in this venture but accepts that the 'joint' employment of this key Powerpipe employee was an 'unwise decision':

'We have not gained much from [X's] activities . . . We knew that the appoint(ment) of [X] could be regarded as a negative act towards Powerpipe.' (Article 11 Reply, Statement I, p. 76).

The plan to damage Powerpipe by hiring its managing director was known to, and approved by, ABB's senior management at a high level.

Two other important Powerpipe employees were hired by ABB within the year, on conditions of employment which Powerpipe claimed were far more attractive than any normal industry practice. Even in early 1995 the idea of damaging Powerpipe by, *inter alia*, hiring its key employees was still being discussed. Meeting notes found at Pan-Isovit read: 'Power-pipe — how to counteract — hire salesman D!' (Appendix 122).

(iii) Powerpipe is warned off the German market

(94) Powerpipe continued its efforts to enter the German market as a serious contender by setting up a German sales subsidiary in April 1994. In October 1994, Powerpipe Fernwärmetechnik GmbH was for the first time involved in the bidding for an important contract (Neubrandenburg).

The bidding procedure for this contract coincided with the first meeting of the German contact group under the new arrangements on 7 October. The sequence of events which followed is described by Powerpipe in a memorandum dated 13 December 1994 (Appendix 124). The Neubrandenburg contract (which was to be carried out in four phases: BA 6 Los 1 — Los 4) was allegedly valued by the cartel at about DEM 980 000 in total.

(95) After it became known that Powerpipe was bidding for the project, Powerpipe's German subsidiary was telephoned on 10 October by Henss which demanded that Powerpipe should position its bid at such a level that Isoplus was awarded the contract. Isoplus's bid for the project was dated 11 October — that is, the next day (Appendix 125).

According to Powerpipe, a whole series of threats was made and various inducements were offered in an attempt to 'persuade' Powerpipe to abandon the contract. When Powerpipe proceeded with its bid (which was substantially below the price agreed by the cartel) the matter was taken up at a higher level, with senior executives of Henss and Løgstør (among others) telephoning both Powerpipe's Managing Director and its then owner on numerous occasions. Powerpipe made contemporaneous minutes of these conversations (Appendices 126 to 133).

These notes show that Powerpipe was given the alternative of abandoning the Neubrandenburg contract in favour of Isoplus which had been allocated the contract by the cartel — in return for which Isoplus would arrange for Powerpipe's admission to the cartel — or bringing upon itself a price war with the other producers. When Powerpipe did not comply with an ultimatum to withdraw from the Neubrandenburg project by 4 p. m. on 25 October, it was accused of bad faith and a proposed crisis meeting with ABB, Løgstør and Henss was called off.

Demands were also made that Powerpipe, which had informed a manager at Neubrandenburg of the cartel's activities, should contact him again to apologise and change its story so as to exonerate the there producers.

(96) In the various telephone calls to Powerpipe and its then owner, the other producers confirmed that a cartel had been organised to control the market, not only in Germany but also in Europe. In these convesations, ABB was identified as the leader of the cartel and senior officials of that company were named as the driving force behind it. One of these telephone calls was monitored by Powerpipe's legal adviser.

Although no direct evidence corroborating Powerpipe's account of these threats was found at the undertakings, there is no reason to doubt the accuracy of Powerpipe's detailed account of these conversations.

First, the description of the salient features of the cartel which Powerpipe attributed to its rivals corresponds in almost every material particular with the evidence found subsequently by the Commission during the investigations under Article 14(3).

Secondly, the insistence which Powerpipe attributed to the representatives of Henss/Isoplus in their efforts to make Powerpipe withdraw from the Neubrandenburg project are mirrored in the documented demands of that producer that cartel members which had obtained business where Henss/Isoplus had been designated 'favourite' should withdraw their offer. (Appendices 88 and 91; see also Tarco's first Article 11 Reply. pp. 4 and 5).

Løgstør, while claiming itself not to have threatened Powerpipe, admits that its Sales Director telephoned the complainant as a result of strong pressure from Henss which wanted Powerpipe to withdraw from the contract. (Reply to Statement of Objections, p. 58).

(97) Shortly after the Neubrandenburg events, the then owner of Powerpipe brought the matter to the personal attention of a member of ABB's board of directors — who was unconnected with and presumably unaware of the cartel — and sought his intervention to end the campaign against Powerpipe. (Appendix 8) There followed an internal investigation by ABB's general counsel, and a meeting between him and Powerpipe's lawyers. Subsequently, at the prompting of senior executives of ABB who had in fact personally set up the cartel, ABB wrote to Powerpipe on 16 December 1994 emphatically denying any misconduct or illegal behaviour and threatening to bring legal proceedings were Powerpipe to continue to make allegations against ABB. (Appendices 9 to 16.

Powerpipe thereupon made its complaint to the Commission.

(iv) The Leipzig-Lippendorf contract: boycott of Powerpipe

(98) After Powerpipe had lodged its complaint, but before the carrying-out by the Commission of the investigations on 29 June 1995, the efforts of the cartel to eliminate Powerpipe were intensified: the event which sparked off the reaction of the other producers was the award to Powerpipe of the largest single district-heating project in the German market for ten years: Leipzig-Lippendorf. This contract was worth around DEM 30 million.

The customer was VEAG-Vereinigte Energie Aktien-Gesellschaft, which was building a power station at Lippendorf and was also responsible for the associated district heating network connecting the generation plant to the city of Leipzig.

The invitation to tender was published by VEAG in the *Official Journal of the European Communities* in the summer of 1994. A consortium of a Deutsche Babcock subsidiary IKR (Industrie und Kraftwerksrohrleitungsbau Bitterfeld GmbH) and Mannesmann-Seiffert was engaged to lay the district heating system, and the sub-contract for the supply of pipes was put out to tender at the end of 1994. At the pre-qualifications stage, six potential suppliers — all members of the German Contact Group — were admitted to bid: ABB, Løgstør, Tarco, Starpipe, Isoplus and Pan-Isovit.

(99) Løgstør has admitted (Statement I, p. 77) that when tenders were invited 'in order to create a sensible situation and reestablish trust among the suppliers, it was agreed that the three German manufacturers should win the tender and that we others would respect their price'. A note of a German contact group meeting of 10 January 1995 found at Starpipe (Appendix 70) provides confirmation:

'The three German firms ABB Isolrohr, Pan-Isovit and Henz [sic] are to have the project. Value approximately DKK 120 000 000 DKK.'

ABB Isolrohr, Pan-Isovit and Henss Berlin put in their bid of DEM 32 million as a consortium which was coordinated by the Managing Director of ABB Isolrohr. (The project monitoring list kept by ABB updated as at 22 March 1995 still shows the three German producers at the 'favourites' for the Leipzig-Lippendorf project).

Starpipe and Tarco did not submit bids within the proper time limit but on being pressed by VEAG submitted what were clearly 'protection' offers of DEM 33 and 34 million respectively. Løgstør, however, besides quoting for supplying traditionally-produced pipes, put in an alternative bid for continuous pipes which was almost the same as the consortium's offer. It later withdrew its bid on the ground that it could not produce the 20-metre pipes which the project required, A proposed new bid for 18-metre continuous pipes was never submitted. It is reasonable to assume that Løgstør's withdrawal was in part at least as a result of pressure from the other producers.

At the final round of bidding VEAG, which was clearly annoyed by the reluctance of the six producers to bid against each other, invited Powerpipe to submit a bid. Following receipt of Powerpipe's offer of around DEM 26 million VEAG decided on 21 March to award the contract to that company.

(100) The reaction of the other producers was immediate. Three days later, on 24 March, the German Contact Group met in Düsseldorf. Those present were: ABB, Brugg, Henss/Isoplus, Løgstør, Pan-Isovit, Starpipe and Tarco (Brugg Article 11 Reply, Annex 2). A collective boycott of Powerpipe's customers and suppliers was envisaged. The note of this meeting made by Tarco could not be more clear:

'Powerpipe has been awarded the Leipzig-Lippendorf contract.

— No producer to supply at all to L-L, IKR, Mannesmann-Seiffert, VEAG,

— . . .

— None of our sub-contractors may work for Powerpipe; if they do, further cooperation will be stopped,

— We shall try to prevent Powerpipe from obtaining supplies of (for example) plastic,

— EuHP shall check whether we can complain about the contract going to an unqualified from.' (Appendix 143).

Løgstoø (which again attempts to minimise its own role) states that at the Contact Group meeting Henss/Isoplus 'pressed the issue of collective actions' (Reply to Statement of Objections, p. 60). It alleges that at a later meeting on 5 May 1995, ABB and Isoplus urged concerted action against Powerpipe, and ABB decided to go to the suppliers of foam and plastic pipes and put pressure on them to cut off its supplies.

(iv) Implementation of the boycott

(101) Shortly after the meeting ABB's principal German company Asea Brown Boveri AG wrote to VEAG at a high level protesting against the award to Powerpipe. (Løgstør admits this step was taken at its suggestion). Documentation found at Henss/Isoplus is also indicative of determined efforts to persuade VEAG to drop Powerpipe (Appendices 147 to 150).

Further confirmation that following Powerpipe's winning of the Leipzig-Lippendorf project the other producers did indeed decide to boycott the project comes from KWH (KWH Statement, pp. 13 and 14). The conclusions of the meeting held in Düsseldorf on 24 March were expressly maintained by the directors in a meeting of 13 June 1995 in Stockholm and were reiterated by ABB in a subsequent telephone call to KWH.

As part of the boycott of the Lippendorf project, the producers were not to supply contractors with component parts which they could not get from Powerpipe.

DSD (Dillinger Stahlbau GmbH) was engaged as a sub-contractor by the consortium ARGE Leipzig-Lippendorf for the supply of large-diameter sleeves which Powerpipe did not manufacture. (Without these components, the pipes could not be installed). DSD's attempts to obtain deliveries of these fittings from a series of pipe manufacturers, including ABB Isolrohr, Henss, Pan-Isovit, Tarco and Løgstør were initially unseccessful. Documentation found at Pan-Isovit (Additional document 8) shows that its managing director was in contact with Henss and ABB Isolrohr about DSD's efforts to obtain the fittings, and the subject was to be discussed in the directors' club ('*Zur Diskussion 4.5.95*'). In fact the directors' meeting took place on 5 May, and according to Løgstør 'ABB and Isoplus urged that a concerted action was taken against Powerpipe to make it difficult for Powerpipe to get supplies' (Reply to Statement of Objections, p. 61).

According to KWH (Reply under Article 11, p. 13; Reply to Statement of Objections, p. 24), it was specifically warned by ABB not to supply components for the project but chose to ignore the boycott. It was finally KWH which supplied the parts in question to DSD, as well as certain welding equipment needed by Powerpipe.

(102) The Düsseldorf meeting of 24 March had also decided to attempt to stop Powerpipe obtaining supplies of plastic. By Løgstør's own account (see (100)) the Directors had on 5 May revisited the question of concerted action against Powerpipe and ABB had decided 'to go to the foam and PE suppliers and put pressure on them'.

One of Powerpipe's sub-suppliers of plastic components was Lymatex, a Danish plastic component manufacturer which in fact sold most of its production to Løgstør.

On 10 May 1995, only a few days after the directors' club meeting of 5 May described by Løgstør, Lymatex informed Powerpipe that it could not accept any further orders from it until September at the earliest (Appendix 153). Powerpipe alleged that the refusal to supply was made at the behest of Løgstør and ABB. It said it had been informed that the sales director of Løgstør (Lymatex's biggest customer) had given instructions to Lymatex not to deliver to Powerpipe (Appendices 151 and 152).

Løgstør claims it must have been misinterpreted: it says that, as Lymatex's largest customer, it had suffered delivery delays and had simply pressed Lymatex to deliver to it (Løgstør) on time and was not interested in how Lymatex was going to cope with the demands of other customers (Reply to Statement of Objections, p. 62).

This explanation is disingenuous. Løgstør was not merely worried about delays in its own orders; it was Lymatex's relations with Powerpipe which were specifically contemplated. During the investigation at Løgstør the Commission found an (unsigned) draft of Lymatex's letter to Powerpipe which had been faxed to Løgstør some hours before the letter itself was faxed to Powerpipe. It is clear that Lymatex had sent the draft to Løgstør for approval or information before sending it to Powerpipe.

(103) The implication that it was Løgstør which secured Lymatex's refusal to supply is reinforced by the circumstances surrounding another order (in Denmark) which Powerpipe had succeeded in taking from the cartel at about the same time as Leipzig-Lippendorf.

The business of Århus Kommunale Værker (ÅKV) had traditionally been reserved by the Danish cartel for ABB and Løgstør, but in February 1995 Powerpipe obtained a small part of ÅKV's annual requirements for replacement pipes. When it was awarded the contract, Powerpipe learned that this had caused anger among the Danish producers. The jointing technique used at Århus included certain material supplied by a Swedish company Nitto (in which Løgstør claimed to have design rights) as well as other components supplied by Lymatex. Nitto refused to supply the materials to Powerpipe.

(104) To circumvent this refusal, Powerpipe prevailed on its contacts at another Swedish company, Permatek, which was not involved in district heating, to obtain the components from Løgstør's own Swedish subsidiary (ETF), which was quite willing to sell to Permatek. The ruse clearly infuriated Løgstør (Powerpipe Reply to Article 11 request of 16 September 1997, p. 1; Løgstør statement of 25 April 1996; Løgstør memorandum of 21 November 1997).

Løgstør found out on 8 May 1995 that Powerpipe had obtained components for Århus from its own Swedish subsidiary and also from Lymatex; it can hardly be a coincidence that only two days later Lymatex was refusing supplies to Powerpipe and sending Løgstør an advance draft of its letter.

(105) Although Løgstør had taken the initiative with regard to Lymatex, the driving force behind the complex of actions aimed at Powerpipe was ABB.

An ABB minute of a sales division meeting of 7 April 1995 noting that Powerpipe had obtained the Lippendorf contract, goes on:

'The only possibility of the order going to Isolrohr/ABB is of Powerpipe proves unable to deliver on time' (Appendix 158).

Documentation found at ABB IC Møller during the investigation shows that ABB was keeping Powerpipe under close watch (Appendices 159 and 160). ABB was able to obtain excellent intelligence material regarding Powerpipe's sources of supply for the Leipzig-Lippendorf contract. An ABB report dated 12 April 1995 (Appendix 160) identifies the Finnish company Rautaruuki as a likely supplier of the steel pipes required and states:

'Up to lunchtime today Rautaruukki has not received any order.'

At the end of June Powerpipe in fact informed the Commission (Appendix 161) that the cartel had contacted its supplier of steel pipes (Rautaruukki) pressing it to delay or withhold deliveries. Powerpipe was informed by Rautaruukki in a meeting on 27 June 1995 that a consignment of pipes destined for Powerpipe had instead been sold to ABB: delivery would be delayed by three months (Appendices 161, 162 and 163).

(106) ABB's intelligence network had also identified KWH as a possible source of supply for some of Powerpipe's requirements for the contract (extruder welding machines and large diameter pipes). The relevant report asks: 'Can this be controlled?' KWH confirmed that it had been warned by ABB to comply with the boycott.

At the time of the Commission's investigations, attempts were also being made by the cartel to buy out Powerpipe to remove it as a competitor from the market. Pan-Isovit had indicated that it would acquire Powerpipe provided the others contributed (KWH Reply to Statement of Objections, p. 24). According to KWH, Henss/Isoplus suggested it was worthwhile to pay

a price of DEM 23 to 25 million and share the cost amount the competitors. In fact at least ABB, Tarco and Henss had already agreed in writing on 21 April 1995 to contribute to the purchase, apparently in proportion to their allocated market-share quota (Additional documents 16 to 18).

(107) The attitude of the producers towards Powerpipe following its taking of the Leipzig-Lippendorf contract is perhaps most succinctly summed up in a note (Appendix 164) made by Starpipe in June 1995:

'Powerpipe: Total war'.

An internal note made by Powerpipe on 12 June 1995 relates examples of systematic efforts directed against it by the cartel and concludes:

'As the cartel by its activities is aware of the success to damage Powerpipe they increase their pressure from [one] day to another and operate almost open against us.'

Powerpipe explains that where it did win a project in Germany, the difficulties and delays which it experienced in obtaining supplies exposed it to substantial contractual penalties.

Powerpipe claims that the actions directed against it by the cartel effectively foreclosed it as a competitor from the German market and caused it substantial loss and damage (Powerpipe Reply under Article 11 of 23 September 1997; Enclosure 18 to same).

(f) *Continuation of the cartel after the investigations*

(108) Despite the investigations made by the Commission under Article 14(3) of Regulation No 17 on 29 June 1995 — by coincidence only the day after a director's club meeting had been held in Billund — the cartel arrangements continued virtually as before until at least the time when the Commission's Article 11 requests were received in March 1996. The directors's club met on at least six or seven more occasions following the investigations. Indeed, on 6 July 1995 it was decided that their meetings should go on, but with greater efforts made to conceal their time and location. (ABB's Supplementary Reply, pp. 5 and 6). Løgstør states (Reply to Statement of Objections, p. 64) that there was 'strong pressure from ABB on the other players to uphold the agreement. Everybody else was afraid'.

ABB, at high level within the group, had been made aware by the Directorate-General for Competition, on 4 July 1995, of the fact that evidence of its involvement in a very serious infringement had been obtained during the investigations.

The consequences of continuing of the cartel were explained — and no doubt understood — at that time.

Among the measures adopted in an attempt to hide the continued existence of the cartel were (i) holding all director's club meetings outside the Community (i) where possible, travelling by car rather than by air (iii) arranging for the Danish participants to use Løgstør's private aircraft.

As from September 1995, all meetings of the German contact group were also held in Zurich.

(109) The monitoring of individual projects and manipulation of the bidding on individual projects by this group continued, as indeed Powerpipe had suspected. Powerpipe's belief (Enclosure 26 to its Article 11 Reply of 23 September 1997) that a major project — Boxberg — had from the start been destined for Isoplus and that in return ABB should receive a project of similar size — Weisweiler-Jülich — is corroborated by a table of projects dating from the relevant period (Appendix 79): the two companies are designated as respective 'favourites' to obtain the two contracts concerned.

From shortly after the date of the investigations, the cartel participants were required to report each month to ABB their total sales in Europe as well as on each national market (Tarco statement, p. 6, Appendix 165; Løgstør Statement I, p. 74).

Whatever minor modifications the producers may have been obliged to make at a technical level to disguise their continuing arrangements after the cartel was discovered do not seem to have

affected the nub of the plan to divide the markets. The local meetings were still being held for virtually all national markets. Løgstør says, however, that the participants became concerned more with global market-shares in the European market than with individual national markets. During the year, the directors' club made corrections and adjustments to the original quotas (Appendices 62, 166 and 189).

As part of this exercise, a set of tables showing market shares under the quota system for 1995 was sent by fax to KWH by ABB. On the table for the Nordic and Baltic markets is the following revealing annotation:

'Pekka: to be destroyed — completely . . . EU case looks bad — be careful for Christ's sake.' (Appendix 189).

In the directors' club meetings during this period, the participants discussed how to continue the cooperation, how market development could be controlled and how an equalisation or compensation system could be developed.

(110) At the end of 1995 ABB drew up the balance sheet for the year (Tarco's Statement, p. 8; Appendices 167, 168 and 169). The original allocations in terms of value of business had been adjusted to take account of market size and various other corrections. Tarco says that at that time both itself and Løgstør received demands from Henss/Isoplus and ABB for compensation, as they had exceeded their 1995 quota.

KWH has also supplied to the Commission a table of calculations sent to it by ABB (Appendix 190) which correspond with the item headed 'Market — corrections for size and restgroup' in Appendix 169 and giving a total market of DKK 3 417 million.

Henss/Isoplus provided the Commission (on 10 October 1996) with a table dated 15 December 1995 (Appendix 170) which compared the actual performance of each producer ('*Ist*') with the quota allocation ('*Soll*'). It shows both Tarco and Løgstør as substantially ahead of their agreed market share. The losers were ABB, Isoplus and KWH.

'Heated discussions' took place as to how the deviations from quota were to be equalled out, but Løgstør says that no definitive scheme was agreed [11], since at the beginning of 1996 several firms announced they did not wish to continue with the arrangement. (Løgstør Statement I, p. 75) In actual fact the directors' club meetings did not stop — if indeed they have stopped — until March/April 1996.

(111) At the directors' club meeting on 17 January 1996, ABB even proposed to set up a permanent Secretariat in Switzerland which would continue to coordinate the operations of the cartel (the suggestion was rejected by the others: Løgstør Reply to Statement of Objections, p. 66).

KWH states that during the last meeting of the directors' club which it attended (on 4 March 1996 in Zurich), the other members discussed:

— a compensation scheme for the exchange of ready-made pipes, under which if one producer won a contract which had not been assigned to it by the cartel, the pipes would in fact be supplied by the aggrieved party but with the labels on the pipes changes so as to conceal the identity of the real supplier,

— continuing the cartel by using a trusted 'consultant' who would visit each member in turn and coordinate their activities so as to obviate the need for multilateral 'Directors Club' meetings (KWH Statement, pp. 12 and 13).

Løgstør confirms that this was the case (Reply to Statement of Objections, p. 67) but attributes the initiative for both these proposals to KWH itself (the 'consultant') idea in conjunction with ABB).

[11] Løgstør later qualified this statement by stating that a project (unidentified) worth DKK 30 million was awarded to Henss/Isolus 'exceptionally' in lieu of compensation (Reply to Statement of Objections, p. 66).

It is unlikely that KWH took the initiative, but the identity of the producer or producers which suggested the idea is perhaps less important than the fact that even at this late stage, proposals of this nature were still being made at all.

This meeting was attended by the directors from ABB, Løgstør, Starpipe; Tarco; Pan-Isovit, Henss/Isoplus and KWH (KWH Article 11 Reply, p. 17).

(112) Since, according to KWH, the last meting which it attended included discussions of the requests for information received from the Commission under Article 11, this meeting must in fact have been held on a date after 4 March 1996: the requests for information were only dispatched by the Commission on 13 March 1996.

Løgstør also places the last directors' club meeting on 4 March 1996, but claims that it and other companies only went to the meeting 'to say their participation was finished'.

If indeed it is correct that the only purpose of their last meeting was to wind up the cartel, it is most likely that it took place after the receipt of the Commission's requests for information, and thus later than the participants admit.

There was an EuHP board meeting in Copenhagen on 26 March 1996, attended by all the members of the director's club. It is unlikely that on this occasion they eschewed the opportunity presented by the EuHP meting to confer together on the Commission's recent initiative.

ABB and Løgstør both admit meeting in Denmark on 18 April 1996 with a view to finding a means of somehow continuing the cooperation although they claim the result was inconclusive (see (78)).

In any event, the German contact group continued to meet in Zurich until at least 25 March 1996. According to ABB, the Austrian group last met in April. As far as can be ascertained, the Italian contact group only stopped meeting in June.

5. The role of EuHP

(113) The objective of EuHP was ostensibly:

'to promote among the members the exchange of experience as regards technology, total quality, energy and environment, and to participate in a continuous development in these fields.'

EuHP's formation in April 1991 had in reality far more to do with control of the market and ABB's long-term strategy than this anodyne statement of objectives suggests.

In particular, the effect on the profitability of other producers of the recent development by Løgstør of a continuous production process (with savings of 15 to 20 % in production costs, hence lower selling prices) had to be limited. The other producers who used the traditional batch process wanted to maintain the old norms which required a thicker jacket and more form: Løgstør says they discriminated against a technically superior product which could be sold at lower prices.

ABB frankly admits (Article 11 Reply, p. 23) that it regarded it as a priority to reach a 'strategic agreement' with Løgstør which would involve Løgstør's withdrawing the new pipe from the market, with the next-best alternative being for it to negotiate access to Løgstør's technology.

(114) ABB's internal documentation confirms that compliance with standards was being used as a means of keeping up price levels. Recalling that EuHP was set up with the purpose of excluding 'minor new foreign competitors especially in Eastern Europe', and that a relaxation of technical norms would lead to a weakening of the market, a senior ABB official warned in July 1993 that if continuous production were accepted the attendant cast savings would mean a reduction of 10 to 15 % in market volume 'and none of us will become richer . . . Consequently, Løgstør and ABB must cooperate closely in controlling the

development and the work with norms and standards' (Appendix 48).

At the end of 1993, when the 'plenary' meetings of the cartel were apparently in temporary abeyance, the same directors (apart from representatives of Henss/Isoplus) were arguing about Løgstør's non-compliance with norms. Pan-Isovit complained that they did not meet the required standards. Each member then had to certify to EuHP that its products met EN 253 and EuHP's quality standard.

(115) It is significant that at this time ABB itself was planning to introduce continuously-produced pipes (to be called 'ABB slimline quality pipes').

ABB privately acknowledged that such pipes did not meet the norms with which EuHP required compliance but the Director of EuHP (who was also on the board of ABB IC Møller) 'was convinced that if all big producers want this norm to be changed it can be achieved'. It was foreseen that the new ABB pipes would only be ready for marketing by 1 January 1994: 'Until we are ready for introduction, all (ABB) BA-VDH companies are to speak against Konto-pipes' (Appendix 177).

ABB only planned to introduce the new pipes in Denmark: for Germany it was decided to wait and see whether Løgstør was able to gain a foothold in that market with its continuous pipes.

Only a few days after the meeting on 18 August 1994 to fix how to increase prices in Germany EuHP met and the Board reiterated its earlier decision that all members should sell only products which complied with EN standards. The minutes record that:

'Løgstør Rør AS has for some time sold pipes which are non-standard. They promised to stop that business immediately.'

(This was the EuHP meeting at which KWH's representative reportedly first became aware of the understanding between the other producers).

(116) It is not alleged that EuHP was indistinguishable from the cartel: Pan-Isovit only joined in mid-1993; Henss/Isoplus was kept out until 1995; Brugg, Ke-Kelit and Sigma were prospective members but ultimately did not join.

The producers in fact went to elaborate lengths to keep their manifestly illegal activities separate from EuHP, at least formally. since most of the managing directors going to secret meetings in 1991 to 1993 were also almost all members of the board of EuHP, the device was adopted of adjourning to another location once the EuHP meeting had finished, in order to discuss cartel business: the managing directors were then joined by Henss and Pan-Isovit 'to discuss matters of common interest'.

Once all the larger producers (except Brugg and of course Powerpipe) were in EuHP, the somewhat artificial distinction between 'illegal' and 'legal' (or semi-legal) activities was largely maintained. A proposal to give EuHP a part in administering the quota scheme was not taken up. Nevertheless EuHP's role as a handmaiden of the cartel is apparent from the fact that it was to examine the question of whether Powerpipe could be excluded on technical grounds from the Leipzig-Lippendorf project. Similarly, when the cartel wanted to prepare the market for increases of 15 to 30 % n early 1995, it was EuHP that was chosen to send out information on impending price rises to the trade press.

6. **Assessment of the role of each participant**

(117) The whole gravamen of the cartel in this case lies in the combination of the producers in a joint unlawful enterprise pursuing a common objective.

Most of the addressees do not contest their involvement in an infringement of Article 85, although only ABB has made an unqualified

admission of participation in a continuing violation beginning in about November 1990 and continuing until March or April 1996.

The Danish producers Løgstør and Tarco expressly admit their participation in a 'national' cartel between 1991 and 1993 (Starpipe does not specifically address the issue) but deny that any agreement operated outside that market before late 1994. Pan-Isovit and Henss/Isoplus advance the same argument in support of their contention that their participation in an infringement did not begin until the end of 1994 or even the beginning of 1995.

(118) The arguments of the main producers other than ABB contesting the alleged extension of cartel arrangements to other markets (primarily Germany) in or about October 1991 are essentially concerned with the legal question of whether their conduct fell under the prohibition of Article 85: they could hardly deny (with any credibility) their attendance at the many directors' meetings held in 1991 to 1993, several of which were the subject of notes kept by the participants and discovered by the Commission. Instead, they dismiss their regular meetings as mere preparatory measures or failed attempts to reach agreement. They do not, however, provide any detailed account of matters discussed in those meetings. In so far as factual issues are raised in connection with this aspect of the Commission's case, they are for the most part directed towards demonstrating the supposed improbability of any cartel arrangements having been in place (such as intense rivalries between producers; low rice levels and strong competition in Germany; 'dumping' on that market by the Danish producers; the entry of the German producers on the Danish market in 1993 and, for Henss, the disputes with ABB concerning its agency agreement for Bavaria).

(119) As was explained in detail in Part II, even if proven, none of these factors, whether alone or cumulatively, is incompatible with the existence of prohibited collusion of the type which is alleged by the Commission during this period and which, for its part, ABB fully accepts as falling within Article 85.

As regards the campaign against Powerpipe (which the undertakings seek for the purposes of their argument to present as an allegation of a discrete infringement of Article 85) the denials of any 'agreement' by all producers except ABB is in flat contradiction with the documentary evidence. The fact that (for purely practical reasons) the main part in implementing the agreed boycott fell to ABB and Løgstør does not absolve of responsibility the others who were in the plan. Whatever was done by Løgstør and ABB was within the contemplation of the scheme devised on 24 March 1995. Their acts were in furtherance of a scheme to which all subscribed and of which all were fully aware.

(120) Quite apart from their own (partial) admissions, there is ample direct documentary evidence to prove the participation of each participant in the infringement for the periods alleged by the Commission.

It is also appropriate for the Commission to assess the respective roles played by the different producers in the violation. This exercise is of particular importance for the determination of the appropriate penalties which may be imposed. It is not necessarily always practicable or possible in every case of a cartel, since there may be a lack of reliable evidence as to the precise contribution of each participant to the overall scheme, but in this case the volume of documentary proof permits such an assessment to be made.

Some undertakings (particularly Løgstør, KWH and Henss/Isoplus) devoted a large part of their defence to minimising their own part in the cartel and shifting the primary responsibility onto ABB. Henss/Isoplus goes so far as to accuse ABB of exaggerating or misrepresenting the facts as to the existence of wider cartel arrangements outside Denmark from October 1991 onwards, in order to ingratiate itself with the Commission and thus secure favourable treatment.

For its part ABB asserts that it was 'not the sole prime mover' in the cartel.

The allegations of Henss/Isoplus are without any foundation and are to be entirely discounted.

Recriminations by other undertakings against their fellow cartel members must be treated with some caution as they are intended to be self-serving. Such statements will in fact rarely serve to exculpate or exonerate the maker; however, in so far as they add to the circumstantial detail, they may be given credence particularly where they are corroborated or consistent with the overall pattern of behaviour disclosed by the documentary evidence.

Where in this decision the Commission has cited such statements without further qualification or reservation, it accepts the gist of the allegation made: however, no finding critical to the establishment of the essential facts of the infringement is based on the unsupported assertions of a participant during the procedure.

(121) There can be no doubt that ABB was the ringleader and main instigator of the cartel. Domination of the market via a cartel in which it played the leading role was a clearly stated strategic objective of the company. The whole enterprise was conceived, authorised, approved and guided at the most senior corporate level. Throughout the whole five-year period, the initiatives to consolidate, reinforce and extend the cartel came from ABB, and it is beyond dispute that it was this undertaking which was charged with recruiting other undertakings (KWH and Brugg) into the cartel. The Commission also considers that the attribution to ABB by Løgstør and others of the proposal deliberately to continue the cartel after the investigations is entirely credible.

Løgstør's attempts to portray itself as the unwilling — and even unwitting — tool of ABB are not, however, believable. It may well be that it was motivated to join the cartel partly by a desire not to offend its much larger multinational neighbour and (like others) was subjected to ABB's 'persuasive' techniques, but as the second most important producer in the district heating sector it was a key member of any anti-competitive scheme and its continued existence as the 'No 2 player' was a necessary part of ABB's strategy. The active role of senior Løgstør executives in planning and executing the strategy of the cartel is fully demonstrated. Løgstør may to some extent have had its own agenda, namely to introduce the (cheaper) continuous production process which others wanted to stop or delay but any anti-competitive scheme involves the accommodation of the divergent, or possibly divergent, interests of its members. The Commission does not accept that Løgstør 'left' the cartel in April 1993 as it claims: it continued throughout the period in question to attend meetings, and, on its own admission whatever threats it may have made were intended to gain recognition from ABB for a larger quota. As regards the action taken to damage Powerpipe (most specifically in relation to joint hiring of its key personnel and later to securing the cutting-off of supplies) the Commission rejects Løgstør's claim to have implemented no hostile actions against this inconvenient competitor.

Henss/Isoplus may have been regarded with distrust by the other producers and may have been excluded from EuHP until 1995 but this does not give credibility to its version of the facts by which it was as much a 'victim' of the cartel as a participant. There is no indication that Henss was forced against its will to attend the meetings with the directors of other companies which started in October 1991: indeed, Løgstør says ABB and Henss were the driving force in the discussions. When the collusion was relaunched in early 1994, Henss played a leading role as the lieutenant of ABB, and all the reliable evidence points to its having consistently been one of the most zealous enforcers of the market-sharing and bid-rigging arrangements.

(122) Tarco's perceived indiscipline does not place it outside the mainstream of the unlawful scheme. It was a full member of all the organs of the cartel and, if it sought to further its own special interests while at the same time obtaining the

benefits of collusion with competitors, this element does not diminish its role. Specifically, the fact that a settlement in Germany in May 1993 was delayed because Tarco would not accept an agreement on price alone is indicative only of its familiarity with basic economic principles and a wish on its part to obtain a guaranteed quota.

The Commission accepts that there is no evidence of Tarco's having itself taken direct action to harm Powerpipe (although it was a signatory to the joint plan to finance Pan-Isovit's purchase of that company). This does not alter the fact that (as is proven by its own documentation) it was privy to the plan to boycott Powerpipe and to attempt to ensure that it failed to complete the Leipzig-Lippendorf project.

Starpipe similarly was a 'full' member of the cartel even if its participation has no particular distinguishing features. It was at the meeting in which it was agreed to cut off Powerpipe's supplies, and acquiesced in the scheme.

(123) The same considerations apply to Pan-Isovit. It argues that it was not involved in any measures taken by other producers against Powerpipe: these (it says) were non-concerted actions taken by individual producers. It was of course never alleged by the Commission that Pan-Isovit (or indeed any producers besides ABB and Løgstør) was a party to the scheme to entice away key Powerpipe personnel in 1992—93, although its own notes of a meeting in early 1995 indicate that this spoiling tactic was still in the cartel's contemplation. For the sake of completeness, it should be stated that both Starpipe and Pan-Isovit were party to the scheme agreed on 24 March 1995 to boycott Powerpipe and the major Leipzig-Lippendorf project. Pan-Isovit in particular, as a member of the aggrieved consortium of German producers, can hardly claim to have had no special interest in Powerpipe's activities, and indeed it was later put forward as the nominal purchaser (to be financed partly by the others) of that company so as to remove it from the market.

When the new dispensation for the European market was being agreed in late 1994, the other producers considered that for any agreement to be viable it would need the participation of KWH. KWH claims that it only agreed to join after long resisting the blandishments of other producers and that even then it only 'played along' in order to escape reprisals.

The Commission fully accepts that KWH was not a leading member of the cartel and that as regards the orchestrated campaign against Powerpipe, KWH was the only producer willing to supply Powerpipe and DSD with equipment and components for the Leipzig-Lippendorf project and indeed defied instructions from the cartel to do so.

It does not, however, accept that KWH's joining of, and continued participation in, the cartel was due to such duress that its involvement could be excused; Powerpipe resisted more immediate threats to its existence. Indeed the documentary evidence points to KWH holding out for a larger share than the other members of the cartel were initially willing to concede it. It was a member of the directors's club and regularly attended meetings. Furthermore, had KWH been looking for an opportunity to quit the cartel, it could have done so after the investigations in June 1995. At the end of the year, KWH was even warned by ABB that the 'EU case looks bad' but it chose to continue in the cartel.

(124) Brugg was to all intents and purposes considered a relevant player only on the local German market (as well as in Switzerland which is, however, outside the scope of this procedure). While the cartel could not have operated effectively without the presence of this company (and KWH), it did not play a decisive role. However the argument that it did not participate in any scheme to damage Powerpipe is rejected: Brugg was present at the meeting in Düsseldorf on 24 March 1995 when the boycott was decided. The Commission considers that its participation in the infringement (limited to the arrangements in Germany) began with its

attendance at the Copenhagen meeting of 18 August 1994.

Ke-Kelit was only involved in the arrangements on the Austrian market, where it was allocated a quota of 23 %. It may well have been presented with a *fait accompli*, the quotas being agreed by the directors' club which it did not attend. The claim that it was dependent on Løgstør for its supplies, and that it had little choice but to attend meetings in order to defend its interests against ABB and Isoplus which dominated the Austrian market, does not serve to justify its involvement. Ke-Kelit admits that it was aware that the arrangements in Austria were part of a wider scheme. For the sake of completeness, it should be stated that the Commission accepts that Ke-Kelit, which did not attend directors' meetings or those of the German contact group, was unaware of and had no part in the measures undertaken against Powerpipe.

Sigma's involvement was also confined to the arrangements on the Italian market, where it was allocated a 10 % share on new projects (although it later demanded 20 % of the market). It participated in the procedure for the allocation of projects. It may have been regarded as a nuisance and was not invited to all meetings in which the Italian market was discussed (Appendix 187, p. 4) but the evidence shows it was a regular participant in local-level meetings from about April 1995. As with Ke-Kelit, the Commission accepts that Sigma had no knowledge of the campaign to eliminate Powerpipe.

7. **Effects upon overall price levels**

(125) There is no serious dispute that up to 1993 the consensus among the Danish producers who shared their national market without any effective competition from outsiders enabled them to maintain prices at a level which could finance their expansion into export markets. This applied particularly to Germany where the two largest national producers were under pressure from Danish imports. Price levels in Germany were about 15 to 20 % lower than those obtaining in Denmark. However, prices were even lower in other markets: at times Swedish prices were as little as half those in Denmark. Indeed, there is a good deal of evidence that ABB and Løgstør had a common strategy of entering the Swedish and Finnish markets with low prices so as to put pressure on the local producers with a view to acquiring them and taking them off the market: this is set out in KWH's Reply to the Statement of Objections, pp. 7, 8 and 9. Far from serving as the proof that no cartel could have existed, the competitive situation must if anything have been an incentive for the German producers to seek an accommodation with their competitors: their objective was to persuade the Danish producers to raise their export prices to the same level as they could charge on their domestic market.

It was expressly agreed by all producers in late 1991 to raise price levels in Germany by some 6 to 8 %. To achieve this objective, the measure was adopted of producing a minimum price list.

It may well be, however, that in practice any increase in list prices was offset by the granting of discounts off-list. (The sales agents of ABB — which had raised its prices to them in line with the 6 % increase — complained that the market could not bear the increase). In the absence of an agreement at that time on market shares, such an outcome might be predictable: the net results was that each producer demanded a higher market share and none was prepared to forgo volume.

The phenomenon of steadily declining price levels in Germany between 1990 and mid-1994 is thus in no way inconsistent with collusion of the type alleged by the Commission. (It may also be noted that the price of raw materials fell by 20 % in this period).

(126) The fall in price levels was, however, by the producers' own accounts reversed in mid-1994 and turned into an upward trend. it can be no coincidence that the upturn coincided with the introduction in May of the common price list in Germany and the later agreement on that market of 18 August 1994.

The aim of the European-wide cartel was to raise price levels by 30 to 35 % in two years.

In September 1994 ABB was predicting price rises of 10 % and another 10 %to cover a predicted increase in the cost of raw materials.

The success of the plan can be seen from the notes of a Directors' Club meeting in March or April 1995, found at Pan-Isovit: in most markets mentioned, increases of 15 to 20 % are reported. significantly, in national markets where the increase was not achieved, Powerpipe is identified as the 'problem' (Appendices 60 and 65). Powerpipe estimated in its complaint that in December 1994, taking the index for Sweden as 100, prices in Germany were 130 to 140 and in Denmark 140 to 150.

In terms of turnover, the total value of sales made by the four Danish producers and Pan-Isovit, combined, increased by almost 20 % in 1995 over the previous year.

8. Compensation by ABB

(127) On 18 November 1996 ABB informed the Commission that in May 1996 an agreement had been reached with Powerpipe and its owners for the settlement of all differences between them relating to the subject matter of these proceedings.

The settlement involved the payment of a substantial sum in compensation.

The agreement contains a clause whereby the parties agreed to keep the terms and conditions of the settlement confidential.

A copy of the agreement has been supplied to the Commission by ABB.

II. LEGAL ASSESSMENT

A. *Article 85*

1. Article 85(1)

(128) Article 85(1) of the Treaty prohibits as incompatible with the common market all agreements between undertakings, decisions by associations of undertakings or concerted practices which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the common market, and in particular those which directly or indirectly fix purchase or selling prices or any other trading conditions, limit or control production, markets, technical development or investment, or share markets or sources of supply.

2. Agreements and concerted practices

(129) Article 85(1) prohibits both agreements and concerted practices.

An agreement can be said to exist in circumstances such as this case when the parties adhere to a common plan which limits or is likely to limit their individual commercial conduct by determining the lines of their mutual action or abstention from action in the market. While it involves joint decision-making and commitment to a common scheme, it does not have to be made in writing; no formalities are necessary, and no contractual sanctions or enforcement measures are required. The fact of agreement may be express or implicit in the behaviour of the parties.

A concerted practice does not however require the participants to have reached an actual agreement express or implied regarding the terms of their mutual action or abstention from action.

(130) The object of the Treaty in creating the concept of concerted practice in addition to that of agreement is to forestall the possibility of undertakings evading the application of competition rules by colluding in an anti-competitive manner falling short of an agreement by (for example) informing each other in advance of the attitude each intends to adopt, so that each may regulate its commercial conduct in the knowledge that its competitors will behave in the same way: judgment of the Court of Justice

of 14 July 1972 in Case 48/69, Imperial Chemical Industries v. Commission ([12]).

In its judgment of 16 December 1975 in relation to the European Sugar Cartel; Joined Cases 40 to 48, 50, 54 to 56, 111, 113 and 114/73 Suiker Unie and others v. Commission ([13]), the Court of Justice held that the criteria of coordination and cooperation laid down by the case-law of the Court, which in no way requires the working out of an actual plan, must be understood in the light of the concept inherent in the provisions of the Treaty relating to competition that each economic operator must determine independently the commercial policy which he intends to adopt in the common market. This requirement of independence does not deprive undertakings of the right to adapt themselves intelligently to the existing or anticipated conduct of their competitors but it does strictly preclude any direct or indirect contact between them the object or effect whereof is either to influence the conduct on the market of an actual or potential competitor or to disclose to such a competitor the course of conduct which they themselves have decided to adopt or contemplate adopting on the market.

Thus, conduct may fall under Article 85(1) as a 'concerted practice' even where the parties have not agreed or decided in advance what each will do or not do in the market but knowingly adopt or adhere to collusive devices which facilitate the coordination of their commercial behaviour.

(See also judgment of the Court of First Instance in Case T-7/89 Hercules v. Commission ([14])).

(131) In a complex cartel of long duration, where the various concerted practices followed and agreements concluded form part of a series of efforts made by the undertakings in pursuit of a common objective of preventing or distorting competition, the Commission is entitled to find that they constitute a single continuous infringement. As the Court of First Instance observed on this point in Case T-7/89 ([15]): it would be artificial to split up such continuous conduct, characterized by a single purpose, by treating it as a number of separate infringements: 'The fact is that the (undertakings) took part — over a period of years — in an integrated set of schemes constituting a single infringement, which progressively manifested itself in both unlawful agreements and unlawful concerted practices.'

(132) Nor is it necessary, in such a case, for the Commission to categorise it as exclusively one or other of these forms. The concepts are fluid and may overlap. An infringement may begin as one form and as it evolves over time progressively assume some or all the characteristics of another. (It should be noted in this connection that it is not a correct analysis to categorise the terms of the bargain struck by the parties at a particular moment as the 'agreement' and its subsequent implementation over time as a 'concerted practice'). It is often not even realistic to make any analytical distinction, as an infringement may present simultaneously the characteristics of each form of prohibited conduct, while considered in isolation some of its manifestations could more accurately be described as one rather than the other. A cartel may therefore be an agreement and a concerted practice at the same time. Article 85 lays down no specific category for a complex infringement of the present type — see again judgment of the Court of First Instance in Case T-7/89 ([16]).

(133) Moreover, an infringement should not be equated with a commercial contract under civil law, since Article 85 is not concerned simply with the interpretation of the terms agreed by the parties. In the case of a complex cartel, the legal prohibition of Article 85 applies not only to the specific agreement on the basic scheme which is to be operated or to the exact terms which may be agreed from time to time but to the whole continuing process of collusion in which they are involved. The term 'agreement' is therefore appropriate not only to cover the terms expressly agreed but also the implementation of what has been agreed. further, even before a final

([12]) [1972] ECR 619.
([13]) [1975] 1663.
([14]) [1991] ECR II-1711, at (256).
([15]) See footnote 14, at (262) and (263).
([16]) See footnote 14; at (264).

comprehensive agreement is concluded regulating their mutual actions and abstentions in the market, the bargaining process may involve reaching inchoate understandings and conditional or partial agreement which restrict competition.

(134) An agreement for the purposes of Article 85(1) may also fall well short of the certainty required for the enforcement of a commercial contract. Its exact terms may never be expressed: the fact of agreement will have to be inferred from all the circumstances. The divergent interests of the cartel members may also preclude a full consensus on all issues. One or other party may have reservations about some particular aspect of the arrangement while still adhering to the common enterprise. some aspects may deliberately be left vague or undefined. It may be that the parties agree (expressly or tacitly) to adopt a common plan and that they have to meet on a continuing basis to work out the details, alter or amend it from time to time or resolve particular difficulties.

Formal agreement may never be reached on all matters. Agreements in one area may exist alongside conflicts in another. competition may not be completely eliminated.

The participants may also show varying degrees of commitment to the common scheme. One may exercise a dominant role as ringleader. There may be internal conflicts and rivalries. Some members may even cheat. there could be outbreaks of fierce competition and even 'price wars' form time to time.

None of these elements will however prevent the arrangement from constituting an agreement/ concerted practice for the purposes of Article 85(1) where there is a combination of parties with a single common and continuing objective. A complex cartel may properly be viewed as a single continuing infringement for the time frame in which it existed. The agreement may well be varied or modified, the cartel's activities may progressively be expanded to cover new markets or its mechanisms may be adapted or strengthened.

Members may join or leave the cartel from time to time without its having to be treated as a new 'agreement' with each change in participation.

Furthermore, as a matter both of evidence and of substantive law it is not necessary, for the existence of an agreement, that every alleged participant participated in, gave its express consent to or was even aware of each and every individual aspect or manifestation of the cartel throughout its adherence to the common scheme.

3. The nature of the infringement in this case

(135) There is no substantial dispute that the express market-sharing arrangement between the four Danish producers dating from late 1990 had all the characteristics of a full 'agreement' within the meaning of Article 85(1).

The subsequent working-out of the details of the plan and its implementation in regular meetings does not give rise to a series of discrete 'agreements' but constitutes part of the same overall and illegal scheme.

The agreement between the four Danish producers also covered concerted price increases on export markets. While at the time the cartel was at its most developed in Denmark (their most profitable market) cooperation extended to other markets, albeit in a piecemeal and inchoate form. Through its interlocking arrangement with ABB, Pan-Isovit was also drawn into the collusion at the beginning, even if this alliance lasted only a few months.

(136) The systematic cooperation of the Danish producers was extended to Germany and was joined by the two German producers, Pan-Isovit and Isoplus in October 1991. Its first concrete manifestation was the 6 % price increase agreed

in that month and due to take effect on 1 January 1992. The discussions were expanded to cover the potential entry of the German producers to Denmark so that the two major markets for district heating were eventually being considered in the same meetings.

Both Henss/Isoplus and Pan-Isovit argue, however, that they did not take part in any infringement before the end of 1994. While they can hardly contest their participation in regularly scheduled meetings, they say that these repeated contacts were an entirely unsuccessful attempt to reach a truce in the price war which then prevailed. They invoke the downward spiral in prices between 1991 and 1994 as proof that no agreement was ever made.

The two Danish producers Løgstør and Tarco invoke similar arguments in support of their contention that there were two entirely separate cartels.

(137) Although it may well be true that they were inchoate, loose and often fragmentary, the Commission rejects the argument that the arrangements outside Denmark before 1994 did not amount to an infringement of Article 85(1).

In the first place, this contention ignores the fact (amply documented) that there was express agreement on (at least 1. the price increase for Germany of 1 January 1992, 2. pricing and project sharing in Italy, and 3. the market-quota scheme in August 1993.

These express and explicit agreements were in reality the result of a continuing agreement, understanding and concert of action among the producers. The participants had set up an infrastructure of regular meetings and were involved in a continuous process of business diplomacy aimed at reconciling their respective interests. For the purpose of forming and carrying out their scheme, the participants did things which they had devised and agreed to do, including (but not limited to) participating in meetings to discuss prices, sales quotas and project-sharing; agreeing during those meetings to charge particular prices and to increase and maintain prices; drafting, agreeing and distributing model price-lists to be used for coordinating pricing; exchanging information on sales volumes, market size and market shares so as to set up a quota system; and agreeing a sales quota system. The discussions may have involved a shifting constellation of alliances, even threats of reprisal or hostile action, but as part of the developing process of understandings and partial agreements intended to fix prices, coordinate price increases and allocate markets and market shares they constituted cartel conduct prohibited by Article 85(1).

(138) On the basis of the principles set out above, the continuing anti-competitive arrangements from October 1991 onwards can be taken as a whole to constitute a prohibited 'agreement' in terms of Article 85(1).

In any event, even if the concept of 'agreement' does not apply to steps in the bargaining process leading up to comprehensive agreement, the conduct in question still falls under the prohibition of Article 85 as a concerted practice. The six producers had set up a forum for the regular discussion of 'matters of common interest' which involved the exchange of normally sensitive commercial information and (quite apart from the three known initiatives when specific and explicit agreement to fix prices or quotas was reached) must have meant reaching a certain level of understanding, reciprocity and conditional or partial agreement as to their conduct. In determining their policy in the market the participants could not, in any event, have failed to take into account, directly or indirectly, the information obtained in the course of those regular meetings.

(139) As regards the 'new' European-wide agreement, the Commission also rejects the argument that it did not begin until the end of 1994 or even the beginning of 1995.

Again, this assertion by the producers does not correspond with the facts. The so-called 'plenary' meetings re-started (after only a short hiatus) for Germany as early as 7 March 1994. By May an agreed price list had already been drawn up which was to be used as the basis for all supplies to the German market and, even if it had in some respects been incomplete (reference was made to 'confrontations and differences of interpretation'), it was indeed implemented and by August 1994 the remaining differences as to how to bring prices up were settled.

The overall system for the European market was agreed in principle by September. The fact that the network of 'contact groups' in the different markets was set up in the following month and may not have been completed until March 1995 (Netherlands, Italy) does not mean that no agreement in the sense of Article 85(1) had existed before then.

(140) Nor does the Commission accept the related argument of Løgstør and Tarco that the 'Danish' and 'European' cartels constituted two entirely discrete and unrelated infringements.

There is no clear-cut distinction between the Danish cartel and the arrangements that developed to cover the whole European market, as the arguments of Løgstør and Tarco imply.

The cartel may for practical reasons have begun in Denmark (it was the 'home market' for four of the sic producers and was easily administered) but from the start the over-arching and longer-term objective, perhaps most clearly defined in ABB's strategy, was to extend control to the whole market.

Almost from the start the cooperation extended to other Community national markets (Germany and Italy in particular) and however fragmented this evolution may have been, it is clear that a common objective and purpose to raise prices and regulate the market was steadily pursued.

First Pan-Isovit and then Henss/Isoplus were brought into the arrangements with the four Danish producers.

(141) If the agreed market-sharing in Denmark broke down in 1993, this was the result of a power struggle inside the cartel, not of any desire to return to conditions of free competition. In any event, the Danish and German markets were being discussed in the same forum; the regular meetings leading to the market-sharing agreement in Germany in the summer of 1993 ensured the continuity of the collusion between the six major producers.

Thus, at the very time when Løgstør says it informed ABB and the others by telephone on 19 and 20 April 1993 that it had decided to leave the cartel in Denmark, they were attending a meeting in Hamburg which Løgstør itself had organised (and may well have attended) to restart progress towards agreeing a common price list in Germany (point 49).

Throughout the later six-month period (September 1993-March 1994) characterised by the producers as a 'price war', bilateral or trilateral contacts continued. As late as November or December 1993 ABB was still trying to induce Løgstør to sign the compensation agreement for Germany. Any hiatus could be considered to be a suspension of the normal arrangements and relationships: the producers soon recognised that a prolonged power struggle was self-defeating and returned to the conference table.

(142) There is also a clear continuity of method and practice between the dispensation agreed in late 1994 for the whole European market and earlier arrangements.

The methods for securing collusion which were adopted under the 'new' dispensation were essentially the same as those which had successfully applied in Denmark; this was particularly the case in Germany where inside the framework of the quota system, a sophisticated mechanism of identifying projects, allocation of contracts to a 'favourite', collusive bidding and monitoring to ensure compliance was translated

from a market of thirty or so new projects to one with as many as 1 500 annually.

The two-tier meeting structure to administer the cartel was also the same as that operating in Denmark. Indeed, the system was said to be based on the 'Danish model'. The cartel arrangements which had been a feature of the Danish district heating market for years now permeate the whole industry. The Europe-wide agreement was the culmination of a process of cartellisation in which — whatever its vicissitudes — the producers had long been engaged.

It does not matter that the Danish cartel had only had four members. The two large German producers had in fact already been involved with the others in a scheme of collusion outside Denmark for several years: now they were being fully integrated into the mechanism at the 'Danish model' was transposed to the wider European market.

The fact that smaller producers — Brugg, KWH, Ke-Kelit and Sigma — did not join the arrangements until 1994 or 1995 does not preclude a finding that this was a single continuing infringement. By that time, the system of market division, price-fixing and bid-rigging had become the customary and recognised way of doing business in the industry. It was simply a matter of integrating the smaller local producers into the overall scheme to make it watertight.

(143) The Commission also rejects the argument advanced by most of the producers — Løgstør, Henss/Isoplus, Pan-Isovit, Starpipe, Tarco and Brugg — that they did not participate ' in any agreement to damage Powerpipe'.

Their contention is unsustainable in law. The producers involved seek to divide the various manifestations of the cartel into totally separate infringements of Article 85. This analysis is entirely artificial, since the plan to damage or eliminate Powerpipe was an integral part of the schemes for cartellising the European and German markets in which they were all deeply involved ([17]).

([17]) The Commission accepts that there is no evidence that Ke-Kelit or Sigma, who were involved only in the arrangements on their national market, were aware of any plan to eliminate Powerpipe.

(144) In any case, the factual evidence belies their claims. From the time when Powerpipe entered the German market, there had been concerted efforts by Løgstør, Henss/Isoplus (as well as ABB) to keep it out or induce it to enter the cartel. All the undertakings making this argument were present at the meeting in Dusseldorf on 24 March 1995, the conclusions of which were noted with great clarity by Tarco. The main advocates of the boycott may have been ABB and Henss, but all those present at the meeting knew of and acquiesced in the plan.

Nor does it matter that in the implementation of the boycott the leading role fell to ABB and Løgstør; these were by force of circumstance the two producers best placed to approach Powerpipe's sub-contractors or suppliers.

It is, of course, not possible to state with certainty that the refusal of these producers to supply the DSD order was motivated solely by the intention to damage Powerpipe: they may well have been unable to meet an order of this type or size and in any case they are not legally obliged to contract. Nevertheless the annotation on the order enquiry found at Pan-Isovit confirms that ABB, Henss and Pan-Isovit (the three members of the unsuccessful consortium) were in contact about this order; that Pan-Isovit at least was pleased that DSD was in difficulties finding supplies; and that the question was discussed in the directors' club.

The express instructions given by ABB to KWH not to supply Powerpipe and the discussions in the directors' meetings of 5 May and 13 June 1995 (see 101)) confirm that the plan to eliminate that competitor was a settled policy of the cartel.

(145) Given the common design and common objective which the producers steadily pursued, namely of eliminating competition in the district heating industry, the Commission considers that the joint enterprise constituted a continuing infringement of Article 85(1) beginning in late 1990 in which each of the producers played its part.

Although, considered as a whole, the complex of arrangements between the producers could be regarded as presenting the characteristics of a full 'agreement', the conduct in question also comprises factual elements some of which could aptly be described as a concerted practice (see (138)).

The Commission recognises that while the infringement constituted a single continuing violation, its intensity and effectiveness varied over the duration of the time period covered: it progressively developed (subject to a short period when the arrangements were in abeyance) from arrangements affecting primarily Denmark in 1991 to other markets and by 1994 constituted a pan-European cartel covering almost all trade in the product.

4. Restriction of competition

(146) The complex of agreements in this case had the object and effect of restricting competition.

Article 85(1) expressly mentions as restrictive of competition, agreements which:

— directly or indirectly fix selling prices or any other trading conditions,

— limit or control production, markets or technical development,

— share markets or sources of supply.

(The list is not exhaustive)

These are the essential characteristics of the integrated scheme of horizontal arrangements under consideration in this case. Price being the main instrument of competition, the various collusive arrangements and mechanisms adopted by the producers, including the common plan to eliminate or damage Powerpipe, were all ultimately aimed at an inflation of the price to their benefit and above the level which would be determined by conditions of free competition.

(147) Market sharing and price fixing by their very nature restrict competition within the meaning of Article 85(1), as does limiting technical development.

The principal aspects of the complex of agreements and arrangements which can be characterised as restrictions of competition are:

— allocating market share quotas,

— requiring or encouraging producers with low market shares to withdraw from particular markets in exchange for compensation in other national markets,

— agreeing and applying a mechanism of sanctions/compensation to reinforce the quota system,

— agreeing concerted price increases (amount, timing and stages of increase),

— agreeing on the use of a common price list or lists,

— agreeing the discounts (in percentage terms) that were to be permitted from the list price,

— allocating business on the basis of respect for existing 'traditional' customer relationships,

— allocating individual projects subject to competitive tendering procedures to a particular 'favourite' (namely the producer to which the project was assigned),

— fixing the price that the 'favourite' was to quote in order to win the business,

— arranging for the other producers to submit higher offers in the tendering procedure to 'protect' the favourite and ensure that it was successful,

— agreeing that the unsuccessful bidders in a tendering procedure would receive a specific allocation of production as sub-contractor for the winning bidder,

— withdrawing from particular projects or abstaining from bidding in return for some other compensation or a commodation,

— devising and applying a reporting and monitoring mechanism to follow individual projects, compare bids, deter 'cheating' and

influence the biding procedure in 'open' contracts,

— requiring any participant which had underbid the assigned 'favourite' to revoke or revise its bid,

— scheming to lure away systematically key employees of Powerpipe in order to damage its business and customer goodwill (ABB and Løgstør),

— attempting to coerce Powerpipe into withdrawing winning bids in projects which had been assigned by the cartel to one of its members (for example, Neu-Brandenburg),

— influencing or attempting to influence contractors/purchasers to disqualify Powerpipe after it had won a major project allocated by the cartel to three of its members (ABB, Henss/Isoplus),

— agreeing a collective boycott of the contractors and suppliers involved in the above project,

— approaching Powerpipe's suppliers in order to persuade them to withhold or delay supplies essential for the proper and timely performance of its contracts (primarily ABB and Løgstør),

— agreeing to indemnify Pan-Isovit in proportion to their allocated market share for the purchase by Pan-Isovit of Powerpipe in order to remove it from the market as a competitor (ABB, Henss/Isoplus, Tarco and Pan-Isovit),

— using norms and standards in order to prevent or delay the introduction of new technology which would result in price reductions (the members of EuHP).

(148) It is not necessary, given their manifest anti-competitive object, to examine in relation to each one of the above restrictions of competition the extent to which it contributed in achieving the aim being pursued.

For the avoidance of doubt, it is, however, necessary to state that:

(a) the above-listed restrictions of competition are not separate infringements of Article 85 but aspects of the single continuing infringement;

(b) the infringement consisted of a complex of agreements and concerted practices in which each undertaking played its part. It is not alleged that each addressee of this Decision participated in each and every aspect of the anti-competitive arrangements set out or did so for the whole duration of the infringement. The role of each participant and the extent of its involvement is fully set out in this Decision: see in particular the special position of KWH, Brugg, Ke-Kelit and Sigma;.

(c) some anti-competitive aspects of the cartel mentioned here only applied in some markets, were more developed in some markets than in others or lasted for a limited period: for example, after the establishment of the Europe-wide cartel in late 1994, the bid-rigging mechanism which had been the basis of the 'Danish model' was found in its most developed form in Germany.

(d) the Commission will for the purposes of this procedure take account of joint actions against Powerpipe prior to the accession of Sweden to the European Union (1 January 1995) only in so far as (i) it affected competition inside the Community (Powerpipe's entry to the German market) and (ii) it is circumstantial evidence of a continuing plan to damage or eliminate Powerpipe after that date.

5. Effect upon trade between Member States

(149) The continuing agreement between the producers had an appreciable effect upon trade between Member States.

The district-heating market is one which is particularly characterised by trade between Member States: almost 60 % of business in the

Community is accounted for by such trade. In the most important national market, Germany, 75 % of demand is supplied by imports from other Member States: Denmark, Sweden, Finland and Austria. Half of Community production capacity is located in Denmark, which supplies district heating pipes to all the other Member States.

While at the beginning the cartel arrangements were primarily concerned with Denmark and later with Germany, these two markets constituted the two most important national markets and indeed, in the initial stages, the underlying objective of the cartel had been to regulate the penetration of the German and Scandinavian groups in each other's 'home territory'.

Subsequently by the end of 1994 the cartel arrangements had become all-pervasive and covered the whole European market. Virtually all trade throughout the Community in this important industrial sector was controlled by the cartel. It is significant that the campaign directed at Powerpipe intensified when it expanded its activities to the German market.

(150) As between the cartel participants themselves, the withdrawal from particular markets of those whose existing share was deemed too low resulted in the automatic diversion of trade patterns from the course that they would otherwise have followed.

The application of Article 85 to a cartel is not limited to that part of the members' sales which actually involve the transfer of goods from one Member State to another. Nor is it necessary, in order for Article 85 to apply, to show that the individual conduct of each participant, as opposed to the cartel as a whole, affected trade between Member States (see the judgment of the Court of First Instance in Case T-13/89, Imperial Chemical Industries v. Commission ([18]).

The argument of Ke-Kelit that trade between Member States was in no way affected by its participation in the Austrian Contact Group on the grounds that it sold only on the local market must be rejected. It was in any case well aware that the arrangements in Austria to which it subscribed formed part of a larger scheme, and of course the products which it sold were all imported from Denmark.

6. Duration of the infringement

(151) It follows from the Commission's analysis of this case as involving a single comprehensive infringement rather than a series of multiple but discrete agreements that there may be different dates of commencement for the participation of those involved. although it is apparent from the statement of Løgstør (Statement II, pp 86-87) that anti-competitive contacts between producers had already begun in 1998/98, the Commission will confine its analysis under Article 85 and the assessment of any fines to the period beginning in about November 1990 when the concerted price increases for Denmark were agreed. The participation of ABB, Løgstør, Tarco and Starpipe in collusive arrangements is clearly established as from that time.

Pan-Isovit was drawn into the collusion at the same time. The 'informal strategic alliance' between ABB and Pan-Isovit regarding the German market dates from December 1990, and although with the founding of EuHP shortly afterwards their bilateral arrangement seems to have fallen into abeyance in April 1991, Pan-Isovit was involved in the discussion in Italy in July and by October 1991 arrangements for the German market involving all six main suppliers were in force and they agreed a common price increase with effect from 1 January 1992.

The active involvement of Henss/Isoplus in the scheme of collusion is fully established from October 1991 when it began to attend regular Directors' meetings. from then all six leading producers ABB, Løgstør, Tarco, Starpipe, Henss/Isoplus and Pan-Isovit were involved.

(152) Even if the Danish quota agreement had broken down in mid-1993, the cooperation on the German market was by then already being

([18]) [1992] ECR II-1021, at point 304.

concretised in a defined quota scheme (points (50) tot (52)). For the six-month period between October 1993 and March 1994 the arrangements can be considered to have been in abeyance, although (as ABB says) bilateral and trilateral meetings continued. By May 1994 the collusion had been re-established in Germany with the implementation of the Euro price list and by August 1994 its terms had been finalised.

The overall dispensation agreed in October-November 1994 institutionalised on a Europe-wide basis the system of collusion which the major players in the industry regarded as the desired model for doing business. These six producers produced a system which developed and remained viable amongst themselves and to which other producers operating on national or regional markets could subscribe.

KWH's involvement in the collusive venture is fully established from January 1995 when one of its senior directors met ABB in Copenhagen. However since the Statement of Objections identified March 1995 as the staring date for KWH, this later date will be used in this Decision.

(153) In the individual national markets, the two local producers Ke-Kelit (Austria) and Sigma (Italy) probably only joined the cartel at the beginning of 1995. Brugg, however, was involved in the scheme from August 1994, even if it only began attending the German contact group in December of that year.

The infringement continued up to at least March 1996, when the Commission addressed requests under Article 11 to the principal participants, if not April/May in some markets and in the case of Italy, as late as June 1996. Even now there is no guarantee that collusion in some form is not still taking place.

However, given the absence of reliable and detailed information as to the Italian contact group, the Commission will assess fines on the basis that the cartel lasted until March/April 1996.

Consequently, the participation of various undertakings in the infringement lasted as follows:

(a) ABB, Løgstør, Tarco and Starpipe from about November 1990 in Denmark, progressively extending to the whole of the Community and lasting until at least March or April 1996, subject to the arrangements being in abeyance for a period of up to six months from October 1993 to about March 1994;

(b) Pan-Isovit, initially from about December 1990 in conjunction with ABB and subsequently from October 1991, together with the above producers and Henss/Isoplus, again subject to the abovementioned period of six months when the arrangements were in abeyance and lasting until at least March or April 1996;

(c) Isoplus from October 1991 and subject to the above period of abeyance until at least March or April 1996;

(d) Brugg from about August 1994 until at least March or April 1996;

(e) Ke-Kelit from about December 1994 until at least March or April 1996;

(f) KWH from (at the least) March 1995 until at least March or April 1996;

(g) Sigma from about April 1995 until at least March or April 1996.

7. **The addressees of the present proceedings**

(a) *General considerations*

(154) The subject of the competition rules in the Treaty is the 'undertaking', a concept not necessarily identical with the notion of corporate legal personality in national commercial company or fiscal law.

The term is not defined in the Treaty. It may refer to any entity engaged in commercial activity. In

the case of a large multinational corporation (such as ABB), the myriad subsidiaries, the complex network of ownership and shareholdings and the organisation for management purposes of the group's activities into separate operational or functional divisions and/or geographical areas not necessarily corresponding to its corporate structure, may give rise to complications.

According to the circumstances, it may be appropriate to treat as the relevant 'undertaking' for purposes of Article 85 the whole group or individual subgroups or subsidiary companies.

(b) *ABB*

(155) In this case, the proceedings and this Decision are addressed to the ABB concern as represented by its top holding company ABB-Asea Brown Boveri Limited. For the purposes of recovering any fine, which might involve recourse to national enforcement procedures, it is necessary to address the decision to a body or bodies possessing legal personality. In the case of a large group, the appropriate legal entity may be the holding company which heads the group. The fact that the product which is the subject of the cartel is only one of many activities in which the group is engaged and within the corporate structure, is the responsibility of a sub-group, division or subsidiary is not decisive.

The present approach squares with the normal practice of the Commission in previous major cartel cases (such as case No IV/31.149 — Polypropylene cartel [19]), which has been upheld by the Court of First Instance.

The group's operations are consolidated and accounted for in the Annual Report of ABB Asea Brown Boveri Limited. ABB's organisational matrix of business areas and industrial product segments overlapping with geographic regions is evidence of its integrated structure and underlines the appropriateness of addressing this Decision to the group.

(156) In addition to the above, there are further more specific reasons in this case why the proceedings should properly be addressed to ABB itself rather than to any subsidiary:

— the district heating business are (BA-VDH) groups together a whole array of 30 or more companies;

— there is no single holding company for BA-VDH: while ABB IC Møller A/S in Denmark may account for the most important manufacturing facilities, there are six other ABB production companies with different lines of ownership, and on the commercial side the sales function in many countries is performed by the national subsidiaries of ABB;

— the efforts of ABB to eliminate Powerpipe and/or secure the interests of the cartel were exerted through companies outside the business are a BA-VDH (see Appendices 144, 146, 159 and 160.)

— BA-VDH reports direct to an executive vice-president of ABB who is *ex officio* a member of the executive committee, the top executive body of the ABB group;

— Both the cartel and the measures to deny and conceal its existence were conceived, directed and actively supported at a high level in ABB group management (see Appendices 1, 2, 3, 6, 7, 11, 13, 16, 26, 29, 48 and 126).

(c) *Henss/Isoplus*

(157) The Henss/Isoplus companies acted as a *de facto* group. During the investigation at the Austrian manufacturing company Isoplus Fernwärmetechnik Ges.m.B.H. the Commission officials were told by its managing director that the majority shareholder was Dr. W. Henss with 87 %. Isoplus later denied having made any such statement. The local companies register does not show Dr Henss as owning any such shareholding: the owner of the shares is stated to be the managing director of

[19] OJ L 230, 18.8.1986, p. 1.

Isoplus, and although the register showed that for three years up to December 1993 the lawyer acting for Isoplus in these proceedings had held the 87 % shareholding in question, no indication was given as to the capacity in which or on whose behalf he held them. (No information was forthcoming on this point from Isoplus or its legal adviser.)

Isoplus Fernwärme Ges.m.b.H. of Hohenberg, Austria owns 100 % of a legally separate German registered company of the same name located in Sondershausen and which is in fact the principal manufacturing company in the Henss/Isoplus group.

At the relevant times, the two Henss companies Dipl-Kfm. Walter Henss GmbH in Rosenheim ('Henss Rosenheim') and Dipl-Kfm Walter Henss Fernwärmeleitungsbau GmbH in Berlin ('Henss Berlin') acted as the commercial agents of Isoplus in Germany. Dr. W. Henss was both the majority shareholder and the managing director of Henss Rosenheim and he was the managing director (but not a shareholder) of Henss Berlin ([20]).

It is apparent from the fact that it was Dr. W. Henss who always attended the directors' club meetings that he was the person who exercised management and control over Isoplus and that the Henss and Isoplus companies together formed a *de facto* group. It was common knowledge in the industry that Henss was the power behind Isoplus.

(158) However throughout the proceedings the Henss and Isoplus companies argued that there was no structural link of ownership between them: it was specifically denied in reply to the Statement of Objections that Dr Henss was the owner of Isoplus through trustees or nominees (at the Commission had suggested). They insisted that the only connection was the contractual relationship of principal and commercial agent. They attributed the presence of Dr Henss in the presidents' club to his having been mandated by Isoplus to attend directors' club meetings because of his special knowledge and experience of the German market: he was not there on behalf of the Henss companies. It was also claimed that the Henss companies as commercial agents could not as a matter of law be party to a producer's cartel: any infringement of Article 85 could only be imputed to Isoplus.

The purpose of this line of defence was no doubt to limit the amount of any fine that might be imposed to 10 % of the turnover of Isoplus Ges.m.b.H. (which had in fact been considerably understated in that company's original replies under Article 11).

Although the Commission considered that the Henss/Isoplus companies formed a group, to its knowledge there was no holding company to which the Statement of Objections could be addressed (on the basis of its normal practice as set out with regard to ABB at (155)).

The Statement of Objections was therefore addressed to the Henss/Isoplus group, as represented by all four of its principal companies in the Community, namely Isoplus Hohenberg, Isoplus Sondershausen, Henss Rosenheim and Henss Berlin.

(159) After the opening of the procedure and the issuing of the Statement of Objections, Henss Rosenheim (which had changed its name to Isoplus Fernwärmetechnik Vertriebsgesellschaft mbH as of 1 January 1997) absorbed Henss Berlin, which not longer exists as a separate legal entity.

At the oral hearing both Henss and Isoplus (which were separately represented) continued to deny the existence of any links of ownership.

However just before the oral hearing, the Commission checked the entry in the Companies Register (Amtsgericht Charlottenburg) of the former Henss Berlin company.

A document was discovered which had been placed on the Public Register apparently by lawyers acting for Henss/Isoplus (not those appearing in the present proceedings) and which showed that in January 1997 a legal entity in the form of a 'Kommandit-Gesellschaft' had been

([20]) The share capital of Henss Berlin was owned by one of the directors of Henss Rosenheim and his spouse.

established to act as a holding company for the various Henss/Isoplus companies ([21]).

The document in question (an 'Einbringungsvertrag') listed the shareholdings which had been transferred to the GmbH & Co KG by the contracting parties ([22]).

(160) The deed which was notarised in due and proper form disclosed that Dr Henss was indeed the beneficial owner of the majority of shares (83 %) in Isoplus Hohenberg: the Managing Director of that company who is the registered owner of those shares was holding them as a trustee ('Treuhänder') on his behalf ([23]). It further revealed that alongside Isoplus Hohenberg a so-called 'Stille Gesellschaft' had been formed, of which the beneficial owner was again Dr Henss; the shares were held on his behalf by the legal adviser of Isoplus, also acting as a trustee.

The deed also showed that one-third of Isoplus Hohenberg's shareholding in its wholly-owned subsidiary Isoplus Sondershausen were in fact held by it on trust for Mr Henss' associate (one of the directors of Henss Rosenheim) and his spouse (who were also the sole owners of Henss Berlin).

Henss and Isoplus argued that the deed in question related to business secrets, had been placed by inadvertence on the public register and as such ought not to have been admitted in evidence or disclosed during the procedure. The Commission cannot accept this argument, for the simple reason that a document placed on a public register (whether inadvertently or otherwise) by representatives of Henss/Isoplus or HFB themselves cannot merit confidential treatment.

Although the Statement of Objections was not formally sent to the holding company (the existence and purpose of which was not known to the Commission and only came to light in the circumstances set out above), it was made clear in the Statement of Objections that the proceedings were being addressed to the Henss/Isoplus Group and that in the absence of a single holding company the four named operating companies were the representatives of the group for the purposes of service and of enforcement.

It is therefore appropriate to address this Decision not only to the (now three) operating companies but also to the Holding company, HFB Holding für Fernwärmetechnik Beteiligungsgesellschaft mbH & Co KG, HFB Holding für Fernwärmetechnik Beteiligungsgesellschaft mbH Verwaltungsgesellschaft (both of Rosenheim) and the Isoplus 'Stille Gesellschaft'.

(d) *KWH*

(161) Although in the Statement of Objections it was stated the proceedings were addressed to Oy KWH Pipe AB the documents were in fact dispatched (against acknowledgement of receipt) to Oy KWH Tech AB, the division of KWH Pipe responsible for district heating. The denominations 'KWH Tech' and 'KWH Pipe' are

([21]) The holding entity HFB Holding für Fernwärmetechnik Beteiligungsgesellschaft is constituted as a 'GmbH & Co KG', i.e. a limited partnership with a private limited liability company acting as the general partner (*Komplementär*) with personal liability; the other individual partners (*Kommanditisten*) are liable only up to a specified sum. The general partner or *Komplementär* in the GmbH Co KG in question here is HFB Holding für Fernwärmetechnik Beteiligungsgesellschaft mbH Verwaltungs-gesellschaft.

([22]) Under this agreement, Dr Henss, his business associate and their respective spouses placed their shareholdings in a series of Henss/Isoplus companies into HFB Holding für Fernwärmetechnik Beteiligungsgesellschaft mbH & Co. KG. The shareholdings were in the following companies:
— Isoplus Fernwärmetechnik Vertriebsgesellschaft mbH (formerly Dipl. Kfm Walter Henss GmbH), Rosenheim,
— Dipl. Kfm Walter Henss Fernwärmerohrleitungsbau GmbH, Berlin,
— Isoplus Fernwärmetechnik GmbH, Sondershausen,
— Isoplus Fernwärmetechnik Ges.mbH, Hohenberg,
plus three other companies in Budapest, Schlüchtern and Lehrte.
Since the date of the *Einbringungsvertrag* HFB Holding has divested itself of the shareholding of Dr Henss (via a trustee) in Isoplus Fernwärmetechnik Ges.mbH, Höhenberg, but the identity of the transferee and the current ownership of these shares is not known to the Commission.

([23]) He held the shares pursuant to a trust agreement (*Treuhandvertrag*) of 20 December 1993; having acquired them on the same date from the lawyer acting for Isoplus in the present proceedngs: it may be concluded that the lawyer had also held them as a trustee for Dr Henss (see 157).

used indiscriminately by KWH in connection with its district heating activity and in its correspondence. At the oral hearing KWH announced that it assumed that the proceedings were meant to be addressed to KWH Techn. and not KWH Pipe. Since the fine which the Commission considers appropriate in the case of KWH does not exceed 10 % of the turnover of Oy KWH Tech AB, the precise identity of the legal entity in the KWH organisation to which the decision is addressed is not of crucial importance and the decision will formally be addressed to Oy KWH Tech AB.

B. *Remedies*

1. Article 3 of Regulation No 17

(162) Where the Commission finds there is an infringement of Article 85 it may require the undertakings concerned to bring such infringement to an end in accordance with Article 3 of Regulation No 17.

In this case the participants in the cartel went to considerable (but ultimately unsuccessful) lengths to conceal their activities. Their meetings were for the most part held in secret under the cover of, or on the same occasion as, meetings of ostensibly legitimate trade associations.

The infringement continued long after the investigations made by the Commission under Article 14(3), the only significant modification of their conduct being that the most senior directors in the directors' group and the German contact group met outside the Community, presumably in the hope that by this device they might be able to conceal their activities. There as even discussion in the last meeting of continuing the cartel by other means. In the circumstances it is not possible to say with any confidence that the infringement has ceased even now.

It is therefore necessary for the Commission to require the undertakings to which this Decision is addressed to bring the infringement to an end (if they have not already done so) and henceforth to refrain from any agreement, concerted practice or decision of an association which might have the same or similar object or effect.

2. Article 15(2) of Regulation No 17

(a) *General considerations*

(163) Under Article 15(2) of Regulation No 17, the Commission may by decision impose upon undertakings fines of from ECU 1 000 to ECU 1 million, or a sum in excess thereof not exceeding 10 % of the turnover in the preceding business year of each of the undertakings participating in the infringement where, either intentionally or negligently, they infringe Article 85(1).

In fixing the amount of the fine the Commission must have regard to all relevant circumstances and particularly to the gravity and the duration of the infringement.

In assessing the gravity of the infringement, the Commission will take account of its nature, its actual impact on the market and the size of the relevant geographic market.

The Commission will in this case also apply the Notice on the non-imposition or reduction of fines in cartel cases ([24]).

(164) In relation to its assessment and the gravity of the infringement considered as a whole, the Commission takes account of the following general considerations:

(a) Market sharing and price fixing are by their nature a very serious violation of Article 85(1). With full knowledge of the illegality of their actions the producers combined to set up a secret an institutionalised system designed to restrict competition in an important industrial sector. Progressively, their unlawful cooperation was extended until it covered the whole Community.

(b) The cartel arrangements eventually permeated the whole industry, were conceived and encouraged at the highest levels in each undertaking concerned and operated entirely to the benefit of the participating producers and to the detriment of their customers, any non-participating competitor and the general public.

([24]) OJ C 207, 18.7.1996, p. 4.

(165) Quite apart from the inherently very serious nature of any market-sharing or price-fixing agreement, the following factors are relevant to the Commission's assessment of the gravity of the infringement:

(a) The illegality of the quota agreement was compounded by the adoption of a fraudulent scheme of collusive bidding. The majority of business in this industry is accounted for by tendering procedures which envisage competitive bidding between the participants. The public authorities and contractors which commissioned the tendering procedure were entitled to expect that the bids submitted were not the result of secret collusion between the participants. In supply contracts over ECU 400 000, a statutory scheme of competitive bidding is prescribed by Community law in the public interest: the producers combined unlawfully to defeat the intention of the community legislature.

(b) The unlawful scheme was aggressively pursued and implemented, not only with regard to ensuring the compliance of its members but also with a view to eliminating the only competitor of any importance outside the cartel, namely Powerpipe.

The Commission therefore considers that the present infringement constituted a very serious infringement of Article 85(1) for which the likely fines would be at least ECU 20 million.

(166) It will however be necessary inside that category to take account of the effective economic capacity of the offenders to cause significant damage to competition and to set the fine at a level which ensures it has sufficient deterrent effect.

In the circumstances of this case, which involves several undertakings, it will be necessary in setting the basic amount of the fines to take account of the specific weight and therefore the real impact of the offending conduct of each undertaking on competition.

This exercise is particularly necessary where (as here) there is a considerable disparity in the sizes of the undertakings participating in the infringement.

For this purpose, the undertakings can in principle be divided into four categories established according to their relative importance in the relevant market in the Community, subject to adjustment where appropriate to take account of other factors and especially of the need to ensure effective deterrence.

The Commission will also take account in assessing the individual fines of the duration of each participant's adherence to the common scheme. In general, however, it can be said that the infringement was of medium duration, meriting an increase of up to 50 % of the amount determined for gravity.

The Commission will, however, take into account the fact that although this case relates to a single evolving infringement, its most developed manifestations were (a) the arrangements among the Danish producers beginning in late 1990 and (b) the European-wide arrangements from September 1994 onwards, including the actions against Powerpipe.

With regard to the agreements relating principally to the German market between late 1991 and 1993 (see (38) to (52), the Commission will in fixing fines reflect its assessment that these were of limited practical effect and application.

(167) In relation to each undertaking, the Commission will also reflect in the amount of the fine imposed any aggravating or attenuating circumstances.

The final amount calculated according to this method may not in any case exceed 10 % of the world-wide turnover of the undertakings as laid down in Article 15(2) of Regulation No 17, and adjustments may have to be made accordingly.

The position of each undertaking in relation to the Notice on the non-imposition or reduction of fines will also be considered.

(b) *The individual fines*

(i) ABB

— Gravity of the infringement

(168) In determining the penalty to be imposed on ABB, the Commission will take account of its economic capacity to cause significant damage to competition and the need to set the fine at a level which ensures by its deterrent effect that there is no repetition.

In the case of ABB, the appropriate starting point for a fine resulting from the criterion of the relative importance in the relevant market requires further upward adjustment to take account of ABB's position as one of Europe's largest industrial combines.

This adjustment serves two objectives:

(a) to ensure that the fine has a sufficiently deterrent effect;

(b) to take account of the fact that large undertakings have legal and economic knowledge and infrastructures which enable them more easily to recognise that their conduct constitutes an infringement and be aware of the consequences stemming from it under competition law.

(169) ABB's involvement in the violation of Article 85 was not (as ABB had initially attempted to portray it) the unauthorised and atypical action of a minor subsidiary in a de-centralised management structure.

The organisation of the cartel represented a strategic plan by ABB to control the district heating industry which was conceived, approved and directed at a senior level of group management, as were the measures to deny and conceal its existence and to continue its operation for nine months after the investigation.

It is abundantly clear that ABB systematically used its economic power and resources as a major multinational company to reinforce the effectiveness of the cartel and to ensure that other undertakings complied with its wishes.

Indeed by the stage of the oral hearing ABB had abandoned its earlier attempts to lay the blame at the door of its Danish subsidiary ABB IC Møller and does not contest the imputation of responsibility of the group (although still maintaining that the District Heating business area constitutes the relevant 'undertaking' to which the 10 % limit of Article 15(2) applies).

The Commission does not accept this argument. The proven involvement in the cartel of the most senior level of management underlines the need to set the fine at a level which ensures it has sufficient deterrent effect.

On the basis of the above, the Commission considers that in the case of ABB, the need for deterrence requires that the minimum fine of ECU 20 million envisaged for a very serious infringement should be weighted by 2,5 to give a starting point of ECU 50 million.

— Duration

(170) As regards duration, ABB does not contest that the infringement lasted over five years. The Commission, however, takes into account the fact that while there was throughout the whole period a continuing objective of restricting competition, (i) in the early period the arrangements were incomplete and of limited effect outside the Danish market (ii) the arrangements were effectively in abeyance from late 1993 to early 1994 (iii) they reached their most developed form only with the Europe-wide cartel set up in 1994 to 95 (although from 1991 to 1993 the Danish cartel was fully effective).

IF the duration of the continuing infringement is taken as five years, it is appropriate to apply an additional weighting of * 1,4 to ABB.

This increases the amount fixed in (169) to give a base figure of ECU 70 million.

— Aggravating and extenuating factors

(171) The gravity of the infringement is aggravated in ABB's case by the following factors:

— ABB's role as the ringleader and instigator of the cartel and its bringing pressure on other undertakings to persuade them to enter the cartel,

— its systematic orchestration of retaliatory measures against Powerpipe, aimed at its elimination from the market,

— its continuation of such a clear-cut and indisputable infringement after the investigations despite having been warned at high level by the Directorate-General for Competition of the consequences of such conduct.

With regard to these substantial aggravating factors, an increase in the basic amount by 50 % is justified.

(172) The only extenuating circumstance of which the Commission can take account in relation to ABB is the payment of substantial compensation to Powerpipe and its previous owner. In recognition of this element, the Commission will apply a reduction of ECU 5 million to the basic amount.

The Commission does not accept that the purported 'strengthening' of ABB's compliance policy which it invokes as a mitigating factor should result in any reduction of the fine. ABB claimed to have had at all times a mandatory policy of strict compliance with all applicable laws including national and Community competition rules. Whatever the stated policy may have been, it did not apply to (or was flouted by) the most senior management level. Nor did it prevent the continuation by those highly-placed executives of the cartel for nine months after the investigation. Instructions from ABB's legal department to the then chairman of IC Møller of 29 November 1995 to the effect that it was 'mandatory group policy' that ABB employees should at no time engage in breaches of Community competition law clearly had no effect. ABB claims that soon after the meeting of 17 January 1996, BA-VDH management had given oral instructions to all companies to 'desist from illegal contacts with competitors'; but six weeks later on 4 March it was advocating in a directors' meeting the employment of a 'consultant' to continue the cartel without the need for plenary meetings. Indeed even after the Commission sent out its requests for information the 'instructions' to ABB personnel to respect the provisions of competition law (memorandum of 4 April 1996) were issued by some of those most actively involved in the cartel and were couched in language entirely dismissive of allegations of misconduct later admitted by ABB to be true. Moreover, even after ABB's lawyers had twice informed the Commission (letters of 21 March and 1 April 1996) of its willingness to cooperate, an executive of ABB IC Møller took part in a meeting (albeit an inconclusive one) with Løgstør's Sales Director to discuss ways of continuing the cartel 'by other means'.

ABB also claimed in its reply to the Statement of Objections that it should be given credit for having 'relieved of their duties' the senior managers principally responsible for the infringement: the removal of these company officers was supposedly intended to prevent any recurrence of the infringement and to send a strong message to all personnel that violations of the group's policy of compliance would not be tolerated.

In fact the deterrent effect of any such message on ABB personnel must have been diluted by the selective nature of the 'disciplinary measures' taken: the most senior of those involved escaped all sanctions entirely and only one relatively middle-ranking executive left the Group.

On 15 October 1998, ABB and Daimler-Benz, the co-owners of Adtranz, announced that its chairman (whose leading role in the cartel when executive vice-president of ABB is fully established: see (9), (10), (21), (49), (52), (55) and (156)) was leaving the company.

His departure, decided on the eve of the decision, and which is not even presented as a sanction, cannot alter the Commission's conclusions.

Taking into account both aggravating and extenuating circumstances, the appropriate fine on ABB would be ECU 100 million.

— Application of the Notice on non-imposition or reduction of fines

(173) The Commission will however grant a reduction of the otherwise appropriate fine in recognition of ABB's cooperation in terms of its Notice on the non-imposition or reduction of fines.

This is not a case where an undertaking has informed the Commission about a secret cartel either (a) before it undertook an investigation (Section B) or (b) after it has undertaken an investigation which failed to provide sufficient grounds for initiating proceedings under Article 3 of Regulation No 17 (Section C).

Under Section D of the Notice, however, an undertaking which does not comply with all the conditions set out in Sections B or C will still benefit from a significant reduction of 10 to 15 % of the fine that would otherwise have been imposed where (for example):

— before a Statement of Objections is sent, it provides the Commission with information, documents or other evidence which materially contribute to establishing the existence of the infringement;

— after receiving a Statement of Objections, it informs the Commission that it does not substantially contest the facts on which the Commission basis its objections.

(174) Even if the infringement did continue for nine months after the investigation, ABB cooperated at the earlier of the stages referred to as examples in Section D, and adequate recognition should be accorded in the reduction granted.

The information provided by ABB (and other undertakings) following the sending of the requests for information under Article 11 did assist materially in the establishment of the relevant facts, in particular as regards the origins of the cartel in Denmark in late 1990: the Commission had not obtained any substantial evidence during its investigations of that period, although it is not correct (as ABB suggests) that the Commission did not possess sufficient evidence of the cartel before 1994: notes of presidents' meetings and other evidence going bank to 1992 were obtained at Tarco, Løgstør and Starpipe, and some of the most incriminating documentation (such as Appendix 48) had been discovered at ABB IC Møller.

It should be noted that ABB's cooperation only followed the sending-out by the Commission of detailed requests for information under Article 11 to all the undertakings in which they were asked to explain the incriminating documents found at their premises in June 1995.

ABB cannot therefore be accorded the full 50 % reduction available under Section D.

After due consideration of all the relevant factors, the Commission believes it is appropriate to reduce the fine it would otherwise have imposed by 30 %.

ABB will therefore be required to pay a fine of ECU 70 million.

(ii) Løgstør

(175) Løgstør is the second-largest European producer of pre-insulated pipes with sales in the product of about half those of ABB.

Having regard to this circumstance, and to reflect its situation as essentially a single-product company, the starting point for the fine on Løgstør will be adjusted to ECU 10 million (for gravity).

The duration of its participation in the infringement is the same as ABB's and will be reflected by an increase in the amount determined as the 'starting point' by a coefficient of × 1,4 giving a basic amount of ECU 14 million.

(176) Løgstør's deliberate continuation of the infringement after the investigations in the circumstances set out in (108) to (112) constitutes a considerable aggravating factor. A further aggravating circumstance is Løgstør's active role in the retaliatory measures against Powerpipe, although in that respect the Commission does not regard Løgstør as being on a par with ABB (as the latter undertaking has attempted to present it).

Having regard to the above consideration, it is appropriate to increase the basic amount in the case of Løgstør by 30 %.

There are no extenuating circumstances relating to the infringement in Løgstør's case which could justify a reduction. Løgstør may well have come

under pressure from ABB at various times but the portrayal of itself as being dragged unwillingly into the cartel by the latter is a considerable exaggeration. The appropriate fine for Løgstør before any reduction for cooperation would normally be set at ECU 18 200 000.

However, since the final amount calculated according to the above method may not in any case exceed 10 % of the world-wide turnover of Løgstør (as laid down by Article 15(2) of Regulation No 17), the fine will be set at ECU 12 700 000 so as not to exceed the permissible limit.

(177) The Notice on the non-imposition or reduction of fines also applies to Løgstør, which provided the Commission voluntarily (even if the Article 11 request addressed to it provided the occasion) with documentary evidence which contributed substantially to establishing important aspects of the case, in particular the fact that the members of the cartel had decided to continue its operation after the investigations, an element which the Commission suspected but of which it possessed no proof.

Under Section D of the Notice the Commission will accord Løgstør the same reduction as that granted to ABB, namely 30 %.

The total fine imposed on Løgstør will therefore be ECU 8 900 000.

(iii) Tarco, Starpipe, Henss/Isoplus and Pan-Isovit

(178) Having regard to their importance in the market and the effect of their conduct upon competition the Commission will adjust the staring point for the calculation of their fines in each case at ECU 5 million.

The weightings for duration are however different: for Tarco and Starpipe who were involved in the cartel for the same length of time as ABB and Løgstør, an increase by * 1,4 is appropriate in each case, while given the lesser period for Pan-Isovit and Henss/Isoplus and the sporadic quality of their involvement before 1994, the weighting for these two undertakings will be * 1,33 and 1,25 respectively.

This gives the following basic amounts:

(in ecus)

	Starting point	Duration	Basic fine
Tarco	5 000 000	× 1,4	7 000 000
Ecu	5 000 000	× 1,4	7 000 000
Pan-Isovit	5 000 000	× 1,33	6 600 000
Henss/Isoplus	5 000 000	× 1,25	6 250 000

(179) In each case, the basic fine must be increased because of the aggravating circumstance of deliberately continuing such a manifest infringement after the investigation had been carried out.

Under this head, the fine on Tarco, Starpipe and Pan-Isovit will be increased by 20 %.

For Henss/Isoplus, the Commission must take into account two additional aggravating factors, namely 1. the leading role played by this undertaking in the enforcement of the cartel and 2. the systematic attempt to mislead the Commission as to the true relationship between the companies of the group; this constituted a deliberate obstruction of the Commission's investigations which, had it succeeded, might well have allowed the undertaking to evade the appropriate penalty and/or rendered its recovery more difficult.

The fine on Henss/Isoplus will therefore be increased by 30 %.

There are no extenuating circumstances which would justify the reduction of the fine on any of these undertakings.

The following fines for the undertakings are therefore considered appropriate (before any reduction under the Notice on the non-imposition or reduction of fines):

— Tarco: ECU 8 400 000,

— Starpipe: ECU 8 400 000,

— Henss/Isoplus: ECU 8 125 000,

— Pan-Isovit: ECU 8 000 000,

However, the fines which would otherwise be appropriate would exceed the maximum set out in Article 15 of Regulation No 17, namely 10 % of total turnover in the business year preceding the adoption of the decision.

The fines on these undertakings will be set so as not to exceed the permissible limit and are fixed at ECU 4 170 000 for Tarco. ECU 1 840 000 for Starpipe, ECU 4 950 000 for Henss/Isoplus and ECU 1 910 000 for Pan-Isovit (subject to any reduction for cooperation).

(180) As regards the Notice on the non-imposition or reduction of fines, the Commission will take into account the fact that Tarco provided information and documents which assisted the Commission in establishing the facts on which this Decision is based.

The fine on Tarco will be reduced by 30 %.

Pan-Isovit and Starpipe were perhaps on the borderline between active cooperation with the Commission and merely admitting what could not be denied in their responses to enquiries made under Article 11 of Regulation No 17. These two undertakings did not contest the essential factual allegations made against them, and although Pan-Isovit denied that its participation in meetings before 1994 had constituted an infringement of Article 85 the Commission will not penalise it for this position. Both Starpipe and Pan-Isovit will receive a reduction under Section D of the Notice on the non-imposition or reduction of fines, of 20 %.

No reduction for cooperation can be accorded to Henss/Isoplus. It is true that having first in response to requests for information under Article 11 denied all knowledge of or participation in the infringement, and indeed failing to address most of the relevant issues, this undertaking ultimately provided documentation to the Commission which added to the evidence already in its possession. Henss/Isoplus did not in essence contest that there had been an infringement after late 1994 (although it attributed participation to the Isoplus companies, not to Henss). However, it is implicit that to benefit from this opportunity for a reduction, an undertaking must act in good faith and not attempt to deceive the Commission on a important aspect of the case, as did Henss/Isoplus.

The total fines imposed on the four undertakings will therefore be as follows:

— Tarco: ECU 3 000 000,

— Henss/Isoplus: ECU 4 950 000,

— Pan-Isovit: ECU 1 500 000,

— Starpipe: ECU 1 475 000,

(iv) Brugg, KWH, Ke-Kelit and Sigma

(181) These four undertakings are relatively minor in terms of their position in the district heating pipe market. Their involvement must also be characterised as participation in a very serious infringement of Article 85 but, again, the fine must take account of the specific impact of their conduct and their size compared with ABB.

In the case of these four producers, given the gravity of the infringement, the adjusted starting point for any fine cannot be less than ECU 1 million and the Commission will fix it at this figure for each of them.

The fines will be weighted (where appropriate) to reflect a duration for Brugg of around 20 months, KWH around one year, Ke-Kelit 15 months and sigma one year.

The basic amount will therefore be assessed as follows:

(in ecus)

	Starting point	Weighting	Basic amount
Brugg	1 000 000	× 1,1	1 100 000
KWH	1 000 000	—	1 000 000
Ke-Kelit	1 000 000	× 1,1	1 100 000
Sigma	1 000 000	—	1 000 000

(182) As regards aggravating and mitigating factors, the Commission takes account of their deliberate continuation, in common with the other participants, of this manifest infringement and will increase the fines by 20 %.

There are no mitigating factors intrinsic to the infringement which could merit a reduction in the fine for Brugg.

In the case of KWH, the Commission will take into account its non-compliance with the boycott of Powerpipe. (However, its own account of having been inveigled into joining the cartel by threats is countered by the evidence of its having stood out for a higher quota than the other producers were originally prepared to give).

Nor is it accepted that KWH was unaware of or in any doubt as to the illegality of the scheme in which it was involved.

The Commission considers that the mitigation arising from KWH's refusal to join the boycott offsets the 20 % increase which would normally have been applied for aggravation, so that for KWH the fine will remain at the basic amount.

In the case of Ke-Kelit and Sigma, the Commission will, because of their minor role and the fact that their participation was confined to Austria and Italy, both relatively small markets for district heating, reduce the otherwise appropriate figure by two-thirds.

(183) As regards the application of the Notice of 18 July 1996, the fines on Brugg and KWH will be reduced by 30 % in recognition of their having provided important information to the Commission and not contesting the allegations against them.

Ke-Kelit will receive a reduction of 20 % as it did not contest the essentials of the statement of objections.

In the case of Sigma, however, its defence was equivocal as to the facts, no express admissions were made, and hence no reduction can be afforded under the Notice on non-imposition or reduction of fines.

The fines to be imposed on these four undertakings will therefore be as follows:

— Brugg: ECU 925 00,

— KWH: ECU 700 00,

— Ke-Kelit: ECU 360 000,

— Sigma: ECU 400 000,

HAS ADOPTED THIS DECISION:

Article 1

ABB Asea Brown Boveri Ltd, Brugg Rohrsysteme GmbH, Dansk Rørindustri A/S, Henss/Isoplus Group, Ke-Kelit Kunststoffwerk Ges mbH, Oy KWH Tech AB, Løgstør Rør A/S, Pan-Isovit GmbH, Sigma Tecnologie Di Rivstimento S. r. l. and Tarco Energie A/S have infringed Article 85(1) of the Treaty by participating, in the manner and to the extent set out in the reasoning, in a complex of agreements and concerted practices in the pre-insulated pipes sector which originated in about November/December 1990 among the four Danish producers, was subsequently extended to other national markets and brought in Pan-Isovit and Henss/Isoplus, and by late 1994 consisted of a comprehensive cartel covering the whole of the common market.

The duration of the infringements was as follows:

— in the case of ABB, Dansk Rør, Løgstør, Pan-Isovit and Tarco from about November/December 1990 to at least March or April 1996,

— in the case of Henss/Isoplus, from about October 1991 up to the same time,

— in the case of Brugg from about August 1994 up to the same time,

— in the case of Ke-Kelit from about January 1995 up to the same time,

— in the case of KWH from at least March 1995 up to the same time,

— in the case of Sigma from about April 1995 up to the same time.

The principal characteristics of the infringement consisted in:

— dividing national markets and eventually the whole European market amongst themselves on the basis of quotas,

— allocating national markets to particular producers and arranging the withdrawal of other producers,

— agreeing prices for the product and for individual projects,

— allocating individual projects to designated producers and manipulating the bidding procedure for those projects in order to ensure that the assigned producer was awarded the contract in question,

— in order to protect the cartel from competition from the only substantial non-member, Powerpipe AB, agreeing and taking concerted measures to hinder its commercial activity, damage its business or drive it out of the market altogether.

Article 2

The undertakings named in Article 1 shall forthwith bring the said infringement to an end, if they have not already done so. They shall henceforward refrain in relation to their activities in pre-insulated pipes from any agreement or concerted practice which may have the same or a similar object or effect as the infringement, including any exchange of commercial information by which they might be able to monitor adherence to or compliance with any tacit or express agreement regarding market-sharing, price fixing or bid-rigging in the Community.

Article 3

The following fines are hereby imposed on the undertakings named in Article 1 in respect of the infringements found therein:

(a) ABB Asea Brown Boveri Ltd, a fine of ECU 70 000 000;

(b) Brugg Rohrsysteme GmbH, a fine of ECU 925 000;

(c) Dansk Rørindustri A/S, a fine of ECU 1 475 000;

(d) de Henss/Isoplus-group, a fine of ECU 4 950 000, for which the following companies are jointly and severally liable:

— HFB Holding für Fernwärmetechnik Beteiligungsgesellschaft mbH & Co KG,

— HFB Holding für Fernwärmetechnik Beteiligungsgesellschaft mbH Verwaltungsgesellschaft,

— Isoplus Fernwärmetechnik Vertriebsgesellschaft mbH (formerly Dipl-Kfm Walter Henss GmbH Rosenheim),

— Isoplus Fernwärmetechnik GmbH, Sondershausen,

— Isoplus Fernwärmetechnik Gesellschaft mbH — stille Gesellschaft,

— Isoplus Fernwärmetechnik Ges mbH, Hohenberg,

(e) Ke-Kelit Kunststoffwerk Ges mbH, a fine of ECU 360 000;

(f) Oy KWH Tech AB, a fine of ECU 700 000;

(g) Løgstør Rør A/S, a fine of ECU 8 900 000;

(h) Pan-Isovit GmbH, a fine of ECU 1 500 000;

(i) Sigma Tecnologie Di Rivestimento S. r. l., a fine of ECU 400 000;

(j) Tarco Energi A/S, a fine of ECU 3 000 000 ECU.

Article 4

The fines shall be paid within three months of the date of notification of this Decision to the following account:

Account No 310-0933000-43,

European Commission,
Banque Bruxelles-Lambert,
Agence Européenne,
Rond-Point Schuman/Schumanplein 5,
B-1040 Brussel.

After three months, interest shall automatically be payable at the rate charged by the European Central Bank on its ecu transactions on the first working day of the month in which this Decision was adopted, plus 3,5 percentage points, namely, 7,5 %.

Article 5

This Decision is addressed to:

(a) ABB Asea Brown Boveri Ltd,
Affolternstrasse 44,
8050 Zurich,
Switzerland,
c/o ABB IC Møller A/S,
Treldevej 191,
DK — 7000 Fredericia;

(b) Brugg Rohrsysteme GmbH,
Adolf-Oesterheld-Strasse 31,
D — 31515 Wunstorf;

(c) Dansk Rørindustri A/S,
Nymarksvej 37,
DK — 7000 Fredericia;,

(d) De Henss/Isoplus group, represented by:

— HFB Holding für Fernwärmetechnik Beteiligungsgesellschaft mbH & Co KG,
Aisingerstrasse 12,
D — 83026 Rosenheim,

— HFB Holding für Fernwärmetechnik Beteiligungsgesellschaft mbH,
Verwaltungs-gesellschaft,
Aisingerstrasse 12,
D — 83026 Rosenheim,

— Isoplus Fernwärmetechnik GmbH,
Aisingerstrasse 12,
D — 83026 Rosenheim,

— Isoplus Fernwärmetechnik Ges mbH,
Furthoferstrasse 1A,
A — 3192 Hohenberg,

— Isoplus Fernwärmetechnik Ges mbH — stille Gesellschaft,
Furthoferstrasse 1A,
A — 3192 Hohenberg,

— Isoplus Fernwärmetechnik GmbH,
Gluckaufstrasse 34,
D — 99706 Sondershausen;

(e) Ke-Kelit Kunststoffwerk Ges mbH,
Ignaz-Meyer-Strasse 17,
Postfach 68,
A — 4017 Linz;

(f) Oy KWH Tech AB,
Kappelinmäentie 240,
FIN — 65370 Vaasa;

(g) Løgstør Rør A/S,
Danmarksvej 11,
DK — 9670 Løgstør;

(h) Pan-Isovit GmbH,
Leipziger Strasse 130,
D — 36037 Fulda;

(i) Sigma Tecnologie di Rivestimento Srl,
Via Campagna Sopra 14,
I — 25017 Lonato (BS);

(j) Tarco Energi A/S,
Erritsø Møllebanke 10,
DK — 7000 Fredericia.

This Decision shall be enforceable pursuant to Article 192 of the EC Treaty.

Done at Brussels, 21 October 1998.

For the Commission

Karel VAN MIERT

Member of the Commission