PLAINTIFF'S EXHIBIT FOS-186

17th June, 1969.

Dear Dr. Clemitx,

Attached to this letter are the items presented at the Conference that were not circulated at the time, plus the Minutes of the discussions as recorded and edited by the Conference Secretary, Mr. J.F. Cartwright.

The Conference was concerned with planning methods for increasing our profits in the Steelworks side lining market over the next two years. By itself, the fact of holding the Conference will not achieve this, the results will only arise from actions subsequently taken both by F.I.L. and the operating companies involved.

I would just like to highlight one particular action concerning the collection and reporting of vital market intelligence information. It was universally agreed that to do this in greater detail than had been done previously was of great importance.

Each operating company should as a matter of urgency prepare an analysis on the basis of the sample form attached. By using this standard procedure it will be easier to collate the information here at F.I.L., possibly on a system suitable for machine analysis, and enable us to do a more effective job of assisting in product planning. The information obtained should also be of great help in preparing local forecasts for 1970 and 1971.

Finally I would like to thank again all delegates for contributing to the success of the Conference.

Yours sincerely,

for

J.M. MACNAIR

CONFIDENTIAL

STEELWORKS DIVISION - HEADING SYSTEMS GROUP

EUROPEAN BUSINESS PLANNING CONFERENCE 5-6 JUNE 1969

PLANNING FOR THE NEXT TWO YEARS

MINUTES

Present : Mr. A.G.T. Chubb (Chairman)

AUSTRIA	: Mr. E. Balling
BELGIUM	: Mr. R.S. Bushnell Mr. F.J. Walrave
FRANCE	: M. J. de Brabant M. P.L. Boblet M. J.L. Duchateau
GERMANY	: Mr. G.R. Anderson Mr. R.M. Hilton Mr. E. Theis
ITALY	: Sr. M. Pellanda
SCANDINAVIA	: Mr. J.O. Beckman
U.K.	: Mr. J.J. Chappell Dr. D.M. Davies Mr. B. Hughes Mr. D. Vincent
F.I.L.	: Mr. J.F. Cartwright (Secretary) Mr. R.C. Edmonds Mr. J.C. Emmott Mr. J.M. Macnair Mr. H.R. Neumann Mr. J. Nancarrow

The Chairman, Mr. A.G.T. Chubb, said :

"In talking to you on the need for planning, I do not suggest for one moment that planning is a new invention or something that we have never done before, but I do, however, suggest that the time is ripe for the European region to come together with their colleagues at Foseco International and to discuss, fully and frankly, their plans in the hot-topping area for the next two years.

Heading systems for steel ingots are by far the largest single business area in the whole Foseco Group as well as offering considerable potential for future growth. Now why do I believe that hot-topping offers us considerable potential for future growth in an area where many would say that our market share was approaching its likely maximum? I give you two reasons for this; firstly, it is not always appreciated that steelmaking is a growth industry. Not a glamour industry this is true, but an industry that has shown consistent growth and that in all probability will continue to grow. In the ten years 1958 to 1968 world crude steel production has increased from 308 million to 530 million met tons - an annual average rate of 5.6% - 360 million tons in countries served directly by the Foseco Group.

The International Iron and Steel Institute has forecast an output of 600 million tons by the early 1970s, so growth rates are expected to be maintained. In addition to this I believe there is an undeniable tendency for the proportion of hot-toppable steel to grow throughout the world as the demand for alloy steels and generally higher quality steels increases. Thus despite what continuous casting may or may not do in the future, we are today enjoying a period of built in growth.

The second reason for my confidence in the future lies in the subject matter of this Conference itself. We are the market leaders, we are the people with new ideas as illustrated by this agenda that you have before you. Further, there is a considerable weight of evidence that, whilst in some countries we may be under pressure ourselves, the pressure on some of our competitors has resulted in a real and, I trust, lasting deterioration in their market position. Within the European region during the last two years or so, Vallak, Fonderit and Conti Erz have all lost a great deal of ground. Some of what these competitors have lost has not come to us and now we must tackle the stronger and more sophisticated competitors. The stakes are getting bigger and now is the time for a really agressive thrust into competitive territory. Now is the time for positive planning and positive thinking. Do we really know as much about our market as we should do? In all cases we know who has the business at a steelworks and hence an approximate picture of our market penetration: but, do we know what motivates each customer to buy the hot-topping materials he uses? Until this is understood, and price can only be one factor, and not the vital factor, or we would have much less business than we have today, it is difficult to build a product plan and it is certainly a basic reason why the direction of our technical development efforts are sometimes ill-defined. Without forward planning, we shall forced to alter our business course in response to competitive pressures rather than as a result of exploiting a series of planned business opportunities.

That is what this Conference is about.

a result of the price ruling at this Conference will have a major effect on the profits of our companies over the next two years."

ITEM 8. CURRENT PLANS

Mr. Theis gave the German position. Additional information to the circulated text was the trend for Profax shown below :

Year	Tons Sold	Selling Price	Prime Cost
1964	3120	1400	693
1965	5777	1297	638
1966	5827	1190	566
1967	6164	936	581
1968	9037	805	492
1969		734	460

(The Selling Price and Prime Costare in DM per ton. Sterling exchange rate DM 11.1 until 1967 and DM 9.6 after).

The picture was one of growing penetration with a decline in selling prices. An ingot by ingot survey has been done which showed 1,371,000 tons of killed steel per month, of which 24.5% was headed by means other than insulating or exothermic heads. Foseco had a 31.4% market share, followed by Daussan 14.3%, PaHaGe and Oelschlager both had about 10.5%, Conti Erz 8.8%, Steibe 8%, Lungen 4%, Hagenburger 3.7% and six other competitors shared the rest of the market.

Competitors' margins were going down as well as ours and the aim was to get larger shares of the market and expand all divisional business to get a maximum return. Product management was being introduced and a revision of long term investment planning, including the build up of staff was being carried out.

Mr. Hilton gave the position for Holland in a circulated paper.

Mr. Walrave gave the position for Belgium and Luxembourg and Mr. Duchateau gave the position in France, both items being circulated to delegates. The position in Austria and Spain was given by Mr. Balling and Mr. Sanchez respectively in circulated papers, and the Italian position was given by Mr. Pellanda, a copy of his contribution being attached to these Minutes.

The U.K. position was given by Mr. Hughes, notes of his speech also having been circulated.

Mr. Beckman gave the Scandinavian position as follows :

The market comprised 40 steelworks, 5 of which produced more than half a million tons per annum. The potential for hot topping was 3 million tons of steel annually, or 10 million Swedish Kroner (£=12.4). He referred to the competitive methods originating in Sweden, Tigerschiold and Vallak, which E. Box had replaced to the extent of now having 65% of the market. Tigerschiold was used in two works. E. Box had now got the S.K.F. account although the competitive Tiberg head was invented by and used in the group. He foresaw continued sales expansion but at a somewhat slower rate. Vallak was the main competitor having 30% of the market, and there was the danger that this competitor might cut prices to get more business just to keep his factory running.

May I remind you that the decisions we shall, all of us, make ... a result of the proceedings at this Conference will have a major effect on the profits of our companies over the next two years."

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The threat of continuous casting was not serious, only about 9-10 thousand tons being produced per year. E. Box was still using the original Sandviken recipe which was changed to olivine in 1964. 35 types of one-piece heads were in production from 7 to 21" square, 160 slab assemblies, all with corner pieces, covered ingots from 2½ to 18 tons. He did not see any problems for the next two years and expected the same rate of profit.

The Chairman said the following points were quite clear. Prices were under pressure and in some countries there was a definite demand for higher quality products. On the other hand, there was the impact that Profax 20 and Kalminex, both of which were discussed fully later, would have on the market. Opening the discussion, he asked whether technical or commercial reasons lay behind the French company being strongest on slab ingots, somewhat weaker on ingots in the 3-5 ton range and weakest of all on small ingots. As opposed to this the U.K. were strongest in the 3-5 ton range and weaker on slabs.

Mr. Duchateau said that the small ingot market lay in the South of France where Doittau had a factory. Profax was not suitable on these ingots and up to now we had had no new technique. The real start with Profax was made in the 3-5 ton ingot range where exothermic heads supplied by the competitors were replaced, although the competition had later re-entered the market with insulators. Five years ago, French performance on slab ingots was poor while German performance was good. They then tackled the slab market where no heads of any description were being used and solved the floater problem, floaters running at 2-3% maximum. At Dunkirk they were less than 0.1%. It was only at Usinor Denain that they had not had a good share of the market but they expected success with their olivine recipe. (The French method for overcoming the floater problem was described in Market Review No.34 issued in December 1965).

Dr. Davies said that they had removed asbestos from recipes and more floaters occurred as a result. Ferro-board which contained 8-10% asbestos had a better record for floaters. The earlier method of costing and getting a certain contribution per ton of product meant that the contribution in the slab ingot field was appreciably higher than in the mill ingot field. They had made their profit earlier, but to some extent they had to pay for this later as it left them vulnerable to competition.

Mr. Hilton said that the German company was strongest in the slab ingot field. Cheap side linings and Kalmex type materials were in widespread use on mill ingots and there were numerous small competitors supplying this market.

Mr. Edmonds said that the Japanese company was strongest on slab ingots, had a reasonable share of medium weight ingots and a poor share of small ingots. Competitors from other fields of activity found it easy to enter this market and they also competed in the medium weight range. On larger ingots only we and a few other competitors could make either in the size or quality the market demanded.

ITEM C. THE PLACE OF THE PRODUCT PLAN

Following the presentation by Mr. Macnair of his paper previously circulated, the Chairman stressed the vital importance of having adequate market information.

In the discussion that followed, Mr. Beckman said that E. Box produced at the lowest price. His opinion was that Foseco were very strong on the selling side, but weak from the engineering point of view. Mr. de Brabant said that a recent survey of Profax costs showed these to be generally the same from one company to another and the Chairman said that E. Box were cheaper on the recipe and had the lowest production costs, but also that they had very low selling prices. Returning to market information, he said that apart from clear statistics, it was important to know what made a customer decide to buy a particular product. Mr. Bushnell agreed and said that price was always used as an excuse for not getting a sale, but other factors must be involved.

Mr. Edmonds said that the position in Japan was different to that in other countries as their knowledge was limited to what the customer decided to tell them, and for the rest they had to make intelligent guesses

The Chairman asked what value the U.S. company had found in their market analysis and Mr. Macnair replied that it showed that however good a product, the location of manufacturing facilities was of great importance. Replying to Mr. Boblet who asked what use F.I.L. had made of the American survey and why others should be expected to do the same exercise, he said that the main object of the survey was to provide a basis for product planning and eventually it proved of the utmost value in identifying the market for Mink Stole. Replying to Mr. de Brabant, who asked how accurate our information on Vallak proved to be after the acquisition was made, Dr. Davies said that our information on them had not been so correct. Vallak was found to know less of the market generally and their long term planning was not so good. Where firms insisted on two sources of supply, Vallak would be used to get the second supplier position and they were taking joint action against Perroboard to maintain prices. In reply to a further question, he said that as long as anyone with sufficient money was able to set up in competition outside the Sandviken patent, Foseco could not be considered to have a monopoly position.

The Chairman ended the discussion by saying that at all events the competition was the main sufferer, and he then re-emphasised the need for knowing the whole market in the fullest possible detail.

ITEM D. EXECUTING PART OF A PLAN

Dr. Davies spoke on the Project Manager concept. The system of product management responsible for the whole area including selling was not suitable for an operating company. Project management however, with full responsibility from the basic idea to the saleable product had proved itself in the Kalminex/Feedex profitability study and they were in the process of extending the idea to other projects. An individual was given total responsibility internally and externally, including all manufacturing aspects and prototype plantproduction if this were involved. It was good for representatives to come inside and work with the technical department. The U.K. company had a Feasibility Committee which studied problems, their possible solutions and the profitability of supplying products to meet these various needs.

... [illegible] ... but at one acc[illegible] a marginal yield incr[illegible] of 0.5% had [illegible] as yet been sufficient to [illegible] the business back.

Mr. Walrave said tests in Belgium with Profax 20 from the U.K. gave no improvement in yield over Profax 50, but Profax 10 did. They were now testing German Profax 20.

Mr. Macnair drew attention to the excellent test results given by German Profax 20 in tests conducted at F.I.L. according to the C.N.R.M. method of testing insulators. These results are shown in hi[illegible] paper G2 (c).

Mr. Edmonds said that in Japan they had discarded the facing s[illegible] that they now had a lightweight Profax. It was thought that such a product should be suitable for mill ingots.

The Chairman said that we had established a technical lead and it was now up to us to get out and exploit it.

2. An In Situ Scheme based on Mink Stole

The text of Mr. Nancarrow's contribution was circulated. In t[illegible] discussion that followed Dr. Davies said that a need for the future a[illegible] specific works had been identified and a solution provided. Unlike th[illegible] Tiger method, the profit would be in the product. At this particular works, the time factor would be all important as fixing and nailing Profax slabs was too slow for the new time cycles.

Mr. de Brabant asked if the customer had committed himself to [illegible] long-term contract with Foseco, and Dr. Davies said that as we made th[illegible] profit on the product and not the plant, there would be no long-term contracts. Mr. de Brabant suggested that we should provide full in si[illegible] hot-topping service providing labour etc., but at least in the U.K. un[illegible] pressure had made the nationalised British Steel Corporation agree not use contractors in steelworks. Mr. de Brabant then asked if we should lease instead of sell the applicator, and Mr. Nancarrow said that pate[illegible] had been applied for as there were possible novelties, including the f[illegible] that the material was applied to the applicator outside the mould. In reply to Mr. Duchateauhe said that the intention was to use head me[illegible] and that the system should be working by the end of the year. It coul[illegible] worked in side-by-side with conventional slabs which would then be pha[illegible] out. Some modifications were being made to the applicator and it was hoped that one applicator could be made to fit two or more mould sizes

Mr. Anderson asked about tying up the supply of fibre and Mr. Chappell said that the U.K. company had made an exclusive agreemen[illegible] with the one supplier of fibre, although no doubt within a few years' there would be similar materials on the market. Mr. Macnair pointed o[illegible] that with our present machinery we could already make blankets and tha[illegible] the contribution in the U.K. should be greater than from Profax 10. There was some discussion on adhesives where much development still ne[illegible] to be done. The co-operation between F.I.L. and the U.K. company on t[illegible] project had been excellent.

The Chairman said that the particular U.K. works had reached a decision of a choice between a rapid heading system or no hot topping. The position at this works would be reviewed at the end of the year, b[illegible] in the meantime all companies should go ahead with Profax 20 which was available now.

ITEM 6. MILL INGOTS

1. Profax 52 - Sintering Profax

The notes for Mr. Hughes' contribution were circulated. In the discussion that followed he said that where Profax 52 replaced Profax 10 the price would be increased as the customer got some extra benefit. Salesmen could exploit the product by making customers dust conscious and then providing the remedy. Mr. Vincent said that the residue came off during the first passes in the mill and it was not rolled into the bloom. The works preferred manufacturing this recipe to Profax 10 because of reduced scrap. The recipe could be used where "soft" corner pieces were a problem.

Mr. Duchateau said that the problem in France was associated with soaking pit contamination more than with dust. In fact works wanted the residue to drop away on stripping so that there was no carry-over to the pit. Changing to a coarser grade of filler gave them less of a dust problem than 5 years ago. Mr. Hughes said that olivine was being used by different companies on different grounds: in the U.K. because of silicosis, abroad because of slagging problems in the soaking pits.

Mr. Hilton said that there were few complaints on health grounds in Germany and he wondered if the unions were more powerful in the U.K. Mr. Hughes replied that the new Steel Corporation was even more health conscious than the previous individual works, and perhaps some of this attitude could extend to Europe. Mr. Theis agreed.

Mr. Hughes said the cost of converting two machines to have their own re-circulatory system was £4,000 and the new product should be used to hold or improve prices. Mr. Chappell pointed out that the costs given in Mr. Hughes' paper were high because no re-circulation had been practis at that time, but this would bring a reduction of about £2 per ton.

2. Good Strip and Non-siliceous Profax

Mr. Duchateau made a contribution which is circulated with these minutes. He was followed by Mr. Pellanda whose paper had been previously circulated.

The Chairman asked if anyone could give the Italian company assistance and Mr. Duchateau said that chamotte fused with iron oxide and that olivine was the only answer. Mr. Pellanda said that chamotte had been tried but gave a worse sulphur print, although it had solved a problem at Dalmine where silica sand residues had made flame cutting of the heads difficult. Mr. Chappell advised that they should go back to the original Sandviken recipe and get the residue to fall away in th casting pit. PF resin caused semi-sintering. Mr. Beckman said that hi experience was that about 10% of the slab thickness remained on the hea to be carried over to the pit but this did not come away until the ingo was rolled. Mr. Hilton said that their EP.3208 recipe used at Hoogoven caused 10 to 15% of the head to remain adhering to the ingot. The stri was very good and the recipe was one with silica, low paper content, wo flour and coke dust.

The Role of Asbestos

Mr. Macnair's contribution was previously circulated. Photos of simulated head surfaces according to the C.N.R.M. type of tests were issued and he mentioned that the grading and selection of fillers in the German recipe were probably important. Asbestos in the skin of the slab gave high hot strength so that the slab did not crack even though it contracted. Slag wool/paper recipes gave slabs that were compressible and which slagged but without metal penetrating. A rigid slab such as the German N1 which was high in organics presented a slab face which shrank, cracked and allowed metal to penetrate. The answers seem to be to have high strength through the use of asbestos or to use compressible slabs.

Regarding the pit problem, the answer was a non-siliceous filler or good strip of the total material, in which case asbestos would help. There seemed to be two schools of thought on the roles of PF and UF resins. The other solution was a sinter recipe such as Profax 52 which adhered completely to the head.

Mr. Beckman said that the best strip was given by a recipe containing silica sand and blue asbestos. Using this recipe they had been able to see on the ingot head the gauze marks from the tool. When they changed to olivine the strip was worse. Fibre-glass had been tried as a substitute for asbestos but it was expensive, and of course silica was again introduced by the fibre-glass.

Mr. Chappell said that alumino-silicates were the nearest to asbestos. They had looked at fibre-glass which was better than alumino-silicates but its use was uneconomical. Slag wool had been tried but this gave an inferior product.

Mr. Pellanda referred to the high fibre Daussan recipes which at Italsider Taranto gave good strip and no penetration on a 50 ton ingot. The same competitor's vacuum formed heads for tube ingots at Dalmine were flexible and gave a very good strip as opposed to our own. Our experiments with fibre-glass were not complete but our heads were not so good as those from Daussan.

Mr. Duchateau said that two high asbestos recipes with varying amounts of PF resin and wheat-flour binders were being tried. They were to investigate the role of PF resin on strip. He emphasised the importance of good curing drying, as residual moisture led to cracking.

The Value of Improved Head Surface

Mr. Chappell made a contribution which was circulated.

In the discussion which followed Mr. Duchateau said it was essential to be able to use head metal. This was especially the case where fixed volume heads were used at different chill lengths. At Dunkirk, head weights had been increased and pouring was now done by weight with the help of the visual crane recorder. A firm making aircraft steels which had previously not used head metal had done a full metallurgical investigation and found the same properties and had now decided to use head metal. In low carbon sheet qualities the plastic deformation was such that there was no shoulder defect, and so the head surface and sub-surface condition must be perfect so that head metal could be used.

Mr. Sanchez said that in Spain all customers use head metal, even down to 400 kilo ingots where the ratio of reduction in rolling was low.

Mr. Beckman said that head metal was used but that it must be good, especially corner pieces.

Mr. Cartwright suggested that the ideal situation would be to design heads so that the rolled out shoulder coincided with the crop to clear pipe and segregation. In such a case, the head surface was of no importance.

Mr. Macnair asked if shoulder defects precluding the use of head metal were caused by entrapped mould fluxes used in bottom pouring. Mr. Hilton said that there was a large proportion of bottom poured steel in Germany and this was the case. Mr. Macnair said that the shoulder could be eliminated by using thinner slabs, or by shaping the end of the head with thick slabs. Mr. Hilton thought however that head geometry was difficult and therefore the answer must be in thinner slabs.

ITEM E. FORGING INGOTS AND ODD-SHAPED MOULDS

Mink Stole and Applicational Techniques

Mr. Vincent's report on Mink Stole development in the U.K. was circulated. Mr. Nancarrow said that forging ingots were the expensive end of the market where price would not be so important. There should be good opportunities for the use of blanket type products to face brick heads.

Mink Stole in the U.S.A. FOSECO 1425

Mr. Macnair presented a paper prepared by Mr. K. Cooley of Foseco Inc. He summarised by saying that Profax would not be replaced by a single product. Mink Stole was a low density product with the advantages of flexibility and high hot strength which could open up a whole new range of products. Profax 20 was seen as the replacement on slab ingots for the immediate future followed on by Mink Stole. As Mr. Vincent's report showed, it could also play its part on mill ingots to reduce surface/shoulde defects. For forging ingots and other odd shapes it was very applicable. The same applied to vacuum poured and consumable arc electrodes for which a large market existed in the U.S. We must do thorough market research for opportunities elsewhere. There were also outlets in steelworks other than for hot topping applications. Other companies should do nothing howeve until the position with the introduction of a system at S.C.O.W. was known, by which time U.K. work on mill ingots should also be complete.

In the discussion which followed, Mr. Chappell said that spraying of fibres was a good second line of approach. There was a very large market for fabricated fibre shapes of all types.

Mr. Hilton pointed to a market of 1 million tons of forging ingots in Germany using brick or rammed exothermic heads.

Mr. Emmott said that the size of heads used for forging ingots was governed by the requirements for manipulation. Could we persuade forge-masters to alter their manipulating equipment? Could we improve centre line quality? Must we protect the brickwork and how much could be saved?

Mr. Hughes said that as many ingots were made for outside customers, re-education would be difficult, and Mr. Vincent said that the cost savings were not yet established, but customers were coming to the U.K. company for fibres as bricklayers generally were not popular in steelworks. Some re-design of headboxes would be necessary. There were no regular sales on forging ingots as yet, the programme here being slow due to pressure of other work.

Mr. Chappell said that Profax had been used on forging ingots in the U.K. but it was not economical. Mr. Duchateau said that in France they were using CO_2 Feedex and segmented Profax. This consisted of 2 standard elements and three keying pieces with which ingots from 5 to 30 tons could be headed. There was however a problem in vacuum casting.

In reply to Mr. de Brabant, Mr. Macnair said that as yet there was no sign of a move of fibre suppliers into the hot-topping market, but no doubt some of them must be thinking of supplying the end-user.

The Chairman said that the forging ingot market offered new business opportunities with this new type of product. It could benefit from having a Project Manager and possibly Germany would be the best country in which to make a start.

ITEM I. SMALL INGOTS

1. Kalminex and Low Density Insulators

Mr. Meumann read the circulated contribution and stressed the fast rate of output and dimensional accuracy of the manufacturing process. To save on transport costs, heads could be made as one piece and stripped in two halves. The next move was to go for tyre moulds where refractory heads were at present used and a full potential assessment was to be made.

Mr. Sanchez said that 55% of the Spanish potential was in ingots below 1 ton in weight where 8-piece assemblies were now being used.

Mr. Theis said that the German company had appointed a Project Manager and there was good positive reaction from the customers who welcomed something new. There was a market of over 150,000 tons per month in ingots below 2½ tons in weight.

Mr. Hughes gave the effect of profitability in the U.K. where the contribution would be almost doubled, all costs including depreciation having been taken into account. In 1968 the Feedex market was £195,000 and the contribution figure £48,000 or 24.2%. The projected contribution with Kalminex on the same turnover was £99,000 or 46.5%. There were some tooling difficulties and Mr. Beckman offered the facilities for tool making at E Box.

The Chairman said that Mr. Meumann already had a programme of visits to companies including the U.S. and Canada, and that all moves must be carefully co-ordinated.

2. The "Cherry" Process

A paper describing this process for making heads had been circulate and Mr. Meumann reported briefly on a trial comparing Kalminex with "Cherr heads. His opinion was that, given a sensitive Ferrux, acceptable feeds could be produced by them.

Negotiations being conducted are highly confidential and the feeling of the meeting was that if a reasonable deal could be made, then we should make some agreement. The Chairman pointed out that if this were done, then we were under an obligation to sell the material.

COMMUNICATIONS

Inevitably the handling of information was raised from time to time and for convenience the various points made are summarised here.

Mr. de Brabant asked for monthly intelligence reports for senior management which would give an overall review of the competitive situation and include such things as warnings of possible RM shortages or price movements.

Mr. Balling asked for more commercial and possibly less technical information. Statistics showing individual and group performance for 1968 and forecast for 1969 had not been circulated. Mr. Theis also asked for such statistics to show what products were sold where. Mr. Bushnell said the old system of divisional monthly reports was good.

Mr. Edmonds stated that the appointment of a special technical communications officer had led to greatly improved communications with F.I.L.. Mr. Chappell mentioned getting a price from France for Ferrux 30 which seemed high until it was subsequently found out that the density considerably lower than that of U.K. Ferrux 300.

A discussion on F.I.L. doing inter-company liaison was resolved a statement that for new products F.I.L. would perform this role, for existing products the only satisfactory answer was for operating companies to visit each other and see for themselves. Otherwise F.I.L. would only be transmitting second-hand information. The Chairman had earlier said that all companies asked for more information, but were slow in supplying it. If nothing came in, nothing could go out. He closed the discussion by promising a study of the whole communications problem.

ITEM 3. SUMMARY

Mr. Macnair went through the major points in companies' plans. In Germany, project management would be introduced. The in situ application was seen of great importance to the market in Holland. The Belgian company were in a position different to other companies, as they were dependent on supplies from France and Germany. In France their weaker position in the medium size ingot would be tackled by introducing Profax. The Austrian company looked to good personal contacts to maintain their share of the market and were planning to attack the 10 to 15% of steel not using pre-fabricated heads. The Italian problem was one of product quality; until the product was right, there was little scope for planning. The U.K. company intended to cover the market with a diversity of products for particular applications. In Sweden there were great possibilities for one piece Kalminex and they intended to further rationalise production.

He then made the following points : FOSECO 1427

1. The need for an accurate market survey which included the reason why a customer bought a particular product. He requested that the ingot survey forms should be completed and sent to F.I.L. and stressed the importance of knowing exactly how a customer assessed yield.

2. The benefits of project management had been demonstrated and the desirability of a Project Manager for forging ingots had been discussed.

3. The importance of improving communications had been stressed and he asked that full details of recipes and product characteristics should be given to the Technical Records Officer at F.I.L.

4. The role of Group purchasing had been mentioned with particular reference to keeping companies informed of R.M. fluctuations.

5. He thanked all contributors for the thorough preparation of their papers.

6. The meeting had been called to discuss product planning which was the only basis on which investment and all other commercial decisions could be made. A subsidiary aim had been to raise the morale of Steelworks Divisions by showing that there were new product developments to maintain and extend our share of the heading business, and three of them were available now.

The Chairman closed the meeting by saying that although Profax prices were falling, it had been shown that prices in the U.K. have been improved by the introduction of Profax 20 and 32.

JFC/NFJ
June, 1969.

COST ANALYSIS

Product Displaced		Fiber Product Replacement			
Description	Selling Price	Description	R/M Cost	Total Make-Up	Selling Price/ Margin
1. 22^2 - 8pc Profax® (28 lbs.)	$ 5.95	One-Pc. ½" (4.5#)	$ 1.58	$ 1.70	$ 5.95/40
2. 25 x 41 4pc w/Spring Ring (36 lbs.)	$11.55 + $3.50(Ring)	One-Pc. ½"	$ 3.15	$ 3.50	$14.75/50
3. 22^2 1pc Profax H.B. Liner (32 lbs.)	$ 4.94	Same Shape ½" Fiber	$ 2.80	$ 1.90	Not Practic?
4. 12^2 Exo-Dol., 6½ lbs. Feedex®	$ 3.00	1/4" Fiber Liner (Wet)	$ .21	$ .20	$.55 to Eureka Replac.$.72 F
5. 32" R Exo-Dol.	$15.60	32 x 18 x ½ Sleeve	$ 3.85	$ 2.00	$14.65/55
6. 27" R Exo-Dol.	$15.00	27 x 16 x ½ Sleeve	$ 3.25	$ 1.90	$12.85/55
7. 17" R Exo-Dol.	$13.00	17 x 15 x ½ Sleeve	$ 2.25	$ 1.80	$10.15/55

The above examples show that EP-3919 is totally impractical as a replacement for a Profax® One-Piece H.B. Liner (No. 3), but is desirable business in examples 5, 6 and 7.

In the case of No. 2, an expensive hardware application can be replaced by a fiber top requiring no hardware.

An examination of the potential market indicates that the first area of effort should be the circular or fluted molds for electrode ingots or forging ingots. Here the fiber offers a better, novel hot top and the going mold price is high enough to give a very desirable contribution factor. The electrode market alone in the U.S. is estimated at between $350,000 and $500,000 per year. Very little of this market is presently available with Profax.

BAR .....

GENERAL REMARKS 1) MOTIVATION FOR PURCHASE. Is the key factor, technical (e.g
Is the proximity of supplier imp

2) TECHNICAL DETAILS a) Production Types of furna
b) Casting Track times, t
c) Yield Assessment How do they as

SIDE LININGS

	← CASTING DETAILS →				←
MOULD NOS	MOULD TYPE/CATEGORY	BSU/ BED	T.P./ B.P.	BOXES/ PIT	INGOT WT.	SUPPLIE MATERIA
A						
B						
C						
D						
E						

ANTI PIPING COMPOUNDS

	← AFC DETAILS →			← POTENTIAL	
MOULD CODE	SUPPLIER/ MATERIAL	THICK-NESS	APPLIC-ATION WEIGHT	WEIGHT/ AREA/M	VALUE/ WEIGHT
A					
B					
C					
D					
E					

: or solely price - or are there political factors, bribery etc?
mportant is it to have two suppliers?

es; types of steel cast, types of product made; future expansion (i.e. closure) plans.
es, soaking pit capacities, stripping methods, temperature of moulds.
re they capable of appreciating yield improvement? Can they/do they use head metal etc

TOP DETAILS →					← POTENTIAL →				
S	GROSS VOLUME	ASSEMBLY TYPE	YIELD	HEAD WT.	UNIT PRICE/ HEAD	TONS/ ANNUM	HEADS/ ANNUM	VALUE/ ANNUM	PENE- TRATION

There is a fair weight of evidence to show that blue asbestos (Crocidolite) is more hazardous than the white form (Amosite and Chrysotile). Also, nearly all hazards can be eliminated by good dust control and extraction machinery. In any working area the extent of the hazard is related to the quantity of fibres in a given volume of air, to a scale as follows :-

Level	Fibres/cm^3	Action
Negligible Low	0 - 0.4 0.5 - 1.9	No need to do anything.
Medium	2.0 - 10.0	Dust control necessary.
High	> 10.0	Full respiratory units must be worn.

In 1957, the ASBESTOSIS RESEARCH COUNCIL (C) was formed, publishing codes of practice and working with Government Departments in drawing up new legislation etc. A new Act of Parliament will be issued in May 1970, the first draft having been significantly revised by discussions with the Council.

The Council has set up various Environmental Study Groups to look into special industry sectors - viz. Building and Shipbuilding, Electrical and Engineering, Dock Handling, Textile Weaving.

(N.B. I asked the Chairman of the Environmental Control Committee, privately, if any study was planned for the Steelworks Industry. He said "No", and was apparently quite unaware that asbestos occurred in steelworks at all).

In general, British legislation and health regulations are considerably more advanced than those in any other country.

2. Publicity and Public Relations

Starting in 1966, there have been increasingly sensational disclosures by the British Press on the health hazards of asbestos, culminating in a highly provocative television programme by the B.B.C. To counter this on behalf of the U.K. asbestos industry, the Asbestos Information Committee was formed in 1966, who employed a professional public relations firm to assure the public and publish factual information on the problem.

- continued -

3. The European Situation

One speaker summarised the situation as being one of "uneasy calm on the part of Governments and Industry". So far there has not been widespread Press coverage as in the U.K., but it is significant that the first "scares" in England originated in the docks, in view of recent happenings in HOLLAND.

A certain Dr. Stumphius (?) associated with the Rotterdam Docks, wrote a very good and unbiased technical report early in 1969 on the health risks of asbestos. He then gave a rather sensationalised press conference, which was given prominent reporting by a "responsible" Rotterdam newspaper. Perhaps stimulated by this, a further medical report is now being prepared for circulation throughout the O.E.C.D. All this has triggered off medical interest in FRANCE, and doctors are starting to look deliberately for Mesothelioma tumours in asbestos workers. There is also a plan to set up a special research unit similar in function to the Asbestosis Research Council.

4. Conclusions

There are health risks associated with the handling and use of Asbestos, particularly Blue Asbestos, nearly all of which can be eliminated or strictly reduced by sensible and responsible precautions on the part of management and individual workers. The awareness of this and the importance attached to it in other countries will depend most likely on the activities of the Press and television companies, but if the U.K. is anything to go by, this can have an effect far beyond that justified on medical evidence alone. It may or may not erupt in Europe (or elsewhere) and the Chairman closed by advising asbestos suppliers in Europe to form a "counter publicity" unit such as the Asbestos Information Committee in U.K.

J.M. MACNAIR
(Product Manager : Heading Systems)
Steelworks Division

NOTES

A. Asbestos Information Committee. Formed in 1966 by a syndicate of the three major U.K. asbestos suppliers, e.g. Cape Asbestos Ltd., Turner and Newall Ltd and the Central Asbestos Co. Ltd. They employ Messrs. Hill and Knowlton (U.K.) Ltd as Public Relations advisors.

B. The proceedings on the Conference will be published in English only. They will not now be available until January 31st, 1970.

C. The Asbestosis Research Council was set up by the U.K. Asbestos industry in 1957, with the object of sponsoring medical research and publishing data and findings etc. It works closely with Government departments but is not directly subsidised or supported by the Government.

FOS-00-0000022938

Conference Chairman
Mr. G. S. Sutcliffe, Chairman,
The Asbestos Information Committee

Louis Room,
Café Royal, Regent Street, London W.1.
Thursday 13th November 1969

"Asbestos and health - a problem for Europe?"

09:15 — 09:45	Delegate enrolment	
10:00 — 10:15	Introduction	Mr. G. S. Sutcliffe
10:15 — 10:45	The Medical Background	Dr. W. J. Smither, Medical Consultant, Asbestosis Research Council
10:45 — 11:05	Discussion	
11:05 — 11:30	Coffee	
11:30 — 12:15	British Legislation and the Industry's Response	Dr. S. Holmes, Secretary, Asbestosis Research Council Mr. A. A. Cross, Chairman, Environmental Control Committee, Asbestosis Research Council
12:15 — 12:45	Discussion	
12:45 — 14:15	Elysee Room, Café Royal Refreshments and Luncheon	
14:15 — 15:00	Handling the Public Relations Problem	Mr. W. P. Howard, Secretary, The Asbestos Information Committee Mr. C. H. Mann, Vice-Chairman, Hill and Knowlton (UK) Ltd.
15:00 — 15:45	Discussion	
15:45 — 16:15	Tea	
16:15 — 16:45	The Situation in Europe	Mr. M. F. Howe, Deputy Chairman, The Asbestos Information Committee
16:45 — 17:15	Final Discussion Period	
17:15 — 17:30	Final Comment and Summary	Mr. G. S. Sutcliffe
20:00 for 20:30	The Asbestos Information Committee Dinner, The Ballroom, Claridge's, Brook Street, London W.1.	

FOS-00-0000002939

Conference Chairman
Mr. G. S. Sutcliffe, Chairman,
The Asbestos Information Committee

Louis Room,
Café Royal, Regent Street, London W.1.
Thursday 13th November 1969

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