

you are all aware.

2. They will indemnify you against third party claims resulting from defects in the design of your product.
3. Warranties can be limited to correction only of defective data which you might furnish.
4. Indemnification by you for any infringement of local patents will be waived without too much fuss.
5. If you can reasonably demonstrate the need, they will purchase necessary in-country technical assistance in support of the licensed production of your product. (This is an extremely important matter, since if you don't sell such assistance and, for any reason, your licensee gets in trouble, you will soon find yourself being pressured by DOD to give whatever help is necessary to solve the problem.)

While you can't count on getting all of these goodies all of the time, you can, with a little luck, usually get most of them.

In summary, I suggest the following approach to the foreign licensing of your military products:

1. Be sure you know exactly what rights you have *vis-a-vis* those of the U.S. Government.
2. Make your peace with DOD regarding development cost sharing — if any.
3. Be scrupulous in observing the requirements of the International Traffic in Arms Regulations.
4. Make your peace with the Department of Justice, if necessary.
5. Be alert to applicable FEC antitrust regulations when dealing in the Common Market.
6. Be alert to the problems of local law.

If you do all these things, you should have a base for a reasonably trouble-free and profitable foreign military licensing program. I wish you great success — so long as your product is not in competition with one of ours.

**About the Speaker: John H. Martin has been Chief Counsel of the Lockheed Aircraft Corporation since July 1971.*

He has been with the Lockheed organization since 1957, first as assistant counsel in the corporate legal department, then, 1960, as chief European counsel, headquartered in Geneva and responsible for all corporate legal matters on the continent. His was the legal responsibility in negotiations during that period which led to the F-104 consortium with NATO countries — West Germany, Belgium, Netherlands, Italy, Canada, as well as the U.S. — co-producing the jet Starfighter. This was to be the largest international weapon system development and production program ever undertaken, 1962 — with Japan in the program, too — when the Lockheed jet was being produced under license in 7 countries on 3 continents.

Subsequent to his European assignment, Martin became Division Counsel for the Lockheed-California Company and served in that capacity until his election as Chief Counsel.

THE INTERNATIONAL LICENSING OF CHEMICAL TECHNOLOGY

by
John S. Copp*

The title of this talk is "The International Licensing of Chemical Technology". A fine title — a fine subject — *but* . . . I am carried back thirty-odd years when the War Office in the exercise of its well-known sense of humor posted me, who knew some Latin and Greek and a little law but nothing else, to the Corps of Royal Engineers. Short of losing me altogether the Engineers did the next best thing in sending me to Chemical Warfare, and my first job as a young officer was to deliver a lecture to a large audience of newly joined re-

cruits on "The Chemistry of the War Gases." I have a bad memory for numbers but one number I remember to this day — of that audience 41 held the degree of Bachelor of Science. In the last few days I have experienced the feelings that I had then. If only — if only — my audience knew less than I, what a good talk I could give.

You will not expect me to deliver a thesis on this subject — most of you could do this much better than I could — but what I want to do is to make a few general observations; of considerable obviousness, followed by a few more detailed points, in no particular order, which have bothered us from time to time.



John S. Copp

If I set these out so that they should like principles or rules, please accept them as principles or rules in my own thinking. I am not setting out to teach anybody.

When I sat down to think what I was going to say the first thing I did was to consider why there should be a talk on licensing of *chemical* technology. Does it differ in the licensing field from any other technology? Is there something different in the industry or in the technology itself? Well, it certainly innovates at a great rate, it is highly patent conscious and there's a great deal of licensing. When I'd got so far I remembered reading something that Mr. Shapiro of Du Pont had said and I looked back at it:

"The old days of licensing are over. Now you have to make the investment in plant on your inventions in order to get the best return."

That made me wonder what's different today. It always was more profitable to manufacture yourself than to take a royalty for teaching someone else to manufacture. There has, of course, been some change — quite a lot of it. Companies are getting bigger and bigger and (I think this is especially true of chemical companies) are getting more and more international — not only in the actual manufacturing process and in the choice of where to manufacture, but in the ability to move chemicals about. So there is a greater ability, because of a company's size and resources and its international character, for it to embark on manufacture itself wherever manufacture is needed.

There is another inducement to keep one's invention to oneself; look how Mr. Arnold made our flesh creep yesterday. The attack on the patents system — or rather on the freedom of licensing under patents — and on the ability to rely on confidentiality undertakings, in the USA particularly but in the EEC to some extent as well, certainly does not encourage a commerce in technology.

But I think we are not attending the funeral of technology

licensing yet. Before we can consider how far licensing is dying or how far it is changing direction, I think we have to break down the generalisation and look in more detail at the licensing picture.

There are three different classes of enterprises engaged in producing technology:

1. The Chemical Manufacturers
2. The Research Institutes — academic or industrial
3. Engineering companies which research to find chemical processes for sale to customers who with them employ their engineering skills.

The last two will certainly lead to licensing.

But innovation itself takes different forms:

First, the invention of a new product — either one leading to a new industry (taking examples from my own company: polyethylene and polyester fibre and film) or an extension of the range of an existing industry (pyridyl weedkillers; new heart drugs; a dyestuff which acts in a different manner).

Second, the invention of a new and better process for making an existing product (steam reforming process and low pressure methanol process; computer controls).

Third, new uses for existing products (polychromatic dyeing; sandwich moulding of plastics; electrocoat application for paint).

Fourth, the minor improvements to manufacturing processes.

Fifth, the minor improvements to processes which use the manufacturer's products.

Let's look at the major ones first.

I am reminded that the fashion magazine "Vogue" put out a print of Botticelli's picture of the arrival of the naked Venus on her shell with the warning "Buy nothing until you have bought 'Vogue'".

Don't rush into anything until you have a plan, and this applies to dealing with new technology as to most other things. The first point is that it should start as a manufacturing plan and only secondarily move into being a licensing plan. Maybe this is obvious, but what is less obvious is the need to set times. It is insufficient to say "Yes, we will manufacture in Country X and Country Y". What is also needed is to say *when*. Maybe the intervening time can be filled by licensing and this may well be advantageous if any exclusivity can be limited to expire when you want to go in yourself.

In considering the position in countries where there is a blank against the manufacturing possibilities, either totally or for the limited time I have just referred to, you should see why it was not on the list for immediate manufacture. Quite probably it was because you want to get experience with one plant first, but it may be that you lacked something — some marketing skill, some technical strength, some ability to raise money to set up legally a wholly-owned operation. In those cases can we find a partner who has the complementary skills or abilities? If so, a joint venture will preserve some manufacturing profit.

That is one licensing situation. Then one should consider licensing in situations where one cannot immediately obtain a manufacturing situation for oneself. Remember in this connection the time scale. Do not give a licensing exclusivity, either in time or technology, that will exclude you when you want to get in with your own manufacture. A small detail here. Don't forget the time that is required to build a plant and make sure that any exclusivity that is going to keep you out will not prevent you building a plant which can come on stream as soon as the exclusivity does expire.

Let me fill in some further detail in giving two of the reasons why one should have one's plans complete before rushing in with any promises to grant licences.

If the new product is likely to be an intermediate rather than an ultimate consumer product, it will probably be considered wise to ensure that the fabricated articles of the

customers of all licensees should be saleable worldwide without risk of patent infringement actions. If this is so, the point at which there is this freedom needs definition before any one of the licences is completed.

Another reason for having a complete plan before negotiating even one licence is that anyone licensing internationally needs to consider at the outset the likely impact of the competition laws of each of the countries in which he is going to license the invention in question. One may license in Country A and Country B on a pattern which is perfectly legal there, only to find, when attempting to carry the pattern into Country C, that there it is illegal, or at least doubtfully so.

While on this topic let me refer to two other characteristics of the Chemical Industry.

1. Tendency for larger and larger plants — long time building and very costly. When they first come into operation they are likely to have a surplus capacity which it will be profitable to fill in order to sell at marginal prices.
2. The general pattern of the industry is fairly rapid alternation of "overcapacity" and "undercapacity" and, because of the basic nature of the industry and its international spread, this causes severe injury not only to the manufacturers but to the economy generally.

The Licensor should therefore consider in his own business interests the effect that a big new plant which he is licensing is going to have on his own business.

This is touching on the very topical question of investment planning which is outside the scope of this meeting but its applicability to licensing is often overlooked.

Let me now turn to the situation of a major process improvement which your plan says should be licensed pretty widely because your own profitability is unlikely to be hit by other people using the improvement and therefore licence fees constitute additional income.

It may well be convenient and even more efficient to choose one or two engineering companies, instruct them and allow them to go out and sell the process, and of course their services with it. The agreement with the engineering company, and the setting up of operations under it, sets a number of problems which need careful working out. Indeed, any agreement with three parties involved presents problems of control and how far and where it can be exercised. The process owner will certainly wish to retain some say in who should be licensed and where and how the consideration should be paid — barter deals, for example, may suit the contractor but upset the process owner's own market plans. Then there are problems of confidentiality, of a catalyst supply and of possible feedback of start-up information. The process owner and engineering designer will need to know the snags that occur in the early plants. Any information exchange lasting beyond start-up will almost certainly present nearly insoluble problems.

This leads me into the bid situation where a number of enterprises are asked to bid for the provision of know-how and the building of a plant in one of the developing countries or in the Eastern European Bloc. We have been involved in a number of these in East Europe and we have built six plants in Russia and twelve in other East European countries.

As an aside, I was surprised to find that we have 368 live patents or applications in Russia.

Let me make some comments to supplement what Mr. Phocas said yesterday. Negotiations are long and arduous. They have to be because it is necessary to cover in the agreements so very many things that do not need to be dealt with in a Western agreement — fine detail as to the travelling and living conditions of start-up teams, for example, as well as the more obvious need to be exact in the definition of guarantees and the circumstances in which they are to be proved. Both we and the East European negotiators are getting better at understanding each other's position and

therefore getting better at negotiating. We originally had three party agreements — the state organisation, the contractor and the process owner. Now we usually do it as a two-party agreement — state organisation and contractor with the process owner taking part in negotiations but acting as supplier of information and backing up the contractor in the start up, etc.

As I have said, one has to get all the detail right and written into the agreement. Once you have got the detail right it has to be observed exactly by both sides — and it will be difficult to insert subsequently anything that has been forgotten in the original negotiation.

Do not underestimate the technical effort that will be required in doing the actual work — the training of those who are going to operate the plant, the supervision of construction and the start-up team. For the Fibres plant at Mogilev in Russia we had over 200 people there for more than two years. Remember at the time of negotiation that it will be some time in the future that one's own technical people are going to be required. This needs a considerable planning of technical effort, particularly if more than one such project is being planned at the same time.

Now to another field — that of licensing technology developed by a chemical manufacturer for use by his customers. Naturally he will have developed it in the hope that it will lead to greater use of his own materials and he will like to exert as much persuasion as possible to this end of his licensees. Of course, it may not be possible to tie in to the licence an obligation to use the licensor's materials and it is as well to recognise this. Best of all, I suppose, would be to invent a machine that, when fed with competitors' materials, makes a rude noise and promptly rejects them. However, I am not at all sure what view the FTC would take of such a device. If anyone finds out perhaps they would let me know. But, as I said, it is well to recognise where there is an inability to tie in and make a virtue of necessity. Our sandwich moulding process for plastics is a typical example of this sort of technology. We invented a machine which is covered by patents. The operation of the machine is also covered by patents and of course there is some know-how as well. We issued franchises to machine makers to make the machine. There was to be a fee for us and we provided training. We imposed an obligation on the machine maker to notify his customers of the need to obtain an operating licence from ICI and an obligation to inform ICI of the name of the customer. When we got an application for such an operating licence we charged a royalty but of course imposed no obligation to use our material. We also let it be known that we were prepared to enter into an agreement to give formulation know-how to other chemical manufacturers to enable them to formulate plastics which would fit the sandwich moulding process.

One of the greatest difficulties in licensing is that of an information exchange between the parties. You will all be familiar with the complications of drafting that such an exchange produces: the possibility of sterilizing both companies' operations by the intermingling of confidential information, the difficulty of providing or inhibiting a secondary information exchange between two licensees and, above all, the difficulty of defining the field of the exchange.

There will generally be a tendency for technical men to want information exchanges but I think the licensing executive should always start with a prejudice against them and be difficult to convince. They can be embarrassing in later years when perhaps patents have expired and production areas have changed and this may well outweigh any initial advantage there may be in a wider availability of improvement technology. When we were faced with this decision when we issued our original polyester fibre licences we decided against the exchange of any future technology and we think in retrospect that was wise. We did, however, provide for options for non-exclusive patent rights for a period

of years so that no one would be unduly inhibited. In the event, these options were not used.

Let me enumerate one or two other difficulties which have caused us concern.

1. The definition of the Agreement Field. This point is much more tricky than people sometimes suppose. I find a great tendency for the technical people to be content if they are sure that the boundary they draw round the field includes everything that they want to include and excludes everything which they wish to exclude. Such a line, however, is quite likely (and this has certainly happened in my experience) to include an area of no man's land which is not thought important at the time but which subsequently acquires importance as technology develops. The line should include *only* that which it is desired to include. Another thing that is frequently forgotten is to limit both the upstream and the downstream ends of the process that is being licensed.
2. Granting exclusivity over an unnecessarily large part of the licensed patents, thus precluding oneself from legalising the infringement of a peripheral patent — unimportant in itself, perhaps, to the exclusive licensee — by licensing.
3. Granting of semi-exclusive licences, where there will be considerable anti trust difficulties if, because of infringement or for any other business reason, it thereafter becomes necessary or sensible for further licences to be granted.
4. Failing to consider the impact on a technology exchange agreement of the take-over of your licensee by a rival manufacturer. The reverse of this coin, that is the acquisition by the licensor of another company with information in the field of the exchange, may also give rise to difficulties.
5. Above all, of course, make quite sure that your process works and will work on a commercial scale before you license it — unless of course it is being licensed as a development project.

A final word, which I relate to the whole thrust of this conference, "How to Make Money Licensing". We in ICI have always been proud of the size of our royalty income. In the past we have also been proud of the fact that it is many times the amount of royalty paid out. I am not so sure that this was right. You may well make more money by taking a licence than by the expenditure of time and money in trying to find the way oneself — indeed it is one of the first rules I think of licensing that both parties should think it a good deal and both should find it profitable.

**About the Speaker: John Copp is an English lawyer who qualified in 1938. After service in the army he joined the Legal Department of Imperial Chemical Industries Limited, where he is now Solicitor (i.e., General Counsel). His long experience in patent matters and licensing provide an ideal background for his discussions and lectures dealing with profitable licensing of chemical technology.*

**LICENSING EXECUTIVES SOCIETY
REPORT OF ANNUAL MEETING
OCTOBER 18, 1973**

by
*Richard G. Moser**

The ninth Annual Meeting of members of LES was held at the Sheraton Palace Hotel in San Francisco on October 18, 1973. It was a meeting of momentous import for the Society because it marked the reorganization of the Society into a truly international body.