

**STATE
VS
GEIGES, WISSER
KRISCH ENG**

**PLEA AND SENTENCE
AGREEMENT**

**TERMS OF AGREEMENT
RELEVANT FACTS PERTAINING TO THE
PLEA AND SENTENCE AGREEMENT
OF ACCUSED No 2: G WISSER**

**VANDEBIJLPARK
MAS 86/09/2004
PRETORIA PKRS NO:
763/02/2005
CASE NO: CC332/2005**

**IN THE HIGH COURT OF SOUTH AFRICA
(TRANSVAAL PROVINCIAL DIVISION)**

Case No: CC332/2005

THE STATE

versus

1. DANIEL GEIGES

**(A 67 year old male Swiss citizen and permanent South African resident,
residing at 525 Ysterhout Drive, Randburg)
(hereinafter referred to as Accused No 1)**

2. GERHARD WISSER

**(A 66 year old male German citizen and permanent South African resident,
residing at 30 Chesham Road, Bryanston)
(hereinafter referred to as Accused No 2)**

3. DANIEL GEIGES and GERHARD WISSER

**Directors of KRISCH ENGINEERING CO (PROPRIETARY) LIMITED
(Registration number 1971/001/681/07),
cited as representatives of the said body in terms of
section 332(2) of Act 51 of 1977**

**PLEA AND SENTENCE AGREEMENT IN ACCORDANCE WITH
SECTION 105 A OF THE CRIMINAL PROCEDURE ACT, NO. 51 OF 1977
AS AMENDED**

1.

The Plea Agreement

**WHEREAS Accused No 2 is charged with the offences set out in the Indictment
and Summary of Substantial Facts.**

2.

The parties to the above agreement are:

- 2.1 The State as represented by the National Prosecuting Authority in the person of Adv RC Macadam;
- 2.2 Gerhard Wisser, as described in the Indictment;
- 2.3 Advocate BC Bredenkamp SC, the legal representative of the accused, as instructed by Attorney P Krynauw.

3.

Authority

- 3.1 Adv RC Macadam, a Deputy Director of Public Prosecutions, attached to the Priority Crimes Litigation Unit in the Office of the National Director of Public Prosecutions, who represents the State, has been authorised by the National Director of Public Prosecutions to enter into this Plea Agreement and to stop the prosecution of Accused No 2 on Counts 3, 5 and 6 and to stop the prosecution of Accused No 3 on all counts.
- 3.2 Gerhard Wisser in his personal capacity.
- 3.3 Advocate BC Bredenkamp SC, the legal representative of Accused No 2.

4.

Legal Obligations of Prosecutor

The prosecutor confirms that before entering into the said agreement:

- 4.1 He consulted with the Chairperson of the South African Council for the Non-Proliferation of Weapons of Mass Destruction and the Minister of Minerals & Energy, which Council and Ministry are the complainants. The Plea and Sentence Agreement has their support. He also consulted with the South African Police Service.
- 4.2 He made the agreement with the necessary cognisance of the nature and circumstances relating to the offence, the personal circumstances of the accused and the interests of the community.

5.

Legal Rights of Accused No 2

Accused No 2 admits that he, before entering into the agreement, was informed that he has the right:

- 5.1 to be presumed innocent until proved guilty beyond reasonable doubt;
- 5.2 to remain silent and not to testify during the proceedings; and
- 5.3 not to be compelled to give self-incriminating evidence.

6.

Undertaking by the Parties

1. All the parties confirm that this document and attached annexures contain all the terms of their agreement, all the relevant facts pertaining to this matter and admissions made by Accused No 2.
2. All the parties confirm the correctness of all the facts stated in the annexure titled "Terms of Agreement".

3. The State and Accused No 2 agree that this agreement constitutes the final settlement of this matter and the State undertakes not to institute or proceed with any further acts against Accused No 2 for the offences in respect of which Accused No 2 has pleaded guilty and has been convicted in terms of this agreement.

Signed at PRETORIA on the _____ day of _____ 2007.

ADV RC MACADAM
PROSECUTOR

GERHARD WISSER
ACCUSED NO 2

ADV BC BREDENKAMP SC
LEGAL REPRESENTATIVE OF
ACCUSED NO 2

TERMS OF AGREEMENT

RELEVANT FACTS PERTAINING TO THIS MATTER

1. PREFACE

The facts stated herein are admitted by Accused No 2 either on the basis of his own personal knowledge or after he has been advised by his counsel that he may properly admit such facts. In the case of the latter, it is hereby confirmed that counsel for the State has properly discovered to the defence all the evidential material relating to such admitted facts. The correctness of the contents of all documents attached to this agreement is admitted.

2. TECHNOLOGY RELATING TO COUNTS 1, 2, 4, 7 & 8

2.1 These counts relate to centrifuge uranium enrichment plants.

2.2 In nature uranium mainly comprises of two isotopes in the proportions 0.7% U-235 and 99.3% U-238. The U-235 is the active isotope of uranium. Its proportion must be increased for the uranium to be used in either a domestic power station or a nuclear weapon.

2.3 Centrifuge enrichment plants are dedicated to the enrichment of uranium from 0.7% U-235 to approximately 4% U-235 for power stations and approximately 90% for a weapon. They utilize uranium in the form of uranium hexafluoride (UF₆) when undertaking this enrichment.

2.4 The first stage of uranium processing starts from a purified form of uranium known as "yellow cake". "Yellow cake" is simply the uranium compound sorted from the uranium bearing rock and other debris. The "yellow cake" is processed through an extensive "conversion" process in which fluorine is added to form UF₆. The UF₆ is stored in transportable cylinders ready for connection to an enrichment plant. No enrichment of the uranium has yet been undertaken. UF₆ has no other application other than for use in uranium enrichment.

2.5 The equipment referred to in Counts 2 & 7 is used from this point onward. UF₆ exists as a solid at normal temperatures and pressures. It is necessary to place the UF₆ cylinders in an oven to heat the solid material until it can be extracted as a gas. This is done in an especially designed or prepared autoclave to produce gaseous UF₆. Once in the gaseous stage, the UF₆ is fed under vacuum (this is the reason for the vacuum pumps) to

the centrifuges through a series of pipes known as cascade headers (technically defined as machine header piping systems).

- 2.6 Individually centrifuges only enrich the UF₆ by a small amount each time the UF₆ is fed through them, hence the UF₆ must be fed through many centrifuges for the desired enrichment to take place. Consequently, in order to produce a useful quantity of uranium with a desired amount of enrichment of U-235 and depletion of U-238, it is necessary to use a large number of centrifuges arranged in cascades. The cascade headers are a fundamental part of the enrichment process and are specifically designed to direct the proper amounts of UF₆ flow of slowly enriching (in U-235) product and slowly depleting UF₆ (in U-238) repeatedly through targeted centrifuges.
- 2.7 It is also through these cascade headers that the enriched product and depleted tails are ultimately directed to UF₆ product and tails removal stations. These stations must ultimately have the ability to re-solidify the UF₆ gas into cylinders before removal from the enrichment plant. Technically the equipment, excluding the cascade headers, is defined as feed systems and product and tails withdrawal systems. These are specially designed process systems, including:
 - 2.7.1 feed autoclaves (or systems) used for passing UF₆ to the gaseous centrifuge cascades (these components also relate to Count 7);
 - 2.7.2 desublimers (or cold traps) used to remove UF₆ from centrifuge cascades;
 - 2.7.3 "product" or "tails" stations used for transferring UF₆ into containers.
- 2.8 UF₆ Centrifuges are cylindrical vessels into which UF₆ is fed and product and tails extracted. Each centrifuge is designed such that the lighter U-235 isotope is separated from the heavier U-238 isotope. This is achieved in very small increments. In broad terms the centrifuge comprises several main components. An outer casing designed to retain suitable vacuum pressures and a rotor capable of spinning at very high speeds without maintenance for several years. Amongst other things the rotor is largely made from a thin wall cylinder made from a high strength material such as aluminium alloys or maraging steel or composite fibres. It is the metal cylinders that the flow forming machine referred to in Count 1 would be used to produce.

3. THE INTERNATIONAL DEVELOPMENTS RELEVANT TO THE OFFENCES

- 3.1 In 1975 Libya ratified the Non-Proliferation Treaty (NPT) and a Safeguards Agreement with the International Atomic Energy Agency (IAEA). As a result thereof, Libya undertook not to manufacture or acquire nuclear weapons and was obliged to place all its nuclear materials and activities under safeguard requiring regular reporting to and inspections by the IAEA.
- 3.2 Due to regional conflicts, both India and Pakistan developed their own nuclear weapons programmes outside the ambit of the NPT.
- 3.3 The uranium enrichment component of Pakistan's programme was developed under the leadership of Pakistani scientist, Dr Abdul Qadeer Khan, who established a research laboratory, called the Khan Research Laboratory. By 1998 Pakistan had successfully developed and tested several nuclear devices. In recognition for his achievements, Dr AQ Khan was elevated to a high position within the Pakistani government.
- 3.4 In October 2003, a German registered ship, the BBC China, was intercepted in an Italian port *en route* from Dubai to Tripoli, Libya. The cargo contained parts of a centrifuge enrichment plant.
- 3.5 As a result of this interception, on 19 December 2003, Libya admitted that it had been involved in undeclared nuclear activities, aimed at acquiring a nuclear weapons capability in contravention of the NPT as well as the Safeguards undertakings referred to above.
- 3.6 Libya furthermore undertook "*to eliminate ... materials, equipments and programmes which lead to the production of internationally proscribed weapons*". In this regard, Libya undertook to cooperate with the United Nations Security Council and the IAEA.
- 3.7 Libya admitted that it had engaged for more than a decade in undeclared uranium enrichment activities and provided information on the clandestine nuclear cooperation with other countries, as well as information on the sources of sensitive nuclear technology.
- 3.8 As a result of various agreements, Libya allowed the removal of all key nuclear materials and equipment relating to the clandestine programme to the United States of America. Included in the equipment handed over was the flow forming

machine referred to in Count 1 and components relevant to Count 2.

- 3.9 Dr AQ Khan was implicated as a major source of nuclear technology supplied clandestinely to Libya.
- 3.10 In early 2004, the Pakistani government stripped Khan of his cabinet rank and dismissed him from his position as Senior Advisor to the Chief Executive. Khan made a public apology on television before the Pakistani nation in which he admitted to personal failings, accepted responsibility for all past proliferation activities and absolved the past and present Pakistani State authorities of any complicity in his acts.
- 3.11 The Malaysian police investigated the origin of the centrifuge equipment found on the BBC China. It was established that these components had been manufactured by a Malaysian company. The manufacture had been facilitated by Buhary Seyed Abu Tahir (hereinafter referred to as "Tahir"), a Sri Lankan citizen and businessman based in the United Arab Emirates (Dubai). Tahir used the alias "Mr Junior"/"Junior".
- 3.12 In the course of this investigation it was established that Tahir had become acquainted with AQ Khan and had assisted in the clandestine acquisition of nuclear technology, both for Pakistan and Libya. In this regard, a network referred to as the AQ Khan network had been set up, operating in Europe, the Middle East and Asia.
- 3.13 The Malaysian police released a report, detailing the scope of its investigation and in the course thereof, implicated Gotthard Lerch (hereinafter referred to as "Lerch"), a German citizen, residing in Switzerland as having attempted to obtain supplies of pipes from South Africa for the clandestine Libyan nuclear weapons programme.
- 3.14 Up until 31 December 1985, Lerch was the Head of the Vacuum Division of Leybold Heraeus GmbH (hereinafter referred to as "Leybold"). The Vacuum Division also had a Nuclear Division. As such, he was involved in a number of activities relating to nuclear equipment.

4. THE ACCUSED

- 4.1 Accused No 2 is a German citizen. He is a mechanical engineer and has a diploma in engineering. In 1971 he established a company which is now known as Krisch Engineering Co (Pty) Ltd in Randburg (hereinafter referred to as "Krisch Engineering"). On 12 March 1971, he became a director of the company and at

the time of the commission of these offences, he had become its managing director. For many years Krisch Engineering has been the local agent for Leybold Heraeus.

- 4.2 Accused No 1 is a Swiss citizen and is also a mechanical engineer. In the 1970's, he joined Krisch Engineering and became a director on 10 July 1981. At the time of the commission of these offences, he was a project manager in the company, working on the instructions of Accused No 2 in his capacity as managing director.

5. NUCLEAR-RELATED ACTIVITIES OF ACCUSED NO 2 IN SOUTH AFRICA PRIOR TO 16 APRIL 1994

- 5.1 Krisch Engineering was appointed the local agent for Leybold and became a key supplier of equipment to the Uranium Corporation (UCOR) / Atomic Energy Corporation (AEC) of South Africa.
- 5.2 Certain of the equipment supplied was of Leybold origin and Accused No 2 became acquainted with Lerch.
- 5.3 During the course of business with UCOR/AEC, Accused Nos 1 and 2 became acquainted with JAM Meyer (hereinafter referred to as "Meyer"), a South African engineer, employed by UCOR. A friendship and association developed between Meyer and Accused Nos 1 and 2. Accused No 2's association with Lerch also developed to the extent that he came to administer private properties owned by Lerch in South Africa. Leonard Jack Harvey (hereinafter referred to as "Harvey") was employed by Krisch Engineering.
- 5.4 In the early 1980's, Meyer established Roxound Engineering Works, a business situated at Vanderbijlpark.
- 5.5 In 1984/85, a substantial portion of Krisch Engineering's business with UCOR/AEC was terminated.
- 5.6 Lerch left Leybold and moved to Switzerland and established at Buchs a business styled "*AVE APPARATE, VERFAHREN UND ENGINEERING AG*" (hereinafter referred to as "AVE").
- 5.7 Accused No 2 accepts that Lerch entered into a conspiracy with Dr AQ Khan and BSA Tahir to supply countries like Pakistan with nuclear equipment for their weapons programmes, which were being conducted outside the frame work of international nuclear non-proliferation control regimes. Accused No 2 was however not present at these meetings.

- 5.8 As a result thereof, Lerch placed orders with Accused No 2 to manufacture components in South Africa intended for countries like Pakistan.
- 5.9 In order to execute these orders, Accused No 2 made use of Accused No 1, his Design Engineer, as well as local subcontractors.
- 5.10 Between 1988 and 1990, Lerch appointed Accused No 2 to attempt to sell on his behalf a set of plans for a complete gas centrifuge plant. These plans had been acquired by Lerch. This sale however did not take place.
- 5.11 The *modus operandi* was that the orders were placed by Lerch in the name of his company, AVE and the components manufactured or acquired were exported to the United Arab Emirates (UAE). Tahir acted as the recipient of these components and was responsible for their further diversion.
- 5.12 Accused No 2 was aware that he was at all times supplying to countries like Pakistan.
- 5.13 Certain of the above activities included:
- 5.13.1 the fabrication, procurement and delivery of components for a UF6 feed and withdrawal system from 1986 to 1989. The equipment was supplied in four distinct phases, namely:
- (i) the manufacture of three autoclaves capable of heating up to a 48 inch diameter cylinder of UF6.
 - (ii) the manufacture of a piping system for the feed and collection of UF6. Certain of the plans for the system were supplied by AVE to Krisch Engineering, described as "*detail calculations and design of plant, supply of layout for Freon system, schemes of refrigeration/pipe-work, material lists etc.*"
 - (iii) the supply of a large refrigeration system for the collection of UF6.
 - (iv) the supply of four hot boxes and piping for use in the UF6 feed system.

- 5.13.2 Meyer's company, Roxound Engineering, was contracted by Accused No 2 to fabricate major components for this plant.
- 5.13.3 An order for 100 3/4" UF6 cylinder valves.
- 5.13.4 An order for 30 x 30B UF6 cylinders. The cylinders were manufactured by Meyer's company, Roxound Engineering.
- 5.13.5 An order for 100 3/4" UF6 valve body forgings and 100 1" valve body forgings.
- 5.13.6 An order for flow-meters for a country other than Pakistan.

6. CHRONOLOGICAL SEQUENCE OF OFFENCES IN RESPECT OF WHICH ACCUSED NO 2 PLEADS GUILTY

Counts 7 & 8: Manufacture Of Three Autoclaves And Their Export To The UAE

- 6.1 On 15 July 1994, AVE placed an order for the manufacture and export of three autoclaves and accessories intended to be used as part of the auxiliary system of a gas centrifuge uranium enrichment plant. Accused No 2 was provided with a drawing for such autoclaves.
- 6.2 Meyer's company, J Design Engineering CC, was subcontracted to design the autoclaves according to supplied specifications.
- 6.3 Meyer's other company, Roxound Engineering Co (Pty) Ltd, was subcontracted to manufacture the autoclaves and jacking trolleys.
- 6.4 Other companies were subcontracted to obtain other accessories necessary for the construction.
- 6.5 Once the autoclaves were complete, Accused No 2 facilitated their packing and shipment to BB Enterprises, UAE for the attention of "Mr Junior". The physical arrangements were however made by Mr Meyer. The autoclaves and accessories left the country in January 1995. Nowhere in any of the shipping and other export related documentation was reference made to the fact that they were nuclear components. Accused No 2 believed that Lerch arranged for their further diversion to Pakistan.

- 6.6 Krisch Engineering billed AVE for the manufacture of the autoclaves and accessories and their export.
- 6.7 The following supporting documents are attached:
 - 6.7.1 Tax invoice from Roxound Engineering (Pty) Ltd to Krisch Engineering Co (Pty) Ltd, dated 31 December 1994 relating to the manufacture of autoclaves (**Annexure "A"**);
 - 6.7.2 Afris Line's Liner Bill of Lading, dated 16 January 1995 for delivery of 3 x pressure vacuum vessels with accessories to BB Enterprises, Dubai, UAE (**Annexure "B"**);
 - 6.7.3 Tax invoice from Krisch Engineering Co (Pty) Ltd to AVE Apparate, Verfahren und Engineering AG in Switzerland, dated 8 November 1994 (**Annexure "C"**).

7. IMPORTANT INTERVENING EVENT

- 7.1 In February 1995, Dr Hashmi, one of Dr Khan's associates and the Head of the Karachi Peoples' Steel Mills, visited Krisch Engineering with Tahir and Lerch.
- 7.2 Lerch chaired a meeting in which Hashmi tried to recruit an employee of the AEC to travel to Pakistan to start a training programme for the manufacture of maraging steel and rotor tubes for gas centrifuges in Pakistan. The meeting was arranged by Accused No 2, but he was not present when Lerch and Hashmi met with the employee.

8. Count 9: Forgery (*Electric Lamp Manufacturers of Southern Africa* order form)

- 8.1 In order to prevent its components from being diverted to nuclear weapons programmes, Leybold had imposed a non-proliferation Charta on all its agents including Accused No 2.
- 8.2 On 20 May 1995, AVE placed an order with Accused No 2 for Leybold vacuum pumps and leak detection equipment. These components can be used in nuclear applications.
- 8.3 In order to circumvent the Leybold Charta, Wisser instructed Cecile Hoeller (a Director of Krisch Engineering) to forge an order form from the Electric Lamp Manufacturers of Southern Africa so that it would appear that the equipment was being ordered by this company and not AVE. This was done by taking a legitimate earlier order placed by the company with Krisch

Engineering and changing the equipment ordered so as to reflect the equipment specified by AVE.

- 8.4 This forged document was submitted to Leybold together with a declaration that the equipment was intended to be used by this company in the manufacture of incandescent lamps. Krisch Engineering undertook that the equipment would not be used in any activity related to nuclear weapons.
- 8.5 On the strength of the forged document and undertaking, Leybold supplied the equipment to Krisch Engineering.
- 8.6 Upon arrival in South Africa, the equipment was exported to Al Hadwa Gen. Trading, Dubai.
- 8.7 Krisch Engineering billed AVE for all the costs incurred.
- 8.8 The following supporting documents are attached:
 - 8.8.1 Order form from Electric Lamp Manufacturers of Southern Africa, dated 22 May 1995 (**Annexure "D"**);
 - 8.8.2 Declaration from Krisch Engineering Co (Pty) Ltd to Leybold AG in Germany, dated 22 May 1995 (**Annexure "E"**);
 - 8.8.3 Telefax from Krisch Engineering Co (Pty) Ltd to Messrs AVE, dated 20 June 1995 (**Annexure "F"**);
 - 8.8.4 Delivery note from Krisch Engineering Co (Pty) Ltd to Al Hadwa Gen. Trading in Dubai, UAE, dated 2 August 1995 (**Annexure "G"**);
 - 8.8.5 Tax invoice from Krisch Engineering Co (Pty) Ltd to Messrs AVE Apparate, Verfahren und Engineering AG in Switzerland, dated 20 October 1995 (**Annexure "H"**).

9. Count 10: Forgery of *Integrators of System Technology (IST)* order form

- 9.1 Later in 1995, AVE placed an order for Leybold components for a Leybold induction furnace. Accused No 2 split the order into three separate segments.
- 9.2 In order to again circumvent the Leybold Charta referred to in count 9, Accused No 2 adopted the same *modus operandi* as had been used in count 9.

- 9.3 Integrators of System Technology (IST) had conducted legitimate business with Krisch Engineering.
- 9.4 Accused No 2 obtained a previous official letter from the company which contained all its relative contact details as well as the signature of its Executive Director. Accused No 2 caused the contents of this letter to be deleted. The letter was then photocopied and the components required by AVE were then typed in. Two copies of this document were made so that there would be a supporting document for each of the three orders.
- 9.5 These documents were submitted to Leybold together with orders for the components.
- 9.6 Leybold however refused to supply the components, because it suspected that they were intended to be re-exported from South Africa after delivery to Krisch Engineering.
- 9.7 In order to prevent Leybold from discovering the identity of Krisch Engineering's real client, Accused No 2 caused a letter to be drafted to a Mr G de Lange, informing him that his orders had been cancelled, because his company was not prepared to disclose where his plants were being exported to. This letter was signed by Accused No 2 and one of his employees. The letter was however neither addressed to IST, nor was any reference made to its contact details. The letter was never sent to Mr de Lange. It was however forwarded to Leybold in order to mislead it into believing that Krisch Engineering was complying with its Charta. In order to further reassure Leybold of Krisch Engineering's *bona fides*, Accused No 2 furnished Leybold with a copy of Government Notice No 740 of 16 April 1994.
- 9.8 The following supporting documents are attached:
- 9.8.1 Quotation from Krisch Engineering Co (Pty) Ltd to AVE, dated 9 June 1995 (**Annexure "I"**);
- 9.8.2 IST order to Krisch Engineering Co (Pty) Ltd, dated 2 July 1995 (**Annexure "J"**)
- 9.8.3 Letter from Krisch Engineering Co (Pty) Ltd to G de Lange, dated 30 August 1995 (**Annexure "K"**).

10. Counts 2 and 4: Manufacture of feed systems and product and tails withdrawal systems / machine header piping systems and an attempt to export same to Libya

- 10.1 Accused No 2 accepts that in 1997, the Libyan Government approached Dr Khan to supply it with a complete gas centrifuge plant. In this regard, Accused No 2 admits the correctness of the extract from the affidavit of SEYED ABU TAHIR BIN BUKHARY, dated 7 June 2006, including the annexures attached thereto. The extract from the affidavit is attached hereto as **Annexure "L"**. The extract from the affidavit not only deals in detail with this conspiracy, but also provides details of certain of the activities referred to in paragraphs 5.6 to 9.7 *supra*. Accused No 2 also accepts that the gas centrifuge plant would be used to produce highly enriched uranium which in turn would be converted into uranium metal for the construction of nuclear weapons. In this regard, Accused No 2 admits the correctness of the contents of the IAEA Board of Governors' report, dated 30 August 2004, entitled "*Implementation of the NPT Safeguards Agreement of the Socialist People's Libyan Arab Jamahiriya*". This report is attached hereto as **Annexure "M"**.
- 10.2 Dr Khan appointed Lerch to manufacture the feed and withdrawal systems, machine header piping and centrifuge rotor tubes for the plant (hereinafter referred to as "the systems"). Lerch intended to have all these systems manufactured in South Africa.
- 10.3 Lerch appointed Accused No 2 as the supervisor, responsible for the manufacture and component procurement of all of the above systems manufactured and intended to be manufactured in South Africa. In addition, he supervised the obtaining of any special machinery and design data and drawings which would be required for any of the manufacturing processes. He was also responsible for all the financial aspects of the project. He was in turn accountable to Lerch and required to attend coordinating meetings with him and Tahir.
- 10.4 Lerch first informed Accused No 2 of this project during the course of a meeting with him in Dubai in July 1999. During the course of this meeting, Lerch informed Accused No 2 that the project related to uranium enrichment and Accused No 2 drew the conclusion that the project was a continuation of the projects which he had previously been involved in with Lerch. Tahir provided Accused No 2 with all the designs, drawings, data and other documentation which would be necessary to manufacture the systems. This documentation was forwarded to South Africa. Included in the documentation was an offer by Leybold Heraeus GMBH Vacuum Division, dated 22 March 1979,

to Messrs Arshad, Amjad and Abid Ltd for "*Secondary Plants and Instrumentation*". A copy of the relevant portion of the offer is attached hereto as **Annexure "N"**. Other documentation included:

- 10.4.1 Designs and drawings relating to a wide variety of components and equipment for centrifuge enrichment plants, mainly of Leybold origin and dated from the mid-1970's through to the mid-1980's;
 - 10.4.2 Parts lists and isometric drawings of centrifuges and header and valve connections;
 - 10.4.3 Proposals including cascade calculations for a gas centrifuge enrichment plant to produce weapons grade uranium;
 - 10.4.4 Information and various calculations and centrifuge test results of Pakistani origin, indicating *inter alia* quantities of feed required and time necessary to produce the nuclear material for a specified number of nuclear weapons. This material related to the Pakistani centrifuges which are designated P1 and P2;
 - 10.4.5 Information describing the conversion of highly enriched uranium into nuclear weapons parts;
 - 10.4.6 Various brochures and instructions for electric and electronic process control equipment;
 - 10.4.7 Cascade building design and layout drawings;
 - 10.4.8 Various process and instrumentation (P&ID) diagrams relating to centrifuge enrichment and associated ancillary equipment.
- 10.5 Accused No 2 appointed Meyer to be his key manufacturer and allowed Meyer to use Accused No 1 as the Chief Engineer for the project. As such, Accused No 1 was responsible for numerous key technical aspects relating to the project. This would include design work, the appointment of subcontractors, the evaluation of quotations, the direction of sub-contractors' activities and the identification and sourcing of components. Meyer and Accused No 1 would update and advise Accused No 2 so that he could provide proper feedback to Lerch and Tahir, who would in turn report to Khan. At a certain stage, Lerch had

informed Accused No 2 that Khan was overall in charge of the project.

- 10.6 Specifically in late 1999, Accused No 1 had provided Meyer with certain of the documents provided by Tahir and requested him to provide quotations for their manufacture. Meyer also had discussions with Accused No 2. In January 2000, quotations were compiled and submitted by Meyer to Accused Nos 1 and 2. Subsequently, further additional quotations were also prepared and submitted. At that stage, Accused Nos 1 and 2 intended that Meyer would only be responsible for the mechanical side of the project and that the electrical and vacuum equipment would be supplied by Krisch Engineering. During the same period, Accused No 1 identified components to be used for the systems and worked out costings.
- 10.7 On 15 February 2000, Accused No 2 met with Lerch in Zürich. Lerch instructed Accused No 2 on all aspects of the project which he required Meyer to provide. Lerch indicated that flow-forming machines and maraging steel could be made available. Accused No 2 made notes of these instructions. Meyer therefore became solely responsible for all the components which were required for the systems.
- 10.8 Accused No 2 provided these notes to Accused No 1, who used them as the basis upon which he calculated the costing for the manufacture of the system and identified components which were required to be purchased. In order to do so, he had to extensively work from the documents supplied by Tahir. A key document relied on was the P&ID for the Leybold UF6 V3A feed and withdrawal system. During this period, Accused No 2 held discussions with Lerch and Lerch visited South Africa in connection with the project. Although Accused No 2 regarded Lerch and Tahir as his clients, he was aware that they were acting on behalf of Dr Khan.
- 10.9 In late 2000, as a result of the above work, Accused No 1 informed Accused No 2 that he suspected that the plant was for highly enriched uranium. Accused No 2 contacted Lerch who confirmed that this was the case. Accused No 2 further enquired from Lerch whether the plant was intended for rogue states and specifically mentioned Iran and Iraq. Lerch became highly evasive and informed Accused No 2 that this was not a matter for his concern. In either late 2001 or early 2002, Lerch informed Accused No 2 that the systems were intended for Libya. Accused No 2 continued with the work on the project notwithstanding this information.

- 10.10 As a result of his appointment as the Chief Engineer of the project, Accused No 1 directed the design and control of the manufacturing process. Accused No 1 was involved in this capacity from the commencement of the project until its conclusion. Meyer and other persons who, at various stages were utilised as sub-contractors, worked according to the process defined by Accused No 1. As a consequence of this appointment, relying on the documentation referred to *supra* and on his experience gained in previous projects, Accused No 1 himself generated several technical designs and drawings for components necessary for the project. These drawings were marked "DG" (his initials). At a certain stage, Accused No 1 made calculations of feed product and tail flows and enrichments produced, indicating that the intention was that the plant to be constructed would produce weapons grade uranium. He also produced the design layout of the systems with all the systems and cascades which had been manufactured. He contacted foreign manufacturers or suppliers of components required for the project. He provided periodic updates and technical specifications to Accused No 2.
- 10.11 On 20 April 2001, Accused No 2 proceeded to Dubai and on 21 April 2001, met with Lerch. He had arranged for Meyer to join him in Dubai, which he did on 22 April 2001. On this date and on 23 April 2001, Accused No 2 attended to "project planning" relating to the project. Meyer however did not attend this planning.
- 10.12 Prior to travelling to Dubai, Meyer had opened a Swiss bank account and gave the account number to Accused No 2. Accused No 2 was to arrange for payments into this bank account, so as to enable Meyer to purchase the necessary equipment and to compensate him. For the purpose of this bank account, Meyer named the project "E PROJECTS". Locally, Meyer referred to the project as "Project X". The conspirators paid into the Swiss bank account over a period of time via front companies and individuals. At one stage, a deposit into the account was made from "National for Industrial Safety, Libya". Accused No 2 was responsible for arranging all payments into this account and in this regard, had worked out a payment schedule based on the costs incurred in the various stages of the manufacturing and purchase of equipment for the project. On two occasions in his own personal capacity, Accused No 2 deposited money into this account.
- 10.13 Meyer also arranged for the payment of various sub-contractors, also into various foreign bank accounts. This was also to prevent the project being detected by the authorities. In this

regard, he paid Accused No 1 €50 000 and 74 255 Swiss Franks (CHF).

- 10.14 Meyer arranged for some of the design work and construction to be done by local contractors. In addition, the vacuum pumps were acquired from a Spanish company and valves and pressure sensors were obtained from companies in Germany. In this regard, he established a front company in Switzerland in order to purchase equipment from companies situated outside South Africa. Accused No 1 played a key role in contacting certain of these companies, providing them with specifications and conducting other negotiations with them. In several instances, he communicated with them, using Tradefin letterheads.
- 10.15 Meyer contracted André Smit, a local engineer, to manufacture the programmable logic controllers (PLC's) to enable the computerised control of the systems. In February 2002, Accused No 2 arranged for Smit and Accused No 1 to travel to Turkey to inspect critical electrical equipment which was linked to the gas centrifuge component portion of the project. Specifically the purpose was to clarify the interface between the South African process equipment and the electrical equipment for the centrifuge cascade produced in Turkey. Turkish firms manufactured P2 centrifuge motors and high frequency power inverters needed to operate these motors. All of this Turkish equipment was handed over by Libya to the US government.
- 10.16 The majority of the construction work for the systems took place at Tradefin Engineering. Meyer furnished Accused No 2 with regular progress reports on the progress being made. On occasions, Accused No 2 visited Tradefin Engineering to examine the project. Accused No 1 worked for a considerable period with Meyer on the project at Tradefin Engineering. On the instructions of Accused No 2, Meyer arranged for photographs to be taken of the systems during its various stages of construction.
- 10.17 Lerch arranged with Accused No 2 for two Libyan engineers to visit Tradefin Engineering to inspect the systems. These persons identified themselves only as Abdul and Ali. These persons displayed a comprehensive knowledge of uranium enrichment processes. Accused No 2 was not present in the country during the course of their inspection.
- 10.18 The equipment constructed comprised of the following:
 - 10.18.1 Five complete units (named MINI, 3 units and MICRO, 2 units) for feeding uranium hexafluoride into uranium enrichment cascades and collecting

the enriched product and the depleted tails (waste);

- 10.18.2 Associated vacuum stations and chemical traps, both mobile and stationary, necessary for operating and maintaining the enrichment plant;
- 10.18.3 Cascade header piping for connecting the feed/product/tails stations to the cascades consisting of many thousands of centrifuges and for interconnecting the centrifuges;
- 10.18.4 Process equipment including pressure, temperature and flow measuring and regulating instruments and valves;
- 10.18.5 Programmable logic controllers (PLC's) to enable the computerized control of the plant;
- 10.18.6 Structural steel sections, railings and gratings required to support and provide access to the equipment and instrumentation;
- 10.18.7 The above units were complete with the exception of control and isolation valves. In a fax sent from Germany, Accused No 2 instructed Accused No 1 and Meyer not to proceed with these valves, but to use temporary spool pieces instead. A substantial number of the valves intended to be inserted into the spool piece positions were surrendered by Libya and are currently in the United States of America. Tahir told Accused No 2 that the Tinnars had refused to supply the valves, because they were dissatisfied with Tahir's method of payments. In June 2002, a single valve was supplied by the Tinnars' company, Phitec, to determine the connection data for Smit's PLC's. The Tinnars also provided a written reply to queries raised in connection with the valve. A copy of the Phitec document is attached hereto as **Annexure "O"**.

- 10.19 The gas centrifuge plant was based on a combination of Leybold Heraeus and Pakistani drawings and descriptions as well as Pakistani test results, experience and reference calculations. The design, based on the Pakistani designs and cascades, was, like the Pakistani originals, intended to produce highly enriched

weapons grade uranium. The plant was designed to produce this uranium in four levels of cascades:

- 10.19.1 Two blocks of cascades, C1 and C2, each consisting of 12 cascades of 164 centrifuges, would in parallel enrich natural uranium to 3,5%;
 - 10.19.2 One block of eight cascades, HC-01, consisting of 164 centrifuges each, would enrich the 3,5% uranium to 20%;
 - 10.19.3 One block of four cascades, HC-02, consisting of 114 centrifuges each, would enrich the 20% uranium to 60% enrichment;
 - 10.19.4 One block of two cascades, HC-03, consisting of 64 centrifuges each, would enrich the final product, i.e. 90% weapons grade uranium;
 - 10.19.5 The total number of centrifuges for the plant would be 5832.
 - 10.19.6 The three MINI feed and withdrawal stations built by Meyer were intended for the C1, C2 and HC-01 cascade groups. The two MICRO feed and withdrawal stations were intended for the HC-02 and HC-03 cascade groups. Also included were parts for 38 valve block stations which were the physical interface between each of 38 cascades and their respective feed and withdrawal stations.
- 10.20 Throughout the duration of the project, Accused No 2 attended meetings in Dubai with Lerch and Tahir and also met with Lerch in Europe. Lerch also visited South Africa on occasion. All these meetings and visits were in connection with the project. Accused No 2 was at all times accountable to Lerch in order to ensure that the systems manufactured met Lerch's technical requirements. On occasion, Lerch was specifically requested to provide technical advice or assistance to Accused No 1. In certain instances, Lerch provided such advice or assistance while in South Africa.
- 10.21 The systems would have been completed in June 2003.
- 10.22 The following acts were performed in order to facilitate the export of the systems from South Africa:
- 10.22.1 Tahir provided Accused No 2 with a draft contract for a water purification contract. Accused No 2

had the contract re-typed at Krisch Engineering. Eventually, the contract was signed by Meyer, as well as somebody on behalf of the company which purported to be the purchaser of the "water purification" plant.

- 10.22.2 A set of sea freight containers was purchased and delivered to Tradefin.
- 10.22.3 The systems were broken down and packed into the containers ready for export.
- 10.22.4 A set of packing lists was prepared for presentation to the client.
- 10.22.5 A detailed set of design and other documentation was prepared so as to enable the Libyans to assemble the systems upon delivery to Libya.
- 10.22.6 Meyer obtained quotations for export from Röhlig Grindrod.
- 10.22.7 In early September 2003, Accused No 2 travelled to Maputo and asked two local shipping agents to quote to export the plant to the Middle East.
- 10.23 On 30 September 2003, Accused No 2 met with Lerch in Switzerland. Lerch instructed Accused No 2 to destroy the systems in South Africa and Accused No 2 sent a SMS to Meyer to this effect.
- 10.24 On his return to South Africa and acting on the advice of Lerch, Accused No 2 destroyed three computer hard drives at Krisch Engineering and certain of the documentation.
- 10.25 Meyer was neither prepared to destroy the systems manufactured, nor the documentation which he had compiled, nor the documentation which Accused No 1 had provided him with.
- 10.26 In September 2004, the South African Police Service conducted a search of Tradefin Engineering and seized the systems as well as documentation relating thereto. Shortly thereafter Meyer also handed over the remainder of the documentation as well as certain components manufactured for the systems by Harvey.

11. Count 1: The import and export of a Denn Model RL 400/2 flow-forming machine
- 11.1 In addition to the systems referred to in Count 2, Dr Khan had appointed Lerch to manufacture the centrifuge rotor tubes, which would have been required for the centrifuge component of the gas centrifuge plant. The Libyan gas centrifuge plant was intended to operate centrifuges of Pakistani origin.
- 11.2 Certain of the Pakistani rotor tubes are made from maraging steel and a flow-forming machine is necessary to fashion this steel into the shape of the rotor tube.
- 11.3 In 2000, Gulf Technical Industries (GTI) in Dubai purchased two Denn flow-forming machines with serial numbers 6318 and 6319. How Lerch arranged to have one of these machines shipped to South Africa to be used in the rotor tube production project is described in paragraph 20 of the affidavit of Tahir, Annexure "L". A copy of the invoice of Gulf Technical Industries LLC, dated 8 August 2000, is attached hereto as **Annexure "P"**.
- 11.4 Lerch provided Accused No 2 with a GTI Commercial Invoice and Bill of Lading so that the necessary arrangements could be made for the flow-forming machine to be delivered to Tradefin Engineering. Accused No 1 submitted the relevant documentation to Röhlig Grindrod to process the import and to facilitate delivery to Tradefin Engineering. As a result, a flow-forming machine was delivered and Meyer was provided with manuals relevant to its operation. The Commercial Invoice, dated 11 December 2000 and instructions to Röhlig Grindrod, dated 11 December 2000, are attached hereto as **Annexures "Q" and "R"** respectively.
- 11.5 From January to April 2001, Meyer prepared various proposals for the manufacture of the rotor tubes which were submitted to Accused Nos 1 and 2. Lerch however indicated that Meyer was too expensive and the proposal was not taken further.
- 11.6 Since the proposal had not been accepted, Lerch instructed Accused No 2 to have the flow-forming machine returned to GTI. Accused No 2 made the necessary arrangements with Meyer to have the machine returned. The fax of 14 December 2001 from Accused No 2 to JAM Meyer is attached herewith as **Annexure "S"**.
- 11.7 Accused No 1 supplied Meyer with a hard drive which he said came from Lerch and contained information concerning the rotor tubes.

12. Accused No 2 profited financially as set out in the Confiscation Order.

13. Plea of Accused No 2

13.1 Accused No 2 pleads guilty to Counts 1, 2, 4, 7, 8, 9 and 10 of the Indictment.

13.2 Plea of Guilty on Count 1

Accused No 2 admits:

13.2.1 That during the times and at the places referred to in Count 1, he unlawfully and intentionally caused a Denn Model RL400/2 flow-forming machine to be imported, held in transit and re-exported to, in and from the Republic of South Africa.

13.2.2 That the said flow-forming machine is defined as a controlled item in terms of the legislation referred to in Count 1, which may "*contribute to the design, development, production, deployment, maintenance or use of weapons of mass destruction*".

13.2.3 That the said flow-forming machine, at the time of its import, transit holding and re-export, complied with the technical specifications pertaining to spin-forming and flow-forming machines as set out in the legislation referred to in Count 1. The truth of the contents of the affidavit of RONALD VINCENT MISKELL, confirming same, is admitted and the affidavit is attached hereto as **Annexure "T"**.

13.2.4 That the acts referred to in par 13.2.1 required a permit from the South African Council for the Non-Proliferation of Weapons of Mass Destruction.

13.2.5 That he knew that he was acting unlawfully when he associated himself with all the acts referred to in par 13.2.1 *supra*.

13.2.6 That the factual circumstances surrounding Count 1 are correctly set out in par 11 of the Terms of Agreement and confirms that these facts form the basis of the plea of guilty.

13.3 Plea of Guilty on Count 2

Accused No 2 admits:

- 13.3.1 That during the period 24 February 2000 to June 2003 and at the places referred to in Count 2, he unlawfully and intentionally caused the nuclear related material or equipment referred to in Count 2, to be manufactured.
- 13.3.2 That the nuclear related material or equipment is correctly described as set out in Count 2.
- 13.3.3 That the nuclear related material or equipment falls within the definitions specified in the legislation referred to in Count 2. In this regard, the truth of the contents of the affidavit of WILLIAM H TOBEY, insofar as it relates to Count 2, is admitted as **Annexure "U"**.
- 13.3.4 That prior to causing the said nuclear related material or equipment to be manufactured, he was required to obtain the written authorisation of the Minister of Minerals & Energy, which he did not do.
- 13.3.5 That at the time when he caused the nuclear related material or equipment to be manufactured, he knew that he was acting unlawfully.
- 13.3.6 That the factual circumstances surrounding Count 2 are correctly set out in par 10 of the Terms of Agreement and confirms that these facts form the basis of the plea of guilty.

13.4 Plea of Guilty on Count 4

Accused No 2 admits:

- 13.4.1 That during the period 2001 to September 2003 and at the place referred to in Count 4, he unlawfully and intentionally attempted to export from the Republic of South Africa the nuclear related material or equipment referred to in Count 2.
- 13.4.2 That he performed the acts referred to in pars 10.22.1 and 10.22.7 and associated himself

with the acts referred to in pars 10.22.2 and 10.22.6 of the Terms of Agreement in the furtherance of the attempt to export the nuclear related material or equipment.

- 13.4.3 That he was required to obtain the written authorisation from the Minister of Minerals & Energy prior to performing the acts referred to in pars 13.4.2, which he did not do and consequently, he was acting unlawfully.

13.5 Plea of Guilty on Counts 7 & 8

Accused No 2 admits:

- 13.5.1 That during the period and at the places referred to in Counts 7 and 8, he unlawfully and intentionally caused the nuclear related material or equipment referred to in Count 7 to be manufactured and to be exported from the Republic of South Africa to the United Arab Emirates.
- 13.5.2 That the said nuclear related material or equipment is correctly described as set out in Count 7.
- 13.5.3 That the nuclear related material or equipment falls within the definition specified in the legislation referred to in Count 7. In this regard, the truth of the contents of par 6(h) of the affidavit of WH Tobey, referred to above, is admitted.
- 13.5.4 That at the time of such manufacture and export, he was not a member of the Atomic Energy Corporation and hence, the written authorisation of the then Minister of Mineral and Energy Affairs was required before he could perform the said acts.
- 13.5.5 That he performed the said acts without such written authorisation and was hence acting unlawfully.
- 13.5.6 That the factual circumstances surrounding Counts 7 and 8 are correctly set out in par 6 of the Terms of Agreement and confirms that these facts form the basis of the plea of guilty.

13.6 Plea of Guilty on Count 9

Accused No 2 admits:

- 13.6.1 That at the time and place specified in Count 9, he unlawfully and falsely caused the instrument in writing, referred to in Count 9, to be forged.
- 13.6.2 That when doing so, he intended to defraud and prejudice the parties referred to in Count 9.
- 13.6.3 That the factual circumstances surrounding Count 9 are correctly set out in par 8 of the Terms of Agreement and confirms that these facts form the basis of the plea of guilty.

13.7 Plea of Guilty on Count 10

Accused No 2 admits:

- 13.7.1 That at the time and place specified in Count 10, he unlawfully and falsely caused the instrument in writing, referred to in Count 10, to be forged.
- 13.7.2 That when doing so, he intended to defraud and prejudice the parties referred to in Count 10.
- 13.7.3 That the factual circumstances surrounding Count 10 are correctly set out in par 9 of the Terms of Agreement and confirms that these facts form the basis of the plea of guilty.

- 14. Accused No 2 maintains his plea of not guilty on Counts 3 and 5, but refers the Court to the relevant portions of the Terms of Agreement where the elements of these offences are admitted in the course of his pleas of guilty to Counts 2 and 4. Accused No 2 maintains his plea of not guilty on Count 6 and refers the Court to par 20 of the Affidavit of Tahir in which it is stated by Tahir that persons other than Accused No 2 created the false document which forms the basis of Count 6.

15. Mitigating factors

- 15.1 Accused No 2 is 68 years of age and suffers from health problems normally experienced by persons of this age group. This is the most significant factor which influenced the State not to argue that direct imprisonment be imposed upon him.

- 15.2 Accused No 2 has no previous convictions, but it must be stated that had the crimes referred to in Counts 7 to 10 inclusive been detected and successfully prosecuted, this would not have been the case.
- 15.3 Accused No 2 has, at a critical stage of the criminal proceedings, elected to plead guilty to all the main charges facing him and has consequently saved the State the enormous cost of a three year trial which would have been necessary to prove his guilt.
- 15.4 Apart from these offences and the other acts referred to in the Terms of Agreement, Accused No 2 has been a senior, responsible and respectable member of society.
- 15.5 Accused No 2 has undertaken to cooperate fully with the South African authorities insofar as providing a full disclosure of his total knowledge of nuclear proliferation related activities and thereby contribute to the combating of such activities. All such cooperation is provided at the instance of the South African authorities and in terms of applicable law and policy.
- 15.6 Accused No 2's proceeds of crime were confiscated by a foreign law enforcement agency. Accused No 2 has consented to a confiscation order which would allow a portion thereof to be shared with the South African Government, should the foreign law enforcement agency agree to do so.
- 15.7 Accused No 2 has consented to a further confiscation order in the amount of R6 million to be paid directly to the South African authorities.
- 15.8 He is the only person involved with the network described by Tahir, who has pleaded guilty in a court of law and undertaken to cooperate with law enforcement.
- 15.9 After his arrest in September 2004, he was in custody for approximately three months and has thereafter been under house arrest.
- 15.10 The mitigating factors as set out in the report of Frans Mokoena, from the Office of Community Corrections, dated 21 August 2007. The correctness of the report and its recommendations as admitted by both the State and Accused No 2. The report is attached hereto as **Annexure "V"**.

16. Aggravating circumstances

16.1 These are contextualised within the following framework:

- 16.1.1 The unique destructive potential of nuclear weapons;
- 16.1.2 Supreme international concern over nuclear weapons related proliferation as a consequence of par 16.1.1;
- 16.1.3 The best efforts of individual states and international bodies to prevent such proliferation in order to ensure that nuclear weapons are not deployed offensively;
- 16.1.4 The determination of certain states in conflict regions to acquire nuclear weapons outside the framework of international controls;
- 16.1.5 The existence of illicit networks made up of non-state actors which covertly and illegally acquire equipment and technology necessary to establish and maintain nuclear weapons' programmes and supply same to such states;
- 16.1.6 The real threat posed to world peace and the potential of horrific loss of life and other destruction.
- 16.1.7 In this regard, the truth of the contents of the affidavits of JEFFREY JOHN BEDELL, **(Annexure "W")** and DIETLIEB LOUIS TILLWICK **(Annexure "X")** are admitted.

They are:

- 16.2 The recognition that uranium enrichment by means of gas centrifuge plants are the preferred method of acquiring highly enriched uranium by states establishing and maintaining nuclear weapons outside the ambit of international nuclear control regimes (See pars 3 and 4 of the Affidavit of Bedell) and the fact that all the offences committed by Accused No 2 are in one way or the other connected to this method.
- 16.3 The acts performed by Accused No 2 contributed not only to an attempt by Libya to acquire a nuclear weapons' programme, but also assisted countries like Pakistan to maintain their existing

were performed, high levels of conflict existed in both the Middle East and Asia.

- 16.4 Accused No 2 acted in concert over a protracted period with Gotthard Lerch and BSA Tahir, key role players in a proliferation network, servicing rogue states. Accused No 2 was aware that these activities were connected to the proliferation activities of Dr AQ Khan, a leading role player in Pakistan's nuclear weapons' programme.
- 16.5 Had it not been for the interdiction of the BBC China incident and the subsequent decision of Libya to surrender its nuclear weapons' programme to the IAEA, Accused No 2's criminal activities would have gone undetected.
- 16.6 The offences have the effect of undermining South Africa's reputation, policy and international obligations in the field of nuclear non-proliferation.
- 16.7 Although Accused No 2's proliferation-related activities before South Africa had implemented relevant control legislation, he persisted in them once such activities had been criminalised.
- 16.8 Accused No 2's activities became progressively more serious.
- 16.9 Accused No 2 committed the offences between the ages of 55 and 64.
- 16.10 Accused No 2's motive was financial gain and he did in fact profit substantially from the offences, especially with regard to Count 2. His financial position and standing in society made participation in such offences unnecessary.
- 16.11 The offences have all the hallmarks of sophisticated organised crime.
- 16.12 In respect of Count 2:
 - 16.12.1 The systems manufactured were specially designed for the production of highly enriched uranium (See again the affidavit of William H Tobey). Accused No 2, at an early stage realised that the systems which he had been appointed to have manufactured, were intended to produce highly enriched uranium, drew the inference that

they were intended for rogue states and when thereafter he knew that Libya was the client, continued with such activities;

- 16.12.2 These activities took place over a period of time and involved role players and events not only in South Africa but also in several foreign states. These activities were not only in contravention of South African law, but also applicable to foreign law and international nuclear control regimes;
- 16.12.3 Sophisticated means were adopted to execute the activities and numerous subcontractors and business enterprises with suitable engineering experience were utilised;
- 16.12.4 The documentation relied on to design and manufacture such systems constituted "*a large and complex body of very proliferation-sensitive applied engineering design and applied technical data*" (See par 7 of the Affidavit of Bedell);
- 16.12.5 Accused No 2 played a leading role in connection with these activities;
- 16.12.6 Accused No 2 destroyed documentation and tried to persuade Meyer to destroy the systems and his own documentation in order to ensure that the commission of the offence not be detected by the authorities;
- 16.12.7 Due to the sophisticated nature of the offence, the South African Government had to undertake a lengthy and costly investigation in order to obtain sufficient evidence upon which to indict Accused No 2 and had to seek the assistance of several foreign states. Had it not been for this international cooperation, it may have been that the full extent of the offence would have not been detected.
- 16.12.8 This offence was committed after a period of proliferation activities dating back to the mid-1980's.

- 16.12.9 The value which the systems would have been to the Libyan nuclear weapons' programme had they in fact been delivered to Libya.

16.13 In respect of Count 1

- 16.13.1 The machine was intended to manufacture components for Libya's gas centrifuge plant.
- 16.13.2 The offence involved the commission of acts outside the country and the participation of other members of the network.
- 16.13.3 The offence was committed over a period of a year and would have gone undetected had the machine not been surrendered by Libya to the US Government.
- 16.13.14 The commission of the offence was also in breach of the control regimes of the Nuclear Suppliers Group.

16.14 In respect of Counts 9 & 10

- 16.14.1 The forgeries were committed in order to facilitate the acquisition of components which the manufacturer regarded as proliferation sensitive and could be used in applications relevant to gas centrifuges.
- 16.14.2 Accused No 2 knew that he was assisting Lerch and the components were intended for countries like Pakistan.
- 16.14.3 In respect of Count 9, the deception and Leybold's non-proliferation Charta was undermined.
- 16.14.4 In respect of Count 10, a false negative perception of an innocent South African company was created with Leybold.

17. SENTENCE

17.1 Counts 1, 2 and 4 are taken together for the purpose of sentence and the following sentences are imposed:

17.1.1 Correctional supervision for a period of three years imposed in terms of Section 276(1)(h) of the Criminal Procedure Act No 51 of 1977 and on the conditions as set out in **Annexure "Y"**, attached hereto.

17.1.2 10 Years' imprisonment suspended for a period of 5 years upon the following conditions:

- (i) That Accused No 2 is not, during the period of suspension convicted of contravening the Nuclear Energy Act, No 46 of 1999 nor the Non-Proliferation of Weapons of Mass Destruction Act, No 87 of 1993 nor any equivalent Acts which may replace them during the period of suspension and in respect of which Accused No 2 is sentenced to imprisonment without the option of a fine;
- (ii) That Accused No 2 provide a designated member of the South African Police Service with affidavits, detailing the full extent of his knowledge of all matters relevant to nuclear proliferation as identified by the South African Police Service;
- (iii) That Accused No 2 testify in all proceedings as directed by the National Prosecuting Authority and that he comply with all processes relating to him, issued in terms of the International Cooperation in Criminal Matters Act, No 75 of 1996;
- (iv) That Accused No 2 provide his full cooperation to the South African Council for the Non-Proliferation of Weapons of Mass Destruction on all matters identified by it as being relevant to nuclear proliferation and under its supervision, with the International Atomic Energy Agency.

- 17.2 Counts 7 & 8 are taken together for the purpose of sentence and the following sentence is imposed:

Five years' imprisonment suspended for five years on condition that:

That Accused No 2 is not, during the period of suspension convicted of contravening the Nuclear Energy Act, No 46 of 1999 nor the Non-Proliferation of Weapons of Mass Destruction Act, No 87 of 1993 nor any equivalent Acts which may replace them during the period of suspension and in respect of which Accused No 2 is sentenced to imprisonment without the option of a fine.

- 17.3 Counts 9 & 10 are taken together for the purpose of sentence and the following sentence is imposed:

Three years' imprisonment suspended for five years on condition that Accused No 2 is not, during the period of suspension, convicted of the crime of forgery or any other crime of which dishonesty is an element and in respect of which he is sentenced to imprisonment without the option of a fine.

18. CONFISCATORY ORDERS

18.1 Accused No 2 consents to the confiscation of R6 million in cash;

18.2 Accused No 2 consents to the confiscation of Euro 2.851.284.00 of assets seized abroad.

The Authorisation in terms of Section 18(5) of Act 121 of 1998 is attached hereto as **Annexure "Z"**.

The Confiscation Order in terms of Section 18 of Act 121 of 1998 is attached hereto as **Annexure "AA"**.

Dated at PRETORIA this _____ day of SEPTEMBER 2007.

ADV RC MACADAM
(PROSECUTOR)

GERHARD WISSER
(THE ACCUSED)

ADV BC BREDEKAMP SC
(LEGAL REPRESENTATIVE
OF THE ACCUSED)