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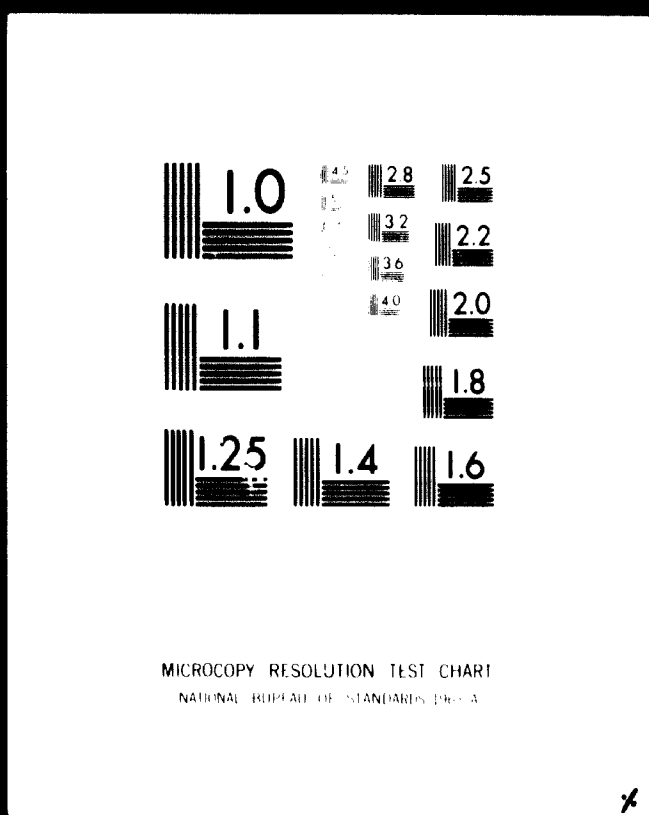
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Background Paper for

Technical Seminar on Contracting Methods and
Insurance Schemes for Fertilizer and
Chemical Process Industries

02168

Lahore, Pakistan, 25 - 29 November 1977

TYPICAL CONTRACT FOR CHEMICAL AND FERTILIZER PLANTS

NOW IT IS AGREED AS FOLLOWS

ARTICLE 1 - DEFINITIONS

1.01 In the Contract the following terms shall have the following respective meanings:-

- (a) "The Contract" means this Contract entered into between the Owner and the Contractor.
- (b) "The Proposal" means proposal No.P..... submitted by the Contractor to the Owner.
- (c) "Sub-Contractor" means any person to whom the performance of some part of the work has been sub-let by the Contractor.
- (d) "Supplier" means any person to whom the supply of equipment and services may be contracted by the Contractor.

- (e) "The Site" means the site on which the Plant is to be built and defined in the Proposal.
- (f) "The Plant" means the and plants and off-sites facilities as specified in the Proposal P..... to be constructed on the Site by the Contractor.
- (g) "Equipment" means all machinery, equipment, materials and other items to be incorporated into the Plant in order for the Plant to be built in accordance with the Contract.
- (h) "Contractor's Equipment" means machinery tools tackle and stores brought onto the Site by the Contractor or by any Sub-Contractor or Supplier, for the construction of the Plant but not for permanent incorporation therein.
- (i) "The Process Licensors" means any third persons from whom the Contractor may obtain process technology information or any licence of any letter patent.
- (j) "The Work" means the duties, responsibilities and obligations to be performed by the Contractor pursuant to the Contract.
- (k) "Contract Price" means the remuneration to the Contractor stated in Clause 6 or as may be adjusted from time to time in accordance with the provisions of the Contract or revisions thereto.
- (l) "Down Payment" has the meaning given in Article 7.02 (i)
- (m) "Schedule Payment" has the meaning given in Article 7.02 (ii)
- (n) "Valid Claim" has the meaning given in Article 7.05.
- (o) "..... Supply" means goods and materials produced or manufactured in and services rendered by persons ordinarily resident or carrying on business in

- (p) "Acceptance Certificate" means the certificate referred to in Article.
- (q) "Final Reconciliation Certificate" means a certificate signed by a duly authorised representative of the Contractor in such a form as may be agreed between the Owner and the Contractor.
- (r) "Effective Date of the Contract" means the date upon which the Contract enters into force in accordance with the provisions of Clause 2.02
- (s) "The Owners Representative" means person whom the Owner may nominate by notice in writing to the Contractor.
- (t) "Authorised Signacory" means a person or persons whom the Owner may nominate by notice in writing to the Contractor and who has authority to sign certificates and documents authorising payments and/or decisions in accordance with the provisions of the Contract.
- (u) "Unit" means either the Plant specified in Volume 2 of the Proposal or the Plant specified in Volume 3 of the Proposal, or the Offsites specified in Volume 4 of the Proposal.

ARTICLE 2 - SCOPE OF THE CONTRACT AND EFFECTIVE DATE OF THE CONTRACT

2.01 Scope of the Contract

- (a) The Contractor shall for the remuneration herein provided carry out the Work and provide services and equipment in strict compliance with the Contract.
- (b) The Owner shall perform the Owner's obligations under the Contract in strict compliance with the Contract and provide the supplies and services which together with the work are necessary for the completion of the Plant in accordance with the Contract.

2.02 Effective Date of the Contract

The Contract shall enter into force on the date on which all of the following conditions are fulfilled:-

- (a) Signature of the Contract by the Contractor and the Owner.
- (b) Receipt by the Contractor of the Down Payment in accordance with Article 7.
- (c) The granting of any necessary licence or export licence by the UK Departments of Trade and Industry or confirmation that no such licences are required.
- (d) Approval of the..... Authorities.
- (e) Opening of the first letter of credit in favour of the Contractor.

ARTICLE 3 - CONTRACTOR'S OBLIGATIONS

3.01 General Responsibility

The Contractor shall supply the services of managers, engineers, designers, draughtsmen, accountants, buyers, inspectors, expeditors and other persons required for the performance of the work.

3.02 Management Services

The Contractor will provide the management services for the general and administrative functions and project engineering specified in the Proposal.

3.03 Engineering Design

The Contractor shall provide the engineering and process design for the Plant as specified in the Proposal.

3.04 Equipment

The Contractor shall be responsible for the supply of the Equipment ex works, first fill of catalysts, resins, and oils in accordance with the Technical Specifications given in the Proposal.

3.05 Construction

The Contractor shall be responsible for the construction of the Plant on the Site.

3.06 Civil Engineering and Foundations

The Contractor shall be responsible for the design and construction of the foundations for the Plant and the buildings defined in the technical specifications of the Proposal.

3.07 Drawings and Documents

The Contractor shall be responsible for the preparation and supply of the drawings, plans and other documents except for as built drawings showing modifications incorporated at site in accordance with the Contractor's standard procedure as required by the Contract, and will include

- (a) Adequate specifications of equipment required for the Plant indicating specifications of materials of construction.
- (b) Technical charts for pumps, and large-size motors as far as the same are made available by the Suppliers of the Equipment.
- (c) Instrumentation and electrical drawings
- (d) Process Diagrams
- (e) General arrangement drawings
- (f) Copies of certified drawings of any Equipment supplied by the Contractor, purchased as standard items from Sub-Contractors and appropriate bulletins and instructions relating thereto.
- (g) Ten copies of the sets of operating manuals for the Plant. These manuals shall be supplied at least six months before the date for commissioning activities of the Plant.
- (h) Copies of the list of recommended operational spare parts for the Equipment for two years.
- (i) During the progress of the work the Contractor shall supply to the Owner such copies of his drawings, specifications and manuals as stated in the Proposal which forms part of the contract.

3.09 Sub-Contracts in the Contractor's Name

The Contractor may sub-contract the execution of any part of the work.

3.10 Laws and Regulations

The Contractor shall design the Equipment in accordance with the regulations in force in the United Kingdom. The Proposal is based on the regulations in force at the time of submitting the Proposal. In carrying out the Work the Contractor shall comply with all applicable laws, bye-laws and regulations in force in England and in In the event that

- a) any amendment to such laws or regulations in England
- b) any new law or regulation being introduced in England after the date of the Proposal, or any difference between any law regulation in England and
- c) any existing or new law or regulation or other ordinance having the force of law in shall affect the scope or cost of the Work, or any other obligation of the Contractor under the Contract, then it shall be treated as a change in the Work in accordance with the provisions of Article 8, and the additional charges (if any) of the Contractor shall be paid by the Owner as an addition to the Contract Price.

ARTICLE 4 - TRANSPORT OF EQUIPMENT

The Owner and the Contractor shall agree the remuneration and terms under which the Contractor may transport the Equipment from Suppliers or Sub-Contractor works to the site. Until such agreement has been signed by the Owner and the Contractor, the Owner shall undertake the responsibility for transport of the Equipment from Suppliers or Sub-Contractor works to the site in good order and condition in reasonable time for the performance by the Contractor of the Work.

ARTICLE 5 - OWNER'S OBLIGATIONS

5.01 Site

- (a) Subject to Paragraph 5.01 (c) of this Article, free access to the Site shall be afforded to the Contractor by the Owner in reasonable time for performance of the Work
- (b) Access to and free availability of the Site shall be exclusive to the Contractor, Sub-Contractors and Suppliers.
- (c) In the execution of the Work, no person other than the employees of the Contractor and of Suppliers or Sub-Contractors shall be allowed access to the Site, except with the prior written permission of the Owner, and the Contractor shall afford facilities to inspect the Work and carry out necessary surveys, measurements or investigating at all times to the Owner and to its representatives and other authorised officials.

5.02 Plant Operation

The Owner shall provide raw materials and an adequate number of trained operating and maintenance personnel for the commissioning activities and start up of the plant.

5.03 Payment

The Owner shall make payment in accordance with the provisions of the Contract and shall promptly countersign through its Authorised Signatory all certificates prepared by the Contractor in accordance with the provisions of the Contract.

5.04 Import Licences and Priorities

The Owner shall obtain all licences and permits necessary to import the Equipment and Contractor's Equipment to construct the Plant on the Site and to re-export Contractor's Equipment.

The Owner shall ensure that vessels bringing the Equipment or Contractor's Equipment to a Port will receive priority in that Port. If the period for clearing Equipment is longer than eight days from the date of arrival of the vessel carrying the Equipment off a Port, the Owner shall indemnify the Contractor against all costs and expenses incurred by the Contractor by reason thereof.

5.05 Assistance with Work Permits

The Owner shall obtain for the Contractor work permits and visas from the appropriate..... authorities for all Contractors, Sub-Contractors and Suppliers personnel needed by the Contractor for the Work.

5.06 Customs Duties and Import Taxes

The Owner shall be responsible for all customs duties or import taxes which may be payable in respect of the importations into of the Equipment, or the Contractors Equipment, and Owner shall indemnify the Contractor in respect of any such customs duties or import taxes which may be assessed against or levied upon the Contractor. Furthermore the Contractor shall be indemnified against any additional costs arising out of delays to the implementation of the Contract caused as a result of late payment of such duties or import taxes.

5.07 Taxes

The Owner shall to the Authorities and shall indemnify the Contractor against, all taxes imposed by the Authorities on Contractor, his Sub-Contractors and Suppliers and Contractors staff and Sub-Contractors staff and Suppliers Staff not being nationals or persons domiciled in
.....

ARTICLE 6 - CONTRACT PRICE

- 6.01 The Contract Price payable by the Owner to the Contractor shall be US Dollars - - - - - .
- 6.02 11% of this Contract Price shall be adjusted to take account of any fluctuation in parity of the US \$ and the W.German D.M. The base rate for the purpose of such adjustment shall be one US \$ = 2.348D.M.
- 6.03 7½% of the Contract Price shall be adjusted to take account of any fluctuation in parity of the US \$ and the The base rate for the purpose of such adjustment shall be one US \$ =
- 6.04 The Contract Price shall be adjusted to take account of changes in the cost levels of materials, labour, services and other requisites that occur between June 1975 and the time at which the Work is carried out. Such adjustment shall be carried out in accordance with the following formula.

$$P_1 = P_0 \left(0.08 \frac{A_n}{A_0} + 0.44 \frac{B_n}{B_0} + 0.09 \frac{C_n}{C_0} + 0.11 \frac{D_n}{D_0} + 0.28 \frac{E_n}{E_0} \right)$$

In the above formula:-

P_1 = the final adjusted Contract Price.

P_0 = the aggregate of the original Contract Price (as stated in 6.01 hereof) and all agreed Changes of Scope in accordance with Article 8 hereof, the whole relating to cost indices for June 1975

A_0 = The index of average earnings of all employees, monthly basis, seasonally adjusted, published by the U.K.

Department of Employment and reproduced in the periodical Digest of Statistics published by H.M.S.O for June, 1975.

A_n = The index described in A_0 above, but as confirmed for the month 16 months from the Effective Date.

Bo = The wholesale price index for the output of the Mechanical Engineering Industry published by the U.K. Department of Industry and reproduced in the periodical Digest of Statistics published by H.M.S.O for June, 1975.

Bn = The index described in Bo above but as confirmed for the month 22 months from the Effective Date.

$\frac{Cn}{Co}$ = a fraction derived from a cost index or indices confirmed for the month 22 months from the Effective Date divided by the same index or indices for June, 1975, the designation of such indices being that which the Contractor shall reasonably agree with Suppliers of any equipment goods or services purchased by the Contractor from French Sources for use on this Contract.

$\frac{Dn}{Do}$ = a fraction as described in $\frac{Cn}{Co}$ above but the indices for which the Contractor shall reasonably agree with Suppliers of any equipment goods or services purchased by the Contractor from Sources within the Federal Republic of Germany for use on this Contract.

$\frac{En}{Eo}$ = a fraction representing average cost levels experienced by the sub-contractor in performing work associated with the site construction of the Contract Work divided by corresponding cost levels for June, 1975 as shall reasonably be agreed between the Contractor and the sub-contractor and demonstrated to the Owner.

5.05 Any adjustments resulting from the application of the provisions of Articles 6.02 and 6.03 hereof shall be made on the basis of differences between the base rates stated in 6.02 and 6.03 and the corresponding effective rates experienced by the Contractor in the performance of the Contract and as confirmed by an Independent Auditor. Such

Independent Auditor to be a partnership of Chartered Accountants carrying on business in the United Kingdom.

- 6.06 Changes of Scope agreed under Article 8 hereof shall be costed at price levels applying at the time of calculating such change costs. Before addition to or subtraction from Po in 6.04 hereof the price so calculated shall be adjusted to price levels ruling at June, 1975 by the inverse application of appropriate cost indices.
- 6.07 If the programme given in the Proposal for the Performance of the Work is extended through the introduction of Changes of Scope or for any other reasons beyond the control of the Contractor then the period between the Effective Date and the months of application for An, Bn, Cn and En shall be adjusted accordingly.
- 6.08 If it can be demonstrated that the modifying index at the month of application is not truly indicative of cost changes as indicated by the general movement of that index during the Contract period then the Contractor and the Owner shall agree such alternative value for the modifying index as can be demonstrated by such general movement.

ARTICLE 7 - TERMS OF PAYMENT

7.01 The Owner shall pay the Contract Price in the manner specified in 7.02

7.02 The Contract Price specified in Article 6.01 plus or minus any adjustments made in accordance with Articles 6.02, 6.03 and 6.04 by the procedure specified in Article 7.04 shall be paid as follows:-

(i) By a payment of 7½% of the Contract Price ("the Down Payment") payable on signature of the Contract.

(ii) By payments ("the Scheduled Payments") paid in accordance with the following schedule.

15% less any amount previously paid, plus or minus any adjustments arising from 7.04, to be paid 3 months from the Effective Date.

20%	"	"	6
30%	"	"	9
35%	"	"	12
45%	"	"	15
60%	"	"	18
70%	"	"	21
80%	"	"	24
85%	"	"	27
87%	"	"	30
90%	"	"	33
95%			

to be paid within 30 days of the date of Mechanical Completion of the Plant

100% " " within 30 days of the date of the Plant Acceptance Certificate.

7.03 (i) The Down Payment shall be made in US \$ direct to the Contractor's bank account at National Westminster Bank Ltd., (hereinafter called "Nat-West") 62, Victoria Street, London.

(ii) Each Scheduled Payment, plus or minus any adjustments arising from 7.04 to be drawn against confirmed, irrevocable Letters of Credit established by the Owner at Nat West in favour of the Contractor in accordance with 7.05.

7.04 Each Scheduled Payment payable in accordance with 7.02 shall be calculated as follows:-

i) The value of the percentage of the Contract Price scheduled in 7.02 for the scheduled payment shall be adjusted by the formula set out in 6.04. If at the time of such adjustment final index figures for any index are not available, provisional index figures may be used, and if provisional index figures are not available at that time the Contractor shall estimate the index figure for the purpose of making the adjustment. The Owner shall accept such provisional index figure or such estimate by the Contractor, and any discrepancy between the final index figure and provisional or estimated index figures shall be rectified either in the calculation for the next Scheduled Payment or in the Final Reconciliation Certificate.

ii) The sum calculated in accordance with paragraph (i) shall then be adjusted to take account of any variation in the parity of the US dollar and the Deutsche Mark and

..... at the date of the Scheduled Payment in accordance with 6.02 and 6.03 respectively. The Owner shall accept the Contractor's estimate of the respective parities at the date of the Scheduled Payments and any discrepancy between the estimated and actual rates would be rectified either in the next Scheduled Payment or in the Final Reconciliation Certificates.

7.05 The Owner shall open confirmed irrevocable Letters of Credit securing percentages of the Contract Price in accordance with the following schedule:-

(i) 12% of the Contract Price plus or minus adjustment made in accordance with Articles 6.02, 6.03 and 6.04 following the Procedure of Article 7.04 to be established on Signature of the Contract.

21% of the Contract Price plus or minus adjustments made in accordance with Articles 6.02, 6.03 and 6.04, following the procedure of Article 7.04 less any amount previously established, to be established within 3 months of the Effective Date.

45%	"	"	6 months
66%	"	"	9 months

(ii) Eleven months from the Effective Date the Contractor shall notify the Owner in writing of the estimated final Contract Price including the Contractors forward estimate of fluctuations under Article 6.0 to the end of the Performance of the Work. The Owner shall within one month of the date of such Contract establish confirmed irrevocable Letters of Credit at Nat-West for 80% of the sum so estimated, less any amount previously established under paragraph (i) above.

(iii) From time to time thereafter the Contractor shall make any revisions necessary to such forward estimate and shall notify the Owner thereof not later than one month before the date on which the Owner is to establish confirmed irrevocable Letters of Credit in accordance with the following schedule:-

95% of such revised estimate less any credits previously established to be established at 15 months from Effective Date.

96%	"	"	18 months
97%	"	"	21 "
98%	"	"	24 "
99%	"	"	27 "
100%	"	"	30 "

7.06 Valid Claims

(a) From time to time the Contractor may make claims to Nat-West for payments in the manner hereinafter specified, and the Owner hereby agrees that the claims so made shall constitute Valid Claims by the Contractor against Nat-West for the purpose of the Contract.

(b) A Valid Claim shall be a claim made by the Contractor to Nat-West for payment to the Contractor from one or more of the Letters of Credit established by the Owner in favour of the Contractor pursuant to this Article.

(i) In respect of any Scheduled Payment due under Article 7.02 by the submission of the Contractor's Invoice stating the amount of the Scheduled Payment, as adjusted, - The Contractor's written statement that the matters to which the report relates have not been submitted to arbitration and that to the best of the Contractor's belief neither the Contractor nor the Owner intend to submit such matters to arbitration.

(ii) In respect of any sum due on an award of arbitrators under Article 19 by the submission of two duly authenticated copies of the arbitration award and the Contractor's invoice for the amount of such award, specifying the amounts to be drawn from each Letter of Credit established in the Contractor's favour at Nat-West.

(iii) In respect of any sum due in respect of the Final Reconciliation Certificate by the submission of the Contractor's invoice and a copy of the Final Reconciliation Certificate, signed by the Contractor and by the Owner.

7.07 Final Reconciliation Certification

After signature of the Plant Acceptance Certificate a final reckoning shall be made of amounts due under the Contract, and the Contractor shall present to the Owner a Final Reconciliation Certificate stating inter alia the amounts still secured by Letters of Credit, and the amount owing to the Contractor or the Owner. Upon receiving the Final Reconciliation Certificate duly countersigned by the Owner the Contractor will either (a) present a Valid Claim to Nat-West and an Invoice to the Owner for any amount owing to the Contractor in excess of the amount secured by the Letter of Credit, which Invoice shall be paid by the Owner within seven days of receipt thereof, or (b) remit within seven days to the Owner the amount shown on the

Final Reconciliation Certificate to be due to the Owner from the Contractor.

7.08 All Bank Charges, Commissions and other costs connected with the establishment of all Letters of Credit opened in accordance with the requirement of this Contract shall be paid by the Owner.

ARTICLE 8 CHANGE IN CONTRACT WORK

8.01 The Owner shall have the right to request in writing changes or additions to the design, drawings, materials and equipment within the general scope of the Contract.

8.02 The Contractor shall comply with such requests by the Owner if, in its judgment, such changes or additions would not jeopardise fulfilment of the Contractor's obligations under the Contract. If in the Contractor's judgment fulfilment of any of these obligations under the Contract would be jeopardised as a result of these modifications the Contractor shall not be required to make such changes or additions, unless its own obligations are modified in consequence.

8.03 For all such changes or additions, the Contractor shall submit promptly in writing to the Owner the estimate of the costs and changes to the programme on the basis of which the Contract Price and Contract Period shall be adjusted, together with details of all variations required to be made to any of the Contractor's obligations under the Contract. Thereafter, the Owner and the Contractor shall agree in writing on the changes or additions, in each instance, and on the relative terms of payment and on any variation arising therefrom to any of the Contractor's obligations. The Owner shall be responsible for the cost of preparation of the estimates for the changes or additions, if such changes or additions are not subsequently incorporated into the Contract, which costs shall be charged at an hourly rate of plus attendant expenses.

8.04 It is agreed that no changes or additions shall be put into effect and that no work shall be performed, nor equipment or materials supplied as a result of such changes or additions, until agreement in writing has been reached between the Contractor and the Owner on any modification to the Contractor's obligations under the Contract.

8.05 Notwithstanding the provision in Clause 8.03 for agreement on the relative terms of payment any increase in the Contract Price and Contract Period arising as a result of any such agreed changes or additions and any cost of preparing estimates for which the Owner is responsible under the provisions of Clause 8.03 shall be paid in sterling to the Contractor's nominated bank upon monthly presentation of invoices.

Article 9 MECHANICAL COMPLETION AND ACCEPTANCE

9.01 As soon as any Unit or any part thereof is, in the opinion of the Contractor, complete, except in minor respects which do not affect the operation or safety of the Unit, the Contractor shall after giving not less than ten days written notice to the Owner conduct the mechanical tests specified in Annex 3 on the Unit. the successful completion of mechanical tests for a Unit the Contractor shall submit and the Owner shall sign a Mechanical Completion Certificate for that Unit.

9.02 If any part of a Unit fails to pass a mechanical test the Contractor shall submit and the Owner shall sign a Mechanical Completion Certificate for the remainder of the Unit; and the Contractor shall make such adjustments as he deems necessary to enable that part to pass the mechanical tests. Upon completion of the said adjustments the mechanical tests shall be repeated.

Upon successful completion of the repeated tests the Contractor shall submit, and the Owner shall sign a Mechanical Completion Certificate for that part of the Unit not previously certified.

9.03 The date of Mechanical Completion of the Plant shall occur on the date of the issue of the last Mechanical Completion Certificate for the last part of the last Unit.

9.04 If for any reasons not attributable to the Contractor a Mechanical Completion Certificate for any Unit or any part thereof has not been signed by the Owner with 54 months of the Effective date, the Unit, or part thereof shall be deemed to be mechanically complete and the Contractor shall issue and the Owner shall sign a Mechanical Completion Certificate in respect thereof which shall be effective for all purposes under the Contract. Provided that if there have been delays which are the

responsibility of the Contractor, the total duration of such delays shall be added to the 54 month period, and at the expiration of such extended period the Contractor shall issue and the Owner shall sign the Mechanical Completion Certificate as if there had been no delay attributable to the Contractor.

9.05 Upon the issue of a Mechanical Completion Certificate the Unit or part thereof therein certified shall become the risk of the Owner, who shall take possession thereof. The Owner and the Contractor shall agree on the terms and remuneration for the supply by the Contractor of commissioning staff and remuneration to advise the Owner in the start up of the Units, and the conduct of performance tests. The Owner with the benefit of such advice, shall then forthwith start up the Unit prepare for and carry out the performance tests specified in the Proposal and thereafter service and maintain the Unit.

9.06 Performance Tests

When the Contractor considers that a Unit is capable of achieving the performance guarantees the Contractor shall so notify the Owner in writing. Within ten days of the date of such notice the Owner shall carry out the performance tests for the Unit as specified in the Proposal with the advice of the Contractor, provided in accordance with the Agreement referred to 9.05 and in accordance with the instruction manuals provided by the Contractor. Every performance test shall be carried out to completion unless either the Contractor or the Owner order it be stopped on the ground that its continuance would endanger any person or cause damage to the Unit.

9.07 The operation of a Unit or the Plant for commercial purposes shall be subordinated to the activities in respect of performance tests until an Acceptance Certificate is issued.

9.08 Upon the successful completion of performance tests for a Unit as a part thereof the Contractor shall issue and the Owner shall sign an Acceptance Certificate for the Unit or the specified part, and upon signature of the Acceptance Certificate the Contractor shall be under no further liability in respect of the Unit or the specified part, other than liability for defects in accordance with Article 10.5.

9.09 If any Unit or any part thereof fails to pass any performance test or to achieve any performance guarantee, then the Contractor may exercise its option under Article 10.2 so that

i) If the Contractor exercises its option under Article 10.2 (d) upon the Contractor liquidating his liability the Owner shall sign an Acceptance Certificate as if the Unit or the part thereof had passed the performance test;
or

ii) If the Contractor exercises its option under Article 10.2 (b) the contractor shall undertake at its own expense such redesign, re-engineering or supply of replacement or additional Equipment as the Contractor considers necessary, and the Owner shall adjust the Unit as the Contractor shall recommend, and the performance test shall be repeated as soon as practicable thereafter.

- 9.10 Upon the signature by the Owner of the Acceptance Certificate for the last part of the last Unit the Contractor shall submit and the Owner shall sign the Plant Acceptance Certificate.
- 9.11 If for any reason not solely attributable to the Contractor an Acceptance Certificate for any Unit is not signed by the Buyer within 6 months after the date of the Mechanical Completion Certificate for that Unit, or within 60 months of the Effective Date, whichever period shall first elapse, then the Unit shall be deemed to have passed its performance tests and the Contractor shall submit and the Buyer shall sign an Acceptance Certificate for that Unit which shall be effective for all purposes under the Contract. Provided that if an Acceptance Certificate has not been signed for reasons partly attributable to the Contractor, and partly for reasons not attributable to the Contractor, and if the reasons attributable to the Contractor are delays, then the said 6 month periods shall be extended by a period equal to the delays and at the expiration of the first to elapse of such extended periods the Contractor shall submit and the Owner shall sign the Acceptance Certificate.
- 9.12 If a Unit has not passed its performance tests within 12 months of the date of the first performance test of the Unit, the Contractor shall pay Liquidated Damages in accordance with Article 10.

ARTICLE 10 -- GUARANTEES

10.01 The Contractor guarantees that when operated in accordance with the Contractor's instructions and within the specifications listed in the Proposal, the Units will achieve the output and performance specified in the Proposal.

10.2 In the event that any of the Units fail to achieve the performance guarantees specified in Clause 10.01 by 10% or less, the Contractor may at its option (a) pay to the Owner liquidated damages calculated at the rate of for each 1% by which the capacity of the Plant fails to meet the guaranteed performance; or (b) Undertake at his own expense such redesign or re-engineering as may be necessary to enable the Plant Units to meet the performance guarantees.

10.3 The Contractor shall obtain or cause its Sub-Contractors to obtain for the benefit of the Owner from all Suppliers of Equipment all normal guarantees as to workmanship and materials in respect of such equipment.

10.4 The Contractor shall in the name of the Owner effect guarantees for the Equipment to be designed and/or supplied by Sub-Contractors and/or Suppliers for quality of materials and workmanship, and these guarantees will be made available for the Owner, but the Contractor shall not be deemed to be a guarantor thereof.

10.5 Subject to the provisions of 10.6 if at any time before the date of mechanical completion or within a period of 12 months from the date of mechanical completion the Contractor or the Owner shall reasonable determine that any part of the work or any work done or any Equipment, is defective or not in accordance with the Contract, (all such matters being hereinafter called "defects") then the Contractor shall either:

- a) make good with all possible speed the defect so determined; or
- b) procure as agent for and on behalf of the Owner that the defect so determined be made good.

10.6 The cost of making good a defect shall constitute part of the Contract Price except:

- a) to the extent that the Contractor is indemnified in respect of such cost by any insurer under a policy effected in accordance with the Contract; or
- b) where the defect is made good by a Supplier or Sub-contractor without further charge to the Contractor, or the cost of making good the defect is paid by the Supplier or Sub-contractor to the Contractor; or
- c) where the defect is due to the failure on the part of the Contractor to exercise the normal care and diligence exercised in the conduct of the business of the Contract.

10.7 Nothing contained in this clause shall be construed to take effect to impose on the Contractor any responsibility or liability for defects in any Equipment which shall exceed in terms of time extent or otherwise that undertaken by the Supplier or Sub-Contractor providing that Equipment.

ARTICLE 11 - CARE OF THE WORKS

11.01 In the event of any loss or damage to the Equipment, to any part of the works, such loss or damage occurs before the date of the Acceptance Certificate, the Contractor shall remedy or cause to be remedied such loss or damage as if it were a defect to which the provisions of Article 10.05 applied and the costs thereof shall be borne in accordance with the clause 10.06.

11.02 Property in the Equipment shall pass to the Owner upon its delivery to the Owner ex works.

ARTICLE 12 - INSURANCE

12.01 The Owner shall take out in the joint names of the Contractor and the Owner.

a) A contractors All-Risk policy insuring the Works and the Contractors Equipment against all risks other than such of the excepted risks as cannot customarily be insured against.

b) A policy of marine insurance containing Institute Cargo Clauses (all risks) including War, Strike, Riots and Civil Commotion Clauses on all equipment to be shipped under the Contract; and

c) A policy of transit and on-site insurance covering all risks normally insured against until acceptance of the Plant by the Owner in accordance with the provisions of the Contract.

d) A policy in respect of the liability of the Owner and the Contractors as employers, in respect to or in consequence of any accident to or any injury to any workman in the employment of the Owner, the Contractor or any supplier or Sub-Contractor.

Such policies shall be for full replacement value, and effects with an Insurer or Insurers and carrying on business in the United Kingdom.

12.02 The Contractor shall indemnify and keep indemnified the Owner against all losses and claims arising from injury to any person or damage to property, including any property of the Owner not being part of the Plant, which may be caused by the negligence of the Contractor during the performance of this Contract.

12.03 The Owner shall hold harmless and indemnify the Contractor from and against all claims, demands, proceedings, damages, costs, charges and expenses in respect of any claim made by any third party in consequence of or arising from the execution of the Work otherwise than as the result of the negligence of the Contractor, his servants or agents.

12.04 From the Effective Date of the Contract, the Contractor (without limiting its obligations and responsibilities under Article 12.01 above) shall take out an insurance policy in its name against any damage, loss or injury which may occur to any property (including any property of the Owner not being part of the Plant) or to any person by or arising out of the negligence of the Contractor in the carrying out of this Contract. Such insurance shall be effected for an amount not less than one million pounds sterling in respect of any one accident.

12.05 The Owner and the Contractor shall produce the relevant insurance policy or policies, together with the receipts in respect of premiums paid on this policies, at the request of the other party provided always that the production of a valid certificate of insurance issued by the insurers shall represent fulfilment of the obligation to produce the policy and the receipts in respect of the premiums paid.

12.06 In the event of accident, injury, or damage or loss likely to constitute a claim under the terms of the insurance referred to in this Article, the Contractor shall, as quickly as possible, arrange to submit the necessary details to the insurance company and shall

provide the necessary information and assistance to settle the claims.

12.07 All monies that become payable under any insurance policy effected in accordance with the Contract shall be used to make good the loss or damage in respect of which they become payable.

12.08 Notwithstanding anything contained elsewhere herein, the Contractor shall not be liable in any way for:

- a) the loss, the destruction or damage to any property whatsoever or any loss or expenses resulting or arising therefrom or from any consequential loss, or any legal liability of whatsoever nature directly or indirectly caused by or arising from ionising radiations or contamination by radio-activity from any nuclear material or nuclear waste resulting from the combustion of nuclear material or the radioactive toxic explosive properties or other hazardous properties of any nuclear assembly components hereof; or
- b) Any loss or damage resulting from any of the excepted risks as defined in the insurance policy referred to in Article 12.03.

12.09 The Contractor shall not, in any circumstances, be liable for any of the following:-

- a) Subject to the provisions of Article 12.02 any claim made against the Owner by third parties.
- b) Any damage, injury or harm caused by or arising from the acts or omissions of the Owner, its representatives associates or employees sub-contractors or third parties not being the servants or agents of the Contractor.

ARTICLE 13 - GRANTING OF LICENCES AND USE OF TECHNICAL INFORMATION

13.01 Granting of Licences

By virtue of the Contract and so long as the Owner shall not be in default under the terms of the Contract, the Contractor hereby grants to the Owner fully paid up, non-exclusive rights and licences to use in the Plant all processes and know-how owned by the Contractor and incorporated in the Plant under the Contract, as well as a fully paid up, non-exclusive right and licence under all patents applied for, provisional patents, patents issued and patents controlled by the Contractor and incorporated in the Plant supplied under the Contract, provided that such rights and licences are used only in respect of the Plant.

13.02 Use of Technical Information

The Owner agrees not to use the technical information, drawings, or any other data contained therein, supplied by the Contractor under the Contract, for the design or construction of any other plant without the prior written consent of the Contractor. The Owner shall not disclose, without the Contractor's prior written consent, any technical data of the plant or of processes employed therein to persons other than his own regular employees. The Owner shall use its best endeavours to prevent its employees from making such disclosures to third parties. It is agreed that this Article of the Contract shall not be interpreted to; prevent such reasonable inspection of operations of the Plant by persons engaged in the sale or repair of equipment as are generally considered necessary in connection with the repair and maintenance of plant.

ARTICLE 14 ASSIGNMENT AND SUB-CONTRACTING

14.01 Neither of the parties shall assign the Contract or any part of the Contract or any share or interest therein without the prior written consent of the other. This consent shall not be denied without good reason. The Contractor may sub-contract the execution of one or more parts of the Work in accordance with Article 3.09.

ARTICLE 15 LIMITATION OF LIABILITY

15.01 Notwithstanding the provisions of this Contract,

a) the Contractor shall in no circumstances be liable in respect of any consequential loss or loss of profit suffered by the Owner in connection with or arising from the Contract,

and

b) the total liability of the Contractor under or in connection with the Contract or the Plant (arising from contract, tort or howsoever) shall not exceed $£3 \times 10^6$ (three million pounds sterling).

ARTICLE 16 FORCE MAJEURE

16.01 In the Contract "force majeure" shall mean any circumstances beyond the reasonable control of the Contractor or of the Owner which prevent or impede the carrying out of obligations under the Contract and which shall be deemed to include but shall not be limited to the following cases:

a) any war or hostilities

b) any riot or civil war

c) any act of any de facto or de jure government

d) any earthquake, flood, tempest, lightning or other natural physical disaster, the impossibility of the use of any railway, port, airport, shipping service or other means of transport.

e) any accident, fire or explosion not caused by the negligence of the Contractor.

f) any strike or lock-out or other industrial action affecting the performance of the contractual obligations.

16.02 If the Contractor or the Owner is prevented or delayed in the performance of any of its contractual obligations as a result of force majeure, and if the party so prevented or delayed as soon as reasonably possible gives written notice thereof to the other party specifying the matter constituting force majeure with the necessary evidence that a contractual obligation is hereby prevented or delayed, together with the further period for which it is estimated the such prevention or delay will continue, then the party so prevented or delayed shall be excused the performance or punctual performance as the case may be of such obligation as from the date of such notice for a period equal to the period of the delay attributable to the force majeure.

16.03 If, by virtue of the proceeding paragraph, either party shall be excused the performance or the punctual performance of any obligation for a continuous period of 3 months, the other party shall have the option to suspend further performances of the Contract for so long as the force majeure circumstances continue but in any event the parties shall meet with a view to agreeing on the action to be taken in the circumstances and on the amendments to be made to the terms of the Contract.

16.04 If, by virtue of paragraph 16.02 of this Article, either party shall be excused the performance or the punctual performance of any obligation for a continuous period of 6 months and if the

meeting referred to in the preceding paragraph has not resulted in agreement or has not taken place because the parties have been unable to communicate with one another by normal means, then, subject to the provisions of Article 17 (Termination of Contract) either party shall have the option to terminate the Contract. Upon exercise of such option the parties shall be released from further performance of all the obligations of the Contract (other than those specified in Article 17, Termination of the Contract, and in Article 19, Arbitration).

ARTICLE 17 TERMINATION OF THE CONTRACT

- 17.01 If the Owner contravenes the provisions of Article 7 or contravenes the provision of any condition of the Contract then the Contractor may suspend the work forthwith and give the Owner notice in writing calling on the Owner to make good the contravention within 30 days and in default of compliance with such notice the Contractor may terminate the Contract without prejudice to its rights and the Owner shall be liable for all damages which the Contractor may sustain as a result.
- 17.02 If the Contractor or the Owner terminates the Contract in accordance with the provisions of Article 16 or if the Contractor terminates the Contract in accordance with the provisions of Article 17.01 the Owner shall pay to the Contractor all sums due in respect of work performed prior to such termination except to the extent that such sums have already been paid and in addition the Owner shall pay the following:
- a) A sum in respect of the contract value of any expenditure incurred or commitment entered into by the Contractor in the expectation of completing the whole Work.
 - b) The cost of removal of all the Contractor's Equipment from the site and its return to the country of origin or some

other country to be nominated by the Contractor.

- c) The cost of repatriation of all foreign personnel brought into by the Contractor or any Sub-contractor of the Contractor for the purpose of the Contract.
- d) A sum in respect of the Contractor's loss of profit as a result of the premature termination of the Contract.

17.03 All sums due in accordance with the provisions of Article 17.02 shall be approved by the report of an independent firm of Chartered Accountants carrying on business in the United Kingdom, as being in its opinion properly payable in accordance with the terms of the Contract. Such firm shall be appointed by agreement between the parties, or in default of such agreement by the President of the Institute of Chartered Accountants of the U.K within 30 days of termination.

17.04 Notwithstanding the provisions of Article 17.03 if the Contractor or the Owner so require or they fail to reach agreement as to the amount due to the Contractor, the matter will be determined by an arbitration award made in accordance with the provisions of Article 19.

ARTICLE 18 CONTRACTORS DEFAULT

18.01 If the Contractor shall fail to execute the work with due diligence and expedition or shall commit any breach of any condition of the Contract entitling the Owner to rescind the Contract the Owner may give the Contractor thirty days notice in writing to make good that failure, neglect or breach. Should the Contractor fail to comply with the notice for any breach capable of being made good within that time, or otherwise within such time as may reasonably be necessary for making it good, then the Owner shall be a liberty to terminate the Contract forthwith, (by giving notice to the Contractor.

ARTICLE 19 ARBITRATION

19.01 If, at any time, any question, dispute or difference whatsoever shall arise between the Owner and the Contractor concerning this Contract, either party may forthwith give to the other notice in writing of the existence of such question, dispute or difference, which shall be finally settled in accordance with the Rules of Conciliation and Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in conformity with those Rules. The venue of the arbitration shall be London, England.

19.02 No payment due or payable by the Owner shall be withheld because of such arbitration proceedings unless it is the subject matter or one of the subject matters of those proceedings.

ARTICLE 20 GOVERNING LAW

20.01 The Contract shall be governed by and construed in accordance with English law.

ARTICLE 21 INTERPRETATION

21.01 The Contract contains all the terms and conditions agreed to by the parties and no representation, promise or undertaking made or given by either of the parties prior to the date of execution of the Contract shall be of any force or effect unless the same is contained in the Contract. No amendment of the terms or conditions of the Contract shall be of any force or effect unless made in writing and signed by both parties or by their duly authorised representatives.

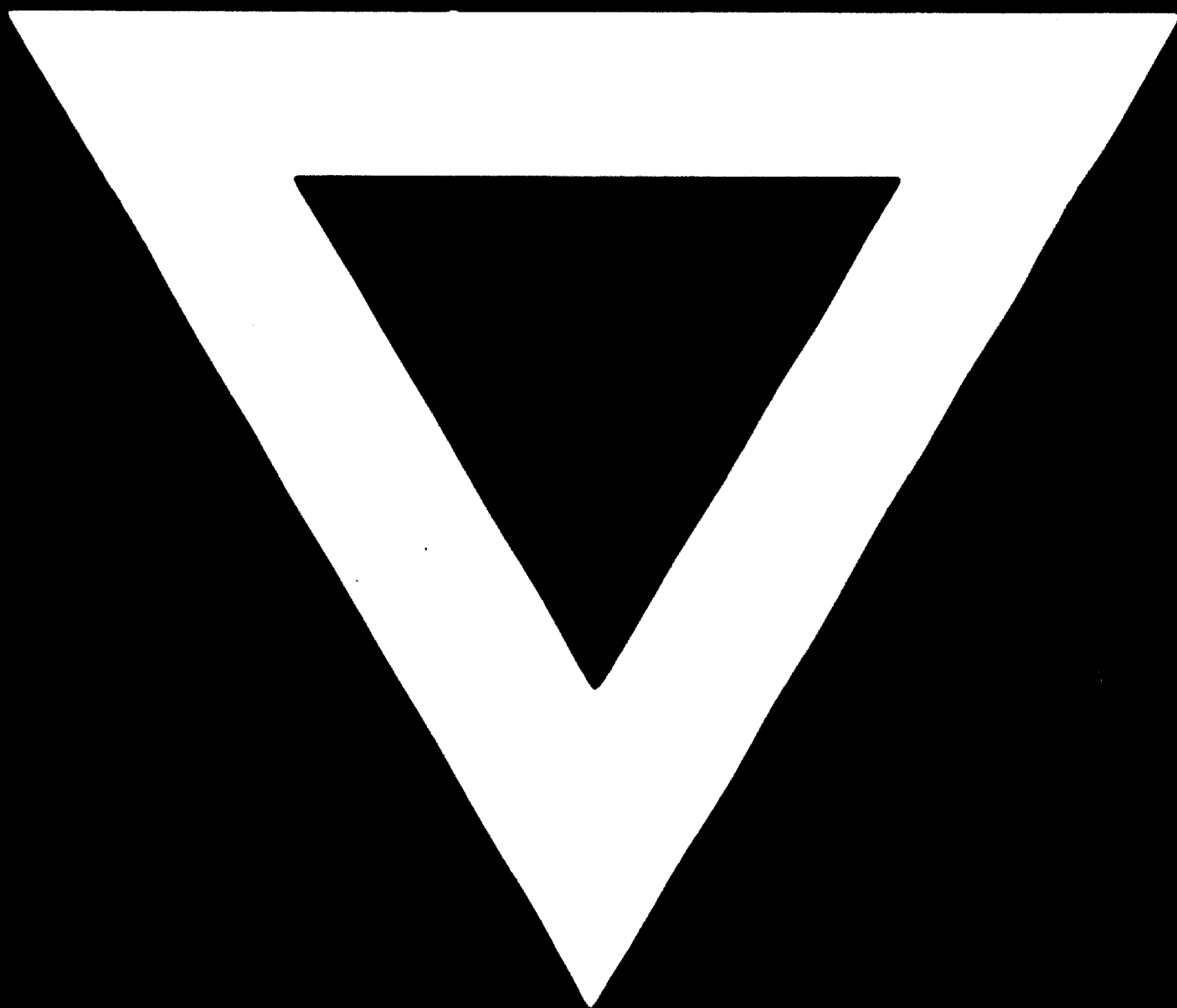
21.02 Should a dispute arise as a result of a conflict between the terms of conditions contained in one or more of the documents constituting the Contract and any term or condition contain in any other such document or documents the following order of precedence shall apply:

- a) Articles 1 to 21 (inclusive) of the Contract
- b) Annexes 1 to (inclusive)
- (c) The Proposal

IN WITNESS WHEREOF the Contractor and the Owner acting through duly authorised representatives have signed the Contract in their respective names and dated the day and year first above written.



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