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NI/GP/63/20

NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR SCIENCE

GENERAL PURPOSES COMMITTEE

S.W.O. Fees on "Package" Contracts

Note by P. Bowles

At the last meeting of the General Purposes Committee I was asked to enquire from the Southern Works Organisation of the U.K.A.E.A. the breakdown of their fees which amount to a proposed figure of 10% on package contracts. I have now received a report from S.W.O. and they explain that the term "package contract" is very loosely used to describe the many varied forms of contract where the contractor does some part, or all, of the design of the work.

In analysing these contracts more particularly, I shall use the term "package deal" in this note to mean that portion of the scheme for which the contractor is responsible for design. Five "package contracts", in the loose sense have been carried out at the Rutherford Laboratory, and the following table shows the total value of the Instruction to Proceed and the amount which was the subject of a "package deal".

<u>Job No.</u>	<u>I.T.P.</u>	<u>Value of "Package deal"</u>	<u>"Package deal" as % of I.T.P.</u>
SS.6600 (Building R.20)	£44,000	£22,034	50%
SS.6633 (R.20 Extension)	£14,980	£9,820	66%
SS.6619 (Heavy Lab. and SS.6634 Office Block)	£199,000	£156,424	78%
SS.6645 (Plant Store)	£39,000	£33,242	85%

Usually the "package deal" includes the foundations and the building with its internal services but it does not include feeder roads, car parks, external drains and services, which need to be integrated with existing services. The fee for these latter is the normal 15-16%. The fee for the "package deal" element of the contract is estimated to be 8%. The average fee for the mixed schemes carried out for the Rutherford Laboratory amounts to about 10%.

The 8% fee for "package deal" work is made up as follows:-

Architectural and engineering design staff	3½%
Quantity Surveyor fees	1½%
Supervision of construction	3%

These figures are appropriate for the first building of its type, but if a second building is to be built to the same design, the design element of the fee can be reduced to about 1½% and the total fee (for the "package deal" element of the project) to about 6%.

In explaining the amount and category of each work included within the 8% fee, the S.W.O. have provided an analysis of their costs for a

£100,000 "package deal" of the type carried out for the National Institute. This analysis is shown in the Appendix to this note. It shows that a considerable proportion of the expenditure is incurred in taking the brief, preparing the sketches, obtaining the relevant committee's approvals, preparing the contract specification, and the vetting and approving of all the contractors drawings and details. I have questioned the necessity for this amount of preparatory work, but S.W.O. have assured me that this work is necessary to ensure that the contractors designs meet the Laboratory's requirements and are to an acceptable site standard, and that unless we are prepared to put ourselves completely in the hands of the builder, it could not be substantially reduced.

S.W.O. have indicated that they are prepared to send a senior representative to the next General Purposes Committee if you so wish, to give a more detailed explanation of how the expenditure is built up or to answer specific questions for the Committee members.

Build up of Fees on a £100,000 "Package Deal"
of Type Carried out by S.W.O. for N.I.R.N.S.

	Cost
	£
(1) Taking brief, analysing, preparing initial sketch plans, discussion of sketch plans with clients and redrawing or modifying to suit requirements including consultations with M. & E., Structural and Civil D.O.s.	750
(2) Preparation of token estimate by Q.S. and designers.	100
(3) Preparation of programme in co-operation with design offices and R.E.	80
(4) Survey of site.	150
(5) Preparation of project sketches showing requirements for tender purposes of architectural, structural and civil (where required) and M. and E. work.	500
(6) Preparation of project estimate for I.T.P. by Q.S. and by designers.	150
(7) Obtaining approvals of relevant committees, Planning, Fire, Health and Safety, Building Committee etc.	250
(8) Preparation of contract specification and documents by Q.S. and designers.	300
(9) Vetting of tenders and pricing by Q.S., including comparative estimates as required to ensure total costs are fair and reasonable, attending meetings and discussing with contractor.	300
(10) Vetting of tenders by Architects, Structural, Civil and M. & E. engineers to ensure requirements have been met, standards of work are acceptable to client and to the Planning Authority to whom the A.E.A. act, discussions with contractor to ensure that items not detailed at this stage are acceptable.	350
(11) Vetting of all contractor's detail drawings and calculations by designers to ensure standards are acceptable and design correct, say five days per month for six months.	600
(12) Preparation of monthly certificates by Q.S. and assistance to R.E., say two days per month for fifteen months.	450
(13) Periodic checks of programme to ensure progress and any necessary progress action, say one day per month for fifteen months.	250
(14) Attendance at site meetings by all designers, periodic site visits and settlement of queries during course of the contract, say 2½ days per month for fifteen months.	700

c/f £4,930

	<u>Cost</u>
	£
	£4,930
(15) Site clerk of works for, say, twelve months.	2,000
(16) Proportion of site supervision over clerk of works, say	500
(17) Proportion of site clerical staff, say	500
(18) Preparation of final account by Q.S. including minor variations and dayworks.	150
(19) Vetting of final accounts by superintending officers, clearing queries and producing record drawings.	150
	<u>£8,230</u>

Notes

- (i) The figures envisage virtually no variations.
- (ii) The package contract envisaged is the normal type required for N.I.R.N.S. work where sketch plans and a reasonable but not detailed specification is required.
- (iii) The work required to be carried out is detailed reasonably accurately but the times quoted will vary considerably from contract to contract and should only be taken as a guide.