

Chemical Const. Corp  
Ray, N.J. 045.2

FMD Class. Sec 4

SLP 1547/1642/1912/1896

NJ.12-3

Box 14-331-13

H. B. Fry, Manager, NYCO

September 24, 1953

R. L. Kirk, Director, Production Division

NJ.12

FRC 41

REQUEST FOR AMENDMENT TO EXTEND CONTRACT AT(30-1)-1485  
WITH THE CHEMICAL CONSTRUCTION CORPORATION

SYMBOL: PP:EHF

ATTENTION: V. G. Dunscombe

SUMMARY

We are requesting an amendment to Contract AT(30-1)-1485, scheduled to terminate September 30, 1953, as follows:

1. A one-month extension to facilitate preparation of the Chemico final report, particularly with respect to site evaluation.
2. A six-month extension primarily to insure having Chemico available for consultation on NYCO site evaluation work for the Waste Residue Recovery Plant, but also to keep Chemico available for development work on the alternate carbonate autoclave leach process.

The amendment is estimated to require an additional \$12,000.

DISCUSSION

We are requesting an amendment to extend Contract AT(30-1)-1485 with the Chemical Construction Corporation, 488 Madison Ave., New York, New York. This is a CPFF Contract primarily for research and development to provide a process for our Waste Residues Recovery Program. Work has been performed under this Contract at the Linden, New Jersey laboratory of the Chemical Construction Corporation and at Chemical Construction Corporation New York address. One satisfactory process, the acid autoclave leach process, has been singled out and carried as far as process design.

Work was initiated on this Contract on March 1, 1953 and was scheduled to be completed on September 30, 1953. Details such as the CPFF justification, overhead rates, the fixed fee, etc. can be obtained from the "Proposal of Award - Contract AT(30-1)-1485 with the Chemical Construction Corporation", F. M. Belmore to W. E. Kelley, December 15, 1952 and from the "Contract Board Review of Proposal of Award for Definitive Contract AT(30-1)-1485 with the Chemical Construction Corporation" - Contract Board Meeting - January 6, 1953. It is estimated that \$40,000 of the initial Commission obligation of \$40,800 will be spent by September 30, 1953.

Process Development  
Dodge/js Brown

Production  
Kirk

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Specifically the amendment requested is to do the following:

1. Extend the entire Contract one month to October 31, 1953 to facilitate preparation of the Chemico final report. This extension includes - see Article I - Scope of Work - laboratory work, engineering feasibility studies, site evaluation and final report preparation.

Justification: Chemico was requested to evaluate Mallinckrodt as a possible site on September 4, 1953. They visited Mallinckrodt on September 15, 1953 and found unexpectedly that Mallinckrodt was an excellent possibility as a site. Therefore, to adequately evaluate Mallinckrodt as a site it is necessary that Contract AF(SO-1)-1486 be extended. It should be noted that certain parts of the Chemico final report which had already been written will have to be revised in view of the Mallinckrodt site evaluation.

Also, with respect to laboratory work, it is expected that Mallinckrodt will furnish denitrated AM-7 which Chemico will test in their process at the Linden, New Jersey laboratory. Certain filtration tests may also be done in the laboratory during the one month contract extension.

2. Extend Article I, Section 1, Sub-paragraph c (site evaluation) six months to March 1, 1954 to continue the availability to the Commission, as required, of Chemico engineering studies and recommendations with respect to site evaluation.

Justification: Chemico's consultation is believed desirable for the site evaluation work by the NYCO Engineering and Construction and Production Divisions, some time in the next six months, because of the complex relationship between the Chemico process and the site (for instance the cost of H<sub>2</sub>S at a given site might bring about process modifications or methods of reclaiming residues stored at LOON would depend upon the site to which these residues would be shipped). It should be emphasized that Chemico's experience in designing and building plants similar to our Waste Residues Recovery Plant will be a great help.

Also, we consider that the six month extension would serve another purpose, that of keeping the Contract alive so that a reactivation of the entire Contract could be arranged for the study of the carbonate autoclave leach process, if required as discussed below.

It is estimated that the amendment requested above will require an additional obligation of approximately \$12,000. It appears that Chemico will not ask for additional fee. Funds are available for this amendment under Budget Activity 2604.

Chemico has studied the acid autoclave leach process in detail, to the extent that they have evolved the process design. This process is particularly advantageous in that 90% of the uranium is recovered and the cost should be low, providing credit to the operational cost is obtained from the nickel, cobalt and copper by-products. This credit will depend upon negotiations with the African Metals Corporation, which owns most of the nickel, cobalt and copper in the residues. The African Metals Corporation has shown an interest in cooperating with the Commission for the recovery of these metals; however, if a credit to our operations were not obtained, we believe we would find the carbonate autoclave leach process competitive if not more economical. This carbonate autoclave leach process has been studied only in a preliminary sort of way by Chemico and we estimate that about three months of additional laboratory work would be required to obtain the process design. Since there is a possibility, although it is small, that it might be necessary to initiate development work by Chemico on the carbonate autoclave leach process, we consider it desirable to keep Contract AT(30-1)-1488 in effect until we know for certain what the situation will be. Reactivation of this Contract will be much easier and quicker than the preparation of an entirely new contract.

CC:

S. H. Brown  
R. L. Kirk  
D. C. Moore  
Production RF  
Green RF (2)

F. A. Chrestia  
J. C. Clarke  
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