wk and IX
to OL 5/4 60
See Cont'n file

CONFIDENTIAL

In replying please address:

[redacted]

25X1

March 15, 1960

Dear Sir:

As a result of recent discussions with your technical representatives, we are submitting herewith a proposed program of research directed toward the development of an integrated electric-motor- and gasoline-engine-driven blower assembly for use with the Model 1 paper-burning incinerator developed previously under Task Order No. Z.

During the late stages of research on the Model 1 incinerator, the feasibility of operating this unit in an office-type room without utility power was demonstrated favorably under Task Order No. KK, Work Order No. II. This was accomplished by the use of a separate blower with an attached gasoline engine; the original electric-motor-driven blower could not be adapted readily for gasoline-engine drive. It was found that the physical change over from an electric drive to a gasoline-engine drive involved a time period of about one hour, to disconnect and move one blower with its drive, and to move and connect the other blower and drive. To provide for faster and more convenient changeability, and for compactness and economies in the equipment, your technical representatives suggested that some type of integral blower assembly be developed for future use with the initial group of Model 1 incinerators now being planned for production.

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The currently contemplated method of procedure for the effort proposed herein is outlined in the following.

A preliminary study would be directed toward the selection of a suitable gasoline engine and accessories, such as a clutch, electric starter, muffler, and exhaust pipe, and of a proper location for the gasoline feed tank, which would be suitable for this type of application. A Buffalo Forge Industrial Exhauster #25 MW or #25 AW, Arrangement No. 1, with outboard bearings and a stub shaft for a V-belt sheave, would probably be considered as the basic blower unit. It is expected that a common base for the blower, the electric motor, and the gasoline engine could be designed to provide a compact arrangement for the proposed assembly. By means of an additional, larger V-belt sheave for the electric motor that could probably be included in the proposed assembly, it appears that the appropriate speed and output of the blower could be provided for under service conditions where only 50-cycle (220 volt) alternating current was available. Several possible methods to permit quick and easy change over from electric-motor to gasoline-engine operation would also be considered. A sketch of the proposed assembly would then be prepared to serve as a basis for discussion with a blower manufacturer, such as the Buffalo Forge Company, the supplier of the previously used blowers. It is contemplated that this discussion would occur at the engineering department of the blower manufacturer, probably with one of your technical representatives participating. After a factory design for an appropriate integral motor - engine - blower assembly was mutually agreed upon,

suitable arrangements would be made to purchase one experimental assembly, for subsequent evaluation.

It is expected that delivery of such an assembly would involve a time delay of up to six to eight weeks. After delivery of the experimental assembly to our laboratories, it would be set up and operated. Air-flow measurements would be made on the blower during experiments with the electric-motor drive and with the gasoline-engine drive. This evaluation of air flow from the blower would be performed at selected back pressures up to 12 inches of water. The data obtained would be compared with similar air-flow measurements made previously on the two prototype Model 1 units which were evolved under Task Order No. Z. Also, the operation of the experimental unit would be demonstrated to your technical representatives.

If, as expected, the results of this proposed effort are favorable, the experimental integral blower assembly would be provided to your technical representatives at or before the end of the proposed research period. Every effort would be made to expedite the procurement and evaluation of this proposed air-supply unit, so as to be able to make it available as quickly as possible.

Your technical representatives would be kept informed of the progress of the proposed effort by discussions during periodic visits and via telephone. At the conclusion of the proposed research period, a summary letter report would be submitted.

We propose to undertake this effort over a period of four months, starting on the date of acceptance of authorization from the Contracting Office. The proposed research program could be conducted under Task

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Order No. KK. The Work Order would be a period-basis research agreement; it could be similar in form to that used previously under Task Order No. KK and the same administrative procedures would be followed. The Work Order would require only that the research be directed toward the objective outlined above, within the limits of the time and funds provided.

It is estimated that an appropriation of $3,000, including the fixed fee, is needed to fund the proposed program for the four-month period. A general breakdown of the estimated costs is attached.

To aid in expediting the performance of the proposed research, it is recommended that the Contracting Officer, in a letter accompanying the proposed contract or otherwise, grant express approval for the procurement of an appropriate integral blower assembly including a blower (exhauster), an electric motor, a gasoline engine, and suitable accessories, as described above. It is currently estimated that the proposed assembly would cost approximately $1,250. Also, expeditious consideration of this proposed program of research would be appreciated.

If any additional information is needed, please do not hesitate to call us. You may direct any inquiries of a contractual nature to Mr. V. E. Young, at Extension 159.

Very truly yours,

[redacted] 25X1

Vice President

KES:mlm

In Duplicate

[redacted] the U. S. Government. 25X1

For Research on **The Development of an Integral Motor-Blower Assembly for the Model 1 Incinerator.**

Based upon a period-basis Contract for a research period of **four months.**
(Including time for submission of all reports. The proposed contract will not provide for earlier conclusion of the research.)

## ESTIMATED COSTS

We expect that the cost of this research for the period indicated above may be distributed approximately as set forth hereon, subject to the understanding that this allocation is merely an estimate, and actual costs incurred may vary from the categories shown. We have determined that these estimates are reasonable and consistent with [redacted]'s established policies in its research for the various Government agencies, which policies are briefly discussed below and will be followed in determination of our actual costs hereunder. 25X1

**Materials & Supplies, etc.** **$1,300**

(Including any equipment which may be purchased as necessary in performance of the research. Charges of $25 or less are excluded from this item.)

**Use of Equipment and Technical Services, Travel, and Misc.** **$ 250**

(Including applicable costs of technical research and service divisions, and use of technical equipment, except that any undistributed balances of these accounts will be included in overhead. Cost of travel includes reasonable actual subsistence expenses and the actual cost of transportation. An allowance of up to 8¢ per mile for all necessary travel by privately owned conveyance is included in lieu of the cost of such travel.)

**Salaries & Wages**

(Including our predetermined accrual for vacation, holiday, and sick-leave pay, pensions, and social security.)

| *Type of Employee* | *No. of Man-Months* | *Estimated Cost* |
|---|---|---|
| Supervision | Nominal | Nominal |
| Research Engineers | 3/4 | $570 |
| Lab. Assistants | 1/2 | 235 |
| Steno., Clerical, Shop & Photo., etc. | Nominal | Nominal |
| Total Salaries & Wages | | $ 805 |

**Overhead**

59 per cent of salaries and wages, as they are defined above. Provisional monthly reimbursement will be at the rate of 59 per cent of salaries and wages, as so defined, or at such other provisional rate as may from time to time be mutually agreed upon with the Government's audit representatives. This is a provisional rate for current reimbursement, which we have arrived at by negotiation with Government representatives, and it will be subject to retroactive revision to the "actual" rate agreed upon with them for each calendar year following a detailed audit for that year. The item of overhead includes general research, charges of $25 or less for materials and supplies, and other categories of costs we customarily include in our overhead account. Cash discounts on all purchases will be credited to overhead, instead of to the amount of the purchase. Scrap of appreciable value will be credited directly to the project. All other scrap will be credited to the overhead account, in which the Government participates.) ~~$ 475~~

**Total Estimated Cost** **$2,830**

**Fixed Fee** ~~$ 170~~

**Contract Price** **$3,000**

*Please let us have your acceptance in our hands by **May 2, 1960.**
Unless we extend the time, your acceptance after that date will be subject to agreement.

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