VC
GAS CHROMO

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FEB 20 1975
R. N. WHEELER, JR.

Nick:

The attached report should bring you pretty well up to date on the Data System Project.

The total labor cost through Jan., 1975 was $14,300 The total material cost was $32,000. This included the cost for the printers, and panels, dollies, and other accessories for the microcomputer. The microcomputers themselves have not yet shown on the account, but probably will during February.

Gary

2/19/75

P-74-110 (Addenum)

ENGINEERING DEPARTMENT
CHEMICALS AND PLASTICS
UNION CARBIDE CORPORATION
SOUTH CHARLESTON, WEST VIRGINIA

SUBJECT: Data Acquisition and Reduction Systems for Vinyl Chloride Analyzers

WRITTEN BY: G. L. Baker DATE: February 14, 1975

REVIEWED BY: J. H. Brubaker

DISCUSSION

Late delivery of some hardware and changes in the objectives of the project (particularly the higher sensitivity required by the latest OSHA standard on vinyl chloride) have resulted in a later completion date and higher costs for this project. The attached Action Plan gives a summary of the progress, the work remaining, and the new cost estimate.

The new more stingent OSHA standard was responsible for most of the increase in cost,and the later completion date. It required the analyzer sensitivity to be increased, and the vinyl chloride concentration to be printed out to the nearest 0.1 ppm. The original plans called for readability to the nearest ppm. This change required a revised data format, and printers with wider platens. The additional cost for the printers, including restocking fees for those originally purchased, and the programming changes is $7500.

A new auto zero had to be designed to enable the analyzer to perform reliably at the higher sensitivity. The total cost of adding the new auto zero cards is about $2000.

Additional charges which were requested after the original proposal was made and the project began, cost approximately $7000 more. These include designing and supplying covers for the printers, adding backup batteries for 8 hours power loss protection, increasing the information supplied by the computer, e.g., exposure probabilities. Most of these changes were discussed at the meeting on the Data Systems held Dec. 17, 1974. Refer to the letter on "Data Acquisition for Vinyl Chloride Ambient Air Monitors", Dec. 26, 1974, by G. L. Baker for more information.

Finally, installation and startup assistance was provided for the first system at Building 190, South Charleston. This cost about $1500, and was not part of the original estimate.

The above items cover all the costs for this project now anticipated by SID, except possibly, installation and startup assistance for the remaining four systems if it is requested.

COST ESTIMATE

SID's revised total project cost estimate is $70,000. This is $18,000 greater than the original estimate, of $52,000 ($3000 for the original survey, and $49,000 for the five data systems).

GB:bj

SPECIFIC OBJECTIVE

S.O. 1.12 Provide Data Reduction Systems for five (5) Vinyl Chloride Ambient Air Monitors

Results Statement: To provide Data Reduction Systems and printers for the five (5) Vinyl Chloride Ambient Air Monitors now in service at the South Charleston and Texas City Plants.

Standards:

(a) To develop a data format, and obtain approval by users.
(b) To specify and order hardware.
(c) To develop a computer program for data reduction.
(d) To assemble hardware on dollies.
(e) To prepare installation instructions.
(f) To assist with installation and startup of first system at So. Charleston Plant.
(g) To evaluate performance of data system, and to revise as necessary to overcome deficiencies.
(h) To prepare documentation for completed system.
(i) To complete construction of last four systems.
(j) To ship all data systems and instruction manuals.
(k) To provide any necessary startup assistance.
(l) To prepare a project report.

Accountability: G. L. Baker
Completion Date: June 1, 1975

Action Plan

| | | Account | Date Completed | Control |
|---|---|---|---|---|
| 1. | Problem survey and proposal | GLB | Completed | JHB |
| 2. | Develop data format | JFF | Completed | GLB |
| 3. | Obtain format approval | GLB | Completed | JHB |
| 4. | Specify and order hardware | JFF | Completed | GLB |
| 5. | Develop computer program | JFF | Completed | GLB |
| 6. | Assemble hardware | GLB | Completed | JHB |
| 7. | Prepare installation instructions | JFF | Completed | GLB |
| 8. | Assist in installation & startup (first system) | JFF | Completed | GLB |
| 9. | Evaluate performance and eliminate deficiencies | JFF | 3/1/75 | GLB |
| 10. | Prepare documentation | JFF | 3/15/75 | GLB |
| 11. | Complete 4 systems | JFF | 3/7/75 | GLB |
| 12. | Ship 4 systems | GLB | 3/10/75 | JHB |
| 13. | Ship instruction manuals | GLB | 4/1/75 | JHB |
| 14. | Startup assistance | PPM | 5/1/75 | GLB |
| 15. | Project report | GLB | 6/1/75 | JHB |