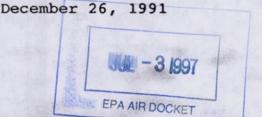


RESEARCH TRIANGLE INSTITUTE

Center for Environmental Analysis

Mr. Mike Mann Inland Steel Company 3210 Walting Street East Chicago, Indiana 46312

Dear Mr. Mann:



Thank you for your efforts in coordinating a source test on the No. 4 pickling line at Inland Steel Company during December 17 through December 19, 1991. We appreciate the time that you and Mr. Pazera spent with us to discuss, to tour, and to provide process information on your pickling operations.

At the de-briefing, we discussed capital investments for the indirect heat exchange system and other additional processes or equipment modifications and we were glad to know that you will provide the cost information to us. The attached list shows the cost items we use to develop cost estimates for capital investments. Please refer to the list and add or delete items, as appropriate, when providing the cost information. The information will help us to preform an economic analysis on the pollution prevention technologies.

I am preparing a trip report for the source test and I will submit the report through the U.S. EPA to Mr. Jim Carson for clearance of confidential business information and for accuracy. I expect the trip report will be sent to Inland Steel Company in mid-January 1992. Your comments on the report and your assistance in providing the cost information are greatly appreciated.

Sincerely yours,

Emery J. Kong

Attachment

CAPITAL COST ITEMS FOR INDIRECT HEAT EXCHANGE SYSTEM

Direct Costs

Purchased Equipment Costs
Indirect heat exchangers
Other auxiliary equipment
Instrumentation
Sale taxes
Freight

Direct Installation Costs
Foundations and supports
Handling and erection
Electrical
Piping
Insulation for ductwork
Painting

Site Preparation

Buildings

Indirect Costs (Installation)

Engineering

Construction and field expenses

Contractor fees

Start-up

Performance test

Contingencies

ANNUAL COSTS FOR INDIRECT HEAT EXCHANGE SYSTEM

Direct Annual Costs (indicate unit and rate)

Operating labor Operator Supervisor

Operating materials

Maintenance Labor Material

Replacement parts

Utilities
Electricity
Steam
Fuel
Water
Compressed air

Waste disposal

Indirect Annual Costs (indicate unit and rate)

Overhead

Administrative charges

Property taxes

Insurance

Capital Recovery

Recovery Credits

Recovered products

Date Sent:	26	191
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'l'ime Sent: 9:46 Am

TELECOPIER MESSAGE

Research Triangle Institute P.O. Box 12194 Research Triangle Park, NC 27709-2194 U.S.A.

PRIORITY: URGENT!!	TODAY BY TOMORROW BY	
DATE: /2/26/91	RTI	
TO: Mr. Mike Mann Inland Steel Compan	FROM: Emery Kong	
East Chicago, Indian	PHONE: (919)541-5942	
	SUBJECT: Capital investments for	
TELEPHONE NO.: (219) 399	the indirect heat exchange 5003 System on the pickling lines	
FAX NUMBER: (219) 399-18		
RTI CHARGE NO.: 5225-03		
INTERNATIONAL: DOMESTIC: # PAGES INCLUDING LEAD: 4		
RTI FAX NUMBER: (919) 541-5945		

Please notify me, immediately at the above telephone number if there is a problem with transmission of this fax or if you do not receive the correct number of pages.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Office of Air Quality Planning and Standards Research Triangle Park, North Carolina 27711

8 0 JAN 1992

Mr. James Carson Senior Engineer, Environmental Affairs Inland Steel Company 3210 Watling Street, 8-160 East Chicago, Indiana 46312

Dear Mr. Carson:

Thank you for your efforts in coordinating a source test at No. 4 Pickling Line in the Inland Steel, East Chicago Plant between December 17 and 19, 1991. We appreciate the time that you, Mr. Mann, and other employees spent with us to conduct the source test and to provide the process data.

Enclosed for your review is a copy of the draft trip report that has been prepared based on the information obtained during the source test. Please provide to me by February 21, 1992, any comments you may have regarding the enclosed copy of the draft trip report. Also, clearly mark in the report any specific information that is considered to be confidential business information. All, or sections, of the draft trip report that are not considered confidential business information will be incorporated into a test report. If I do not receive a response from you by February 21, 1992, the report will be considered to be correct and contain no confidential business information, and will be subject to public access under the Freedom of Information Act.

If you have any question regarding this letter or the trip report, please contact Mr. James Maysilles of my staff at (919) 541-3265.

James U. Crowken

James Crowder, Chief Industrial Studies Branch Emission Standards Division

Enclosure

cc: James Maysilles (EPA/OAQPS) (w/o enclosure)
Solomon Ricks (EPA/OAQPS) (w/o enclosure)
Emery Kong (RTI) (w/o enclosure)