



## RESEARCH TRIANGLE INSTITUTE

Center for Environmental Analysis

December 26, 1991

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*  
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: 12/26/91

Time 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: 12/26/91 RTI \_\_\_\_\_

TO: Mr. Mike Mann FROM: Emery Kong

Inland Steel Company

East Chicago, Indiana PHONE: (919)541-5942

SUBJECT: Capital investments for

the indirect heat exchange

TELEPHONE NO.: (219) 399-5003 system on the pickling lines

FAX NUMBER: (219) 399-1891

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

80 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.

Sincerely,

A handwritten signature in cursive script that reads "James U. Crowder".

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)