Acme Coke
11236 S. Torrence Ave.
Chicago IL 60617

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Project Expenditure Authorization Summaries
Dated: 1986, 1994

ACME STEEL COMPANY

PROJECT EXPENDITURE AUTHORIZATION SUMMARY

[X] MAJOR REPAIR PROJECT	[ ] RESEARCH AND DEVELOPMENT PROJECT	[ ] ENGINEERING PROJECT	[ ] SPECIAL PROJECT	TEMP. NO.

PLANT	DEPARTMENT OR COST CENTER	PROJECT NO.
Iron and Coke Operations - Chicago	C-2900	

PROJECT TITLE	ITEM NO.-ANNUAL PROFIT PLAN
Repair Main Office Building Roof - Coke Plant	$15,000

ESTIMATED COMPLETION TIME (NO. OF MOS. FROM FINAL APPROVAL)	PROJECT SPONSOR
3	J. Garzella

PROJECT DESCRIPTION This project provides for the repair of the deteriorated roof on the Chicago Coke Plant's main office building. This 63 ft. x 32 ft. roof has not received any major repairs since the construction of the building in 1929. This building houses the offices of the Coke Plant's Division Manager, the Assistant Division Manager, the Coal Petrographer along with serving as a locker room, laboratory, records retention and storage facility and main conference room. Although the existing roof has received routine repairs over the years on an as-required basis, the extent of deterioration is such that major repairs are now required. During periods of recent heavy rainfall, leaks have run through the locker room on the building's top floor and into the Division Manager's office and coal petrography laboratory on the middle floor. The proposed scope of work entails the removal and disposal of existing materials, the subsequent tuckpointing of interior walls, the repair of two chimneys and the repair of the roof including the installation of 1" thick rigid insulation in hot asphalt, a base sheet, and a granular surface membrane.

EXPENDITURE REQUIRED

Company Labor - Engineering or R & D	$
- Other	
Purchases - Equipment	
- Material & Supplies	
Contract	26,100
Other (Specify) - Contingency	1,300
	$ 27,400

JUSTIFICATION

Justification of this expenditure lies in the need to restore the structural integrity of the roof on the Chicago Coke Plant's main office building. The actual cost will exceed the amount included in the major repair plan due to the fact that the condition of the roof was worse than anticipated.

	APPROVED BY		
	TITLE	SIGNATURE	DATE
1.	President and COO		
2.	Treasurer		
3.	Chairman and CEO		
4.			
5.			
6.			
7.			

AS-5921

LUNN
ROOFING COMPANY, INC.
9210 S. OKETO • BRIDGEVIEW, ILLINOIS 60455 • (708) 598-8118 • FAX: (708) 598-8195

AUGUST 25, 1994

ACME COMPANIES
13500 S. PERRY
RIVERDALE, IL 60627

ATTN: JOHN HICKMAN

RE: COKE PLANT-ADMINISTRATION BLDG.

1. FULLY REMOVE ALL ROOFING AND INSULATION DOWN TO ORIGINAL CONCRETE DECK. ALL MATERIALS TO BE LOWERED FROM ROOF VIA DUMP BOX AND CRANE.

2. ALL REMOVALS TO BE TAKEN FROM JOB SITE AND LEGALLY DISPOSED OF.

3. TUCKPOINT INTERIOR WALLS, REPLACE GLAZED TILE AS NEEDED AND REBUILD TWO CHIMNEYS.

4. INSTALL ONE LAYER OF 1" RIGID INSULATION IN HOT ASPHALT.

5. INSTALL SADDLES BETWEEN DRAINS.

6. INSTALL #75 BASE SHEET IN HOT ASPHALT.

7. INSTALL SBS-FR GRANULAR SURFACE MEMBRANE IN HOT ASPHALT.

8. PROVIDE AND INSTALL SURFACE MOUNT C.F., CHIMNEY RAIN CAPS, SCUPPER BOXES, DOWNSPOUTS AND ROOF CURBS FOR H.V.A.C.

TOTAL COST.....$25,610.00

ADD/IF WE PROVIDE FOR DISCONNECT & RECONNECT OF H.V.A.C UNIT.....$ 500.00 2610

LUNN ROOFING CO., INC.

R. Wolfe

RANDY WOLFE
PROJECT MANAGER

INTERLAKE, INC.

PROJECT EXPENDITURE AUTHORIZATION SUMMARY

TAC 1292

☐ MAJOR REPAIR PROJECT ☐ RESEARCH AND DEVELOPMENT PROJECT ☐ ENGINEERING PROJECT ☐ SPECIAL PROJECT

ITEM NO.

PROJECT NO.

ITEM NO. - ANNUAL EXPENDITURE PLAN

USE ON PLANT: Iron and Steel - Chicago

DEPT. OR COST CENTER: C-2960

PROJECT TITLE: Repair Coke Wharf Walkway

ESTIMATED COMPLETION TIME (NO. OF MOS. FROM FINAL APPROVAL): 3

PROJECT SPONSOR: C. Liotus

PROJECT DESCRIPTION

This project provides for the replacement of a 259 ft. long reinforced concrete walkway that extends along the Chicago Coke Plant's coke wharf. At present, this walkway, which provides access to 74 manually-operated bin gates is spalled and marred with holes. This project provides for the contract labor and equipment to remove the existing walkway, to repair all deteriorated underlying supports and to pour a new, 4" thick walkway. Additionally, this project provides for the replacement of a deteriorated, unsafe floor in the coke wharf's north head house.

EXPENDITURE REQUIRED

Interioke Labor – Engineering or R & D	$
– Other	
Purchases – Equipment	
– Material & Supplies	
Contract	40,200
Other (Specify) – Tax	700
	$ 40,900

JUSTIFICATION

Justification of this expenditure lies in the fact that the restoration of the subject walkway and floor is required in order to allow for the safe movement of personnel that operate the coke wharf.

APPROVED BY		
TITLE	SIGNATURE	DATE
1. President - Iron and Steel Division		
2.		
3.		
4.		
5.		

IS—5921-C

ISION – PLANT

Iron and Steel - Chicago - C-2960

JECT TITLE

Repair Coke Wharf Walkway

REVIEWED BY	SIGNATURE	DATE
TIONAL		
ginator	RP Gross	4/24/86
ject Sponsor		
nt Engineer	[signature]	9/29/86
nt Accountant	[signature]	4-24-86
her Interested Parties	[signature]	4-24-86
	DW Fields IRRC	4/24/86
	J H. Kozya	4-24-86
	D. Carducci	4/24/86
epartment Head	[signature]	4/24/86
gen. Manager	/s/ K. Cook	4-24-86
EQUIRED (WHERE APPROPRIATE)		
Divisional/Subsidiary Accounting Manager		
Divisional/Subsidiary Administrative Services		
Works Manager		
Divisional/Subsidiary Engineering		
Divisional Purchasing		
Other Interested Parties		
Vice President – Engineering and Environmental Control		
Corporate Director of Purchasing		
Director Corporate Information Systems		
Corporate Controller		
Director Corporate Planning		

INTERLAKE, INC.

EXPENDITURE AUTHORIZATION

SCHEDULE A

DESCRIPTION OF PROJECT AND ALTERNATIVES CONSIDERED

PROJECT NO.

PROJECT TITLE	DIVISION OR PLANT	
Repair Coke Wharf Walkway	Iron and Steel - Chicago	
DEPARTMENT OR COST CENTER	BUILDING	FLOOR
C-2960: Coke Handling		

This project provides for the replacement of the concrete walkway that extends along the Chicago Coke Plant's coke wharf. The existing walkway is spalled badly and marred with holes. Additionally, this project provides for the replacement of the concrete floor within the coke wharf's north head house.

After the coke is quenched, it is unloaded onto the coke wharf located between the quenching tower and the south end of No. 2 Battery. The wharf is a 259 ft. long, brick-lined, concrete ramp which slopes downward 28 ft. from the quench track to No. 1 conveyer. The wharf has the capacity to hold six quench car loads of coke, which is spread in a thin bed for drying and inspection of "hot spots". It also serves as a purge storage facility for processed coke so that short delays incidental to pushing operations will not interrupt the regularity of flow. The first load of coke is dumped at the south end of the ramp, and each subsequent load is deposited immediately north until the entire wharf is filled. The process is then repeated. There are a total of 74 bin gates that are operated manually along the coke wharf walkway. This walkway extends the entire length of the wharf and is utilized by the wharfman to regulate the flow of coke onto No. 1 conveyor.

The coke wharf walkway was last replaced during 1979-80 under SC-3020 (actual cost $44,952) and SC-3038 (actual cost $74,349). These earlier projects provided for the replacement of the 259 ft. long by 3 ft. 11 in. wide by 4 in. thick reinforced concrete walkway and all of the underlying structural supports.

At present, the subject walkway is once again in need of replacement. The rapid demise of this faciltiy can be attributed to recurring freeze/thaw cycles that the concrete is exposed to during winter months due to its proximity to both hot coke and the water that is used to extinguish hot spots. The situation is aggravated further by the fact that corrosive deicing materials are applied to the walkway during the winter for safety reasons. As a result of these factors, the walkway is spalled extensively and marred with holes that extend through its entire thickness.

This project provides for the in-kind replacement of the coke wharf walkway. Included is the contract labor, equipment and materials to remove the existing concrete and install forms and repour the entire walkway. Although it is not anticipated that the walkway's underlying structural steel supports are in need of any extensive repairs, an allowance of $4,500 is provided for possible repairs to the stringers. The exact condition of these supports cannot be ascertained until the existing concrete is removed and the supports are exposed.

Also included in the scope of this project is the replacement of the 17 ft. 9 in. long by 17 ft. 9 in. wide by 4 in. thick reinfored concrete floor in the coke wharf's north head house. This enclosed facility houses two steel stairways that lead to the wharf's basement area. At present, a section of this floor has dropped approximately 9 in. due to the excessive deterioration of the under-

INTERLAKE, INC.

EXPENDITURE AUTHORIZATION

SCHEDULE A

DESCRIPTION OF PROJECT AND ALTERNATIVES CONSIDERED

PROJECT NO.

PROJECT TITLE: Repair Coke Wharf Walkway

DIVISION, PLANT: Iron and Steel - Chicago

DEPARTMENT OR COST CENTER: C-2960: Coke Handling

BUILDING

FLOOR

lying structural steel supports. Therefore, this project provides for the replacement of the floor and its structural supports.

Justification of this expenditure lies in the fact that the restoration of the subject walkway and floor is required in order to allow for the safe movement of personnel that operate the coke wharf.

INTERLAKE, INC.

PROJECT EXPENDITURE AUTHORIZATION SUMMARY

☒ MAJOR REPAIR PROJECT ☐ RESEARCH AND DEVELOPMENT PROJECT ☐ ENGINEERING PROJECT ☐ SPECIAL PROJECT

TAK 1289

TEMP. NO.

DIVISION-PLANT: Iron and Steel - Chicago

DEPT. OR COST CENTER: C-2920

PROJECT NO.

PROJECT TITLE: Quench Track Repairs - 1986

ITEM NO. - ANNUAL PROFIT PLAN

ESTIMATED COMPLETION TIME (NO. OF MOS. FROM FINAL APPROVAL): 2

PROJECT SPONSOR: C. Liotus

PROJECT DESCRIPTION

This project provides for the replacement of approximately 624 lineal feet of rail and associated hardware on the quench car track at the Chicago Coke Plant. This track is used to direct the quench car as it transports incandescent coke from the coke ovens to the quench station and, subsequently, to the coke wharf. At present, a 312 ft. section of track between the north end of the coke wharf and the south end of No. 1 battery is extremely worn. This project provides for the replacement of both the east and west rails and associated hardware on the referenced track section.

EXPENDITURE REQUIRED

Interlake Labor – Engineering or R & D	$
– Other	
Purchases – Equipment	
– Material & Supplies	8,600
Contract	27,500
Other (Specify) – Tax	700
	$ 36,800

JUSTIFICATION

Justification of this expenditure lies in the need to insure continuity of quenching operations in order to avoid coke production loses.

APPROVED BY

TITLE	SIGNATURE	DATE
1. President - Iron and Steel Division		
2.		
3.		
4.		
5.		

IS–5921-C

VISION – PLANT
Iron and Steel - Chicago - C-2920

OJECT TITLE
Quench Track Repairs - 1986

REVIEWED BY	SIGNATURE	DATE
TIONAL		
iginator	R P Gross	3/11/86
oject Sponsor		
ant Engineer	[signature]	3/11/86
ant Accountant	[signature]	3-11-86
ther Interested Parties	M Sikich	3-11-86
	[signature]	3-11-86
	[signature]	3/11/86
	D W Fiddler	3/11/86
Department Head	[signature]	3/11/86
Gen. Mgr. Manager	/s/ G. Cook	3-12-86
REQUIRED (WHERE APPROPRIATE)		
Divisional/Subsidiary Accounting Manager		
Divisional/Subsidiary Administrative Services		
Works Manager		
Divisional/Subsidiary Engineering		
Divisional Purchasing		
Other Interested Parties		
Vice President – Engineering and Environmental Control		
Corporate Director of Purchasing		
Director Corporate Information Systems		
Corporate Controller		
Director Corporate Planning		

INTERLAKE, INC.

EXPENDITURE AUTHORIZATION

SCHEDULE A

DESCRIPTION OF PROJECT AND ALTERNATIVES CONSIDERED

PROJECT NO

OJECT TITLE: Quench Track Repairs - 1986

DIVISION-PLANT: Iron and Steel - Chicago

PARTMENT OR COST CENTER: C-2920: Coke Ovens

BUILDING

FLOOR

This project provides for the replacement of approximately 624 lineal feet of rail and associated hardware on the quench track at the Chicago Coke Plant.

A quench car is used to collect the incandescent coke as it is pushed from a coke oven and, subsequently, to transport the coke to the quench tower. After quenching, the car delivers the coke to the coke wharf. The quench car is driven by an electrically-powered locomotive and travels on railroad tracks adjacent to the east side of the coke ovens.

In order to maintain continuity of coke quenching operations, it is imperative that the integrity of the 930 ft. long quench car tracks be monitored on a continuous basis. Although plant forces are used to maintain these tracks on an ongoing basis, the deterioration of certain sections occasionally becomes so extensive that major repair projects are required. The rapid deterioration of these tracks can be attributed to the fact that the coke breeze that accumulates upon them is highly abrasive. Due to the continual passing of the quench car and locomotive, the breeze gradually wears away the rails. An additional factor which contributes to the demise of the rails and associated metal hardware, including spikes, tie plates, and gauge rods, is that the water from the quenched coke is highly corrosive. As a result of these conditions, various major repair projects have been required since the installation of the tracks in 1956. The last such project was accomplished in 1985 as SC-4060 (authorized amount was $32,800).

At present, the deterioration of a 312 ft. long section of quench car track between the north end of the coke wharf and the south end of No. 1 battery has become so extensive that major repairs are warranted. This particular section of track was last replaced in 1981 as part of SC-3107 (actual cost was $53,859). At present, the deterioration of the rails is most severe along their bases and at the point where they connect with the plates above the wooden ties. Wear has progressed to such an extent that a break could occur at any time.

Included in the proposed scope of work is the replacement of a 312 ft. long section of both the east and west rails over the referenced area. Additionally, all tie plates, spikes, thermit weld kits and gauge rods will be replaced. The existing ties only will be replaced as is deemed necessary as the work progresses.

Also included in this project is an allowance for hot-dip galvanizing of all materials before they are installed. This process, which will be performed by a local vendor, is intended to maximize the utility of the materials by limiting their susceptibility to corrosion. This process was used on tie plates that were installed last year. Based upon an inspection of these plates, it appears that this process is an effective means of inhibiting corrosion.

Justification of this expenditure lies in the need to maintain the quench track in good condition in order to avoid coke production losses. The proposed repair will be accomplished during a minimal six-hour outage which will not result in any lost coke production.

INTERLAKE, INC

CAPITAL EXPENDITURE AUTHORIZATION SUMMARY

COST REDUCTION

TMC 836

Not Listed

Iron and Steel - Chicago

C-2920

Purchase and Install Coke-Side Door Jamb Cleaners

C. Liotus

COMPLETION TIME
MONTHS FROM APPROVAL: 12

CAPITAL FUNDS TO BE APPROVED

Land	$	
Buildings		
Equipment		257,400
Less: Cash value of facilities replaced	$	
	$	257,400

TOTAL INVESTMENT:

Capital Funds	$	257,400
Working capital		
Total	$	257,400

JUSTIFICATION:

Discounted Cash Flow Return	27.99
Payback Period	3 yrs. 8 mos.

RELATED EXPENSES:

Expense:		
Project	$	7,500
Start-up		
Total	$	7,500

DESCRIPTION AND JUSTIFICATION

This project provdes for the purchase and installation of two automatic coke oven door jamb cleaners for the Chicago Coke Plant's two door machines. One unit has been offered to Interlake on a 60-day trial basis during which time all costs will be absorbed by the manufacturer. Hence, the funds requested in this project will not be expended until the test unit has proven to be capable of providing the results expected by plant management.

In order to minimize emissions, it is essential that a tight seal be maintained between a coke oven door and its door jamb. As such, the surface of the door jamb must be kept free of carbon and tar deposits. At present, an hourly Door Cleaner has the responsibility of manually cleaning the door jamb each time a door is removed. Door Cleaners clean jambs on both the coke and pusher sides of the coke batteries.

As a means of reducing the size of the coke-side Door Cleaner crew, this project provides for the purchase of two hydraulically-operated automatic door jamb cleaners for the Chicago Coke Plant's two door machines. These cleaners will each use nine steel tools to scrape deposits from the door jambs.

As detailed in Schedule "C", justification of this expenditure lies in the annual verifiable benefits of $110,000 that will be realized from reducing the size of the coke-side Door Cleaner crew by 3.5 equivalent men.

APPROVED BY

	TITLE	SIGNATURE	DATE
1.	President - Iron and Steel Division		
2.	Vice President - Finance and Chief Financial Officer		
3.	Chairman and Chief Executive Officer		
4.			
5.			

IS 5922-F

INTERLAKE, INC.

EXPENDITURE AUTHORIZATION

SCHEDULE A

DESCRIPTION OF PROJECT AND ALTERNATIVES CONSIDERED

PROJECT NO

PROJECT TITLE

Purchase and Install Coke-Side Door Jamb Cleaners

DIVISION / PLANT

Iron and Steel - Chicago

DEPARTMENT OR COST CENTER

C-2920: Coke Ovens

BUILDING

FLOOR

This project provides for the purchase and installation of two automatic coke oven door jamb cleaners for the Chicago Coke Plant's two door machines. One unit has been offered to Interlake on a 60-day trial basis during which time all costs will be absorbed by the manufacturer. Hence, the funds requested in this project will not be expended until the test unit has proven to be capable of providing the results expected by plant management. The successful operation of these automatic jamb cleaners will reduce the staffing of the hourly job of Door Cleaner (coke side) by 3.5 equivalent men and, thereby, will provide annual verifiable benefits of $110,000.

The Chicago Coke Plant's coke oven doors are self-sealing units equipped with stainless steel sealing edges. Each oven door seats against a one-piece cast iron door jamb with a machined face that abuts with the oven door sealing edge. Each sealing edge is mounted on a flexible steel diaphragm arranged so that it can be adjusted to conform with the contour of the machined face of the door jamb. The door assembly is held against the frame by two spring assemblies, each exerting a force of considerable pressure, thus preventing the escape of emissions from the oven.

In order to provide a clean sealing surface between the jamb and the door's sealing edges, the hourly job of Door Cleaner has the responsbility of manually scrapping any deposits of carbon and tar from the door jamb and sill plate each time the oven door is removed during the pushing cycle. Both the coke and the pusher side of the coke batteries are staffed with separate Door Cleaners with the exact crew size being dependent upon the level of operation and the time of the year. At the 1986 Profit Plant operating rate of 120 ovens per day, the Door Cleaner crew on both the coke and pusher sides is 6.3 equivalent men for 18 summer weeks (12 man hours/shift x 21 shifts/week) and 4.2 equivalent men during all other times (8 man hours/shift x 21 shifts/week).

As a means of reducing the staffing of the coke-side Door Cleaners, an outside machine shop has offered Interlake a newly designed automatic jamb cleaner for a 60-day, cost-free trial. The operation of this cleaner has already been observed by Interlake operating, engineering and maintenance personnel in a controlled environment in the vendor's shop. These preliminary trials, which were conducted on an actual door jamb from the Chicago Coke Plant, indicated that the cleaner should be an extremely efficient and cost effective means of cleaning door jambs. After the trial period, Interlake will be obligated to purchase the two units provided for in this project only if the degree of cleaning meets the plant's demanding standards.

The proposed test unit will be installed on No. 1 Door Machine. The cleaner is mounted in a structural frame that will be attached to the door machine's framework. The weight of the cleaner will be supported partially by the door machine and partially by a wheel that will ride on the door machine's west traction rail. The hydraulically-operated cleaner will receive its power from the door machine's hydraulic system.

Purchase and Install Coke-Side Door Jamb Cleaners — Iron and Steel - Chicago

C-2920: Coke Ovens

In operation, the proposed automatic jamb cleaner uses nine steel tools to scrape deposits from the jamb and the sill. These tools are attached to a pivoting head that extends from a vertical carriage assembly. The operation of the cleaner is controlled by two hydraulic cylinders and one hydraulic motor. The first cylinder controls the positioning of the cleaning head and is responsible for tilting the head into a horizontal position at the oven to be cleaned, extending the head into the jamb and exerting pressure on steel tools during the cleaning process. The hydraulic motor, which is part of the carriage assembly, is responsible for the vertical travel of the carriage by means of a counterweighed rack gear drive system. The moving of the carriage originates at a point slightly above the bottom of the oven. The carriage and, correspondingly, the cleaning tools, travel upwards until the top of the jamb is reached. At that point, it reverses direction and travels downward along the entire height of the jamb until the sill is reached. At the sill, a cleaning tool that is designed to conform to the configuration of the sill, will be used to push any accumulated material from the sill into the oven. The cleaning of the sill will be controlled with the second hydraulic cylinder. Subsequently, the carriage will reverse direction and travel upwards until it reaches the point where the cycle started. As such, the entire door jamb surface actually will be cleaned twice -- once in an upwards direction and once in a downwards direction. Since the degree of cleaning is a function of the friction between the jamb surface and the cleaning tools, the amount of pressure exerted by the cylinder that controls the head extension can be regulated manually with a pressure control valve. The entire cleaning cycle will be activated by a single button in the Door Machine Operator's cab.

The configuration of the nine steel cleaning tools is such that all areas of the jamb will be serviced. Two separate tools, located at the top and bottom of the cleaning head, will extend over the entire width of the oven and, thereby, will insure that the top and bottom horizontal section of the jamb are cleaned in their entirety. The two sides of the cleaning head will each be equipped with two tools to clean the vertical sections of the jamb. Additionally, a third tool on either side of the cleaning head will serve the dual function of centering the cleaning head as it is inserted into the jamb and also will clean the jamb's outer edge. The final tool is the previously mentioned sill cleaning tool.

Also included in the cost of this project is an allowance to extend the coke bench at both the north and south ends of the coke batteries. Since these are the areas where either door machine is kept when not in service, the bench must be extended to accommodate the revised configuration of the door machines that will result from the addition of the automatic cleaners.

As detailed in Schedule "C", justification of this expenditure lies in the net annual verifiable benefits of $110,000 that will be realized through the reduction of the staffing of the hourly job of Door Cleaner by 3.5 equivalent men.

INTERLAKE, INC.

EXPENDITURE AUTHORIZATION

SCHEDULE B

CALCULATION OF EXPENDITURE REQUIRED AND EXPENDITURE PAYOUT PERIOD

PROJECT NO.

PROJECT TITLE: Purchase and Install Coke-Side Door Jamb Cleaners

DIVISION PLANT: Iron and Steel

SUB ACCOUNT NUMBER	CHECK DIGIT NUMBER*	DESCRIPTION	EXPENDITURE AMOUNT CAPITAL	EXPENDITURE AMOUNT EXPENSE	ACCOUNT DISTRIBUTION
100		Install Jamb Cleaner - No. 1 Door Machine	$ 97,700(1)	$ -	C-0025-0900
200		Install Jamb Cleaner - No. 2 Door Machine	107,700(1)	-	C-0025-0900
300		Extend Coke Oven Bench	32,200(3)	-	C-0025-0900
400		Spare Cleaning Head	6,800(2)	-	C-0025-0900
500		Miscellaneous Spares		5,000(3)	C-0210-7014
850		Taxes		2,500	C-0210-5150
900		Division Engineering	6,000		C-0025-0900
910		Plant Engineering	4,000		C-0025-0900
950		Contingency @ 10%	3,000		C-0025-0900
		Total	$247,400	$ 7,500	

(1) Based on quotation from Saturn Machine & Welding Co., Inc., dated January 21, 1986. (No competitive quotations were obtained. The proposed automatic cleaners are a patented design available only from Saturn Machine & Welding Co., Inc.)

(2) Based on a verbal quotation from Saturn Machine & Welding Co., Inc.

(3) Plant Engineering estimate.

Expenditure Payout Period

	1986				1987	
	2nd Qtr.	3rd Qtr.	4th Qtr.	Total	1st Qtr.	Total Project
Capital	$ 6,500	$ 1,500	$134,400	$142,400	$115,000	$257,400
Expense	-	-	1,500	1,500	6,000	7,500
Total	$ 6,500	$ 1,500	$135,900	$143,900	$121,000	$264,900

* To be filled in after approval

William R. Baird, President
Billy C. Baird, Vice-President
Norval E. Baird, Sec.-Treas.

STURGIS
333-2242 or 2104
Area Code 502
P.O. Box 273
Sturgis, Ky. 42459

Saturn Machine & Welding Co. Inc.

STEEL FABRICATION
AUTOMATIC WELDING -- STEEL ERECTION
SHOP LOCATED STURGIS, KENTUCKY AIRPORT

January 21, 1986

Mr. Edward McGrath
Manager Purchasing in Store
Interlake, Incorporated
Iron & Steel Division
10730 South Burley Avenue
Chicago, Illinois 60617

Dear Mr. McGrath:

The following information regarding the Saturn Coke Oven Door Jamb Cleaner is forwarded in response to a request from Mr. Bob Martello:

Air Compressor. We are still striving to develop a blower for the machine that will serve as a standard item regardless of where the machine is installed. There will be no extra charge if we succeed with development of the blower. If our blower concept does not work then it will be necessary to install an upright, 5 H.P., 20 C.F.M. air compressor in the door machine at an additional cost of $2,650.00.

First Machine:

Price	$91,500.00
Erection/Installation	3,500.00
TOTAL	$95,000.00
	+2,650
	= $97,650

Time to Complete and Erect: Here, we estimate it will take 60 to 90 days to make the machine ready for delivery plus about three (3) weeks for delivery and erection/installation.

Second Machine:

Price	$101,500.00
Erection/Installation	3,500.00
TOTAL	$105,000.00
	+2,650
	= $107,650

Time to Complete and Erect: Same as for the first machine.

The price for the first machine represents a promotional price which is limited to the sale on a trial basis of the jamb cleaner that is currently held in stock at Saturn(see paragraph 3, Saturn Proposed Agreement).

Even though the first machine has been built and is currently operating on a test stand, there is considerable work to be done before delivery. This work involves updating the electrical and hydraulic components, further work on development of a blower, making several trips to your coke plant, modifying the machine for installation and completion of detail drawings. Actually, it will take about the same amount of time to complete the existing machine as it will take to build the second machine.

A completed spare parts list will be made available along with the detail drawings following our updating and modifications to the machine.

We appreciate Interlakes interest in both our coke oven door and in our jamb cleaner. We are confident that our door and our jamb cleaner are the best on the market and we look forward to proving that at Interlake.

Please call if you have questions.

Sincerely,

William R. Baird
President

CC: Mr. Bob Martello

INTERLAKE, INC.

CAPITAL EXPENDITURE AUTHORIZATION SUMMARY

REPLACEMENT AND REHABILITATION

C. E. A. NO.

TEMP. NO. TNC 857

ITEM NO.-CAPITAL PLAN: Unspecified Item

DIVISION-PLANT: Chicago C-2900

TOTAL CAPITAL AMOUNT IN CAPITAL PLAN:

PROFIT PLAN:

REVIEW:

PROJECT TITLE: Pave Coke Plant Parking Lot

COMPLETION TIME (MONTHS FROM APPROVAL): 2

PROJECT SPONSOR: C. Liotus

CAPITAL FUNDS TO BE APPROVED:

Land Improvements	$ 13,400
Buildings	
Equipment	
Less: Cash value of facilities replaced	$
	$ 13,400

TOTAL INVESTMENT:

Capital Funds	$ 13,400
Working capital	
Total	$ 13,400

JUSTIFICATION:

Discounted Cash Flow Return: %

Payback Period:

RELATED EXPENSES:

Expense: Project	$ 2,200
Start-up	
Total	$ 2,200

DESCRIPTION AND JUSTIFICATION:

This project provides for the paving of the Chicago Coke Plant's north parking lot. The Company has agreed to accomplish this project as part of the current contract negotiations.

The subject parking lot is located adjacent to the east side of Torrence Avenue and is used by Coke Plant hourly employees. This facility can accommodate 81 vehicles.

The subject parking lot was repaired last in 1978 (CC-8546). At present, this facility is marred with potholes that hamper the safe movement of vehicles and pedestrians. Additionally, various parking blocks are extremely deteriorated. The proposed scope of work entails the removal of all parking blocks and the subsequent resurfacing of the lot with alternating layers of cinder chips and asphalt. All reusable parking blocks will then be reinstalled. Deteriorated blocks will be replaced with units from a south parking lot that is not currently used on a regular basis.

Justification of this expenditure lies in the need to fulfill the Company's commitment to the Union.

Since the existing pavement will not be removed and will serve as a base for the new surface, an SAR is not required.

APPROVED BY TITLE	SIGNATURE	DATE
1. Vice President - Operations		
2.		
3.		
4.		
5.		

IS-5922-F

DIVISION—PLANT

Chicago - C-2900

PROJECT TITLE

Pave Coke Plant Parking Lot

REVIEWED BY	SIGNATURE	DATE
OPTIONAL		
Originator	R P Gross	10/14/86
Project Sponsor		
Plant Engineer	[signature]	10/15/86
Plant Accountant	[signature]	10-15-86
Divisional Purchasing		
Other Interested Parties	[signature]	10/15/86
	[signature]	10-15-86
	D.W. Field	10/15/86
Department Head	[signature]	10/15/86
Gen. ~~Plant~~ Manager	[signature]	10/15/86
REQUIRED (WHERE APPROPRIATE)		
Divisional/Subsidiary Accounting Manager		
Divisional/Subsidiary Administrative Services		
Works Manager		
Divisional/Subsidiary Engineering		
Other Interested Parties		
Vice President—Engineering and Environmental Control		
Corporate Director of Purchasing		
Director Corporate Information Systems		
Corporate Controller		
Director Corporate Planning		

S. G. HAYES
AND COMPANY
CONTRACTORS - ENGINEERS

162nd and WESTERN AVENUE
P.O. Box 116, MARKHAM, ILLINOIS 60426

SUBURBAN 331-3380 CHICAGO 264-6342

PROPOSAL AND CONSTRUCTION AGREEMENT

Owner: Acme Steel Company
Street 10730 S. Burley Avenue
City Chicago
State Il. Zip Code 60617

Date: August 21, 1986

Re: Inquiry No. 71-8-8-1
Pavement Repair at
Coke Plant Parking Lot
Chicago, Illinois.

Gentlemen:

Please accept our offer to provide all labor, material and equipment for the construction and work hereinafter described.
The area of the pavement or pavements to be constructed is 3,052 S.Y. Approx.

Our scope of work and construction procedure are as follows:

Base Bid

1. Remove & Re-install 81 precast concrete wheelstops.
2. Fine grade approx. 2,289 S.Y. of existing aggregate base course.
3. Prime with asphalt emulsion and construct approx. 2,289 S.Y. of an A-1 surface treatment.
4. Construct approx. 3,052 S.Y. of an A-2 surface treatment.

Base Bid - Lump Sum = $ 9,989.00

Alternate No. 1

1. Same construction procedure as base bid with exception of constructing a 2" asphaltic concrete surface course in lieu of an A-1 & A-2 surface treatment.

Alternate No. 1 - Lump Sum = $15,606.00

The cost to the owner for the performance of the work indicated shall be:
1) Lump sum price _____ Dollars $ _____
2) Unit Price (s) to govern if set forth above (~~Xxx~~) (No)

TERMS: 1) Net within 30 days after billing. Past due accounts to bear interest at the rate of 1½% per month amounting to 18% per year.
2) This proposal subject to acceptance no later than October 1, 1986

IN WITNESS WHEREOF the OWNER and the CONTRACTOR have executed this Agreement subject to the conditions on the reverse hereof as of the date first above written.

S. G. HAYES & COMPANY

By _____
Steven E. Brunke, Vice President

OWNER

By _____

ACME STEEL COMPANY
PROJECT EXPENDITURE AUTHORIZATION SUMMARY

TNR 1304

☒ MAJOR REPAIR PROJECT ☐ RESEARCH AND DEVELOPMENT PROJECT ☐ ENGINEERING PROJECT ☐ SPECIAL PROJECT

TEMP. NO.

DIVISION-PLANT	DEPT. OR COST CENTER	PROJECT NO.
Chicago	C-2920	

PROJECT TITLE: Repair Pusher Track - No. 1 Battery

ITEM NO.-ANNUAL PROFIT PLAN:

ESTIMATED COMPLETION TIME (NO. OF MOS. FROM FINAL APPROVAL)	PROJECT SPONSOR
4	C. Liotus

PROJECT DESCRIPTION

This project provides for the contract labor and material to repair the east pusher rail at the Chicago Coke Plant. This reconditioning will include the complete replacement of the 360-ft. long east rail for No. 1 Coke Battery, the thermit welding of all joints, and the replacement of all associated hardware and track ties. Similar repairs were made to the east rail in 1981 (SC-3086) and to the west rail in 1977 (RC-7643). The pusher rail repairs will be accomplished in a series of short outages.

EXPENDITURE REQUIRED

Interlake Labor – Engineering or R & D	$
– Other	
Purchases – Equipment	39,000
– Material & Supplies	
Contract	64,800
Other (Specify) – Tax	1,200
	$ 105,000

JUSTIFICATION

The pusher track is utilized by the combination coke pusher-leveler-door machine to push coke from the ovens, to level the coal charge, and to handle the pusher-side coke oven doors. It is essential that this track be maintained in a level and stable position and at precise elevations to prevent oven damage. This expenditure will minimize lost coke production that would occur if the existing track failed.

APPROVED BY		
TITLE	SIGNATURE	DATE
1. Vice President - Operations		
2. Vice President - Finance and Administration		
3. President and Chief Executive Officer		
4.		
5.		

IS-5921-B

Chicago - C-2920
Repair Pusher Track - No. 1 Battery

REVIEWED BY	SIGNATURE	DATE
OPTIONAL		
Originator	R P Cross	9/10/86
Project Sponsor		
Plant Engineer	G Tatterson	9-10-86
Plant Accountant		
Divisional Purchasing		
Other Interested Parties	D. W. Field	9/10/86
		9/11/86
		9-15-86
Department Head		9-12-86
Gen. Manager	/s/ G. Cook	9.23-86
REQUIRED (WHERE APPROPRIATE)		
Divisional/Subsidiary Accounting Manager		
Divisional/Subsidiary Administrative Services		
Works Manager		
Divisional/Subsidiary Engineering		
Other Interested Parties		
Vice President – Engineering and Environmental Control		
Corporate Director of Purchasing		
Director Corporate Information Systems		
Corporate Controller		
Director Corporate Planning		

ACME STEEL COMPANY

EXPENDITURE AUTHORIZATION

SCHEDULE A

DESCRIPTION OF PROJECT AND ALTERNATIVES CONSIDERED

PROJECT NO.	
PROJECT TITLE: Repair Pusher Track - No. 1 Battery	DIVISION-PLANT: Chicago
DEPARTMENT OR COST CENTER: C-2920: Coke Ovens	BUILDING:	FLOOR:

This project provides for the contract labor and material necessary to repair 360 ft. of pusher track at the Chicago Coke Plant's No. 1 Coke Battery. The reconditioning will consist of replacing the east rail and associated spikes, tie plates and braces. Additionally, all ties and anchor bolts will be replaced along the entire lenght of the rail.

The pusher track is utilized by the combination coke pusher-leveler-door machine. After this machine removes the oven door, the ram is inserted into the oven to push the incandescent coke out the opposite side into the quench car. Upon completion of the push, the ram is extracted, the door is replaced, the oven is recharged and leveled all by this machine. Therefore, it is essential that the pusher track be maintained in a level and stable position and at precise elevations to prevent oven damage. Misalignment could result in severe difficulty in removing and replacing doors.

The pusher track originally was installed in 1955 for No. 1 Battery and in 1956 for No. 2 Battery. The 175-pound crane rails were installed on short ties and held in position with tie plates, braces and screw spikes. Every other short tie is held in place by two 1-1/4" diameter anchor bolts. All rail joints were thermit welded, and concrete was poured around the ties and between the east and west rails to form the pusher pad. The most recent major repairs to this facility consisted of the replacement of the east rail in 1981 (SC-3086) and the replacement of the west rail in 1977 (RC-7643).

At present, the east rail of the pusher track has deteriorated to such an extent that its complete replacement is warranted. In addition to normal wear, deterioration is most extensive at the point where the rail contacts the tie plates. As a result of the deteriorated condition of these metal components, coupled with the damage to the ties, the rail has broken on two occasions. There breaks were repaired on an emergency basis by installing splice bars.

Due to the weight of the pusher machine and the damaged ties, the rail has cracked on two occasions. Although continuity of operations has been maintained by installing splice plates at these cracks, the remaining utility of the rail is highly suspect. Tie damge results from being burned by hot coke and battered by payloader buckets. Additionally, the utility of the pusher track's east rail also is being threatened by damage to its ties. At present, all of the existing 180 ties on the east rail are exhibiting varying degrees of damage.

In order to protect the integrity of the plant's pushing operations, this project provides for the rehabilitation of the subject pusher track. Included will be the complete replacement of the 360 ft. long east rail with new 175 lbs. crane rails. The new rail sections will be connected by thermit welding. Additionlly, all related hardware including spikes, ties plates and braces will be replaced. As a final part of this project, all of the ties and anchor bolts in use on the east rail will be replaced. By completing this specific replacement, the operational integrity of the entire east rail will be improved substantially.

Justification of this project lies in its ability to minimize the possibility of lost cost production that would occur if the existing track was to fail.

INTERLAKE, INC.

EXPENDITURE AUTHORIZATION

SCHEDULE B

CALCULATION OF EXPENDITURE REQUIRED AND EXPENDITURE PAYOUT PERIOD

PROJECT NO.

PROJECT TITLE: Repair Pusher Track - No. 1 Battery

DIVISION-PLANT: Chicago

SUB-ACCOUNT NUMBER	CHECK DIGIT NUMBER*	DESCRIPTION	EXPENDITURE AMOUNT CAPITAL	EXPENDITURE AMOUNT EXPENSE	ACCOUNT DISTRIBUTION
100		Rail, Screw Spikes and Splice Bars		$ 13,000(1)	C-2920-3620
200		Ties		4,200(2)	C-2920-3620
300		Rail Braces		3,600(3)	C-2920-3620
400		Tie Plates and Shims		10,300(4)	C-2920-3620
500		Anchor Bolts		7,900(5)	C-2920-3620
600		Labor to Install Anchor Bolts and Grout Ties		23,400(6)	C-2920-3620
700		Labor to Replace Rail and Ties		41,400(7)	C-2920-3620
850		Tax @ 3%		1,200	C-2920-3620
		Total		$105,000	

(1) Based on a quotation from L.B.Foster Company dated 8-11-86. (Atlantic Track and Turnout Co. quoted $15,438 on 7-31-86. Midwest Steel Corporation quoted $13,038 on 8-11-86.)

(2) Based on a quotation from The Burke-Parsons-Bowlby Corp. dated 8-12-86. (Koppers Company, Inc. quoted $8,028 on 8-11-86.)

(3) Based on a quotation from Midwest Steel Corporation dated 8-11-86. (L.B. Foster Company quoted $3,857 on 8-11-86.)

(4) Based on a quotation from J. K. Manufacturing Co. dated 8-25-86. (Fabricating and Welding Corporation quoted $12,997 on 8-13-86. Peoria Manufacturing Co. quoted $10,796 on 8-26-86.)

(5) Based on a quotation from Hilti Inc. dated 8-20-86. (Additional quotations were not obtained since the anchor bolt system to be supplied by Hilti Inc. was selected by Plant Engineering to meet the special requirements of the pusher track.)

(6) Based on a quotation from Industrial Construction Company dated 9-5-86. (Walson Construction Co., Inc. quoted $25,630 on 8-22-86. Hasse Construction Company, Inc. quoted $26,620 on 9-2-86.)

(7) Plant Engineering estimate.

Expenditure Payout Period - 1986

	4th Quarter
Expense	$ 105,000

* To be filled in after approval

IS-8924-A

INTERLAKE, INC.

PROJECT EXPENDITURE AUTHORIZATION SUMMARY

TMK 1307

☒ MAJOR REPAIR PROJECT ☐ RESEARCH AND DEVELOPMENT PROJECT ☐ ENGINEERING PROJECT ☐ SPECIAL PROJECT

TEMP. NO.

DIVISION-PLANT: Chicago

DEPT. OR COST CENTER: C-2920

PROJECT NO.

PROJECT TITLE: Repair Larry Car Scale

ITEM NO.-ANNUAL PROFIT PLAN

ESTIMATED COMPLETION TIME (NO. OF MOS. FROM FINAL APPROVAL): 1

PROJECT SPONSOR: C. Liotus

PROJECT DESCRIPTION This project provides for the repair of the Chicago Coke Plant's larry car scale. Recently, this scale was rendered inoperable due to the failure of four of twelve girder chairs that connect the rail girders with the pivoting beam levers. Following the acquisistion of detailed prints from the manufacturer, replacement chairs had to be fabricated and installed. This project provides for the aforementioned costs and for the purchase of another three spare girder chairs.

EXPENDITURE REQUIRED

Interlake Labor – Engineering or R & D	$
– Other	
Purchases – Equipment	8,200
– Material & Supplies	
Contract	8,100
Other (Specify) – Tax	800
	$ 17,100

JUSTIFICATION

The subject scale is used to weigh coal as it is loaded into the larry car for subsequent charging into the coke ovens. Since this data is essential in determining theorectical coke production, it is imperative that the larry car scale be maintained properly.

APPROVED BY		
TITLE	SIGNATURE	DATE
1. Vice President - Operations		
2.		
3.		
4.		
5.		

IS-5921-B

Chicago - C-2920
Repair Larry Car Scale

REVIEWED BY	SIGNATURE	DATE
OPTIONAL		
Originator	R P Cross	11/10/86
Project Sponsor		
Plant Engineer	J L Bitner / [illegible]	11-10-86
Plant Accountant	G Tatters[illegible]	11-10-86
Divisional Purchasing		
Other Interested Parties	[illegible]	11/10/86
	D W. Field	11/10/86
	M A Stein	11-10-86
	G. Carducci / [illegible]	
	[illegible]	11-10-86
Department Head		
Gen. ~~XXX~~ Manager	/s/ G. Cook	11-13-86
REQUIRED (WHERE APPROPRIATE)		
Divisional/Subsidiary Accounting Manager		
Divisional/Subsidiary Administrative Services		
Works Manager		
Divisional/Subsidiary Engineering		
Other Interested Parties		
Vice President — Engineering and Environmental Control		
Corporate Director of Purchasing		
Director Corporate Information Systems		
Corporate Controller		
Director Corporate Planning		