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Salaried Position Descriptions and Responsibilities
(By-Products)
Dated: Feb 1991

COKE PLANT DIVISION MANPOWER STATUS REPORT BY PRODUCTS DEPARTMENT

BY PRODUCTS DEPARTMENT

- A. <u>Current Organizational Structure</u>: (Attached)
- B. Temporary Employees: (None)
- C. Employees on Special Assignment: Refer to (G) Below
- D. <u>Departmental Functions/Present Conditions</u>:
 - One (1) Area Manager and three (3) Shift Managers are responsible for the three turn operation of the By Products (B.P.) Department. The scope of the managing duties for the By Products Department has continued to change as a result of:
 - 1. New tasks have been added by various agencies that require the collection of environmental information to ensure the Chicago Plant is in compliance with the various laws.
 - 2. Unannounced inspections have increased the safety/ OSHA emphasis on established work practices and the related emphasis on training of Hourly employees.
 - 3. Increased production and sale of by products volume size.

BY PRODUCTS DEPARTMENT PAGE 2

E. <u>Temporary Foremen</u>:

Temporary Foremen are filling permanent vacancies. Please refer to (G) Background Information on Shift Manpower Needs.

F. Functions not being done because of Manpower and its Impact on Present Conditions:

Process Safety Management program is essential in today's EPA/OSHA climate. Qualified, degreed personnel are needed to continue to establish operating procedures and train Hourly employees.

G. Background Information on Shift Manpower Needs:

Vacancies:

1. C. Hamlin, Shift Manager-By Products resigned 11/18/95 and has not been replaced.

Comments:

P. Medved, Shift Manager-By Products, is currently assigned to the Coke Ovens Department to assist with the added work volume.

Recommendations:

Hire one (1) Chemical Engineer with experience in the inspection and maintenance of coke batteries and equipment, including gas removal from coke batteries.

JJA/jm 1/20/98

To: Jack Garzella

From: Mike Corbett

Subject: Duties of the Daylight Byproducts Foreman:

The scope of managing the Byproducts Department operation has changed and intensified greatly.

New tasks have been added by various Governmental agencies that require time consuming additional help in order for the Byproducts Area Manager to discharge his duties and keep the Coke Plant in compliance with the laws.

Environmental Responsibility:

The collection and roporting of environmental information related to the Byproducts Department operation has become an essential task:

Benzene NESHAP compliance activities:inspection ,maintenance, reporting , and follow-up

Benzene monitoring requirements

Ammonia Still reporting \ compliance numbers

Cyanide Plant operation and reporting

Collection of COG condensate and processing

Bleeder stack reporting and arranging for maintenance

River sewer outfall monitoring

Recordkeeping

Coordinate K-Waste Recycling activity with Kipin Ind.

RCRA

The maintenance activities related to attaining environmental compliance are essential and time consuming.

Inspection and repair of the numerous pressure relief devices required on most of the plant tanks is necessary to prevent tank equipment failures.

Inspection and guidance of maintenance personnel in the repair of six benzene emmision control header systems: proper operation, detection of plugging conditions, proper valve operation, detection / minimize corrosion of components is necessary to maintain compliance.

Safety and Training are becoming a major issue:

Process Safety Management-- reviewing drawing diagrams, checking prints, developing and reviewing operating procedures, associated training. Supervise record keeping activity, coordinate maintenance repair on a proactive basis. Making sure reports are properly generated and the information is available for proper authorities when requested.

Responsible for Safety issues: Insures OSHA compliance standards are met. Required safety training and inspections are met, hygiene monitoring and inspection. Insures Safety records and reports are current and up to date, which include checking of safety equipment, Hand tools, Fireboxes, Scaba equipment etc.

Safety indoctrination of outside contractors which includes our safety procedures, safety permits and making sure the area in which they work in is safe.

Training:

New employees making sure that are aware of the environment in which they will be working in.

Develope material for the By-products shift managers to use in training sessions with their operators

Assign and Supervise cleanup activities to insure good housekeeping standards.

The QS 9000 program and Co-Operative Partnership program require high level department time and input.

By Products Day Shift Foreman

Responsible for environmental issues Telated to Byproducts OPERATION - Benzene NeshAP compliance - Coordinate The INSPECTION And MAINTENAU or Pressure relief vents on TANKS and vessels in The BP DEPT. - Process Safety MANAGEMENT superise record Keeping Attuity COOPDINATE MAINTENANCE ASTIVITIES - INSUres THAT The BENZENC MONITOOTHS Program INSPECTIONS are Performed on A Timely basis, Reports are properly generated and the proper information 15 reported to The environmental RESPONSIBLE for SafeTY 155UES
- INSURES COMPLIANCE STOS FOR The DEPT

are Met - Insures Safety records and reports are up to date - JSA Program Write Needed 13A's por BP DEPT update Review JSA'S ASSIGN AND SUP CLEANUP ACTIVITIES

to insure good house keeping 5185 Coordinate maintensuce Activities

02/14/91

TO:

JACK GARZELLA

FROM:

MIKE CORBETT

SUBJECT:

DUTIES OF A BY-PRODUCTS FOREMAN

SUPERVISES THE ACTIVITIES OF BY-PRODUCTS OPERATORS ON A TURN ROTATION.

 MONITORS THE GAS FLOW FROM THE BATTERY THROUGH THE BY-PRODUCTS APPARATUS. COORDINATES ACTIVITY WITH THE OVENS FOREMAN. TROUBLE SHOOTS ANY PROBLEMS THAT ARISE.

EXAMPLE: EXHAUSTER CONTROL PROBLEMS - ASKANIA CONTROLLER MALFUNCTION - PLUGGED IMPULSE LINE, BLOCKAGE IN GAS LINES OR PRIMARIES, PLATE AND FRAME FLOW FLUCTUATIONS, PRIMARY LEVEL CONTROL MALFUNCTION OR HIGH GAS PRESSURE.

2. SUPERVISES THE TAR OPERATION TO PRODUCE LOW QI AND LOW MOISTURE TAR. SUPERVISES THE LOADING OF TAR TRUCKS. TROUBLE SHOOT ANY PROBLEMS THAT ARISE.

EXAMPLE: HIGH MOISTURE TAR, BLOCKAGE IN TAR LINES, PUMP MALFUNCTIONS, TAR SPILLS, FROZEN LINES (WINTER), LEAKING LINES RUPTURED LINES OR VALVES, AND STEAM LEAKS.

3. SUPERVISES THE ACTIVITIES OF THE BY-PRODUCTS OPERATOR TO MAINTAIN THE EXHAUSTER SUCTION MAIN SPRAYS, DRIPS, AMMONIA SULFATE OPERATION, AMMONIA STILL OPERATION, THE UNLOADING OF SULFATE TRUCKS MAINTAINS STEAM FLOW TO REDUCING STATIONS AND MAINTAINS OPERATIONS IN COMPLIANCE WITH ALL GOVERNMENT REGULATIONS. DIRECTS THE ACTIVITIES TO MITIGATE PROBLEMS THAT ARISE IN A TIMELY MANNER.

EXAMPLE: PLUGGED SPRAYS, INOPERATIVE VALVES ON DRIPS, PUMP MALFUNCTIONS, LEAKS, PLUGGED/FROZEN LINES "SALTING UP" THE SYSTEM, HIGH LEVEL IN THE ABSORBER RESULTING IN HIGH HEAD PRESSURE, ACID LEAKS, ACID PUMP/CONTROLLER MALFUNCTION OR CAUSTIC PUMP CONTROLLER MALFUNCTION.

4. SUPERVISES THE ACTIVITIES OF THE BY-PRODUCTS ENGINEER IN THE EXHAUSTER BUILDING TO INSURE THE SAFE DISTRIBUTION OF COKE OVEN GAS FROM THE OVENS TO END USERS. SUPERVISES CHANGE OVER OF EXHAUSTERS AND BOOSTERS.

EXAMPLE: EXHAUSTER SWINGS, INSTRUMENTATION, LUBRICATION, FAILURE STEAM LEAKS, GAS LEAKS (LOCATE LEAKS AND TAKE ACTION) AND HIGH GAS PRESSURE (LOCATE PROBLEMS THE COORDINATE ACTIVITIES TO CORRECT THE PROBLEMS).

5. SUPERVISES THE LIGHT OIL OPERATORS ACTIVITIES TO INSURE SAFE, EFFICIENT OPERATION OF THE LIGHT OIL PLANT. SUPERVISES LOADING OF LIGHT OIL TRUCKS. TROUBLE SHOOTS PROBLEMS THAT ARISE.

EXAMPLE: OIL FLOW IMPEDANCE - LOW OIL LEVEL, HIGH OIL LEVEL, LIGHT OIL STILL MALFUNCTION FILLING UP, OIL EMULSIONS, OIL SPILLS, LIGHT OIL SPILLS AND PUMP MALFUNCTION.

6. SUPERVISES THE POWERHOUSE OPERATION TO INSURE THE CONSISTENT DISTRIBUTION OF WATER AND AIR TO THE ENTIRE COKE PLANT. TROUBLE SHOOTS PROBLEMS THAT ARISE

EXAMPLE: INTAKE SCREENS PLUGGED, LOW WATER LEVEL, MILL WATER PUMP MALFUNCTION DUE TO PLUGGED VACUUM LINE AND AIR COMPRESSOR MALFUNCTION.

7. SUPERVISES THE ACTIVITIES OF THE COKE WHARF ON THE 3/11 AND 11/7 SHIFTS TO INSURE THE TIMELY DELIVERY OF COKE TO THE FURNACE. INTERFACES WITH THE FURNACE PLANT, OVEN SUPERVISION AND HI-LINE PERSONNEL, MAINTAINS HOUSEKEEPING PRACTICES, DIRECTS THE ACTIVITY OF THE TRACTOR OPERATOR AT THE WHARF AND THROUGHOUT THE COKE PLANT AS NEEDED, AND CONDUCTS SAFETY ACTIVITY OF WHARF PERSONNEL. TROUBLE SHOOTS PROBLEMS IN THE WHARF AND #4 BELT AREA AS NEEDED.

EXAMPLE: COKE SPILL, CONVEYOR BELT RIP, BELT DUE TO ELECTRICAL PROBLEM (INSPECTS AND CORRECTS PROBLEM), HOT COKE ON WHARF (COORDINATES WHARF FEEDER AND /OR OVENS SUPERVISION AND INSPECTS QUENCH STATION).

8. INSPECTS THE COAL HANDLING DEPARTMENT ON 3/11 AND 11/7 SHIFTS TO INSURE THAT THE EQUIPMENT IS SAFE, SECURE AND FREE FROM FIRE OR OTHER EMERGENCY SITUATIONS. WALKS ALL CONVEYOR BELTS. TROUBLE SHOOTS ANY PROBLEMS THAT ARISE.

EXAMPLE: FIRE IN BIN OR UNDER A CONVEYOR DUE TO SPONTANEOUS COMBUSTION. MECHANICAL PROBLEM - BELT RUNNING INTO IRONWORK.

9. RESPONSIBLE FOR THE SHUT DOWN/START-UP OF THE BY-PRODUCTS APPARATUS FOR MAINTENANCE OR IN EMERGENCY SITUATIONS. COORDINATES MAINTENANCE ACTIVITIES WITH OPERATIONS.

EXAMPLE: SHUTS DOWN STEAM LINES AND BLEEDS OFF STEAM PRESSURE TO MAKE IT SAFE TO CHANGE A STEAM VALVE OR REPAIR A FLANGE.

10. CONDUCTS THE FRONT LINE IMPLEMENTATION OF PRIMARY SAFETY PROGRAM TO ALL EMPLOYEES ON SHIFT.

- W.S.

- EXAMPLE: UNRULY EMPLOYEE OR PEDESTRIAN THAT CANNOT BE HANDLED BY THE GATE GUARD AND INSPECTION OF ANYTHING IN THE PLANT THAT SEEMS SUSPICIOUS.
- 11. CONDUCTS ONGOING TRAINING TO INSURE ALL EMPLOYEES ON SHIFT ATTAIN ADEQUATE SKILL LEVEL AND BEYOND. RECENT TURNOVER OF ASSISTANT BY-PRODUCTS OPERATOR PERSONNEL HAS PLACED INCREASED EMPHASIS ON THIS FUNCTION.
- 12. ASSISTS. PLANT SECURITY PERSONNEL WITH ANY PROBLEMS THAT ARISE.
- 13. IS THE COKE PLANTS FIRST RESPONDER TO EMERGENCY SITUATIONS, CHEMICAL SPILLS, FIRES, SEWER GAS ALARMS, AND MEDICAL EMERGENCIES. MAKES APPROPRIATE CALLS AND TAKES APPROPRIATE ACTION TO GET THE SITUATION UNDER CONTROL.
- 14. INTERFACES WITH GOVERNMENT AGENCY REPRESENTATIVES FROM MSD, MWRD, STATE AND FEDERAL E.P.A. AND CITIZENS GROUPS.
- 15. MAINTAINS HIGH STANDARD OF HOUSEKEEPING IN THE BY-PRODUCTS, POWERHOUSE AND WHARF AREAS.
- ADMINISTERS DISCIPLINE WHEN REQUIRED TO MAINTAIN DEPARTMENT STANDARDS.
- 17. ASSISTS THE GENERAL FOREMAN CONDUCTING MAJOR PLANT SHUTDOWNS. HELPS INSURE A SAFE WORK ENVIRONMENT FOR CONTRACTORS AND MAINTENANCE PERSONNEL.
- 18. RESPONSIBLE FOR TRAINING HIS CREW IN BENZENE NESHAP OPERATING PRACTICES.
- 19. RESTORES THE PLANT TO NORMAL OPERATING EFFICIENCY AS QUICKLY AS POSSIBLE DURING AN ELECTRICAL POWER FAILURE.
- 20. SUPERVISES THE COKE PLANT ENGINEER, LIGHT OIL OPERATOR, BY-PRODUCTS OPERATOR, AND ASSISTANT OPERATOR.
- 21. SINCE NO MAINTENANCE PERSONNEL ARE SCHEDULED ON THE 3/11 AND 11/7 SHIFT, THE BY-PRODUCTS FOREMAN IS OFTEN REQUIRED TO MAKE MINOR REPAIRS IN ORDER TO MAINTAIN A SAFE AND EFFICIENT OPERATION.
- 22. Oversees the ayanide plant to assure proper discharge proper of ammonia Liquor is discharged to sewer.

 23 Resets alarms and trouble shoots any problem that may arise

DATE: 02/16/91

COPIES TO:

TO: JACK GARZELLA

FROM: TONY PELLIGRINI

SUBJECT: THE DUTIES AND RESPONSIBILITIES OF THE BY-PRODUCTS MAINTENANCE

FOREMAN

GENERAL RESPONSIBILITIES

RESPONSIBLE FOR PLANNING AND DIRECTING ALL MAINTENANCE IN THE BY-PRODUCTS AREA. REPAIRS INVOLVING BY-PRODUCTS EQUIPMENT, PUMPS PIPING, TANKS AND OTHER APPARATUS IN THE BY-PRODUCTS AREA.

SUMMARY OF DUTIES

- 1. ASSIGNS WORK AND ACTIVITIES TO 8 MECHANICAL TECHNICIANS AND 1 CHERRY PICKER OPERATOR.
- 2. WORKS CLOSELY TO THE GENERAL FOREMAN IN PLANNING AND SCHEDULING WORK FOR THE BY-PRODUCTS DEPARTMENT.
- 3. SCHEDULE MAINTENANCE PERSONNEL IN MAINTAINING AND REPAIRING EQUIPMENT AND AUXILIARY UNITS IN THE BY-PRODUCTS AREA.
- 4. ASSIGNS WORK AND SUPERVISES THE ACTIVITIES OF THE MAINTENANCE PERSONNEL IN THE BY-PRODUCTS AREA.
- 5. INSTALL NEW PUMPS. FABRICATE NEW PIPING FOR GAS MAIN, WATER PIPING, LIQUOR PIPING, STEAM PIPING AND TAR PIPING.
- DIRECT OTHER CRAFTSMEN PERFORMING VARIOUS MAINTENANCE ASSIGNMENTS IN THE BY-PRODUCTS AREA.
- 7. DIRECT WORK CREWS DURING SCHEDULED PLANT SHUTDOWNS AND WHEN AREA FOREMEN ARE ABSENT TO VACATION OR SICK LEAVE.
- 8. ON CALL 24 HOURS PER DAY FOR EMERGENCY REPAIRS.
- 9. MAINTAINS SPARE PARTS INVENTORY FOR PIPING, VALVES AND FITTINGS, AND FOR PUMPS AND PUMP PARTS.
- 10. MAINTAINS EMPLOYEE RECORDS AND WORK SCHEDULES AND RESPONSIBLE FOR TRAINING AND INSTRUCTING EMPLOYEES IN METHODS AND TECHNIQUES OF MAINTENANCE WORK.

- 11. RESPONSIBLE FOR THE SAFETY PERFORMANCE OF THE MAINTENANCE EMPLOYEES IN BY-PRODUCTS.
- 12. HOLD GRIEVANCE MEETINGS AS REQUIRED.
- 13. ATTEND VARIOUS MANAGEMENT PLANNING MEETINGS.
- 14. REVIEWS MONTHLY BUDGET REPORTS.
- 15. RESPONSIBLE FOR THE TRAINING OF THE APPRENTICES.

Date: 04/23/91

D. O'HEARN

TO: JACK GARZELLA

From. MIKE CORBETT

DUTIES AND RESPONSIBILITIES OF THE BY PRODUCTS ENGINEER

- 1. OPERATES 380# STEAM FOR THE BY-PRODUCTS DEPARTMENT.
- OPERATES STEAM REDUCING STATIONS.
- 3. SERVES AS COMMUNICATION LINK BETWEEN DEPARTMENTS.
- 4. MAINTAINS HOUSEKEEPING OF EXHAUSTER BUILDING.
- 5. MAINTAINS COOLING AND LUBRICATION SYSTEMS IN EXHAUSTER BUILDING.
- 6. COMMUNICATES WITH THE OVENS FOREMEN TO MAINTAIN PROPER SUCTION ON COLLECTOR MAIN.
- 7. OBSERVES METERS AND GUAGES AND MAKES NECESSARY ADJUSTMENTS. RECORDS DATA ON REPORT FORMS EVERY HOUR.
- 8. MAKES MINOR REPAIRS TO EQUIPMENT.
- 9. OPERATES AND LUBRICATES STEAM VALVES IN EXHAUSTER BUILDING.
- 10. SWITCHES EXHAUSTERS AND BOOSTERS.
- 11. MAINTAINS CLEANLINESS OF MACHINES. CLEANS UP OIL SPILLS AND DUST ON MACHINES AND INSTRUMENT PANELS.
- 12. ASSISTS IN CLEAN UP IN EXHAUSTER BASEMENT.
 - * STATE LAW REQUIRES A LICENSED STATIONED ENGINEER ON THE PREMISES

Date: 04/23/91

D. O'HEARN

TO: JACK GARZELLA

From: MIKE CORBETT

DUTIES AND RESPONSIBILITIES -LIGHT OIL OPERATOR

- 1. OPERATES STILLS TO RECOVER LIGHT OIL. STARTS AND STOPS PUMPS AND OTHER EQUIPMENT AS REQUIRED.
- 2. OBSERVES OPERATIONS. INSPECTS EQUIPMENT, MANIPULATES VALVES, ADJUST CONTROLS AND SERVICES. METERS AND RECORDING INSTRUMENTS.
- 3. CHECKS TEMPERATURE AND PRESSURE INDICATORS AT REGULAR INTERVALS AND MAKES NECESSARY OPERATING ADJUSTMENTS. MAINTAINS FLUID LEVEL IN LIGHT OIL SCRUBBERS. AS REQUIRED, OPENS AND CLOSES VALVES TO STEAM CLEAN SPRAYS. DRIP COILS. COOLING COILS AND SPIRAL COOLER. BLOWS OUT CONDENSATE BOX WITH AIR. ADDS CHEMICALS TO DECANTER. DRAINS AND CLEANS TANKS AS REQUIRED.
- 4. MAINTAINS LOG.
- 5. SECURES SAMPLES OF MATERIAL AND FOREWORDS TO LAB FOR ANALYSIS. MAKES CHANGES AS DIRECTED TO CONTROL QUALITY AND QUANTITY OF PRODUCT.
- 6. OPERATES PUMPS AND CONTROL VALVES TO DISTRIBUTE PRODUCTS TO RECEIVING TANKS.
- 7. LUBRICATES EQUIPMENT. STARTS AND STOPS STAND-BY COMPRESSOR AS REQUIRED.
- 8. REPORTS ANY IRREGULARITIES OR MALFUNCTIONS OF EQUIPMENT TO SHIFT MANAGER.
- 9. LOADS LIGHT OIL TRUCKS, PUNCHES TICKETS AND TAKES SAMPLES AND DELIVERS SAMPLE AND COPY OF TICKET TO GUARD STATION.
- 10. KEEPS IMMEDIATE WORK AREA IN A CLEAN. SAFE AND ORDERLY CONDITION.
- 11. MAINTAINS LIGHT OIL VENT SYSTEM STEAMS OUT AS NEEDED.
- 12. OPERATES INTERCEPT SUMPS ADJUSTS LEVELS AND RUNS PUMPS.
- 13. ASSISTS OTHER OPERATORS IN TURNING VALVES AS NEEDED.
- 14. RUN #1 DRIP ON FUEL GAS MAIN.

15. POWERHOUSE

- MONITORS ALL POWERHOUSE OPERATIONS HOURLY

- CHECKS PLANT AIR COMPRESSOR - CHECKS AND RECORDS TEMPERATURES AND PRESSURES

- LUBRICATES AIR COMPRESSOR ACCORDING TO SCHEDULE

- SWITCHES AIR COMPRESSOR AS NECESSARY

- CLEANS OIL SPILLS AND MAINTAINS POWERHOUSE HOUSEKEEPING

- MONITORS INTAKE VACUUM AND BACK UP SYSTEM

- MONITORS MILL WATER PUMP AND BACK UP SYSTEM FOR STEAM MILL WATER TURBINE

- MONITORS LUBRICATION FOR MILL WATER PUMPS

- OPERATES 150# STEAM VALVES FOR STAND-BY MILL WATER TURBINE

- OPERATES METHANOL INJECTION SYSTEM TO PLANT AIR FOR WINTER OPERATION

Date: 04/23/91

D. O'HEARN

To: JACK GARZELLA

From: MIKE CORBETT

DUTIES AND RESPONSIBILITIES BY-PRODUCTS OPERATOR

AREAS OF RESPONSIBILITY:

- TAR PRECIPITATORS

- AMMONIA SULFATE PLANT

- FLUSHING LIQUOR SYSTEM

- AMMONIA STILL / WEAK LIQUOR TANKS

- EXHAUSTER BUILDING GAS PIPING AND DRIPS

- EXHAUSTER BASEMENT

- FINAL COOLER

- 1. WORKS AS DIRECTED BY THE BY-PRODUCTS SHIFT MANAGER.
- TOURS WORK AREA AT THE BEGINNING AND DURING THE SHIFT TO INSURE NORMAL OPERATION. OBSERVES RECORDS PRESSURE AND TEMPERATURES.
- 3. ASSISTS OTHER OPERATORS IF DIFFICULTIES ARISE.
- 4. OBSERVE AND ADJUST FLUSHING LIQUOR SYSTEM TO AND FROM BATTERY COLLECTING MAINS.
- 5. MAINTAINS LIQUOR SPRAYS ON SUCTION MAIN.
- 6. OPERATES SUMPS TO RETURN CONDENSATES TO PROCESS SYSTEM.
- 7. ADVISE BY-PRODUCTS ENGINEER OF KNOWN CHANGES IN OPERATION THAT WILL AFFECT OPERATION OF GAS EXHAUSTER AND BOOSTER EQUIPMENT.
- 8. CLEANS LINES AND PUMPS BY FLUSHING WITH STEAM.
- 9. STEAMS OPEN SPRAYS ON FINAL COOLER.
- 10. ISOLATES PROCESS VESSELS FOR MAINTENANCE OR AS NEEDED BY OPERATING VALVES.
- 11. SWITCHES EXHAUSTERS AND BOOSTERS AS NEEDED.
- 12. MAINTAINS HOUSEKEEPING IN ASSIGNED WORK AREAS.
- 13. LUBRICATES PUMPS ACCORDING TO SCHEDULE.

- 14. LUBRICATES VALVE STEMS.
- 15. OPERATES PRIMARY GAS AND SPRAY VALVES, DOWNCOMER SPRAYS AND PRIMARY SUMP.
- TROUBLESHOOTS DIFFICULTIES AS REQUIRED. 16.

17. TAR PRECIPITATOR

- OPENS/CLOSES GAS INLET/DISCHARGE BY-PASS VALVES. SWITCHES RECTIFIERS AS NEEDED
- MONITORS/MAINTAINS SEAL POT DRAINS, EAR DRAINS AND RELATED LINES

- MONITORS EAR TEMPERATURES, VOLTS AND AMP READING HOURLY

- CLEANS BASE OF TAR PRECIPITATOR DURING OUTAGES

- OPERATES TAR PRECIPITATOR SUMP/LIME BASEMENT SUMP AND MONITORS LEVELS
- RUNS #2 DRIP

EXHAUSTER BASEMENT

- MAINTAINS LINES TO COLLECTOR POT IN EXHAUSTER BASEMENT

- OPERATES COLLECTOR POT SUMP

- INSPECTS AND DRAINS DRIP POTS ON BOOSTER SUCTION MAIN IN EXHAUSTER BASEMENT, EXHAUSTER SUCTION LINE DRIP POTS, DRAIN UNDER EACH EXHAUSTER AND EXHAUSTER "U" TUBE
- MAINTAINS HOUSEKEEPING IN EXHAUSTER BASEMENT

19. AMMONIA STILL

- OPERATES AMMONIA STILL
- MAINTAINS LIQUID FLOW, STEAM FLOW AND CAUSTIC FLOW TO OPERATE UNIT IN COMPLIANCE WITH ENVIRONMENTAL REGULATIONS
- MONITOR PH OF AMMONIA STILL AND AMMONIA BAYS

SULFATE OPERATOR 20.

- MOVES GAS AND SOLUTION VALVES AS NECESSARY
- MAINTAINS PUMP PRESSURE AND SPRAY PRESSURE

- SWITCHES PUMPS AS NEEDED

- MAINTAINS PROPER ACID LEVELS TAKE HOURLY SAMPLE AND RUNS TITRATION TEST
- MONITORS SPECIFIC GRAVITY BY HYDROMETER TEST

- "KILLS" THE SULFATE SYSTEM

- MAINTAINS PROPER LEVEL IN THE SOLUTION/CRYSTALLIZER TANK
- LOADS SULFATE TRUCKS
- UNLOADS ACID TRUCKS
- UNLOADS CAUSTIC TRUCKS

21. WEAK LIQUOR TANKS

- PUMPS BOTTOMS OF WEAK LIQUOR TANKS AND ROTATES FILLING, SETTLING AND PUMPING OF (3) WEAK LIQUOR TANKS PER PRESCRIBED SCHEDULE
- MONITORS WEAK LIQUOR TANK LEVEL. PUMPS AND VALVE LINES - TAKES SAMPLE OF AMMONIA LIQUOR FOR INSPECTION AND ANALYSIS
- RUNS DRIPS ON EXCESS GAS MAIN FROM EXHAUSTER BUILDING TO #4 DRIP

Date: 04/23/91

Copies To: D. O'HEARN

TO: JACK GARZELLA

From: MIKE CORBETT

BUDIOG: DUTIES AND RESPONSIBILITIES -BY PRODUCTS ASSISTANT OPERATOR

- 1. WORKS AS DIRECTED BY THE BY-PRODUCTS SHIFT MANAGER.
- ASSIST THE BY-PRODUCTS OPERATOR IN ISOLATING PROCESS VESSELS AS REQUIRED.
- LUBRICATES PUMPS AND VALVES ACCORDING TO SCHEDULE.
- 4. MAKES HOURLY ROUNDS THROUGH THE DEPARTMENT TO MONITOR CHARTS AND REPORT ABNORMALITIES TO THE SHIFT MANAGER.
- HANDLES ALL TAR OPERATION
 - MONITORS TAR DECANTER AND DECANTER "FLITES"
 - MOVES TAR FROM DECANTERS TO TAR COLLECTOR
 - MONITORS TAR DEHYDRATION
 - MOVES TAR FROM TAR COLLECTOR TO TAR STORAGE
 - MONITORS AND ADJUSTS TAR TANK HEATERS
 - MONITORS DRIPS FROM SUCTION MAIN TO TAR DECANTERS (STEAM OUT IF NEEDED)
 - LOADS TAR TRUCKS

TAR DECANTER OPERATOR

- MONITORS TAR LEVELS
- ADJUST TAR WEIR AS NEEDED
- ADJUST HEATERS ON DECANTERS
- ISOLATES DECANTERS AS NEEDED
- MONITORS DECANTER "FLITE" OPERATION CHAIN MOVEMENT
- TROUBLESHOOTS TAR PUMP PROBLEMS
- ADDS CHEMICALS TO DECANTERS FOR EMULSION CONTROL IF NEEDED

7. PLATE AND FRAME OPERATION

- INSPECTS PLATE AND FRAMES FOR LEAKS
- ADJUST WATER FLOW TO CONTROL PRIMARY TEMPERATURE
- HEAT PLATE AND FRAMES TO CORRECT FLOW DIFFICULTIES
- RUN PRIMARY LEVEL CONTROL TEST TO VERIFY PROPER INSTRUMENTATION STATUS

8. FINAL COOLER OPERATION

- OPERATE NAPTHELENE SKIMMER BAYS
- OPERATE NAPTHELENE SYPHON KEEP LINE OPEN FROM PIT TO DECANTERS TROUBLESHOOT IF LINE IS PLUGGED
- KEEP NAPTHELENE WINDOWS OPEN
- PROBE BOTTOM OF BAYS TO CHECK LEVEL OF NAPTHELENE BUILD-UP
- 9. MAINTAINS WORK AREAS IN AN ORDERLY AND SAFE CONDITION.
- PERFORMS CLEANING, DUSTING EQUIPMENT AND SWEEPING FLOORS. 10.
- ASSISTS THE BY-PRODUCTS OPERATOR IN TURNING VALVES, BLEEDING AND 11. PURGING LINES. BACK FLUSHING AND TIGHTENING PACKING GLANDS.
- SERVICES INSTRUMENTS BY CLEANING, WIPING AND CHANGING CHARTS. 12.
- OBTAINS ALL REQUIRED TAR SAMPLES. 13.
- DRAIN ALL DRIPS ON EXCESS COKE OVEN GAS LINE (DRIPS #4-9) 14. ALSO INCLUDES #3 DRIP ON THE FUEL GAS MAIN.
- 15. MAINTAINS LOG.

INTERLAKE, INC. IRON AND STEEL DIVISION CHICAGO PLANT

TURN FOREMAN - BY-PRODUCTS

Position Objective

Supervise the by-products personnel to ensure that operating procedures are adhered to, producing by-products of the highest quality and quantity in the safest and most economical manner.

Prime Duties/Responsibilities

- Implement and enforce plant safety program through inspections, contacts and meetings - innovate safety improvements in by-products
- 2. Monitor flows, temperatures and pressures of by-product systems.
- 3. Correct abnormal conditions in a timely manner.
- 4. Coordinate activities with Coke Oven Department supervisors, maintaining proper regulations of gas removal from coke batteries, and proper flushing (cooling) liquor flows for collector main cooling.
- Maintain high standard of housekeeping at by-products area.
 In compliance with Company policy, handle disciplinary and grievance matters.

B. P. Juan Foreman

Position Objective Superine the By- Products personnel to ensure that operating procedures are adhered to, producing by producte of the highest quality and quantity in the safest and most economical manner.

Trime duties/Responsibilities

1. Monitor flows, temperatures, and pressure of by- product systems.

2. Cornect abnormal conditions in a

timely manner.

3. Co-ordenate activities with cake oven department supermisone, maintaining proper regulation of ghe removal from coke batteries, and proper flushing (cooling) & Segues flows for Callector main looking 4. Maintain necessary records, providing management with information required to enforce safety and personnel performance. 5. Maintain housekeeping of by- products

DATE: 02/15/91

D. O'HEARN

To: JACK GARZELLA

From: MIKE CORBETT

Subject: DUTIES OF THE BY-PRODUCTS GENERAL FOREMAN

- 1. DIRECTS THE DAILY OPERATING AND MAINTENANCE ACTIVITIES FOR BY-PRODUCTS DEPARTMENT. PERFORMS DAILY INSPECTIONS OF THE DEPARTMENT AND CORRECTS DEFICIENCIES FOUND.
- 2. PLANS THE MAINTENANCE ACTIVITIES TO CORRECT OPERATING PROBLEMS AND POTENTIAL SAFETY HAZARDS. THE BY-PRODUCT APPARATUS IS AGING (PARTS OF THE PLANT WERE CONSTRUCTED IN 1910) AND REQUIRES FREQUENT INSPECTION AND PLANNING OF MAINTENANCE TO RETAIN SAFE OPERATIONAL STATUS. INTEGRATES THESE PLANS INTO AN OVERALL LONG TERM STRATEGY OF BY-PRODUCT DEPARTMENT UPGRADE. WORKS WITH PLANT MAINTENANCE SUPERVISION TO DEVELOP SCOPE, PROCUREMENT, DEVELOP PROCEDURE, AND IMPLEMENT REPAIRS. RECENTLY SHUTDOWN BY-PRODUCT GAS FLOW TO REPLACE A 30 INCH PIPE.
- 3. STRIVES TO CONTINUALLY IMPROVE EFFICIENCY AND SAFETY OF THE DEPARTMENT AND PLANS LONG TERM REPAIRS THROUGH THE SUPER-INTENDANT AND THE ENGINEERS TO INSURE CONTINUED SAFE OPERATION OF THE DEPARTMENT. STRIVES TO IMPROVE THE STRUCTURAL INTEGRITY OF THE PLANT. INITIATES PROJECTS TO UPGRADE ASSETS SUCH AS TAR PRECIPITATOR, GAS DISTRIBUTION PIPING, AND STEAM PIPING.
- 4. ESTABLISHES PROCEDURES FOR DAILY OPERATING PRACTICES AND MAKES CHANGES NEEDED TO IMPROVE OPERATING EFFICIENCY.
 - EXAMPLE: DEVELOP A COMMON STEAM OUT PROCEDURE FOR TAR LINES FOR ALL ASSISTANT OPERATORS TO FOLLOW. ESTABLISHED A PROGRAM FOR REGULAR ROTATION OF EXHAUSTERS AND BOOSTERS. MONITORING OF BY-PRODUCTS OPERATOR SULFATE OPERATION TO PREVENT SALTING UP OF SYSTEM. DUE TO THE AGE OF THE SULFATE EQUIPMENT AND GAS PIPING (MUCH OF THIS GAS PIPING IS FIBERGLASSED), MONITORING IS ESSENTIAL TO PREVENT CATASTROPHIC DISRUPTION OF THE SULFATE OPERATION.
- 5. WRITES PROCEDURES FOR SHUTDOWNS AND COORDINATES ALL SHUTDOWN ACTIVITY TO INSURE SAFE AND EFFICIENT COMPLETION OF THE REQUIRED WORK. PLANNED EXHAUSTER SHUTDOWN AND PURGE TO REPLACE AUXILIARY PIPING. SHUTDOWN OF BOTH THE TAR DECANTERS FOR MODIFICATIONS AND SCRAPER REPAIR, ABSORBER SHUTDOWN TO REPLACE SPRAY SYSTEM PIPING, SHUTDOWN OF LIGHT OIL PLANT TO REPLACE DEPHLEGEMATOR AND CONDENSER TUBE BUNDLES TO IMPROVE THE EFFICIENCY OF THE LIGHT OIL PLANT OPERATIONS AND EXCESS GAS LINE SHUTDOWN FOR PIPING REPLACEMENT TIE-IN. COORDINATES ACTIVITIES OF THE COKE PLANT ENGINEERS AND THE CONTRACTORS IN THE BY-PRODUCTS DEPARTMENT. PERFORMING BENZENE CONSTRUCTION,

REPLACEMENT OF EXCESS GAS PIPING, FIBERGLASSING CORRODED PIPING AND ASBESTOS REMOVAL.

- 6. CONTROLS QUALITY AND INVENTORY OF BY-PRODUCTS MATERIALS SUCH AS COKE OVEN GAS, CHLORINE, TAR, LIGHT OIL, SOL 900, WASH OIL, CAUSTIC SODA AND SULFURIC ACID. ALL OF THESE COMMODITIES ARE LISTED A HAZARDOUS, MOST ARE FLAMMABLE AND CORROSIVE AND SOME ARE EXPLOSIVE AND CARCINOGENIC. THESE MATERIALS REQUIRE PROPER HANDLING TO PREVENT DAMAGE TO THE PLANT AND TO AVOID AN ENVIRONMENTAL INCIDENT.
- 7. MONITOR THE STOREROOM ACTIVITY TO KEEP TRACK OF ESSENTIAL DEPARTMENT ITEMS. CHECK WITH STORES AND PURCHASING TO INSURE THAT ORDERS HAVE BEEN PLACED AND ITEMS ARE DELIVERED ON A TIMELY BASIS. EVALUATES NEW PRODUCTS FOR COST EFFICIENCY. SOLICITS BIDS FROM CONTRACTORS, PROVIDE SCOPE OF PROPOSED WORK, INSPECTION OF JOB SITE AND THE PROCESSING OF BIDS TO PURCHASING.
- 8. INSURES THAT ALL CONTRACTUAL OBLIGATIONS TO THE UNION ARE FULFILLED, SUCH AS CONTRACTING OUT NOTICES. HANDLES GRIEVANCES AND CONDUCTS MEETING WITH UNION PERSONNEL TO RESOLVE GRIEVANCES.
- 9. ATTENDS MEETINGS TO INSURE THE DEPARTMENT ACTIVITIES ARE COORDINATED WITH ALL OTHER COKE PLANT ACTIVITIES. ALSO ATTENDS SAFETY MEETINGS, ENGINEERING MEETINGS AND OPERATIONS MEETINGS.
- 10. INSURES THAT THE PRIMARY SAFETY PROGRAM TENETS ARE UPHELD.
 INITIATES THE WRITING OF J.S.A. 'S AND SEES THAT REVISIONS ARE
 CURRENT.
- 11. INDOCTRINATES ALL NEW EMPLOYEES IN THE DEPARTMENT. OVERSEES TRAINING (DUE TO COMPLEXITY OF THE DEPARTMENT, STANDARD BREAK-IN FOR A NEW EMPLOYEE IS FOUR WEEKS).
- 12. WORKS TO INSURE THAT TRAINING OF EMPLOYEES AND FOREMEN IS ONGOING.
- 13. WORKS TO IMPROVE THE COMMUNICATION OF INFORMATION TO ALL SUPERVISORS AND EMPLOYEES IN THE DEPARTMENT.
- 14. ON CALL 24 HOURS A DAY TO ASSIST IN DEPARTMENT PROBLEMS THAT CANNOT BE SOLVED BY THE SUPERVISOR ON TURN. ALSO ON CALL FOR THE SUPERINTENDENT ON ROTATION AND VACATIONS.
- 15. STRIVES TO CREATE AN ATMOSPHERE OF TEAMWORK THAT IS CONDUCIVE TO ACHIEVING COST CONTROL BY ENCOURAGING SUGGESTIONS FROM SUPERVISORS AND EMPLOYEES.
- 16. INSISTS THAT HOUSEKEEPING BE MAINTAINED AND TO WORK TOWARDS IMPROVEMENT.

- 17. ACCOMPANIES THE PLANT SUPERINTENDENT, PLANT MANAGER AND SAFETY DIRECTOR ON DEPARTMENT "WALKAROUNDS" AND CORRECTS DEFICIENCIES FOUND IN A TIMELY MANNER.
- MAINTAINS DEPARTMENT IN COMPLIANCE WITH THE REGULATIONS OF THE METROPOLITAN WATER RECLAMATION DISTRICT, E.P.A., OSHA, SPECIFICALLY DISCHARGE LIMITS TO RIVER AND SANITARY SEWER, HAZARD COMMUNICATIONS, FEDERAL BENZENE NESHAP, AND ILLINOIS PART III. MAINTAINS AMMONIA STILL PH CONTROL, MONITORS AMMONIA LEVELS, KEEPS CYANIDE LEVEL WITHIN COMPLIANCE, DISPOSES OF DECANTER SLUDGE ACCORDING TO AGENCY REGULATIONS AND INSURES THAT SEWER GAS ALARMS ARE DEALT WITH PROMPTLY TO PREVENT EXPLOSIONS.
- 19. SUPERVISES 4 BY-PRODUCTS SALARIED FOREMEN AND 2 HOURLY ASSISTANT FOREMEN (DURING VACATION WEEKS).
- 20. THE BY-PRODUCTS GENERAL FOREMAN GENERALLY WORKS 10 HOURS PER DAY TO ACCOMPLISH THESE GOALS.

THE BY-PRODUCT DEPARTMENT APPARATUS CONSISTS OF THE COLLECTOR MAIN FROM THE COKE OVENS, THE PRIMARY COOLER SYSTEM (INCLUDING THE PLATE AND FRAME HEAT EXCHANGERS, CIRCULATING LIQUOR PUMPS, PRIMARY LEVEL CONTROL AND RELATED PIPING), THE SUCTION MAIN TO THE EXHAUSTERS (WITH RELATED SPRAYS AND DRIPS), THE EXHAUSTERS (WITH RELATED VALVES, GAS PIPING, MOTORS, LUBRICATION SYSTEMS, AND COOLING SYSTEMS), THE TAR PRECIPITATORS, THE AMMONIA ABSORBER (WITH RELATED GAS PIPING, TANKS, PUMPS AND LOADING FACILITIES). THE LIGHT OIL SYSTEM (GAS SCRUBBERS, PUMPS, LINES, HEAT EXCHANGERS, TANKS AND DECANTERS, CIRCULATION TANKS, LIGHT OIL STILL, SUMPS AND RELATED PIPING AND LOADING FACILITIES), THE GAS DISTRIBUTION SYSTEM (VALVES, GAS LINES, GAS BOOSTERS AND RELATED APPARATUS), THE POWER HOUSE (WITH THE MILL WATER PUMPS, APPARATUS, AND AIR COMPRESSORS), THE TAR SYSTEM (DECANTERS, COLLECTOR TANKS, PUMPS, TAR LINES, TAR STORAGE TANKS AND TAR LOADING FACILITIES), THE WEAK LIQUOR SYSTEM (REGULATORS, WEAK LIQUOR STORAGE TANKS, AMMONIA STILL AND APPARATUS, PH CONTROL, AMMONIA BAYS, AND SEWER SYSTEM), SEVERAL MILES OF HIGH PRESSURE STEAM LINES AND VALVES, REGULATORS (REDUCING STATION), 150 LB. STEAM LINES, RELATED REDUCING STATIONS AND LOW PRESSURE LINES.

THE DEPARTMENT IS MANNED WITH MINIMUM PERSONNEL. ANY ABSENTEE OR SICKNESS IS COVERED BY SHIFT PERSONNEL.

GENERAL FOREMAN

- RESPONSIBLE FOR BP DPERATION ON 24 HOUR BASIS,
COVERS WEEKENDS AS SUPERINTENDENT, PLANS AND SUPERVISES
DEPARTMENT MAINTENANCE & TRAINING. PLANS AND EXECUTES MAJOR
OUTAGES IN A SAFE MANNER FOR MAINTENANCE E.G. - GAS PURGES,
LIGHT DIR PLANT SHOT DOWNS. THE MATERIALS INVOLVED - COKE OVENGAS,
HIGHT OIL, TAR, NAPHTHALENE ARE HIGHLY INFLAMMABLE AND/OR EXPLOSIVE.
RESPONSIBLE FOR RIVER WATER DISTRIBUTION THROUGHOUT THE PLANT AND
THE QUALITY OF THE DISCHARGES TO THE RALUMET RIVER AND THE
METROPOLITAN WATER RECLAMATION DISTRICT. USES SO TO CAUSTIC SODA ON
THE AMMONIA STILL TO CONTROL AMMONIA DISCHARGES TO THE SEWER. USES,
SULFURIC ACID TO REMOVE AMMONIA FROM COKE OVENGAS. SETS UP
SHIPMENTS OF TAR, LIGHTOIL, AND SOL GOD (LIQUID AMMONIUM SULFATE)
TO GOSTOMERS, AND CAUSTIC SODA, SULFURIC ACID, AND WASH OIL TO OUR
TANKS. SUPERVISES FOUR BY-PRODUCTS SHIFT FOREMEN AND THEIR EQUIPMENT.
ORDERS MATERIAL FOR THE DEPARTMENT.

BY-PRODUCTS TORN FOREMAN

- RESPONSIBLE FOR BP OPERATIONS ON A TURN BASIS. SUPERVISES THE

EXHAUSTER ENGINEER, THE B.P. OPERATOR, THE LIGHT OIL OPERATOR, AND THE ASSISTANT

B.P. OPERATOR. HIS PEOPLE PHYSICALLY LOAD AND UNLOAD THE TRUCKS THAT

BRING MATERIAL AND REMOVE PRODUCT. HIS EQUIPMENT INCLUDES 2 PRIMARY COOLERS, HEAT

I KINNEY STRAINER, 2 TAR DECANTERS, I FLUSHING LIQUOR TANK, I CIRCULATING MIQUOR TANK,

I TAR COLLECTOR TANK, 3 TAR TANKS, 3 WEAK LIQUOR TANKS, 2 EXHAUSTERS, 3 TAR

PRECIPITATORS, I NH3 ABSORBER, INH3 STILL, I FINAL COOLER, I MARLEY COOLER,

2 LBAIS, I LIGHT OIL STILL WITH ASSOCIATED TANKS AND HEAT EXCHANGERS, 3 GAS BOOSTERS,

2 MILL WATER PUMPS AND 2 AIR COMPRESSORS.

INTERLAKE, INC.
IRON AND STEEL DIVISION
CHICAGO PLANT

BY-PRODUCTS GENERAL FOREMAN

Position Objective

Responsible for the three turn operations of the By-Products Department equipment, operating procedures and quality control of the by-products.

Prime Duties/Responsibilities

- Implement and enforce plant safety program through safety inspections and meetings - innovate safety improvments in by-products area. Oversee disciplinary program and handle grievance matters in compliance with Company policy.
- Assist in establishing sound operating practices and corrects abnormal conditions in a safe and timely manner.
- 3. Controls quality and inventories of by-products.
- 4. Inspects and maintains by-product equipment and facilities.
 Assist Plant Engineering and maintenance supervision in studies
 to improve by-product equipment and facilities.
- Insure that By-Products Foremen maintain a high standard of housekeeping and motivate their contributions to the cost reduction program.

By- Producte Den Foreman Pasition Objective: Luperaise and be responsible for the three term operations of the sy-Products dept. equepment, aparatery procedures, and quality control of the by- products. Trime Duties/Responsibilities 1. Assists in establishing sound operating practices and implementation 2. Consection of almound conditions in a safe and timely manner. 3. Controls quality and inventories of 4. Ans pection and maintenance of Dy-Product equipment and jacilities 5. assista engineering and maintenance in studies to improve By Product egupment and facilities. 6. Maintain necessary records, prouding management with information required to enfonce safety and personnel