SPECIALTY CHEMICALS DIVISION

SOUTH CHARLESTON PLANT ENGINEERING

August 23, 1987

SEP 29 1987

Rotthoff

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CC: R. P. Campbell
S. J. Chanley
J. F. Dodd
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W. N. Stratton
W. J. Vincent
R. W. Williams

FROM: T. G. Huff

SUBJECT: Project Scope Document
B-303 Transitional Operation/Demolition Phase I
S.O. #198456, EON 87412

This scope document is issued for the approval of the Engineering Manager, the Chemical Mixing Department Head, the Chemical Mixing Assistant Plant Manager, the Specialty Chemical Division Personnel Safety Manager, the Plant Safety Department Head and the Environmental Protection Department Head.

OBJECTIVE OF THE PROJECT

This project has three prime objectives. First, it will demolish Building 303 between Column Lines 10 and 15 to free an area for construction of a new drumming center. Second, it will provide process and utility piping, power circuits, heating and ventilation to allow the existing drumming facility to continue operating during demolition and construction of the new drumming center. Third, it will replace the existing asbestos containing transite siding on the Chemical Mixing Unit Slurry Bay west of Column Line 15 with a new, insulated, metal panel.

CAPITAL WORK

New, insulated, metal wall and roof panels will be installed on the Slurry Bay framing structure west of Column 15 following removal of the existing transite panels. The new panels will have a washable, paintable interior surface and will match the panels installed on the new drumming center. The new panel design will be chosen to give minimal difficulty when cutting, fitting and flashing around the numerous existing piping and conduit pass thrus.

REVISIONS AND REARRANGEMENT WORK

Mechanical

All mechanical work must be completed before the demolition work can start. The existing central piperack in the demolition zone will remain in place and active during the demolition and new construction phases. This pipe rack will allow the existing drumming facility to continue operating during this period. There are several active process and utility lines running through the demolition zone which are not located on this piperack. They will be rerouted so that all piping will cross the demolition zone on the central piperack. Plant air and nitrogen piping revisions will be required to secure sources west of the demolition zone.

Four heating and ventilating units located inside the demolition zone (serving outside areas) will be relocated. Power and ductwork revisions will be required.

Existing fire H_2O spray systems will be revised to allow isolation of the demolition zone.

Civil

Several revisions are needed before starting demolition work. These include:

- Block abandoned loading spot sewers
- Brace existing roof trusses at Columns 10 and 15
- Provide temporary support of the existing central piperack

Post-demolition revisions include:

- Seal open roof and wall slots and flash gutter ends at Columns 10 and 15. Install new sheet metal panel on walls and roof on west side of Column 15.
- Install handrail and toe-plate on north structure catwalks at Columns 10 and 15.
- Seal door and pipeway openings at Columns 10 and 15.

Electrical

All electrical work must be completed before the demolition work can start. A new 24-inch wide cable tray will be installed on the existing central piperack. All electrical circuits that currently pass through the demolition zone and which must remain active will be rerouted to the new cable tray. The fire alarm system circuits will also be rerouted into the cable tray. Fire alarm terminal boxes and spray sensor/alarm transmitters will be relocated west of the demolition zone. All revisions to the Plant Fire Alarm System will be reviewed and approved by Mr. D. M. Hall.

A new circuit will be installed to power the relocated ventilation units.

An existing 2400 volt lighting transformer and cutout switch will be relocated west of the demolition zone.

The telephone systems on the east and west sides of the demolition zone will be severed and made independent. A new circuit will be run from B-323 to serve the Slurry Bay.

Control Systems

All control systems work must be completed before the demolition work can start. A switching system for the outlet line emergency shutoff valves on Tanks 5676 and 5677 will be relocated west of the demolition zone. New air and nitrogen supplies for the liquid level instruments on Tanks 5676 and 5677 will be provided.

RETIREMENT WORK

The existing asbestos containing transite siding on the Slurry Bay and demolition zone walls and roof will be removed and disposed of. All asbestos containing pipe insulation in the demolition zone will be removed and disposed of.

The handling and disposal of asbestos containing materials will be done in accordance with all Federal, State (WV APCC and NESHAPS) and Local Laws and Regulations as well as all UCC Standards (see "Safety and Health Considerations" for a detailed description of removal methods).

The existing structure of Building 303 will be demolished to grade between Columns 10 and 15. Grade elevation will be the top of the soil beneath the existing floor slab. Demolition will include steel, concrete, piping, equipment, ductwork, power circuits and office paneling.

ENVIRONMENTAL PROTECTION CONSIDERATIONS

All equipment and material will be made chemical-free before being removed from the Plant.

SAFETY AND HEALTH CONSIDERATIONS

The handling and disposal of asbestos containing materials will be done in accordance with all Federal, State and Local Laws and Regulations as well as all UCC Standards.

Asbestos pipe insulation will be removed using the OSHA approved "Glove Bag" method. (Refer to Federal Register - OSHA Regulation 1926.58).

Asbestos containing transite does not fall under Federal EPA or WV State NESHAPS Regulations because it is considered a non-friable material (will not easily crumble and pulverize so as to release air-borne asbestos fibers under hand pressure). Consequently, methods for removing and disposing of transite vary widely throughout industry. Removal will be accomplished without using a negative pressure enclosure (the size of Building 303 - roof span is 90 feet - renders it impractical).

Discussions were held with three different contractors who have current experience removing transite. All three are using the following method successfully - their personnel and area sampling are consistently showing exposure levels below the OSHA action level (0.1 fibers/cc TWA_8).

- The only personnel present within the confines of the demolition zone during transite removal activity will be the demolition contractor.

- All openings connecting the demolition zone with immediately adjacent, occupied areas will be temporarily sealed off with polyethylene covers.

- Prior to removal, warning signs shall be erected and, if appropriate, barriers shall be erected to control the spread of asbestos-containing dusts.

- Contractor shall provide a clean room, equipment room and wash room immediately adjacent to the demolition zone.

- Personnel shall don protective clothing and respiratory protection as required by OSHA and the South Charleston Plant Respiratory Protection Manual prior to entering the demolition zone.

- Contractor shall visually inspect surfaces of the transite material noting damaged and friable surfaces areas. Prior to removal, a bridging encapsulant shall be applied to the damaged and friable surfaces of the transite panels. Particular attention shall be paid to joints and seams of the materials.

- 6 mil Polyethylene sheeting shall be placed on all surfaces below the material to be removed.

- The transite shall be carefully and thoroughly saturated with a gentle spray mist of amended water or penetrating encapsulant/sealant as appropriate. Contractor shall carefully detach transite material from the substrate. Extreme care shall be exercised to prevent damaging transite materials. Transite materials, while still wetted shall be placed and sealed in 6 mil polyethylene disposal bags with appropriate asbestos waste warnings. All bags of asbestos materials shall then be placed in an identical bag in order to form a total thickness of 12 mils. Transite materials which cannot be placed in disposal bags shall be carefully wrapped with 6 mil polyethylene sheeting to a total thickness of at least 12 mils. All joints in the sheeting shall be secured with tape and appropriate asbestos warning labels securely affixed. All surfaces from which asbestos transite panels have been removed shall be wet-wiped or hepa-vaccumed as appropriate. All cleaning and other disposable items including protective clothing shall be treated as asbestos containing waste.

- Transite panels which have been penetrated by pipe, conduits or structural rods require special consideration. Whenever practical, the penetrating pipe, conduit or rod will be withdrawn before removing the transite panel. When this is not practical, the transite panel will be scored and struck with a hammer to break away the necessary pieces.

- Transite materials shall be transported according to EPA, OSHA, DOT regulations.

- Disposal of asbestos-containing transite shall be at a landfill licensed to accept asbestos-containing waste according to all Federal, State, and Local authorities.

- Contractor shall fully document actual disposal of each waste load with proper waste manifests and landfill receipts.

- Contractor will ensure personnel and area air sampling is performed according to the most stringent applicable specifications and will ensure final clearance air sampling is performed and final air sampling results are within acceptable limits before releasing any project area for occupancy by unprotected personnel. If, at any time, the results of air monitoring inside or outside the work area indicates a fiber concentration above 0.1 fibers/cc TWA_8, the contractor shall modify work practices and add the controls necessary to prevent exceeding this limit.

- o Transite removal from occupied building areas will be done between 11:00 p.m. and 7:00 a.m., when no Distribution or Maintenance personnel are on-site. Floor sheeting shall be disposed of after each work shift. All surface dust shall be wiped and/or vacuumed.

- o A UCC construction inspector/qualified safety monitor will be on-site continuously during the demolition activity. This individual will be trained and outfitted identically to the contractor's employees.

The above transite handling and disposal method has the understanding and agreement of the following:

Mr. R. P. Campbell	Production Representative
Mr. K. P. Holz	Production Representative
M. T. G. Huff	Project Manager
Mr. C. R. Rotthoff	SC Div Personnel Safety Manager
Mr. R. D. Ondocsin	Corporate Industrial Hygienist
Mr. W. J. Vincent	514 Plant Industrial Hygienist

PROJECT PLAN

Engineering will be done by South Charleston Plant Engineering, CED Construction Group will perform all Revisions and Rearrangement work. Asbestos pipe insulation and transite siding removal will be done by a qualified asbestos abatement contractor. Non-asbestos removal work will be done by a demolition contractor. The new, insulated panel for the Slurry Bay will be done by a qualified siding contractor.

For the Slurry Bay work, special coordination will be required between the transite demolition contractor and the new siding contractor. A certain number of transite panels will be removed by the demolition contractor on midnight shift. As many of these panels as possible will be replaced with new panels by the siding contractor on the following day shift. The objective is to minimize the area and duration of openings left in the Slurry Bay. Tarps will be used as necessary to aid in limiting the impact of outside weather conditions on the Slurry Bay Operation. The work will be restricted to warm weather months.

Please sign on the following page if this project, as described, meets with your approval.

Tim Huff

Tim Huff

TGH/wdm
Ext. 2584
3520G

Project Scope Document
B-303 Transitional Operation/Demolition Phase I
S.O. #198456, EON 87412

APPROVAL SIGNATURES: DATE

Deborah J McNeil 8/27/87
D. J. McNeil (Engineering Manager)

D R Stokely 8/27/87
D. R. Stokely (Production Department Head)

M J Kroger 8/31/87
M. J. Kroger (Plant Safety Department)

C. R. Rotthoff 9/5/87
C. R. Rotthoff (Personnel Safety Manager)

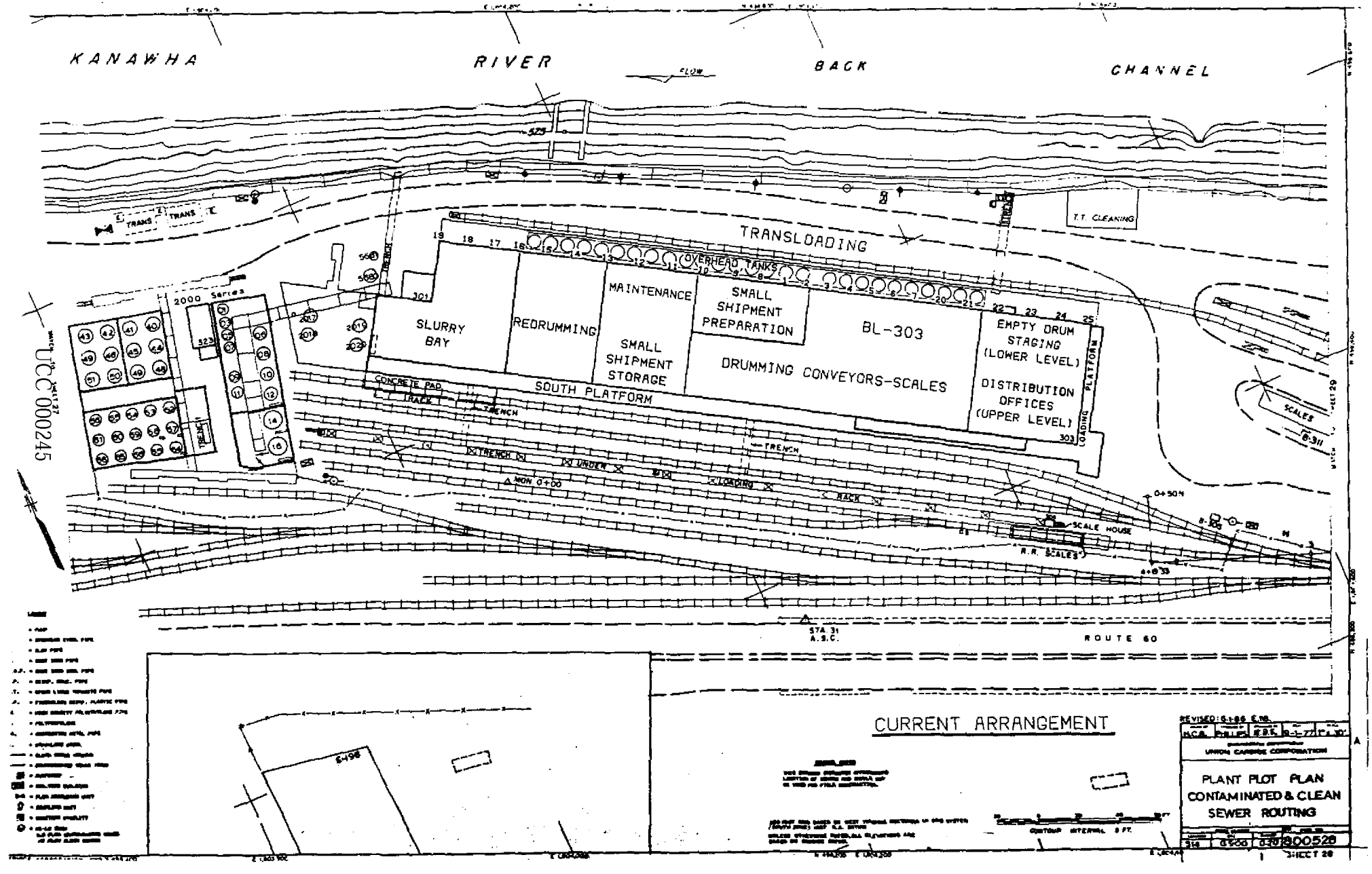
J L Worstell * 9/9/87
J. L. Worstell (Environmental Protection Dept.)

S W Drake 9/17/87
S. W. Drake (Assistant Plant Manager)

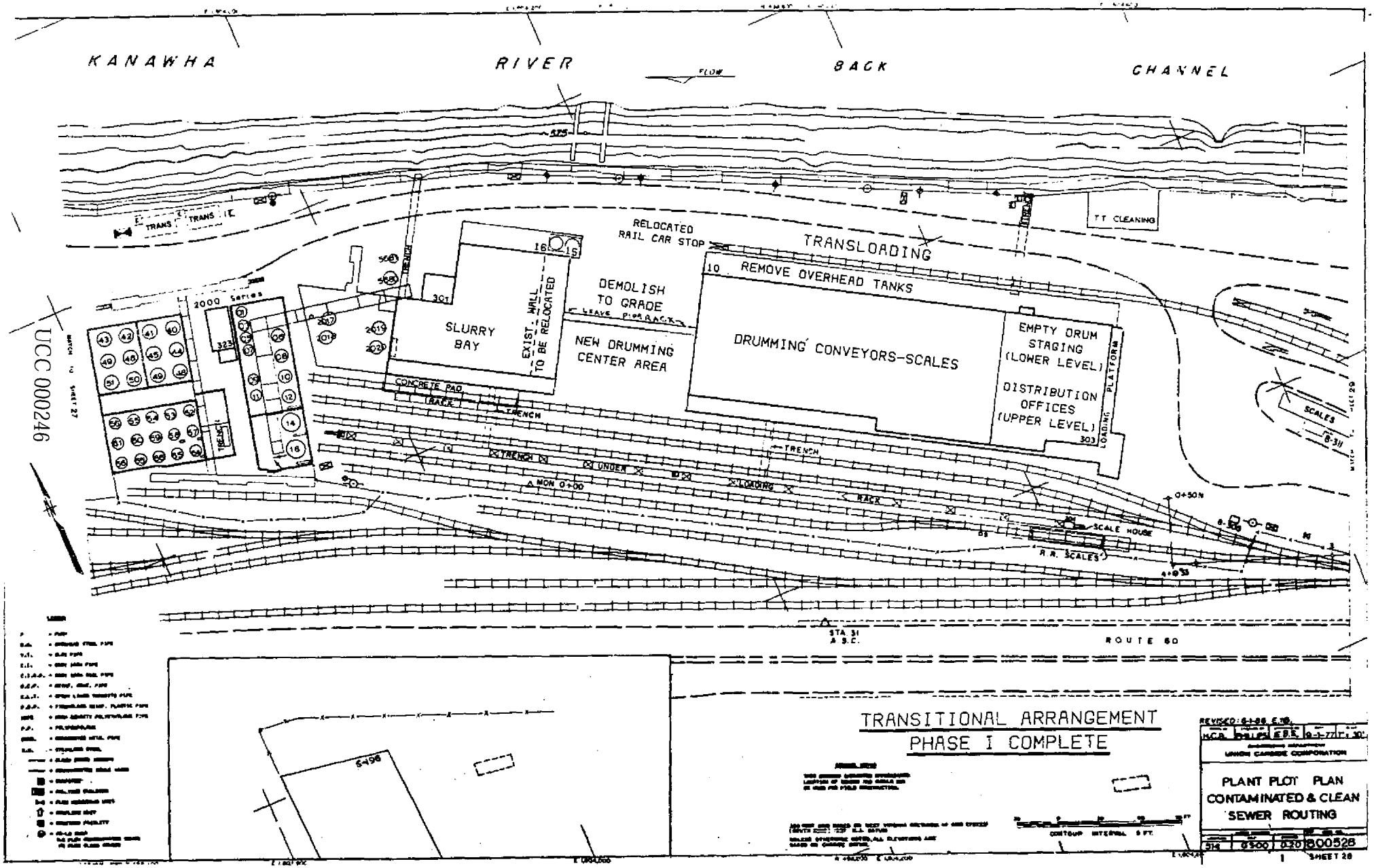
TGH/wdm
7/15/87
3520G

* EPD endorsement given provided
(a) All asbestos removal & disposal activities done in accordance w.th WVa. APCC & EPA NESHAPs regulations
(b) Contractor has responsibility for disposal
(c) EPD reviews contractor disposal site selection prior to initiation of work to establish regulatory compliance and liability aspects. JLW 9/9

d) EPD files the NESHAPs notification with agencies.


KANAWHA
RIVER
FLOW
BACK
CHANNEL
TRANSLOADING
OVERHEAD TANKS
T.T. CLEANING
SLURRY BAY
REDRUMMING
MAINTENANCE
SMALL SHIPMENT STORAGE
SMALL SHIPMENT PREPARATION
BL-303
DRUMMING CONVEYORS-SCALES
EMPTY DRUM STAGING (LOWER LEVEL)
DISTRIBUTION OFFICES (UPPER LEVEL)
LOADING PLATFORM
SOUTH PLATFORM
CONCRETE PAD
TRACK
TRENCH
2000 Series
SCALE HOUSE
R.R. SCALES
SCALES
STA 31 A.S.C.
ROUTE 60
CURRENT ARRANGEMENT
PLANT PLOT PLAN CONTAMINATED & CLEAN SEWER ROUTING
UNION CARBIDE CORPORATION

UCC 000245


KANAWHA RIVER BACK CHANNEL
FLOW
TRANS
TRANS
TT CLEANING
RELOCATED RAIL CAR STOP
TRANSLOADING
REMOVE OVERHEAD TANKS
DEMOLISH TO GRADE
LEAVE PIPE RACK
SLURRY BAY
EXIST. WALL TO BE RELOCATED
NEW DRUMMING CENTER AREA
DRUMMING CONVEYORS-SCALES
EMPTY DRUM STAGING (LOWER LEVEL)
DISTRIBUTION OFFICES (UPPER LEVEL)
LOADING PLATFORM
2000 Series
CONCRETE PAD
RACK
TRENCH
UNDER
LOADING
MON 0+00
SCALE HOUSE
R.R. SCALES
SCALES
STA. 31 A.S.C.
ROUTE 60
TRANSITIONAL ARRANGEMENT
PHASE I COMPLETE
CONTOUR INTERVAL 5 FT.
UNION CARBIDE CORPORATION
PLANT PLOT PLAN
CONTAMINATED & CLEAN
SEWER ROUTING
800528
SHEET 28

UCC 000246

Ken Holtz
Hati

San Tech Ed Graybeck
beagle

W 303 → ~~Want~~ replace & operate

Saws have vacuum equipment

Back out bolts

Carry off - 2-3 ~~bolts~~ time

who provides forklift

Can use hammer ~~[illegible]~~ Will use hammer scoring punch
~~Saw has less fiber~~

Transite on bottom concrete gutter leave encapsulate

From 15 over (E) is ~~to~~ (10) demolished

Use hole notch / stickum at

Will cut thru concrete as needed

~650 ft of pipe to have asbestos insulation from pipes. Glove bags or remove section at a time

Chemical in gutter

Vent

contractor will load full asbestos

Wear approved respirators

Own personnel exposure

HWP

Schedule 7:30 to 4:00pm

UCC provide air / electric

Exposure problems - stop work

- Plastic along wall edge when breaking transite to get out from around pipe etc
- ~~Seal off~~ doorways to prevent possible dust incursion into other areas
- Weather protection while roof is off in shoulder season