ST0407104

PLANT	LHC #7		FILE/JOB NO. 8604
LOCATION	B-7200	BLDG. NO.	CHARGE NO. 33578
MANUFACTURER		NO. UNITS	B/M NO.
			P.O. NO.

PROJECT NO. 33578 CONTRACT NO. M101-33578

TIE POINT NO. 1 PHOTO NO.

DRAWING NO. B4-3-33577

SPECIFICATION

	EXISTING	NEW
SIZE	4"	4"
LINE NUMBER	C-39	C-1304
MATERIAL SPEC.	S	S

CONDITIONS

	BY WHOM
EXISTING VALVE _____ (YES, ~~NO~~)	DOW
BLIND FLG _____ (~~YES~~, NO)	
DE-PRESSURE REQUIRED? _____ (~~YES~~, NO)	
IS PURGING REQUIRED? _____ (~~YES~~, NO)	
IS DRAINING REQUIRED? _____ (~~YES~~, NO)	
IS SHUTDOWN REQUIRED? _____ (~~YES~~, NO, ~~SCHEDULED~~)	
IS COOLING PERIOD REQUIRED? ____ (~~YES~~, NO)	
IS WORK PERMIT REQUIRED? _____ (YES, ~~NO~~, SCHEDULED)	DOW
IS CUTTING OR WELDING REQUIRED? (~~YES~~, NO)	
IS HOT TAP REQUIRED? _____ (~~YES~~, NO)	
IS TARP ENCLOSURE REQUIRED? ___ (~~YES~~, NO)	
IS LINE BLIND REQUIRED? _____ (~~YES~~, NO)	
IS PREFAB REQUIRED? _____ (YES, NO)	CONTRACTOR
IS EXCAVATION REQUIRED? _____ (~~YES~~, NO)	
IS EXCAVATION PERMIT REQUIRED? (~~YES~~, NO)	

SPECIAL CONDITIONS (DESCRIBE)

PREPARATION

WORK AREA 10' (~~GRADE~~, ABOVE GRADE)

PLATFORM AVAILABLE _____ (~~YES~~, NO)

DEMOLITION

REMOVE NONE (~~BLIND FLANGE, PIPE, OTHER~~)

IF OTHER DESCRIBE

DISPOSAL _____ (DEFINE AREA)

INSULATION YES 56-550 (DEFINE)

C=F-1

PLAINTIFF'S EXHIBIT

DOW-2545

SPEC. BY JVF	DOW THE DOW CHEMICAL COMPANY		EQUIP. NO. T-3B
CHECKED:	SERVICE T-3B INSTALLATION		TIE POINT SPECIFICATIONS
APP'D:			
DATE: 5-90	REVISION DATE A	B	C
VENDOR TO COMPLETE ALL INFORMATION MARKED		SHEET OF	SPEC. NO. A4-401

32dd10 2/76

ST0407104

ST0407105

PLANT	LHC #7		FILE/JOB NO. 8609
LOCATION	B-7200	BLDG. NO.	CHARGE NO. 33578
MANUFACTURER		NO. UNITS	B/M NO.
			P.O. NO.

PROJECT NO. 33578 CONTRACT NO. M101-33578

TIE POINT NO. 2 PHOTO NO.

DRAWING NO. B4-4-33577

SPECIFICATION

	EXISTING	NEW
SIZE	6"	6"
LINE NUMBER	S-94	S-1302
MATERIAL SPEC.	W	W

CONDITIONS

		BY WHOM
EXISTING VALVE	(YES, NO)	DOW
BLIND FLG	(YES, NO)	
DE-PRESSURE REQUIRED?	(YES, NO)	
IS PURGING REQUIRED?	(YES, NO)	
IS DRAINING REQUIRED?	(YES, NO)	
IS SHUTDOWN REQUIRED?	(YES, NO, SCHEDULED)	
IS COOLING PERIOD REQUIRED?	(YES, NO)	
IS WORK PERMIT REQUIRED?	(YES, SCHEDULED)	DOW
IS CUTTING OR WELDING REQUIRED?	(YES, NO)	
IS HOT TAP REQUIRED?	(YES, NO)	
IS TARP ENCLOSURE REQUIRED?	(YES, NO)	
IS LINE BLIND REQUIRED?	(YES, NO)	
IS PREFAB REQUIRED?	(YES, NO)	CONTRACTOR
IS EXCAVATION REQUIRED?	(YES, NO)	
IS EXCAVATION PERMIT REQUIRED?	(YES, NO)	

SPECIAL CONDITIONS (DESCRIBE)

PREPARATION

WORK AREA 9' (GRADE, ABOVE GRADE)

PLATFORM AVAILABLE (YES, NO)

DEMOLITION

REMOVE NONE (BLIND, PLANGE, SPADE, OTHER)

IF OTHER DESCRIBE

DISPOSAL (DEFINE AREA)

INSULATION YES 56-506 (DEFINE)

C = F-1

SPEC. BY JVF	DOW THE DOW CHEMICAL COMPANY		EQUIP. NO. T-3B
CHECKED:	SERVICE T-3B INSTALLATION		TIE POINT SPECIFICATIONS
APP'D:			
DATE: 5/90	REVISION DATE A	B	C
VENDOR TO COMPLETE ALL INFORMATION MARKED		SHEET OF	SPEC. NO. A4-402

326810 2/76

ST0407105

ST0407106

PLANT	LHC # 7		FILE/JOB NO. 8609
LOCATION	B-7200	BLDG. NO.	CHARGE NO. 33578
MANUFACTURER		NO. UNITS	B/M NO.
	T-3B		P.O. NO.

PROJECT NO. 33578 CONTRACT NO. M101-33578

TIE POINT NO. 3 PHOTO NO.

DRAWING NO. B4-4-333577

SPECIFICATION

	EXISTING	NEW
SIZE	6"	6"
LINE NUMBER	S-91	S-1300
MATERIAL SPEC.	S	S

CONDITIONS

		BY WHOM
EXISTING VALVE	(YES, ~~NO~~)	Dow
BLIND FLG	(~~YES~~, NO)	
DE-PRESSURE REQUIRED?	(~~YES~~, NO)	
IS PURGING REQUIRED?	(~~YES~~, NO)	
IS DRAINING REQUIRED?	(~~YES~~, NO)	
IS SHUTDOWN REQUIRED?	(~~YES~~, NO, ~~SCHEDULED~~)	
IS COOLING PERIOD REQUIRED?	(~~YES~~, NO)	
IS WORK PERMIT REQUIRED?	(YES, ~~NO~~ SCHEDULED)	Dow
IS CUTTING OR WELDING REQUIRED?	(~~YES~~, NO)	
IS HOT TAP REQUIRED?	(~~YES~~, NO)	
IS TARP ENCLOSURE REQUIRED?	(~~YES~~, NO)	
IS LINE BLIND REQUIRED?	(~~YES~~, NO)	
IS PREFAB REQUIRED?	(YES, ~~NO~~)	CONTRACTOR
IS EXCAVATION REQUIRED?	(~~YES~~, NO)	
IS EXCAVATION PERMIT REQUIRED?	(~~YES~~, NO)	

SPECIAL CONDITIONS (DESCRIBE)

PREPARATION

WORK AREA 30' (~~AT GRADE~~, ABOVE GRADE)

PLATFORM AVAILABLE (YES, ~~NO~~)

DEMOLITION

REMOVE NONE (~~BLIND FLANGE, PIPE, OTHER~~)

IF OTHER DESCRIBE

DISPOSAL (DEFINE AREA)

INSULATION YES 56-506 (DEFINE)

C = F-1

SPEC. BY J.V.F.	THE DOW CHEMICAL COMPANY	EQUIP. NO. T-3B
CHECKED:	SERVICE	TIE POINT SPECIFICATIONS
APP'D:	T-3B INSTALLATION	
DATE: 5/92	REVISION DATE A B C	SPEC. NO. A4-403
VENDOR TO COMPLETE ALL INFORMATION MARKED	SHEET OF	

32681D 2/76

ST0407106

ST0407107

PLANT	LHC#7		FILE/JOB NO. 8609
LOCATION	B-7200	BLDG. NO.	CHARGE NO. 33578
MANUFACTURER		NO. UNITS	B/M NO.
	T-3B		P.O. NO.

PROJECT NO. 33578 CONTRACT NO. M101-33578

TIE POINT NO. 4 PHOTO NO.

DRAWING NO. BA-3-33577

SPECIFICATION

	4" EXISTING	4" NEW
SIZE	4"	4"
LINE NUMBER	QW-17	QW-130
MATERIAL SPEC.	A	A

CONDITIONS

		BY WHOM
EXISTING VALVE	(YES, ~~NO~~)	Dow
BLIND FLG	(~~YES~~, NO)	
DE-PRESSURE REQUIRED?	(~~YES~~, NO)	
IS PURGING REQUIRED?	(~~YES~~, NO)	
IS DRAINING REQUIRED?	(~~YES~~, NO)	
IS SHUTDOWN REQUIRED?	(~~YES~~, NO, ~~SCHEDULED~~)	
IS COOLING PERIOD REQUIRED?	(~~YES~~, NO)	
IS WORK PERMIT REQUIRED?	(YES, ~~NO~~, SCHEDULED)	Dow
IS CUTTING OR WELDING REQUIRED?	(~~YES~~, NO)	
IS HOT TAP REQUIRED?	(~~YES~~, NO)	
IS TARP ENCLOSURE REQUIRED?	(~~YES~~, NO)	
IS LINE BLIND REQUIRED?	(~~YES~~, NO)	
IS PREFAB REQUIRED?	(YES, ~~NO~~)	CONTRACTOR
IS EXCAVATION REQUIRED?	(~~YES~~, NO)	
IS EXCAVATION PERMIT REQUIRED?	(~~YES~~, NO)	

SPECIAL CONDITIONS (DESCRIBE)

PREPARATION

WORK AREA (AT GRADE, ~~ABOVE GRADE~~)

PLATFORM AVAILABLE (~~YES~~, NO)

DEMOLITION

REMOVE NONE (~~BLIND FLANGE, PIPE~~, OTHER)

IF OTHER DESCRIBE

DISPOSAL (DEFINE AREA)

INSULATION YES FG-506 (DEFINE)

C = F-1

SPEC. BY J.V.F.	DOW THE DOW CHEMICAL COMPANY		EQUIP. NO.
CHECKED:	SERVICE T-3B INSTALLATION		TIE POINT SPECIFICATIONS
APP'D:			
DATE: 5/9-	REVISION DATE A	B	C
VENDOR TO COMPLETE ALL INFORMATION MARKED		SHEET OF	SPEC. NO. A4-402

326810 2/76

ST0407107

ST0407108

PLANT	LHC#7		FILE/JOB NO. 8609
LOCATION	B-7200	BLDG. NO.	CHARGE NO. 33578
MANUFACTURER		NO. UNITS	B/M NO.
			P.O. NO.

PROJECT NO. 33578 CONTRACT NO. M101-33578

TIE POINT NO. 5A PHOTO NO. _____

DRAWING NO. B4-4-33577

SPECIFICATION

	2" EXISTING	2" NEW
SIZE	2"	2"
LINE NUMBER	S-91	S-1310
MATERIAL SPEC.	S	S

CONDITIONS

		BY WHOM
EXISTING VALVE	(YES, NO)	DOW
BLIND FLG	(YES, NO)	
DE-PRESSURE REQUIRED?	(YES, NO)	CONTRACTOR
IS PURGING REQUIRED?	(YES, NO)	
IS DRAINING REQUIRED?	(YES, NO)	CONTRACTOR
IS SHUTDOWN REQUIRED?	(YES, ~~NO, SCHEDULED~~)	DOW
IS COOLING PERIOD REQUIRED?	(YES, NO)	CONTRACTOR
IS WORK PERMIT REQUIRED?	(YES, ~~NO, SCHEDULED~~)	DOW
IS CUTTING OR WELDING REQUIRED?	(YES, NO)	
IS HOT TAP REQUIRED?	(YES, NO)	
IS TARP ENCLOSURE REQUIRED?	(YES, NO)	
IS LINE BLIND REQUIRED?	(YES, NO)	
IS PREFAB REQUIRED?	(YES, NO)	CONTRACTOR
IS EXCAVATION REQUIRED?	(YES, NO)	
IS EXCAVATION PERMIT REQUIRED?	(YES, NO)	

SPECIAL CONDITIONS (DESCRIBE) _____

PREPARATION

WORK AREA 12' ~~GRADE~~, ABOVE GRADE)

PLATFORM AVAILABLE _____ (~~YES~~, NO)

DEMOLITION

REMOVE 10' ± (~~BLIND FLANGE~~, PIPE, ~~OTHER~~)

IF OTHER DESCRIBE _____

DISPOSAL DOW DUMPSTER IN BLOCK (DEFINE AREA)

INSULATION _____ (DEFINE)

SPEC. BY JVF	DOW THE DOW CHEMICAL COMPANY		EQUIP. NO. T-38
CHECKED:	SERVICE T-38 INSTALLATION		TIE POINT SPECIFICATIONS
APP'D:			
DATE: 5/90	REVISION DATE A	B	C
VENDOR TO COMPLETE ALL INFORMATION MARKED	SHEET OF		SPEC. NO. A4-405A

3266 ID 2/78

ST0407108

ST0407109

PLANT LHC#7			FILE/JOB NO. 8609
LOCATION B-7200	BLDG. NO.		CHARGE NO. 33578
MANUFACTURER	NO. UNITS		B/M NO.
			P.O. NO.

PROJECT NO. 33578 CONTRACT NO. M101-33578

TIE POINT NO. 5B PHOTO NO.

DRAWING NO. B4-4-33577

SPECIFICATION

	EXISTING	NEW
SIZE	2"	2"
LINE NUMBER	S-91	S-1310
MATERIAL SPEC.	S	S

CONDITIONS

		BY WHOM
EXISTING VALVE	(~~YES~~, NO)	
BLIND FLG	(~~YES~~, NO)	
DE-PRESSURE REQUIRED?	(YES, ~~NO~~)	CONTRACTOR
IS PURGING REQUIRED?	(~~YES~~, NO)	
IS DRAINING REQUIRED?	(YES, ~~NO~~)	CONTRACTOR
IS SHUTDOWN REQUIRED?	(YES, ~~NO~~ ~~SCHEDULED~~)	DOW
IS COOLING PERIOD REQUIRED?	(YES, ~~NO~~)	CONTRACTOR
IS WORK PERMIT REQUIRED?	(YES, ~~NO~~ ~~SCHEDULED~~)	DOW
IS CUTTING OR WELDING REQUIRED?	(YES, ~~NO~~)	CONTRACTOR
IS HOT TAP REQUIRED?	(~~YES~~, NO)	
IS TARP ENCLOSURE REQUIRED?	(~~YES~~, NO)	
IS LINE BLIND REQUIRED?	(~~YES~~, NO)	
IS PREFAB REQUIRED?	(YES, ~~NO~~)	CONTRACTOR
IS EXCAVATION REQUIRED?	(~~YES~~, NO)	
IS EXCAVATION PERMIT REQUIRED?	(~~YES~~, NO)	

SPECIAL CONDITIONS (DESCRIBE) 2" LINE APPROX. 25' LONG MUST BE REMOVED TO SAFE WELDING AREA FOR T.P. WELD & REINSTALLED

PREPARATION

WORK AREA 12 (~~AT GRADE~~, ABOVE GRADE)

PLATFORM AVAILABLE (~~YES~~, NO)

DEMOLITION

REMOVE REMOVE PIPE TO T.P. 5A (~~BLIND FLANGE~~, PIPE, ~~OTHER~~)

IF OTHER DESCRIBE

DISPOSAL SEE T.P. 5A (DEFINE AREA)

INSULATION (DEFINE)

SPEC. BY J.V.F	THE DOW CHEMICAL COMPANY	EQUIP. NO. T-3B
CHECKED:	SERVICE T-5B INSTALLATION	TIE POINT SPECIFICATIONS
APP'D:		
DATE: 5/90	REVISION DATE A B C	SPEC. NO. A4-4033
VENDOR TO COMPLETE ALL INFORMATION MARKED	SHEET OF	

32681D 2/76

ST0407109

ST0407110

PLANT	LHC #7	FILE/JOB NO.	8609
LOCATION	B7200	BLDG. NO.	CHARGE NO. 33578
MANUFACTURER		NO. UNITS	B/M NO.
			P.O. NO.

PROJECT NO. 33578 CONTRACT NO. M101-33578

TIE POINT NO. 6A & 6B PHOTO NO.

DRAWING NO. D4-5-33577

SPECIFICATION

	EXISTING	NEW
SIZE	1½	1½
LINE NUMBER	CW	CW
MATERIAL SPEC.	Y	Y

CONDITIONS

		BY WHOM
EXISTING VALVE	(~~YES~~, NO)	
BLIND FLG	(~~YES~~, NO)	
DE-PRESSURE REQUIRED?	(YES, ~~NO~~)	CONTRACTOR
IS PURGING REQUIRED?	(~~YES~~, NO)	
IS DRAINING REQUIRED?	(YES, ~~NO~~)	CONTRACTOR
IS SHUTDOWN REQUIRED?	(~~YES~~, NO, ~~SCHEDULED~~)	
IS COOLING PERIOD REQUIRED?	(~~YES~~, NO)	
IS WORK PERMIT REQUIRED?	(YES, ~~NO~~ ~~SCHEDULED~~)	DOW
IS CUTTING OR WELDING REQUIRED?	(YES, ~~NO~~)	CONTRACTOR
IS HOT TAP REQUIRED?	(~~YES~~, NO)	
IS TARP ENCLOSURE REQUIRED?	(~~YES~~, NO)	
IS LINE BLIND REQUIRED?	(~~YES~~, NO)	
IS PREFAB REQUIRED?	(~~YES~~, NO)	
IS EXCAVATION REQUIRED?	(~~YES~~, NO)	
IS EXCAVATION PERMIT REQUIRED?	(~~YES~~, NO)	

SPECIAL CONDITIONS (DESCRIBE)

PREPARATION

WORK AREA 7' (~~AT GRADE~~, ABOVE GRADE)

PLATFORM AVAILABLE (~~YES~~, NO)

DEMOLITION

REMOVE 10' SCR'D PIPE ~~(BLIND FLANGE, PIPE, OTHER)~~

IF OTHER DESCRIBE CUT PIPE & RETREAD

DISPOSAL DOW DUMPSTER (DEFINE AREA)

IN BLOCK

INSULATION NO (DEFINE)

SPEC. BY J.V.F.	DOW THE DOW CHEMICAL COMPANY	EQUIP. NO. T-38
CHECKED:	SERVICE T-38 INSTALLATION	TIE POINT SPECIFICATIONS
APP'D:		
DATE: 5/90	REVISION DATE A B C	SPEC. NO. A4-405
VENDOR TO COMPLETE ALL INFORMATION MARKED	SHEET OF	

326810 2/76

ST0407110