

H2SD4 AREA
CIVIL WORK

DO A 019098
CONFIDENTIAL

Safety

1. The job must be walked out and understood by everyone before the permit is issued.
2. All flange breaks must be identified, signed, and dated.
3. In this area all open ended valves or piping must be blinded off as soon as possible.
4. The safety equipment required for this area will be noted on the safe work permit. This equipment must be used at all times.
5. Make sure every one on this job knows where the nearest safety shower is and how to use it.

OPEN PLAN

DOW CHEMICAL LAD

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ACTLINE

ACTIVITY LINE ITEM LISTING by ACTIVITY NUMBER

REPORT DATE:28MAY93

Filter: EQUIP = 'ACID '

PROJECT: PROJ1461

METHANES SHUTDOWN 1461

TIME NOW:15-AUG-07:00

ACT.	Y	DESCRIPTION	EQUIP	ENGR	AREA	DUR	CAL	MAN_HOURS	TYPE	WORK CREW	CHAMPS
<LINE		LINE-DESCRIPTION						MAN-HRS	C.E.CODE	QUANTITY	MHrs/EACH >
SDACID-A1		PREP ACID AREA				12	5	.0	OP	0	
		ACID							I		
	< 1	REMOVE ALL ACID FROM C-202						.0		0	. >
	< 2	REMOVE ALL ACID FROM P-301'S						.0		0	. >
SDACID-C1		DISCONNECT WIRES TO ALL H2SO4 PUMPS				6	5	12.0	1/E	1/E	
		ACID			ACID				I		
	< 1	REMOVE CONDUIT AND WIRING TO P-201-A						2.0		0	. >
	< 2	REMOVE CONDUIT AND WIRING TO P-201B						2.0		0	. >
	< 3	REMOVE CONDUIT AND WIRING TO P-202A						2.0		0	. >
	< 4	REMOVE CONDUIT AND WIRING TO P-202B						2.0		0	. >
	< 5	REMOVE CONDUIT AND WIRING TO P-203A						2.0		0	. >
	< 6	REMOVE CONDUIT AND WIRING TO P-203B						2.0		0	. >
SDA	D1	PULL ALL TO 6 H2SO4 PUMPS				12	5	23.2	MW	MW	
		ACID			ACID				I		
	< 1	PULL P-201A						2.0		0	. >
	< 2	BULL BLIND SUCTION						1.2		0	. >
	< 3	BULL BLIND DISC.						.5		0	. >
	< 4	PULL P-201B						2.0		0	. >
	< 5	BULL BLIND SUCTION						1.2		0	. >
	< 6	BULL BLIND DISC						1.0		0	. >
	< 7	PULL P-202A						2.0		0	. >
	< 8	BULL BLIND SUCTION						1.2		0	. >
	< 9	BULL BLIND DISC						.5		0	. >
	< 10	PULL P-202B						2.0		0	. >
	< 11	BULL BLIND SUCTION						1.2		0	. >
	< 12	BULL BLIND DISC						.5		0	. >
	< 13	PULL P-203A						2.0		0	. >
	< 14	BULL BLIND SUCTION						1.2		0	. >
	< 15	BULL BLIND DISC.						1.0		0	. >
	< 16	PULL P-203B						2.0		0	. >
	< 17	BULL BLIND SUCTION						1.2		0	. >
	< 18	BULL BLIND DISC						.5		0	. >
SDACID-F1		BUST OUT ALL 6 H2SO4 PUMP PEDESTALS				28	4	.0	OUT	OUT	

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DOW CHEMICAL LAD

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ACTLINE

ACTIVITY LINE ITEM LISTING by ACTIVITY NUMBER

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METHANES SHUTDOWN 1461

TIME NOW:15-AUG-07:00

ACT.	Y	DESCRIPTION	EQUIP	ENGR	AREA	DUR	CAL	MAN_HOURS	TYPE	WORK	CREW	CHAMPS
		<LINE	LINE-DESCRIPTION					MAN-HRS	C.E.CODE	QUANTITY	MHrs/EACH	>
			ACID SD ADAM ACID						I			
		< 1	BUST OUT FOUNDATION FRO P-201A					.0		0		>
		< 2	BUST OUT FOUNDATION FOR P-201B					.0		0		>
		< 3	BUST OUT FOUNDATION FOR P-202A					.0		0		>
		< 4	BUST OUT FOUNDATION FOR P-203A					.0		0		>
		< 5	BUST OUT FOUNDATION FOR P-203B					.0		0		>
		< 6	BUST OUT FOUNDATION FOR P-203B					.0		0		>
SDACID-F2		REBUILD 6 H2SO4 PUMPS				24	5	48.0	MW	M/W		
		< 1	REBUILD 6 EA. H2SO4 PUMPS					48.0		0		>
SDACID-G1		REMOVE ALL ACID BRICK IN H2SO4				48	4	.0	OUT	OUT		
		< 1	REMOVE ALL ACID BRICK H2SO4					.0		0		>
SDACID-H1		JACK HAMMER CONCRETE IN H2SO4 PUMP AREA				12	4	.0	OUT	OUT		
		< 1	JACK HAMMER CONCRETE IN H2SO4 PUMP AREA					.0		0		>
SDACID-I1		REMOVE DIRT OUT H2SO4 PUMP AREA				12	4	.0	OUT	OUT		
		< 1	REMOVE DIRT H2SO4 PUMP AREA					.0		0		>
SDACID-J1		BACK FILL DIRT IN H2SO4 PUMP AREA				8	4	.0	OUT	OUT		
		< 1	BACK FILL DIRT IN H2SO4 PUMP AREA					.0		0		>
SDACID-K1		INSTALL REBAR IN H2SO4 PUMP AREA				10	4	.0	OUT	OUT		

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ACTLINE

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ACTIVITY LINE ITEM LISTING by ACTIVITY NUMBER

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REPORT DATE:28MAY93

PROJECT: PROJ146I

Filter: EQUIP = 'ACID '

METHANES SHUTDOWN 146I

TIME NOW:15-AUG-07:00

ACT	Y	DESCRIPTION	EQUIP	ENGR	AREA	DUR	CAL	MAN_HOURS	TYPE	WORK	CREW	CHAMPS
		<LINE	LINE-DESCRIPTION					MAN-HRS	C.E.CODE	QUANTITY	MHrs/EACH	
		< 1	INSTALL REBAR H2SO4 PUMP AREA					.0		0		>
SDACID-L1			CONCRETE H2SO4 PUMP AREA			8	4	.0	OUT	OUT		
			ACID SD ADAM ACID						I			
		< 1	CONCRETE H2SO4 PUMP AREA					.0		0		>
SDACID-M1			SET NEW PUMP PEDESTALS			12	4	.0	OUT	OUT		
			ACID SD ADAM ACID						I			
		< 1	SET NEW PUMP PEDESTALS					.0		0		>
SDACID-M2			SET ACID PUMPS AND BASES CHECK DIM.			12	5	24.0	M/W	M/W		
			ACID									
		< 1	SET PUMPS & BASE, CHECK DIMENSIONS					24.0		0		>
		< 2	PULL PUMPS FOR GROUT					.0		0		>
SDACID-N1			POUR GROUT INSIDE PUMP PEDESTOL			12	4	.0	OUT	OUT		
			ACID SD ADAM ACID						I			
		< 1	POUR GROUT INSIDE PUMP PEDESTAL					.0		0		>
SDACID-O1			SET PUMP BASES AND PUMPS			6	4	12.0	OUT	OUT		
			ACID SD ADAM ACID						I			
		< 1	SET PUMP BASES AND PUMPS					.0		0		>
		< 2	SET P-201A AND MOTOR					2.0		0		>
		< 3	SET P-201B AND MOTOR					2.0		0		>
		< 4	SET P-202A AND MOTOR					2.0		0		>
		< 5	SET P-202B AND MOTOR					2.0		0		>
		< 6	SET P-203A AND MOTOR					2.0		0		>
		< 7	SET P-203B AND MOTOR					2.0		0		>
		< 8	PUMPS SHOULD BE UNCOUPLED					.0		0		>

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DOW CHEMICAL LAD

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METHANES SHUTDOWN 1461

TIME NOW:15-AUG-07:00

ACT	Y	DESCRIPTION	EQUIP	ENGR	AREA	DUR	CAL	MAN_HOURS	TYPE	WORK	CREW	CHAMPS
		<LINE	LINE-DESCRIPTION					MAN-HRS	C.E.CODE	QUANTITY	MHrs/EACH	>
SDACID-P1		GROUT PUMP BASS ALL 6 H2SO4 PUMPS	ACID SD	ADAM	ACID	12	4	.0	OUT	OUT		
		< 1 GROUT PUMP BASS ALL 6 ACID PUMPS						.0		0		>
SDACID-R1		ALIGN 6 H2SO4 PUMPS TO PIPING	ACID SD	ADAM	ACID	9	4	18.0	MW	MW		
		< 1 ALIGN P-201A						3.0		0		>
		< 2 ALIGN P-201B						3.0		0		>
		< 3 ALIGN P-202A						3.0		0		>
		< 4 ALIGN P-202B						3.0		0		>
		< 5 ALIGN P-203A						3.0		0		>
		< 6 ALIGN P-203B						3.0		0		>
SDACID-R2		RECONNECT ELEC. TO H2SO4 PUMPS	ACID			6	5	12.0	I/E	I/E		
		< 1 RECONNECT ELEC. TO 6 H2SO4 PUMPS						12.0		0		>
SDACID-T1		CHEK ROTATION ALL 6 H2SO4 PUMPS	ACID SD	ADAM	ACID	6	4	12.0	I/E	I/E		
		< 1 CHECK ROTATION P-201A						2.0		0		>
		< 2 CHECK ROTATION P-201B						2.0		0		>
		< 3 CHECK ROTATION P-202A						2.0		0		>
		< 4 CHECK ROTATION P-202B						2.0		0		>
		< 5 CHECK ROTATION P-203A						2.0		0		>
		< 6 CHECK ROTATION P-203B						2.0		0		>
SDACID-U1		COUPLE UP ALL 6 H2SO4 PUMPS	ACID SD	ADAM	ACID	9	5	18.0	MW	MW		
		< 1 COUPLE UP P-201A						3.0		0		>
		< 2 COUPLE UP P-201B						3.0		0		>
		< 3 COUPLE UP P-202A						3.0		0		>
		< 4 COUPLE UP P-202B						3.0		0		>
		< 5 COUPLE UP P-203A						3.0		0		>
		< 6 COUPLE UP P-203B						3.0		0		>

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		<LINE	LINE-DESCRIPTION					MAN-HRS	C.E.CODE	QUANTITY	MHrs/EACH >	
SDACID-U2		PRESSURE TEST H2SO4 PUMPS ACID				4	4	.0	OP		0	
		< 1	PRESSURE TEST H2SO4 PUMPS					.0			0	>
SDACID-V1		PREP AND COAT CONCRETE IN H2SO4 PUMP AREA ACID SD ADAM ACID				6	4	.0	OUT I		OUT	
		< 1	PREP AND COAT CONCRETE IN ACID AREA					.0			0	>

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