

IP QUALITY PROGRAM-UPDATE

8-9-82

8211090038 820917
PDR FOIA
PRENDER82-366 PDR

PURPOSE:

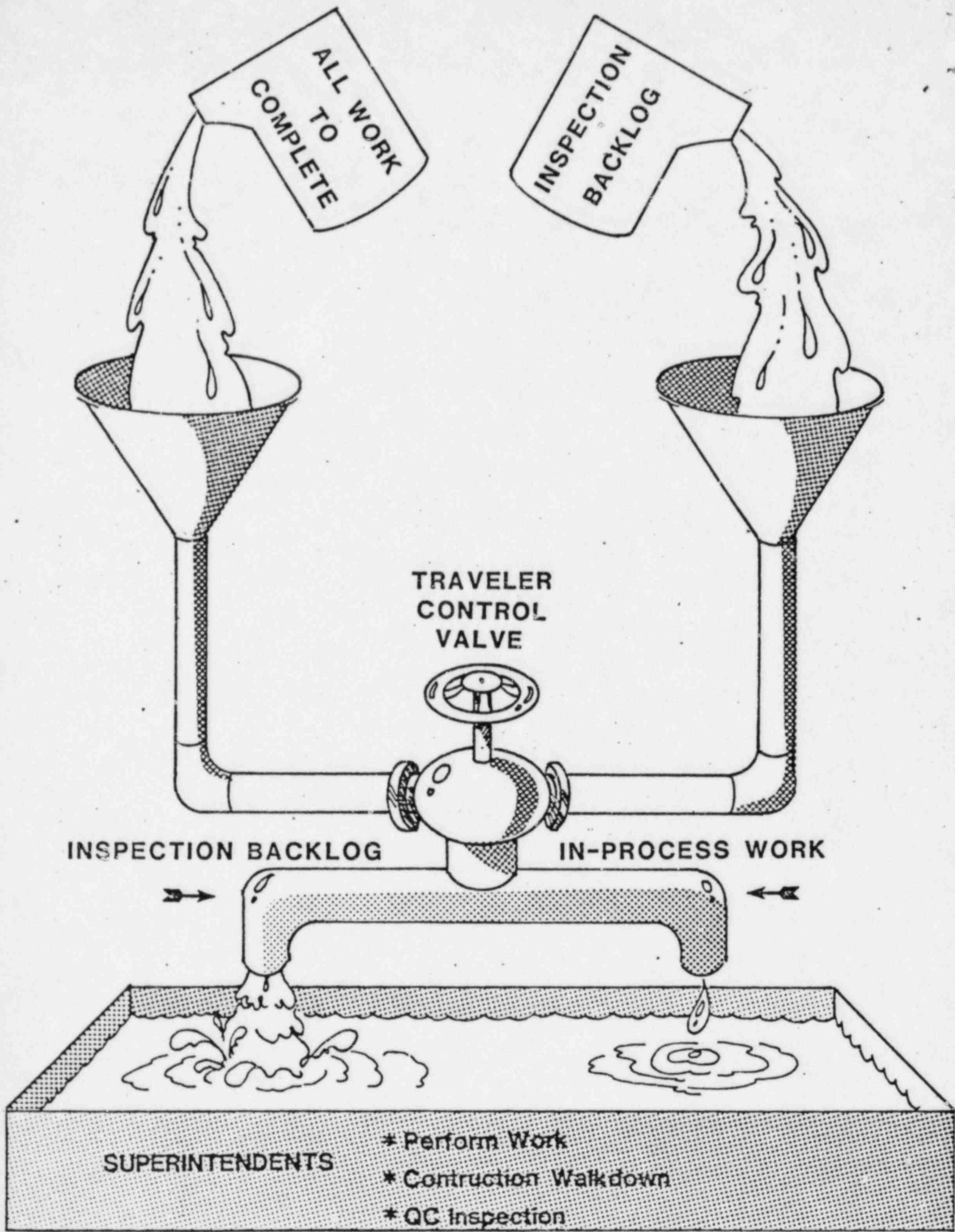
- **Demonstrate that in-process work has been restricted and is under control.**
- **Review the QC backlog of in-process work and progress being made toward reducing the backlog.**
- **Review progress of Stop Work Orders and of the Recovery Team's Plan for addressing identified quality concerns.**

TRAVELER CONTROL

- Established a central Traveler Control Group
- Placed under Quality Control Jurisdiction
- Established a computer tracking system for Traveler Control
- Restrained in-process work
- Forcing timely inspection of in-process work

IN-PROCESS TRAVELERS

	Allocation
LB Pipe	50
LB Pipe Hangers	100
SB Pipe	100
SB Pipe Hangers	100
Instrumentation	75
Elec. Hangers	500



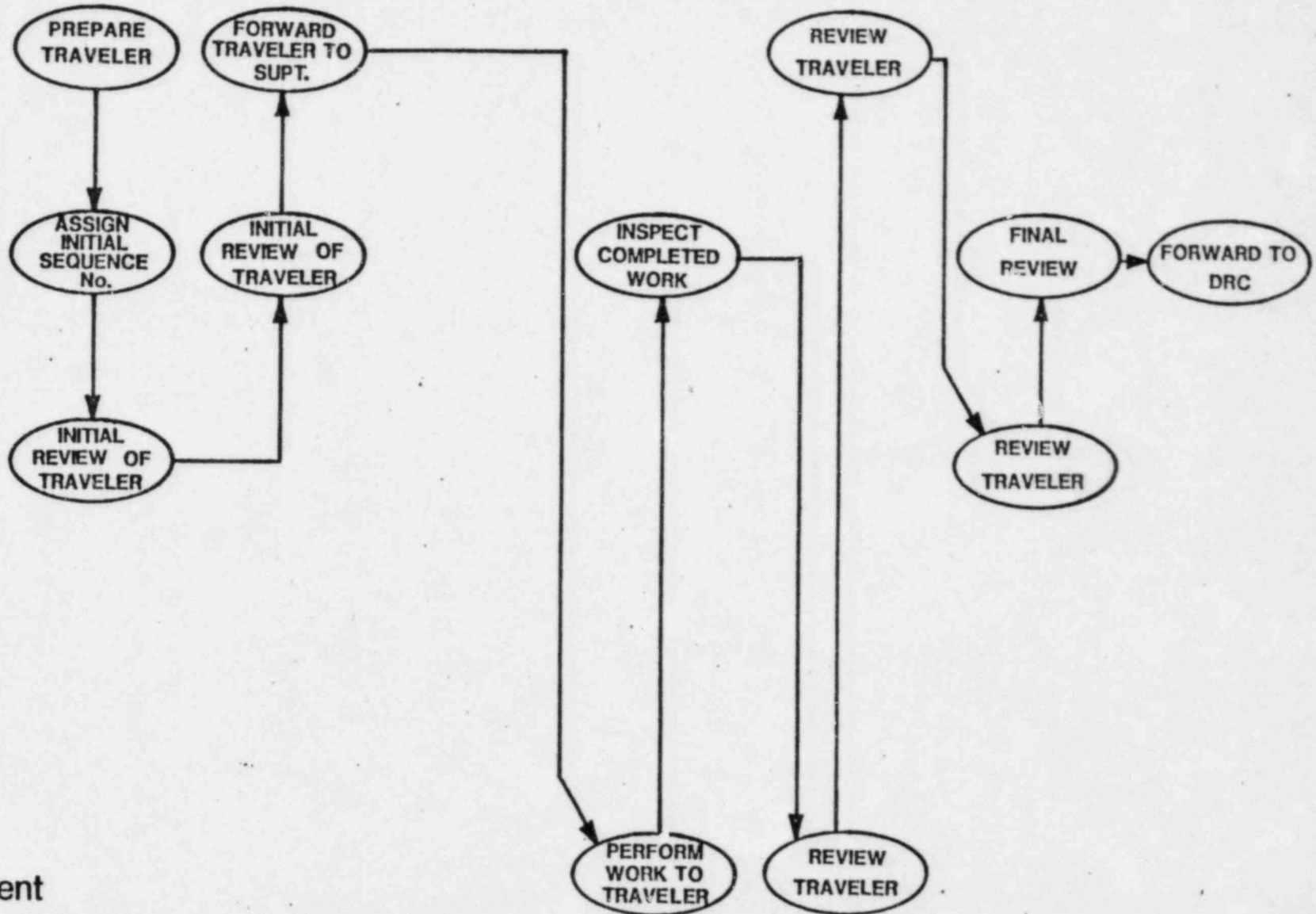
IN-PROCESS TRAVELER CONTROL (OLD SYSTEM)

Senior
Discipline
Engineer

Quality
Control

Technical
Services

Discipline
Superintendent



IN-PROCESS TRAVELER CONTROL (NEW SYSTEM)

Senior
Discipline
Engineer

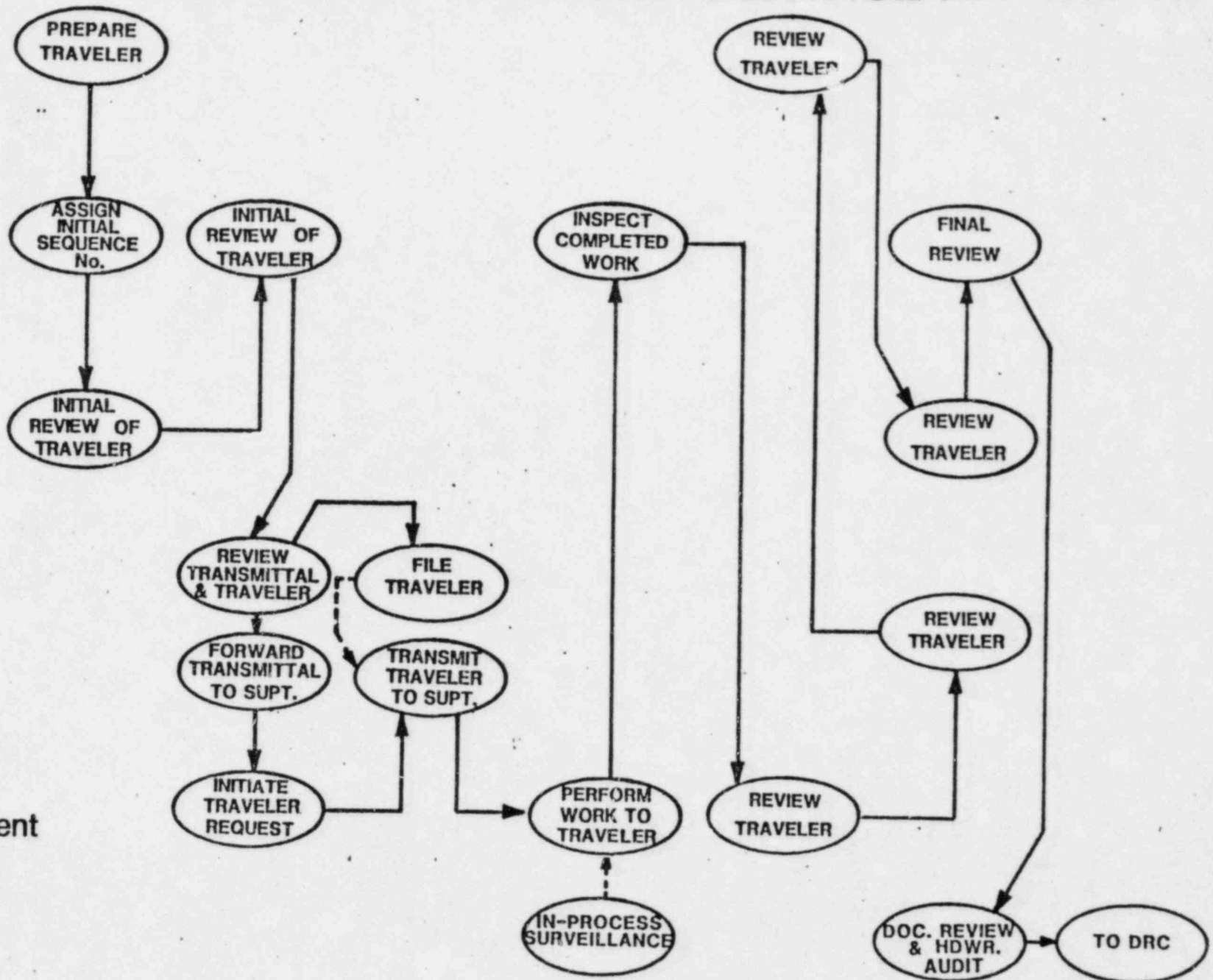
Quality
Control

Technical
Services

Traveler
Control
Group

Discipline
Superintendent

Quality
Assurance



BACKLOG - SUMMARY

FUNCTION	7-2-82 BACKLOG	8-6-82 BACKLOG	INSPECTED	AVERAGE PER WEEK
LARGE BORE PIPE	781	420	361	90
LARGE BORE PIPE HANGERS	1574	1402	172	43
SMALL BORE PIPE	802	637	165	41
SMALL BORE PIPE HANGERS	1404	1268	136	34
INSTRUMENTATION	1475	1476	-1	-0-
ELECTRICAL HANGERS	16,886	15,446	1440	360



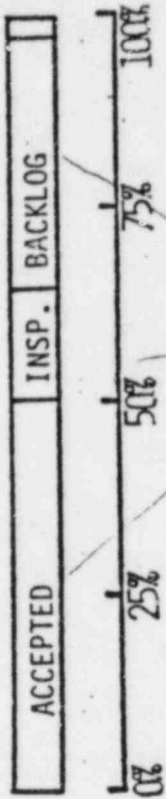
LARGE BORE PIPING

PROBLEM

- IN-PROCESS QC INSPECTION LAGGING CONSTRUCTION (IN-PROCESS WELD INSPECTION IS KEEPING PACE WITH CONSTRUCTION)
- TRAVELERS IN THE FIELD NOT BEING COMPLETED IN A TIMELY FASHION SO QC CAN DO THE FINAL WALKDOWN

ACTION TAKEN

- RESTRAIN RELEASE OF NEW WORK TO THE FIELD
- CONCENTRATE ON COMPLETING IN-PROCESS WORK
- CONCENTRATE ON REMEDIAL WORK



TRAVELER STATUS

	INITIAL REVIEW	TRAV. CONTROL GROUP			IN-WORK	FINAL REVIEW		VALUE
		CONST. HOLD	ENR. HOLD	BACK-LOG		ENR. Q & IS		
7-2-82	3			781			846	1629
7-30-82	32	1	2	466	188	57	877	1719
8-6-82	186	2	30	388	49	85	901	1719

CRAFTSMEN ASSIGNED - 76

QC ASSIGNED - 4



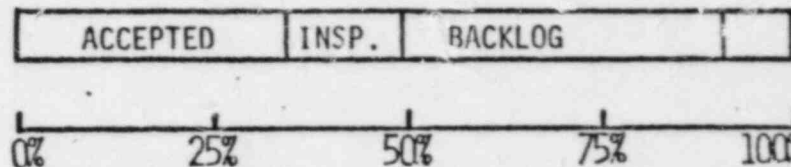
LARGE BORE PIPE HANGERS

PROBLEM

- IN-PROCESS INSPECTION LAGGING CONSTRUCTION
- TRAVELERS IN THE FIELD NOT BEING COMPLETED IN A TIMELY FASHION

ACTION TAKEN

- RESTRAIN RELEASE OF NEW WORK TO THE FIELD
- CONCENTRATE ON COMPLETING IN-PROCESS WORK



TRAVELER STATUS

	INITIAL REVIEW	TRAV. CONTROL GROUP			IN-WORK	FINAL REVIEW		VALVE	
		CONST. HO/RS	ENG. HO/RS	BACK-LOG		ENG.	Q & TS		
7-2-82	31			1574				863	2468
7-30-82	232	0	0	1543	82	179	262	1157	3455
8-6-82	365	7	52	1343	100	186	170	1232	3955

CRAFTMEN ASSIGNED - 66 ^{at} 42 per week

QC ASSIGNED - 2



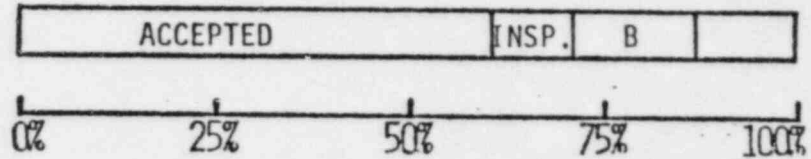
SMALL BORE PIPING

PROBLEM

- IN-PROCESS INSPECTION LAGGING CONSTRUCTION (IN-PROCESS WELD INSPECTION IS KEEPING PACE WITH CONSTRUCTION)
- TRAVELERS IN THE FIELD NOT BEING COMPLETED IN A TIMELY FASHION SO QC CAN DO THE FINAL WALKDOWN

ACTION TAKEN

- RESTRAIN RELEASE OF NEW WORK TO THE FIELD
- CONCENTRATE ON COMPLETING IN-PROCESS WORK
- CONCENTRATE ON REMEDIAL WORK



TRAVELER STATUS

	INITIAL REVIEW	TRAV. CONTROL GROUP			IN-WORK	FINAL REVIEW		VALVE	
		CONSE. HOLD	ENG. HOLD	BACK-LOG		ENG.	Q & TS		
7-2-82	27			802				2177	3026
7-30-82	214	0	2	769	109	81	147	2391	3713
8-6-82	284	1	13	623	100	112	149	2431	3713

CRAFTMEN ASSIGNED - 32

QC ASSIGNED - 3

over = 01/04



SMALL BORE PIPE HANGERS

A	I	BACKLOG
---	---	---------

PROBLEM

- IN-PROCESS INSPECTION LAGGING CONSTRUCTION (IN-PROCESS WELD INSPECTION IS KEEPING PACE WITH CONSTRUCTION)
- TRAVELERS IN THE FIELD NOT BEING COMPLETED IN A TIMELY FASHION

ACTION TAKEN

- RESTRAIN RELEASE OF NEW WORK TO THE FIELD
- CONCENTRATE ON COMPLETING IN-PROCESS WORK



TRAVELER STATUS

	INITIAL REVIEW	TRAV. CONTROL GROUP		IN-WORK	FINAL REVIEW		VAULT
		CONST. HOLD	ENG. HOLD		ENG. Q & IS		
7-2-82	154		1404				149
7-30-82	295	0	1388	28	43	46	276
8-6-82	332	3	1254	100	53	28	295
							2076

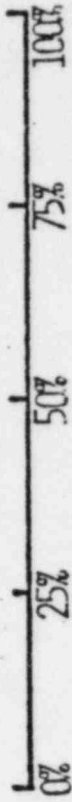
CRAFTMEN ASSIGNED - 25

QC ASSIGNED - 1



ELECTRICAL HANGERS

ACCEPTED	INSP.	BACKLOG
----------	-------	---------



PROBLEM

- IN-PROCESS INSPECTION LAGGING CONSTRUCTION
- TRAVELER CONTROL IN-EFFECTIVE

ACTION TAKEN

- ISSUED CAP-100 TO CORRECT TRAVELER CONTROL SYSTEM
- ESTABLISHED CONTROL OF TRAVELERS IN THE FIELD
- IMPOUNDED PROBLEM TRAVELERS
- CONCENTRATE ON COMPLETING IN-PROCESS WORK
- RESTRAIN ISSUANCE OF ANY NEW WORK TO THE FIELD

TRAVELER STATUS

	INITIAL REVIEW	TRAV. CONTROL GROUP			IN-WORK	FINAL REVIEW		VALUE
		CONSTR. HOLD	ENG. HOLD	BACK-LOG		ENG.	Q & IS	
7-2-82	375			16,886				9762
7-30-82	7710	29	1402	6913	400	4584	768	10,094 3/1990
8-6-82	6868	29	1431	6957	472	6081	526	10,279 32,643

CRAFTSMEN ASSIGNED - 142

QC ASSIGNED - 9



INSTRUMENTATION

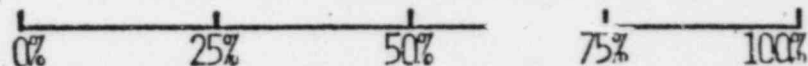
PROBLEM

- IN-PROCESS INSPECTION LAGGING CONSTRUCTION
- ELECTRICAL INSTRUMENTATION INSTALLATION - TRAVELER REQUIREMENTS NOT UNDERSTOOD OR BEING FOLLOWED

ACTION TAKEN

- ISSUED STOP WORK ORDER #018 ON ELECTRICAL INSTRUMENTATION INSTALLATION
- RESTRAIN ISSUANCE OF ANY NEW PIPING TRAVELERS
- CONCENTRATE ON COMPLETING IN-PROCESS WORK
- CONCENTRATE ON REMEDIAL WORK

A	I	BACKLOG	
---	---	---------	--



TRAVELER STATUS

	INITIAL REVIEW	TRAV. CONTROL GROUP			IN-WORK	FINAL REVIEW		VALVE	
		CONST. HOLD	ENG. HOLD	BACK-LOG		ENG.	Q & TS		
7-2-82	61	0	0	1475	191			42	1769
7-30-82	370	0	0	1305	170	75	55	104	2079
8-6-82	478	3	23	1450	39	74	43	113	2223

CRAFTMEN ASSIGNED - 46

QC ASSIGNED - 3

BA-MANUAL

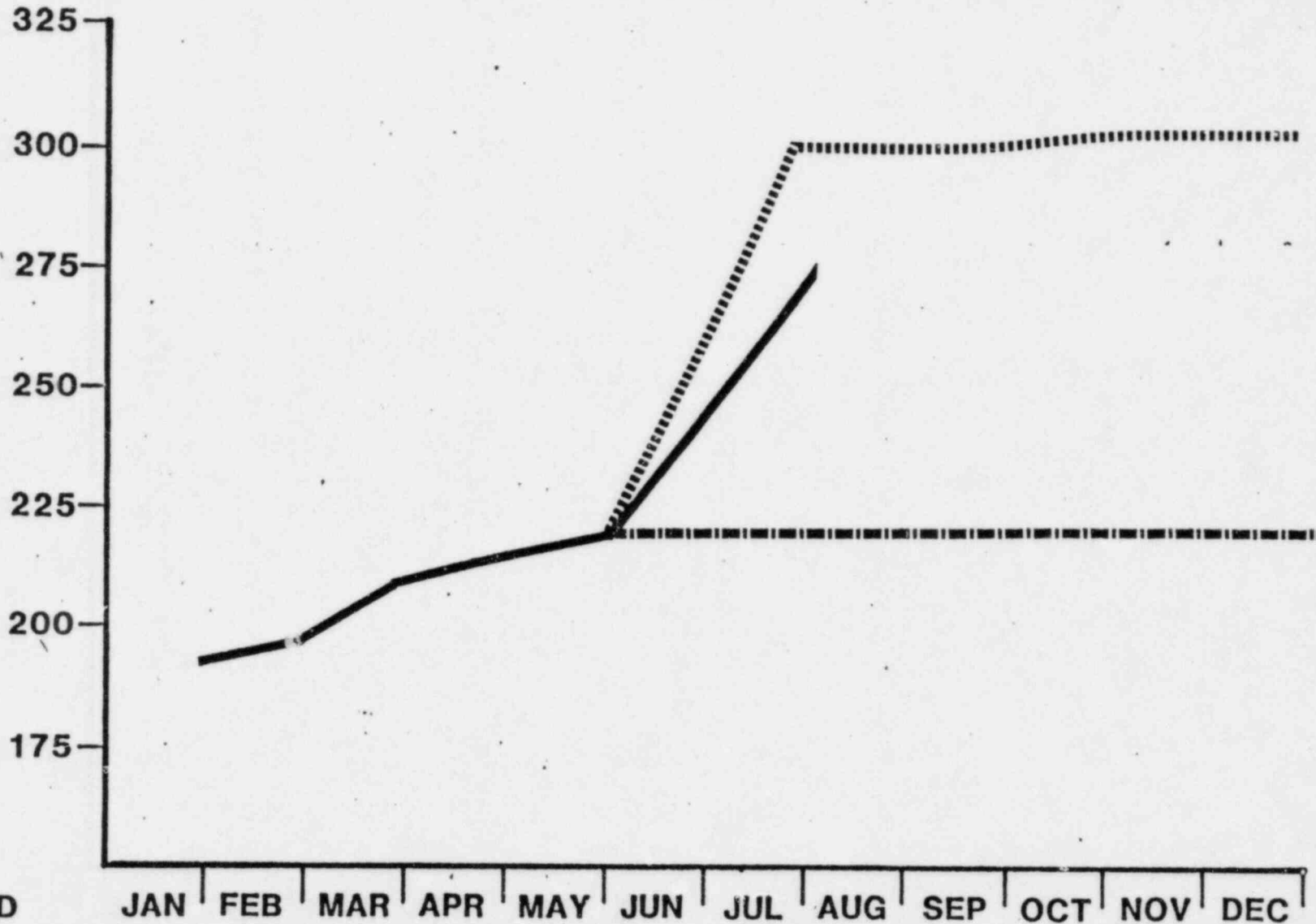
CRAFT	FORCE AS OF 6/23/82		FORCE AS OF 7/29/82	REDUC-TION	DISTRIBUTION				TOTAL
					SUPPORT	SAFETY (OLD)	SAFETY (NEW)	NON-SAFETY	
LABORERS	262		246	-16	175			73	246
CARPENTERS	121		107	-14	73		2	27	107
OPERATORS	58		57	-1	57				57
TEAMSTERS	50		46	-4	46				46
IRON WORKERS	66		55	-11	10		5	40	55
ELECTRICIANS	650		451	-199	91	137	52	171	451
PIPEFITTERS	620		442	-178	86	245		111	442
BOILERMAKERS	65		52	-13	12	31	2	7	52
CEMENT MASON	8		6	-2	1			5	6
TILERS									
MILLWRIGHTS	42		35	-7	7	15		13	35
SHEETMETAL	7		6	-1	1	4		1	6
BRICKLAYERS	5		4	-1	0			4	4
SURVEYORS	15		13	-2	13				13
TOTALS	1909		1520	-449	575	432	61	452	1520

ZACK-MANPOWER




CRAFT	FORCE AS OF 6/29/82	FORCE AS OF 8/4/82
SUPERINTENDENTS/GF	12	8
DRAFTING/DETAILING	33	25
FAB SHOP	10	7
LAYDOWN CREW	10	7
N/S, NON SEISMIC HANGERS	55	0
N/S, DUCTWORK	50	40
N/S, SEISMIC HANGERS	38	24
CONSTRUCTION INSPECTORS	10	7
TOOL CRIB/MAINT.	4	3
WELD SHOP	2	1
INJURED	2	0
TOTAL	226	122



Q&TS MANPOWER PROJECTION



LEGEND

-  FEB. FORECAST
-  REVISED FORECAST
-  ACTUAL

BA-QUALITY RESOURCES

GROUP	ON-BOARD	OFFERS ACCEPTED	OFFERS PENDING
<u>QUALITY ASSURANCE</u>			
- VENDOR SURVEILLANCE	14		1
- PROCUREMENT	5		
- SYSTEMS	4	2	2
- AUDITS	13	3	2
- DOCUMENT RECORDS	20		
- STAFF	5		
TOTAL	61	5	5
<u>QUALITY CONTROL</u>			
- DOCUMENTATION	7		
- MATERIAL CONTROL	22		1
- PIPING/MECHANICAL	35		8
- ELECTRICAL - C/S	38		4
- STAFF	6		
TOTAL	108	0	13
<u>TECHNICAL SERVICES</u>			
- NDE & HEAT TREAT.	3		
- WELDING	69	1	
- STAFF	3		
TOTAL	75	1	0
TRAINING	X 9	0	0
ADMINISTRATION	5	0	0
TOTAL	256	6	18

STOP WORK ORDER - SUMMARY

SWO #	FUNCTION	STATUS SUMMARY
007	ELECTRICAL CABLE TRAY AND ATTACHMENTS	READY TO RESUME WORK ON A LIMITED BASIS - WEEK OF 8-23-82
010	REFUELING BELLOWS	AT S & L FOR ENGINEERING DISPOSITION
014	ZACK - SAFETY RELATED WORK	HELD FOR QAM, PROCEDURE REVISIONS
015	ZACK - 1ST ATTACHMENT WELDS	HELD FOR PROCEDURAL APPROVAL
016	ELECTRICAL CONDUIT INSTALLATION	RECOVERY PLAN BEING DEVELOPED
017	ELECTRICAL EQUIPMENT INSTALLATION	RECOVERY PLAN BEING DEVELOPED
018	ELECTRICAL INSTRUMENT INSTALLATION	RECOVERY PLAN BEING DEVELOPED
019	STRUCTURAL STEEL	RECOVERY PLAN COMPLETE-READY FOR NRC REVIEW
020	ZACK - NON-SAFETY WORK	HELD FOR PROCEDURAL CHANGES AND APPROVAL
	IP PROCUREMENT OF SPARE/REPLACEMENT PARTS	RECOVERY PLAN BEING DEVELOPED

PROBLEM:

- * INSTALLATION CONTROLS FOR CABLE TRAY, AND CABLE TRAY ATTACHMENTS WERE INADEQUATE

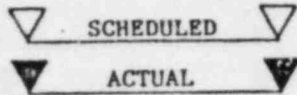
AFFECTED WORK:

- * ALL SAFETY-RELATED, SEISMIC CATEGORY I-E CABLE TRAY AND CABLE TRAY ATTACHMENTS
- * CABLE PULLING
- * CABLE TERMINATIONS

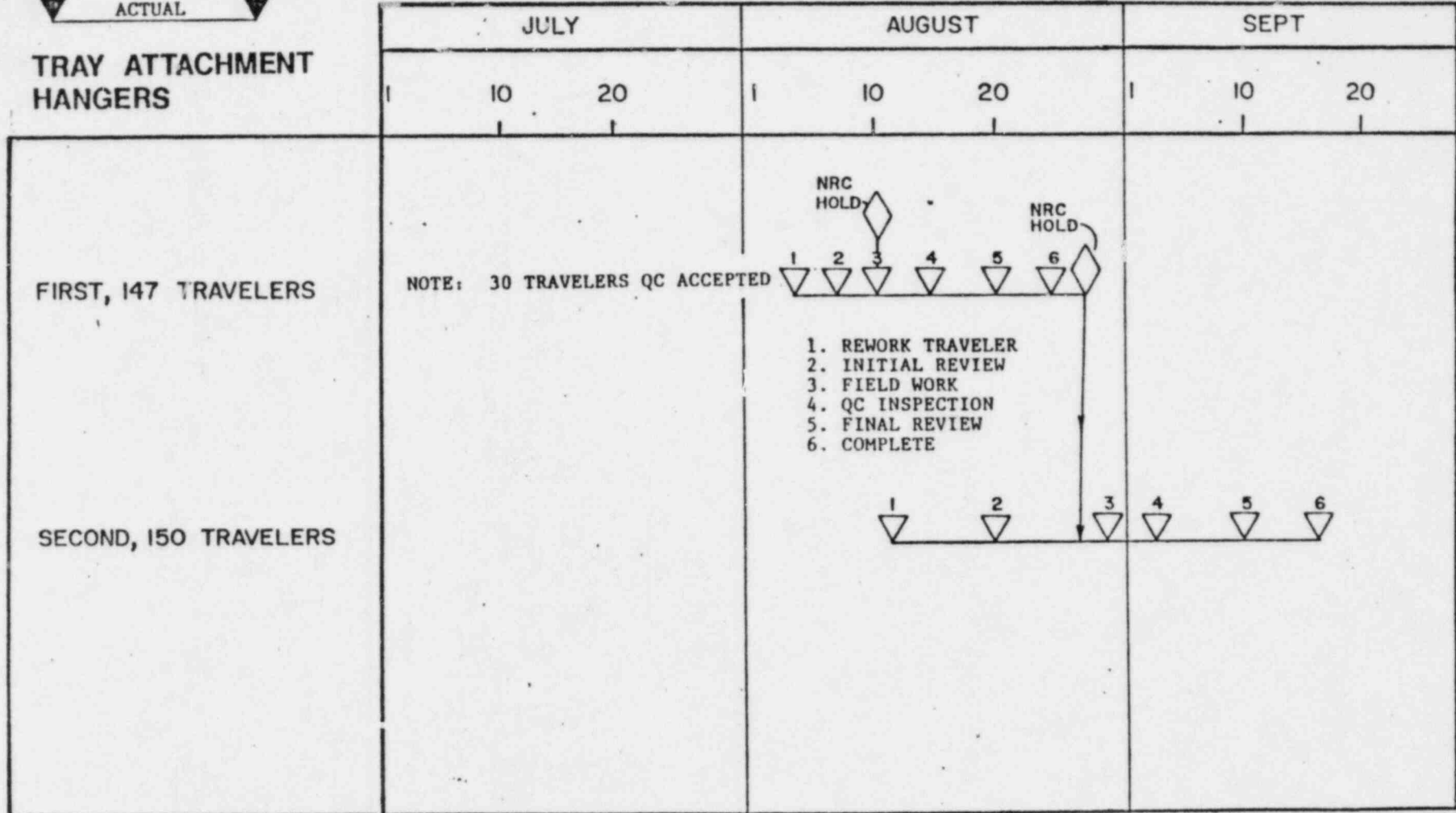
WORK NOT AFFECTED:

- * NON-SAFETY CABLE TRAY AND ATTACHMENTS

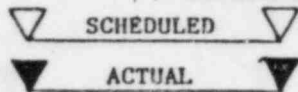
ELECTRICAL STOPWORK - 007 PROGRESS



TRAY ATTACHMENT
HANGERS



ELECTRICAL STOPWORK - 007 PROGRESS



	JULY		AUGUST			SEPT			
	10	20	1	10	20	1	10	20	
TENTATIVE WORK SCHEDULE TRAY ATTACHMENTS WORK TRAY HANGERS WORK CABLE TRAY WORK CABLE PULL CABLE TERMINATIONS IP MGMT. CORRECTIVE ACTION MCAR-003 STOPWORKS LIFTED	NRC APPROVAL		<div style="text-align: center;"> NRC HOLD PARTIAL LIFT </div> <div style="text-align: center;"> NRC APPROVAL </div> <div style="text-align: center;"> PREPARE TRAVELERS INITIAL REVIEW </div> <div style="text-align: center;"> NRC APPROVAL </div> <div style="text-align: center;"> PREPARE TRAVELERS INITIAL REVIEW </div> <div style="text-align: center;"> NRC APPROVAL </div> <div style="text-align: center;"> CONDUIT ONLY FIRST TRAY ROUTE </div> <div style="text-align: center;"> NRC APPROVAL </div> <div style="text-align: center;"> STOPWORK LIFTED </div>			<div style="text-align: center;"> NRC APPROVAL COMMENCE 2nd. GROUP </div> <div style="text-align: center;"> NRC APPROVAL STOPWORK LIFTED </div>		<div style="text-align: center;"> NRC APPROVAL STOPWORK LIFTED </div>	
	PENDING IPQA EVALUATION READY TO CLOSE		CONDITIONAL CLOSURE FOR ELECTRICAL TRAINING						
			1	2	3	4	5		

SWO #010 - REFUELING BELLOWS

PROBLEM:

- * NDE EXAMINATIONS REVEALED DEFECTIVE WELDS
- * WELD ROD AND INSPECTORS QUALIFICATIONS QUESTIONABLE

AFFECTED WORK:

- * DRYWELL REFUELING BELLOWS

WORK NOT AFFECTED:

- * NOT APPLICABLE

SWO #014 - ZACK H. V. A. C.

PROBLEM:

- * WORKING WITHOUT APPROVED PROCEDURES
- * DOCUMENTATION DOES NOT REFLECT INSTALLED HARDWARE CONFIGURATION

AFFECTED WORK:

- * ALL SAFETY RELATED WORK ASSOCIATION WITH HANGERS, DUCT AND EQUIPMENT

WORK NOT AFFECTED:

- * NON-SAFETY DUCT, HANGERS AND EQUIPMENT

PROBLEM:

- * NO PROCEDURAL COVERAGE

AFFECTED WORK:

- * ALL FIRST ATTACHMENT WELDS TO SEISMIC CATEGORY I STRUCTURES

WORK NOT AFFECTED:

- * NON-SAFETY DUCT, N/S NON-SEISMIC HANGERS AND EQUIPMENT
- * BA SHEET METAL WORK

PROBLEM:

- * IN-PROCESS INSPECTION LAGGING CONSTRUCTION
- * WORK BEING ACCOMPLISHED PRIOR TO ISSUANCE OF A TRAVELER

AFFECTED WORK:

- * ALL CONDUIT INSTALLATION

WORK NOT AFFECTED:

- * NON-SAFETY CONDUIT INSTALLATIONS
- * CONDUIT HANGERS
- * NON-SCHEDULED CONDUIT FOR LIGHTING AND COMMUNICATION

SWO #017 - ELECTRICAL EQUIPMENT

PROBLEM:

- * TRAVELER REQUIREMENTS NOT UNDERSTOOD
- * PROCEDURES NOT BEING FOLLOWED

AFFECTED WORK:

- * ALL CLASS I-E, AUG-D AND FINE PROTECTION

WORK NOT AFFECTED:

- * NON-SAFETY WORK

SWO #018 - ELECTRICAL INSTRUMENTATION

PROBLEM:

- * TRAVELER REQUIREMENTS NOT UNDERSTOOD
- * PROCEDURES NOT BEING FOLLOWED

AFFECTED WORK:

- * ALL CLASS I-E, AUG-D, FIRE PROTECTION ELECTRICAL INSTRUMENTATION INSTALLATIONS

WORK NOT AFFECTED:

- * NON-SAFETY WORK

SWO #019 - STRUCTURAL STEEL

PROBLEM:

- * INSPECTION LAGGING CONSTRUCTION
- * INSPECTION RECORDS MISPLACED OR LOST ON ELEVATIONS 737-CONTAINMENT

AFFECTED WORK:

- * ALL SAFETY RELATED (SEISMIC) WORK IN THE CONTAINMENT INCLUDING FABRICATION IN THE POWER BLOCK, MONORAILS, COVER PLATING, STEEL BEAMS AND MODIFICATIONS

WORK NOT AFFECTED:

- * NON-SAFETY GALLERY STEEL, HANDRAILS
- * GAS BOUNDARY STEEL (EXTERNAL TO CONTAINMENT)
- * TEMPORARY ATTACHMENTS
- * PIPING AND ELECTRICAL HANGER INSTALLATION
- * FABRICATION WORK IN FAB. SHOPS (EXTERNAL TO POWER BLOCK)

SWO #020 - ZACK H. V. A. C.

PROBLEM:

- * LACK OF CONTROL ON NON-SAFETY WORK

AFFECTED WORK:

- * ALL NON-SAFETY WORK IN ALL STRUCTURES CLASSIFIED AS SEISMIC CATEGORY I

WORK NOT AFFECTED:

- * ALL NON-SAFETY WORK IN NON-SEISMIC STRUCTURES

IP PROCUREMENT STOP WORK

PROBLEM:

- ADEQUATE PROCEDURES FOR CLASSIFYING, REQUISITIONING, PURCHASING AND RECEIVING COMMODITIES AND SERVICES ARE NOT WRITTEN AND IMPLEMENTED.
- PERSONNEL TRAINING IN MEETING THE PROCUREMENT REQUIREMENTS FOR ANSI N45.2.13 AND ANSI N18.7 IS LACKING.

AFFECTED WORK:

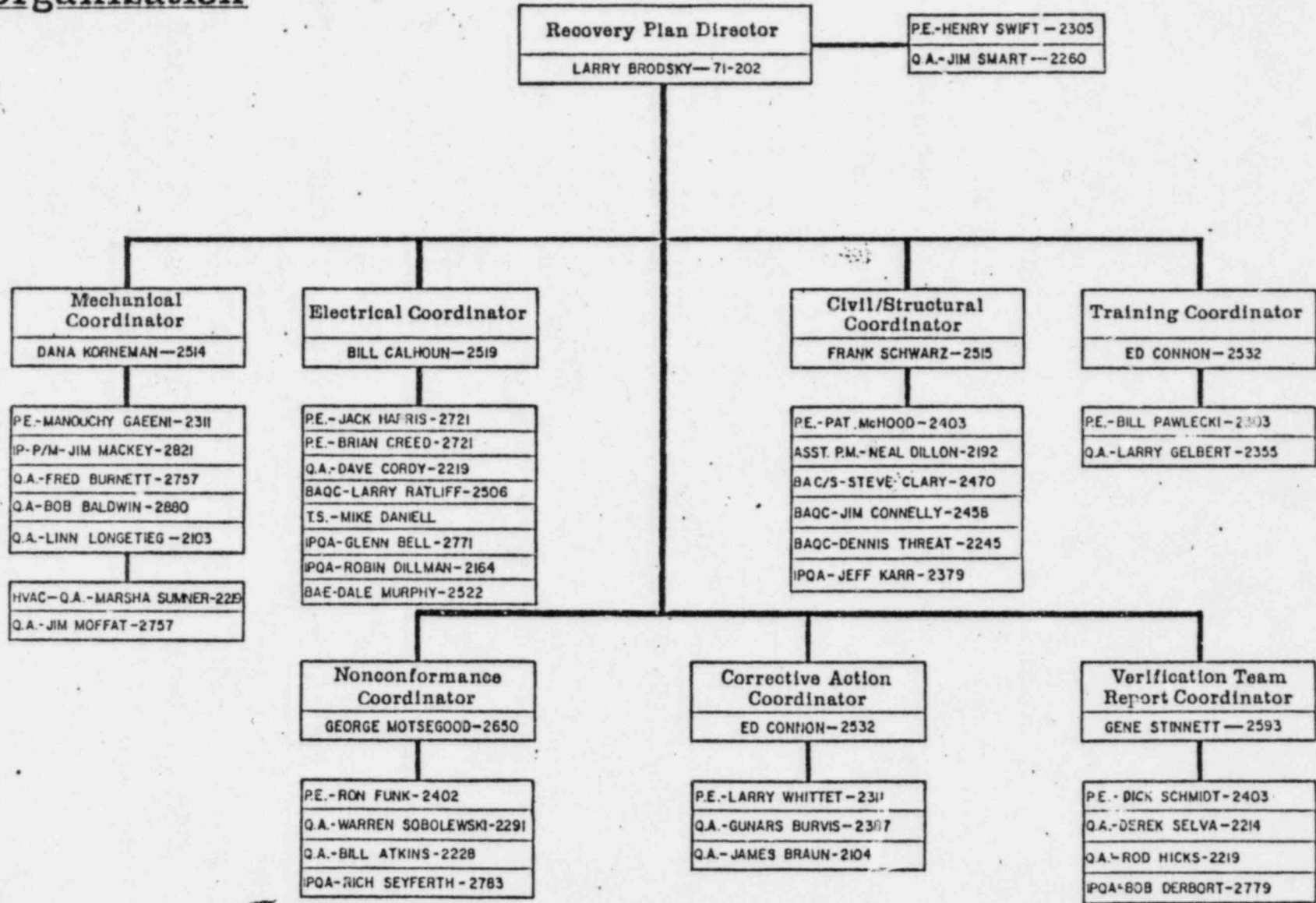
- SPARE AND REPLACEMENT PARTS PURCHASED BY ILLINOIS POWER COMPANY, PURCHASING DEPARTMENT OR CLINTON SITE PURCHASING.

WORK NOT AFFECTED:

- PROCUREMENT OF COMMODITIES AND SERVICES BY BALDWIN ASSOCIATES.

Recovery Plan Organization

DATED: 7/14/82



RECOVERY PLAN - STRUCTURAL STEEL

OBJECTIVE I. RESOLVE IDENTIFIED QUALITY PROBLEMS WITH STRUCTURAL STEEL IN ORDER TO OBTAIN APPROVAL FOR LIFTING STOP WORK ORDER #19 AFFECTING THE CONTAINMENT BUILDING.

OBJECTIVE II. DESCRIBE HOW NEW / IN-PROCESS / MODIFICATION WORK MEETS REQUIREMENTS.

OBJECTIVE III. DEMONSTRATE THAT PREVIOUSLY ASSEMBLED STRUCTURAL STEEL MEETS REQUIREMENTS.

OBJECTIVE IV. OUTLINE RESOURCES TO SUPPORT RECOVERY EFFORT.

8/5/82

STRUCTURAL STEEL
PROPOSED TRAINING REQUIREMENTS

<u>TOPIC</u>	<u>CLASS ATTENDANCE</u>
Rev. 6 BAP 3.1.3	Engineers, Sup'r., QC, TS
Structural Steel Acceptance Criteria	Eng., Sup'r, QC, TS, and Craftsmen (IW, BM, PF)
C243 No Verbal Changes QC (Civil) Jam - nuts	Intradepartmental QC Training

INDEPENDENT OVERINSPECTION -
OVERVIEW

OVERINSPECTION TO BE PERFORMED BY QUALIFIED UNITED STATES TESTING COMPANY INSPECTORS WITH PROCEDURES/INSTRUCTIONS APPROVED BY IP

SAMPLE SIZE WILL NOT BE STATISTICAL; RATHER IT WILL BE A GENEROUS AND REPRESENTATIVE SAMPLE OF ALL WORK THAT HAS BEEN ACCEPTED

OVERINSPECTIONS THAT ARE CONDUCTED WILL BE DOCUMENTED ON APPROVED CHECKLISTS

OVERINSPECTION WILL VERIFY THAT ACCEPTED WORK IS IN ACCORDANCE WITH DRAWINGS, SPECIFICATIONS, AND DOCUMENTATION REPRESENTING THE AS-BUILT CONFIGURATION

SCOPE AND SIZE OF OVERINSPECTION SAMPLES

PRIORITY I WORK

STRUCTURAL STEEL.

- * ALL ACCESSIBLE STRUCTURAL STEEL AT 825 FT LEVEL CONTROL BUILDING
- * ONE ELEVATION OF FUEL AND AUXILIARY BUILDING
- * ONE ELEVATION AND QUADRANT OF CONTAINMENT

LARGE AND SMALL BORE PIPING

- * 20% OF ACCEPTED TRAVELERS BY SYSTEM
LARGE BORE - APPROX. 90 TRAVELERS
SMALL BORE - APPROX. 450 TRAVELERS

LARGE AND SMALL BORE SUPPORTS

- * 20% OF ACCEPTED TRAVELERS BY SYSTEM
LARGE BORE - APPROX. 200 TRAVELERS
SMALL BORE - APPROX. 35 TRAVELERS

MECHANICAL EQUIPMENT

- * 20% OF ACCEPTED EQUIPMENT TRAVELERS (APPROX. 35 TRAVELERS)

ELECTRICAL HANGERS

- * 20% OF ACCEPTED HANGERS (APPROX. 1950 TRAVELERS)

PRIORITY II WORK

ELECTRICAL CABLE ROUTING * (TO BE DETERMINED)

INSTRUMENTATION * (TO BE DETERMINED)

ELECTRICAL CONDUIT * (TO BE DETERMINED)

HVAC * (TO BE DETERMINED)

SCHEDULE AND MANPOWER

MILESTONES

WEEK OF AUGUST 9	BEGIN TRAINING INSPECTORS
WEEK OF AUGUST 16	BEGIN OVERINSPECTION
SEPTEMBER	DEVELOP PLANS FOR PHASE II OVERINSPECTION
OCTOBER	1/5 OF PHASE I OVERINSPECTION COMPLETE
JANUARY 1983	3/5 OF PHASE I OVERINSPECTION COMPLETE
MARCH 1983	PHASE I OVERINSPECTION COMPLETE BASED ON PROJECTED PROGRAM

MANPOWER

AUGUST 9	9 UST INSPECTORS
NOVEMBER 1	18-20 UST INSPECTORS

OVERINSPECTION RESULTS

IP WILL DOCUMENT, EVALUATE AND TREND PROBLEMS USING NCR/DP/CR



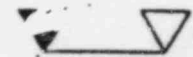

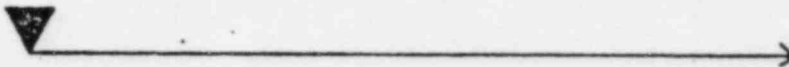


EVALUATIONS OF THE OVERINSPECTION RESULTS WILL BE ONGOING.
PERIODIC REPORTS WILL BE ISSUED THAT ADDRESS SPECIFIC PROBLEM
AREAS AND OUR PLAN FOR RESOLVING THE ISSUES

SAMPLING OF SPECIFIC INSPECTION ACTIVITIES MAY BE INCREASED/
DECREASED BASED UPON OUR EVALUATION OF THE RESULTS

STRUCTURAL STEEL RECOVERY PLAN

<div style="display: flex; flex-direction: column; align-items: center; gap: 10px;"> <div style="display: flex; align-items: center; gap: 5px;"> ▽ ESTIMATE ▽ </div> <div style="display: flex; align-items: center; gap: 5px;"> ▼ COMPLETE ▼ </div> <div style="display: flex; align-items: center; gap: 5px;"> * NRC APPROVAL </div> </div>	JULY AUG SEPT OCT NOV DEC
IDENTIFY QUALITY PROBLEMS	▼▼
PROPOSE CORRECTIVE ACTIONS, DEVELOP PLAN	▼▼
DEVELOP A PROGRAM FOR OVERINSPECTION	▼▼
OBTAIN INTERNAL APPROVAL OF PLAN	▼▼
OBTAIN NRC CONCURRENCE OF PLAN	▽
LIFT STOP WORK ORDER 19	*▽
PERFORM REINSPECTIONS	▼ ▼

PIPING MECHANICAL RECOVERY PLAN

<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; text-align: center;">▽ ESTIMATE ▽</div> <div style="border: 1px solid black; padding: 2px 5px; text-align: center;">▽ COMPLETE ▽</div> </div>	JULY AUG SEPT OCT NOV DEC
TABULATE QUALITY PROBLEMS	
IMPLEMENT A PROGRAM TO REDUCE BACKLOG OF INSTALLED BUT NOT INSPECTED WORK	
DEVELOP A PROGRAM FOR NEW AND IN-PROCESS WORK	
DEVELOP A PROGRAM FOR OVERINSPECTION	
RESOLVE AND TRACK QUALITY PROBLEMS	
OBTAIN INTERNAL APPROVAL OF PLAN	
OBTAIN NRC CONCURRENCE OF PLAN	

INPROCESS WORK IMPROVEMENTS

IMPROVE TRAVELERS

IMPROVED ISO REVISION PROCESS

IMPROVED DESIGN DRAWING REVIEW/INCORPORATION

ENGINEERING REVIEW INPROCESS TRAVELERS

IMPROVE INSPECTION PROCEDURES

PROVIDE MORE SPECIFIC CRITERIA & CHECKLISTS

PROVIDE ADDITIONAL, SPECIFIC APPLICATIONS

CONSTRUCTION VERIFICATION OF WORK

SPECIFIC CHECKLISTS

PIPING DEPT. MANAGEMENT ANALYSIS/TRENDS

IP CONSTRUCTION REVIEW

INCREASED SCOPE & FREQUENCY OF BA QA AUDITS

INCREASED SCOPE & FREQUENCY OF IP SURVEILLANCE

COMPLETE

*NRC APPROVAL

JULY | AUG | SEPT | OCT | NOV | DEC

IDENTIFY QUALITY PROBLEMS



PROPOSE CORRECTIVE ACTIONS, DEVELOP PLAN



DEVELOP A PROGRAM FOR OVERINSPECTION



IMPLEMENT A PROGRAM FOR IN-PROCESS CONTROLS



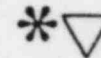
OBTAIN INTERNAL APPROVAL OF PLAN



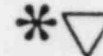
OBTAIN NRC CONCURRENCE OF PLAN



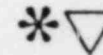
LIFT STOP WORK ORDER 16



















LIFT STOP WORK ORDER 17



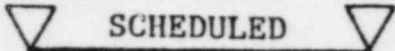
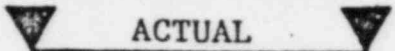



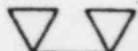

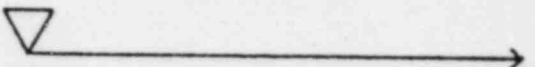
LIFT STOP WORK ORDER 18



<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  ESTIMATE  </div> <div style="text-align: center;">  COMPLETE  </div> <div style="text-align: center;"> * NRC APPROVAL </div> </div>	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB
IDENTIFY QUALITY PROBLEMS								
REVIEW CORRECTIVE ACTION PLANS AND SCHEDULES								
DEVELOP OVERINSPECTION PLANS								
OBTAIN INTERNAL APPROVAL OF PLAN								
OBTAIN NRC CONCURRENCE OF PLAN								
MONITOR CORRECTIVE ACTION		—————						
PERFORM REINSPECTIONS						—————		
SEQUENTIALLY LIFT STOP WORK ORDER 14					* 			
SEQUENTIALLY LIFT STOP WORK ORDER 15					* 			
LIFT STOP WORK ORDER 20				* 				

10CFR 21 - Looking at impact








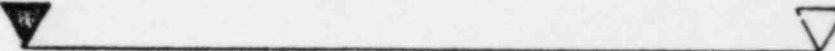
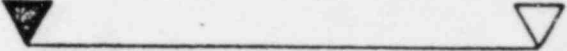
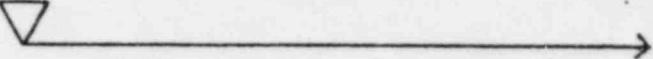

TRAINING RECOVERY PLAN

<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  SCHEDULED </div> <div style="text-align: center;">  ACTUAL </div> </div>	JULY AUG SEPT OCT NOV DEC
EVALUATE TRAINING PROGRAMS	
PROVIDE RECOMMENDATIONS	
REVIEW CORRECTIVE ACTION PLANS AND SCHEDULES	
OBTAIN INTERNAL APPROVAL OF PLAN	
OBTAIN NRC CONCURRENCE OF PLAN	
MONITOR CORRECTIVE ACTION	

VERIFICATION TEAM REPORT RECOVERY PLAN

<div style="display: flex; justify-content: space-between; align-items: center; margin-bottom: 5px;"> ▽ ESTIMATE ▽ </div> <div style="display: flex; justify-content: space-between; align-items: center;"> ▽ COMPLETE ▽ </div>	JULY AUG SEPT OCT NOV DEC
DEVELOP MATRIX OF QUALITY ITEMS	<div style="display: flex; justify-content: flex-start; gap: 20px;"> <div style="text-align: center;"> ▽ ▽ </div> </div>
CATEGORIZE AND ASSIGN MATRIX ITEMS	<div style="display: flex; justify-content: flex-start; gap: 20px;"> <div style="text-align: center;"> ▽ ▽ </div> </div>
OBTAIN INTERNAL APPROVAL OF PLAN	<div style="display: flex; justify-content: flex-start; gap: 20px;"> <div style="text-align: center;"> ▽ ▽ </div> </div>
OBTAIN NRC CONCURRENCE OF PLAN	<div style="display: flex; justify-content: flex-start; gap: 20px;"> <div style="text-align: center;"> ▽ </div> </div>
REVIEW AND ASSESS RESPONSES	<div style="display: flex; justify-content: flex-start; gap: 20px;"> <div style="text-align: center;"> ▽ ————— ▽ </div> </div>
MONITOR AND APPROVE CORRECTIVE ACTION	<div style="display: flex; justify-content: flex-start; gap: 20px;"> <div style="text-align: center;"> ▽ ————— ▽ </div> </div>
MONITOR RESULTS OF OVERINSPECTION EFFORT	<div style="display: flex; justify-content: flex-start; gap: 20px;"> <div style="text-align: center;"> ▽ ————— → </div> </div>
PREPARE REPORT	<div style="display: flex; justify-content: flex-end; align-items: center;"> <div style="text-align: center;"> ▽ </div> </div>

RECOVERY PLAN

<div style="text-align: center;">  ESTIMATE   COMPLETE  </div>	<div style="text-align: center;"> JULY AUG SEPT OCT NOV DEC </div>
SORT AND CLASSIFY NCR/DR'S	
REVISE NCR/DR PROCEDURES	
IMPLEMENT COMPUTER TRACKING AND REPORTING	
WORKING OFF BACKLOG	
IMPLEMENT A PROGRAM FOR EMPHASIZING QUALITY	
PROVIDE CONTINUING RECOMMENDATIONS AND ATTENTION	
OBTAIN NRC CONCURRENCE OF PLAN	

CORRECTIVE ACTION RECOVERY PLAN

<div style="display: flex; justify-content: space-between; align-items: center; margin-bottom: 5px;"> ▽ ESTIMATE ▽ </div> <div style="display: flex; justify-content: space-between; align-items: center;"> ▽ COMPLETE ▽ </div>	JULY AUG SEPT OCT NOV DEC
TABULATE AND STATUS OPEN ITEMS, EVALUATE	<div style="display: flex; justify-content: center; align-items: center;"> <div style="margin-right: 10px;">▽</div> <div style="margin-right: 10px;">▽</div> </div>
EVALUATE SEQUENCING OF CORRECTIVE ACTION ACTIVITIES.	<div style="display: flex; justify-content: center; align-items: center;"> <div style="margin-right: 10px;">▽</div> <div style="margin-right: 10px;">▽</div> </div>
EVALUATE TRAINING	<div style="display: flex; justify-content: center; align-items: center;"> <div style="margin-right: 10px;">▽</div> <div style="margin-right: 10px;">▽</div> </div>
EVALUATE MANAGEMENT ROLE	<div style="display: flex; justify-content: center; align-items: center;"> <div style="margin-right: 10px;">▽</div> <div style="margin-right: 10px;">▽</div> </div>
PROVIDE RECOMMENDATIONS	<div style="display: flex; justify-content: center; align-items: center;"> <div style="margin-right: 10px;">▽</div> <div style="margin-right: 10px;">▽</div> </div>
OBTAIN INTERNAL APPROVAL OF PLAN	<div style="display: flex; justify-content: center; align-items: center;"> <div style="margin-right: 10px;">▽</div> <div style="margin-right: 10px;">▽</div> </div>
OBTAIN NRC CONCURRENCE	<div style="display: flex; justify-content: center; align-items: center;"> <div style="margin-right: 10px;">▽</div> </div>
MONITOR STATUS OF CORRECTIVE ACTION ITEMS	<div style="display: flex; justify-content: center; align-items: center;"> <div style="margin-right: 10px;">▽</div> <div style="flex-grow: 1; border-bottom: 1px solid black; position: relative;"> <div style="position: absolute; right: -10px; top: -5px;">→</div> </div> </div>

50 373



CUSTOM METAL FABRICATION

June 9, 1982

U.S.N.R.C. Regional III Office
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Attn: Mr. J.G. Keppler

Re: Possible Deffective Curtain Type Fire
Dampers as furnished to Zack Company by
American Warming and Ventilating Inc.

Subject: Reportable 10 CFR Part 21

Gentlemen:

Zack Company received the attached letter dated June 2, 1982 from American Warming and Ventilating Inc. on June 8, 1982, in regards to a possible discrepancy in Curtain Type Fire Dampers 18" wide and narrower.

Zack Company has commenced inspections of listed fire dampers. We will issue a formal report as to the findings/discrepancies found at completion of the investigation.

Yours very truly,


Martin L. Skates

MLS/lh
encl.

CC: T. Quaka - CECO QA
C.Z. DeZutel
J.C. DeZutel
D. Malzahn
C. Baumgardner
C. Eichstaedt
Q.A.
Q.C. Site
File/Chicago/Site

~~8206170285-820609~~
PDR ADOCK 05000373
S PDR LPDR

1117

Jul 11 1982



CUSTOM METAL FABRICATION

June 8, 1982

General Electric Company
Attn: Dept. 240
Nuclear Power Station
Morgantown, Ill. 61341

Attn: Mr. Joseph Dierbeck

Re: Curtain Type Fire Dampers as furnished
to Zack Company by American Warming &
Ventilating Company

Subject: Reportable 10 CFR Part 21

Confirmation:

This is to confirm our telephone conversation of 12:40
PM EDT, this date in regards to a possible discrepancy
in fire damper closure. Zack Company received the attached
letter dated June 2, 1982 from American Warming and Venti-
lating Inc. on June 8, 1982.

Zack Company will commence inspection of listed fire
dampers on Wednesday June 9, 1982. We will issue a formal
report as to the findings/discrepancies found on inspection.

Very truly,
ZACK COMPANY

W. C. Eckhardt, Jr.
W. C. Eckhardt, Jr.

111 MICHAEL VAN ARBON
313.736.2040
MORGANTOWN, ILL. 61341

American Warming
and ventilating inc

JUN - 8 1982

June 2, 1982

The Zack Company
4600 West 12th. Place
Chicago, IL 60650

Attn: Carl Eichstaedt

Ref: Zack P.O. No. 9505
Commonwealth Edison/LaSalle Nuclear Station
AWV Job No. 90116

Subject: Curtain Type Fire Damper Discrepancies

Dear Mr. Eichstaedt:

117
There is a possibility that certain Curtain Type
Fire Dampers shipped before March 24, 1981 may not close
when the fusible link separates.

These fire dampers are units 18" wide and narrower
which have small fusible links. A list of the applicable
tag numbers is attached.

Attached is a set of instructions for inspection
and, if dampers are found to be per sketch "A", instruc-
tions for replacement of clover hooks. If you find any
dampers needing to have the clover changed, we will be
happy to send you the necessary parts.

Yours truly,

Donald E. Sloan

Donald E. Sloan
Q.A. Manager

cc: File, chron, Q.A.

DAMPER LIST
90116

OVC37Y
OVC38Y
OVC39Y
OVC46Y
OVC47Y
OVC48Y
OVC49Y
OVD07Y
1VD04Y
1VD07Y
1VD15Y
1VD25Y
1VX30Y
1VX31Y
1VX32Y
1VX33Y
1VX34Y
1VX35Y
1VX36Y
1VX37Y
1VX38Y
1VX39Y

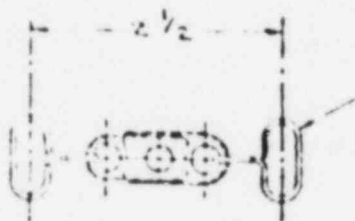
1VX42Y
1VX45Y
1VX46Y
2VD04Y
2VD07Y
2VD12Y
2VD15Y
2VD21Y
2VD25Y
2VX30Y
2VX31Y
2VX32Y
2VX33Y
2VX34Y
2VX35Y
2VX36Y
2VX37Y
2VX38Y
2VX39Y
2VX40Y

FUSIBLE LINK INSPECTION

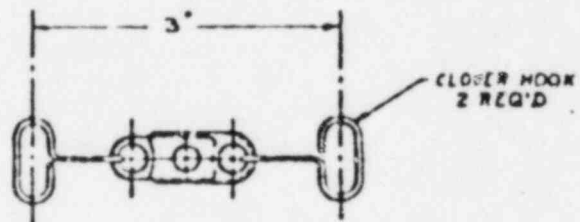
AND REPLACEMENTS

a. Inspection of fire dampers with blade width of 18" and less.

1. Two types of fusible link assemblies are used as shown in sketches "A" and "B".
2. Inspect and measure the fuse link assemblies and identify the part as an "A" (2 1/2") or "B" (3").
3. If the part is identified as an "A" assembly (2 1/2"), remove the fuse link assembly as follows:
 - a. Support the blade stack so as to remove the loading from the fuse link assembly.
 - b. Remove the fuse link assembly by straightening the clinch straps and sliding the assembly from them.
 - c. Replace the fuse link assembly with a "B" assembly by sliding the clinch straps through the wire loops.
 - d. Bend the clinch straps upward and firmly secure the new fuse link assembly against the bottom of the blade stack.
 - e. Remove any supports and inspect to make certain that the fuse link assembly is centered on the blade stack. Shift the assembly until it is centered.



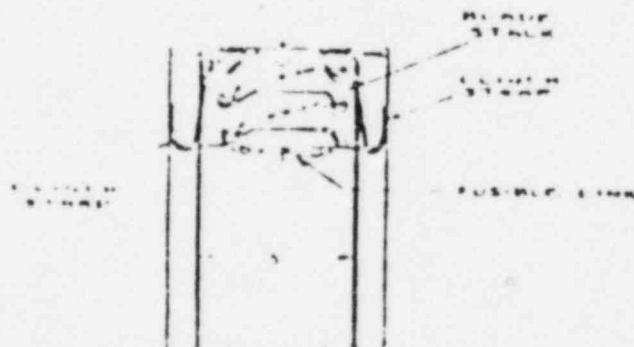
SKETCH "A"



SKETCH "B"

b. Inspection of fire dampers with blade width greater than 18".

1. Either the "A" assembly or "B" assembly is correct and no corrective action is required.



4600 W 12TH PLACE • CHICAGO (CICERO) ILL 60650 • 312/242-3434

4401 WESTERN • FLINT MICHIGAN 48506 • 313/736-2040



CUSTOM METAL FABRICATION

August 2, 1982

U.S.N.R.C. Region III Office
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Attn: Mr. J. G. Keppler

Re: Telecon of July 29, 1982 to Mr. Robert Walker
at 4:20 P.M.

Subject: Potential 10CFR21 - Weld Records

Gentlemen:

This letter is to confirm the verbal telephone report given by Mr. D. E. Calkins, Manager of Engineering for the Zack Company on Thursday, July 29, 1982 at 4:20 P.M. to Mr. Robert Walker at the Region III, Glen Ellyn offices of the Nuclear Regulatory Commission.

The attached report and corrective action plan has been prepared by Mr. Martin Skates, Quality Assurance Manager, as my designee for all Zack Company quality related matters.

During the course of an existing internal Zack Company investigation, initiated by the Zack Company officers, a box of paperwork was observed being taken to the trash by a plant employee. The company maintenance man brought the documents to the attention of Zack management.

A preliminary review of the documents (see attached report for details) indicates a possible discrepancy between the welder of record and the welder who may have actually performed the welds.

This potential discrepancy is still in the process of being fully investigated, but the initial indications are that it could have occurred during the 1977 to 1981 time frame.

8208160248 820802
PDR ADOCK 03000329
S PDR

AUG 4 1982

U.S.N.R.C. Region III Office

August 2, 1982

Page 2

The Zack Company has initiated and is still in the process of conducting a full scale investigation of this potential discrepancy. However, in an attempt to keep all relevant information open and available to the appropriate parties, the Zack Company is initiating this potential 10CFR21 before it has been determined that a deficiency does exist.

By copy of this letter and the attached report the Zack Company is also confirming the verbal notifications given to the effected utilities.

The Zack Company will cooperate with the Nuclear Regulatory Commission and the respective utilities to the fullest degree possible in the performance of this investigation and its closure.

Should you have any questions or problems concerning this matter, please do not hesitate to contact me or Mr. Martin Skates at (312) 242-3434.

Very truly yours,

THE ZACK COMPANY



CHRISTINE ZACK DE ZUTEL,
PRESIDENT

CZDZ/art

Encl.

cc: Mr. William Harrington
Baldwin Associates
Mr. L. E. Davis
Bechtel Power Company
Mr. Dan L. Shamblin
Commonwealth Edison Company

THE ZACK COMPANY

POTENTIAL 10 CFR21

REPORTABLE DEFICIENCY EVALUATION

FCR

ACCURACY OF WELDER RECORDS

PREPARED BY: David E. Calkins 8/2/82
David E. Calkins, Manager Engineering

REVIEWED BY: M. L. Skates 8/2/82
M. L. Skates, Manager Quality Assurance

APPROVED BY: Christine Zack DeZute 8-2-82
Christine Zack DeZute, President

1.0 Notification:

- 1.1 The Zack Company in accordance with the intent of the reportability requirements within the Code of Federal Regulations, is reporting a Potential 10CFR21 condition relating to a possible discrepancy in the documentation that reflects the welder of record and the welder who may have actually performed the welds.
- 1.2 This report constitutes the Zack Company's official written notification of a Potential 10CFR21 condition and confirms our verbal notification on Thursday, July 27, 1982 at 4:20 PM to Mr. Roger Walker at the Region III Glen Ellyn Offices of the Nuclear Regulatory Commission.

The information relative to this report was obtained Tuesday, July 27, 1982.

The maintenance man observed a box of paperwork being taken to the trash by a plant employee. The maintenance man checked with management to see if the documents should be kept. A review of some of the documents raised questions about welding documentation.

2.0 Identification:

The possible deficiency being investigated is that certain working copies of the shop travelers were obtained and that these copies were compared against the official quality record copies. A possible discrepancy exists between certain information contained on the working copy versus the Q.A. record copy.

The components involved are ductwork (geometrically shaped sheet metal) and hangers (structural steel support members) shipped to the following nuclear facilities:

1. LaSalle Nuclear Power Station
Marseilles, Illinois
2. Clinton Power Station
Clinton, Illinois
3. Midland Power Station
Midland, Michigan

2.2 The work being reviewed for a potential discrepancy by the Zack Company is limited to work performed at its Cicero, Illinois and Chicago, Illinois facilities.

3.0 Potential Deficiency Discription:

3.1 The Zack Company utilizes a traveler system to fabricate the components and to record as built, as welded conditions and as inspected verifications. Certain "working" copies (photocopies) of the official travelers utilized by the production tradesmen contain the initials of various tradesmen who apparently performed some function on that component. Relevant information (i.e. welders numbers, material identification, etc.) was then transferred to the official copy (original traveler). The initial review of the working copies of certain travelers indicates that they contain inconsistencies. The Zack Company is in the process of trying to determine if the initials of a welder on the working copy indicate that the individual actually welded on the component, or whether they represent some other function he performed.

4.0 Action Taken To Date:

The Zack Company has initiated the following actions in an effort to determine the ramifications of, the validity of the inconsistencies and the possible safety implications, if any.

- 4.1 The Zack Company has initiated an investigation into the authenticity and validity of the information, the basis for the accumulation for the information, and the reason the information was being discarded.
- 4.2 The individual discarding the box of paperwork (working copies of certain travelers) has been suspended for thirty days pending the results of the Zack investigation.
- 4.3 Pinkerton Security service was obtained to provide 24 hour surveillance of all Zack records to provide assurance that no relevant documents would leave the premises.
- 4.4 The Zack Company has also initiated the gathering of the following types of information to substantiate the quality records and provide the information necessary to determine whether a safety problem exists or not
 - Payroll records will be used to validate time frames welders worked.
 - Validation that all welders available were qualified and certified to perform work.
 - Validating the other inspections performed (i.e. shop, site, client).
 - Obtaining additional clarification relevant to the meaning of information on working copies (photocopies) from available personnel. This information could be obtained in form of telephone conversations, statements, etc.
- 4.5 A management directive has been issued to all Zack Company employees regarding the disposal of documents.

- 5.0 Corrective Action Plan.
- 5.1 To do a full scale investigation of Safety Related Travelers, Weld Wire Issue Slips, Welder Qualifications and Shipment Packages corresponding to the working copies of travelers obtained for the time frame of 1977 through 1981 on the LaSalle Power Station, Midland Power Station and the Clinton Power Station.
- 5.2 As additional temporary surveillance program to verify the identification of the record of welders will be established to substantiate that correct welder identifications are transposed to the record documents.
- 5.3 To bring in-house, additional qualified personnel to assist in the investigation.
- 5.4 To submit a final report to the N.R.C. by August 31, 1982.

LaSalle Project - 3300

Traveler Information:

1. The yellow traveler is the Quality Control Document that is maintained as a part of Zack's permanent records system for final turnover, also for the Quality Control Inspector verification.
2. The white traveler was a copy of the yellow traveler used by the shop fabrication foremen to record as-built or as-welded conditions during actual fabrication.

A review of one hundred and seventy yellow and white safety-related shop travelers has revealed the following conditions;

- A. Category-I, Seventeen (17) travelers shows the yellow travelers and the white travelers reveals the same welder information.
- B. Category-II, Thirty-eight (38) travelers shows the white traveler contains more welder identification than the yellow traveler.
- C. Category-III, Fifty-eight (58) white travelers shows different welder identification than the yellow traveler.
- D. Category-IV, Fifty-seven (57) yellow travelers shows more welder identifications than white traveler.

Midland Project - 2400

Traveler Information;

1. The yellow traveler is the Quality Control Document that is maintained as a part of Zack's permanent system for final turnover, also used for the Quality Control Inspectors verifications.
2. The white traveler was a copy of the yellow traveler used by the shop fabrication foreman to record as-built or as-welded conditions, during actual fabrication.

A review of nine hundred and fifty-one safety-related shop travelers has revealed the following conditions at this time;

- A. Six hundred and eighty-one (681) travelers shows the yellow travelers and the white travelers reveals the same welder information.
- B. One hundred and thirty (130) travelers shows the white travelers contains more welder identifications than the yellow traveler.
- C. One hundred and forty (140) travelers show unverified welder qualification at the time of issue on the travelers.

Clinton Project - 2900

Traveler Information:

1. The yellow traveler is the Quality Control Document that is maintained as a part of Zack's permanent system for final turnover, also used for the Quality Control Inspectors verifications.
2. The white traveler was a copy of the yellow traveler used by the shop fabrication foreman to record as-built or as-welded conditions, during actual fabrication.

A review of eleven hundred and sixty-six (1166) safety-related shop travelers has revealed the following conditions at this time:

- A. Seven Hundred and twenty (720) travelers shows the yellow travelers and the white travelers reveals the same welder information.
- B. One Hundred and sixty-two (162) travelers show the white traveler contains more welder identifications than the yellow traveler.
- C. Two Hundred and eighty-four (284) travelers show unverified welder qualification at the time of issue dates on the travelers.